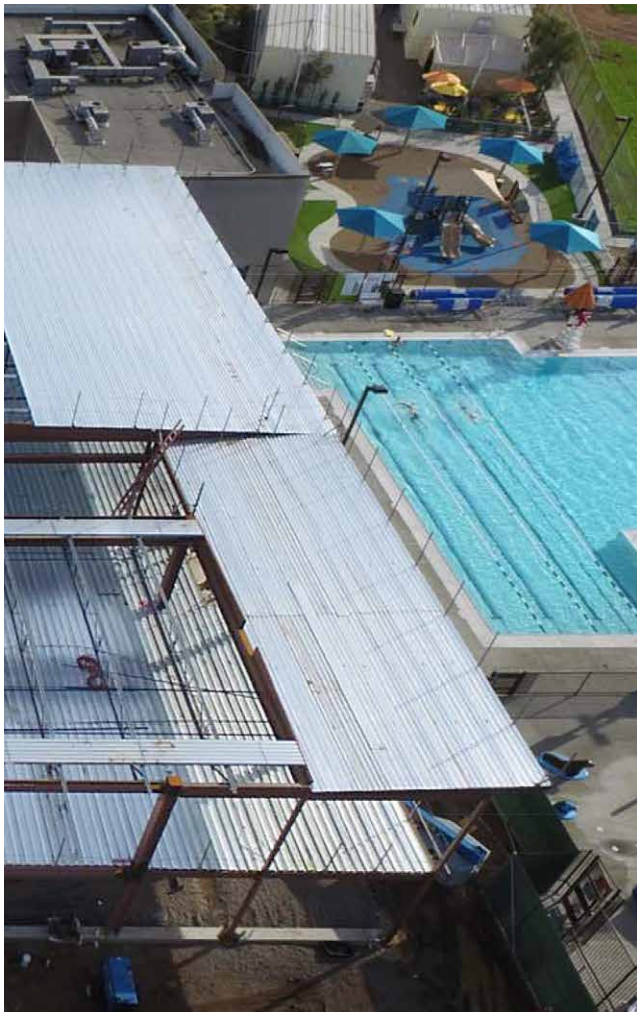
ROOF DECK CATALOG

Version 4

ASC Steel Deck is an industry leader offering products that meet the needs of the most complex conditions and demands for structural performance and design.

ASC STEEL DECK®

roof deck



Our Company

ASC Steel Deck is a structural steel deck manufacturer leading the way through an unmatched commitment to the success of our customers. ASC Steel Deck prides itself on delivering the best-in-class service experience, easily accessible technical data, and having to most knowledgeable and responsive team in the industry. Serving the Western United States since the 1970s, ASC Steel Deck has undergone a few ownership changes and operated under different business names (ASC Pacific, BHP Steel Building Products, and IMSA Building Products). Since 2002, we have operated as ASC Steel Deck, a division of ASC Profiles LLC. While the name of the company has changed over the years, our continuous dedication to product innovation, high-quality steel deck products, and exceptional customer service has positioned ASC Steel Deck as a trusted leader in the industry.

Industry Leadership Through Innovation

ASC Steel Deck has established itself as an industry leader having accomplished many industry-firsts. ASC Steel Deck was the first West Coast manufacturer to incorporate diaphragm shear and superimposed load tables based on ANSI/SDI C-2017 Standard for Composite Steel Floor Deck-Slabs. This standard was adopted for inclusion in the 2018 IBC.

ASC Steel Deck has also led the way in providing innovative products which reduce installation costs at the highest level of performance. Several examples include:

- **Smooth Series™** rivet attachment for our portfolio of cellular deck products offers a blemish free attachment solution, eliminating the need for field touch up and saving on labor costs and time. **New to the West Coast.**
- **36/7/4 Attachment Pattern** - reduces attachment requirements for 1½" roof deck by up to 30%.
- **N-32® Roof Deck** - A 32" wide by 3" deep roof deck profile providing a 10% improvement in steel utilization and up to 20% reduction in installation costs as compared to the industry standard N-24 panel.

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ASC Steel Deck is leading the way in innovation with ongoing testing of our profiles. As a result, the printed catalog may not contain/reflect the latest test results and values of our products. For the most current load tables, refer to our catalog online at **www.ascsd.com**.

Your Feedback is Welcome
Leading the way in steel deck innovation is dependent upon your feedback. We invite architects, engineers, building owners, and all members of the building design and construction industry to reach out to ASC Steel Deck with any comments, suggestions, or needs for a profile we currently do not offer.

Email us at **info@ascsd.com**

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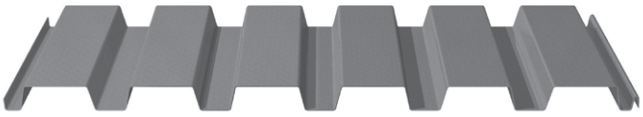
Hilti is a registered trademark of Hilti Corp., LI- 9494 Schaan, Principality of Liechtenstein
PNEUTEK is a registered trademark of Pneutek, 17 Friars Drive Hudson, NH

1.1 Panel Features and Benefits

DGB-36/B-36



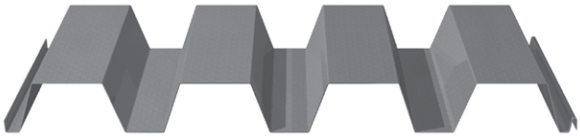
1½ " depth, 36" coverage, 5' to 12' Optimal Span(s)

●●●●● Excellent Diaphragm Shear

Web and Total Perforated Acustadek® Options

- DG4™ produces the highest shear diaphragms in the industry for 1½" decks
- Highest shear lowest cost 36/7/4 attachment pattern in industry
- Published tables for welded, pinned, and screwed attachments to supports

DGN-32/N-32®



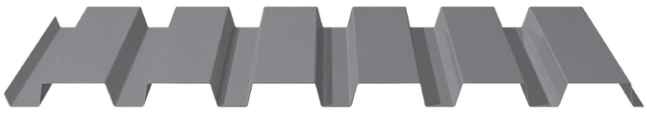
3 " depth, 32" coverage, 10' to 16' Optimal Span(s)

●●●●○ Good Diaphragm Shear

Web and Total Perforated Acustadek® Options

- DG4™ produces the highest shear diaphragms in the industry for 3 inch decks
- Wider 32" panel results in the most labor efficient 3" N Deck in the industry
- Lightest weight 3" N deck per square foot in the industry

BN-36 NESTABLE



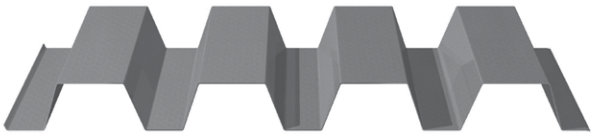
1½ " depth, 36" coverage, 5' to 12' Optimal Span(s)

●●●○○ Good Diaphragm Shear

No Acustadek® Option

- Nestable configuration for screwed side lap attachment
- Meets Steel Deck Institute SDI wide rib requirements

NN-32™ NESTABLE



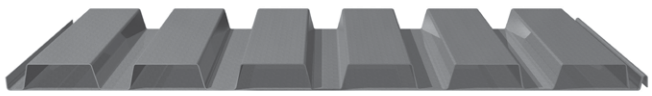
3" depth, 32" coverage, 10' to 16' Optimal Span(s)

●●○○○ Modest Diaphragm Shear

No Acustadek® Option

- Nestable configuration for screwed side lap attachment
- Replaces Steel Deck Institute SDI Deep Rib (DR) roof decks

DGBF-36/BF-36



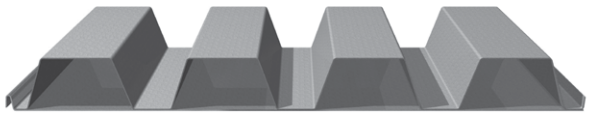
1½ " depth, 36" coverage, 8' to 14' Optimal Span(s)

●●●●● Excellent Diaphragm Shear

Pan Perforated Acustadek® Option (Available with Smooth Series™ rivet attachments or welded)

- Aesthetic flat pan underside
- Longer Spanning than non-cellular profile
- DG4™ side-lap attachment provides the same benefits as non-cellular

DGNF-32/NF-32



3" depth, 32" coverage, 14' to 20' Optimal Span(s)

●●●○○ Good Diaphragm Shear

Pan Perforated Acustadek® Option (Available with Smooth Series™ rivet attachments or welded)

- Aesthetic flat pan underside
- Longer Spanning than non-cellular profile
- DG4™ side-lap attachment provides the same benefits as non-cellular

Panel Features and Benefits 1.1

DG2WH-36/2WH-36 (Roof Deck)

2" depth, 36" coverage, 8' to 14' Optimal Span(s)

●●●○○ Good Diaphragm Shear

No Acustadek® Option

- DG4™ side-lap attachment for good shear performance
- Most economical panel per square foot for the span capacity
- Meets Steel Deck Institute SDI 2"x12" requirements

DG3WxH-36/3WxH-36 (Roof Deck)

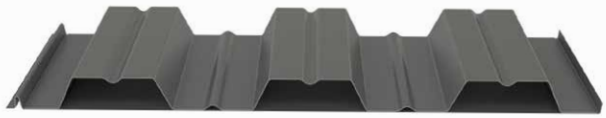
3" depth, 36" coverage, 11' to 20' Optimal Span(s)

●●●○○ Good Diaphragm Shear

No Acustadek® Option

- DG4™ side-lap attachment for good shear performance
- Meets Steel Deck Institute SDI 3"x12" requirements

DG2WHF-36/2WHF-36 (Roof Deck)



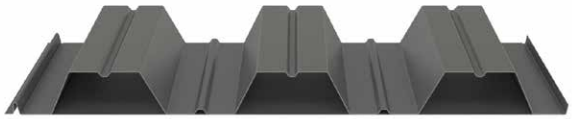
2" depth, 36" coverage, 10' to 20' Optimal Span(s)

●●●○○ Good Diaphragm Shear

Pan perforated Acustadek® Option

- Aesthetic flat pan underside
- Longer Spanning than non-cellular profile
- Most economical panel per square foot
- Meets Steel Deck Institute SDI 2"x12" requirements

DG3WxHF-36/3WxHF-36 (Roof Deck)



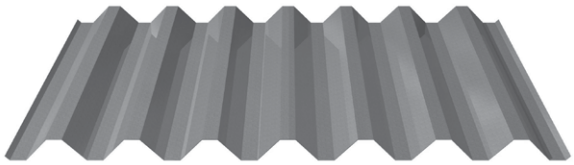
3" depth, 36" coverage, 14' to 22' Optimal Span(s)

●●●○○ Good Diaphragm Shear

Pan perforated Acustadek® Option

- Aesthetic flat pan underside
- Longer Spanning than non-cellular profile
- Meets Steel Deck Institute SDI 2"x12" requirements

C1.4-32/CP-32 (CF1⅜)



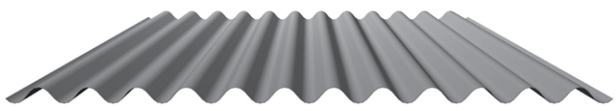
1⅜" depth, 32" coverage, 5' to 10' Optimal Span(s)

●●○○○ Modest Diaphragm Shear

No Acustadek® Options

- C1.4-32 is suitable for exposed roofing and siding conditions
- CP-32 is manufactured with a side lap rolled in vent for use with lightweight insulating concrete fill

C0.9-32 (CF⅞)



⅞" depth, 32" coverage, 1' to 5' Optimal Span(s)

●●○○○ Low/Modest Diaphragm Shear

No Acustadek® Options

Non-composite deck

- Good for short span conditions

1.2 **Product Offer**

ASC Steel Deck offers a robust product offer. Our lightweight steel deck profiles have depths that range from ⅞" to 7½". Panel lengths range from 5 feet to 45 feet. Steel deck panels are supplied with both galvanized and painted finishes to meet an array of project finish requirements.

Product Description

To assist designers with specifying the correct steel deck profile, see Figure 1.2.3 which details how to specify the intended product. Following these guidelines will help to eliminate requests for information and change orders due to insufficient product descriptions in the plans and specifications. Designers can be assured that the product delivered is the product intended. Simply specify the gauge, panel profile, panel coverage, metallic/paint coating, and any modifiers appropriate for the desired product.

Deck Panel Lengths

All ASC Steel Deck products are manufactured to the specified length for the project. The following table summarizes the minimum and maximum lengths that can be manufactured for each profile.

Figure 1.2.1: **MANUFACTURED PANEL LENGTHS**

Profile		**Factory Cut Length**	
		Minimum	**Maximum**
Non-cellular	B-36, N-32, 2W-36, 3W-36	3'-6"	45'-0"
	CP-32	4'-0"	45'-0"
Cellular	BF-36, NF-32, 2WF-36, 3WF-36	5'-0"	40'-0"

Tolerances

ASC Steel Deck manufactures to industry standard tolerances. The tolerances are summarized as follows.

Figure 1.2.2: **PANEL TOLERANCES**

Length	±1/2"
Coverage Width	-3/8" +3/4"
Sweep	1/4" in 10' length
Square	1/8" per foot width

Finish Options

ASC Steel Deck offers several finish options that are appropriate for a variety of applications. Our standard G60 galvanized finish is suitable for most applications, offering excellent corrosion protection and compatibility with fire proofing when used in UL fire rated assemblies. We also offer PrimeShield®, an economical prime paint system over bare cold rolled steel. PrimeShield offers the steel limited interim protection from rusting during transport and erection before the weather-tight roof system is applied. PrimeShield should not be used in high humidity or corrosive environments. Prime paint over galvanized steel deck can also be specified to obtain the benefit of the corrosion protection of galvanized steel deck with a factory applied prime paint substrate.

Galvanized

ASC Steel Deck offers steel deck products that are galvanized in accordance with ASTM A 653. The standard galvanized coating is G60 (0.6 ounce per square foot). G-90 (0.9 ounce per square foot) is recommended for high humidity and corrosive conditions. G-40 (0.4 ounce per square foot) may be specified for greater economy. Heavier galvanized finishes than G-90 can be specified for more severe environmental conditions and exposures. Inquire for product availability and minimum order sizes for G-40 or galvanizing heavier than G-90.

All ASC Steel Deck galvanized decks are manufactured from chemically treated steel coil in accordance with ASTM A 653. Chemical treatment is often referred to as passivation. The chemical treatment protects the galvanized steel from developing white rust during storage and transport of both coil and finished product. Some field-applied paint systems may not be compatible with the chemical treatment. The paint manufacture should be consulted to determine how the deck should be prepared prior to painting. ASC Steel Deck is not responsible for the adhesion of field applied primers and paints.

Galvanized with Prime Paint

ASC Steel Deck offers all of its standard galvanized options with factory applied prime paint on the underside of the deck. The prime paint is available in standard gray. White primer is also available. The standard 0.3mil water-based gray acrylic primer has been specially developed to provide superior adhesion to the galvanized steel deck and is suitable for use in many UL fire rated assemblies. Factory applied primer is an impermanent interim coating that is intended to have finish paint applied after the deck is installed. The galvanized with prime paint option may eliminate the need for any special surface preparation for field applied paint applications which is often a requirement for chemically treated bare galvanized steel deck panels. ASC Steel Deck is not responsible for the adhesion of paint systems applied in the field.

Cellular deck is offered with a galvanized steel pan or a prime paint over galvanized steel pan. This 0.3mil gray primer is applied to the underside of the pan prior to resistance welding or riveting the cellular deck beam to the pan. Our new Smooth Series™ rivet attachment is flush with the exposed bottom surface, omitting visible "bumps" and burn marks, as well as eliminating the cost of touch-ups associated with resistance welded deck products. Resistance welded deck, the current industry standard, leaves burn marks on the pan which generally require cleaning and touch-up prior to the application of a finish paint system being applied. Touching up the burn marks is generally much more cost effective than preparing an unpainted, chemically treated surface for the application of a field primer. The prime painted galvanized pan provides a good substrate for the application of most field-applied paint systems. ASC Steel Deck is not responsible for the adhesion of paint systems applied in the field.

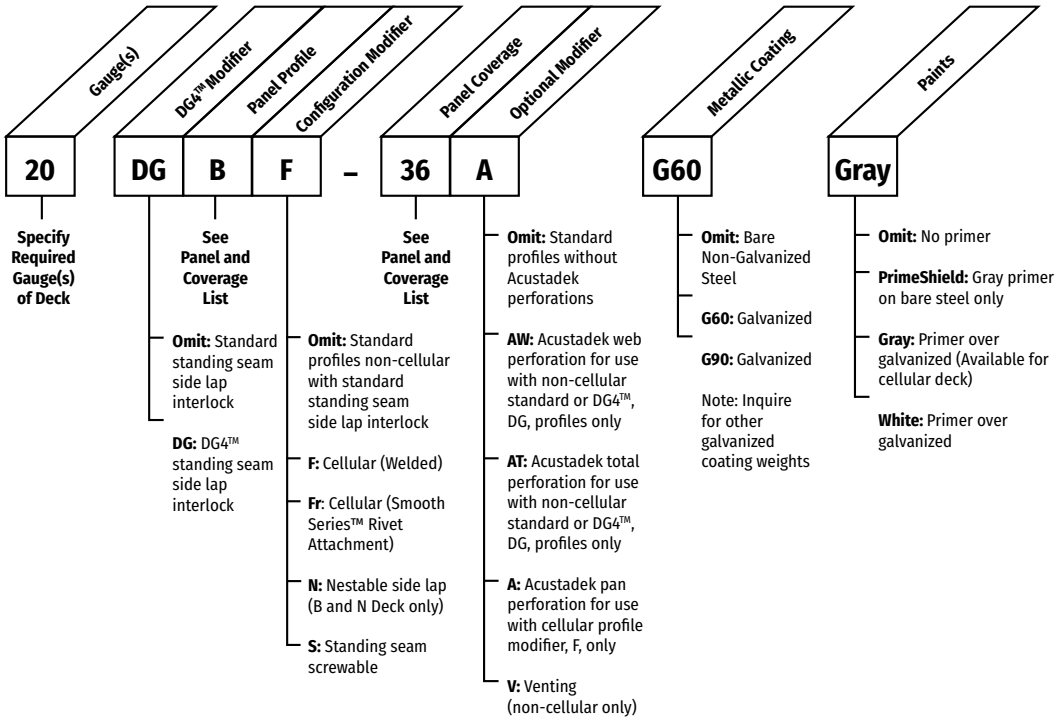
Prime Shield®

PrimeShield is prime painted cold-rolled, ASTM 1008, steel deck. The standard gray primer is applied to both the top and underside of the steel deck. This primer is suitable for use in many UL fire rated assemblies. The prime paint is intended to be an impermanent interim coating to protect the bare cold-rolled steel, for a short period, from ordinary atmospheric conditions prior to weathertighting the building. PrimeShield should receive a finish paint system if left exposed in the interior of a building. This 0.3mil water-based acrylic primer provides a good base for most field-

DECK PROFILE & COVERAGE LIST

Panel	Coverage
B	36 inches
N	32 inches
2W	36 inches
3W	36 inches
CP	32 inches
4.5D	12 inches
4.5DF	24 inches
6D	12 inches
6DF	24 inches
7.5D	12 inches
7.5DF	24 inches

Figure 1.2.3: **PRODUCT OFFER DESCRIPTION**



applied paint systems. ASC Steel Deck is not responsible for the adhesion of paint systems applied in the field.

Cellular Deck

Cellular deck is a good choice when a flat appearance on the underside of steel deck is desired. Cellular deck is manufactured from a top fluted section of steel deck referred to as the beam and a flat bottom section referred to as the pan. The male and female side seam interlock is formed on the edges of the pan.

The welded method offers resistance welds in accordance with UL 209. There is one row of resistance welds in each low flute of the beam.

The new Smooth Series™ rivet attachment is flush with the exposed bottom surface, eliminating "bumps" and burn marks and the need for touch-ups in the field. Smooth Series rivets are available in galvanized and white finish, complementing our factory applied Prime Shield® primer gray and white finish cellular deck. The high quality rivet attachments are uniformly repeated along the deck profile.

All attachments to the underside of riveted cellular deck and Acustadek for the support of suspended items shall be made at low flute location only. The design professional is responsible for checking if the connection to the low flute material has sufficient capacity to resist the suspended load.

This product should not be used in floor assemblies where spray on fire proofing is to be applied to the bottom surface of the deck.

Cellular deck beam and pan may be manufactured out of the same gauge or out of different gauges. The following shows how to correctly specify the desired beam and pan gauge combination.

Specify Cellular Deck Gauge "xx/yy"

- The first (xx) is the gauge of the beam (top fluted section)
- The second number (yy) is the gauge of the pan (the bottom flat section with the side seam)

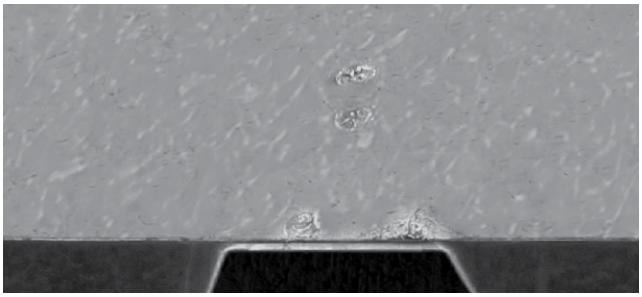


Figure 1.2.4: WELDED ATTACHMENT
(Pictured from bottomside)

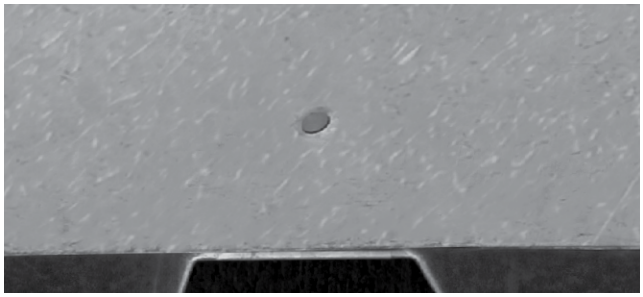


Figure 1.2.5: SMOOTH SERIES™ RIVET ATTACHMENT
(Pictured from bottomside)

1.2 **Product Offer**

Venting

Some materials in the roof assembly may require venting of the steel roof deck, such as roof systems with light weight insulating concrete. Venting does not impact the structural performance of the steel deck. Deck should not be specified as vented when it is not required. The drawback of venting deck is when concrete is poured, the slurry drips through the vent tabs creating debris on the surface below. Cleaning up the slurry or protecting the surfaces underneath with plastic sheets adds cost to the project without providing any added value to the owner when venting is not required. The requirement for venting the deck should be clearly indicated in the specifications and be clearly stated in the deck schedule on the structural drawings.

For B, N, 2W, and 3W deck, upward protruding vent tabs are factory punched in the low flutes of the steel deck when venting is specified. For CP-32 venting is achieved by adding embossments to the side lap holding the lap open. (Figures 1.2.4 and 1.2.5)

Die Set Ends (Swage)

Figure 1.2.4: **B-36 WITH VENTING**
(Pictured from topside)

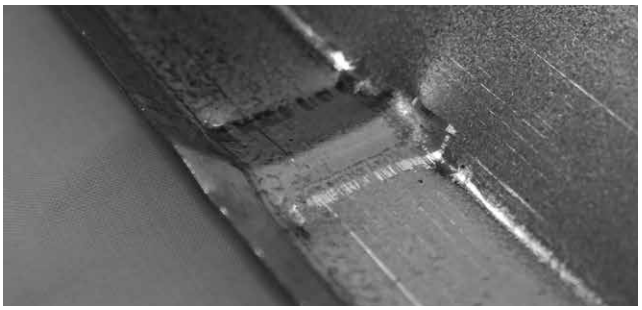


Figure 1.2.5: **CP32 WITH VENTING**
(Pictured from topside)

Die set ends allow for the roof deck to be easily end lapped to increase the diaphragm stiffness. The die set swages the top flange and webs of the steel deck which allows the top sheet of end lapped deck to nest tightly over the bottom sheet. When deck is not die set, the installer may have to hammer the deck to get the ends to nest together tightly to ensure good quality connections. The die set ends are standard for B-36 roof deck. B-36 is optionally available without die set ends. Die set ends are not available on other roof deck products. Figure 1.2.6 shows a die-set end on B-36 deck.

Die set ends affect detailing and layout of the steel deck. Deck is spread in the direction of the male leg of the side seam. This allows the next sheet's female side seam to drop over the male side seam. The die set is on the left side relative to the direction of spreading deck. The next adjacent run of deck will be on the left side of the deck relative to the spreading direction to nest over the dies set ends. (Figure 1.2.7)

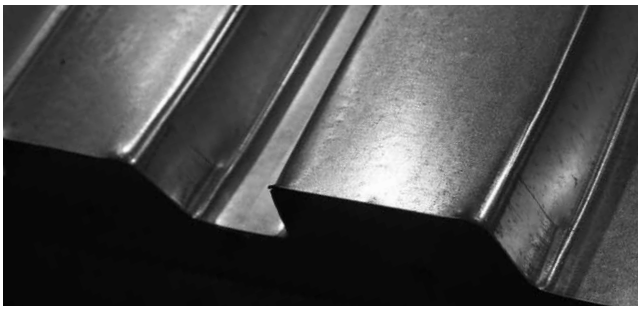


Figure 1.2.6: **B-36 WITH DIE-SET (Swage)**

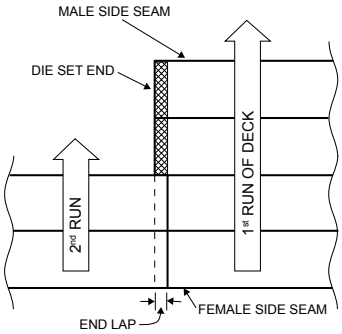


Figure 1.3.7: **DECK LAYOUT**

Exposed Deck

ASC Steel Deck roof and floor deck products are designed to be structural components for steel framed structures. As part of the normal manufacturing, handling, and transport procedures, it is common for the panel bundles to exhibit some degree of incidental scratching and denting. The surface defects are typically superficial and do not impact the structural capacity of the deck. On projects where the deck will be exposed to view after installation, it may be desirable to minimize the occurrence of these marks. In these cases, it is important for the designer specifying and the customer or contractor ordering the deck to request that the product be manufactured, handled, and transported for "EXPOSED" installation. This will result in modified handling and loading procedures designed to minimize (not eliminate) typical scratching and denting. Figure 1.2.7 and 1.2.8 shows typical handling marks from forklifts or dunnage.

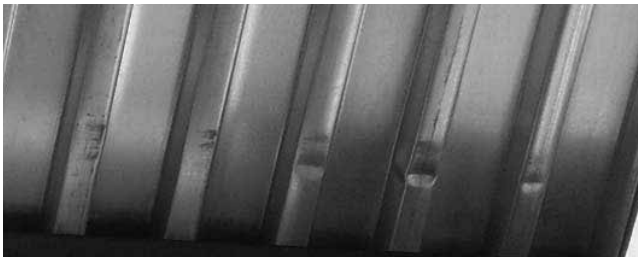


Figure 1.2.7: **UNDERSIDE HANDLING MARKS**

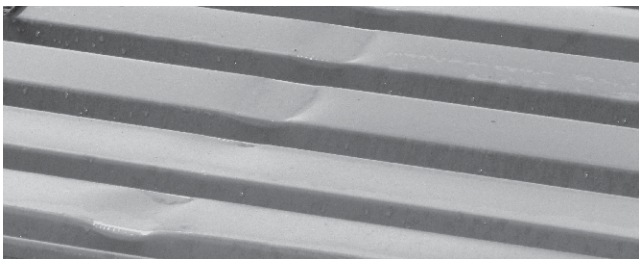


Figure 1.2.8: **TOPSIDE HANDLING MARKS**

Product Approvals 1.3

ASC Steel Deck conducts extensive test programs with independent testing labs to ensure that our products comply with the stringent criteria of today's building codes. The structural performance of our steel deck products have been verified and approved by reputable evaluation agencies, International Association of Plumbing and Mechanics Officials Evaluation Services (IAPMO-ES), Factory Mutual (FM).

IAPMO-ES

ASC Steel Deck panels are independently evaluated for conformance with the IBC by IAPMO-ES. IAPMO-ES evaluation service is accredited by the American Standards Institute (ANSI) per ISO/IEC Guide 65 General Requirements for Bodies Operating Product Certification Systems. The technical evaluation for conformance with the IBC are made available to code officials, contractors, specifies, architects, engineers, and others. IAPMO-ES reports provide evidence that ASC Steel Deck products meet the most rigorous standards and are compliant under current code requirements.

Factory Mutual Approvals

ASC Steel Deck B and N deck profiles have been evaluated and approved by Factory Mutual (FM). The steel decks meet the strict FM requirements for fire, foot traffic and wind uplift loads up to class 1-90. Both standard and DeltaGrip® versions of the deck profiles are approved with a wide array of fasteners to supports. **Complete FM approval reports for ASC Steel Deck products can be found at www.ascsteedldeck.com.** These steel decks may be used as a component in an FM approved roof assembly. Deck selection, as a part of an FM assembly, should be made using the FM RoofNav selection tool at **roofnav.fmglobal.com.**

Deck	Gauge	Maximum Span
B-36 BN-36 DGB-36	22	Single 6' 4" Double 7' 6" Triple 7' 6"
	20	Single 7' 0" Double 8' 3" Triple 8' 3"
	18	Single 8' 0" Double 9' 5" Triple 9' 5"
	16	Single 8' 10" Double 10' 5" Triple 10' 5"
N-32 NN-32 DGN-32	22	Single 12' 4" Double 11' 7" Triple 12' 11"
	20	Single 13' 11" Double 13' 2" Triple 14' 9"
	18	Single 16' 1" Double 16' 3" Triple 18' 2"
	16	Single 17' 11" Double 18' 7" Triple 20' 9"

* For acoustical deck and other deck profiles refer to FM Approval Report No. 3053652

Figure 1.3.1: **FM MAXIMUM DECK SPANS**

Underwriters Laboratories UL-Fire Ratings

ASC Steel Deck products that bare the UL approved mark have been investigated for fire resistance. Underwriters Laboratories is an independent, product safety testing and certification organization. ASC Steel Deck has been evaluated for fire resistance per UL 263 Fire Tests of Building Construction and Materials. See UL directory for fire rated assemblies.

The **Fire Ratings** table (Figure 1.4.1) offers a quick reference summary of design numbers, fire ratings, deck type, SFRM Spray Applied Fire Resistive material listings and more. The details of the each design assembly are listed on UL Online Certification Directory **www.ul.com**.

1.4 Fire Ratings

Figure 1.4.1: **ASC STEEL DECK- (UL) UNDERWRITERS LABORATORIES FIRE RESISTANCE**

UL Design Number	ANSI/UL 263 Fire Resistance Ratings Restrained and Unrestrained Assemblies (hrs)	Support Type Beam / Joist
P225	Restrained Assembly Ratings — 1 and 1½ Hr. Unrestrained Assembly Ratings — 1 and 1½ Hr	Beam-W6x12min, Joist- 20min depth
P230	Restrained Assembly Rating — 1 and 1½ Hr. Unrestrained Assembly Rating — 1 and 1½ Hr	Beam-W6x12min, Joist- 20min depth
P518	Restrained Assembly Rating — 1 Hr. Unrestrained Assembly Rating — 1 Hr	Joist - Cee-shaped sections, min 8 in. deep with 1-9/16 in. flanges and 9/16 in. lips, made from No. 18 gauge or heavier, Steel truss - chords shall be min of 18 ga. and web sections a min of 20 ga. min depth of 8 in.
P701	Restrained Assembly Rating — ¾, 1, 1½ or 2 Hr. Unrestrained Assembly Rating — ¾, 1, 1½ or 2 Hr	Beam-W16x16min, Joist-20in joist girders
P711	Restrained Assembly Ratings — 1, 1½ or 2 Hr. Unrestrained Assembly Ratings — 1, 1½ or 2 Hr	Beam - W6x16 min size. , Joist girders -20 in. min depth, Joists Types 10J4, 10H4, 12J4, 14J7 or 14K4 min size.
P717	Restrained Assembly Rating — 1, 1½ or 2 H Unrestrained Assembly Rating — 1, 1½ or 2 H	Beam - W6x16 min size, Joist - 10H4, 14J7, 12K3 or 16K3 min sizes.
P719	Restrained Assembly Rating — 1, 1½, 2 or 3 Hr. Unrestrained Assembly Rating — 1, 1½ or 2 Hr	Beams-W6x16 min , Joist-10 K1 min, Joist girders -20 in. min depth and 13 lb/lin ft min weight.
P723	Restrained Assembly Ratings — 1, 1½, 2 and 3 Hr Unrestrained Assembly Ratings — 1, 1½, 2 and 3 Hr	Beam- W6x16 , Joist -min 10K1 or 12K5
P726	Restrained Assembly Rating — ¾, 1, 1½ or 2 Hr Unrestrained Assembly Rating — ¾, 1, 1½, or 2 Hr	Beam-W6X16 min, Joist -10K1 min , Joist girders - 20 in. min depth
P732	Restrained Assembly Ratings — 1, 1½, 2 or 3 Hr Unrestrained Assembly Ratings — ¾, 1, 1½, 2 or 3 Hr	Beam - Min W6x16 or W8x28 , Joist - 10K1 or 16K2 min, or 12K3 or 12K5 min size
P734	Restrained Assembly Ratings — ¾, 1, 1½ or 2 Hr Unrestrained Assembly Ratings — ¾, 1, 1½ or 2 Hr	Beam - W6x16min, Joist - 12J4, 14J7 or 14K4 min, Joist girders-20 in. min, any LH-Series joist may be used.
P739	Restrained Assembly Ratings — 1, 1½ and 2 Hr Unrestrained Assembly Ratings — 1, 1½ and 2 Hr	Beam- W6x16 min , Joist - 10H4, 14J7, 10K1 or 12K3 min.
P740	Restrained Assembly Ratings — 1, 1½ & 2 Hr Unrestrained Assembly Ratings — ¾, 1, 1½ & 2 Hr	Beam -W6x16 min , Joist 10K1 or 16K2 min or 12K3 min
P741	Restrained Assembly Ratings — 1, 1½ or 2 Hr Unrestrained Assembly Ratings — 0, 1, 1½ or 2 Hr	Beam - Min W6x16, Joist - Min 10K1

Table Notes:

1. P2XX have suspended acoustical ceilings with an exposed grid system.
2. P3XX have mineral or fiber board applied to the underside of the deck.
3. P4XX have suspended gypsum board.
4. P7XX have (SFRM) Spray Applied Fire Resistive Material applied to the deck.
5. P9XX have not SFRM on the deck but it is required on the beams and joists.
6. P9XX includes lightweight insulating concrete.
7. The designer shall refer to the UL Fire Resistance directory for a detailed list of components in the fire rated assembly listing.

Figure 1.4.1: **ASC STEEL DECK- (UL) UNDERWRITERS LABORATORIES FIRE RESISTANCE**

UL Design Number	Panel Type (gauges)					Coatings		Side-Lap Fastening				Support Fastening			Fire Protection	Lightweight Insulating Concrete
	DGB-36, B-36	DGN-32, N-32	DG2W-36, 2W-36	DG3WxH-36, 3WxH-36	CP-1 3/8, CP-32	Galvanized	Prime Shield	Screws	Button Punch	DeltaGrip® DG4™	Welds	Screws	PAF (Pins/Nails)	Welds	(SRFM) Spray Applied Fire Resistive Material (Fiber or Cementitious)	
P225	✓	✓				✓	✓			✓	✓			✓	✓	
P230	✓					✓	✓			✓	✓			✓	✓	
P518	✓				✓	✓	✓	✓		✓		✓			✓	
P701	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P711	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P717	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P719	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	
P723	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	
P726	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P732	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P734	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P739	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P740	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P741	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	

8. ASC Steel Deck does not assume responsibility for adhesion of any spray-applied fireproofing material, surface preparation, cleaning, or other treatments of the deck surface.
9. "Gray" prime painted deck is supplied for application of spray-applied fireproofing.
10. Please contact ASC Steel Deck for galvanizing options.

1.4 Fire Ratings

Figure 1.4.1: **ASC STEEL DECK- (UL) UNDERWRITERS LABORATORY FIRE RESISTANCE**

UL Design Number	ANSI/UL 263 Fire Resistance Ratings Restrained and Unrestrained Assemblies (hrs)	Support Type Beam / Joist
P742	Restrained Assembly Ratings - 1, 1½ or 2 Hr. Unrestrained Assembly Ratings - 1, 1½ or 2 Hr	Beam-W6x16, Joist - 12J4 or 14J7 min, Joist girders-20 in. min depth and 13 lb/lin ft min weight, any LH-Series joist may be used.
P743	Restrained Assembly Ratings — 1, 1½ and 2 Hr Unrestrained Assembly Ratings — 1, 1½ and 2 Hr	Beam - W6x16 min size, Joist -10H4, 14J7, 10K1 or 12K3 min
P815	Restrained Assembly Rating- 1, 1½ , 2 Hrs Unrestrained Assembly Rating- 1, 1½, 2 Hr	Beam W6x16 min size, Joist-10K1 or 12K3 min size.
P819	Restrained Assembly Rating — 1, 1½ or 2 Hr. Unrestrained Assembly Rating — 1, 1½ or 2 Hr	Beam - W6x16 min size, Joist 10K1 or 12K3
P908	Restrained Assembly Ratings — 1, 1½ or 2 Hr. Unrestrained Assembly Rating — 0, 1½, or 2 Hr	Beam- W6x16, W8x10, W8x18 or W8x28 min, Joists - 10K1, 12J4, 14K4 or 16K3 min, Joist girders-20 in. min depth and 13 lb/lin ft min weight
P920	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W8x10, W8x17, W6x16 or W8x28 min, Joists- 10K1, 12J4, 12K5 or 14K3 min
P921	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr Unrestrained Beam Rating — 1, 1½ or 2 Hr	Beam - W6X16 or W8X10 beam, Joist girders - 20 in. min depth and 13 lb/lin ft min weight.12K5 or heavier steel joist may be used as secondary support
P922	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W6x16, or W8x28 min, Joists- 10K1 min with steel bridging angles required per SJI specifications.
P925	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam- W6X16 or W8X10, Joists -12K5 min, Joists or Joist girders 10K1- 20 in. min depth and 13 lb/lin ft min weight
P927	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam-W6x16, W8x10 or W8x1, Joists-12J4, 14K4 or 16K3 min, Joist girders-20 in. min depth and 13 lb/lin ft min weight
P928	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W6X16 or W8X10, Joist girders-20 in. min depth and 13 lb/lin ft min weight
P930	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W8x28 min size steel beam; or steel joists welded or bolted to end supports.
P936	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr Restricted Load Condition	Beam - W6x16 or W8x28 min size, Joists 10K1 or 16K2 min size with a max tensile stress of 30,000 psi or 12K3 or 12K5 min size with a max tensile stress of 24,000 psi.
P937	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam-W8x28 min, Joists-10K1 min

Table Notes:

1. P2XX have suspended acoustical ceilings with an exposed grid system.
2. P3XX have mineral or fiber board applied to the underside of the deck.
3. P4XX have suspended gypsum board.
4. P7XX have (SFRM) Spray Applied Fire Resistive Material applied to the deck.
5. P9XX have not SFRM on the deck but it is required on the beams and joists.
6. P9XX includes lightweight insulating concrete.
7. The designer shall refer to the UL Fire Resistance directory for a detailed list of components in the fire rated assembly listing.

Figure 1.4.1: **ASC STEEL DECK- (UL) UNDERWRITERS LABORATORY FIRE RESISTANCE**

UL Design Number	Panel Type (gauges)					Coatings		Side-Lap Fastening				Support Fastening			Fire Protection	Lightweight Insulating Concrete
	DGB-36, B-36	DGN-32, N-32	DG2W-36, 2W-36	DG3WxH-36, 3WxH-36	CP-1 3/8, CP-32	Galvanized	Prime Shield	Screws	Button Punch	DeltaGrip® DG4™	Welds	Screws	PAF (Pins/Nails)	Welds	(SRFM) Spray Applied Fire Resistive Material (Fiber or Cementitious)	
P742	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P743	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P815	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P819	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P908	✓	✓				✓	✓			✓	✓			✓		✓
P920	✓	✓	✓			✓	✓			✓	✓			✓		✓
P921	✓	✓	✓		✓	✓	✓			✓	✓			✓		✓
P922	✓	✓				✓	✓		✓	✓	✓			✓		✓
P925	✓		✓		✓	✓			✓	✓	✓			✓		✓
P927	✓	✓	✓		✓					✓	✓			✓		✓
P928	✓	✓	✓		✓					✓	✓			✓		✓
P930		✓			✓					✓	✓			✓		✓
P936	✓	✓	✓		✓					✓	✓			✓		✓
P937	✓	✓	✓		✓					✓	✓			✓		✓

8. ASC Steel Deck does not assume responsibility for adhesion of any spray-applied fireproofing material, surface preparation, cleaning, or other treatments of the deck surface.
9. "Gray" prime painted deck is supplied for application of spray-applied fireproofing.
10. Please contact ASC Steel Deck for galvanizing options.

1.5 Section Properties

Section Properties

All of ASC Steel Deck's section properties are calculated in accordance with the American Iron and Steel Institute Specification for the Design of Cold-Formed Steel Structural Members, AISI S100. Section properties can be used to develop the bending capacity of the steel deck for out-of-plane loads, which are typically defined by gravity or wind uplift. The section properties can also be used to determine the combined axial and bending capacity of the steel deck for bracing walls or other vertical elements of a building.

The section properties for steel roof deck, like other cold-formed steel members such as Cee, Zee, hat-shaped purlins, studs, and track are based on post-buckling strength. Post-buckling strength is based on the concept that compression flanges and portions of webs will exhibit some local buckling prior to the load capacity of the member being reached. To account for this, the widths of the flat compression elements of the steel deck are reduced for the purpose of determining the section properties, excluding the portion that can no longer effectively carry compression loads. This reduction of the gross section properties results in the effective section properties.

Steel Thickness

The thickness of steel roof deck is typically specified by a gauge designation. The design of steel deck is dependent on the specified design base steel thickness in accordance with AISI S100. The base steel thickness should not be confused with the total coated thickness, which is the combined thickness of the base steel, the optional galvanizing thickness, and any factory-applied paint system thickness.

The minimum acceptable base steel thickness to be supplied shall not be less than 95% of the design base steel thickness. This is specified in Section B7.1 Delivered Minimum Thickness of AISI S100.

Some standards reference non-mandatory tables that list the thickness of sheet steel by gauge designation. These include the AISC Manual of Steel Construction in the Miscellaneous Information section of the appendix and AWS D1.3 in the Annex. Both references indicate that the values are non-mandatory and are for reference only. The nominal total coated thicknesses listed for each gauge in these sources should not be used to determine if the cold-formed steel structural member, including steel deck, meets the minimum thickness requirement for the specified gauge.

Effective Section Properties

Effective section properties for a steel deck panel are used to check for the maximum bending and axial load capacities.

The effective properties are determined at the full yield stress of the steel. As the grade of steel increases, the effective section properties decrease. The effective width of the compression elements decreases as the localized plate-like buckling increases. The moment capacity of the deck increases with the increased grade because the increasing yield strength of the steel outpaces the loss of effective compression width of the combined elements. Steel decks cannot be compared based strictly on effective section properties without considering the grade of the steel. The following demonstrates this.

20 Gauge B-36 Steel Deck Panel

Yield ksi	I_e^+ (in^4)	I_e^- (in^4)	S_g^+ (in^3)	S_e^- (in^3)	M_n^+ (k-in)
33	0.193	0.237	0.235	0.251	4.65
37	0.187	0.233	0.233	0.247	5.17
38	0.187	0.233	0.233	0.246	5.31
40	0.187	0.233	0.232	0.244	5.568
55	0.177	0.227	0.223	0.233	7.36
80	0.173	0.223	0.218	0.233	10.464

Figure 1.5.1: **EFFECTIVE SECTION PROPERTIES**

Many steel deck panels are not symmetric. In most cases, the top and bottom flange widths are not equivalent. The bending stress and location of the neutral axis is therefore different for positive and negative bending, resulting in different positive and negative section properties.

Gross Section Properties

The gross section properties of the steel deck are based on the entire cross section of the panel. Determination of gross section properties assumes that there are no compression buckling compression flanges or web elements of the steel deck and that there are no ineffective elements. The gross section properties are used in combination with effective section properties to determine the deflection of the steel deck under uniform out-of-plane loads, and for checking axial compression and bending.

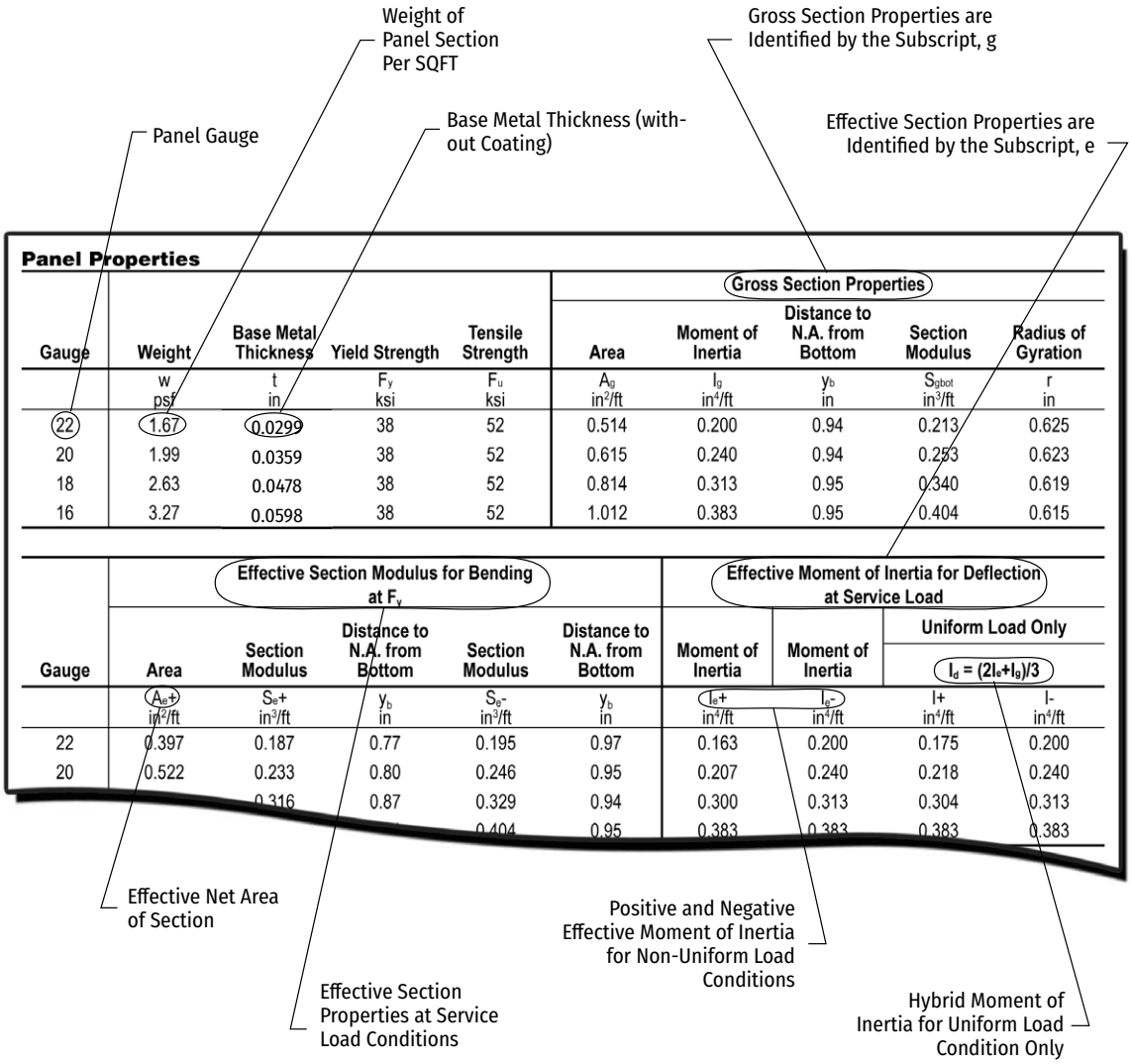
Service Load Section Properties

The service load moment of inertia is used to determine the deflection of the steel deck for out-of-plane loads. The calculated moments of inertia are determined at a working stress level of 0.6Fy. Following accepted practice, the hybrid moment of inertia is based on the sum of two times the effective moment of inertia and the gross moment of inertia divided by three, as follows.

$$I_d = \frac{2I_e + I_g}{3}$$

This deflection equation for uniformly distributed loads takes into account that, throughout the length of the span, portions of the steel deck will have low bending stress below the onset of localized compression buckling in which the gross section properties would be valid and the other portions of the span will have bending stresses high enough to push beyond the onset of localized compression buckling in which effective section properties would be appropriate.

How to Read Section Properties Table



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties: Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_{gbot} in³/ft	r in
22	1.67	0.0299	38	52	0.514	0.200	0.94	0.213	0.625
20	1.99	0.0359	38	52	0.615	0.240	0.94	0.253	0.623
18	2.63	0.0478	38	52	0.814	0.313	0.95	0.340	0.619
16	3.27	0.0598	38	52	1.012	0.383	0.95	0.404	0.615

Gauge	Effective Section Modulus for Bending at F_y: Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Effective Moment of Inertia for Deflection at Service Load: Moment of Inertia	Moment of Inertia	Uniform Load Only: $I_d = (2I_e+I_g)/3$	
	A_{e+} in²/ft	S_{e+} in³/ft	y_b in	S_{e-} in³/ft	y_b in	I_{e+} in⁴/ft	I_{e-} in⁴/ft	I+ in⁴/ft	I- in⁴/ft
22	0.397	0.187	0.77	0.195	0.97	0.163	0.200	0.175	0.200
20	0.522	0.233	0.80	0.246	0.95	0.207	0.240	0.218	0.240
	0.316		0.87	0.329	0.94	0.300	0.313	0.304	0.313
				0.404	0.95	0.383	0.383	0.383	0.383

Figure 1.5.2: **SAMPLE PANEL PROPERTIES TABLE**

1.6 Out of Plane Vertical Loads

Out-of-Plane Loads
Out-of-plane loads are loads applied to the panel that are perpendicular to the panel surface. These loads, uniform and non-uniform, are a combination of the applied forces due to wind, roofing materials, equipment, machinery, live loads, and other factors. The allowable and factored load tables provide the panel capacity, the deck profile, gauge (base metal thickness), span length, and the number of spans created by the support spacing.

Uniformly Distributed Loads
Inward out-of-plane uniform loads are typically a combination of gravity (dead, live, and snow) and inward wind loading conditions.

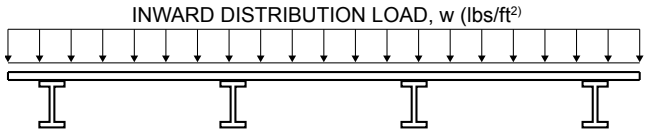


Figure 1.6.1: **INWARD DISTRIBUTED LOAD**

Outward out-of-plane uniform loads are typically wind uplift loads.

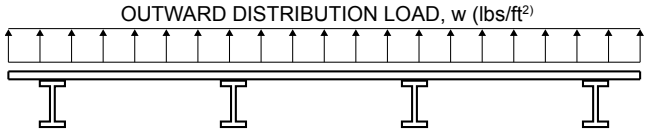


Figure 1.6.2: **OUTWARD DISTRIBUTED LOAD**

The allowable load capacities for each panel type, subject to uniform inward and/or outward load conditions, are determined by equations of mechanics and the published section properties. The panel capacities for outward uniform load conditions (wind uplift) shall be determined by the designer. ASC Steel Deck publishes inward allowable,(f_b/Ω), and factored, (ϕf_b), uniform distributed load tables that are based upon the bending capacity of the steel deck panels. In addition, service level distributed loads subject to varied deflection limits are presented in the tables. Where no deflection limit is listed, the panel bending capacity governs for the span and deflection limit combination.

Openings, Holes or Penetrations
The reinforcement of openings, holes, or penetrations in the diaphragm shall be in accordance with the Steel Deck Institute (SDI) Manual of Construction with Steel Deck. Alternatively, for openings that exceed the scope of the SDI Manual of Construction with Steel Deck, the designer should provide framing to transfer vertical and lateral loads around the opening in the steel deck.

Point Loads
Out of plane point loads do not have a uniform load distribution over the entire deck panel. Deck panels subject to point loads or concentrated out of plane loads such as hanging loads from suspended ceilings, mechanical and electrical equipment, plumbing or other utilities should be evaluated by the design professional based on bending capacity and web crippling where applicable. Load distribution devices should be specified where need to distribute the point or concentrated loads.

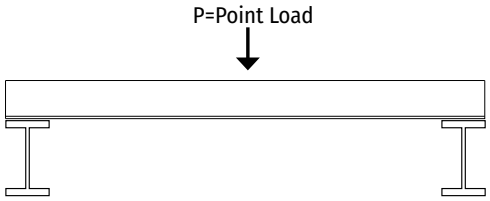


Figure 1.6.3: **POINT LOAD**

Most point loads will require some type of distribution device to spread the shear load to the webs of the steel deck. This can be accomplished with plates, angle, channels or other common structural shapes on top or below the steel deck. These devices may be secured using welds or bolts. There are no general maximum or minimum hanging load limits for steel deck.

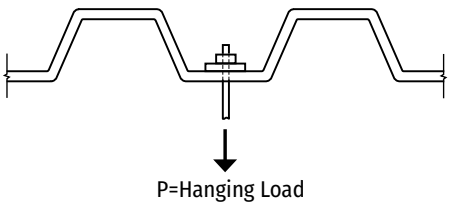


Figure 1.7.4: **HANGING LOAD**

Cantilever End Conditions
For cantilever end conditions, where the end of the deck panel is unsupported, the allowable length of the cantilever shall be determined by the designer using the published section properties, deflection limits, and material strength of the specified panel.

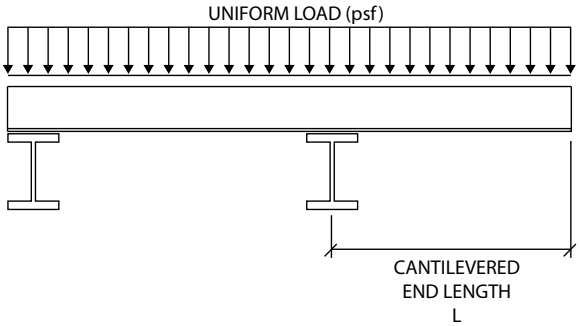


Figure 1.6.5: **CANTILEVER END CONDITIONS**

Deflection Limits

Steel deck panels deflect under out of plane loads. The deflections should be restricted to the recommended limits of the building code. The building code prescribes different defection limits to address material stiffness compatibility, and to limit the possibility of perceivable vibrations. The common deflection limits as present in the IBC are listed in the table below. Steel deck panels will deflect under out of plane loading conditions such as live (temporary) and dead (permanent) loads.

Figure 1.6.6: **DEFLECTION LIMITS FROM IBC TABLE 1604.3**

Contruction	Load Combinations		
	Live	Dead + Live	Wind or Snow 4.5
Roof: Plaster ceiling	L/360	L/240	L/360
Roof: Non-plaster ceiling	L/240	L/180	L/240
Roof: No ceiling	L/180	L/120	L/180
Structural roofing and siding metal panels	...	L/60	...
Secondary roof members supporting metal roofing panels	L/150	...	...
Secondary roof support members supporting metal roof panels with no roof covering	...	...	L/90
Floor	L/360	L/240	...

Notes:

1. Where an ellipsis (...) appears in this table, there is no requirement.
2. Reference the current IBC, Table 1603.4 and the supporting notes for additional information.
3. Reference the current IBC, Section 1611 for rain and ponding and Section 1503.4 for roof drainage requirements.
4. Wind load is permitted to be taken as 0.7 times the "component and cladding loads" for the purpose of determining deflection limits.
5. For steel structural members, the dead load shall be taken as zero.For cantilever members, L shall be taken as twice the length of the cantilever.

1.7 Web Crippling

Steel Deck Reactions at Supports
Steel deck reactions at supports are governed by the web crippling capacity of the steel deck webs on the supporting member. This is calculated in accordance with Section G5 of AISI S100 for multi-web steel decks.

Reactions Due to Uniform Loads
The end and interior reactions listed in the tables in this catalog are for a uniformly distributed out-of-plane load applied to the deck (see Figure 1.7.1).

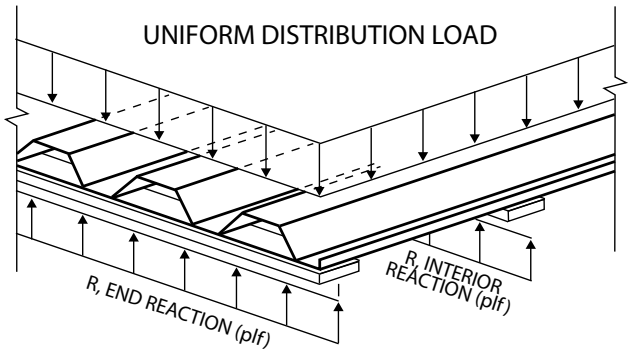


Figure 1.7.1: **UNIFORM DISTRIBUTED OUT-OF-PLANE LOAD**

The allowable R_n/Ω and factored ϕR_n reactions presented in the tables are in pounds per linear foot running axially along the support for a given deck-bearing length (the support member width) on the support. This is based on the web crippling capacity multiplied by the number of webs per foot. Figure 1.7.3 shows how to read the reaction tables in this catalog.

Panels must be attached to supports with fastener patterns not less than the minimum attachment patterns shown for the deck panel.

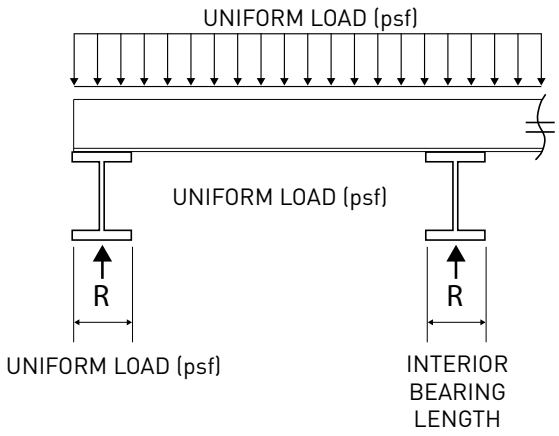
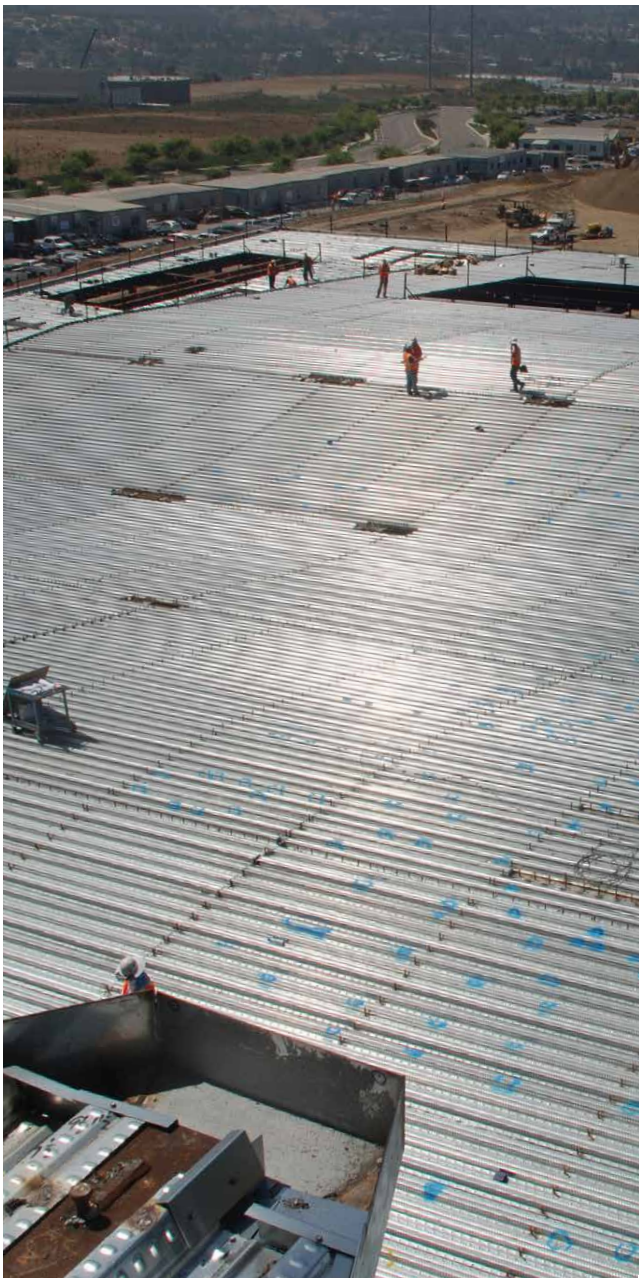
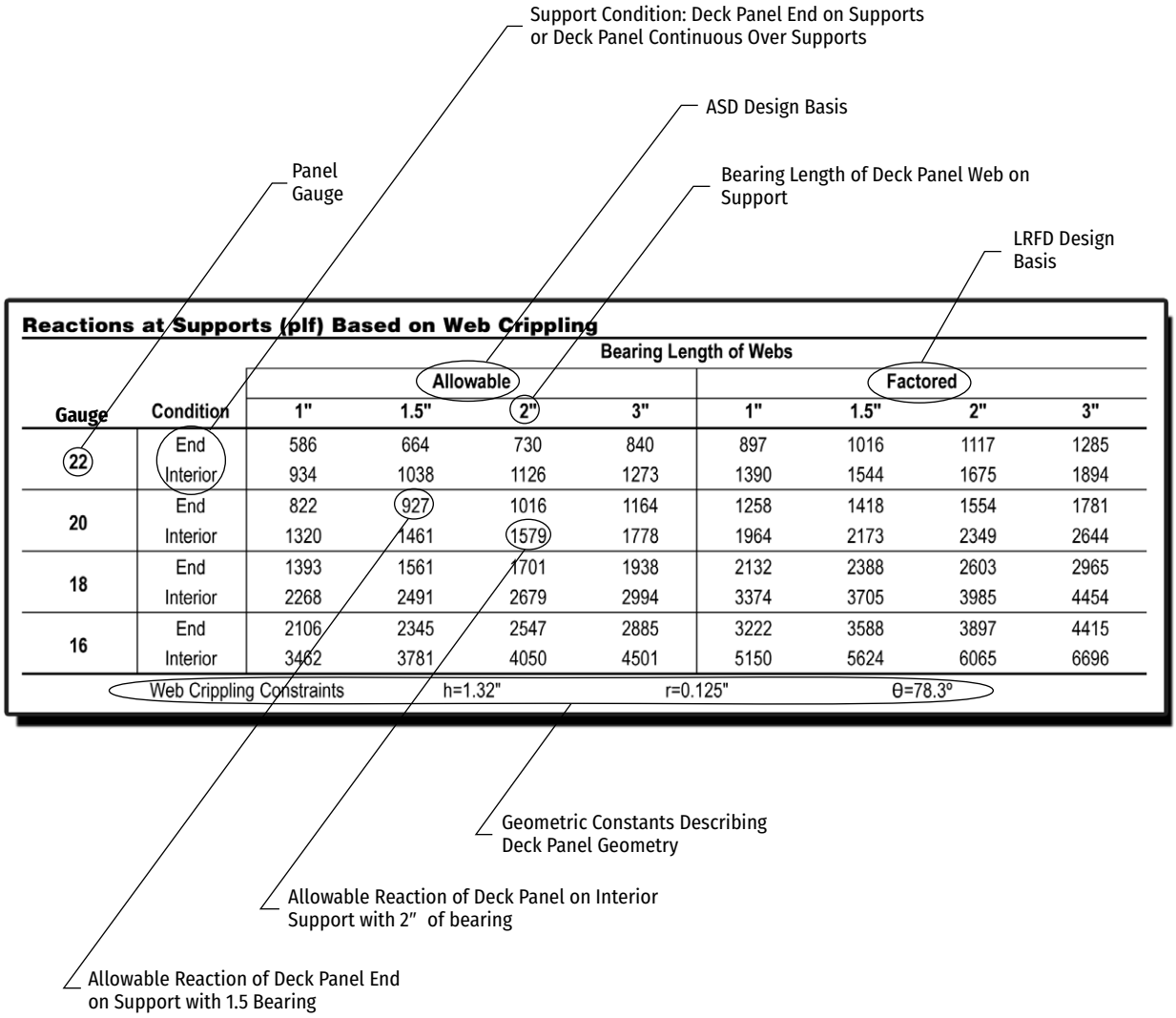


Figure 1.7.2: **SUPPORT REACTIONS**

Point or Line Load Reactions
For load conditions that exceed the uniform reaction tables, including point load and line loads on the steel deck panel, the maximum reactions should be based on the web crippling capacity for the steel deck. Reactions exceeding the published values, or for conditions other than a uniformly distributed loads, shall be determined by the designer in accordance with Section G5 of the North American Specifications for the Design of Cold-Formed Steel Structural Members for multi-web steel panels and the geometric constants presented in the web crippling tables for the deck panel.



How to Read Web Crippling Table



Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs — Allowable 1"	1.5"	2"	3"	Factored 1"	1.5"	2"	3"
22	End	586	664	730	840	897	1016	1117	1285
	Interior	934	1038	1126	1273	1390	1544	1675	1894
20	End	822	927	1016	1164	1258	1418	1554	1781
	Interior	1320	1461	1579	1778	1964	2173	2349	2644
18	End	1393	1561	1701	1938	2132	2388	2603	2965
	Interior	2268	2491	2679	2994	3374	3705	3985	4454
16	End	2106	2345	2547	2885	3222	3588	3897	4415
	Interior	3462	3781	4050	4501	5150	5624	6065	6696
Web Crippling Constraints		h=1.32"		r=0.125"		θ=78.3°			

Figure 1.7.3: **SAMPLE OF WEB CRIPPLING TABLE**

1.8 In Plane Diaphragm Shear

Diaphragm Shear and Flexibility

Diaphragm shear and flexibility for steel deck diaphragms have been developed through a combination of fastener strength testing, full-scale diaphragm shear testing, and analytic equations. The steel deck panels produced by ASC Steel Deck can be used in assemblies not covered in this catalog using the design methods in the Steel Deck Institute, Diaphragm Design Manual.

Allowable and Factored Diaphragm Shear Tables

The allowable and factored diaphragm shears presented in the tables are based on load combinations, including earthquake (seismic) loading in accordance with AISI S310. For wind load combinations, the nominal diaphragm shear may be backed out of the allowable or factored shear, the appropriate factor from Table B1.1-1 for wind loading can be applied.

TABLE B1.1-1
Safety Factors and Resistance Factors for Diaphragms

Load Type or Combinations – Including	Connection Type	Limit State					
		Connection Related			Stability-Related		
		Ω_d (ASD)	Φ_d (LRFD)	Φ_d (LSD)	Ω_d (ASD)	Φ_d (LRFD)	Φ_d (LSD)
Wind	Welds	2.15	0.75	0.60	2.00	0.80	0.75
	Screws	2.00	0.80	0.75			
Earthquake and All Others	Welds	3.00	0.55	0.40			
	Screws	2.30	0.70	0.55			

Note: Panel buckling is out-of-plane and not local buckling at fasteners

Figure 1.8.1: **TABLE B1.1-1 from AISI S310**

Using Diaphragm Shear and Flexibility Tables

The allowable or factored diaphragm shear (pounds per lineal foot) and flexibility factor (micro inches per pound) are presented in the tables. The shear and flexibility calculations are based on the following variables:

ASD LRFD

$$S_a = \frac{S_n}{\Omega} \qquad S_f = \phi S_n$$

S_a Allowable diaphragm shear, plf
S_f Factored diaphragm strength, plf
S_n Nominal diaphragm strength, plf
Φ Resistance factor for LRFD.
Ω Safety Factor for ASD.

1. Deck panel
2. Deck gauge
3. Deck vertical load span (support spacing)
4. Connection type to supports
5. Connection to support pattern
6. Side lap connection type
7. Side lap connection spacing

In addition to the above conditions, the flexibility is also affected by the following:

8. End lap condition, end lapped or butted
9. Ratio of span to sheet length

Deck panels and gauge are generally selected using the vertical load requirements for a given span. The connection type to supports is based on the supporting member thickness. The attachment pattern, the side lap connection type and spacing are generally selected to meet the diaphragm shear demand on the diaphragm. The deck panel gauge may need to be increased to meet high diaphragm shear demands. It is generally more cost effective to exhaust deck attachment options to achieve a required diaphragm shear capacity before increasing the gauge of the deck (see Figure 1.8.3)

Diaphragm Shear and Flexibility of Cellular Panels

Specific diaphragm shear and flexibility tables are available for some of our cellular deck panels. For those cellular products that do not have specific tables, refer to the diaphragm shear and flexibility of the non-cellular version of the profile, using the gauge of the flat bottom section of the cellular product. When designing based on the non cellular version of the panel, the actual shear of the cellular panel is higher and the flexibility is lower. The shear is higher because the connection to supports includes both the bottom flat sheet and the top profile sheet, which increases the strength of the connection. The cellular deck is stiffer than the non-cellular version of the profile because the flat bottom panel is much stiffer than the profile section alone.

End Lap or Butted Deck

The end lapping of deck panels verses butted deck panels does not affect diaphragm shear strength. The end lap does affect the diaphragm shear stiffness by eliminating most of the end warping for the deck flutes due to diaphragm shear. End lapping stiffens the diaphragm, reducing the in-plane deflection of the roof structure. End lapping also reduces the number of connections to supports at the sheet ends, leading to reduced erection costs. Butted deck panels ends are necessary in certain conditions, such as at valleys or ridges on steep slope roofs.

Fastener Selection to Supporting Members

The fastening of deck to the supporting members has an impact of the diaphragm shear. The higher shear of the fastener, the higher the shear for a given sheet of deck. Welds produce high shears. Power actuated fasteners (nails/pins) can produce a wide range of shears depending on the support member thickness and the selected fastener. Self drilling screws produce shears on the lower end of the mechanical fastener range. The fastening system must

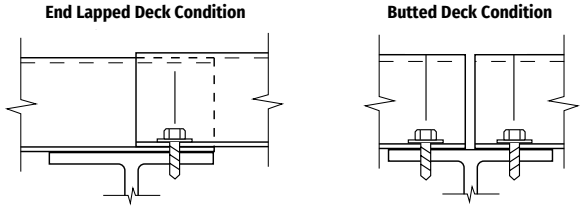


Figure 1.8.2: **END LAP AND BUTTED DECK**

be compatible with the support member thickness and deliver the required performance for the diaphragm. Refer to the fastener section of the catalog for more information.

Side Seam/Side Lap Fasteners

All standard steel deck panels have a standing seam interlock which

How to Read Diaphragm Shear Table

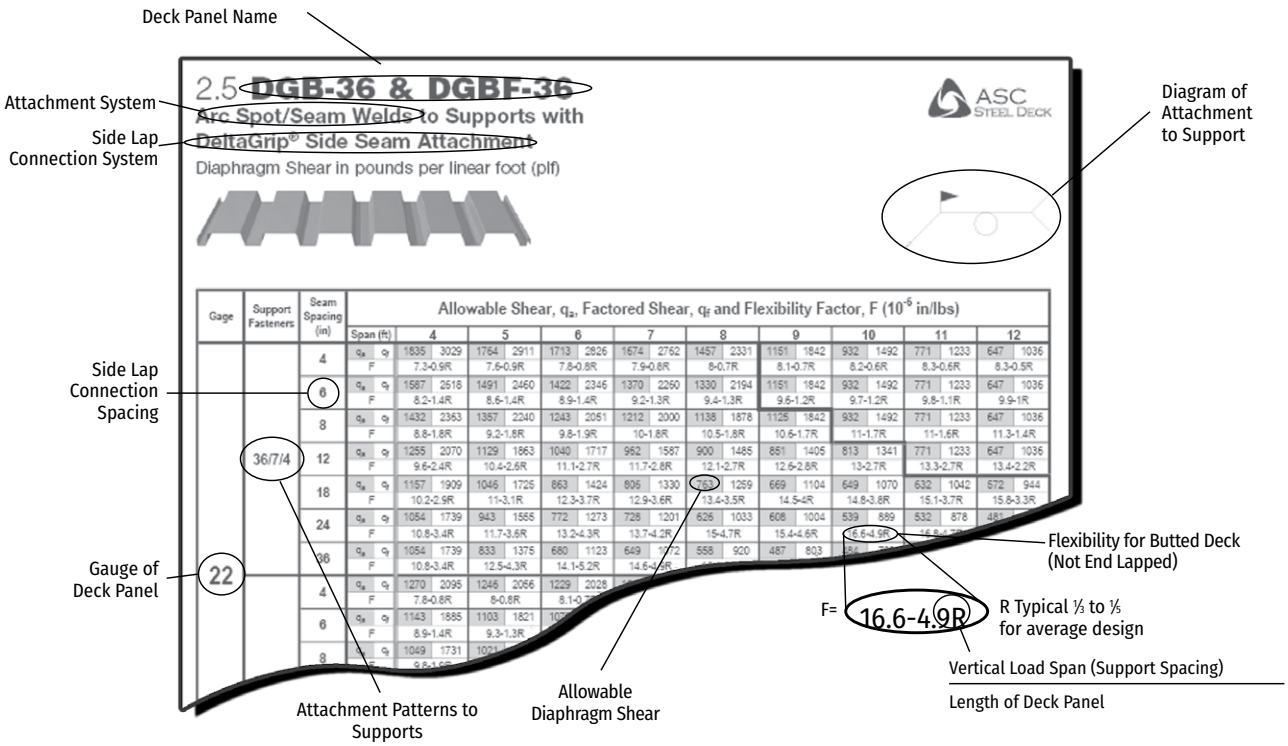


Figure 1.8.3: **SAMPLE OF DIAGRAM SHEAR AND FLEXIBILITY TABLE**

is suitable for button punch, top seam welds, and our revolutionary DG4™ side lap fastening system (for panels designated DG). The button punch side lap fastener is the most cost effective, yet provides the lowest diaphragm shear capacity. Welded top seam fastening is the least cost effective but offers significantly higher diaphragm shear capacities than button punching. The most efficient and cost effective side lap fastener type is the DG4™ system. This system provides high diaphragm shear capacities similar to the top seam weld with installation costs equivalent to button punching.

Another side lap fastening option is the use of screws, with nestable or screwable side lap steel deck panels. Side lap screws provide moderate diaphragm shear capacities compared to low shear button punchs and the high shear DG4™ systems. The installation cost of screws is greater than button punching and much less expensive than top seam welding.

Side Seam/Side Lap Fastener Spacing

The first side lap connection from the supporting member shall not be more than one-half the specified spacing of the side lap connections, (see Figure 1.8.4). No side lap connection should be installed directly over the center line of the support member.

Diaphragm Boundary Fasteners to Supports

Diaphragm boundary connection to supports, perpendicular to the deck, should be the specified attachment pattern for the steel deck panels.

Diaphragm boundary fastener spacing, parallel with panel ribs, shall not exceed the spacing, which is determined by dividing the required diaphragm shear demand by the fastener shear strength. Connector

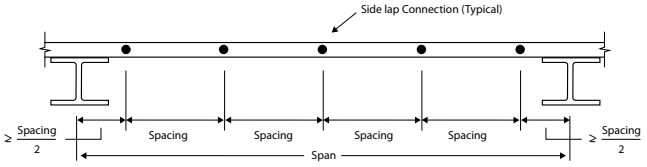


Figure 1.8.4: **SIDE LAP FASTENER SPACING**

shear strengths are presented in Figures 1.10.10 and 1.10.11.

$$Spacing(in) = \frac{Q_{fa}}{s_a}\left(\frac{12in}{ft}\right) \qquad Spacing(in) = \frac{Q_{ff}}{s_f}\left(\frac{12in}{ft}\right)$$

Q_{fa} Allowable fastener strength using safety factor from AISI S310.
Q_{ff} Factored fastener strength using resistance factor from S310
S_a Allowable shear diaphragm demand
S_f Factored shear diaphragm demand

1.9 In Plane Diaphragm Flexibility

Skew Cut Diaphragm Boundary

At skew cut conditions, the minimum number of fasteners is determined based on the location of the fasteners in the ribs per the perpendicular attachment schedule. The average spacing of the fastener per sheet shall not be greater than the spacing of the parallel boundary fasteners. Fasteners may need to be doubled up in some flutes to achieve this. (See figure 1.9.1)

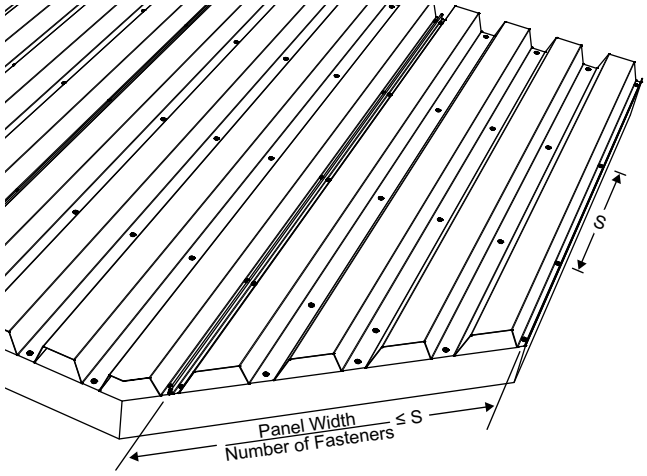


Figure 1.9.1: **SKEW DIAPHRAGM**

Diaphragm Shear Zoning

Steel deck diaphragms may be zoned based on shear demand on the diaphragm to create the most economical roof structure. This may not be practical for every building, but many rectangular large roof structures lend themselves to zoning. The deck panel along the collectors will have the highest shear demand dropping off toward the middle of the diaphragm. The deck gauge and attachment pattern can be reduced as the shear demand in the diaphragm diminishes (see Figure 1.9.2).

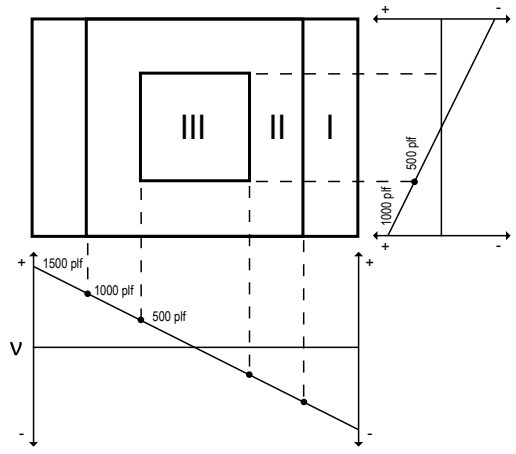


Figure 1.9.2: **DIAPHRAGM SHEAR ZONING**

Diaphragm Deflection

Diaphragms in plane deflections should be based on the shear deflection of the diaphragm. For diaphragms that do not have a large aspect ratio of length to depth, flexural deflection should not be considered. Flexural deflection equations based on slender beams do not apply to deflection of deep beams, which are generally considered beams with a length to depth ratio of 5:1 or less. Diaphragms with length to depth ratios greater than 5:1 probably do not meet the requirements for flexural deflections because the diaphragm, acting as the web of the beam, is orders of magnitude more flexible than the diaphragm cords, acting as the flanges of the beam.

Typical lengths of steel deck panels that are safe and efficient for erection are in the 20 to 35 foot range. For erection safety, 3 span sheets are the desirable minimum sheet length. A minimum 3 span condition should not be specified because single and double spans are required for layout in most buildings. For design purposes a ratio of span to length, R, from ⅓ to ⅕ is appropriate for general design.

Diaphragm Deflection Concept

The deflection of a diaphragm that is zoned for shear can be approximated by summing the deflection of each deck zone, based on the diaphragm stiffness of each zone (see Figure 1.9.4). For zone 3 in the figure, the diaphragm stiffness of the least stiff zone is applied to the entire building depth.

$$F = \#.\#+\#.\#R \qquad R = \frac{L_v}{L}$$

F = Diaphragm stiffness in micro inches per lbs

L_v = Vertical load span, which is the support spacing

L = Deck panel length, which is a multiple of the vertical load span

Example:

DGB-36, 20 gauge, 36/7/4 attachment pattern, DG4™ spacing of 12 inches, Vertical load span of 5 feet F=7.1+19.6R

Assume R = 1/5, a 25 foot long panel with 5 foot vertical load span

$$F = 7.1+19.6R = 7.1+19.6(1/5) = 11$$

Figure 1.9.3: **DIAPHRAGM STIFFNESS FACTOR**

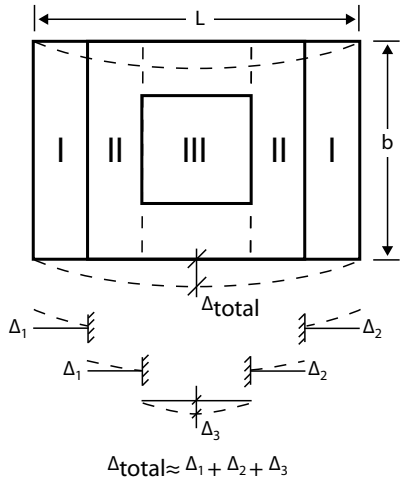


Figure 1.9.4: **DIAPHRAGM DEFLECTION CONCEPT**

In Plane Diaphragm Flexibility 1.9

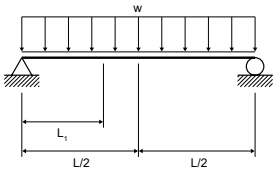
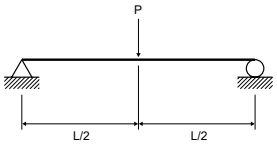
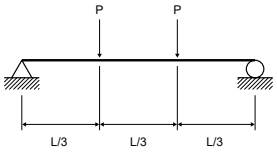
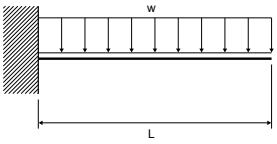
Diaphragm Deflecton Equations

Determination of diaphragm shear (web) deflections shall be based on the shear Stiffness, G' and equations of engineering mechanics. The diaphragm deflection is determined by one of the following equations.

Relationship between Flexibility Factor and Stiffness Factor
When F is in micro-inches per pound and G' is in kips per inch.

$$F = \frac{1000}{G'}$$

Figure 1.9.5: **DIAPHRAGM SHEAR DEFLECTION EQUATIONS**

Type of Loading	Loading Condition	Shear Deflection	Load Diaphragm
Simple Beam at Center	Uniform Load, w	$\Delta_w = \frac{wL^2}{8bG'}$	
Simple Beam at L_1	Uniform Load, w	$\Delta_w = \frac{q_{ave}L_1}{G'}$	
Simple Beam at Center	Point Load, P	$\Delta_w = \frac{PL}{4bG'}$	
Simple Beam at ⅓ Points	Point Load, P	$\Delta_w = \frac{PL}{3bG'}$	
Cantilever Beam at End	Uniform Load, P	$\Delta_w = \frac{PL}{bG'}$	
Cantilever Beam at End	Uniform Load, W	$\Delta_w = \frac{WL^2}{2bG'}$	

b = Depth of diaphragm
F = Flexibility factor (typically micro in/lbs)
G' = Stiffness factor (typically kips/in)
L = Diaphragm length
L_1 = Distance to point where deflection is calculated
P = Concentrated load
q_{ave} = Average diaphragm shear (typically lbs/ft)
w = Uniform load
Δw = Web deflection

1.10 Support Fastening

Support Fastening

A variety of fastening systems may be used to connect steel deck to the supporting steel members. The type of fastening system used depends on the required diaphragm shear capacity, uplift capacity, and the thickness of the supporting steel members. These fastening systems include arc spot welds, arc seam welds, self-drilling screws, and power-actuated fasteners (PAF).

The strength of each fastener type is mathematically derived from specified standards and testing. The shear strength for arc spot and arc seam welds is derived from the equations in Section J2 of AISI S100. The strength for self-drilling screws and PAF is determined in accordance with the Steel Deck Institute Diaphragm Design Manual. The strengths for these fasteners are listed in the Weld and Shear capacities (see Figure 1.10.10 and Figure 1.10.11). The pull-out and pull-over capacity for fasteners are in accordance with AISI S100. The pull-out for PAF's should be obtained from the manufacturer's data for the selected fastener.

Fastener Selection

To ensure quality fastening to supports, the fastener, weld, screw, or PAF must be compatible with the thickness of the steel support member. Arc spot and arc seam welds do not have a mandatory minimum support member thickness. Experience has shown that a support thickness as thin as 10 gauge is reasonable. Welders with light gauge welding experience can weld steel deck to thinner gauge supports. Self-drilling screws are suitable for use with supporting members from 0.0385 inches gauge to ½", depending on thread pitch and drill point configuration. The fastener manufacturer should be consulted to determine which screw is appropriate. PAFs are selected based on a range of support thickness for a given fastener. Follow the PAF manufacturer's support thickness recommendations. The fastener selection chart (see Figure 1.10.1) provides a quick and easy guide to help select the appropriate fastening system for the support member thickness.

Minimum Fastener Edge Distance

The minimum edge distance for fasteners used with ASC Steel Deck profiles has been verified through full-scale diaphragm shear testing. The minimum edged distance for self-drilling screws and PAFs is ½". The minimum edge distance for arc spot and arc seam welds is ¾". Edge distance is measured from the center of the fastener or the center of the radius of an arc spot or seam weld.

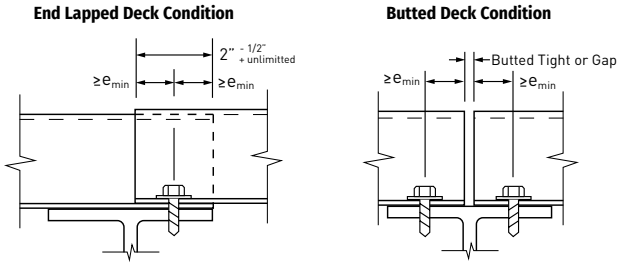
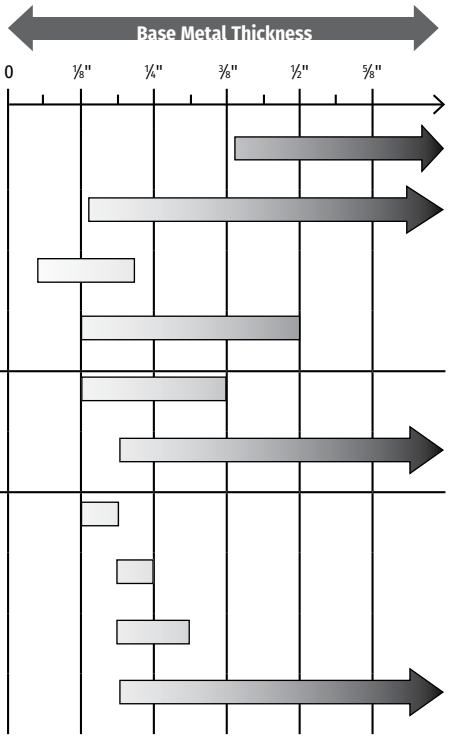


Figure 1.10.2: **END LAP AND BUTTED DECK**

Figure 1.10.1: **FASTENER SELECTION CHART**



Fastener	Base Metal Thickness Minimum	Base Metal Thickness Maximum
¾" ϕ Shear Stud	0.400" min when not over web	unlimited
Arc Spot Weld*	0.135"	unlimited
12-14 Self Drilling Screw**	0.0385"	0.210"
12-24 Self Drilling Screw**	0.125"*	0.500"
Hilti X-HSN-24 High Shear Nail	⅛"	⅜"
Hilti ENP19 L15 High Shear Nail	¼"	unlimited
Pneutek SDK61075 Fastener	0.113"	0.155"
Pneutex SDK63075 Fastener	0.155"	0.250"
Pneutek K64062 and K64075 Fastener	0.187"	0.312"
Pneutek K66062 and K66075 Fastener	0.312"	unlimited

*Below 10 gauge is not recommended due to the difficulty of producing a good quality weld. **Correct drill point must be selected for the base material thickness.

Power-Actuated Fasteners, PAF

Power-actuated fasteners, PAFs, are an excellent fastening system. Commonly referred to as high shear nails or pins, they can be used to achieve mid to high range diaphragm shear capacities depending on the fastener selected and the support thickness. The benefits of using PAFs is that they can be installed without skilled qualified welders, are efficient to install, do not pose a jobsite fire risk, and do not leave any burn marks associated with welding. This makes PAFs an attractive option for architecturally exposed steel deck.

A drawback of PAF systems is that it may be difficult for the design engineer to select the fastener size when designing with open-web steel joists because the thickness of the top chord maybe unknown. Good practice would be to design the diaphragm with the minimum expected substrate steel thickness and indicate a range of acceptable fasteners based on the thickness of the supporting steel member. The inspection process on the jobsite should be tasked with ensuring that the correct fastener is used based on the substrate thickness.

Pneutek

Pneutek's PAF system uses a pneumatic actuated tool. This system does not use a powder charge to drive the fastener. Contact Pneutek for fastener installation instructions and for additional technical support relating to their fastening systems.

www.pneutek.com 800-431-8665

Pneutek Fasteners

SDK61075, SDK63075, K64062, K66075, K66056, K66062, K66075

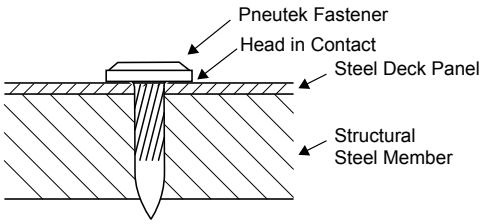


Figure 1.10.3: **PNEUTEK K64062**

Hilti, Inc.

Hilti, Inc.'s PAF system includes powder fired tools to install their high shear nails (HSN) and ENP fasteners. The operator of the powder-fired tools must have OSHA compliant safety training. Contact Hilti, Inc. for fastener installation instructions and for additional technical support relating to their fastening systems.

www.us.hilti.com 800-879-8000

Hilti Inc. Fasteners

X-ENP-19 L15, X-HSN-24

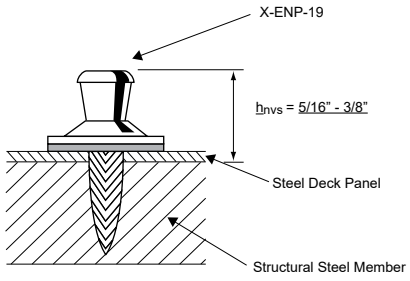


Figure 1.10.4: **HILTI X-ENP-19**

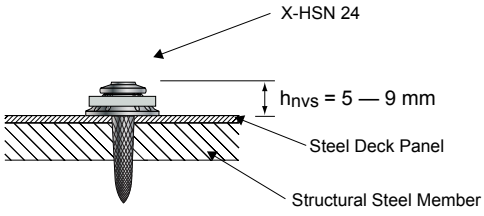


Figure 1.10.5: **HILTI X-HSN-24**

1.10 **Support Fastening**

Arc Spot and Arc Seam Welds

Traditionally, arc spot welds and arc seam welds are used to attach the steel deck to supports. The arc welds have high shear capacity leading to diaphragms with high shear capacities and low diaphragm flexibilities. Significant drawbacks of welded connections include cost of the required skilled labor and lengthy time to install. Additionally, welding cannot be performed in the rain or if standing water is present on the deck. Welding often results in burn marks visible from the underside of the deck and supporting members. Jobsite safety is of great concern as welding also creates a fire risk. Many specifications require the weld to receive touch-up paint after slagging the welds.

Arc spot and seam welds for ASC Steel Decks are specified based on the effective diameter or length and width. This is approximately the diameter or width and length of a weld at the interface between the deck and supporting member. The effective weld size is less than the visible weld size and is verified through the development of weld qualifications and procedures. See AISI S100 for more information regarding weld design. Weld inspection, procedures, and qualifications should be in accordance with AWS D1.3

Arc spot welds in deck less than 0.028 inches thick require weld washers in accordance with AWS D1.3. Weld washers are not recommended for thicker decks.

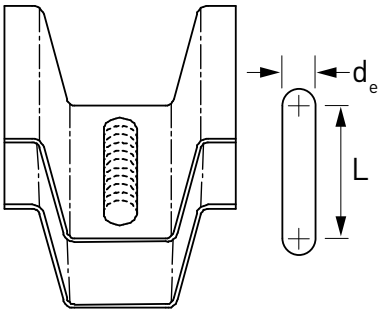


Figure 1.10.7: **ARC SEAM WELD**
(weld to support)

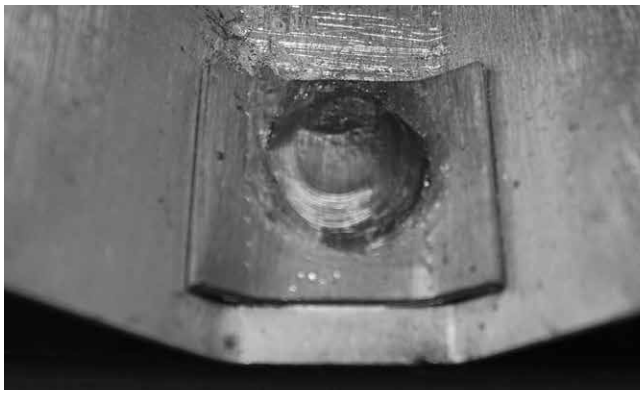
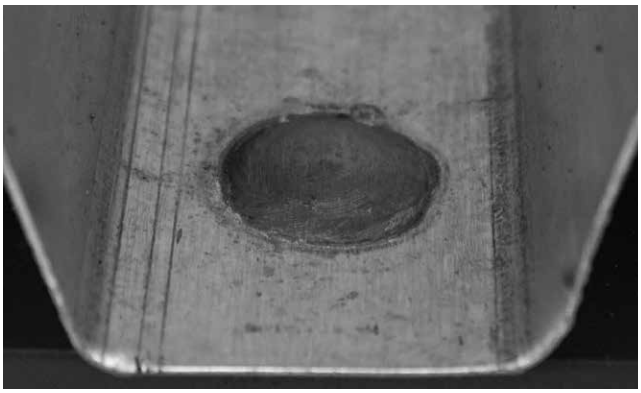


Figure 1.10.6: **WELD WASHER**



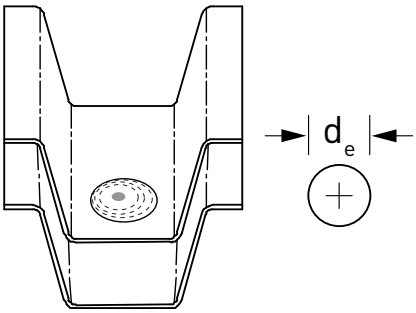


Figure 1.10.8: **ARC SPOT WELD**
(weld to support)

Self-Drilling Screws

Self-drilling screws are an excellent option for attaching deck to thin-gauge metal supporting members. Although diaphragms that are attached with screws tend to have a lower shear capacity than other support fastening systems, screws install quickly with lower skilled labor and do not leave any burn marks on the deck or supporting members. This makes them an attractive option for architecturally exposed steel deck. Self drilling screws may not be practical on heavier structural steel support members because it can be time consuming to drill through the steel deck panel into the supporting member. When installed, the driven screw penetrates both the steel deck panel and the supporting member; as a result, the screw points are visible from the underside of the roof structure.

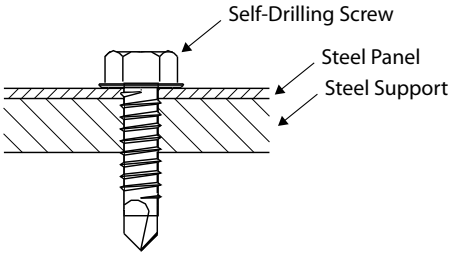
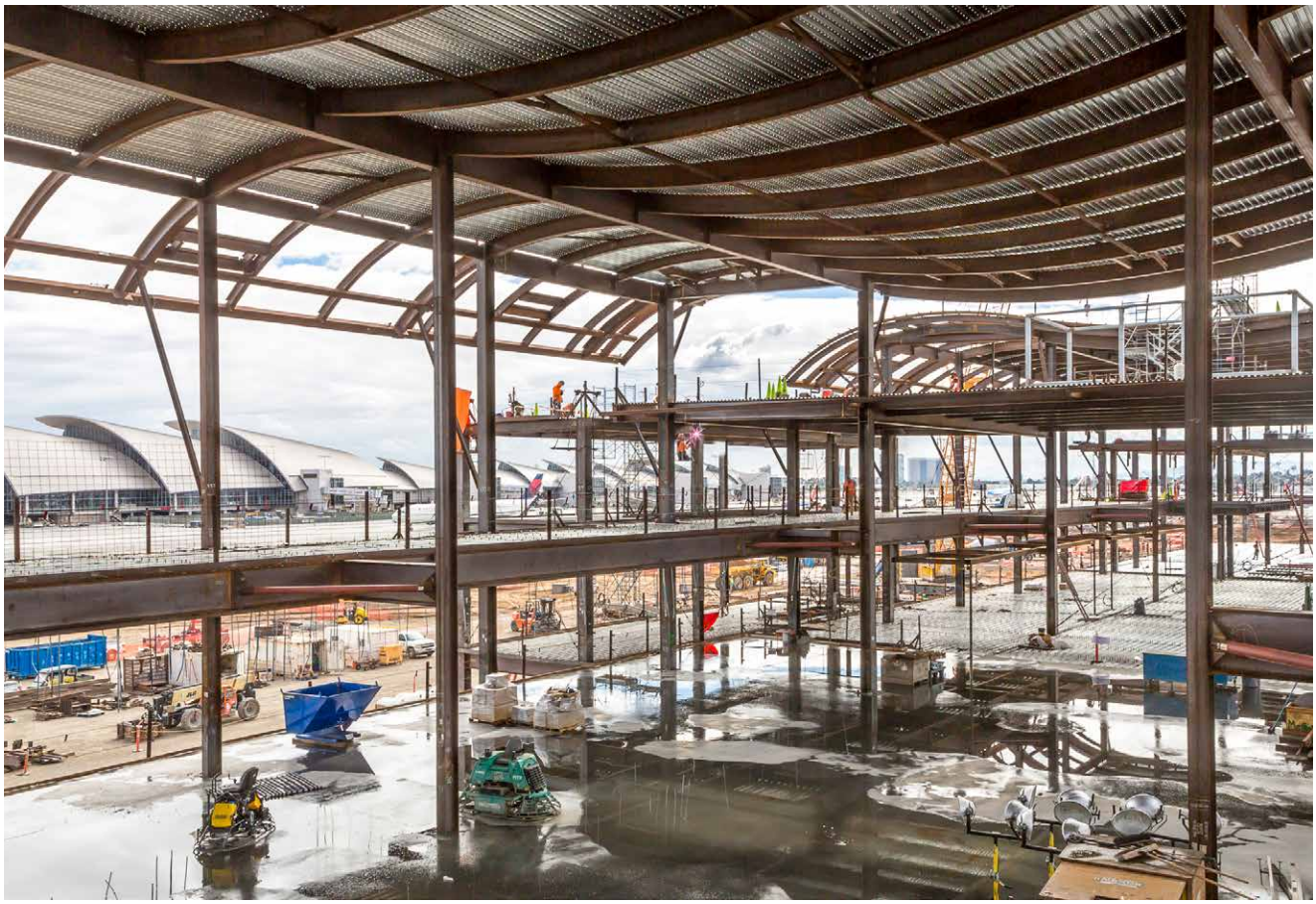


Figure 1.10.9: **#12-24R1-1/4 SCREW**



1.10 **Support Fastening**

Figure 1.10.10

Nominal Weld Strength, per AISI S100-16 w/S2-20				
Deck Profile	Gage	Arc Spot (puddle) Weld (1/2 in effective diameter)		Arc Seam Weld (3/8 in x 1 in effective width and length)
		Shear (lbs)	Tensile (lbs)	Shear (lbs)
B-36, N-32, 3WxH-36	22	2416	2310	3873
	21	2886	2541	4293
	20	3364	2755	4688
	19	4486	3200	5531
	18	5701	3618	6344
	16	7263	4056	8065
2WH-36	22	2323	2243	3752
	21	2886	2541	4293
	20	3364	2755	4688
	19	4486	3200	5531
	18	5613	3589	6287
	16	7263	4056	8065
BF-36, NF-32, 3WxHF-36	20/20	8608	4056	9851
	20/18	8836	4056	11521
	20/16	8836	4056	13392
	18/20	8836	4056	11660
	18/18	8836	4056	13376
	18/16	8836	4056	15298
	16/20	8836	4056	13534
	16/18	8836	4056	15298
	16/16	8836	4056	17271
2WHF-36	20/20	8608	4056	9851
	20/18	8836	4056	11521
	20/16	8836	4056	13392
	18/20	8836	4056	11598
	18/18	8836	4056	13313
	18/16	8836	4056	15233
	16/20	8836	4056	13534
	16/18	8836	4056	15298
	16/16	8836	4056	17271

Applicable Safety & Resistance Factors defined in AISI S100, Sections J2.2 and J2.3

Safety and Resistance Factors for Welds
for Conditons other than Diaphragm Shear

	Shear		Tension	
	Ω	ϕ	Ω	ϕ
Arc Spot Weld	2.80	0.55	2.50	0.60
Arc Spot Weld	2.55	0.60		
Arc Seam Weld	2.55	0.60		

Caculated in Accordance with the 2010 Supplement to AISI S100-2007

Figure 1.10.11

Mechanical Fasteners										
		Nominal Shear Strength (lbs)								
		Screws	Hilti		Pneutek				Simpson Strong Tie	
Supporting Framing Steel Thickness (in)	Min:	0.036	0.250	0.125	0.312	0.232	0.155	0.113	0.125	0.125
	Max:	unlimitted	unlimitted	0.375	unlimitted	0.312	0.232	0.155	0.1875	0.247
Deck Profile	Deck Gage	# 12 Self Drill	X-ENP-19 L15	X-HSN 24	K66062 K66075	K64062 K64075	SDK63075	SDK61075	XM Screw	XL Screw
B-36, N-32, 3WxH-36	22	1402	1624	1508	1841	1735	1728	1546	1241	1707
	21	1547	1787	1659	2055	1993	1860	1695	1439	1884
	20	1683	1938	1800	2258	2216	1977	1833	1632	2050
	19	1969	2253	2092	2698	2642	2210	2116	2066	2398
	18	2241	2549	2367	3132	3009	2417	2378	2508	2729
	16	2803	3149	2924	4076	3686	2812	2896	3510	3415
2WH-36	22	1359	1577	1464	1780	1655	1689	1502	1185	1656
	21	1547	1787	1659	2055	1993	1860	1695	1439	1884
	20	1683	1938	1800	2258	2216	1977	1833	1632	2050
	19	1969	2253	2092	2698	2642	2210	2116	2066	2398
	18	2222	2529	2348	3101	2985	2403	2360	2477	2707
	16	2803	3149	2924	4076	3686	2812	2896	3510	3415
BF-36, NF-36, 3WxHF-36	20/20	3370	3737	3470	5092	4294	3176	3386	1632	2050
	20/18	3886	4258	3953	6071	4800	3485	3804	1632	2050
	20/16	4448	4810	4466	7201	5314	3801	4229	1632	2050
	18/20	3928	4300	3992	6154	4840	3509	3837	2508	2729
	18/18	4444	4806	4462	7191	5310	3799	4225	2508	2729
	18/16	5006	5342	4960	8383	5793	4099	4619	2508	2729
	16/20	4491	4851	4504	7288	5351	3824	4259	3510	3415
	16/18	5006	5342	4960	8383	5793	4099	4619	3510	3415
	16/16	5569	5862	5444	9639	6251	4385	4982	3510	3415
2WHF-36	20/20	3370	3737	3470	5092	4294	3176	3386	1632	2050
	20/18	3886	4258	3953	6071	4800	3485	3804	1632	2050
	20/16	4448	4810	4466	7201	5314	3801	4229	1632	2050
	18/20	3909	4281	3975	6117	4822	3498	3822	2477	2707
	18/18	4425	4787	4445	7152	5293	3789	4212	2477	2707
	18/16	4988	5324	4944	8343	5777	4089	4607	2477	2707
	16/20	4491	4851	4504	7288	5351	3824	4259	3510	3415
	16/18	5006	5342	4960	8383	5793	4099	4619	3510	3415
	16/16	5569	5862	5444	9639	6251	4385	4982	3510	3415
C0.9-32, C1.4-32/ CP-32	26	1170	1099	994	870	1022	1016	900	654	1113
	24	1524	1394	1287	1230	1444	1436	1272	972	1450
	22	1884	1703	1582	1944	1863	1793	1619	1335	1793
	20	2244	2016	1872	2365	2326	2036	1903	1736	2136
	18	2880	2559	2376	3147	3021	2424	2387	2524	2741

1.11 Side Seam Fastening

Side Seam Attachment

Side seam attachment is an integral part of developing the shear resistance and flexibility of a diaphragm system. The side seam attachment also creates a positive connection, limiting differential movement between the sheets of deck under out-of-plane loads. Limiting differential movement between the sheets helps to prevent damage to the roof system installed on the top side of the steel deck. The common side seam attachment systems are the button punch, top seam weld, and DeltaGrip® DG4™ system for standing seam interlock side seams. Self-drilling screws are used for nestable side seams. The three common types of side seams are the standing seam interlock, standing seam screwable, and the nestable side seam (see Figure 1.11.1).

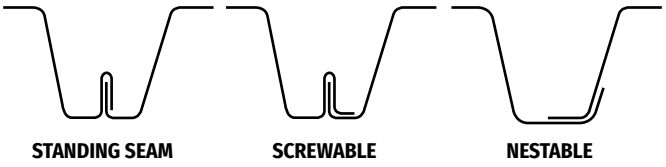


Figure 1.11.1: **SIDE SEAM CONFIGURATIONS**

Button Punch

The button punch attachment is used to connect standing seam side seams. This low cost attachment uses a pneumatic or hand-operated button punch tool that clinches the seam together. The button punch option is used for low shear diaphragms that generally have high flexibilities. For architecturally exposed deck, the button punch system is a good option because no unsightly burn marks occur, which are typically associated with welded connections. Although skilled labor is not required, the quality of the button punch that has been installed with a hand-operated tool is dependent on the operator. A "good" button punch should not become disengauged when a person jumps on the adjacent sheet of deck.

Figure 1.11.2: **BUTTON PUNCH SIDE LAPS**

Self-Drilling Screws

Self-drilling screws are used to attach screwable and nestable side lap steel decks. The screws have a mid range shear strength compared to button punches and top seam welds making them suitable for mid range diaphragm shears. The screws can be easily installed with low-skill labor using screw guns that are readily available. The screws do not leave burn marks associated with welding, but the screw points do protrude through the underside of the steel deck. As a result, screws may not be acceptable for some architecturally exposed steel decks.

Figure 1.11.3: **SIDE SEAM SELF-DRILLING SCREW**

Top Seam Weld

The top seam weld connects the standing seam deck side seams by welding the three layers of steel deck together. This is done after the hem is crimped using a hand or pneumatically operated crimping tool. Top seam welds can be used to produce high diaphragm shears and low flexibilities. Top seam welding is a slow process requiring skilled welders, leading to increased installation costs. The welding creates burn marks on the underside of the deck and occasional burn-through holes. Top seam welds are not recommended for architecturally exposed steel deck. Weld inspection, procedures, and qualifications should be in accordance with AWS D1.3. Due to the high cost associated with installation and inspection, top seam weld connections have been largely replaced by the DeltaGrip® DG4™ side lap connection.

Figure 1.11.4: **TOP SEAM WELD**

DeltaGrip® DG4™

The original DeltaGrip® system was developed in 2003 to reduce the installed costs of high shear diaphragms by eliminating the costly top seam weld. This revolutionary clinching system punched three triangular tabs though the standing seam interlock side seam, creating the equivalent strength of a time consuming top seam weld with the rapid action of a pneumatically powered tool.

Today, the revolutionary DeltaGrip® DG4™ tool builds upon the success of the DeltaGrip® system by offering an improved jaw with four teeth, creating high-quality DG4™ connections can be installed with low-skill labor compared to the skilled welders required to make top seam welds.

Figure 1.11.5: **DG4™ PUNCH**

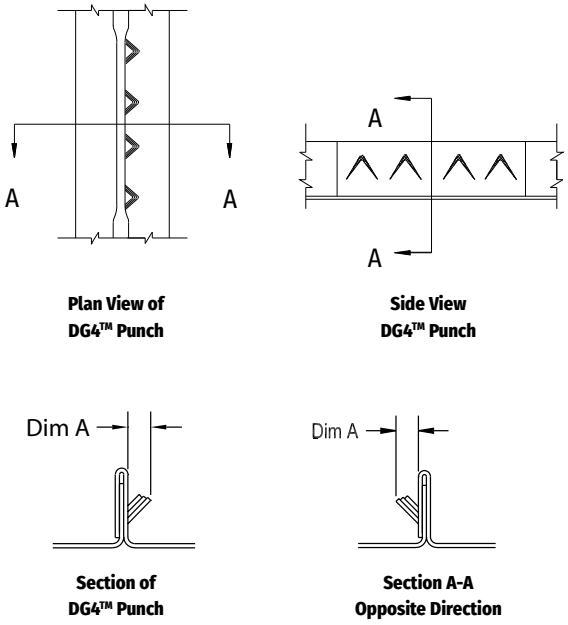


Figure 1.11.7: **DG4™ PUNCH VIEWS**

DG4™ Inspection

The DG4™ tool can be visually inspected from the top side of the steel deck by observing that all three layers of the side lap are engauged and that the punch-out distance meets the minimum offset required (Figure 1.11.6 and 1.11.7). To assist with this task, ASC Steel Deck has developed a Go/No-Go gauge to provide a rapid jobsite check of the punch-out distances (Figure 1.11.8).

Schedule Minimum Offset	
Gauge	Dim A (in)
22	0.19
21	0.19
20	0.19
19	0.16
18	0.16
16	0.16
For SI 1 inch = 25.4mm	

Figure 1.11.6: **DG4™ PUNCH OUT DISTANCES**

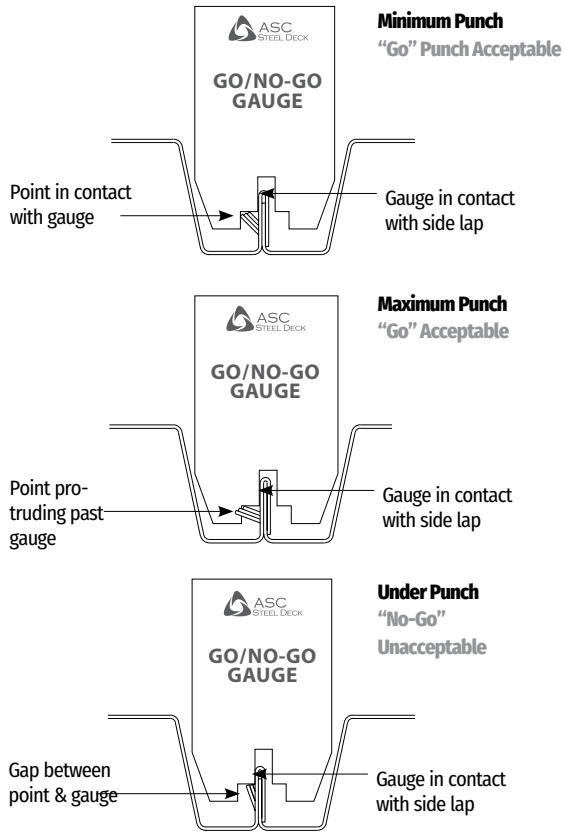


Figure 1.11.8: **DG4™ GO/NO-GO GAUGE**

1.12 **Accessories**

ASC Steel Deck offers a variety of accessories to complement our steel deck offer. These include flashings, weld washers, and profile cut top (small void) and bottom (large void) neoprene foam and galvanized steel closures.

When accessories are called for in the specifications, the location must be clearly shown on the structural and architectural drawings. Specifications that call for the use of profile cut closures where walls meet the metal deck may lead to unnecessary construction costs if they are only needed at exterior walls or specific interior locations.

B36 Deck Neoprene and Metal Closures

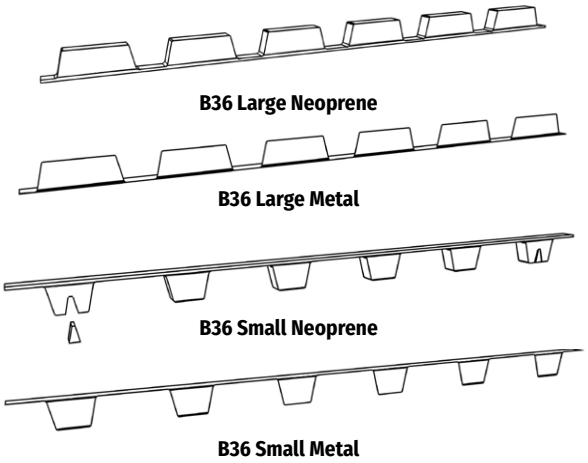


Figure 1.12.1

N32 Deck Neoprene and Metal Closures

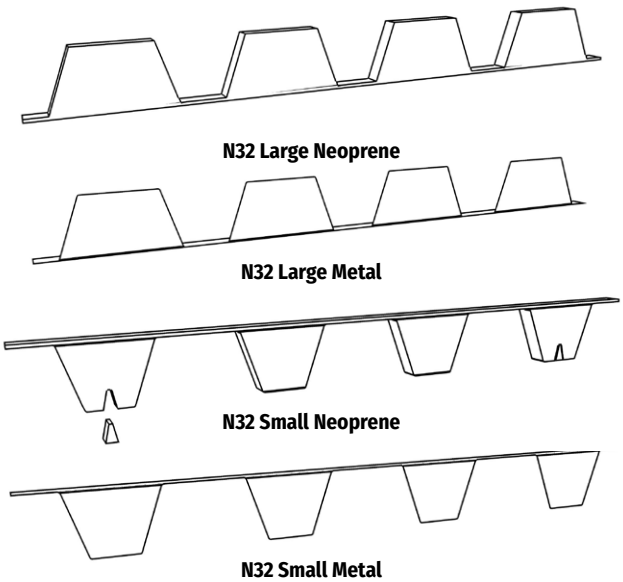


Figure 1.12.2

Profile Cut Neoprene Closures

Neoprene closures may be used on the top and bottom of the steel deck to reduce vapor, moisture, and air from infiltrating into the building or roof assembly. These are die-cut from black closed cell neoprene foam. The foam is manufactured in accordance with ASTM D-1056 and passes the FM VSS No. 302, UL 94HBF, and UL 94 HF1 flammability tests.

Profile Cut Metal Closures

Metal closures may be used to control animal nesting within the building structure. Metal closures may be used in combination with neoprene closures. Metal closures with calking can also be used to reduce noise infiltration as part of an acoustically engineered system. The metal closures are stamped out of 22 gauge galvanized sheet steel.

2W Neoprene and Metal Closures

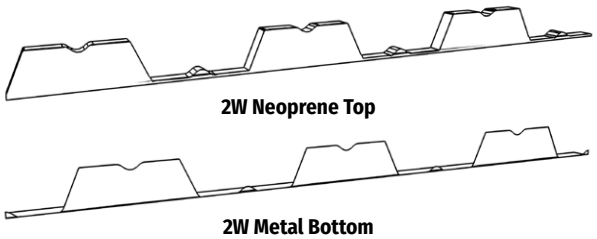


Figure 1.12.3

3W Neoprene And Metal Closures

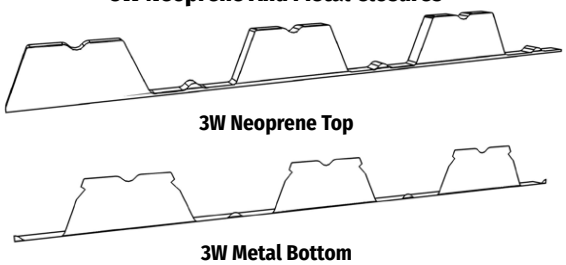


Figure 1.12.4

Weld Washers
14 gauge x 3/8" dia. hole for welded attachment of CP-32. For use with 26 and 24 gauge CP32 only.

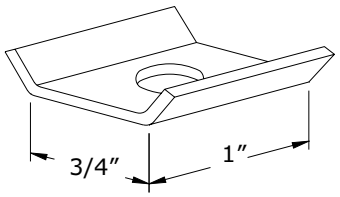


Figure 1.12.5

Anchor Washers
16 gauge x 7/16" dia. hole for welded attachment of CP-32 where higher diaphragm shear values must be achieved.

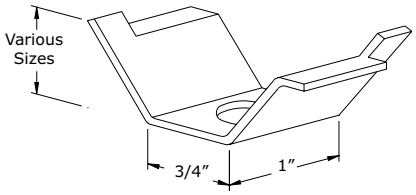


Figure 1.12.6

Flashings
Galvanized steel flashings are custom manufactured by ASC Steel Deck to meet the project requirements. The flashings are formed from ASTM A653 SS Grade 33 galvanized steel sheets. Flashings are available in most common structural shapes in 7 gauges. (Figure 1.12.7 and 1.13.8). The standard length is 10 feet, shorter lengths available upon request. The minimum width of any stiffener or flat cross section width is ¾". Channels, Hats, and Cee's web must be ¾" wider than the flange width, see figures below.

FLASHING THICKNESS BY Gauge	
Gauge	**Base Steel Thickness**
22	0.0290
20	0.0350
18	0.0470
16	0.0590
14	0.0700
12	0.1050
10	0.1350

Figure 1.12.7

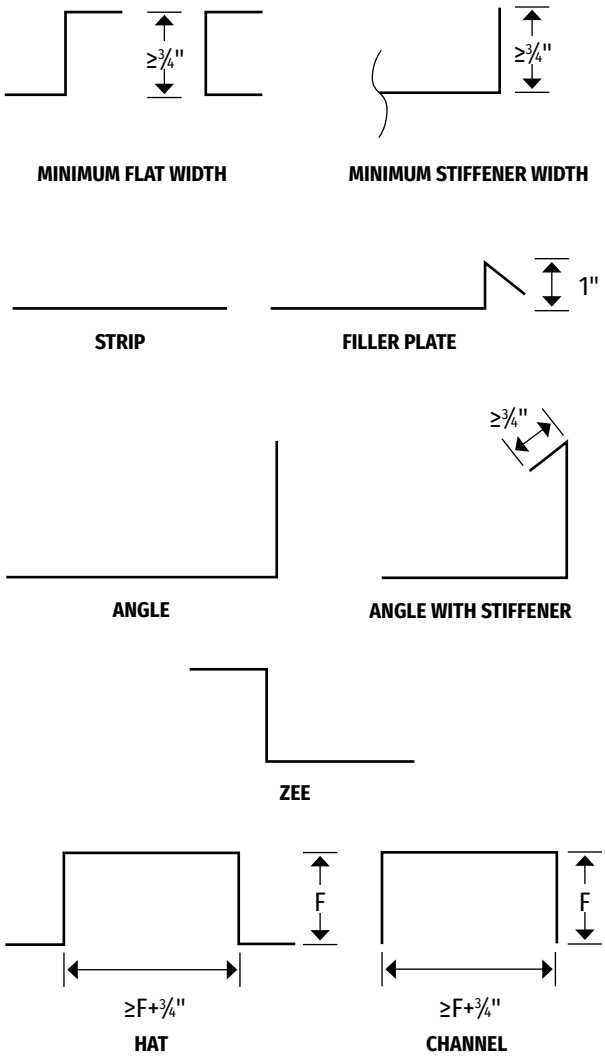


Figure 1.12.8

1.13 Effects Caused by Thermal Movements on Roof Diaphragms

Thermal movements within a steel deck diaphragm along the building length may be mitigated by the elongation of holes, or slotting, around the support fasteners. These slots are limited to a maximum deformation of the material, which is dependent on fastener type and deck thickness before the support fastener or deck capacity is negatively impacted. The formation of the slot may be caused by thermal movement within the deck panel. After the initial hole slotting has occurred, no further thermal stress on the anchors or bearing condition will develop if thermal movement is less than what the decking material has previously experienced, and fastener strength and seismic/wind diaphragm strength should not be negatively impacted. Thermal movement perpendicular to the deck panel length may be absorbed by the deck profile corrugations. This shape allows for an "accordion" action to occur, and all typical thermal movement is absorbed by slight flexing of the deck panel ribs.

The maximum allowable temperature change is also limited by panel length. For example, a No. 22 gauge deck panel with a maximum 40 foot span fastened to supports with Hilti X-HSN 24 fasteners, can withstand a maximum temperature change of ±38 °F. This temperature variation changes based on panel length. A more common 20 foot span panel under the same conditions may experience a ±77 °F temperature change without the need for thermal expansion joints. The allowable temperature change for panel lengths may be interpolated or extrapolated based on panel length as required if the total panel elongation or contraction is no greater than shown in column C, "Total Panel Elongation", in Tables 1.13.A and 1.13.B with a maximum allowable temperature change of 100 °F for a 20 foot span panel. The allowable panel length based on temperature change is based on the coefficient of thermal expansion of 0.0000065 in/°F as specified in AISC 360. This thermal expansion coefficient is applicable for typical temperature ranges up to 100 °F. AISC 360 specifies an additional formula for temperatures above 100 °F as $\varepsilon = (6.1 + 0.0019t)10^{-6}$ where t is the initial temperature in °F. This formula may be used to provide a more accurate analysis of thermal changes in warmer conditions.

Table 1.13.A: Allowable Temperature Changes Based On Deck Gauge And Full Panel Length For Power-Driven Fasteners To Supports.

Hilti X-HSN 24 PAF and X-ENP 19 L15 PAF						
Deck Gauge	Maximum Panel Elongation on Each End	Total Panel Elongation	Allowable Temperature Change ±°F			
			10'-0" Panel	20'-0" Panel	30'-0" Panel	40'-0" Panel
22	0.060	0.120	100	77	51	38
20	0.080	0.160	100	100	67	50
18	0.082	0.164	100	100	67	50

Table 1.13.A: Allowable Temperature Changes Based On Deck Gauge And Full Panel Length For Screws To Supports.

#10 and #12 Screws						
Deck Gauge	Maximum Panel Elongation on Each End	Total Panel Elongation	Allowable Temperature Change ±°F			
			10'-0" Panel	20'-0" Panel	30'-0" Panel	40'-0" Panel
22	0.216	0.432	100	100	67	50
20	0.062	0.124	100	79	53	40
18	0.180	0.360	100	100	67	50

This elongation may be used to reduce or eliminate thermal expansion joints within the building envelope provided that the following conditions are observed:

1. All perimeter framing shall be continuous, including the lateral force resisting system and chord members. Localized joints such as crack control joints and panel joints may be used if these joints would not impact the building envelope movement.

Fasteners to supports shall be Hilti X-HSN 24 or X-ENP-19 L15 powder-driven frame fasteners as specified by ICC-ES ESR-2776. All support materials as specified in ESR-2776 are acceptable including steel joists, and steel support framing greater than or equal to ¼ inch thickness. The #10 or #12 screws to support are also acceptable for attachments to support and side-lap fasteners, provided that the fastener head is in direct contact with the cold-formed steel decking with or without a washer.

Effects Caused by Thermal Movements on Roof Deck Diaphragms 1.13

2. All minimum edge distances and spacing requirements for support fasteners.
3. Side-lap fasteners shall be maintained per manufacturer requirements or as specified in AISI S100-16 (2020) with supplement 2.
4. Deck thicknesses may range from No. 22 gauge to No.18 gauge.
5. Acceptable side-lap fasteners include #10 screws, #12 screws, and DeltaGrip® DG4™*.

Panel placement has a critical role on the impact of loading for side-lap attachments. When all deck panel ends and centroids are in alignment, thermal expansion will not impart any additional force on the side-laps due to equal movement between the panels. As such, any side-lap fasteners listed above may be used when deck panel centroids and ends align similar to what is shown in **Figure 1.13.1**.

*When panel ends and centroids do not align, side-lap connections may have an additional force applied based on differential thermal movement. Without side-lap slotting occurring, this additional force may accumulate and lead to side-lap fastener failure or additional side-lap stresses which would negatively impact design wind or seismic diaphragm shear strength. For #10 and #12 screws, the centroids of two connected panels may be offset by the maximum length and temperature change shown in **Table 1.13.A** and **Table 1.13.B**. In other words, for two equal length connected panels, the ends may be offset by one half of the total panel length if the temperature change is within the bounds of what is shown on Table #A and Table #B when interpolating or extrapolating for the specific panel length.

An example for maximum panel stagger for #10 and #12 screws is shown in **Figure 1.13.2**. If the centroids of two connected panels are offset by more than the panel length noted in **Table 1.13.A** and **Table 1.13.B** this would create an unacceptable panel configuration. An example of this condition is shown in **Figure 1.13.3**.

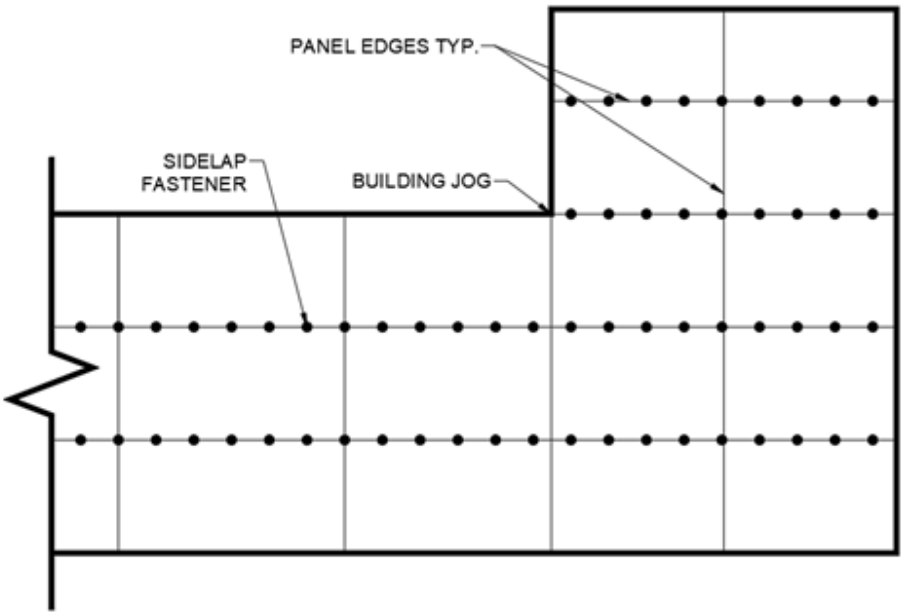


Figure 1.13.1: Building Panel Layout Acceptable For Deltagrip DG4™, #10 Screws, and #12 Screws Where All Panel Ends and Panel Centroids Align.

1.13 Effects Caused by Thermal Movements on Roof Diaphragms

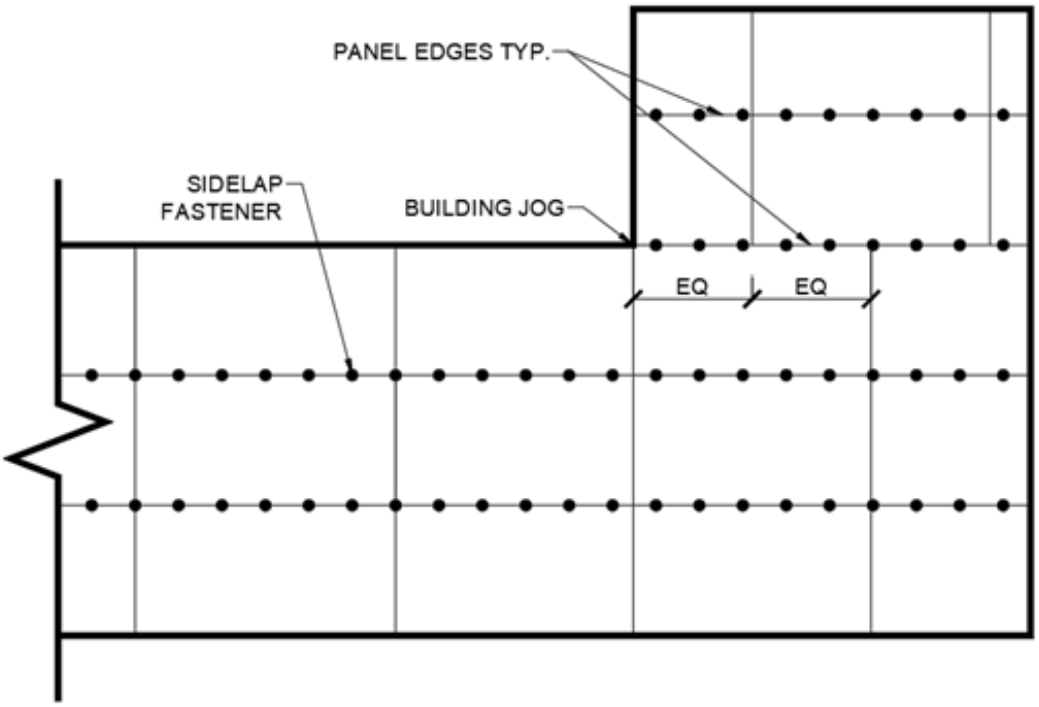


Figure 1.13.2: Building Panel Layout Only Acceptable For #10 And #12 Screw Side-Lap Fasteners Where Panel Ends And Centroids Are Offset By No More Than What Is Shown In Table 1.13.B.

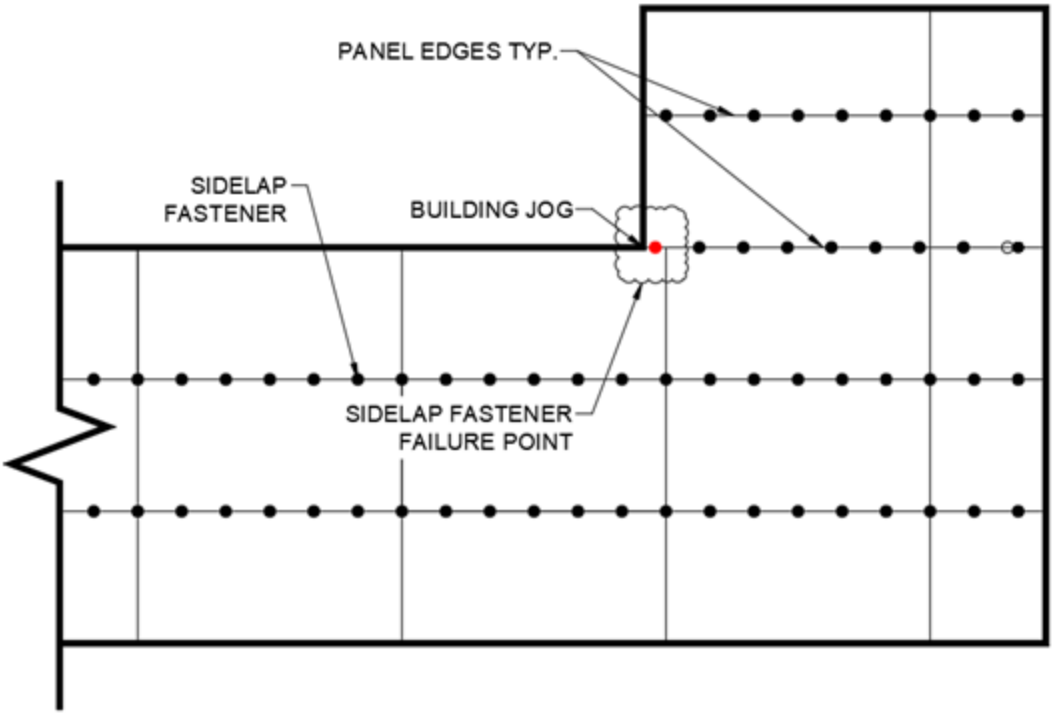


Figure 1.13.3: Unacceptable Building Panel Layout Where Centroids Of Deck Panels Are Greater Than What Is Shown In Table 1.13.A And Table 1.13.B.

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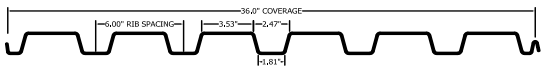
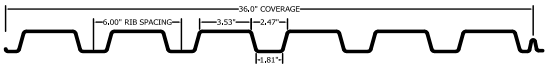
2.1 DGB-36, B-36, BS-36 & BN-36

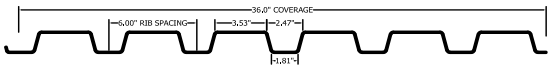
DGB-36 & B-36



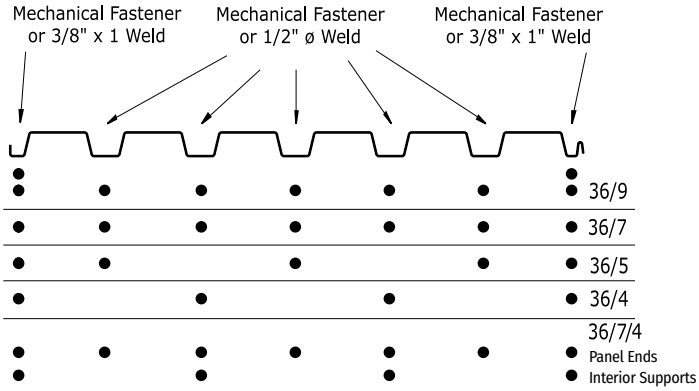
BS-36 Screwable Sidelap



BN-36 Nestable



Attachment Patterns



Note: Weld sizes are effective not visible. Refer to AISI S100 or AWS D1.3 for additional welding requirements.

*Die Set (Swedge) ends are no longer standard but can be performed upon request

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.76	0.0299	50	65	0.503	0.190	0.93	0.205	0.614
21	1.93	0.0330	50	65	0.555	0.210	0.93	0.226	0.615
20	2.10	0.0359	50	65	0.604	0.227	0.93	0.245	0.615
19	2.44	0.0420	50	65	0.706	0.267	0.93	0.286	0.615
18	2.77	0.0478	50	65	0.805	0.303	0.94	0.325	0.615
16	3.45	0.0598	50	65	1.006	0.380	0.94	0.404	0.615

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.389	0.175	0.75	0.185	0.96	0.167	0.190	0.174	0.190
21	0.437	0.203	0.76	0.210	0.95	0.190	0.210	0.197	0.210
20	0.487	0.224	0.79	0.234	0.94	0.210	0.227	0.216	0.227
19	0.602	0.269	0.83	0.284	0.94	0.257	0.267	0.260	0.267
18	0.724	0.313	0.87	0.324	0.94	0.297	0.303	0.299	0.303
16	0.979	0.400	0.92	0.404	0.94	0.380	0.380	0.380	0.380

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	764	865	951	1094	1168	1324	1455	1674
	Interior	1185	1318	1429	1616	1763	1960	2125	2403
21	End	916	1036	1136	1305	1402	1585	1739	1997
	Interior	1431	1587	1718	1938	2129	2361	2556	2883
20	End	1071	1208	1323	1517	1638	1848	2024	2321
	Interior	1681	1860	2010	2263	2501	2766	2990	3366
19	End	1431	1607	1756	2006	2189	2459	2687	3069
	Interior	2267	2498	2693	3019	3372	3716	4005	4491
18	End	1816	2034	2217	2525	2779	3112	3393	3864
	Interior	2900	3185	3425	3828	4313	4737	5095	5694
16	End	2746	3058	3321	3762	4201	4678	5080	5755
	Interior	4439	4848	5193	5771	6603	7211	7724	8585
Constants		h = 1.23"		r = 0.156"		θ = 76.6°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
22	Single Span	f_b/Ω	219	140	97	71	55	43	35	29	24
		Φf_b	329	210	146	107	82	65	53	43	37
		L/360	119	61	35	22	15	10	8	6	4
		L/240	179	91	53	33	22	16	11	9	7
		L/180	238	122	71	44	30	21	15	11	9
		L/120	357	183	106	67	45	31	23	17	13
	Double Span	f_b/Ω	230	147	102	75	58	46	37	30	26
		Φf_b	346	222	154	113	87	68	55	46	38
		L/360	313	160	93	58	39	27	20	15	12
		L/240	469	240	139	87	59	41	30	23	17
		L/180	625	320	185	117	78	55	40	30	23
		L/120	938	480	278	175	117	82	60	45	35
	Triple Span	f_b/Ω	288	184	128	94	72	57	46	38	32
		Φf_b	433	277	192	141	108	85	69	57	48
		L/360	245	125	73	46	31	21	16	12	9
		L/240	367	188	109	69	46	32	24	18	14
		L/180	490	251	145	91	61	43	31	24	18
		L/120	735	376	218	137	92	64	47	35	27
20	Single Span	f_b/Ω	280	179	124	91	70	55	45	37	31
		Φf_b	421	269	187	137	105	83	67	56	47
		L/360	147	75	44	27	18	13	9	7	5
		L/240	221	113	65	41	28	19	14	11	8
		L/180	294	151	87	55	37	26	19	14	11
		L/120	442	226	131	82	55	39	28	21	16
	Double Span	f_b/Ω	292	187	130	95	73	58	47	39	32
		Φf_b	439	281	195	143	110	87	70	58	49
		L/360	373	191	110	70	47	33	24	18	14
		L/240	559	286	166	104	70	49	36	27	21
		L/180	746	382	221	139	93	65	48	36	28
		L/120	1119	573	331	209	140	98	72	54	41
	Triple Span	f_b/Ω	365	234	162	119	91	72	58	48	41
		Φf_b	548	351	244	179	137	108	88	73	61
		L/360	292	150	87	55	37	26	19	14	11
		L/240	438	224	130	82	55	38	28	21	16
		L/180	584	299	173	109	73	51	37	28	22
		L/120	876	449	260	164	110	77	56	42	32
18	Single Span	f_b/Ω	390	250	174	128	98	77	62	52	43
		Φf_b	587	376	261	192	147	116	94	78	65
		L/360	204	105	60	38	26	18	13	10	8
		L/240	306	157	91	57	38	27	20	15	11
		L/180	408	209	121	76	51	36	26	20	15
		L/120	612	314	181	114	77	54	39	29	23
	Double Span	f_b/Ω	404	258	179	132	101	80	65	53	45
		Φf_b	607	388	270	198	152	120	97	80	67
		L/360	499	255	148	93	62	44	32	24	18
		L/240	748	383	222	140	94	66	48	36	28
		L/180	998	511	296	186	125	88	64	48	37
		L/120	1497	766	444	279	187	131	96	72	55
	Triple Span	f_b/Ω	505	323	224	165	126	100	81	67	56
		Φf_b	759	486	337	248	190	150	121	100	84
		L/360	391	200	116	73	49	34	25	19	14
		L/240	586	300	174	109	73	51	38	28	22
		L/180	782	400	232	146	98	69	50	38	29
		L/120	1173	600	347	219	147	103	75	56	43
16	Single Span	f_b/Ω	499	320	222	163	125	99	80	66	55
		Φf_b	751	480	334	245	188	148	120	99	83
		L/360	259	133	77	48	32	23	17	12	10
		L/240	389	199	115	73	49	34	25	19	14
		L/180	519	266	154	97	65	46	33	25	19
		L/120	778	399	231	145	97	68	50	37	29
	Double Span	f_b/Ω	504	322	224	164	126	99	81	67	56
		Φf_b	757	484	336	247	189	150	121	100	84
		L/360	625	320	185	117	78	55	40	30	23
		L/240	938	480	278	175	117	82	60	45	35
		L/180	1250	640	370	233	156	110	80	60	46
		L/120	1875	960	556	350	234	165	120	90	69
	Triple Span	f_b/Ω	629	403	280	206	157	124	101	83	70
		Φf_b	946	606	420	309	237	187	151	125	105
		L/360	490	251	145	91	61	43	31	24	18
		L/240	735	376	218	137	92	64	47	35	27
		L/180	979	501	290	183	122	86	63	47	36
		L/120	1469	752	435	274	184	129	94	71	54

2.2 DGB-36

Allowable Wind Uplift Loads

B-36					Support Fastener Pattern: 36 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	5	6	7	8	9	10	11	12
22	#12-14 ITW Buildex TEKS	16ga	165	Single Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		93	75	62	53	47	41	37	31	26
	Hilti X-ENP-19 L15	≥ 1/4"	660		220	148	103	75	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	75	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		231	148	103	75	58	46	37	31	26
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	58	46	37	31	26
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		93	75	62	53	47	41	37	31	26
	Hilti X-ENP-19 L15	≥ 1/4"	660		220	148	103	75	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	75	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		231	148	103	75	58	46	37	31	26
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	58	46	37	31	26
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		93	75	62	53	47	41	37	34	31
	Hilti X-ENP-19 L15	≥ 1/4"	660		220	176	128	94	72	57	46	38	32
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	72	57	46	38	32
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		262	185	128	94	72	57	46	38	32
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	46	38	32

B-36					Support Fastener Pattern: 36 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	5	6	7	8	9	10	11	12
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		112	90	75	64	56	50	45	39	33
	Hilti X-ENP-19 L15	≥ 1/4"	705		235	187	130	96	73	58	47	39	33
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	58	47	39	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		293	187	130	96	73	58	47	39	33
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	47	39	33
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		112	90	75	64	56	50	45	39	33
	Hilti X-ENP-19 L15	≥ 1/4"	705		235	187	130	96	73	58	47	39	33
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	58	47	39	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		293	187	130	96	73	58	47	39	33
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	47	39	33
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		112	90	75	64	56	50	45	41	37
	Hilti X-ENP-19 L15	≥ 1/4"	705		235	188	157	119	91	72	59	48	41
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	48	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		318	234	163	119	91	72	59	48	41
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	41

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

B-36					Support Fastener Pattern: 36 / 4								
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.) 4	5	6	7	8	9	10	11	12
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		149	119	100	85	75	66	60	53	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		268	215	179	132	101	80	65	53	45
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	45
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		405	259	180	132	101	80	65	53	45
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		149	119	100	85	75	66	60	53	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		268	215	179	132	101	80	65	53	45
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	45
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		405	259	180	132	101	80	65	53	45
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		149	119	100	85	75	66	60	54	50
	Hilti X-ENP-19 L15	≥ 1/4"	805		268	215	179	153	126	100	81	67	56
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	48
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		431	324	225	165	126	100	81	67	56
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43

B-36					Support Fastener Pattern: 36 / 4								
Allowable Wind Uplift Load (psf)													
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.) 4	5	6	7	8	9	10	11	12
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		172	137	114	98	86	76	69	62	56
	Hilti X-ENP-19 L15	≥ 1/4"	880		293	235	196	165	126	100	81	67	56
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	48
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		505	323	224	165	126	100	81	67	56
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		172	137	114	98	86	76	69	62	56
	Hilti X-ENP-19 L15	≥ 1/4"	880		293	235	196	165	126	100	81	67	56
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	48
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		505	323	224	165	126	100	81	67	56
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	55	44	37	31	28	24	22	20	18
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		172	137	114	98	86	76	69	62	57
	Hilti X-ENP-19 L15	≥ 1/4"	880		293	235	196	168	147	125	101	83	70
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	48
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		541	404	280	206	158	125	101	83	70
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

2.2 DGB-36

Allowable Wind Uplift Loads

B-36					Support Fastener Pattern: 36 / 7								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	5	6	7	8	9	10	11	12
22	#12-14 ITW Buildex TEKS	16ga	165	Single Span	96	77	64	55	48	43	37	31	26
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		163	131	103	75	58	46	37	31	26
	Hilti X-ENP-19 L15	≥ 1/4"	660		231	148	103	75	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		231	148	103	75	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		231	148	103	75	58	46	37	31	26
	Simpson XL Screws	≥ 1/8"	385		225	148	103	75	58	46	37	31	26
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	96	77	64	55	48	43	37	31	26
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		163	131	103	75	58	46	37	31	26
	Hilti X-ENP-19 L15	≥ 1/4"	660		231	148	103	75	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		231	148	103	75	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		231	148	103	75	58	46	37	31	26
	Simpson XL Screws	≥ 1/8"	385		225	148	103	75	58	46	37	31	26
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		163	131	109	93	72	57	46	38	32
	Hilti X-ENP-19 L15	≥ 1/4"	660		289	185	128	94	72	57	46	38	32
	Hilti X-HSN 24	1/8" - 3/8"	435		254	185	128	94	72	57	46	38	32
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		289	185	128	94	72	57	46	38	32
	Simpson XL Screws	≥ 1/8"	385		225	180	128	94	72	57	46	38	32

B-36					Support Fastener Pattern: 36 / 7								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	5	6	7	8	9	10	11	12
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		196	157	130	96	73	58	47	39	33
	Hilti X-ENP-19 L15	≥ 1/4"	705		293	187	130	96	73	58	47	39	33
	Hilti X-HSN 24	1/8" - 3/8"	435		254	187	130	96	73	58	47	39	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		293	187	130	96	73	58	47	39	33
	Simpson XL Screws	≥ 1/8"	385		225	180	130	96	73	58	47	39	33
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		196	157	130	96	73	58	47	39	33
	Hilti X-ENP-19 L15	≥ 1/4"	705		293	187	130	96	73	58	47	39	33
	Hilti X-HSN 24	1/8" - 3/8"	435		254	187	130	96	73	58	47	39	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		293	187	130	96	73	58	47	39	33
	Simpson XL Screws	≥ 1/8"	385		225	180	130	96	73	58	47	39	33
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		196	157	131	112	91	72	59	48	41
	Hilti X-ENP-19 L15	≥ 1/4"	705		366	234	163	119	91	72	59	48	41
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	163	119	91	72	59	48	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		366	234	163	119	91	72	59	48	41
	Simpson XL Screws	≥ 1/8"	385		225	180	150	119	91	72	59	48	41

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

B-36					Support Fastener Pattern: 36 / 7								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	5	6	7	8	9	10	11	12
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		261	209	174	132	101	80	65	53	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		405	259	180	132	101	80	65	53	45
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	132	101	80	65	53	45
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		405	259	180	132	101	80	65	53	45
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	101	80	65	53	45
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		261	209	174	132	101	80	65	53	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		405	259	180	132	101	80	65	53	45
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	132	101	80	65	53	45
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		405	259	180	132	101	80	65	53	45
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	101	80	65	53	45
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		261	209	174	149	126	100	81	67	56
	Hilti X-ENP-19 L15	≥ 1/4"	805		470	324	225	165	126	100	81	67	56
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	145	126	100	81	67	56
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		506	324	225	165	126	100	81	67	56
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	112	100	81	67	56

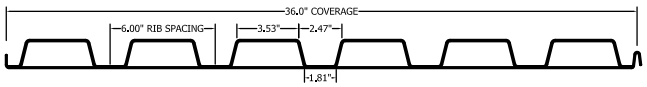
B-36					Support Fastener Pattern: 36 / 7								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	5	6	7	8	9	10	11	12
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		300	240	200	165	126	100	81	67	56
	Hilti X-ENP-19 L15	≥ 1/4"	880		505	323	224	165	126	100	81	67	56
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	145	126	100	81	67	56
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		505	323	224	165	126	100	81	67	56
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	112	100	81	67	56
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		300	240	200	165	126	100	81	67	56
	Hilti X-ENP-19 L15	≥ 1/4"	880		505	323	224	165	126	100	81	67	56
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	145	126	100	81	67	56
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		505	323	224	165	126	100	81	67	56
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	112	100	81	67	56
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		300	240	200	172	150	125	101	83	70
	Hilti X-ENP-19 L15	≥ 1/4"	880		513	404	280	206	158	125	101	83	70
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	145	127	113	101	83	70
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		631	404	280	206	158	125	101	83	70
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	112	100	90	82	70

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

2.3 DGBF-36 & BF-36

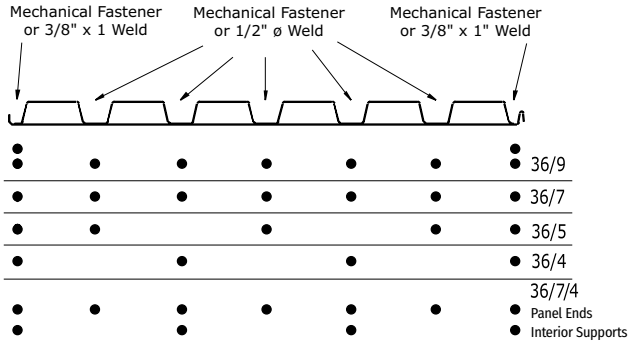
BF-36



Note: Weld sizes are effective not visible. Refer to AISI S100-2016 or AWS D1.3 for additional welding requirements.

*Die Set (Swedge) ends are no longer standard but can be performed upon request

Attachment Patterns



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.71	0.035/0.035	50	65	1.032	0.433	0.55	0.435	0.647
20/18	4.19	0.035/0.047	50	65	1.171	0.470	0.50	0.444	0.633
20/16	4.71	0.035/0.059	50	65	1.321	0.500	0.46	0.451	0.616
18/20	4.38	0.047/0.035	50	65	1.218	0.527	0.61	0.562	0.657
18/18	4.86	0.047/0.047	50	65	1.357	0.570	0.56	0.574	0.649
18/16	5.38	0.047/0.059	50	65	1.508	0.613	0.52	0.584	0.638
16/20	5.06	0.059/0.035	50	65	1.404	0.610	0.66	0.683	0.659
16/18	5.54	0.059/0.047	50	65	1.542	0.663	0.61	0.698	0.656
16/16	6.06	0.059/0.059	50	65	1.693	0.713	0.57	0.711	0.649

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.912	0.270	0.42	0.404	0.77	0.387	0.373	0.402	0.393
20/18	1.050	0.276	0.38	0.428	0.63	0.417	0.437	0.434	0.448
20/16	1.201	0.280	0.35	0.445	0.51	0.443	0.490	0.462	0.493
18/20	1.100	0.404	0.52	0.487	0.80	0.503	0.443	0.511	0.471
18/18	1.239	0.412	0.47	0.546	0.71	0.547	0.520	0.554	0.537
18/16	1.389	0.420	0.43	0.573	0.59	0.587	0.590	0.596	0.598
16/20	1.305	0.555	0.59	0.554	0.83	0.607	0.513	0.608	0.546
16/18	1.443	0.566	0.55	0.658	0.77	0.657	0.600	0.659	0.621
16/16	1.594	0.577	0.51	0.693	0.65	0.707	0.677	0.709	0.689

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	764	865	951	1094	1168	1324	1455	1674
	Interior	1185	1318	1429	1616	1763	1960	2125	2403
21	End	916	1036	1136	1305	1402	1585	1739	1997
	Interior	1431	1587	1718	1938	2129	2361	2556	2883
20	End	1071	1208	1323	1517	1638	1848	2024	2321
	Interior	1681	1860	2010	2263	2501	2766	2990	3366
19	End	1431	1607	1756	2006	2189	2459	2687	3069
	Interior	2267	2498	2693	3019	3372	3716	4005	4491
18	End	1816	2034	2217	2525	2779	3112	3393	3864
	Interior	2900	3185	3425	3828	4313	4737	5095	5694
16	End	2746	3058	3321	3762	4201	4678	5080	5755
	Interior	4439	4848	5193	5771	6603	7211	7724	8585
Constants		h = 1.23"		r = 0.156"		θ = 76.6°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	337	150	84	54	37	27	21	17	13
		Φf_b	506	225	127	81	56	41	32	25	20
		L/360	275	81	34	18	10	6	4	3	2
		L/240	412	122	51	26	15	10	6	5	3
		L/180	549	163	69	35	20	13	9	6	4
		L/120	824	244	103	53	31	19	13	9	7
	Double Span	f_b/Ω	504	224	126	81	56	41	31	25	20
		Φf_b	757	336	189	121	84	62	47	37	30
		L/360	647	192	81	41	24	15	10	7	5
		L/240	971	288	121	62	36	23	15	11	8
		L/180	1294	383	162	83	48	30	20	14	10
		L/120	1941	575	243	124	72	45	30	21	16
	Triple Span	f_b/Ω	526	234	132	84	58	43	33	26	21
		Φf_b	791	352	198	127	88	65	49	39	32
		L/360	507	150	63	32	19	12	8	6	4
		L/240	760	225	95	49	28	18	12	8	6
		L/180	1014	300	127	65	38	24	16	11	8
		L/120	1521	451	190	97	56	35	24	17	12
20/18	Single Span	f_b/Ω	344	153	86	55	38	28	21	17	14
		Φf_b	517	230	129	83	57	42	32	26	21
		L/360	297	88	37	19	11	7	5	3	2
		L/240	445	132	56	28	16	10	7	5	4
		L/180	593	176	74	38	22	14	9	7	5
		L/120	890	264	111	57	33	21	14	10	7
	Double Span	f_b/Ω	534	237	134	85	59	44	33	26	21
		Φf_b	803	357	201	129	89	66	50	40	32
		L/360	737	218	92	47	27	17	12	8	6
		L/240	1105	327	138	71	41	26	17	12	9
		L/180	1473	436	184	94	55	34	23	16	12
		L/120	2210	655	276	141	82	52	35	24	18
	Triple Span	f_b/Ω	537	239	134	86	60	44	34	27	21
		Φf_b	808	359	202	129	90	66	50	40	32
		L/360	577	171	72	37	21	13	9	6	5
		L/240	866	256	108	55	32	20	14	9	7
		L/180	1154	342	144	74	43	27	18	13	9
		L/120	1731	513	216	111	64	40	27	19	14
20/16	Single Span	f_b/Ω	350	155	87	56	39	29	22	17	14
		Φf_b	526	234	131	84	58	43	33	26	21
		L/360	316	94	39	20	12	7	5	3	3
		L/240	473	140	59	30	18	11	7	5	4
		L/180	631	187	79	40	23	15	10	7	5
		L/120	947	281	118	61	35	22	15	10	8
	Double Span	f_b/Ω	555	247	139	89	62	45	35	27	22
		Φf_b	834	371	209	134	93	68	52	41	33
		L/360	812	240	101	52	30	19	13	9	6
		L/240	1217	361	152	78	45	28	19	13	10
		L/180	1623	481	203	104	60	38	25	18	13
		L/120	2435	721	304	156	90	57	38	27	19
	Triple Span	f_b/Ω	546	243	137	87	61	45	34	27	22
		Φf_b	821	365	205	131	91	67	51	41	33
		L/360	636	188	79	41	24	15	10	7	5
		L/240	954	283	119	61	35	22	15	10	8
		L/180	1271	377	159	81	47	30	20	14	10
		L/120	1907	565	238	122	71	44	30	21	15

2.3 DGBF-36 & BF-36

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	Single Span	f_b/Ω	504	224	126	81	56	41	31	25	20
		Φf_b	758	337	189	121	84	62	47	37	30
		L/360	349	103	44	22	13	8	5	4	3
		L/240	524	155	65	34	19	12	8	6	4
		L/180	698	207	87	45	26	16	11	8	6
		L/120	1047	310	131	67	39	24	16	11	8
	Double Span	f_b/Ω	607	270	152	97	67	50	38	30	24
		Φf_b	913	406	228	146	101	74	57	45	37
		L/360	775	230	97	50	29	18	12	9	6
		L/240	1162	344	145	74	43	27	18	13	9
		L/180	1550	459	194	99	57	36	24	17	12
		L/120	2325	689	291	149	86	54	36	26	19
	Triple Span	f_b/Ω	759	337	190	121	84	62	47	37	30
		Φf_b	1141	507	285	183	127	93	71	56	46
		L/360	607	180	76	39	22	14	9	7	5
		L/240	911	270	114	58	34	21	14	10	7
		L/180	1214	360	152	78	45	28	19	13	10
		L/120	1821	540	228	117	67	42	28	20	15
18/18	Single Span	f_b/Ω	514	229	129	82	57	42	32	25	21
		Φf_b	773	344	193	124	86	63	48	38	31
		L/360	379	112	47	24	14	9	6	4	3
		L/240	568	168	71	36	21	13	9	6	5
		L/180	757	224	95	48	28	18	12	8	6
		L/120	1136	337	142	73	42	26	18	12	9
	Double Span	f_b/Ω	681	303	170	109	76	56	43	34	27
		Φf_b	1023	455	256	164	114	84	64	51	41
		L/360	883	262	110	56	33	21	14	10	7
		L/240	1324	392	166	85	49	31	21	15	11
		L/180	1766	523	221	113	65	41	28	19	14
		L/120	2648	785	331	169	98	62	41	29	21
	Triple Span	f_b/Ω	804	357	201	129	89	66	50	40	32
		Φf_b	1208	537	302	193	134	99	76	60	48
		L/360	692	205	86	44	26	16	11	8	6
		L/240	1037	307	130	66	38	24	16	11	8
		L/180	1383	410	173	89	51	32	22	15	11
		L/120	2075	615	259	133	77	48	32	23	17
18/16	Single Span	f_b/Ω	524	233	131	84	58	43	33	26	21
		Φf_b	788	350	197	126	88	64	49	39	32
		L/360	407	120	51	26	15	9	6	4	3
		L/240	610	181	76	39	23	14	10	7	5
		L/180	813	241	102	52	30	19	13	9	7
		L/120	1220	361	153	78	45	28	19	13	10
	Double Span	f_b/Ω	715	318	179	114	79	58	45	35	29
		Φf_b	1074	478	269	172	119	88	67	53	43
		L/360	983	291	123	63	36	23	15	11	8
		L/240	1475	437	184	94	55	34	23	16	12
		L/180	1967	583	246	126	73	46	31	22	16
		L/120	2950	874	369	189	109	69	46	32	24
	Triple Span	f_b/Ω	819	364	205	131	91	67	51	40	33
		Φf_b	1230	547	308	197	137	100	77	61	49
		L/360	770	228	96	49	29	18	12	8	6
		L/240	1155	342	144	74	43	27	18	13	9
		L/180	1541	456	193	99	57	36	24	17	12
		L/120	2311	685	289	148	86	54	36	25	18

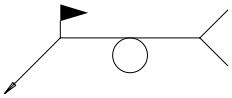
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	692	308	173	111	77	56	43	34	28
		Φf_b	1040	462	260	166	116	85	65	51	42
		L/360	415	123	52	27	15	10	6	5	3
		L/240	623	184	78	40	23	15	10	7	5
		L/180	830	246	104	53	31	19	13	9	7
		L/120	1245	369	156	80	46	29	19	14	10
	Double Span	f_b/Ω	691	307	173	111	77	56	43	34	28
		Φf_b	1039	462	260	166	115	85	65	51	42
		L/360	897	266	112	57	33	21	14	10	7
		L/240	1346	399	168	86	50	31	21	15	11
		L/180	1795	532	224	115	66	42	28	20	14
		L/120	2692	798	337	172	100	63	42	30	22
	Triple Span	f_b/Ω	864	384	216	138	96	71	54	43	35
		Φf_b	1298	577	325	208	144	106	81	64	52
		L/360	703	208	88	45	26	16	11	8	6
		L/240	1055	312	132	67	39	25	16	12	8
		L/180	1406	417	176	90	52	33	22	15	11
		L/120	2109	625	264	135	78	49	33	23	17
16/18	Single Span	f_b/Ω	707	314	177	113	79	58	44	35	28
		Φf_b	1062	472	265	170	118	87	66	52	42
		L/360	450	133	56	29	17	10	7	5	4
		L/240	675	200	84	43	25	16	11	7	5
		L/180	900	267	112	58	33	21	14	10	7
		L/120	1350	400	169	86	50	31	21	15	11
	Double Span	f_b/Ω	821	365	205	131	91	67	51	41	33
		Φf_b	1234	549	309	198	137	101	77	61	49
		L/360	1022	303	128	65	38	24	16	11	8
		L/240	1533	454	192	98	57	36	24	17	12
		L/180	2043	605	255	131	76	48	32	22	16
		L/120	3065	908	383	196	114	71	48	34	25
	Triple Span	f_b/Ω	1027	456	257	164	114	84	64	51	41
		Φf_b	1543	686	386	247	171	126	96	76	62
		L/360	800	237	100	51	30	19	13	9	6
		L/240	1201	356	150	77	44	28	19	13	10
		L/180	1601	474	200	102	59	37	25	18	13
		L/120	2401	711	300	154	89	56	38	26	19
16/16	Single Span	f_b/Ω	719	320	180	115	80	59	45	36	29
		Φf_b	1081	481	270	173	120	88	68	53	43
		L/360	484	143	61	31	18	11	8	5	4
		L/240	726	215	91	46	27	17	11	8	6
		L/180	968	287	121	62	36	23	15	11	8
		L/120	1452	430	182	93	54	34	23	16	12
	Double Span	f_b/Ω	865	384	216	138	96	71	54	43	35
		Φf_b	1299	578	325	208	144	106	81	64	52
		L/360	1133	336	142	73	42	26	18	12	9
		L/240	1700	504	212	109	63	40	27	19	14
		L/180	2266	672	283	145	84	53	35	25	18
		L/120	3400	1007	425	218	126	79	53	37	27
	Triple Span	f_b/Ω	1081	480	270	173	120	88	68	53	43
		Φf_b	1624	722	406	260	180	133	102	80	65
		L/360	888	263	111	57	33	21	14	10	7
		L/240	1332	395	166	85	49	31	21	15	11
		L/180	1775	526	222	114	66	41	28	19	14
		L/120	2663	789	333	170	99	62	42	29	21

2.4 DGB-36 & DGBF-36

Arc Spot/Seam Welds to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



*Die Set (Swedge) ends are no longer standard but can be performed upon request

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2120	3393	1752	2804	1472	2356
			F	2.9	-0.1R	2.9	-0.1R	2.9	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R
		6"	q_a q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2120	3393	1752	2804	1472	2356
			F	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		8"	q_a q_f	2421	3994	2421	3994	2396	3953	2414	3983	2351	3879	2371	3913	2120	3393	1752	2804	1472	2356
			F	3.6	-0.2R	3.6	-0.2R	3.7	-0.2R	3.7	-0.1R	3.8	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		12"	q_a q_f	2141	3533	2066	3409	2013	3321	1973	3255	1942	3204	1917	3164	1897	3131	1752	2804	1472	2356
			F	4.2	-0.4R	4.3	-0.3R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R
		18"	q_a q_f	1906	3145	1867	3081	1642	2710	1651	2724	1657	2734	1516	2501	1535	2533	1551	2559	1449	2356
			F	4.7	-0.6R	4.8	-0.5R	5.3	-0.6R	5.2	-0.5R	5.2	-0.4R	5.6	-0.5R	5.5	-0.4R	5.4	-0.4R	5.7	-0.4R
		24"	q_a q_f	1613	2661	1631	2690	1415	2335	1459	2407	1308	2158	1356	2237	1241	2048	1288	2125	1196	1973
			F	5.5	-0.9R	5.4	-0.7R	6	-0.8R	5.8	-0.7R	6.4	-0.8R	6.1	-0.6R	6.6	-0.7R	6.3	-0.6R	6.7	-0.6R
	18 ga	4"	q_a q_f	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R
		6"	q_a q_f	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		8"	q_a q_f	1900	3136	1900	3136	1891	3120	1900	3136	1857	3064	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.7	-0.3R	4.6	-0.3R	4.8	-0.3R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	4.9	-0.2R	5	-0.2R
		12"	q_a q_f	1691	2789	1632	2694	1591	2625	1560	2574	1536	2535	1517	2503	1501	2422	1251	2002	1051	1682
			F	5.4	-0.6R	5.6	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R	5.9	-0.4R	6	-0.4R	6	-0.4R	6.1	-0.3R
		18"	q_a q_f	1505	2484	1476	2435	1299	2143	1306	2155	1312	2164	1200	1980	1216	2006	1229	2002	1051	1682
			F	6	-0.8R	6.1	-0.7R	6.8	-0.9R	6.8	-0.7R	6.7	-0.7R	7.3	-0.7R	7.2	-0.7R	7.1	-0.6R	7.5	-0.6R
		24"	q_a q_f	1273	2101	1289	2127	1119	1847	1154	1905	1036	1709	1074	1772	984	1623	1021	1684	948	1564
			F	7	-1.2R	6.9	-1R	7.7	-1.2R	7.5	-1R	8.2	-1.1R	8	-1R	8.6	-1.1R	8.3	-0.9R	8.8	-1R
	20 ga	4"	q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	982	1570	811	1298	682	1091
			F	5.2	-0.2R	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		6"	q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	982	1570	811	1298	682	1091
			F	5.8	-0.4R	5.9	-0.3R	6	-0.3R	6.1	-0.3R	6.1	-0.3R	6.1	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R
		8"	q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1113	1837	1121	1850	982	1570	811	1298	682	1091
			F	6.4	-0.6R	6.4	-0.5R	6.7	-0.5R	6.7	-0.4R	6.9	-0.4R	6.8	-0.4R	7	-0.4R	6.9	-0.3R	7	-0.3R
		12"	q_a q_f	1013	1672	980	1617	957	1579	939	1550	926	1527	915	1509	906	1495	811	1298	682	1091
			F	7.4	-0.9R	7.7	-0.9R	7.9	-0.8R	8.1	-0.8R	8.2	-0.8R	8.3	-0.7R	8.4	-0.7R	8.5	-0.6R	8.6	-0.6R
		18"	q_a q_f	903	1490	887	1464	783	1291	788	1300	792	1307	726	1197	736	1214	744	1227	682	1091
			F	8.2	-1.3R	8.4	-1.2R	9.4	-1.4R	9.4	-1.2R	9.4	-1.1R	10.1	-1.3R	10.1	-1.1R	10	-1R	10.6	-1.1R
		24"	q_a q_f	764	1260	775	1279	674	1113	697	1150	626	1033	650	1072	595	982	618	1020	575	948
			F	9.3	-1.8R	9.3	-1.6R	10.5	-1.9R	10.4	-1.6R	11.3	-1.9R	11.1	-1.6R	11.9	-1.8R	11.6	-1.5R	12.4	-1.7R
	22 ga	4"	q_a q_f	805	1329	805	1329	805	1329	805	1329	805	1329	805	1329	750	1199	620	991	521	833
			F	6.3	-0.3R	6.4	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R	6.6	-0.1R	6.6	-0.1R
		6"	q_a q_f	805	1329	805	1329	805	1329	805	1329	805	1329	805	1329	750	1199	620	991	521	833
			F	7.1	-0.5R	7.3	-0.5R	7.4	-0.4R	7.5	-0.4R	7.5	-0.4R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R	7.7	-0.3R
		8"	q_a q_f	805	1329	805	1329	804	1327	805	1329	790	1304	797	1315	750	1199	620	991	521	833
			F	7.8	-0.8R	7.9	-0.7R	8.3	-0.7R	8.2	-0.6R	8.5	-0.6R	8.4	-0.5R	8.6	-0.5R	8.6	-0.5R	8.7	-0.5R
		12"	q_a q_f	719	1187	695	1146	677	1118	664	1096	654	1080	646	1067	640	1056	620	991	521	833
			F	9	-1.2R	9.4	-1.2R	9.7	-1.2R	9.9	-1.1R	10.1	-1.1R	10.3	-1R	10.4	-1R	10.6	-0.9R	10.7	-0.9R
		18"	q_a q_f	641	1057	628	1037	553	913	557	919	559	923	512	844	519	856	524	865	490	808
			F	9.9	-1.6R	10.2	-1.6R	11.4	-1.9R	11.5	-1.7R	11.6	-1.6R	12.5	-1.7R	12.4	-1.6R	12.4	-1.5R	13.1	-1.6R
		24"	q_a q_f	542	894	549	906	477	787	492	812	441	728	458	756	419	692	435	718	404	667
			F	11.1	-2.3R	11.3	-2.1R	12.7	-2.5R	12.6	-2.2R	13.8	-2.5R	13.6	-2.2R	14.6	-2.4R	14.3	-2.1R	15.3	-2.3R

DGB-36 36/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: DeltaGrip DG4™

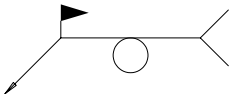
Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.4

Arc Spot/Seam Welds to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a q_f	4406	7271	4354	7184	4318	7124	4291	6924	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	2.9 -0.1R		2.9 -0.1R		2.9 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R	
		6"	q_a q_f	3761	6206	3673	6060	3611	5958	3565	5882	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.3 -0.2R		3.3 -0.2R		3.3 -0.2R		3.4 -0.2R		3.4 -0.2R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R	
		8"	q_a q_f	3287	5423	3283	5416	3092	5102	3118	5144	2988	4931	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.6 -0.4R		3.6 -0.3R		3.7 -0.3R		3.7 -0.3R		3.8 -0.2R		3.7 -0.2R		3.8 -0.2R		3.8 -0.2R		3.8 -0.2R	
		12"	q_a q_f	2678	4418	2532	4179	2432	4013	2358	3891	2302	3798	2258	3725	2120	3393	1752	2804	1472	2356
			F	4.2 -0.6R		4.3 -0.6R		4.4 -0.5R		4.4 -0.5R		4.5 -0.5R		4.5 -0.4R		4.6 -0.4R		4.6 -0.4R		4.6 -0.4R	
		18"	q_a q_f	2317	3824	2235	3687	1908	3149	1905	3143	1903	3139	1712	2824	1729	2854	1744	2804	1472	2356
			F	4.6 -0.9R		4.7 -0.8R		5.2 -0.9R		5.2 -0.8R		5.1 -0.7R		5.5 -0.8R		5.4 -0.7R		5.4 -0.7R		5.7 -0.7R	
		24"	q_a q_f	1919	3167	1913	3156	1623	2677	1661	2741	1468	2423	1516	2502	1374	2267	1422	2347	1307	2156
			F	5.4 -1.3R		5.3 -1.1R		5.9 -1.3R		5.7 -1.1R		6.3 -1.2R		6.1 -1.1R		6.5 -1.2R		6.3 -1R		6.7 -1.1R	
	18 ga	4"	q_a q_f	3476	5735	3436	5669	3408	5623	3089	4943	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.7 -0.2R		3.8 -0.2R		3.8 -0.2R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R	
		6"	q_a q_f	2972	4903	2903	4790	2855	4711	2820	4653	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.2 -0.4R		4.3 -0.3R		4.3 -0.3R		4.3 -0.3R		4.4 -0.2R		4.4 -0.2R		4.4 -0.2R		4.4 -0.2R		4.4 -0.2R	
		8"	q_a q_f	2599	4288	2597	4284	2447	4038	2468	4072	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.6 -0.6R		4.6 -0.5R		4.8 -0.5R		4.8 -0.4R		4.9 -0.4R		4.8 -0.3R		4.9 -0.3R		4.9 -0.3R		5 -0.3R	
		12"	q_a q_f	2118	3494	2004	3307	1926	3178	1868	3083	1825	3011	1790	2954	1514	2422	1251	2002	1051	1682
			F	5.3 -0.9R		5.5 -0.9R		5.7 -0.8R		5.8 -0.8R		5.8 -0.7R		5.9 -0.7R		6 -0.7R		6 -0.6R		6 -0.6R	
		18"	q_a q_f	1832	3023	1768	2918	1511	2493	1509	2490	1508	2488	1357	2239	1371	2263	1251	2002	1051	1682
			F	5.9 -1.2R		6 -1.1R		6.7 -1.4R		6.7 -1.2R		6.7 -1.1R		7.2 -1.2R		7.1 -1.1R		7.1 -1R		7.5 -1.1R	
		24"	q_a q_f	1516	2502	1513	2496	1284	2118	1315	2170	1163	1919	1202	1983	1087	1794	1128	1861	1037	1682
			F	6.8 -1.8R		6.7 -1.5R		7.6 -1.9R		7.4 -1.6R		8.1 -1.8R		7.9 -1.6R		8.4 -1.7R		8.2 -1.5R		8.7 -1.7R	
	20 ga	4"	q_a q_f	2078	3429	2056	3392	2040	3366	2003	3205	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.1 -0.4R		5.2 -0.3R		5.2 -0.3R		5.3 -0.3R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R	
		6"	q_a q_f	1785	2944	1746	2881	1719	2836	1699	2803	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.8 -0.6R		5.9 -0.6R		6 -0.5R		6 -0.5R		6.1 -0.5R		6.1 -0.4R		6.1 -0.4R		6.2 -0.4R		6.2 -0.3R	
		8"	q_a q_f	1564	2580	1565	2582	1477	2438	1491	2460	1431	2362	1212	1939	982	1570	811	1298	682	1091
			F	6.4 -0.9R		6.4 -0.8R		6.7 -0.8R		6.6 -0.7R		6.8 -0.7R		6.8 -0.6R		6.9 -0.6R		6.9 -0.6R		7 -0.6R	
		12"	q_a q_f	1276	2105	1210	1996	1165	1921	1131	1867	1106	1825	1086	1791	982	1570	811	1298	682	1091
			F	7.3 -1.4R		7.6 -1.4R		7.8 -1.4R		8 -1.3R		8.1 -1.3R		8.3 -1.2R		8.4 -1.2R		8.4 -1.1R		8.5 -1.1R	
		18"	q_a q_f	1103	1820	1067	1761	913	1506	913	1507	914	1508	823	1358	833	1374	811	1298	682	1091
			F	8 -1.9R		8.2 -1.8R		9.2 -2.1R		9.2 -2R		9.3 -1.8R		10 -2R		9.9 -1.9R		9.9 -1.7R		10.5 -1.9R	
		24"	q_a q_f	911	1503	912	1505	775	1278	795	1312	704	1161	728	1202	660	1089	685	1130	631	1041
			F	9 -2.5R		9.1 -2.3R		10.2 -2.8R		10.1 -2.5R		11.1 -2.8R		10.9 -2.5R		11.7 -2.8R		11.4 -2.5R		12.2 -2.7R	
	22 ga	4"	q_a q_f	1478	2438	1461	2411	1449	2392	1441	2377	1171	1874	926	1481	750	1199	620	991	521	833
			F	6.3 -0.5R		6.4 -0.5R		6.4 -0.4R		6.5 -0.4R		6.5 -0.3R		6.5 -0.3R		6.5 -0.3R		6.6 -0.3R		6.6 -0.3R	
		6"	q_a q_f	1265	2087	1236	2040	1216	2007	1201	1982	1171	1874	926	1481	750	1199	620	991	521	833
			F	7.1 -0.9R		7.2 -0.8R		7.4 -0.8R		7.4 -0.7R		7.5 -0.7R		7.6 -0.6R		7.6 -0.6R		7.6 -0.5R		7.7 -0.5R	
		8"	q_a q_f	1107	1826	1106	1825	1043	1721	1052	1736	1009	1665	926	1481	750	1199	620	991	521	833
			F	7.7 -1.2R		7.8 -1.1R		8.2 -1.1R		8.2 -1R		8.4 -1R		8.4 -0.9R		8.6 -0.9R		8.5 -0.8R		8.7 -0.8R	
		12"	q_a q_f	902	1488	854	1410	821	1355	797	1315	778	1284	764	1260	750	1199	620	991	521	833
			F	8.8 -1.8R		9.2 -1.9R		9.5 -1.8R		9.8 -1.8R		10 -1.7R		10.2 -1.7R		10.3 -1.6R		10.5 -1.6R		10.6 -1.5R	
		18"	q_a q_f	780	1288	754	1243	644	1063	644	1062	643	1061	579	955	585	966	590	974	521	833
			F	9.6 -2.4R		9.9 -2.3R		11.1 -2.8R		11.2 -2.6R		11.3 -2.4R		12.2 -2.7R		12.2 -2.6R		12.2 -2.4R		13 -2.6R	
		24"	q_a q_f	645	1065	645	1064	547	903	561	925	495	816	513	846	463	765	481	794	443	731
			F	10.6 -3.1R		10.9 -2.9R		12.3 -3.5R		12.3 -3.2R		13.4 -3.7R		13.3 -3.3R		14.3 -3.7R		14 -3.4R		14.9 -3.7R	

DGB-36 36/7/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.5 DGB-36 & DGBF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	2.9 -0.1R		2.9 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.3 -0.1R		3.3 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R	
		8"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.7 -0.2R		3.6 -0.2R		3.7 -0.2R		3.7 -0.1R		3.8 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R	
		12"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.3 -0.4R		4.4 -0.3R		4.4 -0.3R		4.5 -0.3R		4.5 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R	
		18"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.8 -0.5R		4.8 -0.5R		5.4 -0.5R		5.3 -0.5R		5.2 -0.4R		5.6 -0.4R		5.5 -0.4R		5.5 -0.3R		5.8 -0.4R	
		24"	q_a q_f	986	1587	986	1587	986	1587	986	1587	983	1582	986	1587	972	1565	986	1587	965	1554
			F	5.7 -0.9R		5.5 -0.7R		6.2 -0.8R		5.9 -0.6R		6.5 -0.7R		6.2 -0.6R		6.7 -0.7R		6.4 -0.5R		6.8 -0.6R	
	18 ga	4"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	2.9 -0.1R		2.9 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.3 -0.1R		3.3 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R	
		8"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.7 -0.2R		3.6 -0.2R		3.7 -0.2R		3.7 -0.1R		3.8 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R	
		12"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.3 -0.4R		4.4 -0.3R		4.4 -0.3R		4.5 -0.3R		4.5 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R	
		18"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.8 -0.5R		4.8 -0.5R		5.4 -0.5R		5.3 -0.5R		5.2 -0.4R		5.6 -0.4R		5.5 -0.4R		5.5 -0.3R		5.8 -0.4R	
		24"	q_a q_f	986	1587	986	1587	986	1587	986	1587	983	1582	986	1587	972	1565	986	1587	965	1554
			F	5.7 -0.9R		5.5 -0.7R		6.2 -0.8R		5.9 -0.6R		6.5 -0.7R		6.2 -0.6R		6.7 -0.7R		6.4 -0.5R		6.8 -0.6R	
	20 ga	4"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	5.2 -0.2R		5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		6"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	5.9 -0.4R		6 -0.3R		6 -0.3R		6.1 -0.3R		6.1 -0.2R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R	
		8"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	6.5 -0.5R		6.5 -0.4R		6.8 -0.4R		6.7 -0.4R		6.9 -0.4R		6.9 -0.3R		7 -0.3R		6.9 -0.3R		7.1 -0.3R	
		12"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	7.6 -0.9R		7.8 -0.9R		8 -0.8R		8.2 -0.8R		8.3 -0.7R		8.4 -0.7R		8.5 -0.6R		8.6 -0.6R		8.6 -0.6R	
		18"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	8.4 -1.3R		8.6 -1.1R		9.6 -1.4R		9.6 -1.2R		9.6 -1.1R		10.3 -1.2R		10.2 -1.1R		10.2 -1R		10.8 -1.1R	
		24"	q_a q_f	578	930	592	953	554	892	578	931	541	871	563	906	533	858	552	889	527	849
			F	9.7 -1.9R		9.6 -1.6R		10.9 -1.9R		10.6 -1.6R		11.7 -1.8R		11.3 -1.5R		12.2 -1.7R		11.9 -1.5R		12.6 -1.6R	
	22 ga	4"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	6.4 -0.3R		6.4 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		6"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	7.2 -0.5R		7.4 -0.5R		7.5 -0.4R		7.5 -0.4R		7.6 -0.3R		7.6 -0.3R		7.7 -0.3R		7.7 -0.3R		7.7 -0.3R	
		8"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	8 -0.7R		8 -0.6R		8.4 -0.6R		8.3 -0.6R		8.6 -0.5R		8.5 -0.5R		8.7 -0.5R		8.6 -0.4R		8.8 -0.4R	
		12"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	9.2 -1.2R		9.6 -1.2R		9.9 -1.1R		10.1 -1.1R		10.3 -1R		10.5 -1R		10.6 -0.9R		10.7 -0.9R		10.8 -0.8R	
		18"	q_a q_f	493	793	493	793	482	776	490	789	493	793	469	756	477	768	483	777	463	745
			F	10.2 -1.7R		10.5 -1.5R		11.7 -1.8R		11.8 -1.7R		11.8 -1.5R		12.8 -1.7R		12.7 -1.5R		12.6 -1.4R		13.4 -1.5R	
		24"	q_a q_f	451	726	471	758	427	687	447	719	414	666	432	695	405	653	421	678	400	643
			F	11.6 -2.4R		11.7 -2.1R		13.2 -2.5R		13 -2.1R		14.3 -2.5R		14 -2.1R		15.1 -2.4R		14.7 -2.1R		15.7 -2.2R	

DGB-36 36/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.5

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)											
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"		
36/7/4	16 ga	4"	q_a q_f	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1752 2804	1472 2356		
			F	2.9 -0.1R	2.9 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 +0R		
		6"	q_a q_f	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1752 2804	1472 2356		
			F	3.3 -0.2R	3.3 -0.2R	3.4 -0.2R	3.4 -0.2R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R		
		8"	q_a q_f	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1752 2804	1472 2356		
			F	3.6 -0.3R	3.6 -0.3R	3.7 -0.3R	3.7 -0.2R	3.8 -0.2R	3.7 -0.2R	3.8 -0.2R	3.8 -0.2R	3.8 -0.2R		
		12"	q_a q_f	1833 2950	1813 2920	1800 2898	1790 2882	1783 2870	1777 2860	1772 2853	1752 2804	1472 2356		
			F	4.2 -0.6R	4.3 -0.6R	4.4 -0.5R	4.5 -0.5R	4.5 -0.4R	4.6 -0.4R	4.6 -0.4R	4.6 -0.4R	4.6 -0.3R		
		18"	q_a q_f	1654 2663	1669 2687	1519 2445	1553 2501	1578 2540	1477 2379	1508 2427	1531 2465	1456 2344		
			F	4.7 -0.9R	4.8 -0.8R	5.3 -0.9R	5.3 -0.8R	5.2 -0.7R	5.6 -0.8R	5.5 -0.7R	5.4 -0.6R	5.8 -0.7R		
		24"	q_a q_f	1382 2225	1467 2362	1306 2103	1384 2229	1266 2038	1334 2148	1241 1998	1301 2094	1224 1971		
			F	5.6 -1.3R	5.4 -1.1R	6.1 -1.3R	5.9 -1.1R	6.4 -1.2R	6.2 -1R	6.6 -1.1R	6.4 -0.9R	6.8 -1R		
	18 ga	4"	q_a q_f	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1514 2422	1251 2002	1051 1682		
			F	3.8 -0.2R	3.8 -0.2R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R		
		6"	q_a q_f	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1514 2422	1251 2002	1051 1682		
			F	4.2 -0.3R	4.3 -0.3R	4.3 -0.3R	4.4 -0.3R	4.4 -0.2R	4.4 -0.2R	4.4 -0.2R	4.4 -0.2R	4.4 -0.2R		
		8"	q_a q_f	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1514 2422	1251 2002	1051 1682		
			F	4.7 -0.5R	4.7 -0.4R	4.8 -0.4R	4.8 -0.4R	4.9 -0.4R	4.9 -0.3R	5 -0.3R	4.9 -0.3R	5 -0.3R		
		12"	q_a q_f	1463 2356	1448 2331	1437 2314	1429 2301	1423 2291	1418 2283	1414 2277	1251 2002	1051 1682		
			F	5.4 -0.9R	5.6 -0.8R	5.7 -0.8R	5.8 -0.7R	5.9 -0.7R	6 -0.7R	6 -0.6R	6.1 -0.6R	6.1 -0.6R		
		18"	q_a q_f	1320 2126	1332 2145	1212 1951	1239 1995	1259 2027	1179 1898	1203 1936	1222 1967	1051 1682		
			F	6.1 -1.2R	6.2 -1.1R	6.9 -1.3R	6.8 -1.2R	6.8 -1.1R	7.3 -1.2R	7.2 -1.1R	7.1 -1R	7.6 -1R		
		24"	q_a q_f	1103 1775	1170 1884	1042 1678	1104 1778	1010 1626	1064 1713	990 1594	1038 1670	976 1572		
			F	7 -1.8R	6.9 -1.5R	7.8 -1.8R	7.6 -1.6R	8.3 -1.8R	8 -1.5R	8.6 -1.7R	8.4 -1.4R	8.9 -1.6R		
	20 ga	4"	q_a q_f	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	982 1570	811 1298	682 1091		
			F	5.2 -0.3R	5.2 -0.3R	5.3 -0.3R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R		
		6"	q_a q_f	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	982 1570	811 1298	682 1091		
			F	5.9 -0.6R	6 -0.5R	6 -0.5R	6.1 -0.5R	6.1 -0.4R	6.2 -0.4R	6.2 -0.4R	6.2 -0.3R	6.2 -0.3R		
		8"	q_a q_f	1165 1875	1176 1894	1151 1853	1162 1871	1144 1842	1154 1857	982 1570	811 1298	682 1091		
			F	6.5 -0.9R	6.5 -0.8R	6.7 -0.8R	6.7 -0.7R	6.9 -0.7R	6.8 -0.6R	7 -0.6R	6.9 -0.5R	7.1 -0.5R		
		12"	q_a q_f	1025 1651	1010 1626	999 1608	991 1595	985 1585	980 1577	976 1570	811 1298	682 1091		
			F	7.4 -1.4R	7.7 -1.4R	7.9 -1.3R	8.1 -1.3R	8.3 -1.2R	8.4 -1.1R	8.5 -1.1R	8.5 -1R	8.6 -1R		
		18"	q_a q_f	911 1467	916 1475	821 1322	840 1352	853 1373	791 1273	808 1300	811 1298	682 1091		
			F	8.2 -1.9R	8.4 -1.8R	9.4 -2.1R	9.4 -1.9R	9.4 -1.8R	10.2 -2R	10.1 -1.8R	10.1 -1.7R	10.7 -1.8R		
		24"	q_a q_f	750 1207	794 1278	697 1123	739 1190	670 1078	707 1138	652 1050	685 1103	641 1032		
			F	9.3 -2.6R	9.4 -2.3R	10.6 -2.8R	10.4 -2.5R	11.4 -2.8R	11.1 -2.5R	12 -2.7R	11.7 -2.4R	12.4 -2.6R		
	22 ga	4"	q_a q_f	986 1587	986 1587	986 1587	986 1587	986 1587	926 1481	750 1199	620 991	521 833		
			F	6.3 -0.5R	6.4 -0.4R	6.5 -0.4R	6.5 -0.3R	6.5 -0.3R	6.6 -0.3R	6.6 -0.3R	6.6 -0.3R	6.6 -0.2R		
		6"	q_a q_f	986 1587	986 1587	986 1587	984 1584	982 1581	926 1481	750 1199	620 991	521 833		
			F	7.2 -0.8R	7.3 -0.8R	7.4 -0.7R	7.5 -0.7R	7.6 -0.6R	7.6 -0.6R	7.7 -0.5R	7.7 -0.5R	7.7 -0.5R		
		8"	q_a q_f	923 1486	932 1501	907 1460	917 1476	899 1447	908 1461	750 1199	620 991	521 833		
			F	7.9 -1.2R	7.9 -1R	8.3 -1.1R	8.3 -0.9R	8.5 -1R	8.5 -0.9R	8.7 -0.9R	8.6 -0.8R	8.8 -0.8R		
		12"	q_a q_f	795 1281	779 1254	768 1236	759 1222	753 1212	748 1204	743 1197	620 991	521 833		
			F	9 -1.9R	9.4 -1.8R	9.8 -1.8R	10 -1.7R	10.2 -1.7R	10.4 -1.6R	10.5 -1.6R	10.6 -1.5R	10.7 -1.4R		
		18"	q_a q_f	698 1124	699 1126	619 996	632 1018	642 1033	590 950	603 970	613 987	521 833		
			F	9.9 -2.4R	10.2 -2.3R	11.5 -2.8R	11.6 -2.6R	11.6 -2.4R	12.6 -2.7R	12.5 -2.5R	12.5 -2.3R	13.2 -2.5R		
		24"	q_a q_f	570 918	600 966	522 841	552 889	497 800	524 843	481 774	505 813	470 757		
			F	11.1 -3.3R	11.3 -3R	12.8 -3.6R	12.7 -3.2R	13.9 -3.7R	13.7 -3.3R	14.7 -3.7R	14.4 -3.3R	15.4 -3.6R		

DGB-36 36/7/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.5 DGB-36 & DGBF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	
36/9	16 ga	4"	q_a 1971	1971	1971	1971	1971	1971	1971	1752	1472	
			q_f 3174	3174	3174	3174	3174	3174	3174	2804	2356	
			F 2.8 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 +0R	
		6"	q_a 1971	1971	1971	1971	1971	1971	1971	1752	1472	
			q_f 3174	3174	3174	3174	3174	3174	3174	2804	2356	
			F 3.1 -0.2R	3.2 -0.2R	3.2 -0.2R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	
		8"	q_a 1971	1971	1971	1971	1971	1971	1971	1752	1472	
			q_f 3174	3174	3174	3174	3174	3174	3174	2804	2356	
			F 3.4 -0.3R	3.4 -0.2R	3.5 -0.2R	3.5 -0.2R	3.6 -0.2R	3.6 -0.2R	3.7 -0.2R	3.7 -0.2R	3.7 -0.2R	
		12"	q_a 1971	1971	1971	1971	1971	1971	1971	1752	1472	
			q_f 3174	3174	3174	3174	3174	3174	3174	2804	2356	
			F 3.8 -0.4R	3.9 -0.4R	4.1 -0.4R	4.1 -0.4R	4.2 -0.4R	4.3 -0.4R	4.3 -0.3R	4.4 -0.3R	4.4 -0.3R	
		18"	q_a 1971	1971	1806	1829	1846	1712	1739	1752	1472	
			q_f 3174	3174	2907	2944	2972	2757	2801	2804	2356	
			F 4.1 -0.6R	4.2 -0.6R	4.7 -0.7R	4.7 -0.6R	4.7 -0.6R	5.1 -0.6R	5 -0.6R	5 -0.5R	5.3 -0.6R	
		24"	q_a 1721	1772	1565	1630	1480	1544	1427	1486	1390	
			q_f 2770	2854	2520	2625	2383	2486	2297	2392	2238	
			F 4.6 -0.8R	4.6 -0.7R	5.1 -0.9R	5.1 -0.8R	5.5 -0.9R	5.4 -0.8R	5.8 -0.9R	5.7 -0.8R	6 -0.8R	
	18 ga	4"	q_a 1576	1576	1576	1576	1576	1576	1514	1251	1051	
			q_f 2537	2537	2537	2537	2537	2537	2422	2002	1682	
			F 3.6 -0.2R	3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	
		6"	q_a 1576	1576	1576	1576	1576	1576	1514	1251	1051	
			q_f 2537	2537	2537	2537	2537	2537	2422	2002	1682	
			F 4 -0.3R	4.1 -0.3R	4.1 -0.2R	4.2 -0.2R	4.2 -0.2R	4.3 -0.2R	4.3 -0.2R	4.3 -0.2R	4.3 -0.2R	
		8"	q_a 1576	1576	1576	1576	1576	1576	1514	1251	1051	
			q_f 2537	2537	2537	2537	2537	2537	2422	2002	1682	
			F 4.3 -0.4R	4.4 -0.4R	4.5 -0.4R	4.5 -0.3R	4.7 -0.3R	4.7 -0.3R	4.8 -0.3R	4.7 -0.3R	4.8 -0.3R	
		12"	q_a 1576	1576	1576	1576	1576	1576	1514	1251	1051	
			q_f 2537	2537	2537	2537	2537	2537	2422	2002	1682	
			F 4.8 -0.6R	5 -0.6R	5.2 -0.6R	5.3 -0.6R	5.4 -0.6R	5.5 -0.6R	5.6 -0.5R	5.6 -0.5R	5.7 -0.5R	
		18"	q_a 1576	1576	1441	1459	1473	1366	1388	1251	1051	
			q_f 2537	2537	2320	2349	2371	2199	2234	2002	1682	
			F 5.1 -0.8R	5.3 -0.8R	5.9 -0.9R	6 -0.9R	6 -0.8R	6.5 -0.9R	6.5 -0.8R	6.5 -0.8R	6.8 -0.9R	
		24"	q_a 1373	1414	1249	1301	1181	1231	1138	1185	1051	
			q_f 2211	2277	2011	2094	1901	1983	1832	1908	1682	
			F 5.6 -1.1R	5.8 -1R	6.4 -1.2R	6.4 -1.1R	7 -1.2R	6.9 -1.1R	7.4 -1.2R	7.3 -1.1R	7.8 -1.2R	
	20 ga	4"	q_a 1183	1183	1183	1183	1183	1183	982	811	682	
			q_f 1905	1905	1905	1905	1905	1905	1570	1298	1091	
			F 4.9 -0.3R	5 -0.3R	5.1 -0.2R	5.1 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R	
		6"	q_a 1183	1183	1183	1183	1183	1183	982	811	682	
			q_f 1905	1905	1905	1905	1905	1905	1570	1298	1091	
			F 5.4 -0.5R	5.6 -0.4R	5.7 -0.4R	5.8 -0.4R	5.8 -0.4R	5.9 -0.4R	5.9 -0.3R	6 -0.3R	6 -0.3R	
		8"	q_a 1183	1183	1183	1183	1183	1183	982	811	682	
			q_f 1905	1905	1905	1905	1905	1905	1570	1298	1091	
			F 5.8 -0.6R	5.9 -0.6R	6.2 -0.6R	6.2 -0.6R	6.4 -0.6R	6.4 -0.5R	6.6 -0.5R	6.6 -0.5R	6.7 -0.5R	
		12"	q_a 1183	1183	1183	1170	1155	1143	982	811	682	
			q_f 1905	1905	1905	1883	1859	1840	1570	1298	1091	
			F 6.4 -0.9R	6.7 -0.9R	7 -0.9R	7.2 -0.9R	7.4 -0.9R	7.6 -0.9R	7.7 -0.9R	7.8 -0.9R	7.9 -0.8R	
		18"	q_a 1120	1105	980	989	995	915	928	811	682	
			q_f 1804	1778	1578	1592	1602	1473	1494	1298	1091	
			F 6.8 -1.1R	7.1 -1.1R	7.8 -1.4R	8 -1.3R	8.2 -1.3R	8.8 -1.4R	8.8 -1.3R	8.9 -1.3R	9.4 -1.4R	
		24"	q_a 950	968	846	876	790	821	754	784	682	
			q_f 1530	1559	1363	1411	1272	1322	1214	1262	1091	
			F 7.3 -1.4R	7.6 -1.4R	8.5 -1.7R	8.6 -1.6R	9.3 -1.8R	9.3 -1.7R	10 -1.9R	9.9 -1.7R	10.5 -1.9R	
	22 ga	4"	q_a 986	986	986	986	986	926	750	620	521	
			q_f 1587	1587	1587	1587	1587	1481	1199	991	833	
			F 6 -0.4R	6.1 -0.4R	6.2 -0.3R	6.3 -0.3R	6.3 -0.3R	6.4 -0.3R	6.4 -0.3R	6.4 -0.2R	6.4 -0.2R	
		6"	q_a 986	986	986	986	986	926	750	620	521	
			q_f 1587	1587	1587	1587	1587	1481	1199	991	833	
			F 6.6 -0.6R	6.8 -0.6R	6.9 -0.6R	7 -0.6R	7.1 -0.5R	7.2 -0.5R	7.3 -0.5R	7.4 -0.5R	7.4 -0.4R	
		8"	q_a 986	986	986	986	986	926	750	620	521	
			q_f 1587	1587	1587	1587	1587	1481	1199	991	833	
			F 7 -0.8R	7.2 -0.8R	7.5 -0.8R	7.6 -0.8R	7.9 -0.8R	7.9 -0.7R	8.1 -0.7R	8.1 -0.7R	8.3 -0.7R	
		12"	q_a 974	938	913	893	879	867	750	620	521	
			q_f 1568	1511	1469	1438	1415	1395	1199	991	833	
			F 7.6 -1.1R	8.1 -1.2R	8.4 -1.2R	8.7 -1.2R	9 -1.2R	9.2 -1.2R	9.4 -1.2R	9.6 -1.2R	9.7 -1.2R	
		18"	q_a 868	848	746	748	750	685	693	620	521	
			q_f 1398	1366	1200	1204	1207	1103	1116	991	833	
			F 8.1 -1.4R	8.5 -1.4R	9.4 -1.7R	9.6 -1.7R	9.9 -1.6R	10.6 -1.9R	10.7 -1.8R	10.8 -1.7R	11.4 -1.9R	
		24"	q_a 737	742	644	662	593	614	562	582	521	
			q_f 1187	1195	1036	1065	955	988	904	937	833	
			F 8.6 -1.7R	9 -1.7R	10 -2.1R	10.2 -2R	11.1 -2.3R	11.2 -2.2R	12 -2.4R	12 -2.3R	12.7 -2.5R	

DGB-36 36/9 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.6

Hilti Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	2.9 -0.1R		2.9 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a q_f	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	3.3 -0.1R		3.3 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R	
		8"	q_a q_f	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	3.6 -0.2R		3.6 -0.2R		3.7 -0.2R		3.7 -0.1R		3.8 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R	
		12"	q_a q_f	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	4.3 -0.4R		4.4 -0.3R		4.4 -0.3R		4.5 -0.3R		4.5 -0.3R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R	
		18"	q_a q_f	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1262	2032
			F	4.8 -0.5R		4.8 -0.5R		5.4 -0.6R		5.3 -0.5R		5.2 -0.4R		5.6 -0.5R		5.5 -0.4R		5.5 -0.4R		5.8 -0.4R	
		24"	q_a q_f	1220	1964	1271	2047	1166	1877	1217	1960	1136	1829	1183	1904	1117	1799	1159	1866	1104	1778
			F	5.6 -0.9R		5.5 -0.7R		6.1 -0.8R		5.9 -0.6R		6.4 -0.7R		6.2 -0.6R		6.6 -0.7R		6.4 -0.6R		6.8 -0.6R	
	18 ga	4"	q_a q_f	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			F	3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 +0R		3.8 +0R	
		6"	q_a q_f	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			F	4.3 -0.2R		4.3 -0.2R		4.3 -0.2R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R	
		8"	q_a q_f	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			F	4.7 -0.3R		4.7 -0.3R		4.8 -0.3R		4.8 -0.2R		4.9 -0.2R		4.9 -0.2R		5 -0.2R		4.9 -0.2R		5 -0.2R	
		12"	q_a q_f	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			F	5.5 -0.6R		5.6 -0.5R		5.8 -0.5R		5.8 -0.4R		5.9 -0.4R		6 -0.4R		6 -0.4R		6.1 -0.3R		6.1 -0.3R	
		18"	q_a q_f	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1027	1653	1029	1657	1029	1657	1015	1634
			F	6.1 -0.8R		6.2 -0.7R		6.9 -0.8R		6.9 -0.7R		6.8 -0.6R		7.3 -0.7R		7.2 -0.6R		7.2 -0.6R		7.6 -0.6R	
		24"	q_a q_f	982	1581	1024	1649	937	1509	979	1576	913	1469	950	1530	897	1444	931	1499	886	1427
			F	7.1 -1.2R		7 -1R		7.9 -1.2R		7.6 -1R		8.4 -1.1R		8.1 -0.9R		8.7 -1R		8.4 -0.9R		8.9 -1R	
	20 ga	4"	q_a q_f	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	682	1091
			F	5.2 -0.2R		5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		6"	q_a q_f	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	682	1091
			F	5.9 -0.4R		6 -0.3R		6 -0.3R		6.1 -0.3R		6.1 -0.2R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R	
		8"	q_a q_f	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	682	1091
			F	6.5 -0.5R		6.5 -0.5R		6.7 -0.5R		6.7 -0.4R		6.9 -0.4R		6.8 -0.3R		7 -0.3R		6.9 -0.3R		7.1 -0.3R	
		12"	q_a q_f	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	682	1091
			F	7.5 -0.9R		7.8 -0.9R		8 -0.8R		8.2 -0.8R		8.3 -0.7R		8.4 -0.7R		8.5 -0.6R		8.6 -0.6R		8.6 -0.6R	
		18"	q_a q_f	783	1260	783	1260	736	1184	747	1203	756	1217	712	1147	724	1166	733	1180	682	1091
			F	8.3 -1.3R		8.5 -1.1R		9.5 -1.4R		9.5 -1.2R		9.5 -1.1R		10.3 -1.2R		10.2 -1.1R		10.1 -1R		10.7 -1.1R	
		24"	q_a q_f	689	1109	718	1156	647	1041	677	1089	624	1004	651	1048	609	980	634	1020	599	964
			F	9.6 -1.9R		9.5 -1.6R		10.8 -1.9R		10.6 -1.6R		11.6 -1.8R		11.3 -1.6R		12.1 -1.7R		11.8 -1.5R		12.5 -1.6R	
	22 ga	4"	q_a q_f	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	620	991	521	833
			F	6.3 -0.3R		6.4 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		6"	q_a q_f	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	620	991	521	833
			F	7.2 -0.5R		7.3 -0.5R		7.4 -0.4R		7.5 -0.4R		7.6 -0.4R		7.6 -0.3R		7.7 -0.3R		7.7 -0.3R		7.7 -0.3R	
		8"	q_a q_f	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	620	991	521	833
			F	7.9 -0.8R		8 -0.6R		8.3 -0.7R		8.3 -0.6R		8.5 -0.6R		8.5 -0.5R		8.7 -0.5R		8.6 -0.4R		8.8 -0.4R	
		12"	q_a q_f	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	653	1052	620	991	521	833
			F	9.1 -1.2R		9.5 -1.2R		9.8 -1.1R		10.1 -1.1R		10.3 -1R		10.4 -1R		10.5 -0.9R		10.6 -0.9R		10.7 -0.8R	
		18"	q_a q_f	627	1010	627	1009	569	916	577	930	584	940	545	877	554	892	561	904	521	833
			F	10.1 -1.7R		10.4 -1.5R		11.6 -1.8R		11.7 -1.7R		11.7 -1.5R		12.7 -1.7R		12.6 -1.5R		12.5 -1.4R		13.3 -1.5R	
		24"	q_a q_f	536	863	556	895	495	797	517	833	472	761	494	795	458	738	478	769	449	722
			F	11.4 -2.3R		11.6 -2.1R		13 -2.5R		12.9 -2.2R		14.1 -2.5R		13.9 -2.1R		14.9 -2.4R		14.6 -2.1R		15.5 -2.3R	

DGB-36 36/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.6 DGB-36 & DGBF-36

Hilti Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	
36/7/4	16 ga	4"	q_a 2542	2542	2542	2542	2542	2542	2120	1752	1472	
			q_f 4093	4093	4093	4093	4093	4093	3393	2804	2356	
			F 2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 -0.1R	3 +0R	
		6"	q_a 2542	2542	2542	2542	2542	2542	2120	1752	1472	
			q_f 4093	4093	4093	4093	4093	4093	3393	2804	2356	
			F 3.3 -0.2R	3.3 -0.2R	3.3 -0.2R	3.4 -0.2R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	
		8"	q_a 2470	2495	2438	2462	2420	2442	2120	1752	1472	
			q_f 3977	4017	3925	3963	3897	3932	3393	2804	2356	
			F 3.6 -0.4R	3.6 -0.3R	3.7 -0.3R	3.7 -0.2R	3.8 -0.2R	3.7 -0.2R	3.8 -0.2R	3.8 -0.2R	3.8 -0.2R	
		12"	q_a 2161	2125	2100	2082	2067	2056	2047	1752	1472	
			q_f 3480	3422	3381	3351	3328	3310	3295	2804	2356	
			F 4.2 -0.6R	4.3 -0.6R	4.4 -0.5R	4.5 -0.5R	4.5 -0.5R	4.5 -0.4R	4.6 -0.4R	4.6 -0.4R	4.6 -0.4R	
		18"	q_a 1913	1923	1716	1755	1783	1648	1684	1712	1472	
			q_f 3080	3095	2763	2825	2870	2654	2711	2756	2356	
			F 4.7 -0.9R	4.8 -0.8R	5.3 -0.9R	5.2 -0.8R	5.2 -0.7R	5.6 -0.8R	5.5 -0.7R	5.4 -0.6R	5.7 -0.7R	
		24"	q_a 1570	1660	1455	1541	1393	1470	1355	1423	1329	
			q_f 2528	2672	2342	2481	2243	2367	2182	2291	2140	
			F 5.5 -1.3R	5.4 -1.1R	6 -1.3R	5.8 -1.1R	6.4 -1.2R	6.1 -1R	6.6 -1.1R	6.4 -1R	6.7 -1.1R	
	18 ga	4"	q_a 2058	2058	2058	2058	2058	1869	1514	1251	1051	
			q_f 3314	3314	3314	3314	3314	2990	2422	2002	1682	
			F 3.8 -0.2R	3.8 -0.2R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	
		6"	q_a 2058	2058	2058	2058	2058	1869	1514	1251	1051	
			q_f 3314	3314	3314	3314	3314	2990	2422	2002	1682	
			F 4.2 -0.4R	4.3 -0.3R	4.3 -0.3R	4.4 -0.3R	4.4 -0.2R	4.4 -0.2R	4.4 -0.2R	4.4 -0.2R	4.4 -0.2R	
		8"	q_a 1991	2011	1964	1983	1949	1869	1514	1251	1051	
			q_f 3205	3237	3162	3193	3138	2990	2422	2002	1682	
			F 4.7 -0.5R	4.6 -0.4R	4.8 -0.4R	4.8 -0.4R	4.9 -0.4R	4.9 -0.3R	5 -0.3R	4.9 -0.3R	5 -0.3R	
		12"	q_a 1739	1709	1688	1673	1661	1651	1514	1251	1051	
			q_f 2799	2751	2718	2693	2674	2659	2422	2002	1682	
			F 5.4 -0.9R	5.6 -0.9R	5.7 -0.8R	5.8 -0.8R	5.9 -0.7R	5.9 -0.7R	6 -0.6R	6 -0.6R	6.1 -0.6R	
		18"	q_a 1537	1544	1377	1408	1430	1321	1350	1251	1051	
			q_f 2475	2486	2217	2266	2302	2127	2173	2002	1682	
			F 6 -1.2R	6.1 -1.1R	6.8 -1.3R	6.8 -1.2R	6.7 -1.1R	7.3 -1.2R	7.2 -1.1R	7.1 -1R	7.5 -1.1R	
		24"	q_a 1261	1332	1166	1235	1116	1178	1085	1139	1051	
			q_f 2030	2145	1878	1989	1797	1896	1747	1835	1682	
			F 6.9 -1.8R	6.9 -1.5R	7.7 -1.9R	7.5 -1.6R	8.2 -1.8R	8 -1.5R	8.6 -1.7R	8.3 -1.5R	8.8 -1.6R	
	20 ga	4"	q_a 1565	1565	1565	1565	1534	1212	982	811	682	
			q_f 2520	2520	2520	2520	2454	1939	1570	1298	1091	
			F 5.2 -0.3R	5.2 -0.3R	5.2 -0.3R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	5.3 -0.2R	
		6"	q_a 1544	1533	1526	1521	1516	1212	982	811	682	
			q_f 2485	2468	2457	2448	2441	1939	1570	1298	1091	
			F 5.8 -0.6R	5.9 -0.6R	6 -0.5R	6.1 -0.5R	6.1 -0.4R	6.1 -0.4R	6.2 -0.4R	6.2 -0.4R	6.2 -0.3R	
		8"	q_a 1418	1433	1389	1405	1373	1212	982	811	682	
			q_f 2283	2307	2236	2262	2211	1939	1570	1298	1091	
			F 6.4 -0.9R	6.4 -0.8R	6.7 -0.8R	6.7 -0.7R	6.9 -0.7R	6.8 -0.6R	7 -0.6R	6.9 -0.5R	7 -0.5R	
		12"	q_a 1209	1180	1160	1145	1133	1124	982	811	682	
			q_f 1947	1900	1867	1843	1825	1810	1570	1298	1091	
			F 7.4 -1.4R	7.7 -1.4R	7.9 -1.3R	8.1 -1.3R	8.2 -1.2R	8.3 -1.2R	8.4 -1.1R	8.5 -1.1R	8.6 -1R	
		18"	q_a 1056	1054	927	945	958	878	896	811	682	
			q_f 1700	1697	1492	1521	1543	1413	1443	1298	1091	
			F 8.1 -1.9R	8.4 -1.8R	9.3 -2.1R	9.4 -1.9R	9.4 -1.8R	10.1 -2R	10.1 -1.8R	10 -1.7R	10.6 -1.8R	
		24"	q_a 860	901	780	823	738	777	712	747	682	
			q_f 1385	1450	1256	1325	1188	1251	1146	1203	1091	
			F 9.2 -2.6R	9.3 -2.3R	10.5 -2.8R	10.3 -2.5R	11.3 -2.8R	11.1 -2.5R	11.9 -2.8R	11.6 -2.4R	12.4 -2.7R	
	22 ga	4"	q_a 1312	1312	1312	1312	1171	926	750	620	521	
			q_f 2112	2112	2112	2112	1874	1481	1199	991	833	
			F 6.3 -0.5R	6.4 -0.4R	6.5 -0.4R	6.5 -0.4R	6.5 -0.3R	6.5 -0.3R	6.6 -0.3R	6.6 -0.3R	6.6 -0.2R	
		6"	q_a 1229	1216	1208	1202	1171	926	750	620	521	
			q_f 1978	1958	1945	1935	1874	1481	1199	991	833	
			F 7.1 -0.8R	7.3 -0.8R	7.4 -0.7R	7.5 -0.7R	7.6 -0.6R	7.6 -0.6R	7.6 -0.6R	7.7 -0.5R	7.7 -0.5R	
		8"	q_a 1111	1122	1079	1092	1062	926	750	620	521	
			q_f 1789	1806	1738	1758	1710	1481	1199	991	833	
			F 7.8 -1.2R	7.9 -1.1R	8.3 -1.1R	8.2 -1R	8.5 -1R	8.4 -0.9R	8.6 -0.9R	8.6 -0.8R	8.8 -0.8R	
		12"	q_a 930	901	881	866	855	846	750	620	521	
			q_f 1498	1451	1419	1395	1376	1362	1199	991	833	
			F 8.9 -1.9R	9.4 -1.8R	9.7 -1.8R	9.9 -1.8R	10.1 -1.7R	10.3 -1.6R	10.4 -1.6R	10.6 -1.5R	10.7 -1.5R	
		18"	q_a 807	799	696	707	715	650	663	620	521	
			q_f 1299	1287	1120	1138	1151	1047	1067	991	833	
			F 9.8 -2.4R	10.1 -2.3R	11.3 -2.8R	11.5 -2.6R	11.5 -2.4R	12.5 -2.7R	12.4 -2.5R	12.4 -2.3R	13.1 -2.5R	
		24"	q_a 656	680	585	613	547	574	524	549	508	
			q_f 1057	1095	941	988	881	925	844	883	818	
			F 11 -3.2R	11.2 -3R	12.6 -3.6R	12.6 -3.2R	13.8 -3.7R	13.5 -3.3R	14.6 -3.7R	14.3 -3.3R	15.2 -3.6R	

DGB-36 36/7/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.6

Hilti Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a q_f	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2120	3393	1752	2804	1472	2356
			F	2.8 -0.1R		2.9 -0.1R		2.9 -0.1R		2.9 -0.1R		2.9 -0.1R		2.9 -0.1R		2.9 -0.1R		2.9 -0.1R		2.9 -0.1R	
		6"	q_a q_f	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2120	3393	1752	2804	1472	2356
			F	3.1 -0.2R		3.2 -0.2R		3.2 -0.2R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R	
		8"	q_a q_f	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2120	3393	1752	2804	1472	2356
			F	3.4 -0.3R		3.4 -0.2R		3.5 -0.2R		3.5 -0.2R		3.6 -0.2R		3.6 -0.2R		3.7 -0.2R		3.7 -0.2R		3.7 -0.2R	
		12"	q_a q_f	2542	4093	2542	4093	2498	4022	2455	3952	2421	3897	2393	3853	2120	3393	1752	2804	1472	2356
			F	3.8 -0.4R		3.9 -0.4R		4 -0.4R		4.1 -0.4R		4.2 -0.4R		4.3 -0.4R		4.3 -0.4R		4.3 -0.3R		4.4 -0.3R	
		18"	q_a q_f	2359	3798	2321	3736	2053	3306	2068	3330	2079	3347	1909	3073	1935	3115	1752	2804	1472	2356
			F	4.1 -0.6R		4.2 -0.6R		4.6 -0.7R		4.7 -0.6R		4.7 -0.6R		5 -0.6R		5 -0.6R		5 -0.5R		5.3 -0.6R	
		24"	q_a q_f	2001	3221	2033	3272	1773	2854	1832	2949	1648	2653	1711	2755	1570	2528	1630	2625	1472	2356
			F	4.5 -0.8R		4.6 -0.7R		5.1 -0.9R		5.1 -0.8R		5.5 -0.9R		5.4 -0.8R		5.8 -0.9R		5.7 -0.8R		6 -0.8R	
	18 ga	4"	q_a q_f	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.6 -0.2R		3.7 -0.2R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R	
		6"	q_a q_f	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1869	2990	1514	2422	1251	2002	1051	1682
			F	4 -0.3R		4.1 -0.3R		4.1 -0.3R		4.2 -0.2R		4.2 -0.2R		4.3 -0.2R		4.3 -0.2R		4.3 -0.2R		4.3 -0.2R	
		8"	q_a q_f	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.3 -0.4R		4.3 -0.4R		4.5 -0.4R		4.5 -0.3R		4.7 -0.3R		4.6 -0.3R		4.7 -0.3R		4.7 -0.3R		4.8 -0.3R	
		12"	q_a q_f	2058	3314	2056	3310	2008	3232	1972	3174	1944	3129	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.8 -0.6R		5 -0.6R		5.1 -0.6R		5.3 -0.6R		5.4 -0.6R		5.5 -0.6R		5.6 -0.5R		5.6 -0.5R		5.7 -0.5R	
		18"	q_a q_f	1897	3055	1865	3002	1649	2654	1660	2672	1668	2685	1530	2464	1514	2422	1251	2002	1051	1682
			F	5.1 -0.8R		5.3 -0.8R		5.8 -0.9R		5.9 -0.9R		6 -0.8R		6.4 -0.9R		6.4 -0.9R		6.4 -0.8R		6.8 -0.9R	
		24"	q_a q_f	1609	2591	1633	2629	1423	2291	1470	2366	1322	2128	1372	2208	1258	2026	1251	2002	1051	1682
			F	5.6 -1R		5.7 -1R		6.3 -1.2R		6.4 -1.1R		6.9 -1.2R		6.9 -1.1R		7.3 -1.2R		7.3 -1.1R		7.7 -1.2R	
	20 ga	4"	q_a q_f	1565	2520	1565	2520	1565	2520	1565	2520	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	4.9 -0.3R		5 -0.3R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.2R	
		6"	q_a q_f	1565	2520	1565	2520	1565	2520	1565	2520	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.4 -0.5R		5.5 -0.4R		5.7 -0.4R		5.7 -0.4R		5.8 -0.4R		5.9 -0.4R		5.9 -0.3R		6 -0.3R		6 -0.3R	
		8"	q_a q_f	1565	2520	1565	2520	1565	2520	1565	2520	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.8 -0.6R		5.9 -0.6R		6.2 -0.6R		6.2 -0.6R		6.4 -0.6R		6.4 -0.5R		6.6 -0.5R		6.5 -0.5R		6.7 -0.5R	
		12"	q_a q_f	1487	2393	1424	2293	1380	2222	1347	2169	1322	2128	1212	1939	982	1570	811	1298	682	1091
			F	6.3 -0.9R		6.7 -0.9R		6.9 -0.9R		7.2 -0.9R		7.3 -0.9R		7.5 -0.9R		7.6 -0.9R		7.8 -0.9R		7.9 -0.9R	
		18"	q_a q_f	1323	2130	1286	2070	1124	1810	1124	1809	1124	1809	1024	1648	982	1570	811	1298	682	1091
			F	6.7 -1.1R		7 -1.1R		7.8 -1.4R		7.9 -1.3R		8.1 -1.3R		8.7 -1.4R		8.7 -1.4R		8.8 -1.3R		9.3 -1.4R	
		24"	q_a q_f	1125	1812	1125	1811	972	1565	994	1601	889	1431	917	1476	837	1348	811	1298	682	1091
			F	7.2 -1.4R		7.5 -1.4R		8.3 -1.7R		8.5 -1.6R		9.2 -1.8R		9.2 -1.7R		9.9 -1.9R		9.8 -1.7R		10.4 -1.9R	
	22 ga	4"	q_a q_f	1312	2112	1312	2112	1312	2112	1312	2112	1171	1874	926	1481	750	1199	620	991	521	833
			F	6 -0.4R		6.1 -0.4R		6.2 -0.3R		6.2 -0.3R		6.3 -0.3R		6.3 -0.3R		6.4 -0.3R		6.4 -0.2R		6.4 -0.2R	
		6"	q_a q_f	1312	2112	1312	2112	1312	2112	1312	2112	1171	1874	926	1481	750	1199	620	991	521	833
			F	6.5 -0.6R		6.7 -0.6R		6.9 -0.6R		7 -0.6R		7.1 -0.5R		7.2 -0.5R		7.3 -0.5R		7.3 -0.5R		7.4 -0.4R	
		8"	q_a q_f	1312	2112	1312	2112	1284	2067	1289	2075	1171	1874	926	1481	750	1199	620	991	521	833
			F	7 -0.8R		7.1 -0.8R		7.5 -0.8R		7.5 -0.8R		7.8 -0.8R		7.8 -0.7R		8 -0.7R		8 -0.7R		8.2 -0.7R	
		12"	q_a q_f	1156	1862	1097	1766	1055	1698	1023	1647	999	1608	926	1481	750	1199	620	991	521	833
			F	7.6 -1.1R		8 -1.2R		8.4 -1.2R		8.7 -1.2R		8.9 -1.2R		9.1 -1.2R		9.3 -1.2R		9.5 -1.2R		9.6 -1.2R	
		18"	q_a q_f	1029	1656	989	1592	858	1381	851	1370	846	1362	767	1235	750	1199	620	991	521	833
			F	8 -1.4R		8.4 -1.4R		9.3 -1.7R		9.5 -1.7R		9.8 -1.6R		10.5 -1.8R		10.6 -1.8R		10.7 -1.7R		11.3 -1.9R	
		24"	q_a q_f	880	1417	867	1395	745	1199	754	1214	672	1081	688	1107	626	1008	620	991	521	833
			F	8.5 -1.7R		8.9 -1.7R		9.9 -2.1R		10.1 -2R		11 -2.3R		11.1 -2.2R		11.8 -2.4R		11.9 -2.3R		12.6 -2.5R	

DGB-36 36/9 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.6 DGB-36 & DGBF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	
36/4	16 ga	4"	q_a 1369	1369	1369	1369	1369	1369	1369	1369	1369	
			q_f 2204	2204	2204	2204	2204	2204	2204	2204	2204	
			F 2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	3 +0R	3 +0R	3 +0R	
		6"	q_a 1369	1369	1369	1369	1369	1369	1369	1369	1369	
			q_f 2204	2204	2204	2204	2204	2204	2204	2204	2204	
			F 3.2 -0.2R	3.3 -0.2R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	
		8"	q_a 1369	1369	1369	1369	1369	1369	1369	1369	1369	
			q_f 2204	2204	2204	2204	2204	2204	2204	2204	2204	
			F 3.5 -0.3R	3.5 -0.2R	3.6 -0.2R	3.6 -0.2R	3.7 -0.2R	3.7 -0.2R	3.7 -0.2R	3.7 -0.1R	3.8 -0.1R	
		12"	q_a 1369	1369	1369	1369	1369	1369	1369	1369	1369	
			q_f 2204	2204	2204	2204	2204	2204	2204	2204	2204	
			F 4 -0.4R	4.1 -0.4R	4.2 -0.4R	4.3 -0.4R	4.3 -0.3R	4.4 -0.3R	4.4 -0.3R	4.5 -0.3R	4.5 -0.3R	
		18"	q_a 1369	1369	1367	1369	1369	1335	1355	1369	1317	
			q_f 2204	2204	2202	2204	2204	2149	2181	2204	2120	
			F 4.4 -0.6R	4.4 -0.5R	4.9 -0.6R	4.9 -0.6R	4.9 -0.5R	5.3 -0.6R	5.2 -0.5R	5.2 -0.5R	5.5 -0.5R	
		24"	q_a 1279	1334	1216	1270	1181	1231	1159	1203	1144	
			q_f 2059	2148	1957	2045	1901	1981	1865	1937	1841	
			F 4.9 -0.9R	4.9 -0.7R	5.5 -0.9R	5.4 -0.8R	5.9 -0.9R	5.7 -0.7R	6.1 -0.8R	6 -0.7R	6.3 -0.8R	
	18 ga	4"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	1784	1784	1784	1784	2204	1784	2204	1682	
			F 2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	3 +0R	3 +0R	3 +0R	
		6"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	1784	1784	1784	1784	1784	1784	1784	1682	
			F 3.2 -0.2R	3.3 -0.2R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	
		8"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	2204	1784	1784	1784	1784	1784	2204	1682	
			F 3.5 -0.3R	3.5 -0.2R	3.6 -0.2R	3.6 -0.2R	3.7 -0.2R	3.7 -0.2R	3.7 -0.2R	3.7 -0.1R	3.8 -0.1R	
		12"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1369	
			q_f 1784	1784	1784	1784	1784	1784	1784	1784	1682	
			F 4 -0.4R	4.1 -0.4R	4.2 -0.4R	4.3 -0.4R	4.3 -0.3R	4.4 -0.3R	4.4 -0.3R	4.5 -0.3R	4.5 -0.3R	
		18"	q_a 1108	1108	1100	1108	1108	1073	1089	1102	1051	
			q_f 1784	1784	1771	1784	1784	1728	1754	1775	1682	
			F 4.4 -0.6R	4.4 -0.5R	4.9 -0.6R	4.9 -0.6R	4.9 -0.5R	5.3 -0.6R	5.2 -0.5R	5.2 -0.5R	5.5 -0.5R	
		24"	q_a 1029	1074	977	1021	948	988	930	966	918	
			q_f 1656	1728	1573	1644	1527	1591	1497	1556	1477	
			F 4.9 -0.9R	4.9 -0.7R	5.5 -0.9R	5.4 -0.8R	5.9 -0.9R	5.7 -0.7R	6.1 -0.8R	6 -0.7R	6.3 -0.8R	
	20 ga	4"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	1784	1784	1784	1784	1784	1784	1784	1682	
			F 3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	
		6"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	1784	1784	1784	1784	1784	1784	1784	1682	
			F 4.1 -0.3R	4.2 -0.2R	4.2 -0.2R	4.3 -0.2R	4.3 -0.2R	4.3 -0.2R	4.3 -0.2R	4.4 -0.1R	4.4 -0.1R	
		8"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	1784	1784	1784	1784	1784	1784	1784	1682	
			F 4.5 -0.4R	4.5 -0.3R	4.7 -0.3R	4.6 -0.3R	4.8 -0.3R	4.7 -0.3R	4.8 -0.3R	4.8 -0.2R	4.9 -0.2R	
		12"	q_a 1108	1108	1108	1108	1108	1108	1108	1108	1051	
			q_f 1784	1784	1784	1784	1784	1784	1784	1784	1682	
			F 5 -0.6R	5.2 -0.6R	5.4 -0.6R	5.5 -0.6R	5.6 -0.5R	5.7 -0.5R	5.8 -0.5R	5.8 -0.5R	5.9 -0.4R	
		18"	q_a 1108	1108	1100	1108	1108	1073	1089	1102	1051	
			q_f 1784	1784	1771	1784	1784	1728	1754	1775	1682	
			F 5.5 -0.8R	5.7 -0.8R	6.3 -0.9R	6.3 -0.8R	6.3 -0.8R	6.8 -0.9R	6.8 -0.8R	6.7 -0.7R	7.1 -0.8R	
		24"	q_a 1029	1074	977	1021	948	988	930	966	918	
			q_f 1656	1728	1573	1644	1527	1591	1497	1556	1477	
			F 6.1 -1.2R	6.2 -1R	6.9 -1.2R	6.9 -1.1R	7.5 -1.2R	7.4 -1.1R	7.9 -1.2R	7.7 -1.1R	8.2 -1.2R	
	22 ga	4"	q_a 706	706	706	706	706	706	706	620	521	
			q_f 1137	1137	1137	1137	1137	1137	1137	991	833	
			F 6.1 -0.4R	6.2 -0.3R	6.3 -0.3R	6.4 -0.3R	6.4 -0.3R	6.4 -0.2R	6.5 -0.2R	6.5 -0.2R	6.5 -0.2R	
		6"	q_a 706	706	706	706	706	706	706	620	521	
			q_f 1137	1137	1137	1137	1137	1137	1137	991	833	
			F 6.8 -0.6R	7 -0.6R	7.1 -0.5R	7.2 -0.5R	7.3 -0.5R	7.4 -0.4R	7.4 -0.4R	7.5 -0.4R	7.5 -0.4R	
		8"	q_a 706	706	706	706	706	706	706	620	521	
			q_f 1137	1137	1137	1137	1137	1137	1137	991	833	
			F 7.3 -0.8R	7.5 -0.8R	7.8 -0.8R	7.9 -0.7R	8.1 -0.7R	8.1 -0.6R	8.3 -0.7R	8.3 -0.6R	8.5 -0.6R	
		12"	q_a 706	706	703	696	690	686	682	620	521	
			q_f 1137	1137	1132	1121	1112	1104	1099	991	833	
			F 8.2 -1.2R	8.6 -1.2R	8.9 -1.2R	9.2 -1.2R	9.5 -1.2R	9.7 -1.2R	9.8 -1.1R	10 -1.1R	10.1 -1.1R	
		18"	q_a 658	655	592	600	607	564	574	581	521	
			q_f 1059	1055	953	966	977	908	924	936	833	
			F 8.7 -1.5R	9.2 -1.5R	10.2 -1.8R	10.4 -1.7R	10.5 -1.7R	11.3 -1.9R	11.4 -1.8R	11.5 -1.7R	12.1 -1.8R	
		24"	q_a 560	579	513	536	488	510	472	492	461	
			q_f 901	933	827	863	786	820	760	792	742	
			F 9.5 -2R	9.9 -1.9R	11 -2.3R	11.2 -2.1R	12.2 -2.4R	12.2 -2.2R	13 -2.5R	12.9 -2.3R	13.7 -2.5R	

DGB-36 36/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

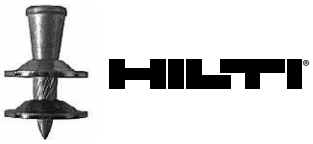
Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.6

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a	2738	4408	2738	4408	2738	4408	2738	4408	2738	4408	2618	4188	2120	3393	1752	2804	1472	2356
			q_f																		
			F	2.9	-0.2R	2.9	-0.1R	2.9	-0.1R	2.9	-0.1R	2.9	-0.1R	2.9	-0.1R	2.9	-0.1R	3	-0.1R	3	-0.1R
		6"	q_a	2738	4408	2738	4408	2738	4408	2738	4408	2738	4408	2618	4188	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.2	-0.3R	3.2	-0.3R	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.4	-0.2R	3.4	-0.2R
		8"	q_a	2605	4194	2632	4238	2566	4131	2592	4174	2544	4096	2569	4135	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.5	-0.4R	3.5	-0.4R	3.6	-0.4R	3.6	-0.3R	3.7	-0.3R	3.7	-0.3R	3.7	-0.3R	3.7	-0.3R	3.8	-0.3R
		12"	q_a	2260	3639	2217	3570	2187	3522	2166	3486	2149	3459	2135	3438	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.9	-0.7R	4.1	-0.7R	4.2	-0.6R	4.2	-0.6R	4.3	-0.6R	4.4	-0.6R	4.4	-0.5R	4.4	-0.5R	4.5	-0.5R
		18"	q_a	1991	3205	1997	3215	1773	2855	1812	2917	1840	2963	1696	2730	1732	2789	1752	2804	1472	2356
			q_f																		
			F	4.3	-0.9R	4.4	-0.8R	4.8	-1R	4.8	-0.9R	4.9	-0.8R	5.2	-0.9R	5.2	-0.9R	5.1	-0.8R	5.4	-0.9R
		24"	q_a	1629	2622	1717	2765	1499	2413	1586	2554	1430	2302	1508	2429	1387	2234	1457	2346	1358	2187
			q_f																		
			F	4.8	-1.2R	4.8	-1.1R	5.3	-1.3R	5.3	-1.2R	5.7	-1.3R	5.6	-1.2R	6	-1.3R	5.9	-1.2R	6.2	-1.3R
	18 ga	4"	q_a	2216	3568	2216	3568	2216	3568	2216	3568	2216	3568	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	3.7	-0.2R	3.7	-0.2R	3.7	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		6"	q_a	2216	3568	2216	3568	2216	3568	2216	3568	2216	3568	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	4.1	-0.4R	4.2	-0.4R	4.2	-0.4R	4.2	-0.3R	4.3	-0.3R	4.3	-0.3R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R
		8"	q_a	2099	3379	2121	3414	2066	3326	2088	3361	2048	3298	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	4.4	-0.6R	4.4	-0.5R	4.6	-0.6R	4.6	-0.5R	4.7	-0.5R	4.7	-0.4R	4.8	-0.4R	4.8	-0.4R	4.9	-0.4R
		12"	q_a	1817	2926	1782	2869	1758	2830	1739	2800	1725	2778	1714	2760	1514	2422	1251	2002	1051	1682
			q_f																		
			F	4.9	-0.9R	5.2	-0.9R	5.3	-0.9R	5.4	-0.9R	5.6	-0.9R	5.6	-0.8R	5.7	-0.8R	5.8	-0.8R	5.8	-0.7R
		18"	q_a	1599	2575	1603	2582	1422	2290	1453	2340	1476	2376	1359	2188	1388	2235	1251	2002	1051	1682
			q_f																		
			F	5.3	-1.2R	5.5	-1.2R	6.1	-1.4R	6.2	-1.3R	6.2	-1.2R	6.7	-1.4R	6.7	-1.3R	6.7	-1.2R	7	-1.3R
		24"	q_a	1308	2105	1378	2218	1201	1934	1271	2047	1145	1844	1208	1945	1111	1788	1166	1878	1051	1682
			q_f																		
			F	5.9	-1.6R	6	-1.5R	6.7	-1.8R	6.7	-1.6R	7.3	-1.8R	7.2	-1.7R	7.7	-1.9R	7.6	-1.7R	8	-1.8R
	20 ga	4"	q_a	1685	2714	1685	2714	1685	2714	1685	2714	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	5	-0.4R	5.1	-0.4R	5.1	-0.4R	5.2	-0.3R	5.2	-0.3R	5.2	-0.3R	5.2	-0.3R	5.3	-0.3R	5.3	-0.2R
		6"	q_a	1630	2625	1617	2604	1608	2589	1602	2579	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	5.5	-0.7R	5.7	-0.7R	5.8	-0.6R	5.9	-0.6R	5.9	-0.6R	6	-0.5R	6	-0.5R	6	-0.5R	6.1	-0.5R
		8"	q_a	1488	2396	1504	2421	1453	2340	1470	2367	1434	2309	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	6	-0.9R	6.1	-0.9R	6.3	-0.9R	6.4	-0.8R	6.6	-0.8R	6.5	-0.8R	6.7	-0.8R	6.7	-0.7R	6.8	-0.7R
		12"	q_a	1259	2027	1225	1973	1202	1935	1185	1907	1171	1886	1161	1869	982	1570	811	1298	682	1091
			q_f																		
			F	6.6	-1.4R	7	-1.4R	7.2	-1.4R	7.4	-1.4R	7.6	-1.4R	7.8	-1.4R	7.9	-1.3R	8	-1.3R	8.1	-1.3R
		18"	q_a	1096	1765	1091	1757	955	1538	973	1566	986	1587	900	1449	919	1479	811	1298	682	1091
			q_f																		
			F	7.1	-1.7R	7.4	-1.7R	8.2	-2R	8.4	-2R	8.5	-1.9R	9.1	-2.1R	9.2	-2R	9.2	-1.9R	9.7	-2.1R
		24"	q_a	892	1436	930	1498	803	1293	846	1362	757	1218	796	1282	728	1172	763	1229	682	1091
			q_f																		
			F	7.7	-2.1R	8	-2.1R	8.9	-2.5R	9	-2.4R	9.8	-2.7R	9.8	-2.5R	10.5	-2.8R	10.4	-2.6R	11	-2.8R
	22 ga	4"	q_a	1412	2274	1412	2274	1412	2274	1412	2274	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	6.1	-0.6R	6.2	-0.5R	6.3	-0.5R	6.3	-0.5R	6.4	-0.4R	6.4	-0.4R	6.5	-0.4R	6.5	-0.4R	6.5	-0.3R
		6"	q_a	1292	2081	1277	2057	1267	2040	1259	2028	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	6.7	-0.9R	6.9	-0.9R	7.1	-0.9R	7.2	-0.8R	7.3	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R	7.5	-0.7R
		8"	q_a	1162	1870	1172	1887	1124	1810	1137	1831	1104	1777	926	1481	750	1199	620	991	521	833
			q_f																		
			F	7.2	-1.2R	7.4	-1.2R	7.7	-1.2R	7.8	-1.1R	8	-1.2R	8	-1.1R	8.3	-1.1R	8.2	-1R	8.4	-1R
		12"	q_a	967	1556	933	1503	910	1466	893	1438	880	1417	870	1401	750	1199	620	991	521	833
			q_f																		
			F	7.9	-1.7R	8.4	-1.8R	8.7	-1.8R	9	-1.9R	9.3	-1.9R	9.5	-1.8R	9.7	-1.8R	9.8	-1.8R	10	-1.7R
		18"	q_a	836	1347	826	1330	716	1153	726	1169	733	1181	666	1072	678	1092	620	991	521	833
			q_f																		
			F	8.4	-2.1R	8.9	-2.1R	9.8	-2.6R	10.1	-2.5R	10.3	-2.5R	11	-2.8R	11.1	-2.7R	11.2	-2.5R	11.9	-2.8R
		24"	q_a	681	1097	703	1131	602	970	630	1014	561	903	588	946	536	862	560	902	518	833
			q_f																		
			F	9.1	-2.6R	9.5	-2.6R	10.6	-3.1R	10.8	-3R	11.7	-3.4R	11.8	-3.2R	12.6	-3.6R	12.6	-3.4R	13.3	-3.7R

DGB-36 36/7/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.6 DGB-36 & DGBF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	
36/9	16 ga	4"	q_a 2738	2738	2738	2738	2738	2618	2120	1752	1472	
			q_f 4408	4408	4408	4408	4408	4188	3393	2804	2356	
			F 2.8 -0.1R	2.8 -0.1R	2.8 -0.1R	2.8 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	2.9 -0.1R	
		6"	q_a 2738	2738	2738	2738	2738	2618	2120	1752	1472	
			q_f 4408	4408	4408	4408	4408	4188	3393	2804	2356	
			F 3 -0.2R	3.1 -0.2R	3.1 -0.2R	3.1 -0.2R	3.2 -0.2R	3.2 -0.2R	3.2 -0.2R	3.2 -0.2R	3.3 -0.1R	
		8"	q_a 2738	2738	2738	2738	2738	2618	2120	1752	1472	
			q_f 4408	4408	4408	4408	4408	4188	3393	2804	2356	
			F 3.2 -0.3R	3.2 -0.3R	3.3 -0.3R	3.4 -0.3R	3.5 -0.3R	3.5 -0.2R	3.5 -0.2R	3.5 -0.2R	3.6 -0.2R	
		12"	q_a 2738	2668	2601	2550	2511	2479	2120	1752	1472	
			q_f 4408	4296	4187	4106	4042	3992	3393	2804	2356	
			F 3.4 -0.4R	3.6 -0.4R	3.7 -0.4R	3.8 -0.4R	3.9 -0.4R	4 -0.4R	4 -0.4R	4.1 -0.4R	4.1 -0.4R	
		18"	q_a 2466	2416	2129	2140	2148	1967	1992	1752	1472	
			q_f 3970	3890	3428	3446	3458	3166	3206	2804	2356	
			F 3.6 -0.5R	3.7 -0.5R	4.1 -0.6R	4.2 -0.6R	4.2 -0.6R	4.5 -0.7R	4.6 -0.6R	4.6 -0.6R	4.8 -0.7R	
		24"	q_a 2092	2115	1838	1894	1700	1762	1614	1674	1472	
			q_f 3368	3404	2959	3049	2737	2836	2599	2695	2356	
			F 3.8 -0.7R	4 -0.7R	4.4 -0.8R	4.4 -0.7R	4.8 -0.9R	4.8 -0.8R	5.1 -0.9R	5.1 -0.8R	5.3 -0.9R	
	18 ga	4"	q_a 2216	2216	2216	2216	2216	1869	1514	1251	1051	
			q_f 3568	3568	3568	3568	3568	2990	2422	2002	1682	
			F 3.5 -0.2R	3.6 -0.2R	3.6 -0.2R	3.6 -0.2R	3.7 -0.2R	3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	
		6"	q_a 2216	2216	2216	2216	2216	1869	1514	1251	1051	
			q_f 3568	3568	3568	3568	3568	2990	2422	2002	1682	
			F 3.8 -0.3R	3.9 -0.3R	3.9 -0.3R	4 -0.3R	4.1 -0.3R	4.1 -0.3R	4.1 -0.3R	4.2 -0.2R	4.2 -0.2R	
		8"	q_a 2216	2216	2216	2216	2216	1869	1514	1251	1051	
			q_f 3568	3568	3568	3568	3568	2990	2422	2002	1682	
			F 4 -0.4R	4.1 -0.4R	4.2 -0.4R	4.3 -0.4R	4.4 -0.4R	4.4 -0.4R	4.5 -0.4R	4.5 -0.3R	4.6 -0.3R	
		12"	q_a 2216	2145	2089	2048	2015	1869	1514	1251	1051	
			q_f 3568	3454	3364	3297	3245	2990	2422	2002	1682	
			F 4.2 -0.6R	4.5 -0.6R	4.6 -0.6R	4.8 -0.6R	4.9 -0.6R	5 -0.6R	5.1 -0.6R	5.2 -0.6R	5.3 -0.6R	
		18"	q_a 1983	1942	1710	1717	1723	1577	1514	1251	1051	
			q_f 3192	3126	2752	2765	2774	2538	2422	2002	1682	
			F 4.4 -0.7R	4.7 -0.7R	5.1 -0.8R	5.2 -0.8R	5.3 -0.8R	5.7 -0.9R	5.7 -0.9R	5.8 -0.9R	6.1 -0.9R	
		24"	q_a 1683	1699	1476	1520	1364	1412	1293	1251	1051	
			q_f 2709	2735	2376	2447	2195	2274	2082	2002	1682	
			F 4.7 -0.8R	4.9 -0.8R	5.4 -1R	5.5 -1R	5.9 -1.1R	6 -1.1R	6.3 -1.2R	6.4 -1.1R	6.7 -1.2R	
	20 ga	4"	q_a 1685	1685	1685	1685	1534	1212	982	811	682	
			q_f 2714	2714	2714	2714	2454	1939	1570	1298	1091	
			F 4.7 -0.3R	4.8 -0.3R	4.9 -0.3R	4.9 -0.3R	5 -0.3R	5 -0.3R	5.1 -0.2R	5.1 -0.2R	5.1 -0.2R	
		6"	q_a 1685	1685	1685	1685	1534	1212	982	811	682	
			q_f 2714	2714	2714	2714	2454	1939	1570	1298	1091	
			F 5 -0.5R	5.2 -0.5R	5.3 -0.5R	5.4 -0.5R	5.5 -0.5R	5.6 -0.4R	5.7 -0.4R	5.7 -0.4R	5.8 -0.4R	
		8"	q_a 1685	1685	1685	1685	1534	1212	982	811	682	
			q_f 2714	2714	2714	2714	2454	1939	1570	1298	1091	
			F 5.3 -0.6R	5.4 -0.6R	5.7 -0.6R	5.8 -0.6R	6 -0.6R	6 -0.6R	6.2 -0.6R	6.2 -0.6R	6.3 -0.6R	
		12"	q_a 1554	1483	1433	1395	1366	1212	982	811	682	
			q_f 2502	2388	2307	2246	2200	1939	1570	1298	1091	
			F 5.6 -0.8R	5.9 -0.8R	6.2 -0.9R	6.4 -0.9R	6.6 -0.9R	6.8 -0.9R	6.9 -0.9R	7.1 -0.9R	7.2 -0.9R	
		18"	q_a 1382	1338	1166	1162	1159	1054	982	811	682	
			q_f 2226	2154	1877	1871	1866	1697	1570	1298	1091	
			F 5.8 -0.9R	6.1 -1R	6.6 -1.2R	6.9 -1.2R	7.1 -1.2R	7.5 -1.3R	7.7 -1.3R	7.8 -1.3R	8.2 -1.4R	
		24"	q_a 1178	1171	1009	1029	918	944	861	811	682	
			q_f 1897	1885	1625	1656	1478	1520	1386	1298	1091	
			F 6 -1R	6.4 -1.1R	6.9 -1.3R	7.2 -1.3R	7.7 -1.5R	7.8 -1.5R	8.3 -1.7R	8.4 -1.6R	8.9 -1.8R	
	22 ga	4"	q_a 1412	1412	1412	1412	1171	926	750	620	521	
			q_f 2274	2274	2274	2274	1874	1481	1199	991	833	
			F 5.7 -0.4R	5.8 -0.4R	5.9 -0.4R	6 -0.4R	6.1 -0.4R	6.1 -0.4R	6.2 -0.3R	6.2 -0.3R	6.3 -0.3R	
		6"	q_a 1412	1412	1412	1412	1171	926	750	620	521	
			q_f 2274	2274	2274	2274	1874	1481	1199	991	833	
			F 6 -0.6R	6.3 -0.6R	6.4 -0.6R	6.6 -0.6R	6.7 -0.6R	6.8 -0.6R	6.9 -0.6R	7 -0.6R	7 -0.6R	
		8"	q_a 1412	1410	1336	1340	1171	926	750	620	521	
			q_f 2274	2270	2151	2158	1874	1481	1199	991	833	
			F 6.3 -0.7R	6.5 -0.7R	6.8 -0.8R	6.9 -0.8R	7.2 -0.8R	7.3 -0.8R	7.5 -0.8R	7.5 -0.8R	7.7 -0.8R	
		12"	q_a 1208	1141	1094	1058	1031	926	750	620	521	
			q_f 1945	1837	1761	1704	1660	1481	1199	991	833	
			F 6.6 -0.9R	7 -1R	7.4 -1.1R	7.7 -1.2R	7.9 -1.2R	8.1 -1.2R	8.4 -1.2R	8.5 -1.2R	8.7 -1.2R	
		18"	q_a 1075	1029	890	880	873	790	750	620	521	
			q_f 1732	1656	1433	1417	1405	1272	1199	991	833	
			F 6.8 -1.1R	7.2 -1.2R	7.8 -1.4R	8.2 -1.4R	8.4 -1.5R	9 -1.6R	9.2 -1.6R	9.3 -1.6R	9.8 -1.8R	
		24"	q_a 923	903	775	781	695	709	645	620	521	
			q_f 1486	1454	1247	1258	1118	1142	1039	991	833	
			F 7.1 -1.2R	7.5 -1.3R	8.2 -1.6R	8.5 -1.6R	9.1 -1.9R	9.3 -1.8R	9.9 -2.1R	10 -2R	10.6 -2.2R	

DGB-36 36/9 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.7

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027			
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R			
		6"	q_a q_f	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027			
			F	3.4 -0.1R		3.4 -0.1R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R			
		8"	q_a q_f	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027			
			F	3.8 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 +0R		3.9 +0R			
		12"	q_a q_f	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027			
			F	4.6 -0.2R		4.6 -0.2R		4.7 -0.2R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R		4.8 -0.1R		4.8 -0.1R			
		18"	q_a q_f	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1255	2020			
			F	5.3 -0.4R		5.2 -0.3R		5.8 -0.3R		5.7 -0.3R		5.5 -0.2R		6 -0.3R		5.8 -0.2R		5.7 -0.2R		6 -0.2R			
		24"	q_a q_f	1212	1952	1259	2027	1159	1867	1210	1949	1130	1820	1176	1894	1112	1790	1153	1856	1099	1770			
			F	6.6 -0.7R		6.1 -0.5R		6.9 -0.5R		6.5 -0.4R		7.1 -0.5R		6.7 -0.3R		7.2 -0.4R		6.8 -0.3R		7.3 -0.3R			
	18 ga	4"	q_a q_f	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664			
			F	3.8 -0.1R		3.8 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R			
		6"	q_a q_f	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664			
			F	4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R			
		8"	q_a q_f	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664			
			F	5 -0.2R		4.9 -0.1R		5 -0.1R		4.9 -0.1R		5.1 -0.1R		5 -0.1R		5.1 -0.1R		5 -0.1R		5.1 -0.1R			
		12"	q_a q_f	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664			
			F	6 -0.4R		6.1 -0.3R		6.2 -0.3R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R			
		18"	q_a q_f	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1030	1658	1034	1664	1034	1664	1017	1638			
			F	6.9 -0.6R		6.9 -0.5R		7.7 -0.5R		7.5 -0.4R		7.3 -0.4R		7.9 -0.4R		7.7 -0.3R		7.6 -0.3R		8 -0.3R			
		24"	q_a q_f	985	1585	1027	1654	940	1513	981	1580	915	1473	953	1534	899	1448	933	1502	888	1430			
			F	8.6 -1R		8 -0.7R		9.1 -0.9R		8.6 -0.6R		9.4 -0.7R		8.9 -0.6R		9.6 -0.6R		9.1 -0.5R		9.7 -0.6R			
	20 ga	4"	q_a q_f	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	682	1091			
			F	5.3 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R			
		6"	q_a q_f	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	682	1091			
			F	6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R			
		8"	q_a q_f	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	682	1091			
			F	7 -0.3R		6.9 -0.3R		7.1 -0.3R		7 -0.2R		7.2 -0.2R		7.1 -0.2R		7.2 -0.2R		7.1 -0.1R		7.3 -0.1R			
		12"	q_a q_f	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	682	1091			
			F	8.4 -0.7R		8.6 -0.6R		8.7 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R		9 -0.4R		9 -0.3R		9.1 -0.3R			
		18"	q_a q_f	797	1283	797	1283	743	1197	755	1216	764	1230	719	1158	731	1177	740	1192	682	1091			
			F	9.8 -1R		9.7 -0.8R		10.9 -1R		10.7 -0.8R		10.5 -0.7R		11.4 -0.8R		11.1 -0.7R		10.9 -0.6R		11.6 -0.6R			
		24"	q_a q_f	696	1121	725	1168	653	1051	683	1100	629	1013	657	1057	614	988	639	1029	603	971			
			F	12 -1.8R		11.3 -1.3R		12.9 -1.5R		12.2 -1.2R		13.4 -1.3R		12.7 -1R		13.8 -1.2R		13.1 -0.9R		14 -1R			
	22 ga	4"	q_a q_f	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	620	991	521	833			
			F	6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R			
		6"	q_a q_f	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	620	991	521	833			
			F	7.6 -0.3R		7.7 -0.3R		7.8 -0.2R		7.8 -0.2R		7.8 -0.2R		7.9 -0.2R		7.9 -0.2R		7.9 -0.1R		7.9 -0.1R			
		8"	q_a q_f	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	620	991	521	833			
			F	8.7 -0.5R		8.5 -0.4R		8.9 -0.4R		8.7 -0.3R		9 -0.3R		8.9 -0.3R		9 -0.3R		8.9 -0.2R		9.1 -0.2R			
		12"	q_a q_f	672	1082	672	1082	672	1082	672	1082	670	1079	666	1073	663	1068	620	991	521	833			
			F	10.5 -0.9R		10.7 -0.8R		10.9 -0.8R		11 -0.7R		11.2 -0.6R		11.2 -0.6R		11.3 -0.5R		11.4 -0.5R		11.4 -0.5R			
		18"	q_a q_f	637	1026	636	1024	576	928	585	942	591	952	551	888	561	903	568	914	521	833			
			F	12.1 -1.4R		12.1 -1.2R		13.7 -1.4R		13.4 -1.2R		13.2 -1R		14.3 -1.1R		14 -1R		13.8 -0.9R		14.7 -0.9R			
		24"	q_a q_f	544	875	564	908	501	807	524	843	478	769	499	803	463	745	482	777	453	729			
			F	14.8 -2.4R		14.1 -1.8R		16.1 -2.1R		15.3 -1.7R		16.8 -1.9R		16 -1.5R		17.3 -1.7R		16.6 -1.4R		17.7 -1.5R			

DGB-36 36/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.7 DGB-36 & DGBF-36

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a q_f	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2120	3393	1752	2804	1472	2356
			F	3 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a q_f	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2120	3393	1752	2804	1472	2356
			F	3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 +0R	
		8"	q_a q_f	2453	3949	2477	3988	2421	3898	2445	3936	2404	3871	2426	3905	2120	3393	1752	2804	1472	2356
			F	3.8 -0.2R		3.7 -0.2R		3.8 -0.2R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R	
		12"	q_a q_f	2149	3459	2113	3402	2089	3363	2071	3334	2057	3311	2046	3293	2037	3279	1752	2804	1472	2356
			F	4.6 -0.4R		4.6 -0.4R		4.7 -0.3R		4.7 -0.3R		4.7 -0.3R		4.7 -0.2R		4.7 -0.2R		4.8 -0.2R		4.8 -0.2R	
		18"	q_a q_f	1903	3064	1913	3080	1709	2751	1747	2813	1775	2858	1642	2644	1677	2701	1706	2746	1472	2356
			F	5.3 -0.6R		5.2 -0.5R		5.8 -0.6R		5.6 -0.5R		5.5 -0.4R		6 -0.5R		5.8 -0.4R		5.7 -0.3R		6 -0.4R	
		24"	q_a q_f	1563	2516	1652	2660	1449	2333	1535	2471	1388	2235	1465	2359	1351	2175	1419	2284	1325	2134
			F	6.5 -1.2R		6.1 -0.8R		6.9 -1R		6.4 -0.7R		7.1 -0.8R		6.7 -0.6R		7.2 -0.7R		6.8 -0.6R		7.3 -0.6R	
	18 ga	4"	q_a q_f	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.8 -0.1R		3.8 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		6"	q_a q_f	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.4 -0.2R		4.4 -0.2R		4.5 -0.2R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R	
		8"	q_a q_f	1997	3216	2018	3248	1970	3172	1990	3204	1955	3148	1869	2990	1514	2422	1251	2002	1051	1682
			F	5 -0.3R		4.9 -0.3R		5 -0.3R		4.9 -0.2R		5.1 -0.2R		5 -0.2R		5.1 -0.2R		5 -0.1R		5.1 -0.1R	
		12"	q_a q_f	1743	2807	1713	2758	1692	2725	1677	2700	1665	2680	1655	2665	1514	2422	1251	2002	1051	1682
			F	6 -0.6R		6.1 -0.6R		6.1 -0.5R		6.2 -0.5R		6.2 -0.4R		6.2 -0.4R		6.3 -0.3R		6.3 -0.3R		6.3 -0.3R	
		18"	q_a q_f	1541	2481	1548	2492	1380	2221	1410	2271	1433	2307	1324	2131	1352	2177	1251	2002	1051	1682
			F	6.9 -1R		6.8 -0.8R		7.7 -1R		7.5 -0.8R		7.3 -0.7R		7.9 -0.8R		7.7 -0.7R		7.6 -0.6R		8 -0.6R	
		24"	q_a q_f	1264	2035	1335	2149	1168	1881	1237	1992	1118	1800	1180	1899	1087	1749	1141	1837	1051	1682
			F	8.5 -1.7R		8 -1.2R		9.1 -1.5R		8.5 -1.1R		9.4 -1.3R		8.9 -1R		9.5 -1.1R		9.1 -0.9R		9.7 -1R	
	20 ga	4"	q_a q_f	1594	2566	1594	2566	1594	2566	1594	2566	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.3 -0.2R		5.3 -0.2R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R	
		6"	q_a q_f	1565	2519	1554	2501	1546	2489	1540	2480	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	6.2 -0.4R		6.2 -0.3R		6.2 -0.3R		6.3 -0.3R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R	
		8"	q_a q_f	1435	2311	1450	2335	1405	2262	1421	2287	1388	2235	1212	1939	982	1570	811	1298	682	1091
			F	7 -0.6R		6.8 -0.5R		7.1 -0.5R		7 -0.4R		7.2 -0.4R		7.1 -0.3R		7.2 -0.3R		7.1 -0.3R		7.3 -0.3R	
		12"	q_a q_f	1221	1966	1191	1918	1170	1884	1155	1859	1143	1840	1133	1824	982	1570	811	1298	682	1091
			F	8.4 -1.1R		8.6 -1R		8.7 -0.9R		8.8 -0.8R		8.9 -0.8R		8.9 -0.7R		9 -0.7R		9 -0.6R		9 -0.6R	
		18"	q_a q_f	1066	1716	1063	1712	934	1503	952	1532	965	1554	883	1422	902	1452	811	1298	682	1091
			F	9.7 -1.7R		9.6 -1.4R		10.9 -1.7R		10.6 -1.4R		10.5 -1.2R		11.3 -1.4R		11.1 -1.2R		10.9 -1.1R		11.6 -1.2R	
		24"	q_a q_f	868	1397	908	1462	786	1265	829	1334	742	1195	782	1259	716	1152	751	1209	682	1091
			F	11.8 -2.8R		11.2 -2.1R		12.8 -2.5R		12.1 -2R		13.3 -2.3R		12.7 -1.8R		13.7 -2R		13.1 -1.7R		14 -1.8R	
	22 ga	4"	q_a q_f	1344	2165	1344	2165	1344	2165	1344	2165	1171	1874	926	1481	750	1199	620	991	521	833
			F	6.6 -0.3R		6.6 -0.2R		6.6 -0.2R		6.6 -0.2R		6.6 -0.2R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		6"	q_a q_f	1250	2012	1237	1991	1228	1976	1221	1966	1171	1874	926	1481	750	1199	620	991	521	833
			F	7.6 -0.6R		7.7 -0.5R		7.8 -0.4R		7.8 -0.4R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.2R	
		8"	q_a q_f	1128	1816	1138	1833	1094	1762	1107	1783	1076	1733	926	1481	750	1199	620	991	521	833
			F	8.6 -0.9R		8.5 -0.7R		8.8 -0.7R		8.7 -0.6R		9 -0.6R		8.8 -0.5R		9 -0.5R		8.9 -0.4R		9.1 -0.4R	
		12"	q_a q_f	942	1517	912	1468	891	1434	875	1409	863	1390	854	1375	750	1199	620	991	521	833
			F	10.4 -1.6R		10.7 -1.5R		10.9 -1.3R		11 -1.2R		11.1 -1.1R		11.2 -1R		11.3 -1R		11.3 -0.9R		11.4 -0.9R	
		18"	q_a q_f	816	1315	808	1301	703	1131	713	1148	721	1161	656	1055	668	1076	620	991	521	833
			F	11.9 -2.3R		12 -2R		13.5 -2.4R		13.3 -2R		13.1 -1.8R		14.2 -2R		13.9 -1.8R		13.7 -1.6R		14.6 -1.7R	
		24"	q_a q_f	665	1070	688	1107	591	951	619	996	552	888	579	932	528	850	553	890	512	824
			F	14.4 -3.7R		13.9 -2.9R		15.8 -3.5R		15.1 -2.8R		16.6 -3.2R		15.9 -2.6R		17.2 -2.9R		16.5 -2.4R		17.6 -2.7R	

DGB-36 36/7/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.7

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2120	3393	1752	2804	1472	2356
			q_f																		
			F	2.9	-0.1R	2.9	-0.1R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R
		6"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		8"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.7	-0.2R	3.6	-0.2R	3.7	-0.2R	3.7	-0.1R	3.8	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		12"	q_a	2518	4054	2518	4054	2485	4001	2442	3932	2409	3878	2382	3835	2120	3393	1752	2804	1472	2356
			q_f																		
			F	4.3	-0.4R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R
		18"	q_a	2346	3777	2308	3716	2044	3290	2059	3315	2070	3333	1901	3061	1927	3103	1752	2804	1472	2356
			q_f																		
			F	4.8	-0.5R	4.8	-0.5R	5.4	-0.5R	5.3	-0.5R	5.2	-0.4R	5.6	-0.4R	5.6	-0.4R	5.5	-0.3R	5.8	-0.4R
		24"	q_a	1989	3203	2022	3256	1764	2840	1824	2937	1641	2643	1704	2744	1565	2519	1625	2616	1472	2356
			q_f																		
			F	5.7	-0.9R	5.5	-0.7R	6.2	-0.8R	5.9	-0.6R	6.5	-0.7R	6.2	-0.6R	6.7	-0.6R	6.4	-0.5R	6.8	-0.6R
	18 ga	4"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R	3.8	+0R	3.8	+0R
		6"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		8"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	4.7	-0.3R	4.7	-0.2R	4.9	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	4.9	-0.1R	5	-0.1R
		12"	q_a	2068	3329	2061	3319	2013	3240	1976	3182	1948	3136	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	5.5	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R	5.9	-0.4R	6	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R
		18"	q_a	1903	3063	1869	3010	1652	2660	1663	2678	1671	2691	1533	2468	1514	2422	1251	2002	1051	1682
			q_f																		
			F	6.2	-0.8R	6.3	-0.7R	7	-0.8R	6.9	-0.7R	6.9	-0.6R	7.4	-0.7R	7.3	-0.6R	7.2	-0.5R	7.6	-0.6R
		24"	q_a	1614	2598	1637	2636	1426	2296	1473	2371	1324	2132	1374	2212	1260	2029	1251	2002	1051	1682
			q_f																		
			F	7.3	-1.2R	7.1	-1R	8	-1.2R	7.7	-1R	8.5	-1.1R	8.2	-0.9R	8.8	-1R	8.5	-0.8R	9	-0.9R
	20 ga	4"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		6"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R	6.1	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R
		8"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	6.5	-0.5R	6.5	-0.4R	6.8	-0.4R	6.7	-0.4R	6.9	-0.4R	6.9	-0.3R	7	-0.3R	7	-0.3R	7.1	-0.3R
		12"	q_a	1503	2420	1439	2316	1393	2243	1359	2188	1332	2145	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	7.6	-0.9R	7.9	-0.9R	8.1	-0.8R	8.2	-0.7R	8.3	-0.7R	8.4	-0.7R	8.5	-0.6R	8.6	-0.6R	8.7	-0.6R
		18"	q_a	1337	2153	1298	2090	1134	1826	1133	1824	1132	1823	1031	1660	982	1570	811	1298	682	1091
			q_f																		
			F	8.4	-1.3R	8.6	-1.1R	9.7	-1.4R	9.6	-1.2R	9.6	-1.1R	10.4	-1.2R	10.3	-1.1R	10.2	-1R	10.8	-1.1R
		24"	q_a	1138	1832	1136	1828	981	1579	1003	1614	896	1442	923	1486	843	1357	811	1298	682	1091
			q_f																		
			F	9.7	-1.9R	9.7	-1.6R	10.9	-1.9R	10.7	-1.6R	11.7	-1.8R	11.4	-1.5R	12.3	-1.7R	11.9	-1.5R	12.7	-1.6R
	22 ga	4"	q_a	1344	2165	1344	2165	1344	2165	1344	2165	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	6.4	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a	1344	2165	1344	2165	1344	2165	1344	2165	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	7.2	-0.5R	7.4	-0.4R	7.5	-0.4R	7.5	-0.4R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R	7.7	-0.3R	7.7	-0.3R
		8"	q_a	1344	2165	1344	2165	1301	2095	1306	2103	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	8	-0.7R	8	-0.6R	8.4	-0.6R	8.3	-0.5R	8.6	-0.5R	8.5	-0.5R	8.7	-0.5R	8.6	-0.4R	8.8	-0.4R
		12"	q_a	1173	1889	1112	1790	1068	1719	1035	1666	1010	1625	926	1481	750	1199	620	991	521	833
			q_f																		
			F	9.3	-1.2R	9.6	-1.2R	9.9	-1.1R	10.2	-1.1R	10.3	-1R	10.5	-0.9R	10.6	-0.9R	10.7	-0.9R	10.8	-0.8R
		18"	q_a	1044	1681	1002	1613	868	1398	861	1385	855	1376	775	1247	750	1199	620	991	521	833
			q_f																		
			F	10.2	-1.7R	10.5	-1.5R	11.8	-1.8R	11.8	-1.6R	11.9	-1.5R	12.8	-1.7R	12.7	-1.5R	12.7	-1.4R	13.4	-1.5R
		24"	q_a	894	1440	879	1415	754	1215	763	1229	679	1094	695	1119	632	1018	620	991	521	833
			q_f																		
			F	11.7	-2.4R	11.8	-2.1R	13.3	-2.5R	13.1	-2.1R	14.4	-2.4R	14	-2.1R	15.1	-2.3R	14.8	-2R	15.7	-2.2R

DGB-36 36/9 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.7 DGB-36 & DGBF-36

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	3.4 -0.1R		3.4 -0.1R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R	
		8"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	3.8 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 +0R		3.9 +0R	
		12"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	4.6 -0.2R		4.6 -0.2R		4.7 -0.2R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R		4.8 -0.1R		4.8 -0.1R	
		18"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	5.3 -0.4R		5.2 -0.3R		5.8 -0.3R		5.7 -0.3R		5.5 -0.2R		6 -0.3R		5.8 -0.2R		5.7 -0.2R		6 -0.2R	
		24"	q_a q_f	1186	1909	1217	1959	1137	1830	1186	1910	1110	1787	1154	1858	1093	1759	1132	1823	1081	1740
			F	6.6 -0.7R		6.1 -0.5R		6.9 -0.5R		6.5 -0.4R		7.1 -0.5R		6.7 -0.3R		7.2 -0.4R		6.8 -0.3R		7.3 -0.3R	
	18 ga	4"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1682
			F	3.8 -0.1R		3.8 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		6"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1682
			F	4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R	
		8"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1682
			F	5 -0.2R		4.9 -0.1R		5 -0.1R		4.9 -0.1R		5.1 -0.1R		5 -0.1R		5.1 -0.1R		5 -0.1R		5.1 -0.1R	
		12"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1682
			F	6 -0.4R		6.1 -0.3R		6.2 -0.3R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R	
		18"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1037	1670	1046	1684	1046	1684	1024	1649
			F	6.9 -0.6R		6.9 -0.5R		7.7 -0.5R		7.5 -0.4R		7.3 -0.4R		7.9 -0.4R		7.7 -0.3R		7.6 -0.3R		8 -0.3R	
		24"	q_a q_f	992	1597	1035	1667	946	1523	988	1591	920	1482	959	1544	904	1456	939	1511	893	1438
			F	8.6 -1R		8 -0.7R		9.1 -0.9R		8.6 -0.6R		9.4 -0.7R		8.9 -0.6R		9.6 -0.6R		9.1 -0.5R		9.7 -0.6R	
	20 ga	4"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	811	1298	682	1091
			F	5.3 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R	
		6"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	811	1298	682	1091
			F	6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R	
		8"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	811	1298	682	1091
			F	7 -0.3R		6.9 -0.3R		7.1 -0.3R		7 -0.2R		7.2 -0.2R		7.1 -0.2R		7.2 -0.2R		7.1 -0.1R		7.3 -0.1R	
		12"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	811	1298	682	1091
			F	8.4 -0.7R		8.6 -0.6R		8.7 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R		9 -0.4R		9 -0.3R		9.1 -0.3R	
		18"	q_a q_f	846	1363	847	1364	774	1247	787	1266	796	1281	746	1201	759	1221	768	1237	682	1091
			F	9.8 -1R		9.7 -0.8R		10.9 -1R		10.7 -0.8R		10.5 -0.7R		11.4 -0.8R		11.1 -0.7R		10.9 -0.6R		11.6 -0.6R	
		24"	q_a q_f	727	1170	756	1217	677	1090	708	1140	650	1046	679	1093	633	1019	659	1061	621	1000
			F	12 -1.8R		11.3 -1.3R		12.9 -1.5R		12.2 -1.2R		13.4 -1.3R		12.7 -1R		13.8 -1.2R		13.1 -0.9R		14 -1R	
	22 ga	4"	q_a q_f	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	748	1199	620	991	521	833
			F	6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		6"	q_a q_f	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	748	1199	620	991	521	833
			F	7.6 -0.3R		7.7 -0.3R		7.8 -0.2R		7.8 -0.2R		7.8 -0.2R		7.9 -0.2R		7.9 -0.2R		7.9 -0.1R		7.9 -0.1R	
		8"	q_a q_f	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	748	1199	620	991	521	833
			F	8.7 -0.5R		8.5 -0.4R		8.9 -0.4R		8.7 -0.3R		9 -0.3R		8.9 -0.3R		9 -0.3R		8.9 -0.2R		9.1 -0.2R	
		12"	q_a q_f	748	1204	740	1191	729	1173	720	1160	714	1150	709	1141	705	1135	620	991	521	833
			F	10.5 -0.9R		10.7 -0.8R		10.9 -0.8R		11 -0.7R		11.2 -0.6R		11.2 -0.6R		11.3 -0.5R		11.4 -0.5R		11.4 -0.5R	
		18"	q_a q_f	681	1097	678	1092	610	982	618	995	624	1005	579	932	589	948	596	960	521	833
			F	12.1 -1.4R		12.1 -1.2R		13.7 -1.4R		13.4 -1.2R		13.2 -1R		14.3 -1.1R		14 -1R		13.8 -0.9R		14.7 -0.9R	
		24"	q_a q_f	579	932	598	962	528	850	551	887	500	805	522	840	482	777	503	809	470	757
			F	14.8 -2.4R		14.1 -1.8R		16.1 -2.1R		15.3 -1.7R		16.8 -1.9R		16 -1.5R		17.3 -1.7R		16.6 -1.4R		17.7 -1.5R	

DGB-36 36/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.7

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3	-0.1R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R
		6"	q_a	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	+0R
		8"	q_a	2392	3851	2415	3889	2363	3805	2386	3841	2348	3781	2368	3813	2120	3393	1752	2804	1472	2356
			q_f																		
			F	3.8	-0.2R	3.7	-0.2R	3.8	-0.2R	3.8	-0.1R	3.9	-0.1R	3.8	-0.1R	3.9	-0.1R	3.8	-0.1R	3.9	-0.1R
		12"	q_a	2104	3387	2071	3335	2049	3298	2032	3271	2019	3251	2009	3234	2001	3221	1752	2804	1472	2356
			q_f																		
			F	4.6	-0.4R	4.6	-0.4R	4.7	-0.3R	4.7	-0.3R	4.7	-0.3R	4.7	-0.2R	4.7	-0.2R	4.8	-0.2R	4.8	-0.2R
		18"	q_a	1868	3008	1879	3025	1682	2709	1721	2770	1748	2815	1620	2608	1655	2664	1682	2708	1472	2356
			q_f																		
			F	5.3	-0.6R	5.2	-0.5R	5.8	-0.6R	5.6	-0.5R	5.5	-0.4R	6	-0.5R	5.8	-0.4R	5.7	-0.3R	6	-0.4R
		24"	q_a	1537	2475	1627	2619	1429	2301	1514	2438	1372	2208	1447	2330	1336	2151	1403	2259	1312	2112
			q_f																		
			F	6.5	-1.2R	6.1	-0.8R	6.9	-1R	6.4	-0.7R	7.1	-0.8R	6.7	-0.6R	7.2	-0.7R	6.8	-0.6R	7.3	-0.6R
	18 ga	4"	q_a	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	3.8	-0.1R	3.8	-0.1R	3.9	-0.1R	3.9	-0.1R	3.9	-0.1R	3.9	+0R	3.9	+0R	3.9	+0R	3.9	+0R
		6"	q_a	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	4.4	-0.2R	4.4	-0.2R	4.5	-0.2R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R
		8"	q_a	2014	3243	2035	3276	1986	3198	2006	3230	1971	3173	1869	2990	1514	2422	1251	2002	1051	1682
			q_f																		
			F	5	-0.3R	4.9	-0.3R	5	-0.3R	4.9	-0.2R	5.1	-0.2R	5	-0.2R	5.1	-0.2R	5	-0.1R	5.1	-0.1R
		12"	q_a	1756	2827	1725	2777	1703	2742	1687	2717	1675	2697	1665	2681	1514	2422	1251	2002	1051	1682
			q_f																		
			F	6	-0.6R	6.1	-0.6R	6.1	-0.5R	6.2	-0.5R	6.2	-0.4R	6.2	-0.4R	6.3	-0.3R	6.3	-0.3R	6.3	-0.3R
		18"	q_a	1551	2497	1557	2507	1387	2233	1418	2282	1440	2319	1330	2141	1358	2187	1251	2002	1051	1682
			q_f																		
			F	6.9	-1R	6.8	-0.8R	7.7	-1R	7.5	-0.8R	7.3	-0.7R	7.9	-0.8R	7.7	-0.7R	7.6	-0.6R	8	-0.6R
		24"	q_a	1271	2046	1342	2161	1174	1890	1243	2001	1122	1807	1184	1907	1091	1756	1145	1844	1051	1682
			q_f																		
			F	8.5	-1.7R	8	-1.2R	9.1	-1.5R	8.5	-1.1R	9.4	-1.3R	8.9	-1R	9.5	-1.1R	9.1	-0.9R	9.7	-1R
	20 ga	4"	q_a	1711	2755	1711	2755	1711	2755	1711	2755	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	5.3	-0.2R	5.3	-0.2R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R
		6"	q_a	1648	2654	1635	2632	1625	2617	1618	2606	1534	2454	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	6.2	-0.4R	6.2	-0.3R	6.2	-0.3R	6.3	-0.3R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R
		8"	q_a	1503	2420	1518	2444	1466	2361	1483	2388	1447	2329	1212	1939	982	1570	811	1298	682	1091
			q_f																		
			F	7	-0.6R	6.8	-0.5R	7.1	-0.5R	7	-0.4R	7.2	-0.4R	7.1	-0.3R	7.2	-0.3R	7.1	-0.3R	7.3	-0.3R
		12"	q_a	1269	2044	1235	1988	1210	1949	1193	1920	1179	1898	1168	1881	982	1570	811	1298	682	1091
			q_f																		
			F	8.4	-1.1R	8.6	-1R	8.7	-0.9R	8.8	-0.8R	8.9	-0.8R	8.9	-0.7R	9	-0.7R	9	-0.6R	9	-0.6R
		18"	q_a	1104	1778	1099	1769	961	1547	978	1575	991	1596	905	1457	923	1486	811	1298	682	1091
			q_f																		
			F	9.7	-1.7R	9.6	-1.4R	10.9	-1.7R	10.6	-1.4R	10.5	-1.2R	11.3	-1.4R	11.1	-1.2R	10.9	-1.1R	11.6	-1.2R
		24"	q_a	899	1447	937	1508	808	1301	850	1369	760	1224	800	1288	731	1177	767	1234	682	1091
			q_f																		
			F	11.8	-2.8R	11.2	-2.1R	12.8	-2.5R	12.1	-2R	13.3	-2.3R	12.7	-1.8R	13.7	-2R	13.1	-1.7R	14	-1.8R
	22 ga	4"	q_a	1496	2408	1496	2408	1493	2404	1489	2397	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R	6.6	-0.2R	6.6	-0.2R	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R
		6"	q_a	1342	2161	1325	2134	1313	2114	1304	2100	1171	1874	926	1481	750	1199	620	991	521	833
			q_f																		
			F	7.6	-0.6R	7.7	-0.5R	7.8	-0.4R	7.8	-0.4R	7.8	-0.3R	7.9	-0.3R	7.9	-0.3R	7.9	-0.3R	7.9	-0.2R
		8"	q_a	1201	1934	1211	1949	1158	1865	1172	1887	1136	1828	926	1481	750	1199	620	991	521	833
			q_f																		
			F	8.6	-0.9R	8.5	-0.7R	8.8	-0.7R	8.7	-0.6R	9	-0.6R	8.8	-0.5R	9	-0.5R	8.9	-0.4R	9.1	-0.4R
		12"	q_a	995	1602	958	1543	933	1502	914	1472	900	1449	889	1431	750	1199	620	991	521	833
			q_f																		
			F	10.4	-1.6R	10.7	-1.5R	10.9	-1.3R	11	-1.2R	11.1	-1.1R	11.2	-1R	11.3	-1R	11.3	-0.9R	11.4	-0.9R
		18"	q_a	860	1385	847	1364	733	1180	742	1194	748	1204	678	1092	690	1111	620	991	521	833
			q_f																		
			F	11.9	-2.3R	12	-2R	13.5	-2.4R	13.3	-2R	13.1	-1.8R	14.2	-2R	13.9	-1.8R	13.7	-1.6R	14.6	-1.7R
		24"	q_a	702	1130	720	1160	617	993	643	1036	572	921	599	964	545	877	569	917	521	833
			q_f																		
			F	14.4	-3.7R	13.9	-2.9R	15.8	-3.5R	15.1	-2.8R	16.6	-3.2R	15.9	-2.6R	17.2	-2.9R	16.5	-2.4R	17.6	-2.7R

DGB-36 36/7/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.7 DGB-36 & DGBF-36

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a q_f	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2120	3393	1752	2804	1472	2356
			F	2.9	-0.1R	2.9	-0.1R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R
		6"	q_a q_f	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2120	3393	1752	2804	1472	2356
			F	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		8"	q_a q_f	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2120	3393	1752	2804	1472	2356
			F	3.7	-0.2R	3.6	-0.2R	3.7	-0.2R	3.7	-0.1R	3.8	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		12"	q_a q_f	2434	3919	2434	3919	2434	3919	2399	3862	2368	3812	2343	3772	2120	3393	1752	2804	1472	2356
			F	4.3	-0.4R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R
		18"	q_a q_f	2298	3701	2265	3647	2010	3236	2026	3263	2039	3283	1875	3018	1901	3061	1752	2804	1472	2356
			F	4.8	-0.5R	4.8	-0.5R	5.4	-0.5R	5.3	-0.5R	5.2	-0.4R	5.6	-0.4R	5.6	-0.4R	5.5	-0.3R	5.8	-0.4R
		24"	q_a q_f	1950	3139	1986	3197	1735	2794	1796	2892	1618	2605	1682	2708	1545	2488	1605	2585	1472	2356
			F	5.7	-0.9R	5.5	-0.7R	6.2	-0.8R	5.9	-0.6R	6.5	-0.7R	6.2	-0.6R	6.7	-0.6R	6.4	-0.5R	6.8	-0.6R
	18 ga	4"	q_a q_f	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R	3.8	+0R	3.8	+0R
		6"	q_a q_f	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		8"	q_a q_f	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.7	-0.3R	4.7	-0.2R	4.9	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	4.9	-0.1R	5	-0.1R
		12"	q_a q_f	2092	3368	2075	3341	2026	3261	1988	3201	1959	3155	1869	2990	1514	2422	1251	2002	1051	1682
			F	5.5	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R	5.9	-0.4R	6	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R
		18"	q_a q_f	1916	3085	1882	3029	1662	2676	1672	2692	1680	2705	1540	2480	1514	2422	1251	2002	1051	1682
			F	6.2	-0.8R	6.3	-0.7R	7	-0.8R	6.9	-0.7R	6.9	-0.6R	7.4	-0.7R	7.3	-0.6R	7.2	-0.5R	7.6	-0.6R
		24"	q_a q_f	1625	2616	1647	2652	1434	2309	1481	2384	1331	2143	1380	2222	1266	2038	1251	2002	1051	1682
			F	7.3	-1.2R	7.1	-1R	8	-1.2R	7.7	-1R	8.5	-1.1R	8.2	-0.9R	8.8	-1R	8.5	-0.8R	9	-0.9R
	20 ga	4"	q_a q_f	1711	2755	1711	2755	1711	2755	1711	2755	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		6"	q_a q_f	1711	2755	1711	2755	1711	2755	1711	2755	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R	6.1	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R
		8"	q_a q_f	1711	2755	1711	2755	1711	2755	1711	2755	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	6.5	-0.5R	6.5	-0.4R	6.8	-0.4R	6.7	-0.4R	6.9	-0.4R	6.9	-0.3R	7	-0.3R	7	-0.3R	7.1	-0.3R
		12"	q_a q_f	1568	2525	1495	2408	1444	2324	1405	2262	1375	2214	1212	1939	982	1570	811	1298	682	1091
			F	7.6	-0.9R	7.9	-0.9R	8.1	-0.8R	8.2	-0.7R	8.3	-0.7R	8.4	-0.7R	8.5	-0.6R	8.6	-0.6R	8.7	-0.6R
		18"	q_a q_f	1395	2246	1348	2171	1174	1891	1170	1884	1167	1878	1060	1707	982	1570	811	1298	682	1091
			F	8.4	-1.3R	8.6	-1.1R	9.7	-1.4R	9.6	-1.2R	9.6	-1.1R	10.4	-1.2R	10.3	-1.1R	10.2	-1R	10.8	-1.1R
		24"	q_a q_f	1189	1915	1180	1900	1017	1637	1036	1667	924	1488	950	1529	866	1394	811	1298	682	1091
			F	9.7	-1.9R	9.7	-1.6R	10.9	-1.9R	10.7	-1.6R	11.7	-1.8R	11.4	-1.5R	12.3	-1.7R	11.9	-1.5R	12.7	-1.6R
	22 ga	4"	q_a q_f	1496	2408	1496	2408	1496	2408	1496	2408	1171	1874	926	1481	750	1199	620	991	521	833
			F	6.4	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a q_f	1496	2408	1496	2408	1496	2408	1496	2408	1171	1874	926	1481	750	1199	620	991	521	833
			F	7.2	-0.5R	7.4	-0.4R	7.5	-0.4R	7.5	-0.4R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R	7.7	-0.3R	7.7	-0.3R
		8"	q_a q_f	1472	2370	1457	2346	1377	2218	1380	2221	1171	1874	926	1481	750	1199	620	991	521	833
			F	8	-0.7R	8	-0.6R	8.4	-0.6R	8.3	-0.5R	8.6	-0.5R	8.5	-0.5R	8.7	-0.5R	8.6	-0.4R	8.8	-0.4R
		12"	q_a q_f	1250	2012	1177	1894	1125	1811	1086	1749	1056	1701	926	1481	750	1199	620	991	521	833
			F	9.3	-1.2R	9.6	-1.2R	9.9	-1.1R	10.2	-1.1R	10.3	-1R	10.5	-0.9R	10.6	-0.9R	10.7	-0.9R	10.8	-0.8R
		18"	q_a q_f	1113	1793	1061	1708	916	1475	904	1455	894	1440	808	1302	750	1199	620	991	521	833
			F	10.2	-1.7R	10.5	-1.5R	11.8	-1.8R	11.8	-1.6R	11.9	-1.5R	12.8	-1.7R	12.7	-1.5R	12.7	-1.4R	13.4	-1.5R
		24"	q_a q_f	959	1543	933	1502	799	1286	803	1293	713	1149	726	1170	660	1063	620	991	521	833
			F	11.7	-2.4R	11.8	-2.1R	13.3	-2.5R	13.1	-2.1R	14.4	-2.4R	14	-2.1R	15.1	-2.3R	14.8	-2R	15.7	-2.2R

DGB-36 36/9 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.7

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1472	2356
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1472	2356
			F	3.4 -0.1R		3.4 -0.1R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R	
		8"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1472	2356
			F	3.8 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 +0R		3.9 +0R	
		12"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1472	2356
			F	4.6 -0.2R		4.6 -0.2R		4.7 -0.2R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R		4.8 -0.1R		4.8 -0.1R	
		18"	q_a q_f	1595	2568	1595	2568	1501	2416	1525	2455	1543	2484	1454	2341	1477	2379	1496	2408	1429	2300
			F	5.3 -0.4R		5.2 -0.3R		5.8 -0.3R		5.7 -0.3R		5.5 -0.2R		6 -0.3R		5.8 -0.2R		5.7 -0.2R		6 -0.2R	
		24"	q_a q_f	1405	2263	1465	2358	1320	2125	1381	2223	1273	2049	1329	2139	1243	2001	1294	2083	1223	1968
			F	6.6 -0.7R		6.1 -0.5R		6.9 -0.5R		6.5 -0.4R		7.1 -0.5R		6.7 -0.3R		7.2 -0.4R		6.8 -0.3R		7.3 -0.3R	
	18 ga	4"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1251	2002	1051	1682
			F	3.8 -0.1R		3.8 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		6"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1251	2002	1051	1682
			F	4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R	
		8"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1251	2002	1051	1682
			F	5 -0.2R		4.9 -0.1R		5 -0.1R		4.9 -0.1R		5.1 -0.1R		5 -0.1R		5.1 -0.1R		5 -0.1R		5.1 -0.1R	
		12"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1251	2002	1051	1682
			F	6 -0.4R		6.1 -0.3R		6.2 -0.3R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R	
		18"	q_a q_f	1302	2096	1302	2096	1213	1952	1232	1984	1246	2007	1173	1889	1192	1919	1207	1944	1051	1682
			F	6.9 -0.6R		6.9 -0.5R		7.7 -0.5R		7.5 -0.4R		7.3 -0.4R		7.9 -0.4R		7.7 -0.3R		7.6 -0.3R		8 -0.3R	
		24"	q_a q_f	1136	1829	1183	1905	1065	1714	1114	1793	1025	1651	1071	1724	1001	1611	1042	1677	984	1584
			F	8.6 -1R		8 -0.7R		9.1 -0.9R		8.6 -0.6R		9.4 -0.7R		8.9 -0.6R		9.6 -0.6R		9.1 -0.5R		9.7 -0.6R	
	20 ga	4"	q_a q_f	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	811	1298	682	1091
			F	5.3 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R	
		6"	q_a q_f	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	811	1298	682	1091
			F	6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R	
		8"	q_a q_f	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	811	1298	682	1091
			F	7 -0.3R		6.9 -0.3R		7.1 -0.3R		7 -0.2R		7.2 -0.2R		7.1 -0.2R		7.2 -0.2R		7.1 -0.1R		7.3 -0.1R	
		12"	q_a q_f	959	1544	959	1544	959	1544	959	1544	958	1543	953	1534	948	1527	811	1298	682	1091
			F	8.4 -0.7R		8.6 -0.6R		8.7 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R		9 -0.4R		9 -0.3R		9.1 -0.3R	
		18"	q_a q_f	911	1467	910	1465	825	1328	837	1348	846	1362	789	1271	802	1292	811	1298	682	1091
			F	9.8 -1R		9.7 -0.8R		10.9 -1R		10.7 -0.8R		10.5 -0.7R		11.4 -0.8R		11.1 -0.7R		10.9 -0.6R		11.6 -0.6R	
		24"	q_a q_f	778	1252	806	1298	717	1154	749	1206	684	1101	714	1150	663	1067	691	1112	648	1044
			F	12 -1.8R		11.3 -1.3R		12.9 -1.5R		12.2 -1.2R		13.4 -1.3R		12.7 -1R		13.8 -1.2R		13.1 -0.9R		14 -1R	
	22 ga	4"	q_a q_f	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	750	1199	620	991	521	833
			F	6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		6"	q_a q_f	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	750	1199	620	991	521	833
			F	7.6 -0.3R		7.7 -0.3R		7.8 -0.2R		7.8 -0.2R		7.8 -0.2R		7.9 -0.2R		7.9 -0.2R		7.9 -0.1R		7.9 -0.1R	
		8"	q_a q_f	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	750	1199	620	991	521	833
			F	8.7 -0.5R		8.5 -0.4R		8.9 -0.4R		8.7 -0.3R		9 -0.3R		8.9 -0.3R		9 -0.3R		8.9 -0.2R		9.1 -0.2R	
		12"	q_a q_f	751	1208	741	1193	730	1176	722	1162	715	1152	710	1144	706	1137	620	991	521	833
			F	10.5 -0.9R		10.7 -0.8R		10.9 -0.8R		11 -0.7R		11.2 -0.6R		11.2 -0.6R		11.3 -0.5R		11.4 -0.5R		11.4 -0.5R	
		18"	q_a q_f	683	1100	679	1094	611	983	619	997	625	1007	580	934	590	949	597	961	521	833
			F	12.1 -1.4R		12.1 -1.2R		13.7 -1.4R		13.4 -1.2R		13.2 -1R		14.3 -1.1R		14 -1R		13.8 -0.9R		14.7 -0.9R	
		24"	q_a q_f	580	934	599	964	529	851	552	888	501	806	523	842	483	778	503	810	471	758
			F	14.8 -2.4R		14.1 -1.8R		16.1 -2.1R		15.3 -1.7R		16.8 -1.9R		16 -1.5R		17.3 -1.7R		16.6 -1.4R		17.7 -1.5R	

DGB-36 36/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.7 DGB-36 & DGBF-36

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/7/4	16 ga	4"	q_a q_f	3190 5136	3190 5136	3190 5136	3190 5136	3190 5136	2618 4188	2120 3393	1752 2804	1472 2356
			F	3 -0.1R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R
		6"	q_a q_f	3149 5069	3127 5035	3113 5011	3102 4994	3093 4980	2618 4188	2120 3393	1752 2804	1472 2356
			F	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 +0R
		8"	q_a q_f	2893 4658	2924 4707	2834 4563	2866 4614	2802 4511	2618 4188	2120 3393	1752 2804	1472 2356
			F	3.8 -0.2R	3.7 -0.2R	3.8 -0.2R	3.8 -0.1R	3.9 -0.1R	3.8 -0.1R	3.9 -0.1R	3.8 -0.1R	3.9 -0.1R
		12"	q_a q_f	2467 3972	2408 3877	2367 3811	2336 3762	2313 3724	2295 3694	2120 3393	1752 2804	1472 2356
			F	4.6 -0.4R	4.6 -0.4R	4.7 -0.3R	4.7 -0.3R	4.7 -0.3R	4.7 -0.2R	4.7 -0.2R	4.8 -0.2R	4.8 -0.2R
		18"	q_a q_f	2155 3469	2151 3463	1892 3046	1929 3106	1957 3150	1792 2885	1830 2946	1752 2804	1472 2356
			F	5.3 -0.6R	5.2 -0.5R	5.8 -0.6R	5.6 -0.5R	5.5 -0.4R	6 -0.5R	5.8 -0.4R	5.7 -0.3R	6 -0.4R
		24"	q_a q_f	1755 2826	1838 2960	1592 2564	1680 2705	1507 2426	1587 2555	1454 2340	1526 2456	1418 2283
			F	6.5 -1.2R	6.1 -0.8R	6.9 -1R	6.4 -0.7R	7.1 -0.8R	6.7 -0.6R	7.2 -0.7R	6.8 -0.6R	7.3 -0.6R
	18 ga	4"	q_a q_f	2604 4192	2604 4192	2604 4192	2604 4192	2365 3784	1869 2990	1514 2422	1251 2002	1051 1682
			F	3.8 -0.1R	3.8 -0.1R	3.9 -0.1R	3.9 -0.1R	3.9 -0.1R	3.9 +0R	3.9 +0R	3.9 +0R	3.9 +0R
		6"	q_a q_f	2554 4112	2536 4083	2523 4062	2514 4047	2365 3784	1869 2990	1514 2422	1251 2002	1051 1682
			F	4.4 -0.2R	4.4 -0.2R	4.5 -0.2R	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R
		8"	q_a q_f	2342 3771	2366 3810	2292 3690	2318 3732	2265 3646	1869 2990	1514 2422	1251 2002	1051 1682
			F	5 -0.3R	4.9 -0.3R	5 -0.3R	4.9 -0.2R	5.1 -0.2R	5 -0.2R	5.1 -0.2R	5 -0.1R	5.1 -0.1R
		12"	q_a q_f	1992 3207	1942 3127	1908 3072	1882 3031	1863 2999	1847 2974	1514 2422	1251 2002	1051 1682
			F	6 -0.6R	6.1 -0.6R	6.1 -0.5R	6.2 -0.5R	6.2 -0.4R	6.2 -0.4R	6.3 -0.3R	6.3 -0.3R	6.3 -0.3R
		18"	q_a q_f	1738 2798	1733 2791	1522 2451	1551 2498	1573 2533	1439 2317	1469 2366	1251 2002	1051 1682
			F	6.9 -1R	6.8 -0.8R	7.7 -1R	7.5 -0.8R	7.3 -0.7R	7.9 -0.8R	7.7 -0.7R	7.6 -0.6R	8 -0.6R
		24"	q_a q_f	1415 2278	1480 2383	1281 2062	1350 2174	1210 1948	1274 2051	1166 1878	1224 1970	1051 1682
			F	8.5 -1.7R	8 -1.2R	9.1 -1.5R	8.5 -1.1R	9.4 -1.3R	8.9 -1R	9.5 -1.1R	9.1 -0.9R	9.7 -1R
	20 ga	4"	q_a q_f	1918 3088	1918 3088	1918 3088	1918 3088	1534 2454	1212 1939	982 1570	811 1298	682 1091
			F	5.3 -0.2R	5.3 -0.2R	5.4 -0.1R	5.4 -0.1R	5.4 -0.1R	5.4 -0.1R	5.4 -0.1R	5.4 -0.1R	5.4 -0.1R
		6"	q_a q_f	1786 2876	1768 2846	1755 2826	1746 2810	1534 2454	1212 1939	982 1570	811 1298	682 1091
			F	6.2 -0.4R	6.2 -0.3R	6.2 -0.3R	6.3 -0.3R	6.3 -0.2R	6.3 -0.2R	6.3 -0.2R	6.3 -0.2R	6.3 -0.2R
		8"	q_a q_f	1613 2597	1628 2621	1565 2520	1584 2550	1534 2454	1212 1939	982 1570	811 1298	682 1091
			F	7 -0.6R	6.8 -0.5R	7.1 -0.5R	7 -0.4R	7.2 -0.4R	7.1 -0.3R	7.2 -0.3R	7.1 -0.3R	7.3 -0.3R
		12"	q_a q_f	1348 2171	1305 2101	1275 2053	1253 2018	1236 1990	1212 1939	982 1570	811 1298	682 1091
			F	8.4 -1.1R	8.6 -1R	8.7 -0.9R	8.8 -0.8R	8.9 -0.8R	8.9 -0.7R	9 -0.7R	9 -0.6R	9 -0.6R
		18"	q_a q_f	1168 1881	1157 1862	1006 1620	1021 1644	1033 1662	939 1512	957 1541	811 1298	682 1091
			F	9.7 -1.7R	9.6 -1.4R	10.9 -1.7R	10.6 -1.4R	10.5 -1.2R	11.3 -1.4R	11.1 -1.2R	10.9 -1.1R	11.6 -1.2R
		24"	q_a q_f	951 1531	984 1585	846 1361	886 1427	790 1272	829 1335	756 1217	792 1275	682 1091
			F	11.8 -2.8R	11.2 -2.1R	12.8 -2.5R	12.1 -2R	13.3 -2.3R	12.7 -1.8R	13.7 -2R	13.1 -1.7R	14 -1.8R
	22 ga	4"	q_a q_f	1501 2417	1501 2417	1497 2410	1493 2403	1171 1874	926 1481	750 1199	620 991	521 833
			F	6.6 -0.3R	6.6 -0.2R	6.6 -0.2R	6.6 -0.2R	6.6 -0.2R	6.7 -0.1R	6.7 -0.1R	6.7 -0.1R	6.7 -0.1R
		6"	q_a q_f	1346 2166	1328 2138	1316 2119	1307 2104	1171 1874	926 1481	750 1199	620 991	521 833
			F	7.6 -0.6R	7.7 -0.5R	7.8 -0.4R	7.8 -0.4R	7.8 -0.3R	7.9 -0.3R	7.9 -0.3R	7.9 -0.3R	7.9 -0.2R
		8"	q_a q_f	1204 1938	1213 1953	1161 1869	1174 1890	1138 1831	926 1481	750 1199	620 991	521 833
			F	8.6 -0.9R	8.5 -0.7R	8.8 -0.7R	8.7 -0.6R	9 -0.6R	8.8 -0.5R	9 -0.5R	8.9 -0.4R	9.1 -0.4R
		12"	q_a q_f	997 1605	960 1546	934 1504	916 1474	901 1451	890 1433	750 1199	620 991	521 833
			F	10.4 -1.6R	10.7 -1.5R	10.9 -1.3R	11 -1.2R	11.1 -1.1R	11.2 -1R	11.3 -1R	11.3 -0.9R	11.4 -0.9R
		18"	q_a q_f	862 1388	848 1366	734 1182	743 1196	749 1206	679 1093	691 1112	620 991	521 833
			F	11.9 -2.3R	12 -2R	13.5 -2.4R	13.3 -2R	13.1 -1.8R	14.2 -2R	13.9 -1.8R	13.7 -1.6R	14.6 -1.7R
		24"	q_a q_f	703 1132	722 1162	618 994	644 1037	573 922	599 965	545 878	570 917	521 833
			F	14.4 -3.7R	13.9 -2.9R	15.8 -3.5R	15.1 -2.8R	16.6 -3.2R	15.9 -2.6R	17.2 -2.9R	16.5 -2.4R	17.6 -2.7R

DGB-36 36/7/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.7

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	3190	5136	2618	4188	2120	3393	1752	2804	1472	2356
			F	2.9	-0.1R	2.9	-0.1R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R
		6"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	3190	5136	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		8"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	3190	5136	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.7	-0.2R	3.6	-0.2R	3.7	-0.2R	3.7	-0.1R	3.8	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		12"	q_a	3033	4884	2907	4680	2817	4535	2750	4427	2697	4343	2618	4188	2120	3393	1752	2804	1472	2356
			F	4.3	-0.4R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R
		18"	q_a	2699	4346	2624	4224	2294	3694	2294	3693	2294	3693	2090	3364	2111	3393	1752	2804	1472	2356
			F	4.8	-0.5R	4.8	-0.5R	5.4	-0.5R	5.3	-0.5R	5.2	-0.4R	5.6	-0.4R	5.6	-0.4R	5.5	-0.3R	5.8	-0.4R
		24"	q_a	2296	3697	2295	3695	1983	3193	2029	3267	1814	2921	1871	3012	1709	2751	1752	2804	1472	2356
			F	5.7	-0.9R	5.5	-0.7R	6.2	-0.8R	5.9	-0.6R	6.5	-0.7R	6.2	-0.6R	6.7	-0.6R	6.4	-0.5R	6.8	-0.6R
	18 ga	4"	q_a	2604	4192	2604	4192	2604	4192	2604	4192	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R	3.8	+0R	3.8	+0R
		6"	q_a	2604	4192	2604	4192	2604	4192	2604	4192	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		8"	q_a	2604	4192	2604	4192	2604	4192	2604	4192	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.7	-0.3R	4.7	-0.2R	4.9	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	4.9	-0.1R	5	-0.1R
		12"	q_a	2452	3947	2347	3778	2272	3657	2216	3567	2172	3498	1869	2990	1514	2422	1251	2002	1051	1682
			F	5.5	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R	5.9	-0.4R	6	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R
		18"	q_a	2181	3512	2117	3409	1849	2978	1847	2974	1846	2972	1681	2706	1514	2422	1251	2002	1051	1682
			F	6.2	-0.8R	6.3	-0.7R	7	-0.8R	6.9	-0.7R	6.9	-0.6R	7.4	-0.7R	7.3	-0.6R	7.2	-0.5R	7.6	-0.6R
		24"	q_a	1857	2989	1852	2982	1599	2575	1635	2632	1461	2351	1505	2423	1374	2212	1251	2002	1051	1682
			F	7.3	-1.2R	7.1	-1R	8	-1.2R	7.7	-1R	8.5	-1.1R	8.2	-0.9R	8.8	-1R	8.5	-0.8R	9	-0.9R
	20 ga	4"	q_a	1918	3088	1918	3088	1918	3088	1918	3088	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		6"	q_a	1918	3088	1918	3088	1918	3088	1918	3088	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R	6.1	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R
		8"	q_a	1918	3088	1918	3088	1862	2997	1869	3009	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	6.5	-0.5R	6.5	-0.4R	6.8	-0.4R	6.7	-0.4R	6.9	-0.4R	6.9	-0.3R	7	-0.3R	7	-0.3R	7.1	-0.3R
		12"	q_a	1678	2702	1590	2560	1528	2460	1481	2385	1445	2327	1212	1939	982	1570	811	1298	682	1091
			F	7.6	-0.9R	7.9	-0.9R	8.1	-0.8R	8.2	-0.7R	8.3	-0.7R	8.4	-0.7R	8.5	-0.6R	8.6	-0.6R	8.7	-0.6R
		18"	q_a	1493	2404	1433	2307	1242	2000	1232	1983	1224	1970	1109	1786	982	1570	811	1298	682	1091
			F	8.4	-1.3R	8.6	-1.1R	9.7	-1.4R	9.6	-1.2R	9.6	-1.1R	10.4	-1.2R	10.3	-1.1R	10.2	-1R	10.8	-1.1R
		24"	q_a	1279	2059	1257	2024	1079	1738	1092	1758	972	1565	995	1602	906	1458	811	1298	682	1091
			F	9.7	-1.9R	9.7	-1.6R	10.9	-1.9R	10.7	-1.6R	11.7	-1.8R	11.4	-1.5R	12.3	-1.7R	11.9	-1.5R	12.7	-1.6R
	22 ga	4"	q_a	1501	2417	1501	2417	1501	2417	1501	2417	1171	1874	926	1481	750	1199	620	991	521	833
			F	6.4	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a	1501	2417	1501	2417	1501	2417	1501	2417	1171	1874	926	1481	750	1199	620	991	521	833
			F	7.2	-0.5R	7.4	-0.4R	7.5	-0.4R	7.5	-0.4R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R	7.7	-0.3R	7.7	-0.3R
		8"	q_a	1475	2375	1460	2351	1380	2222	1382	2225	1171	1874	926	1481	750	1199	620	991	521	833
			F	8	-0.7R	8	-0.6R	8.4	-0.6R	8.3	-0.5R	8.6	-0.5R	8.5	-0.5R	8.7	-0.5R	8.6	-0.4R	8.8	-0.4R
		12"	q_a	1253	2017	1179	1898	1127	1814	1088	1752	1058	1703	926	1481	750	1199	620	991	521	833
			F	9.3	-1.2R	9.6	-1.2R	9.9	-1.1R	10.2	-1.1R	10.3	-1R	10.5	-0.9R	10.6	-0.9R	10.7	-0.9R	10.8	-0.8R
		18"	q_a	1116	1797	1063	1711	918	1477	905	1457	896	1442	810	1303	750	1199	620	991	521	833
			F	10.2	-1.7R	10.5	-1.5R	11.8	-1.8R	11.8	-1.6R	11.9	-1.5R	12.8	-1.7R	12.7	-1.5R	12.7	-1.4R	13.4	-1.5R
		24"	q_a	961	1547	935	1505	801	1289	804	1295	715	1151	728	1171	661	1065	620	991	521	833
			F	11.7	-2.4R	11.8	-2.1R	13.3	-2.5R	13.1	-2.1R	14.4	-2.4R	14	-2.1R	15.1	-2.3R	14.8	-2R	15.7	-2.2R

DGB-36 36/9 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.7 DGB-36 & DGBF-36

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1752 2804	1472 2356
			F	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R
		6"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1752 2804	1472 2356
			F	3.4 -0.1R	3.4 -0.1R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R
		8"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1752 2804	1472 2356
			F	3.8 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.9 -0.1R	3.8 -0.1R	3.9 -0.1R	3.8 +0R	3.9 +0R
		12"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1752 2804	1472 2356
			F	4.6 -0.2R	4.6 -0.2R	4.7 -0.2R	4.7 -0.1R	4.7 -0.1R	4.7 -0.1R	4.7 -0.1R	4.8 -0.1R	4.8 -0.1R
		18"	q_a q_f	1745 2809	1746 2811	1594 2567	1620 2607	1638 2637	1535 2472	1561 2513	1581 2545	1472 2356
			F	5.3 -0.4R	5.2 -0.3R	5.8 -0.3R	5.7 -0.3R	5.5 -0.2R	6 -0.3R	5.8 -0.2R	5.7 -0.2R	6 -0.2R
		24"	q_a q_f	1497 2410	1557 2507	1393 2243	1457 2346	1336 2151	1396 2247	1300 2093	1354 2180	1275 2053
			F	6.6 -0.7R	6.1 -0.5R	6.9 -0.5R	6.5 -0.4R	7.1 -0.5R	6.7 -0.3R	7.2 -0.4R	6.8 -0.3R	7.3 -0.3R
	18 ga	4"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1251 2002	1051 1682
			F	3.8 -0.1R	3.8 +0R	3.9 +0R	3.9 +0R	3.9 +0R	3.9 +0R	3.9 +0R	3.9 +0R	3.9 +0R
		6"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1251 2002	1051 1682
			F	4.4 -0.1R	4.4 -0.1R	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R	4.5 +0R	4.5 +0R	4.5 +0R
		8"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1251 2002	1051 1682
			F	5 -0.2R	4.9 -0.1R	5 -0.1R	4.9 -0.1R	5.1 -0.1R	5 -0.1R	5.1 -0.1R	5 -0.1R	5.1 -0.1R
		12"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1251 2002	1051 1682
			F	6 -0.4R	6.1 -0.3R	6.2 -0.3R	6.2 -0.2R	6.2 -0.2R	6.3 -0.2R	6.3 -0.2R	6.3 -0.2R	6.3 -0.2R
		18"	q_a q_f	1357 2185	1359 2188	1244 2003	1264 2035	1279 2059	1201 1933	1221 1965	1236 1990	1051 1682
			F	6.9 -0.6R	6.9 -0.5R	7.7 -0.5R	7.5 -0.4R	7.3 -0.4R	7.9 -0.4R	7.7 -0.3R	7.6 -0.3R	8 -0.3R
		24"	q_a q_f	1167 1879	1215 1956	1090 1754	1140 1835	1047 1686	1094 1761	1020 1642	1062 1710	1001 1612
			F	8.6 -1R	8 -0.7R	9.1 -0.9R	8.6 -0.6R	9.4 -0.7R	8.9 -0.6R	9.6 -0.6R	9.1 -0.5R	9.7 -0.6R
	20 ga	4"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1570	811 1298	682 1091
			F	5.3 -0.1R	5.3 -0.1R	5.4 -0.1R	5.4 -0.1R	5.4 -0.1R	5.4 +0R	5.4 +0R	5.4 +0R	5.4 +0R
		6"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1570	811 1298	682 1091
			F	6.2 -0.2R	6.2 -0.2R	6.3 -0.2R	6.3 -0.1R	6.3 -0.1R	6.3 -0.1R	6.3 -0.1R	6.3 -0.1R	6.3 -0.1R
		8"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1570	811 1298	682 1091
			F	7 -0.3R	6.9 -0.3R	7.1 -0.3R	7 -0.2R	7.2 -0.2R	7.1 -0.2R	7.2 -0.2R	7.1 -0.1R	7.3 -0.1R
		12"	q_a q_f	982 1581	982 1581	982 1581	980 1577	972 1565	966 1556	961 1548	811 1298	682 1091
			F	8.4 -0.7R	8.6 -0.6R	8.7 -0.5R	8.8 -0.5R	8.9 -0.4R	8.9 -0.4R	9 -0.4R	9 -0.3R	9.1 -0.3R
		18"	q_a q_f	925 1489	923 1486	835 1344	847 1364	856 1379	798 1285	811 1306	811 1298	682 1091
			F	9.8 -1R	9.7 -0.8R	10.9 -1R	10.7 -0.8R	10.5 -0.7R	11.4 -0.8R	11.1 -0.7R	10.9 -0.6R	11.6 -0.6R
		24"	q_a q_f	788 1269	817 1315	725 1168	758 1220	691 1112	722 1162	669 1077	697 1122	654 1053
			F	12 -1.8R	11.3 -1.3R	12.9 -1.5R	12.2 -1.2R	13.4 -1.3R	12.7 -1R	13.8 -1.2R	13.1 -0.9R	14 -1R
	22 ga	4"	q_a q_f	801 1289	801 1289	801 1289	801 1289	801 1289	801 1289	750 1199	620 991	521 833
			F	6.6 -0.2R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R	6.7 -0.1R	6.7 -0.1R	6.7 -0.1R	6.7 -0.1R	6.7 -0.1R
		6"	q_a q_f	801 1289	801 1289	801 1289	801 1289	801 1289	801 1289	750 1199	620 991	521 833
			F	7.6 -0.3R	7.7 -0.3R	7.8 -0.2R	7.8 -0.2R	7.8 -0.2R	7.9 -0.2R	7.9 -0.2R	7.9 -0.1R	7.9 -0.1R
		8"	q_a q_f	801 1289	801 1289	801 1289	801 1289	801 1289	801 1289	750 1199	620 991	521 833
			F	8.7 -0.5R	8.5 -0.4R	8.9 -0.4R	8.7 -0.3R	9 -0.3R	8.9 -0.3R	9 -0.3R	8.9 -0.2R	9.1 -0.2R
		12"	q_a q_f	790 1272	772 1243	759 1222	749 1207	742 1195	736 1185	731 1177	620 991	521 833
			F	10.5 -0.9R	10.7 -0.8R	10.9 -0.8R	11 -0.7R	11.2 -0.6R	11.2 -0.6R	11.3 -0.5R	11.4 -0.5R	11.4 -0.5R
		18"	q_a q_f	710 1144	705 1135	631 1016	639 1029	645 1039	597 961	606 976	614 989	521 833
			F	12.1 -1.4R	12.1 -1.2R	13.7 -1.4R	13.4 -1.2R	13.2 -1R	14.3 -1.1R	14 -1R	13.8 -0.9R	14.7 -0.9R
		24"	q_a q_f	602 970	620 998	546 878	568 915	515 828	537 864	495 797	516 830	482 776
			F	14.8 -2.4R	14.1 -1.8R	16.1 -2.1R	15.3 -1.7R	16.8 -1.9R	16 -1.5R	17.3 -1.7R	16.6 -1.4R	17.7 -1.5R

DGB-36 36/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

ASC Steel Deck®

DGB-36 & DGBF-36 2.7

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a / q_f	3544	5706	3544	5706	3544	5706	3544	5706	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	3 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a / q_f	3401	5476	3372	5430	3352	5397	3338	5374	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 +0R	
		8"	q_a / q_f	3098	4987	3128	5037	3020	4863	3056	4920	2979	4796	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.8 -0.2R		3.7 -0.2R		3.8 -0.2R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R		3.8 -0.1R		3.9 -0.1R	
		12"	q_a / q_f	2613	4207	2540	4089	2489	4008	2452	3947	2423	3901	2400	3865	2120	3393	1752	2804	1472	2356
			F	4.6 -0.4R		4.6 -0.4R		4.7 -0.3R		4.7 -0.3R		4.7 -0.3R		4.7 -0.2R		4.7 -0.2R		4.8 -0.2R		4.8 -0.2R	
		18"	q_a / q_f	2272	3658	2259	3637	1975	3179	2009	3235	2035	3277	1857	2990	1895	3050	1752	2804	1472	2356
			F	5.3 -0.6R		5.2 -0.5R		5.8 -0.6R		5.6 -0.5R		5.5 -0.4R		6 -0.5R		5.8 -0.4R		5.7 -0.3R		6 -0.4R	
		24"	q_a / q_f	1848	2976	1925	3099	1660	2673	1746	2811	1561	2513	1641	2643	1500	2415	1573	2532	1459	2348
			F	6.5 -1.2R		6.1 -0.8R		6.9 -1R		6.4 -0.7R		7.1 -0.8R		6.7 -0.6R		7.2 -0.7R		6.8 -0.6R		7.3 -0.6R	
	18 ga	4"	q_a / q_f	2723	4384	2723	4384	2723	4384	2723	4384	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.8 -0.1R		3.8 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		6"	q_a / q_f	2639	4250	2619	4216	2604	4193	2594	4176	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	4.4 -0.2R		4.4 -0.2R		4.5 -0.2R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R	
		8"	q_a / q_f	2411	3882	2436	3922	2355	3791	2382	3835	2325	3743	1869	2990	1514	2422	1251	2002	1051	1682
			F	5 -0.3R		4.9 -0.3R		5 -0.3R		4.9 -0.2R		5.1 -0.2R		5 -0.2R		5.1 -0.2R		5 -0.1R		5.1 -0.1R	
		12"	q_a / q_f	2041	3286	1987	3199	1949	3138	1922	3094	1900	3059	1869	2990	1514	2422	1251	2002	1051	1682
			F	6 -0.6R		6.1 -0.6R		6.1 -0.5R		6.2 -0.5R		6.2 -0.4R		6.2 -0.4R		6.3 -0.3R		6.3 -0.3R		6.3 -0.3R	
		18"	q_a / q_f	1777	2861	1770	2849	1550	2496	1579	2542	1600	2575	1461	2353	1491	2401	1251	2002	1051	1682
			F	6.9 -1R		6.8 -0.8R		7.7 -1R		7.5 -0.8R		7.3 -0.7R		7.9 -0.8R		7.7 -0.7R		7.6 -0.6R		8 -0.6R	
		24"	q_a / q_f	1446	2329	1509	2430	1304	2099	1373	2210	1228	1978	1292	2081	1182	1903	1240	1996	1051	1682
			F	8.5 -1.7R		8 -1.2R		9.1 -1.5R		8.5 -1.1R		9.4 -1.3R		8.9 -1R		9.5 -1.1R		9.1 -0.9R		9.7 -1R	
	20 ga	4"	q_a / q_f	1964	3161	1964	3161	1964	3161	1964	3161	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	5.3 -0.2R		5.3 -0.2R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R	
		6"	q_a / q_f	1815	2923	1796	2891	1782	2869	1772	2853	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	6.2 -0.4R		6.2 -0.3R		6.2 -0.3R		6.3 -0.3R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R	
		8"	q_a / q_f	1636	2634	1651	2658	1586	2553	1605	2583	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	7 -0.6R		6.8 -0.5R		7.1 -0.5R		7 -0.4R		7.2 -0.4R		7.1 -0.3R		7.2 -0.3R		7.1 -0.3R		7.3 -0.3R	
		12"	q_a / q_f	1365	2197	1320	2125	1289	2075	1266	2038	1248	2009	1212	1939	982	1570	811	1298	682	1091
			F	8.4 -1.1R		8.6 -1R		8.7 -0.9R		8.8 -0.8R		8.9 -0.8R		8.9 -0.7R		9 -0.7R		9 -0.6R		9 -0.6R	
		18"	q_a / q_f	1182	1903	1169	1882	1015	1635	1030	1659	1041	1676	946	1523	964	1552	811	1298	682	1091
			F	9.7 -1.7R		9.6 -1.4R		10.9 -1.7R		10.6 -1.4R		10.5 -1.2R		11.3 -1.4R		11.1 -1.2R		10.9 -1.1R		11.6 -1.2R	
		24"	q_a / q_f	962	1549	994	1601	854	1374	894	1439	797	1282	835	1345	761	1226	797	1283	682	1091
			F	11.8 -2.8R		11.2 -2.1R		12.8 -2.5R		12.1 -2R		13.3 -2.3R		12.7 -1.8R		13.7 -2R		13.1 -1.7R		14 -1.8R	
	22 ga	4"	q_a / q_f	1588	2556	1577	2539	1570	2528	1530	2448	1171	1874	926	1481	750	1199	620	991	521	833
			F	6.6 -0.3R		6.6 -0.2R		6.6 -0.2R		6.6 -0.2R		6.6 -0.2R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		6"	q_a / q_f	1403	2258	1382	2225	1368	2202	1357	2185	1171	1874	926	1481	750	1199	620	991	521	833
			F	7.6 -0.6R		7.7 -0.5R		7.8 -0.4R		7.8 -0.4R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.2R	
		8"	q_a / q_f	1249	2010	1257	2023	1199	1931	1213	1953	1171	1874	926	1481	750	1199	620	991	521	833
			F	8.6 -0.9R		8.5 -0.7R		8.8 -0.7R		8.7 -0.6R		9 -0.6R		8.8 -0.5R		9 -0.5R		8.9 -0.4R		9.1 -0.4R	
		12"	q_a / q_f	1030	1658	989	1591	960	1546	939	1512	923	1486	910	1466	750	1199	620	991	521	833
			F	10.4 -1.6R		10.7 -1.5R		10.9 -1.3R		11 -1.2R		11.1 -1.1R		11.2 -1R		11.3 -1R		11.3 -0.9R		11.4 -0.9R	
		18"	q_a / q_f	889	1432	873	1405	753	1212	760	1224	766	1233	693	1116	704	1134	620	991	521	833
			F	11.9 -2.3R		12 -2R		13.5 -2.4R		13.3 -2R		13.1 -1.8R		14.2 -2R		13.9 -1.8R		13.7 -1.6R		14.6 -1.7R	
		24"	q_a / q_f	727	1170	742	1195	634	1021	660	1062	586	943	612	985	556	895	580	934	521	833
			F	14.4 -3.7R		13.9 -2.9R		15.8 -3.5R		15.1 -2.8R		16.6 -3.2R		15.9 -2.6R		17.2 -2.9R		16.5 -2.4R		17.6 -2.7R	

DGB-36 36/7/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.7 DGB-36 & DGBF-36

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a / q_f	3544 / 5706	3544 / 5706	3544 / 5706	3544 / 5706	3313 / 5301	2618 / 4188	2120 / 3393	1752 / 2804	1472 / 2356
			F	2.9 -0.1R	2.9 -0.1R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R
		6"	q_a / q_f	3544 / 5706	3544 / 5706	3544 / 5706	3544 / 5706	3313 / 5301	2618 / 4188	2120 / 3393	1752 / 2804	1472 / 2356
			F	3.3 -0.1R	3.3 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R	3.4 -0.1R
		8"	q_a / q_f	3544 / 5706	3544 / 5706	3544 / 5706	3544 / 5706	3313 / 5301	2618 / 4188	2120 / 3393	1752 / 2804	1472 / 2356
			F	3.7 -0.2R	3.6 -0.2R	3.7 -0.2R	3.7 -0.1R	3.8 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R
		12"	q_a / q_f	3230 / 5201	3078 / 4956	2970 / 4782	2890 / 4652	2827 / 4552	2618 / 4188	2120 / 3393	1752 / 2804	1472 / 2356
			F	4.3 -0.4R	4.4 -0.3R	4.5 -0.3R	4.5 -0.3R	4.5 -0.2R	4.6 -0.2R	4.6 -0.2R	4.6 -0.2R	4.6 -0.2R
		18"	q_a / q_f	2873 / 4626	2775 / 4468	2415 / 3889	2405 / 3872	2397 / 3860	2178 / 3507	2120 / 3393	1752 / 2804	1472 / 2356
			F	4.8 -0.5R	4.8 -0.5R	5.4 -0.5R	5.3 -0.5R	5.2 -0.4R	5.6 -0.4R	5.6 -0.4R	5.5 -0.3R	5.8 -0.4R
		24"	q_a / q_f	2451 / 3947	2430 / 3912	2093 / 3369	2130 / 3429	1899 / 3058	1951 / 3141	1779 / 2864	1752 / 2804	1472 / 2356
			F	5.7 -0.9R	5.5 -0.7R	6.2 -0.8R	5.9 -0.6R	6.5 -0.7R	6.2 -0.6R	6.7 -0.6R	6.4 -0.5R	6.8 -0.6R
	18 ga	4"	q_a / q_f	2723 / 4384	2723 / 4384	2723 / 4384	2723 / 4384	2365 / 3784	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R	3.8 +0R
		6"	q_a / q_f	2723 / 4384	2723 / 4384	2723 / 4384	2723 / 4384	2365 / 3784	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	4.3 -0.2R	4.3 -0.2R	4.4 -0.2R	4.4 -0.1R	4.4 -0.1R	4.4 -0.1R	4.4 -0.1R	4.4 -0.1R	4.4 -0.1R
		8"	q_a / q_f	2723 / 4384	2723 / 4384	2723 / 4384	2723 / 4384	2365 / 3784	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	4.7 -0.3R	4.7 -0.2R	4.9 -0.2R	4.8 -0.2R	4.9 -0.2R	4.9 -0.2R	5 -0.2R	4.9 -0.1R	5 -0.1R
		12"	q_a / q_f	2518 / 4054	2405 / 3871	2324 / 3741	2263 / 3644	2216 / 3568	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	5.5 -0.5R	5.7 -0.5R	5.8 -0.5R	5.9 -0.4R	5.9 -0.4R	6 -0.4R	6 -0.3R	6.1 -0.3R	6.1 -0.3R
		18"	q_a / q_f	2240 / 3607	2168 / 3491	1890 / 3043	1885 / 3035	1881 / 3028	1710 / 2754	1514 / 2422	1251 / 2002	1051 / 1682
			F	6.2 -0.8R	6.3 -0.7R	7 -0.8R	6.9 -0.7R	6.9 -0.6R	7.4 -0.7R	7.3 -0.6R	7.2 -0.5R	7.6 -0.6R
		24"	q_a / q_f	1909 / 3073	1898 / 3055	1636 / 2635	1668 / 2686	1489 / 2398	1532 / 2466	1397 / 2250	1251 / 2002	1051 / 1682
			F	7.3 -1.2R	7.1 -1R	8 -1.2R	7.7 -1R	8.5 -1.1R	8.2 -0.9R	8.8 -1R	8.5 -0.8R	9 -0.9R
	20 ga	4"	q_a / q_f	1964 / 3161	1964 / 3161	1964 / 3161	1964 / 3161	1534 / 2454	1212 / 1939	982 / 1570	811 / 1298	682 / 1091
			F	5.2 -0.2R	5.2 -0.2R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R
		6"	q_a / q_f	1964 / 3161	1964 / 3161	1964 / 3161	1964 / 3161	1534 / 2454	1212 / 1939	982 / 1570	811 / 1298	682 / 1091
			F	5.9 -0.4R	6 -0.3R	6.1 -0.3R	6.1 -0.3R	6.1 -0.2R	6.2 -0.2R	6.2 -0.2R	6.2 -0.2R	6.2 -0.2R
		8"	q_a / q_f	1964 / 3161	1964 / 3161	1885 / 3035	1892 / 3046	1534 / 2454	1212 / 1939	982 / 1570	811 / 1298	682 / 1091
			F	6.5 -0.5R	6.5 -0.4R	6.8 -0.4R	6.7 -0.4R	6.9 -0.4R	6.9 -0.3R	7 -0.3R	7 -0.3R	7.1 -0.3R
		12"	q_a / q_f	1702 / 2740	1610 / 2593	1545 / 2488	1497 / 2411	1460 / 2350	1212 / 1939	982 / 1570	811 / 1298	682 / 1091
			F	7.6 -0.9R	7.9 -0.9R	8.1 -0.8R	8.2 -0.7R	8.3 -0.7R	8.4 -0.7R	8.5 -0.6R	8.6 -0.6R	8.7 -0.6R
		18"	q_a / q_f	1514 / 2438	1451 / 2337	1257 / 2024	1245 / 2004	1236 / 1990	1120 / 1802	982 / 1570	811 / 1298	682 / 1091
			F	8.4 -1.3R	8.6 -1.1R	9.7 -1.4R	9.6 -1.2R	9.6 -1.1R	10.4 -1.2R	10.3 -1.1R	10.2 -1R	10.8 -1.1R
		24"	q_a / q_f	1298 / 2090	1273 / 2050	1093 / 1760	1104 / 1778	983 / 1582	1004 / 1617	914 / 1472	811 / 1298	682 / 1091
			F	9.7 -1.9R	9.7 -1.6R	10.9 -1.9R	10.7 -1.6R	11.7 -1.8R	11.4 -1.5R	12.3 -1.7R	11.9 -1.5R	12.7 -1.6R
	22 ga	4"	q_a / q_f	1601 / 2578	1601 / 2578	1601 / 2578	1530 / 2448	1171 / 1874	926 / 1481	750 / 1199	620 / 991	521 / 833
			F	6.4 -0.3R	6.4 -0.2R	6.5 -0.2R	6.5 -0.2R	6.5 -0.2R	6.6 -0.2R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R
		6"	q_a / q_f	1601 / 2578	1601 / 2578	1601 / 2578	1530 / 2448	1171 / 1874	926 / 1481	750 / 1199	620 / 991	521 / 833
			F	7.2 -0.5R	7.4 -0.4R	7.5 -0.4R	7.5 -0.4R	7.6 -0.3R	7.6 -0.3R	7.7 -0.3R	7.7 -0.3R	7.7 -0.3R
		8"	q_a / q_f	1534 / 2469	1514 / 2438	1427 / 2297	1427 / 2298	1171 / 1874	926 / 1481	750 / 1199	620 / 991	521 / 833
			F	8 -0.7R	8 -0.6R	8.4 -0.6R	8.3 -0.5R	8.6 -0.5R	8.5 -0.5R	8.7 -0.5R	8.6 -0.4R	8.8 -0.4R
		12"	q_a / q_f	1301 / 2095	1220 / 1964	1163 / 1872	1120 / 1803	1087 / 1750	926 / 1481	750 / 1199	620 / 991	521 / 833
			F	9.3 -1.2R	9.6 -1.2R	9.9 -1.1R	10.2 -1.1R	10.3 -1R	10.5 -0.9R	10.6 -0.9R	10.7 -0.9R	10.8 -0.8R
		18"	q_a / q_f	1161 / 1869	1101 / 1772	948 / 1527	932 / 1501	920 / 1482	831 / 1338	750 / 1199	620 / 991	521 / 833
			F	10.2 -1.7R	10.5 -1.5R	11.8 -1.8R	11.8 -1.6R	11.9 -1.5R	12.8 -1.7R	12.7 -1.5R	12.7 -1.4R	13.4 -1.5R
		24"	q_a / q_f	1003 / 1614	970 / 1562	829 / 1335	830 / 1337	736 / 1184	748 / 1204	676 / 1089	620 / 991	521 / 833
			F	11.7 -2.4R	11.8 -2.1R	13.3 -2.5R	13.1 -2.1R	14.4 -2.4R	14 -2.1R	15.1 -2.3R	14.8 -2R	15.7 -2.2R

DGB-36 36/9 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

Patent Number: 11,872,644

2.8 **BN-36 / BS-36**

No. 12 Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		6"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		8"	q_a	984	1585	986	1587	948	1526	955	1537	928	1494	936	1507	915	1473	923	1486	906	1459
			q_f																		
			F	4.2	-0.4R	4.2	-0.3R	4.4	-0.3R	4.4	-0.2R	4.5	-0.2R	4.4	-0.2R	4.5	-0.2R	4.5	-0.2R	4.6	-0.2R
		12"	q_a	847	1363	814	1311	791	1273	774	1245	760	1224	749	1207	741	1193	734	1181	727	1171
			q_f																		
			F	5	-0.6R	5.2	-0.6R	5.3	-0.5R	5.4	-0.5R	5.5	-0.5R	5.6	-0.4R	5.6	-0.4R	5.7	-0.4R	5.7	-0.4R
		18"	q_a	753	1212	734	1183	644	1036	645	1039	647	1041	590	950	597	961	602	970	562	904
			q_f																		
			F	5.6	-0.9R	5.7	-0.8R	6.5	-0.9R	6.4	-0.8R	6.4	-0.7R	6.9	-0.8R	6.8	-0.7R	6.8	-0.6R	7.2	-0.7R
		24"	q_a	637	1026	641	1032	555	893	570	918	510	821	528	850	482	777	500	804	463	746
			q_f																		
			F	6.6	-1.3R	6.5	-1.1R	7.4	-1.3R	7.2	-1.1R	7.9	-1.2R	7.7	-1R	8.3	-1.1R	8	-1R	8.6	-1.1R
	18 ga	4"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4.1	-0.1R
		6"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	786	1265	783	1261
			q_f																		
			F	4.5	-0.3R	4.6	-0.2R	4.6	-0.2R	4.7	-0.2R	4.7	-0.2R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R
		8"	q_a	757	1218	756	1217	723	1165	728	1172	705	1135	711	1145	693	1116	699	1126	685	1103
			q_f																		
			F	5	-0.4R	5	-0.3R	5.2	-0.3R	5.1	-0.3R	5.3	-0.3R	5.2	-0.2R	5.4	-0.2R	5.3	-0.2R	5.4	-0.2R
		12"	q_a	647	1041	618	996	598	963	583	939	571	920	562	905	554	893	548	883	543	874
			q_f																		
			F	5.9	-0.7R	6.1	-0.6R	6.2	-0.6R	6.3	-0.5R	6.4	-0.5R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R	6.6	-0.4R
		18"	q_a	574	925	557	897	485	781	485	780	484	780	440	709	444	716	448	721	417	671
			q_f																		
			F	6.6	-1R	6.7	-0.9R	7.5	-1R	7.5	-0.9R	7.4	-0.8R	8	-0.9R	7.9	-0.8R	7.9	-0.7R	8.3	-0.8R
		24"	q_a	488	785	486	783	419	675	428	690	382	616	394	634	359	579	371	598	344	553
			q_f																		
			F	7.7	-1.5R	7.6	-1.2R	8.6	-1.4R	8.3	-1.2R	9.1	-1.4R	8.9	-1.1R	9.5	-1.3R	9.2	-1.1R	9.8	-1.2R
	20 ga	4"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	5	-0.2R	5	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R
		6"	q_a	592	953	585	942	576	928	570	918	565	909	561	903	558	898	555	893	553	890
			q_f																		
			F	5.7	-0.3R	5.7	-0.3R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R
		8"	q_a	539	868	536	864	510	821	512	825	494	795	497	801	484	779	488	785	477	767
			q_f																		
			F	6.2	-0.5R	6.2	-0.4R	6.5	-0.4R	6.4	-0.3R	6.6	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.2R	6.7	-0.2R
		12"	q_a	458	737	434	699	418	672	405	652	396	637	388	625	382	615	377	606	372	599
			q_f																		
			F	7.2	-0.8R	7.5	-0.7R	7.6	-0.7R	7.8	-0.6R	7.9	-0.6R	8	-0.6R	8	-0.5R	8.1	-0.5R	8.1	-0.5R
		18"	q_a	407	655	391	629	339	545	336	541	334	538	303	488	305	491	306	493	284	458
			q_f																		
			F	8	-1.1R	8.2	-1R	9.1	-1.2R	9.1	-1R	9	-0.9R	9.7	-1R	9.6	-0.9R	9.5	-0.8R	10.1	-0.9R
		24"	q_a	347	559	342	551	294	473	298	479	265	426	271	437	247	398	254	409	235	378
			q_f																		
			F	9.3	-1.7R	9.2	-1.4R	10.3	-1.7R	10.1	-1.4R	11	-1.6R	10.7	-1.3R	11.5	-1.5R	11.1	-1.2R	11.8	-1.4R
	22 ga	4"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R
		6"	q_a	482	777	471	758	463	745	457	735	452	728	448	722	445	717	443	713	440	709
			q_f																		
			F	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R	6.7	-0.2R	6.8	-0.2R	6.8	-0.2R	6.8	-0.2R	6.8	-0.2R	6.9	-0.2R
		8"	q_a	433	698	430	692	407	655	408	657	392	631	395	636	383	617	386	622	377	606
			q_f																		
			F	7.2	-0.5R	7.2	-0.4R	7.4	-0.4R	7.4	-0.3R	7.6	-0.3R	7.5	-0.3R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R
		12"	q_a	367	591	346	558	332	534	321	517	312	503	306	492	300	483	296	476	292	470
			q_f																		
			F	8.3	-0.9R	8.5	-0.8R	8.7	-0.7R	8.9	-0.7R	9	-0.6R	9.1	-0.6R	9.2	-0.6R	9.2	-0.5R	9.3	-0.5R
		18"	q_a	326	525	312	502	269	434	266	429	264	425	239	384	240	386	240	387	223	359
			q_f																		
			F	9.2	-1.2R	9.3	-1.1R	10.4	-1.3R	10.3	-1.1R	10.3	-1R	11	-1.1R	10.9	-1R	10.8	-0.9R	11.4	-1R
		24"	q_a	280	450	273	440	234	377	236	380	210	337	214	345	194	312	200	322	184	296
			q_f																		
			F	10.5	-1.8R	10.4	-1.5R	11.7	-1.8R	11.4	-1.5R	12.4	-1.7R	12.1	-1.4R	12.9	-1.6R	12.5	-1.4R	13.3	-1.5R

BS-36 36/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

BN-36 2.8

No. 12 Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a q_f	1749	2816	1725	2777	1708	2751	1696	2731	1687	2716	1679	2704	1673	2694	1668	2686	1472	2356
			F	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		6"	q_a q_f	1481	2385	1442	2322	1415	2279	1395	2246	1380	2222	1368	2202	1358	2186	1350	2173	1343	2162
			F	3.8	-0.4R	3.8	-0.4R	3.9	-0.3R	3.9	-0.3R	3.9	-0.3R	3.9	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R
		8"	q_a q_f	1290	2077	1285	2069	1207	1943	1215	1956	1162	1871	1174	1890	1135	1827	1147	1847	1116	1796
			F	4.2	-0.6R	4.2	-0.5R	4.4	-0.5R	4.3	-0.4R	4.5	-0.4R	4.4	-0.4R	4.5	-0.4R	4.5	-0.3R	4.6	-0.3R
		12"	q_a q_f	1050	1691	989	1592	947	1524	916	1475	892	1437	874	1407	859	1383	847	1363	836	1346
			F	4.9	-1R	5.1	-0.9R	5.3	-0.9R	5.4	-0.8R	5.5	-0.8R	5.5	-0.7R	5.6	-0.7R	5.6	-0.7R	5.7	-0.6R
		18"	q_a q_f	910	1465	873	1406	744	1199	741	1193	738	1188	663	1068	669	1077	673	1084	622	1001
			F	5.5	-1.3R	5.6	-1.2R	6.3	-1.4R	6.3	-1.3R	6.3	-1.2R	6.8	-1.3R	6.8	-1.2R	6.7	-1.1R	7.1	-1.2R
		24"	q_a q_f	757	1219	750	1207	635	1022	647	1042	572	920	588	947	531	855	550	885	503	810
			F	6.4	-1.9R	6.4	-1.6R	7.2	-1.9R	7.1	-1.7R	7.8	-1.9R	7.5	-1.7R	8.2	-1.8R	7.9	-1.6R	8.4	-1.8R
	18 ga	4"	q_a q_f	1341	2159	1319	2123	1303	2098	1292	2080	1283	2066	1276	2054	1270	2045	1251	2002	1051	1682
			F	3.9	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4.1	-0.1R
		6"	q_a q_f	1124	1809	1089	1754	1065	1715	1048	1687	1034	1665	1023	1648	1015	1634	1007	1622	1001	1612
			F	4.5	-0.4R	4.6	-0.4R	4.6	-0.4R	4.6	-0.3R	4.7	-0.3R	4.7	-0.3R	4.7	-0.3R	4.7	-0.2R	4.7	-0.2R
		8"	q_a q_f	975	1569	966	1556	903	1454	907	1461	865	1393	873	1405	841	1355	850	1369	826	1329
			F	5	-0.7R	5	-0.6R	5.2	-0.6R	5.1	-0.5R	5.3	-0.5R	5.2	-0.4R	5.3	-0.4R	5.3	-0.4R	5.4	-0.4R
		12"	q_a q_f	793	1277	742	1195	707	1139	682	1098	662	1066	647	1042	635	1022	624	1005	616	991
			F	5.8	-1.1R	6	-1R	6.2	-1R	6.3	-0.9R	6.4	-0.9R	6.5	-0.8R	6.5	-0.8R	6.6	-0.8R	6.6	-0.7R
		18"	q_a q_f	690	1111	657	1058	558	899	553	890	549	883	492	793	495	797	497	800	458	738
			F	6.4	-1.5R	6.6	-1.3R	7.4	-1.6R	7.4	-1.4R	7.3	-1.3R	7.9	-1.5R	7.9	-1.3R	7.8	-1.2R	8.3	-1.3R
		24"	q_a q_f	578	931	566	912	479	771	485	780	425	684	436	702	391	629	404	650	370	596
			F	7.4	-2.1R	7.4	-1.8R	8.3	-2.2R	8.2	-1.9R	9	-2.1R	8.7	-1.9R	9.4	-2.1R	9.1	-1.8R	9.7	-2R
	20 ga	4"	q_a q_f	950	1530	930	1498	916	1475	906	1459	898	1446	892	1436	887	1428	811	1298	682	1091
			F	5	-0.3R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R
		6"	q_a q_f	787	1267	758	1221	738	1188	723	1165	712	1146	703	1132	696	1120	690	1111	682	1091
			F	5.6	-0.5R	5.7	-0.5R	5.8	-0.4R	5.8	-0.4R	5.8	-0.3R	5.9	-0.3R	5.9	-0.3R	5.9	-0.3R	5.9	-0.3R
		8"	q_a q_f	681	1096	670	1079	623	1002	623	1003	592	953	596	959	573	922	578	930	560	902
			F	6.2	-0.8R	6.2	-0.6R	6.4	-0.6R	6.4	-0.6R	6.5	-0.6R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R	6.7	-0.4R
		12"	q_a q_f	555	894	515	830	488	785	468	753	453	729	441	709	431	694	423	681	416	670
			F	7.1	-1.2R	7.4	-1.2R	7.6	-1.1R	7.7	-1.1R	7.8	-1R	7.9	-1R	8	-0.9R	8	-0.9R	8.1	-0.8R
		18"	q_a q_f	485	781	458	737	388	624	381	614	376	606	335	539	336	541	338	544	310	498
			F	7.9	-1.7R	8	-1.5R	9	-1.9R	8.9	-1.7R	8.9	-1.5R	9.6	-1.7R	9.5	-1.5R	9.5	-1.4R	10	-1.5R
		24"	q_a q_f	411	661	397	639	332	535	333	537	290	467	296	476	266	428	274	441	251	404
			F	9	-2.4R	9	-2.1R	10.1	-2.5R	9.9	-2.2R	10.8	-2.5R	10.5	-2.1R	11.3	-2.4R	11	-2.1R	11.7	-2.3R
	22 ga	4"	q_a q_f	761	1225	742	1195	729	1174	720	1159	713	1148	707	1138	702	1131	620	991	521	833
			F	5.8	-0.3R	5.9	-0.3R	5.9	-0.2R	5.9	-0.2R	6	-0.2R	6	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R
		6"	q_a q_f	626	1008	601	967	583	938	570	917	560	901	552	889	546	878	540	870	521	833
			F	6.5	-0.6R	6.6	-0.5R	6.7	-0.5R	6.7	-0.4R	6.8	-0.4R	6.8	-0.4R	6.8	-0.3R	6.8	-0.3R	6.9	-0.3R
		8"	q_a q_f	541	871	530	854	491	790	490	789	464	747	466	751	448	721	451	726	437	703
			F	7.1	-0.8R	7.1	-0.7R	7.4	-0.7R	7.3	-0.6R	7.5	-0.6R	7.5	-0.5R	7.6	-0.5R	7.6	-0.5R	7.7	-0.5R
		12"	q_a q_f	442	712	408	658	385	620	368	593	355	572	345	555	337	542	330	531	324	522
			F	8.2	-1.4R	8.4	-1.3R	8.6	-1.2R	8.8	-1.2R	8.9	-1.1R	9	-1.1R	9.1	-1R	9.2	-1R	9.2	-0.9R
		18"	q_a q_f	388	625	364	586	308	495	300	483	295	474	262	421	262	422	263	423	241	388
			F	9	-1.8R	9.2	-1.7R	10.2	-2R	10.2	-1.8R	10.1	-1.7R	10.9	-1.9R	10.8	-1.7R	10.7	-1.5R	11.3	-1.7R
		24"	q_a q_f	331	533	317	511	263	424	262	422	228	367	232	373	209	336	214	344	196	316
			F	10.2	-2.6R	10.2	-2.3R	11.4	-2.8R	11.2	-2.4R	12.2	-2.7R	11.9	-2.3R	12.7	-2.6R	12.4	-2.3R	13.2	-2.5R

BS-36 36/7/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

2.8 **BN-36**

No. 12 Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7	16 ga	4"	q_a	1768	2847	1742	2804	1723	2774	1709	2751	1698	2734	1690	2720	1683	2709	1677	2700	1472	2356
			q_f																		
			F	3.2	-0.2R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R
		6"	q_a	1513	2436	1470	2366	1439	2316	1416	2280	1398	2251	1384	2229	1373	2211	1364	2196	1356	2183
			q_f																		
			F	3.6	-0.3R	3.7	-0.3R	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R
		8"	q_a	1331	2142	1318	2122	1236	1990	1240	1997	1185	1908	1194	1923	1154	1857	1164	1874	1132	1822
			q_f																		
			F	4	-0.4R	4	-0.3R	4.2	-0.4R	4.2	-0.3R	4.4	-0.3R	4.3	-0.3R	4.4	-0.3R	4.4	-0.2R	4.5	-0.2R
		12"	q_a	1100	1772	1031	1660	983	1583	948	1526	921	1483	899	1448	882	1420	868	1397	856	1378
			q_f																		
			F	4.6	-0.6R	4.8	-0.6R	5	-0.6R	5.1	-0.6R	5.2	-0.6R	5.3	-0.5R	5.4	-0.5R	5.4	-0.5R	5.5	-0.5R
		18"	q_a	966	1555	919	1480	785	1264	776	1249	769	1238	692	1113	694	1118	697	1121	643	1036
			q_f																		
			F	5.1	-0.9R	5.3	-0.8R	5.9	-1R	5.9	-0.9R	6	-0.8R	6.5	-0.9R	6.4	-0.8R	6.4	-0.8R	6.8	-0.8R
		24"	q_a	818	1317	798	1285	678	1091	684	1101	605	973	618	994	560	901	574	925	527	849
			q_f																		
			F	5.7	-1.2R	5.8	-1.1R	6.6	-1.3R	6.5	-1.1R	7.2	-1.3R	7	-1.1R	7.6	-1.3R	7.4	-1.1R	7.9	-1.2R
	18 ga	4"	q_a	1359	2188	1334	2148	1317	2120	1304	2099	1294	2083	1286	2070	1279	2059	1251	2002	1051	1682
			q_f																		
			F	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		6"	q_a	1152	1855	1113	1792	1086	1748	1066	1716	1050	1691	1038	1671	1028	1655	1020	1642	1013	1631
			q_f																		
			F	4.4	-0.3R	4.4	-0.3R	4.5	-0.3R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R	4.7	-0.2R	4.7	-0.2R
		8"	q_a	1010	1625	995	1601	928	1495	929	1496	885	1425	890	1433	858	1381	865	1392	839	1351
			q_f																		
			F	4.8	-0.5R	4.8	-0.4R	5	-0.4R	5	-0.3R	5.1	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.3R	5.3	-0.3R
		12"	q_a	835	1345	778	1252	738	1188	708	1140	686	1104	668	1076	654	1053	642	1033	632	1018
			q_f																		
			F	5.4	-0.7R	5.7	-0.7R	5.9	-0.7R	6	-0.7R	6.1	-0.6R	6.2	-0.6R	6.3	-0.6R	6.4	-0.5R	6.4	-0.5R
		18"	q_a	735	1184	695	1118	592	953	582	936	574	924	515	830	516	830	516	831	476	766
			q_f																		
			F	6	-1R	6.2	-0.9R	6.9	-1.1R	6.9	-1R	7	-0.9R	7.5	-1R	7.5	-0.9R	7.4	-0.9R	7.9	-0.9R
		24"	q_a	627	1010	606	976	514	827	514	828	454	731	462	743	414	667	425	684	390	627
			q_f																		
			F	6.7	-1.4R	6.8	-1.2R	7.6	-1.5R	7.6	-1.3R	8.3	-1.5R	8.2	-1.3R	8.8	-1.4R	8.6	-1.2R	9.1	-1.4R
	20 ga	4"	q_a	967	1556	944	1520	928	1495	917	1476	908	1462	901	1450	895	1441	811	1298	682	1091
			q_f																		
			F	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R
		6"	q_a	811	1306	778	1253	755	1216	739	1189	726	1168	715	1152	707	1138	700	1127	682	1091
			q_f																		
			F	5.5	-0.4R	5.6	-0.3R	5.7	-0.3R	5.7	-0.3R	5.8	-0.3R	5.8	-0.2R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R
		8"	q_a	709	1141	693	1116	643	1035	641	1032	608	979	610	982	586	943	590	950	571	919
			q_f																		
			F	6	-0.5R	6	-0.4R	6.2	-0.5R	6.2	-0.4R	6.4	-0.4R	6.4	-0.3R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R
		12"	q_a	588	947	543	874	511	824	489	786	471	758	457	736	446	718	437	703	429	691
			q_f																		
			F	6.7	-0.8R	7	-0.8R	7.2	-0.8R	7.4	-0.8R	7.5	-0.7R	7.6	-0.7R	7.7	-0.7R	7.8	-0.6R	7.9	-0.6R
		18"	q_a	521	838	487	784	413	666	403	649	396	637	354	570	353	569	352	567	324	522
			q_f																		
			F	7.3	-1.1R	7.6	-1R	8.4	-1.3R	8.4	-1.1R	8.5	-1R	9.1	-1.2R	9.1	-1.1R	9	-1R	9.6	-1.1R
		24"	q_a	448	722	428	688	362	582	358	577	312	502	315	507	283	456	290	466	265	427
			q_f																		
			F	8.2	-1.6R	8.3	-1.4R	9.3	-1.7R	9.2	-1.5R	10	-1.7R	9.9	-1.5R	10.6	-1.6R	10.4	-1.4R	11	-1.6R
	22 ga	4"	q_a	776	1249	755	1216	741	1192	730	1175	722	1162	715	1151	710	1142	620	991	521	833
			q_f																		
			F	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	6	-0.1R
		6"	q_a	647	1042	618	996	598	963	583	939	572	921	563	906	555	894	549	884	521	833
			q_f																		
			F	6.4	-0.4R	6.5	-0.4R	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R	6.7	-0.3R	6.7	-0.2R	6.8	-0.2R	6.8	-0.2R
		8"	q_a	566	911	550	886	508	818	505	813	478	769	479	771	459	739	461	743	446	718
			q_f																		
			F	6.9	-0.6R	6.9	-0.5R	7.2	-0.5R	7.2	-0.4R	7.4	-0.4R	7.3	-0.4R	7.5	-0.4R	7.4	-0.3R	7.6	-0.3R
		12"	q_a	471	758	432	696	405	652	386	621	371	597	359	578	349	563	342	550	335	539
			q_f																		
			F	7.8	-0.9R	8.1	-0.9R	8.3	-0.9R	8.5	-0.8R	8.6	-0.8R	8.7	-0.7R	8.8	-0.7R	8.9	-0.7R	9	-0.7R
		18"	q_a	418	673	388	625	329	530	320	515	313	503	278	447	277	446	276	444	253	407
			q_f																		
			F	8.4	-1.2R	8.7	-1.1R	9.6	-1.4R	9.6	-1.3R	9.7	-1.1R	10.3	-1.3R	10.3	-1.2R	10.3	-1.1R	10.8	-1.2R
		24"	q_a	363	584	343	552	287	463	283	455	246	396	248	399	223	359	227	366	208	335
			q_f																		
			F	9.3	-1.7R	9.5	-1.5R	10.5	-1.8R	10.5	-1.6R	11.4	-1.8R	11.2	-1.6R	12	-1.8R	11.7	-1.6R	12.4	-1.7R

BS-36 36/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

BN-36 2.8

No. 12 Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1965	3164	1950	3139	1752	2804	1472	2356
			F	3.1	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R
		6"	q_a q_f	1827	2942	1745	2810	1687	2716	1643	2645	1609	2591	1583	2548	1561	2513	1542	2483	1472	2356
			F	3.5	-0.3R	3.6	-0.3R	3.7	-0.3R	3.7	-0.3R	3.7	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R
		8"	q_a q_f	1625	2617	1574	2534	1458	2347	1442	2322	1366	2199	1364	2196	1309	2107	1312	2112	1269	2043
			F	3.8	-0.4R	3.8	-0.4R	4	-0.4R	4	-0.4R	4.2	-0.4R	4.2	-0.3R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R
		12"	q_a q_f	1385	2230	1269	2043	1188	1912	1128	1816	1081	1741	1045	1682	1015	1634	991	1595	970	1562
			F	4.2	-0.6R	4.4	-0.7R	4.6	-0.6R	4.8	-0.6R	4.9	-0.6R	5	-0.6R	5.1	-0.6R	5.2	-0.6R	5.2	-0.6R
		18"	q_a q_f	1249	2011	1154	1858	985	1586	950	1530	924	1488	830	1336	820	1321	811	1306	742	1194
			F	4.5	-0.8R	4.7	-0.8R	5.3	-1R	5.4	-0.9R	5.5	-0.9R	5.9	-1R	5.9	-0.9R	6	-0.9R	6.3	-0.9R
		24"	q_a q_f	1103	1776	1033	1663	877	1413	857	1380	750	1208	747	1203	669	1077	674	1085	616	991
			F	4.9	-1R	5.1	-1R	5.8	-1.2R	5.8	-1.1R	6.4	-1.3R	6.3	-1.2R	6.8	-1.3R	6.8	-1.2R	7.2	-1.3R
	18 ga	4"	q_a q_f	1576	2537	1576	2537	1550	2496	1523	2453	1502	2419	1486	2392	1472	2370	1251	2002	1051	1682
			F	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		6"	q_a q_f	1396	2247	1325	2133	1275	2052	1237	1992	1208	1945	1185	1908	1166	1877	1150	1852	1051	1682
			F	4.2	-0.3R	4.3	-0.3R	4.4	-0.3R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R
		8"	q_a q_f	1242	1999	1194	1922	1100	1771	1084	1745	1023	1647	1019	1640	975	1570	976	1571	942	1517
			F	4.5	-0.5R	4.6	-0.4R	4.8	-0.5R	4.8	-0.4R	4.9	-0.4R	4.9	-0.4R	5.1	-0.4R	5	-0.3R	5.1	-0.3R
		12"	q_a q_f	1062	1710	967	1556	900	1448	850	1369	812	1307	782	1259	758	1220	738	1187	721	1160
			F	5	-0.7R	5.2	-0.7R	5.4	-0.7R	5.6	-0.7R	5.8	-0.7R	5.9	-0.7R	6	-0.7R	6	-0.6R	6.1	-0.6R
		18"	q_a q_f	962	1549	882	1420	751	1210	721	1160	697	1122	618	996	608	978	600	966	550	886
			F	5.3	-0.9R	5.6	-0.9R	6.2	-1.1R	6.3	-1R	6.4	-1R	6.9	-1.1R	6.9	-1R	6.9	-1R	7.3	-1R
		24"	q_a q_f	856	1378	794	1278	672	1082	649	1045	564	909	558	899	500	804	502	808	460	741
			F	5.8	-1.2R	6	-1.1R	6.7	-1.4R	6.8	-1.3R	7.4	-1.4R	7.4	-1.3R	7.9	-1.5R	7.8	-1.3R	8.3	-1.5R
	20 ga	4"	q_a q_f	1164	1875	1121	1804	1090	1754	1066	1717	1048	1688	1034	1665	982	1570	811	1298	682	1091
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5	-0.1R	5.1	-0.1R
		6"	q_a q_f	989	1592	931	1499	890	1433	859	1383	836	1345	817	1315	802	1291	789	1270	682	1091
			F	5.3	-0.4R	5.4	-0.4R	5.5	-0.4R	5.6	-0.3R	5.6	-0.3R	5.7	-0.3R	5.7	-0.3R	5.7	-0.3R	5.8	-0.2R
		8"	q_a q_f	881	1418	839	1351	768	1237	753	1212	707	1139	702	1130	669	1077	668	1075	643	1036
			F	5.6	-0.6R	5.7	-0.5R	6	-0.5R	6	-0.5R	6.2	-0.5R	6.2	-0.4R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R
		12"	q_a q_f	758	1221	684	1101	632	1018	594	956	564	909	541	871	522	841	507	816	494	795
			F	6.2	-0.8R	6.5	-0.8R	6.7	-0.8R	6.9	-0.8R	7.1	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R
		18"	q_a q_f	691	1113	628	1010	533	858	503	811	481	775	425	684	417	672	411	662	377	607
			F	6.6	-1R	6.9	-1R	7.6	-1.2R	7.7	-1.2R	7.8	-1.1R	8.4	-1.3R	8.4	-1.2R	8.5	-1.1R	8.9	-1.2R
		24"	q_a q_f	621	1000	569	916	474	764	453	730	393	633	386	621	347	559	347	559	318	513
			F	7.2	-1.3R	7.4	-1.3R	8.2	-1.6R	8.3	-1.4R	9	-1.7R	9	-1.5R	9.6	-1.7R	9.5	-1.5R	10	-1.7R
	22 ga	4"	q_a q_f	1164	1875	1121	1804	1090	1754	1066	1717	1048	1688	1034	1665	982	1570	811	1298	682	1091
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5	-0.1R	5.1	-0.1R
		6"	q_a q_f	989	1592	931	1499	890	1433	859	1383	836	1345	817	1315	802	1291	789	1270	682	1091
			F	5.3	-0.4R	5.4	-0.4R	5.5	-0.4R	5.6	-0.3R	5.6	-0.3R	5.7	-0.3R	5.7	-0.3R	5.7	-0.3R	5.8	-0.2R
		8"	q_a q_f	881	1418	839	1351	768	1237	753	1212	707	1139	702	1130	669	1077	668	1075	643	1036
			F	5.6	-0.6R	5.7	-0.5R	6	-0.5R	6	-0.5R	6.2	-0.5R	6.2	-0.4R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R
		12"	q_a q_f	758	1221	684	1101	632	1018	594	956	564	909	541	871	522	841	507	816	494	795
			F	6.2	-0.8R	6.5	-0.8R	6.7	-0.8R	6.9	-0.8R	7.1	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R
		18"	q_a q_f	691	1113	628	1010	533	858	503	811	481	775	425	684	417	672	411	662	377	607
			F	6.6	-1R	6.9	-1R	7.6	-1.2R	7.7	-1.2R	7.8	-1.1R	8.4	-1.3R	8.4	-1.2R	8.5	-1.1R	8.9	-1.2R
		24"	q_a q_f	621	1000	569	916	474	764	453	730	393	633	386	621	347	559	347	559	318	513
			F	7.2	-1.3R	7.4	-1.3R	8.2	-1.6R	8.3	-1.4R	9	-1.7R	9	-1.5R	9.6	-1.7R	9.5	-1.5R	10	-1.7R

BS-36 36/9 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

2.8 **BN-36**

No. 12 Self-Drilling Screws to Supports with No. 12 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R	3.4	-0.1R
		6"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		8"	q_a / q_f	986	1587	986	1587	972	1565	979	1576	953	1535	962	1548	942	1516	950	1529	934	1503
			F	4.2	-0.4R	4.2	-0.3R	4.4	-0.3R	4.4	-0.2R	4.5	-0.2R	4.4	-0.2R	4.5	-0.2R	4.5	-0.2R	4.6	-0.2R
		12"	q_a / q_f	869	1398	838	1349	816	1313	799	1287	787	1266	777	1250	768	1237	761	1226	756	1217
			F	5	-0.6R	5.2	-0.6R	5.3	-0.5R	5.4	-0.5R	5.5	-0.5R	5.6	-0.4R	5.6	-0.4R	5.7	-0.4R	5.7	-0.4R
		18"	q_a / q_f	773	1244	757	1219	665	1071	669	1076	671	1080	613	988	621	1000	628	1010	586	943
			F	5.6	-0.9R	5.7	-0.8R	6.5	-0.9R	6.4	-0.8R	6.4	-0.7R	6.9	-0.8R	6.8	-0.7R	6.8	-0.6R	7.2	-0.7R
		24"	q_a / q_f	654	1053	661	1064	573	923	591	951	530	853	549	884	502	809	521	839	484	779
			F	6.6	-1.3R	6.5	-1.1R	7.4	-1.3R	7.2	-1.1R	7.9	-1.2R	7.7	-1R	8.3	-1.1R	8	-1R	8.6	-1.1R
	18 ga	4"	q_a / q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4.1	-0.1R
		6"	q_a / q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	4.5	-0.3R	4.6	-0.2R	4.6	-0.2R	4.7	-0.2R	4.7	-0.2R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R
		8"	q_a / q_f	774	1246	775	1247	743	1197	748	1205	726	1169	732	1179	715	1152	722	1162	708	1140
			F	5	-0.4R	5	-0.3R	5.2	-0.3R	5.1	-0.3R	5.3	-0.3R	5.2	-0.2R	5.4	-0.2R	5.3	-0.2R	5.4	-0.2R
		12"	q_a / q_f	664	1069	637	1025	618	994	603	971	592	953	583	939	576	927	570	918	565	909
			F	5.9	-0.7R	6.1	-0.6R	6.2	-0.6R	6.3	-0.5R	6.4	-0.5R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R	6.6	-0.4R
		18"	q_a / q_f	590	949	574	924	502	808	502	809	503	809	458	737	463	745	467	752	435	700
			F	6.6	-1R	6.7	-0.9R	7.5	-1R	7.5	-0.9R	7.4	-0.8R	8	-0.9R	7.9	-0.8R	7.9	-0.7R	8.3	-0.8R
		24"	q_a / q_f	500	805	501	807	433	697	444	714	397	639	410	659	374	602	387	623	359	578
			F	7.7	-1.5R	7.6	-1.2R	8.6	-1.4R	8.3	-1.2R	9.1	-1.4R	8.9	-1.1R	9.5	-1.3R	9.2	-1.1R	9.8	-1.2R
	20 ga	4"	q_a / q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	5	-0.2R	5	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R
		6"	q_a / q_f	592	953	592	953	591	951	585	941	580	934	576	928	573	923	571	919	569	916
			F	5.7	-0.3R	5.7	-0.3R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R
		8"	q_a / q_f	552	889	551	886	525	845	528	850	510	821	514	827	500	805	505	812	494	795
			F	6.2	-0.5R	6.2	-0.4R	6.5	-0.4R	6.4	-0.3R	6.6	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.2R	6.7	-0.2R
		12"	q_a / q_f	470	757	448	721	432	695	420	676	410	661	403	649	397	639	392	631	388	624
			F	7.2	-0.8R	7.5	-0.7R	7.6	-0.7R	7.8	-0.6R	7.9	-0.6R	8	-0.6R	8	-0.5R	8.1	-0.5R	8.1	-0.5R
		18"	q_a / q_f	417	672	403	649	350	563	348	561	347	559	315	507	318	511	319	514	297	478
			F	8	-1.1R	8.2	-1R	9.1	-1.2R	9.1	-1R	9	-0.9R	9.7	-1R	9.6	-0.9R	9.5	-0.8R	10.1	-0.9R
		24"	q_a / q_f	355	572	352	567	303	488	308	496	275	442	282	454	257	414	265	426	245	394
			F	9.3	-1.7R	9.2	-1.4R	10.3	-1.7R	10.1	-1.4R	11	-1.6R	10.7	-1.3R	11.5	-1.5R	11.1	-1.2R	11.8	-1.4R
	22 ga	4"	q_a / q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R
		6"	q_a / q_f	493	793	482	777	475	765	469	756	465	749	462	743	459	738	456	735	454	731
			F	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R	6.7	-0.2R	6.8	-0.2R	6.8	-0.2R	6.8	-0.2R	6.8	-0.2R	6.9	-0.2R
		8"	q_a / q_f	444	715	442	711	419	675	421	678	406	653	409	658	397	639	400	644	391	629
			F	7.2	-0.5R	7.2	-0.4R	7.4	-0.4R	7.4	-0.3R	7.6	-0.3R	7.5	-0.3R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R
		12"	q_a / q_f	377	607	357	575	343	552	332	535	324	522	318	512	313	503	308	496	305	490
			F	8.3	-0.9R	8.5	-0.8R	8.7	-0.7R	8.9	-0.7R	9	-0.6R	9.1	-0.6R	9.2	-0.6R	9.2	-0.5R	9.3	-0.5R
		18"	q_a / q_f	335	539	321	517	278	448	276	444	274	441	248	400	250	402	251	404	232	374
			F	9.2	-1.2R	9.3	-1.1R	10.4	-1.3R	10.3	-1.1R	10.3	-1R	11	-1.1R	10.9	-1R	10.8	-0.9R	11.4	-1R
		24"	q_a / q_f	286	461	281	453	241	389	244	393	217	350	222	358	202	326	208	335	192	310
			F	10.5	-1.8R	10.4	-1.5R	11.7	-1.8R	11.4	-1.5R	12.4	-1.7R	12.1	-1.4R	12.9	-1.6R	12.5	-1.4R	13.3	-1.5R

B-36 36/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

ASC STEEL DECK®

BN-36 2.8

No. 12 Self-Drilling Screws to Supports with No. 12 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a	1788	2879	1767	2844	1751	2820	1740	2802	1732	2788	1725	2777	1720	2768	1715	2761	1472	2356
			q_f	F	3.3 -0.2R		3.3 -0.2R		3.3 -0.2R		3.3 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R
		6"	q_a	1525	2455	1488	2396	1463	2355	1444	2325	1430	2302	1418	2283	1409	2269	1401	2256	1395	2246
			q_f	F	3.8 -0.4R		3.8 -0.4R		3.9 -0.3R		3.9 -0.3R		3.9 -0.3R		3.9 -0.2R		4 -0.2R		4 -0.2R		4 -0.2R
		8"	q_a	1332	2144	1330	2141	1252	2016	1262	2032	1209	1947	1222	1968	1183	1905	1196	1926	1165	1876
			q_f	F	4.2 -0.6R		4.2 -0.5R		4.4 -0.5R		4.3 -0.4R		4.5 -0.4R		4.4 -0.4R		4.5 -0.4R		4.5 -0.3R		4.6 -0.3R
		12"	q_a	1085	1747	1025	1651	984	1585	954	1536	931	1499	913	1470	899	1447	886	1427	876	1411
			q_f	F	4.9 -1R		5.1 -0.9R		5.3 -0.9R		5.4 -0.8R		5.5 -0.8R		5.5 -0.7R		5.6 -0.7R		5.6 -0.7R		5.7 -0.6R
		18"	q_a	939	1512	905	1457	773	1244	771	1241	770	1239	692	1115	699	1126	705	1135	651	1048
			q_f	F	5.5 -1.3R		5.6 -1.2R		6.3 -1.4R		6.3 -1.3R		6.3 -1.2R		6.8 -1.3R		6.8 -1.2R		6.7 -1.1R		7.1 -1.2R
		24"	q_a	778	1253	775	1247	657	1058	672	1082	594	957	613	988	556	895	575	926	528	850
			q_f	F	6.4 -1.9R		6.4 -1.6R		7.2 -1.9R		7.1 -1.7R		7.8 -1.9R		7.5 -1.7R		8.2 -1.8R		7.9 -1.6R		8.4 -1.8R
	18 ga	4"	q_a	1374	2212	1354	2179	1339	2156	1329	2139	1321	2126	1314	2116	1309	2108	1251	2002	1051	1682
			q_f	F	3.9 -0.2R		4 -0.2R		4 -0.2R		4 -0.2R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4.1 -0.1R
		6"	q_a	1158	1865	1126	1812	1103	1776	1086	1749	1073	1728	1063	1712	1055	1699	1048	1688	1043	1679
			q_f	F	4.5 -0.4R		4.6 -0.4R		4.6 -0.4R		4.6 -0.3R		4.7 -0.3R		4.7 -0.3R		4.7 -0.3R		4.7 -0.2R		4.7 -0.2R
		8"	q_a	1007	1621	1001	1611	938	1510	944	1519	901	1451	910	1465	879	1414	888	1430	863	1390
			q_f	F	5 -0.7R		5 -0.6R		5.2 -0.6R		5.1 -0.5R		5.3 -0.5R		5.2 -0.4R		5.3 -0.4R		5.3 -0.4R		5.4 -0.4R
		12"	q_a	819	1319	770	1239	735	1184	710	1143	691	1113	676	1088	664	1069	654	1053	645	1039
			q_f	F	5.8 -1.1R		6 -1R		6.2 -1R		6.3 -0.9R		6.4 -0.9R		6.5 -0.8R		6.5 -0.8R		6.6 -0.8R		6.6 -0.7R
		18"	q_a	711	1145	680	1095	579	932	575	926	572	921	514	827	517	833	520	838	480	773
			q_f	F	6.4 -1.5R		6.6 -1.3R		7.4 -1.6R		7.4 -1.4R		7.3 -1.3R		7.9 -1.5R		7.9 -1.3R		7.8 -1.2R		8.3 -1.3R
		24"	q_a	593	955	585	941	495	797	503	810	443	712	456	734	409	658	423	681	388	625
			q_f	F	7.4 -2.1R		7.4 -1.8R		8.3 -2.2R		8.2 -1.9R		9 -2.1R		8.7 -1.9R		9.4 -2.1R		9.1 -1.8R		9.7 -2R
	20 ga	4"	q_a	976	1571	958	1542	945	1521	935	1506	928	1494	922	1484	917	1477	811	1298	682	1091
			q_f	F	5 -0.3R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R
		6"	q_a	812	1308	785	1264	766	1233	751	1210	741	1192	732	1179	725	1168	719	1158	682	1091
			q_f	F	5.6 -0.5R		5.7 -0.5R		5.8 -0.4R		5.8 -0.4R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R		5.9 -0.3R		5.9 -0.3R
		8"	q_a	703	1132	695	1118	647	1042	649	1045	617	994	622	1001	599	964	605	973	586	944
			q_f	F	6.2 -0.8R		6.2 -0.6R		6.4 -0.6R		6.4 -0.6R		6.5 -0.6R		6.5 -0.5R		6.6 -0.5R		6.6 -0.4R		6.7 -0.4R
		12"	q_a	573	922	534	859	507	816	487	784	472	760	460	741	451	726	443	713	436	703
			q_f	F	7.1 -1.2R		7.4 -1.2R		7.6 -1.1R		7.7 -1.1R		7.8 -1R		7.9 -1R		8 -0.9R		8 -0.9R		8.1 -0.8R
		18"	q_a	499	804	473	762	402	646	396	638	392	631	350	564	352	567	353	569	325	523
			q_f	F	7.9 -1.7R		8 -1.5R		9 -1.9R		8.9 -1.7R		8.9 -1.5R		9.6 -1.7R		9.5 -1.5R		9.5 -1.4R		10 -1.5R
		24"	q_a	421	678	409	659	344	554	347	558	302	486	308	497	278	447	286	461	263	423
			q_f	F	9 -2.4R		9 -2.1R		10.1 -2.5R		9.9 -2.2R		10.8 -2.5R		10.5 -2.1R		11.3 -2.4R		11 -2.1R		11.7 -2.3R
	22 ga	4"	q_a	782	1260	765	1232	753	1213	744	1198	738	1188	732	1179	728	1172	620	991	521	833
			q_f	F	5.8 -0.3R		5.9 -0.3R		5.9 -0.2R		5.9 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.1R		6 -0.1R
		6"	q_a	647	1041	622	1002	605	974	593	954	583	939	575	926	569	916	564	908	521	833
			q_f	F	6.5 -0.6R		6.6 -0.5R		6.7 -0.5R		6.7 -0.4R		6.8 -0.4R		6.8 -0.4R		6.8 -0.3R		6.8 -0.3R		6.9 -0.3R
		8"	q_a	559	900	550	885	510	821	510	821	484	779	487	784	468	754	472	760	457	736
			q_f	F	7.1 -0.8R		7.1 -0.7R		7.4 -0.7R		7.3 -0.6R		7.5 -0.6R		7.5 -0.5R		7.6 -0.5R		7.6 -0.5R		7.7 -0.5R
		12"	q_a	456	735	423	681	400	644	383	617	370	596	360	580	352	567	345	556	340	547
			q_f	F	8.2 -1.4R		8.4 -1.3R		8.6 -1.2R		8.8 -1.2R		8.9 -1.1R		9 -1.1R		9.1 -1R		9.2 -1R		9.2 -0.9R
		18"	q_a	399	643	376	605	318	513	313	503	308	496	273	440	275	442	275	444	253	407
			q_f	F	9 -1.8R		9.2 -1.7R		10.2 -2R		10.2 -1.8R		10.1 -1.7R		10.9 -1.9R		10.8 -1.7R		10.7 -1.5R		11.3 -1.7R
		24"	q_a	339	545	327	526	272	438	272	438	237	381	242	389	217	350	224	360	205	330
			q_f	F	10.2 -2.6R		10.2 -2.3R		11.4 -2.8R		11.2 -2.4R		12.2 -2.7R		11.9 -2.3R		12.7 -2.6R		12.4 -2.3R		13.2 -2.5R

B-36 36/7/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

2.8 **BN-36**

No. 12 Self-Drilling Screws to Supports with No. 12 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)										
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"		
36/7	16 ga	4"	q_a / q_f	1806 / 2908	1782 / 2868	1764 / 2841	1752 / 2820	1742 / 2805	1734 / 2792	1728 / 2782	1723 / 2774	1472 / 2356	
			F	3.2 -0.2R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.4 -0.1R	
		6"	q_a / q_f	1555 / 2503	1514 / 2437	1485 / 2391	1463 / 2356	1447 / 2330	1434 / 2309	1423 / 2292	1415 / 2277	1407 / 2265	
			F	3.6 -0.3R	3.7 -0.3R	3.8 -0.2R	3.8 -0.2R	3.9 -0.2R	3.9 -0.2R	3.9 -0.2R	3.9 -0.2R	3.9 -0.1R	
		8"	q_a / q_f	1371 / 2207	1361 / 2191	1280 / 2061	1286 / 2071	1232 / 1983	1242 / 2000	1201 / 1934	1213 / 1952	1181 / 1901	
			F	4 -0.4R	4 -0.3R	4.2 -0.4R	4.2 -0.3R	4.4 -0.3R	4.3 -0.3R	4.4 -0.3R	4.4 -0.2R	4.5 -0.2R	
		12"	q_a / q_f	1134 / 1826	1067 / 1717	1020 / 1642	985 / 1586	959 / 1544	938 / 1510	921 / 1483	907 / 1461	896 / 1442	
			F	4.6 -0.6R	4.8 -0.6R	5 -0.6R	5.1 -0.6R	5.2 -0.6R	5.3 -0.5R	5.4 -0.5R	5.4 -0.5R	5.5 -0.5R	
		18"	q_a / q_f	994 / 1600	950 / 1529	813 / 1309	806 / 1297	800 / 1288	720 / 1160	724 / 1166	728 / 1172	673 / 1083	
			F	5.1 -0.9R	5.3 -0.8R	5.9 -1R	5.9 -0.9R	6 -0.8R	6.5 -0.9R	6.4 -0.8R	6.4 -0.8R	6.8 -0.8R	
		24"	q_a / q_f	838 / 1349	823 / 1325	700 / 1126	709 / 1141	627 / 1009	642 / 1034	582 / 938	599 / 965	552 / 889	
			F	5.7 -1.2R	5.8 -1.1R	6.6 -1.3R	6.5 -1.1R	7.2 -1.3R	7 -1.1R	7.6 -1.3R	7.4 -1.1R	7.9 -1.2R	
	18 ga	4"	q_a / q_f	1391 / 2239	1368 / 2202	1352 / 2176	1340 / 2157	1330 / 2142	1323 / 2130	1317 / 2121	1251 / 2002	1051 / 1682	
			F	3.9 -0.2R	3.9 -0.2R	3.9 -0.1R	4 -0.1R	4 -0.1R	4 -0.1R	4 -0.1R	4 -0.1R	4 -0.1R	
		6"	q_a / q_f	1185 / 1908	1148 / 1849	1123 / 1807	1104 / 1777	1089 / 1753	1077 / 1734	1068 / 1719	1060 / 1707	1051 / 1682	
			F	4.4 -0.3R	4.4 -0.3R	4.5 -0.3R	4.6 -0.2R	4.6 -0.2R	4.6 -0.2R	4.6 -0.2R	4.7 -0.2R	4.7 -0.2R	
		8"	q_a / q_f	1040 / 1675	1028 / 1655	962 / 1549	964 / 1553	920 / 1482	927 / 1492	894 / 1440	902 / 1452	876 / 1411	
			F	4.8 -0.5R	4.8 -0.4R	5 -0.4R	5 -0.3R	5.1 -0.3R	5.1 -0.3R	5.2 -0.3R	5.2 -0.3R	5.3 -0.3R	
		12"	q_a / q_f	860 / 1385	804 / 1294	765 / 1231	736 / 1185	714 / 1150	697 / 1122	683 / 1099	671 / 1080	661 / 1065	
			F	5.4 -0.7R	5.7 -0.7R	5.9 -0.7R	6 -0.7R	6.1 -0.6R	6.2 -0.6R	6.3 -0.6R	6.4 -0.5R	6.4 -0.5R	
		18"	q_a / q_f	756 / 1217	717 / 1154	612 / 985	603 / 971	597 / 961	536 / 864	538 / 866	539 / 868	497 / 801	
			F	6 -1R	6.2 -0.9R	6.9 -1.1R	6.9 -1R	7 -0.9R	7.5 -1R	7.5 -0.9R	7.4 -0.9R	7.9 -0.9R	
		24"	q_a / q_f	642 / 1034	624 / 1005	529 / 852	532 / 857	471 / 758	480 / 772	432 / 696	444 / 716	407 / 656	
			F	6.7 -1.4R	6.8 -1.2R	7.6 -1.5R	7.6 -1.3R	8.3 -1.5R	8.2 -1.3R	8.8 -1.4R	8.6 -1.2R	9.1 -1.4R	
	20 ga	4"	q_a / q_f	991 / 1596	970 / 1562	956 / 1539	945 / 1521	937 / 1508	930 / 1497	925 / 1489	811 / 1298	682 / 1091	
			F	4.9 -0.2R	5 -0.2R	5 -0.2R	5 -0.1R	5.1 -0.1R	5.1 -0.1R	5.1 -0.1R	5.1 -0.1R	5.1 -0.1R	
		6"	q_a / q_f	835 / 1344	804 / 1294	782 / 1259	766 / 1233	754 / 1213	744 / 1198	736 / 1185	729 / 1174	682 / 1091	
			F	5.5 -0.4R	5.6 -0.3R	5.7 -0.3R	5.7 -0.3R	5.8 -0.3R	5.8 -0.2R	5.8 -0.2R	5.8 -0.2R	5.9 -0.2R	
		8"	q_a / q_f	731 / 1176	717 / 1154	667 / 1074	666 / 1072	633 / 1019	636 / 1024	612 / 985	616 / 992	597 / 961	
			F	6 -0.5R	6 -0.4R	6.2 -0.5R	6.2 -0.4R	6.4 -0.4R	6.4 -0.3R	6.5 -0.3R	6.5 -0.3R	6.6 -0.3R	
		12"	q_a / q_f	605 / 974	561 / 903	530 / 853	507 / 817	490 / 789	477 / 767	466 / 750	456 / 735	449 / 723	
			F	6.7 -0.8R	7 -0.8R	7.2 -0.8R	7.4 -0.8R	7.5 -0.7R	7.6 -0.7R	7.7 -0.7R	7.8 -0.6R	7.9 -0.6R	
		18"	q_a / q_f	534 / 860	502 / 808	427 / 687	418 / 673	411 / 662	369 / 594	368 / 593	368 / 592	339 / 546	
			F	7.3 -1.1R	7.6 -1R	8.4 -1.3R	8.4 -1.1R	8.5 -1R	9.1 -1.2R	9.1 -1.1R	9 -1R	9.6 -1.1R	
		24"	q_a / q_f	458 / 738	440 / 708	372 / 599	371 / 597	324 / 521	328 / 528	295 / 475	302 / 487	277 / 446	
			F	8.2 -1.6R	8.3 -1.4R	9.3 -1.7R	9.2 -1.5R	10 -1.7R	9.9 -1.5R	10.6 -1.6R	10.4 -1.4R	11 -1.6R	
	22 ga	4"	q_a / q_f	796 / 1282	777 / 1251	764 / 1229	754 / 1213	746 / 1201	740 / 1191	735 / 1183	620 / 991	521 / 833	
			F	5.8 -0.2R	5.8 -0.2R	5.9 -0.2R	5.9 -0.2R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	6 -0.1R	
		6"	q_a / q_f	667 / 1074	639 / 1029	620 / 998	606 / 975	595 / 957	586 / 943	579 / 932	573 / 922	521 / 833	
			F	6.4 -0.4R	6.5 -0.4R	6.6 -0.3R	6.6 -0.3R	6.7 -0.3R	6.7 -0.3R	6.7 -0.2R	6.8 -0.2R	6.8 -0.2R	
		8"	q_a / q_f	583 / 938	569 / 916	527 / 849	525 / 845	498 / 801	499 / 804	479 / 771	482 / 776	467 / 751	
			F	6.9 -0.6R	6.9 -0.5R	7.2 -0.5R	7.2 -0.4R	7.4 -0.4R	7.3 -0.4R	7.5 -0.4R	7.4 -0.3R	7.6 -0.3R	
		12"	q_a / q_f	484 / 779	446 / 718	420 / 676	400 / 645	386 / 621	374 / 602	365 / 587	357 / 575	350 / 564	
			F	7.8 -0.9R	8.1 -0.9R	8.3 -0.9R	8.5 -0.8R	8.6 -0.8R	8.7 -0.7R	8.8 -0.7R	8.9 -0.7R	9 -0.7R	
		18"	q_a / q_f	429 / 690	400 / 644	340 / 547	331 / 533	324 / 522	290 / 466	289 / 465	288 / 464	265 / 426	
			F	8.4 -1.2R	8.7 -1.1R	9.6 -1.4R	9.6 -1.3R	9.7 -1.1R	10.3 -1.3R	10.3 -1.2R	10.3 -1.1R	10.8 -1.2R	
		24"	q_a / q_f	370 / 596	352 / 567	296 / 477	293 / 472	255 / 410	258 / 415	232 / 374	237 / 381	217 / 350	
			F	9.3 -1.7R	9.5 -1.5R	10.5 -1.8R	10.5 -1.6R	11.4 -1.8R	11.2 -1.6R	12 -1.8R	11.7 -1.6R	12.4 -1.7R	

B-36 36/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

ASC Steel Deck®

BN-36 2.8

No. 12 Self-Drilling Screws to Supports with No. 12 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1752	2804	1472	2356
			F	3.1	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R
		6"	q_a q_f	1875	3018	1797	2892	1741	2803	1699	2736	1667	2684	1642	2643	1621	2609	1603	2581	1472	2356
			F	3.5	-0.3R	3.6	-0.3R	3.7	-0.3R	3.7	-0.3R	3.7	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R
		8"	q_a q_f	1668	2686	1622	2611	1506	2425	1494	2405	1418	2282	1417	2282	1362	2193	1367	2201	1324	2131
			F	3.8	-0.4R	3.8	-0.4R	4	-0.4R	4	-0.4R	4.2	-0.4R	4.2	-0.3R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R
		12"	q_a q_f	1419	2285	1306	2102	1226	1974	1167	1879	1121	1806	1086	1748	1056	1701	1032	1662	1012	1629
			F	4.2	-0.6R	4.4	-0.7R	4.6	-0.6R	4.8	-0.6R	4.9	-0.6R	5	-0.6R	5.1	-0.6R	5.2	-0.6R	5.2	-0.6R
		18"	q_a q_f	1277	2056	1185	1908	1013	1631	981	1579	956	1539	859	1384	851	1371	845	1360	775	1248
			F	4.5	-0.8R	4.7	-0.8R	5.3	-1R	5.4	-0.9R	5.5	-0.9R	5.9	-1R	5.9	-0.9R	6	-0.9R	6.3	-0.9R
		24"	q_a q_f	1123	1808	1058	1703	899	1448	882	1420	775	1248	775	1248	694	1117	701	1129	641	1032
			F	4.9	-1R	5.1	-1R	5.8	-1.2R	5.8	-1.1R	6.4	-1.3R	6.3	-1.2R	6.8	-1.3R	6.8	-1.2R	7.2	-1.3R
	18 ga	4"	q_a q_f	1576	2537	1576	2537	1576	2537	1570	2527	1550	2496	1534	2471	1514	2422	1251	2002	1051	1682
			F	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		6"	q_a q_f	1433	2306	1365	2197	1316	2119	1280	2061	1253	2017	1230	1981	1212	1952	1197	1928	1051	1682
			F	4.2	-0.3R	4.3	-0.3R	4.4	-0.3R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R
		8"	q_a q_f	1274	2051	1230	1981	1137	1830	1123	1808	1062	1710	1059	1705	1015	1634	1017	1637	983	1582
			F	4.5	-0.5R	4.6	-0.4R	4.8	-0.5R	4.8	-0.4R	4.9	-0.4R	4.9	-0.4R	5.1	-0.4R	5	-0.3R	5.1	-0.3R
		12"	q_a q_f	1087	1751	993	1600	928	1493	879	1415	842	1355	812	1307	788	1269	768	1237	751	1210
			F	5	-0.7R	5.2	-0.7R	5.4	-0.7R	5.6	-0.7R	5.8	-0.7R	5.9	-0.7R	6	-0.7R	6	-0.6R	6.1	-0.6R
		18"	q_a q_f	983	1582	905	1457	772	1242	742	1195	720	1160	642	1034	633	1019	626	1008	574	924
			F	5.3	-0.9R	5.6	-0.9R	6.2	-1.1R	6.3	-1R	6.4	-1R	6.9	-1.1R	6.9	-1R	6.9	-1R	7.3	-1R
		24"	q_a q_f	870	1401	812	1307	689	1109	670	1078	582	937	578	931	517	833	521	840	478	770
			F	5.8	-1.2R	6	-1.1R	6.7	-1.4R	6.8	-1.3R	7.4	-1.4R	7.4	-1.3R	7.9	-1.5R	7.8	-1.3R	8.3	-1.5R
	20 ga	4"	q_a q_f	1183	1905	1152	1855	1123	1808	1101	1773	1084	1745	1071	1724	982	1570	811	1298	682	1091
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5	-0.1R	5.1	-0.1R
		6"	q_a q_f	1015	1634	959	1544	919	1480	890	1433	867	1396	849	1367	834	1343	811	1298	682	1091
			F	5.3	-0.4R	5.4	-0.4R	5.5	-0.4R	5.6	-0.3R	5.6	-0.3R	5.7	-0.3R	5.7	-0.3R	5.7	-0.3R	5.8	-0.2R
		8"	q_a q_f	903	1455	864	1392	794	1278	780	1255	734	1182	729	1174	697	1122	696	1121	671	1081
			F	5.6	-0.6R	5.7	-0.5R	6	-0.5R	6	-0.5R	6.2	-0.5R	6.2	-0.4R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R
		12"	q_a q_f	775	1248	702	1131	651	1048	613	987	584	940	561	904	543	874	527	849	514	828
			F	6.2	-0.8R	6.5	-0.8R	6.7	-0.8R	6.9	-0.8R	7.1	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R
		18"	q_a q_f	705	1135	643	1035	547	880	520	837	499	803	440	709	434	698	428	690	393	632
			F	6.6	-1R	6.9	-1R	7.6	-1.2R	7.7	-1.2R	7.8	-1.1R	8.4	-1.3R	8.4	-1.2R	8.5	-1.1R	8.9	-1.2R
		24"	q_a q_f	630	1015	581	935	486	783	467	751	405	652	399	642	359	577	360	580	330	532
			F	7.2	-1.3R	7.4	-1.3R	8.2	-1.6R	8.3	-1.4R	9	-1.7R	9	-1.5R	9.6	-1.7R	9.5	-1.5R	10	-1.7R
	22 ga	4"	q_a q_f	959	1545	922	1485	896	1442	876	1410	861	1385	848	1366	750	1199	620	991	521	833
			F	5.6	-0.3R	5.7	-0.2R	5.8	-0.2R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R
		6"	q_a q_f	814	1311	765	1232	731	1177	705	1135	685	1103	669	1078	656	1057	620	991	521	833
			F	6.1	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.4R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R
		8"	q_a q_f	726	1169	690	1111	631	1016	618	994	580	934	575	925	548	882	547	880	521	833
			F	6.6	-0.6R	6.6	-0.6R	6.9	-0.6R	6.9	-0.5R	7.1	-0.5R	7.1	-0.5R	7.3	-0.5R	7.2	-0.4R	7.4	-0.4R
		12"	q_a q_f	626	1007	563	907	520	837	488	786	463	746	443	714	428	689	415	668	404	650
			F	7.2	-0.9R	7.5	-0.9R	7.8	-0.9R	8	-0.9R	8.1	-0.9R	8.3	-0.9R	8.4	-0.8R	8.5	-0.8R	8.6	-0.8R
		18"	q_a q_f	571	920	518	833	437	703	412	663	393	632	348	561	342	551	337	542	309	497
			F	7.6	-1.1R	7.9	-1.1R	8.7	-1.4R	8.8	-1.3R	9	-1.2R	9.6	-1.4R	9.6	-1.3R	9.6	-1.2R	10.1	-1.3R
		24"	q_a q_f	514	827	470	756	389	626	371	597	322	518	317	510	285	459	285	459	261	421
			F	8.2	-1.5R	8.5	-1.4R	9.4	-1.7R	9.4	-1.6R	10.2	-1.8R	10.2	-1.7R	10.8	-1.8R	10.8	-1.7R	11.4	-1.8R

B-36 36/9 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

2.9 **BN-36**

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R	
		6"	q_a q_f	1271	2047	1257	2024	1239	1994	1225	1972	1214	1954	1205	1940	1198	1929	1192	1920	1187	1912
			F	3.8 -0.2R		3.8 -0.2R		3.9 -0.2R		3.9 -0.2R		3.9 -0.2R		3.9 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R	
		8"	q_a q_f	1158	1865	1153	1856	1096	1764	1101	1772	1061	1709	1069	1721	1039	1673	1048	1687	1024	1649
			F	4.2 -0.4R		4.2 -0.3R		4.4 -0.3R		4.3 -0.2R		4.5 -0.2R		4.4 -0.2R		4.5 -0.2R		4.5 -0.2R		4.6 -0.2R	
		12"	q_a q_f	984	1584	933	1503	898	1445	871	1402	850	1369	834	1342	820	1321	809	1303	800	1288
			F	5 -0.6R		5.2 -0.6R		5.3 -0.5R		5.4 -0.5R		5.5 -0.5R		5.5 -0.4R		5.6 -0.4R		5.6 -0.4R		5.7 -0.4R	
		18"	q_a q_f	874	1407	840	1352	728	1172	723	1163	719	1157	651	1048	655	1055	659	1060	611	984
			F	5.6 -0.9R		5.7 -0.8R		6.4 -0.9R		6.4 -0.8R		6.4 -0.7R		6.9 -0.8R		6.8 -0.7R		6.7 -0.6R		7.2 -0.7R	
		24"	q_a q_f	746	1201	735	1183	631	1016	640	1030	569	917	583	939	531	855	546	880	505	813
			F	6.5 -1.3R		6.5 -1.1R		7.3 -1.3R		7.1 -1.1R		7.9 -1.2R		7.6 -1R		8.2 -1.2R		8 -1R		8.5 -1.1R	
	18 ga	4"	q_a q_f	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			F	3.9 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4.1 -0.1R	
		6"	q_a q_f	996	1603	971	1563	953	1535	940	1513	930	1497	922	1484	915	1473	909	1464	905	1457
			F	4.5 -0.3R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R		4.7 -0.2R		4.7 -0.2R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R	
		8"	q_a q_f	893	1438	885	1425	836	1347	838	1350	805	1296	810	1304	785	1264	791	1274	772	1242
			F	5 -0.4R		5 -0.3R		5.2 -0.3R		5.1 -0.3R		5.3 -0.3R		5.2 -0.2R		5.3 -0.2R		5.3 -0.2R		5.4 -0.2R	
		12"	q_a q_f	756	1218	712	1147	681	1097	658	1059	640	1031	626	1008	614	989	605	974	597	961
			F	5.8 -0.7R		6 -0.6R		6.2 -0.6R		6.3 -0.6R		6.4 -0.5R		6.5 -0.5R		6.5 -0.5R		6.6 -0.4R		6.6 -0.4R	
		18"	q_a q_f	673	1083	641	1032	553	891	546	879	541	871	489	787	490	789	491	791	455	733
			F	6.5 -1R		6.6 -0.9R		7.4 -1R		7.4 -0.9R		7.4 -0.8R		8 -0.9R		7.9 -0.8R		7.8 -0.7R		8.3 -0.8R	
		24"	q_a q_f	577	929	563	906	482	775	485	780	430	693	439	706	397	639	409	658	375	604
			F	7.6 -1.4R		7.5 -1.2R		8.5 -1.4R		8.3 -1.2R		9.1 -1.4R		8.8 -1.2R		9.5 -1.3R		9.2 -1.1R		9.8 -1.2R	
	20 ga	4"	q_a q_f	783	1260	783	1260	783	1260	783	1260	783	1260	781	1258	778	1252	775	1247	682	1091
			F	5 -0.2R		5 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R	
		6"	q_a q_f	715	1151	693	1115	677	1090	665	1071	656	1056	648	1044	642	1034	637	1026	633	1019
			F	5.6 -0.3R		5.7 -0.3R		5.8 -0.2R		5.8 -0.2R		5.9 -0.2R		5.9 -0.2R		5.9 -0.2R		5.9 -0.2R		5.9 -0.1R	
		8"	q_a q_f	638	1027	628	1011	589	948	588	947	562	905	564	909	545	878	549	883	533	859
			F	6.2 -0.5R		6.2 -0.4R		6.4 -0.4R		6.4 -0.3R		6.6 -0.3R		6.5 -0.3R		6.6 -0.3R		6.6 -0.2R		6.7 -0.2R	
		12"	q_a q_f	539	869	503	810	478	769	459	739	444	715	433	697	423	682	416	669	409	659
			F	7.2 -0.8R		7.4 -0.7R		7.6 -0.7R		7.7 -0.6R		7.8 -0.6R		7.9 -0.6R		8 -0.5R		8.1 -0.5R		8.1 -0.5R	
		18"	q_a q_f	481	775	454	731	390	628	382	615	376	605	339	546	338	545	338	544	312	503
			F	8 -1.1R		8.1 -1R		9.1 -1.2R		9 -1R		9 -0.9R		9.7 -1R		9.6 -0.9R		9.5 -0.8R		10 -0.9R	
		24"	q_a q_f	417	671	401	645	342	550	340	548	298	480	302	486	272	437	279	449	256	412
			F	9.2 -1.7R		9.1 -1.4R		10.2 -1.7R		10 -1.4R		10.9 -1.6R		10.6 -1.3R		11.4 -1.5R		11.1 -1.3R		11.7 -1.4R	
	22 ga	4"	q_a q_f	656	1056	655	1055	646	1040	639	1029	634	1020	629	1013	626	1007	620	991	521	833
			F	5.8 -0.2R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		6 -0.1R		6 -0.1R		6 -0.1R		6 -0.1R		6 -0.1R	
		6"	q_a q_f	577	929	557	896	542	872	531	855	522	841	516	830	510	821	506	814	502	808
			F	6.5 -0.3R		6.6 -0.3R		6.7 -0.3R		6.7 -0.2R		6.8 -0.2R		6.8 -0.2R		6.8 -0.2R		6.8 -0.2R		6.9 -0.2R	
		8"	q_a q_f	514	827	503	810	470	756	468	753	446	717	447	719	430	693	433	697	420	676
			F	7.2 -0.5R		7.1 -0.4R		7.4 -0.4R		7.4 -0.3R		7.5 -0.3R		7.5 -0.3R		7.6 -0.3R		7.6 -0.3R		7.7 -0.3R	
		12"	q_a q_f	435	700	403	649	381	613	364	587	352	566	342	550	334	537	327	526	321	517
			F	8.2 -0.9R		8.5 -0.8R		8.7 -0.8R		8.8 -0.7R		9 -0.7R		9 -0.6R		9.1 -0.6R		9.2 -0.5R		9.2 -0.5R	
		18"	q_a q_f	389	626	364	586	312	502	304	490	298	480	267	431	267	430	266	428	245	395
			F	9.1 -1.2R		9.3 -1.1R		10.3 -1.3R		10.2 -1.1R		10.2 -1R		11 -1.1R		10.8 -1R		10.8 -0.9R		11.4 -1R	
		24"	q_a q_f	338	545	323	519	273	440	270	435	235	378	238	383	214	344	219	352	201	323
			F	10.4 -1.8R		10.3 -1.5R		11.6 -1.8R		11.3 -1.5R		12.3 -1.7R		12 -1.5R		12.9 -1.6R		12.5 -1.4R		13.2 -1.5R	

B-36 36/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

BN-36 2.9

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a q_f	2042	3288	1999	3219	1969	3171	1947	3135	1931	3108	1917	3087	1906	3069	1752	2804	1472	2356
			F	3.3 -0.2R		3.3 -0.2R		3.3 -0.2R		3.3 -0.2R		3.3 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R	
		6"	q_a q_f	1692	2724	1630	2624	1586	2554	1555	2503	1530	2464	1511	2433	1495	2408	1483	2387	1472	2356
			F	3.8 -0.4R		3.8 -0.4R		3.9 -0.3R		3.9 -0.3R		3.9 -0.3R		3.9 -0.3R		4 -0.2R		4 -0.2R		4 -0.2R	
		8"	q_a q_f	1463	2355	1440	2319	1338	2154	1339	2156	1272	2048	1281	2062	1231	1982	1242	2000	1204	1938
			F	4.2 -0.6R		4.2 -0.5R		4.4 -0.5R		4.3 -0.4R		4.5 -0.4R		4.4 -0.4R		4.5 -0.4R		4.5 -0.3R		4.6 -0.3R	
		12"	q_a q_f	1193	1921	1107	1783	1048	1688	1005	1619	973	1566	947	1525	926	1491	909	1464	895	1441
			F	4.9 -1R		5.1 -0.9R		5.2 -0.9R		5.3 -0.8R		5.4 -0.8R		5.5 -0.8R		5.6 -0.7R		5.6 -0.7R		5.7 -0.7R	
		18"	q_a q_f	1043	1679	983	1583	834	1342	819	1319	809	1302	725	1167	725	1168	726	1169	665	1071
			F	5.4 -1.3R		5.6 -1.2R		6.3 -1.4R		6.3 -1.3R		6.3 -1.2R		6.8 -1.3R		6.7 -1.2R		6.7 -1.1R		7.1 -1.2R	
		24"	q_a q_f	883	1421	853	1374	720	1160	722	1163	630	1014	641	1033	575	926	590	949	539	868
			F	6.3 -1.8R		6.3 -1.6R		7.1 -1.9R		7 -1.7R		7.7 -1.9R		7.5 -1.7R		8.1 -1.9R		7.9 -1.6R		8.4 -1.8R	
	18 ga	4"	q_a q_f	1565	2520	1526	2456	1498	2412	1478	2379	1462	2354	1450	2334	1440	2318	1251	2002	1051	1682
			F	3.9 -0.2R		4 -0.2R		4 -0.2R		4 -0.2R		4 -0.2R		4 -0.1R		4 -0.1R		4 -0.1R		4.1 -0.1R	
		6"	q_a q_f	1287	2071	1232	1983	1194	1922	1166	1878	1145	1843	1128	1816	1115	1794	1103	1776	1051	1682
			F	4.5 -0.4R		4.5 -0.4R		4.6 -0.4R		4.6 -0.3R		4.7 -0.3R		4.7 -0.3R		4.7 -0.3R		4.7 -0.2R		4.7 -0.2R	
		8"	q_a q_f	1111	1789	1087	1750	1004	1617	1002	1613	948	1527	953	1534	914	1471	920	1482	890	1433
			F	4.9 -0.7R		4.9 -0.6R		5.1 -0.6R		5.1 -0.5R		5.3 -0.5R		5.2 -0.4R		5.3 -0.4R		5.3 -0.4R		5.4 -0.4R	
		12"	q_a q_f	910	1465	838	1350	789	1271	753	1213	726	1169	705	1135	688	1107	673	1084	661	1065
			F	5.7 -1.1R		6 -1R		6.1 -1R		6.2 -0.9R		6.3 -0.9R		6.4 -0.9R		6.5 -0.8R		6.5 -0.8R		6.6 -0.7R	
		18"	q_a q_f	799	1287	747	1203	632	1018	617	994	606	976	537	865	536	863	535	862	491	790
			F	6.4 -1.5R		6.5 -1.3R		7.3 -1.6R		7.3 -1.5R		7.3 -1.3R		7.9 -1.5R		7.8 -1.3R		7.8 -1.2R		8.2 -1.3R	
		24"	q_a q_f	683	1100	653	1051	546	878	542	873	472	760	477	769	428	689	437	704	401	645
			F	7.3 -2.1R		7.3 -1.8R		8.3 -2.2R		8.1 -1.9R		8.9 -2.2R		8.6 -1.9R		9.3 -2.1R		9.1 -1.8R		9.6 -2R	
	20 ga	4"	q_a q_f	1107	1782	1072	1726	1048	1687	1030	1659	1017	1637	1006	1619	982	1570	811	1298	682	1091
			F	5 -0.3R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R	
		6"	q_a q_f	904	1455	859	1382	827	1332	804	1295	787	1267	773	1245	762	1227	753	1212	682	1091
			F	5.6 -0.5R		5.7 -0.5R		5.8 -0.4R		5.8 -0.4R		5.8 -0.4R		5.9 -0.3R		5.9 -0.3R		5.9 -0.3R		5.9 -0.3R	
		8"	q_a q_f	781	1258	757	1219	695	1120	690	1111	650	1047	651	1048	623	1003	626	1008	604	972
			F	6.2 -0.8R		6.2 -0.6R		6.4 -0.7R		6.4 -0.6R		6.5 -0.6R		6.5 -0.5R		6.6 -0.5R		6.6 -0.4R		6.7 -0.4R	
		12"	q_a q_f	644	1037	588	947	549	885	521	840	500	805	484	778	470	757	459	739	450	724
			F	7.1 -1.2R		7.3 -1.2R		7.5 -1.1R		7.7 -1.1R		7.8 -1R		7.9 -1R		8 -0.9R		8 -0.9R		8.1 -0.8R	
		18"	q_a q_f	570	918	527	849	442	711	426	686	415	668	367	591	365	588	364	586	334	537
			F	7.8 -1.7R		8 -1.6R		8.9 -1.9R		8.9 -1.7R		8.9 -1.5R		9.6 -1.7R		9.5 -1.6R		9.4 -1.4R		9.9 -1.6R	
		24"	q_a q_f	493	794	463	745	383	617	376	605	327	526	328	528	295	475	300	483	275	443
			F	8.9 -2.4R		8.9 -2.1R		10 -2.5R		9.8 -2.2R		10.7 -2.5R		10.4 -2.2R		11.2 -2.4R		10.9 -2.1R		11.6 -2.3R	
	22 ga	4"	q_a q_f	885	1424	853	1374	831	1339	815	1313	803	1293	793	1277	750	1199	620	991	521	833
			F	5.8 -0.3R		5.9 -0.3R		5.9 -0.2R		5.9 -0.2R		5.9 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.1R	
		6"	q_a q_f	721	1160	681	1096	654	1052	634	1020	618	995	606	976	596	960	588	947	521	833
			F	6.5 -0.6R		6.6 -0.5R		6.7 -0.5R		6.7 -0.4R		6.8 -0.4R		6.8 -0.4R		6.8 -0.3R		6.8 -0.3R		6.8 -0.3R	
		8"	q_a q_f	624	1004	601	968	550	885	543	875	511	823	510	822	487	784	489	787	471	759
			F	7.1 -0.8R		7.1 -0.7R		7.4 -0.7R		7.3 -0.6R		7.5 -0.6R		7.5 -0.5R		7.6 -0.5R		7.6 -0.5R		7.7 -0.5R	
		12"	q_a q_f	517	832	469	755	436	703	413	664	393	632	378	609	367	591	358	576	351	564
			F	8.1 -1.4R		8.4 -1.3R		8.6 -1.3R		8.8 -1.2R		8.9 -1.1R		9 -1.1R		9.1 -1R		9.1 -1R		9.2 -0.9R	
		18"	q_a q_f	460	741	422	680	350	564	336	541	326	524	289	465	287	462	285	459	261	421
			F	8.9 -1.8R		9.1 -1.7R		10.1 -2R		10.1 -1.8R		10.1 -1.7R		10.8 -1.9R		10.7 -1.7R		10.7 -1.6R		11.3 -1.7R	
		24"	q_a q_f	400	644	370	596	306	492	298	480	259	417	259	417	233	376	236	381	217	349
			F	10.1 -2.6R		10.1 -2.3R		11.3 -2.8R		11.1 -2.4R		12.1 -2.7R		11.8 -2.4R		12.7 -2.6R		12.3 -2.3R		13.1 -2.5R	

B-36 36/7/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

2.9 **BN-36**

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7	16 ga	4"	q_a / q_f	2077	3344	2029	3267	1995	3212	1970	3172	1951	3141	1936	3116	1923	3096	1752	2804	1472	2356
			F	3.2	-0.2R	3.2	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R
		6"	q_a / q_f	1743	2806	1673	2693	1624	2614	1587	2556	1560	2511	1537	2475	1520	2446	1505	2423	1472	2356
			F	3.6	-0.3R	3.7	-0.3R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.2R
		8"	q_a / q_f	1523	2453	1490	2399	1382	2225	1377	2217	1306	2103	1311	2111	1259	2028	1268	2041	1227	1976
			F	4	-0.4R	4	-0.4R	4.2	-0.4R	4.2	-0.3R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R	4.4	-0.2R	4.5	-0.2R
		12"	q_a / q_f	1264	2035	1167	1878	1099	1770	1050	1690	1012	1630	982	1582	958	1543	939	1511	922	1484
			F	4.6	-0.7R	4.8	-0.6R	5	-0.6R	5.1	-0.6R	5.2	-0.6R	5.3	-0.5R	5.4	-0.5R	5.4	-0.5R	5.5	-0.5R
		18"	q_a / q_f	1119	1801	1046	1684	889	1431	867	1396	850	1369	763	1228	760	1223	757	1219	697	1122
			F	5	-0.9R	5.2	-0.8R	5.8	-1R	5.9	-0.9R	5.9	-0.8R	6.4	-0.9R	6.4	-0.8R	6.4	-0.8R	6.8	-0.8R
		24"	q_a / q_f	964	1551	919	1479	777	1251	771	1241	677	1090	683	1100	613	987	624	1005	571	919
			F	5.7	-1.2R	5.8	-1.1R	6.5	-1.3R	6.5	-1.1R	7.1	-1.3R	7	-1.1R	7.5	-1.3R	7.4	-1.1R	7.9	-1.2R
	18 ga	4"	q_a / q_f	1598	2572	1553	2501	1522	2450	1499	2413	1481	2384	1467	2361	1455	2343	1251	2002	1051	1682
			F	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		6"	q_a / q_f	1331	2144	1270	2044	1227	1975	1195	1924	1171	1885	1151	1853	1136	1828	1123	1807	1051	1682
			F	4.3	-0.3R	4.4	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R	4.6	-0.2R	4.7	-0.2R	4.7	-0.2R
		8"	q_a / q_f	1163	1873	1129	1818	1042	1678	1034	1665	978	1574	979	1575	938	1510	942	1517	910	1466
			F	4.7	-0.5R	4.8	-0.4R	5	-0.4R	5	-0.3R	5.1	-0.4R	5.1	-0.3R	5.2	-0.3R	5.2	-0.3R	5.3	-0.3R
		12"	q_a / q_f	969	1560	888	1429	832	1339	790	1272	759	1222	734	1182	714	1150	698	1123	684	1101
			F	5.4	-0.7R	5.6	-0.7R	5.8	-0.7R	6	-0.7R	6.1	-0.6R	6.2	-0.6R	6.3	-0.6R	6.3	-0.5R	6.4	-0.5R
		18"	q_a / q_f	862	1388	799	1286	677	1091	656	1057	641	1031	571	920	566	912	563	907	516	831
			F	5.9	-1R	6.1	-0.9R	6.8	-1.1R	6.9	-1R	6.9	-0.9R	7.4	-1R	7.4	-0.9R	7.4	-0.9R	7.8	-0.9R
		24"	q_a / q_f	749	1207	706	1137	596	960	586	943	510	821	511	823	458	738	465	748	426	686
			F	6.6	-1.3R	6.7	-1.2R	7.6	-1.4R	7.5	-1.3R	8.2	-1.5R	8.1	-1.3R	8.7	-1.4R	8.5	-1.3R	9.1	-1.4R
	20 ga	4"	q_a / q_f	1136	1828	1096	1765	1069	1721	1049	1688	1033	1663	1021	1643	982	1570	811	1298	682	1091
			F	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R
		6"	q_a / q_f	941	1515	890	1433	854	1376	828	1333	808	1301	792	1275	779	1254	769	1237	682	1091
			F	5.5	-0.4R	5.6	-0.3R	5.6	-0.3R	5.7	-0.3R	5.7	-0.3R	5.8	-0.2R	5.8	-0.2R	5.8	-0.2R	5.8	-0.2R
		8"	q_a / q_f	823	1325	792	1275	726	1168	716	1153	674	1085	672	1082	642	1033	643	1036	620	998
			F	5.9	-0.5R	6	-0.5R	6.2	-0.5R	6.2	-0.4R	6.4	-0.4R	6.3	-0.4R	6.5	-0.4R	6.4	-0.3R	6.6	-0.3R
		12"	q_a / q_f	691	1112	627	1009	583	938	550	886	526	847	506	815	491	790	478	770	467	752
			F	6.7	-0.8R	7	-0.8R	7.2	-0.8R	7.3	-0.8R	7.5	-0.7R	7.6	-0.7R	7.7	-0.7R	7.8	-0.6R	7.8	-0.6R
		18"	q_a / q_f	619	997	567	914	480	773	459	740	444	715	393	632	388	625	385	620	353	568
			F	7.3	-1.1R	7.5	-1.1R	8.3	-1.3R	8.4	-1.2R	8.4	-1.1R	9	-1.2R	9	-1.1R	9	-1R	9.5	-1.1R
		24"	q_a / q_f	544	876	506	815	422	679	409	659	356	573	354	569	318	512	321	517	294	474
			F	8.1	-1.5R	8.2	-1.4R	9.2	-1.7R	9.1	-1.5R	9.9	-1.7R	9.8	-1.5R	10.5	-1.6R	10.3	-1.5R	10.9	-1.6R
	22 ga	4"	q_a / q_f	911	1466	875	1409	850	1369	832	1339	818	1317	807	1299	750	1199	620	991	521	833
			F	5.7	-0.2R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	6	-0.1R
		6"	q_a / q_f	753	1213	708	1141	677	1090	654	1053	637	1025	623	1003	612	985	602	970	521	833
			F	6.4	-0.4R	6.5	-0.4R	6.5	-0.3R	6.6	-0.3R	6.7	-0.3R	6.7	-0.3R	6.7	-0.2R	6.7	-0.2R	6.8	-0.2R
		8"	q_a / q_f	660	1063	631	1016	576	927	566	911	531	855	528	851	504	811	504	811	485	781
			F	6.9	-0.6R	6.9	-0.5R	7.2	-0.5R	7.2	-0.4R	7.3	-0.4R	7.3	-0.4R	7.5	-0.4R	7.4	-0.4R	7.5	-0.3R
		12"	q_a / q_f	557	897	502	809	465	748	437	704	416	670	400	644	387	622	376	605	367	590
			F	7.7	-0.9R	8	-0.9R	8.2	-0.9R	8.4	-0.8R	8.6	-0.8R	8.7	-0.8R	8.8	-0.7R	8.9	-0.7R	8.9	-0.7R
		18"	q_a / q_f	502	808	457	735	383	616	364	586	350	564	311	500	306	493	303	487	278	447
			F	8.3	-1.2R	8.6	-1.2R	9.5	-1.4R	9.5	-1.3R	9.6	-1.2R	10.3	-1.3R	10.2	-1.2R	10.2	-1.1R	10.8	-1.2R
		24"	q_a / q_f	444	715	409	659	338	545	326	525	283	456	281	452	253	407	254	409	233	375
			F	9.2	-1.7R	9.4	-1.5R	10.4	-1.8R	10.4	-1.6R	11.2	-1.8R	11.1	-1.6R	11.9	-1.8R	11.6	-1.6R	12.3	-1.7R

B-36 36/7 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

BN-36 2.9

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a q_f	2502	4028	2408	3878	2342	3770	2292	3690	2253	3627	2222	3578	2120	3393	1752	2804	1472	2356
			F	3.1	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R	3.3	-0.1R
		6"	q_a q_f	2125	3421	2000	3221	1912	3079	1847	2973	1796	2892	1756	2827	1723	2774	1696	2730	1472	2356
			F	3.5	-0.3R	3.6	-0.3R	3.6	-0.3R	3.7	-0.3R	3.7	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R
		8"	q_a q_f	1893	3048	1804	2904	1651	2659	1618	2605	1520	2448	1508	2428	1438	2316	1436	2311	1383	2226
			F	3.7	-0.4R	3.8	-0.4R	4	-0.4R	4	-0.4R	4.2	-0.4R	4.2	-0.3R	4.3	-0.3R	4.2	-0.3R	4.3	-0.3R
		12"	q_a q_f	1629	2623	1470	2367	1358	2187	1276	2054	1213	1953	1163	1873	1123	1808	1089	1754	1061	1709
			F	4.2	-0.6R	4.4	-0.7R	4.6	-0.7R	4.7	-0.6R	4.9	-0.6R	5	-0.6R	5.1	-0.6R	5.1	-0.6R	5.2	-0.6R
		18"	q_a q_f	1486	2392	1349	2171	1146	1845	1090	1756	1047	1686	926	1491	905	1456	887	1428	811	1305
			F	4.5	-0.8R	4.7	-0.8R	5.2	-1R	5.3	-0.9R	5.4	-0.9R	5.8	-1R	5.9	-0.9R	5.9	-0.9R	6.3	-0.9R
		24"	q_a q_f	1334	2148	1222	1968	1032	1662	987	1588	858	1381	842	1355	753	1213	750	1207	684	1102
			F	4.9	-1R	5.1	-1R	5.7	-1.2R	5.7	-1.1R	6.3	-1.3R	6.3	-1.2R	6.7	-1.3R	6.7	-1.2R	7.1	-1.3R
	18 ga	4"	q_a q_f	1928	3104	1844	2969	1784	2873	1740	2801	1705	2745	1678	2701	1514	2422	1251	2002	1051	1682
			F	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.1R	3.9	-0.1R	4	-0.1R	4	-0.1R	4	-0.1R
		6"	q_a q_f	1635	2633	1528	2460	1452	2338	1396	2247	1353	2178	1318	2122	1290	2077	1251	2002	1051	1682
			F	4.2	-0.4R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R	4.5	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R
		8"	q_a q_f	1460	2351	1380	2221	1256	2023	1224	1971	1146	1845	1132	1823	1077	1735	1072	1726	1030	1659
			F	4.5	-0.5R	4.5	-0.4R	4.7	-0.5R	4.8	-0.4R	4.9	-0.4R	4.9	-0.4R	5	-0.4R	5	-0.3R	5.1	-0.3R
		12"	q_a q_f	1265	2037	1133	1824	1040	1675	972	1565	920	1481	878	1413	840	1352	811	1306	789	1270
			F	4.9	-0.7R	5.2	-0.7R	5.4	-0.7R	5.6	-0.7R	5.7	-0.7R	5.8	-0.7R	5.9	-0.7R	6	-0.6R	6.1	-0.6R
		18"	q_a q_f	1160	1868	1044	1681	886	1426	831	1337	790	1271	697	1123	678	1091	664	1068	608	979
			F	5.3	-0.9R	5.5	-0.9R	6.1	-1.1R	6.2	-1R	6.3	-1R	6.8	-1.1R	6.8	-1R	6.9	-1R	7.3	-1.1R
		24"	q_a q_f	1050	1691	953	1534	795	1281	753	1213	654	1053	637	1026	570	917	565	910	518	834
			F	5.7	-1.1R	5.9	-1.1R	6.6	-1.3R	6.7	-1.2R	7.3	-1.4R	7.3	-1.3R	7.8	-1.5R	7.7	-1.3R	8.2	-1.5R
	20 ga	4"	q_a q_f	1377	2216	1305	2102	1255	2020	1217	1960	1188	1913	1165	1876	982	1570	811	1298	682	1091
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5	-0.1R	5.1	-0.1R
		6"	q_a q_f	1169	1882	1082	1742	1020	1643	975	1570	940	1513	912	1469	890	1432	811	1298	682	1091
			F	5.3	-0.4R	5.4	-0.4R	5.5	-0.4R	5.5	-0.3R	5.6	-0.3R	5.6	-0.3R	5.7	-0.3R	5.7	-0.3R	5.7	-0.3R
		8"	q_a q_f	1048	1688	980	1577	886	1427	857	1380	799	1286	785	1265	745	1199	738	1189	682	1091
			F	5.6	-0.6R	5.7	-0.5R	5.9	-0.5R	6	-0.5R	6.1	-0.5R	6.1	-0.4R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R
		12"	q_a q_f	917	1476	813	1309	741	1193	685	1103	639	1029	604	972	578	931	558	898	540	870
			F	6.2	-0.8R	6.5	-0.8R	6.7	-0.8R	6.9	-0.8R	7.1	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R
		18"	q_a q_f	847	1363	754	1214	629	1013	585	941	551	888	486	783	473	761	462	743	423	681
			F	6.5	-1R	6.8	-1R	7.5	-1.2R	7.7	-1.2R	7.8	-1.1R	8.3	-1.3R	8.4	-1.2R	8.4	-1.1R	8.9	-1.2R
		24"	q_a q_f	774	1246	692	1114	571	919	534	861	463	746	447	720	402	647	398	640	364	587
			F	7.1	-1.3R	7.3	-1.3R	8.1	-1.5R	8.2	-1.4R	8.9	-1.6R	8.9	-1.5R	9.5	-1.7R	9.4	-1.5R	9.9	-1.7R
	22 ga	4"	q_a q_f	1109	1785	1045	1683	1001	1611	967	1557	941	1516	921	1481	750	1199	620	991	521	833
			F	5.6	-0.3R	5.7	-0.2R	5.7	-0.2R	5.8	-0.2R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.1R
		6"	q_a q_f	943	1518	867	1397	814	1311	775	1248	745	1199	721	1161	701	1129	620	991	521	833
			F	6.1	-0.4R	6.3	-0.4R	6.4	-0.4R	6.4	-0.4R	6.5	-0.4R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R
		8"	q_a q_f	849	1366	788	1268	710	1143	683	1100	635	1022	622	1002	589	948	582	937	521	833
			F	6.5	-0.6R	6.6	-0.6R	6.9	-0.6R	6.9	-0.5R	7.1	-0.5R	7.1	-0.5R	7.2	-0.5R	7.2	-0.4R	7.3	-0.4R
		12"	q_a q_f	747	1202	659	1060	596	959	544	876	506	814	478	770	457	736	440	708	425	685
			F	7.1	-0.9R	7.4	-0.9R	7.7	-0.9R	7.9	-0.9R	8.1	-0.9R	8.2	-0.9R	8.4	-0.8R	8.5	-0.8R	8.6	-0.8R
		18"	q_a q_f	693	1115	613	988	506	815	468	753	439	706	389	626	377	607	367	591	336	541
			F	7.5	-1.1R	7.9	-1.1R	8.6	-1.4R	8.8	-1.3R	8.9	-1.2R	9.5	-1.4R	9.5	-1.3R	9.6	-1.2R	10.1	-1.3R
		24"	q_a q_f	637	1025	560	902	462	743	429	691	372	599	359	578	323	520	318	512	292	470
			F	8.1	-1.5R	8.4	-1.4R	9.2	-1.7R	9.3	-1.6R	10.1	-1.8R	10.1	-1.7R	10.7	-1.8R	10.7	-1.7R	11.3	-1.8R

B-36 36/9 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

2.9 **BN-36**

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			F	3.2 -0.2R		3.2 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 -0.1R	
		6"	q_a q_f	1348	2171	1317	2121	1295	2085	1279	2058	1266	2038	1255	2021	1247	2008	1240	1997	1234	1987
			F	3.6 -0.3R		3.7 -0.3R		3.7 -0.2R		3.8 -0.2R		3.8 -0.2R		3.9 -0.2R		3.9 -0.2R		3.9 -0.2R		3.9 -0.2R	
		8"	q_a q_f	1212	1952	1203	1937	1140	1835	1144	1841	1100	1771	1108	1783	1075	1730	1083	1744	1057	1702
			F	3.9 -0.4R		4 -0.4R		4.2 -0.4R		4.2 -0.3R		4.3 -0.3R		4.3 -0.3R		4.4 -0.3R		4.4 -0.3R		4.4 -0.3R	
		12"	q_a q_f	1028	1655	971	1563	930	1498	900	1449	877	1412	859	1382	844	1358	831	1338	821	1321
			F	4.5 -0.7R		4.7 -0.6R		4.9 -0.6R		5 -0.6R		5.1 -0.6R		5.2 -0.6R		5.3 -0.5R		5.4 -0.5R		5.4 -0.5R	
		18"	q_a q_f	913	1470	874	1406	755	1215	747	1203	741	1193	670	1079	673	1084	676	1088	626	1008
			F	4.9 -0.9R		5.1 -0.8R		5.7 -1R		5.8 -0.9R		5.8 -0.8R		6.3 -0.9R		6.3 -0.9R		6.3 -0.8R		6.6 -0.9R	
		24"	q_a q_f	782	1259	766	1233	656	1056	662	1066	589	948	601	968	547	880	561	904	518	834
			F	5.5 -1.2R		5.6 -1.1R		6.3 -1.3R		6.3 -1.1R		6.9 -1.3R		6.8 -1.2R		7.3 -1.3R		7.2 -1.2R		7.7 -1.3R	
	18 ga	4"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1051	1682
			F	3.8 -0.2R		3.9 -0.2R		3.9 -0.1R		3.9 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R		4 -0.1R	
		6"	q_a q_f	1044	1681	1015	1634	994	1601	979	1576	967	1557	957	1541	949	1529	943	1518	937	1509
			F	4.3 -0.3R		4.4 -0.3R		4.5 -0.3R		4.5 -0.3R		4.5 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R		4.6 -0.2R	
		8"	q_a q_f	934	1504	922	1485	869	1399	869	1399	833	1341	837	1348	810	1304	816	1314	795	1279
			F	4.7 -0.5R		4.7 -0.4R		4.9 -0.4R		4.9 -0.4R		5.1 -0.4R		5.1 -0.3R		5.2 -0.3R		5.1 -0.3R		5.2 -0.3R	
		12"	q_a q_f	790	1272	741	1193	706	1136	680	1095	660	1063	644	1037	631	1017	621	999	612	985
			F	5.3 -0.7R		5.5 -0.7R		5.7 -0.7R		5.9 -0.7R		6 -0.7R		6.1 -0.6R		6.2 -0.6R		6.3 -0.6R		6.3 -0.6R	
		18"	q_a q_f	703	1132	667	1074	574	925	565	910	558	898	504	811	504	811	504	812	467	751
			F	5.7 -1R		6 -0.9R		6.6 -1.1R		6.7 -1R		6.8 -0.9R		7.3 -1.1R		7.3 -1R		7.3 -0.9R		7.7 -1R	
		24"	q_a q_f	606	976	587	945	502	807	502	809	446	718	453	729	407	655	418	673	383	617
			F	6.4 -1.3R		6.5 -1.2R		7.3 -1.4R		7.3 -1.3R		8 -1.5R		7.9 -1.3R		8.5 -1.4R		8.3 -1.3R		8.9 -1.4R	
	20 ga	4"	q_a q_f	843	1357	843	1357	837	1348	829	1334	822	1323	817	1315	812	1308	809	1298	682	1091
			F	4.9 -0.2R		4.9 -0.2R		5 -0.2R		5 -0.2R		5 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R	
		6"	q_a q_f	749	1205	723	1163	704	1134	690	1112	680	1094	671	1081	664	1070	659	1060	654	1053
			F	5.4 -0.4R		5.5 -0.3R		5.6 -0.3R		5.7 -0.3R		5.7 -0.3R		5.7 -0.3R		5.8 -0.2R		5.8 -0.2R		5.8 -0.2R	
		8"	q_a q_f	666	1073	653	1052	611	983	609	980	580	934	582	937	561	904	565	909	548	882
			F	5.9 -0.5R		5.9 -0.5R		6.2 -0.5R		6.1 -0.4R		6.3 -0.4R		6.3 -0.4R		6.4 -0.4R		6.4 -0.3R		6.5 -0.3R	
		12"	q_a q_f	564	908	524	843	495	797	474	764	458	738	445	717	435	700	426	687	419	675
			F	6.6 -0.8R		6.8 -0.8R		7.1 -0.8R		7.2 -0.8R		7.4 -0.8R		7.5 -0.7R		7.6 -0.7R		7.7 -0.7R		7.8 -0.6R	
		18"	q_a q_f	504	811	473	761	405	652	396	637	388	625	349	562	348	561	347	559	320	516
			F	7.1 -1.1R		7.3 -1.1R		8.1 -1.3R		8.2 -1.2R		8.3 -1.1R		8.9 -1.2R		8.9 -1.1R		8.9 -1R		9.3 -1.1R	
		24"	q_a q_f	438	705	419	674	356	574	353	569	307	495	310	499	279	449	286	460	262	422
			F	7.8 -1.5R		8 -1.4R		8.9 -1.6R		8.9 -1.5R		9.7 -1.7R		9.6 -1.5R		10.2 -1.7R		10.1 -1.5R		10.7 -1.6R	
	22 ga	4"	q_a q_f	702	1130	687	1106	676	1088	667	1075	661	1064	656	1056	652	1049	620	991	521	833
			F	5.7 -0.2R		5.8 -0.2R		5.8 -0.2R		5.9 -0.2R		5.9 -0.2R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R	
		6"	q_a q_f	604	972	580	934	563	907	551	886	541	871	533	858	527	848	522	840	517	833
			F	6.3 -0.4R		6.4 -0.4R		6.5 -0.3R		6.6 -0.3R		6.6 -0.3R		6.7 -0.3R		6.7 -0.3R		6.7 -0.2R		6.7 -0.2R	
		8"	q_a q_f	536	863	523	842	487	784	484	779	460	740	460	741	443	713	445	716	431	694
			F	6.8 -0.6R		6.8 -0.5R		7.1 -0.5R		7.1 -0.5R		7.3 -0.5R		7.3 -0.4R		7.4 -0.4R		7.4 -0.4R		7.5 -0.4R	
		12"	q_a q_f	454	731	419	675	395	636	377	607	363	584	352	566	343	552	335	540	329	530
			F	7.6 -0.9R		7.9 -0.9R		8.1 -0.9R		8.3 -0.9R		8.5 -0.8R		8.6 -0.8R		8.7 -0.8R		8.8 -0.7R		8.9 -0.7R	
		18"	q_a q_f	407	656	380	611	325	523	315	508	308	496	274	442	274	441	273	440	250	403
			F	8.1 -1.2R		8.4 -1.2R		9.3 -1.4R		9.4 -1.3R		9.4 -1.2R		10.1 -1.3R		10.1 -1.2R		10.1 -1.1R		10.6 -1.2R	
		24"	q_a q_f	356	574	337	543	284	458	279	450	242	390	245	394	220	354	224	361	206	331
			F	8.9 -1.6R		9.1 -1.5R		10.1 -1.8R		10.1 -1.6R		11 -1.8R		10.8 -1.6R		11.6 -1.8R		11.4 -1.6R		12.1 -1.8R	

B-36 36/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

BN-36 2.9

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7/4	16 ga	4"	q_a q_f	2130	3429	2080	3349	2045	3292	2019	3251	1999	3219	1984	3194	1971	3174	1752	2804	1472	2356
			F	3.2	-0.3R	3.2	-0.3R	3.2	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.2R	3.3	-0.1R
		6"	q_a q_f	1756	2827	1685	2713	1636	2635	1600	2577	1573	2533	1551	2498	1534	2469	1519	2446	1472	2356
			F	3.6	-0.5R	3.6	-0.4R	3.7	-0.4R	3.8	-0.4R	3.8	-0.4R	3.8	-0.3R	3.9	-0.3R	3.9	-0.3R	3.9	-0.3R
		8"	q_a q_f	1517	2442	1488	2395	1378	2218	1376	2216	1304	2100	1312	2112	1259	2027	1269	2044	1229	1978
			F	3.9	-0.6R	3.9	-0.6R	4.1	-0.6R	4.1	-0.5R	4.3	-0.6R	4.2	-0.5R	4.4	-0.5R	4.3	-0.5R	4.4	-0.5R
		12"	q_a q_f	1240	1996	1146	1844	1081	1740	1034	1665	998	1607	970	1562	947	1525	929	1495	913	1470
			F	4.4	-1R	4.6	-1R	4.8	-1R	4.9	-1R	5	-0.9R	5.1	-0.9R	5.2	-0.9R	5.3	-0.9R	5.4	-0.8R
		18"	q_a q_f	1087	1750	1020	1642	863	1390	845	1361	832	1339	743	1196	742	1194	741	1193	678	1091
			F	4.7	-1.2R	4.9	-1.2R	5.5	-1.4R	5.6	-1.4R	5.7	-1.3R	6.1	-1.5R	6.2	-1.4R	6.2	-1.3R	6.5	-1.4R
		24"	q_a q_f	925	1490	888	1430	747	1203	745	1200	649	1045	658	1060	590	950	603	971	552	888
			F	5.2	-1.6R	5.4	-1.5R	6.1	-1.8R	6.1	-1.7R	6.7	-1.9R	6.6	-1.8R	7.1	-1.9R	7	-1.8R	7.5	-1.9R
	18 ga	4"	q_a q_f	1629	2623	1584	2550	1552	2498	1528	2460	1510	2431	1496	2408	1484	2390	1251	2002	1051	1682
			F	3.8	-0.3R	3.9	-0.3R	3.9	-0.3R	3.9	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R
		6"	q_a q_f	1334	2148	1273	2049	1230	1981	1199	1931	1175	1892	1157	1862	1141	1838	1129	1817	1051	1682
			F	4.3	-0.5R	4.4	-0.5R	4.4	-0.5R	4.5	-0.4R	4.5	-0.4R	4.6	-0.4R	4.6	-0.4R	4.6	-0.3R	4.6	-0.3R
		8"	q_a q_f	1152	1855	1123	1807	1034	1665	1029	1657	972	1565	975	1570	934	1504	940	1513	908	1462
			F	4.6	-0.7R	4.7	-0.7R	4.9	-0.7R	4.9	-0.6R	5	-0.6R	5	-0.6R	5.1	-0.6R	5.1	-0.5R	5.2	-0.5R
		12"	q_a q_f	946	1524	868	1398	815	1311	775	1248	746	1201	722	1163	704	1133	688	1108	675	1087
			F	5.2	-1.1R	5.4	-1.1R	5.6	-1.1R	5.8	-1.1R	5.9	-1R	6	-1R	6.1	-1R	6.2	-1R	6.3	-0.9R
		18"	q_a q_f	835	1344	776	1249	656	1056	637	1026	623	1002	551	887	548	882	546	880	501	806
			F	5.6	-1.3R	5.8	-1.3R	6.5	-1.6R	6.6	-1.5R	6.6	-1.4R	7.1	-1.6R	7.2	-1.5R	7.2	-1.4R	7.6	-1.6R
		24"	q_a q_f	717	1155	681	1096	567	912	560	902	487	785	491	790	440	708	448	721	411	661
			F	6.1	-1.7R	6.3	-1.7R	7.1	-2R	7.1	-1.9R	7.7	-2.1R	7.7	-2R	8.3	-2.2R	8.2	-2R	8.7	-2.2R
	20 ga	4"	q_a q_f	1150	1852	1110	1788	1083	1743	1063	1711	1047	1686	1035	1666	982	1570	811	1298	682	1091
			F	4.9	-0.4R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R
		6"	q_a q_f	937	1509	887	1428	852	1372	826	1331	807	1299	792	1275	779	1255	769	1238	682	1091
			F	5.4	-0.6R	5.5	-0.6R	5.6	-0.5R	5.6	-0.5R	5.7	-0.5R	5.7	-0.4R	5.8	-0.4R	5.8	-0.4R	5.8	-0.4R
		8"	q_a q_f	811	1306	782	1260	716	1154	709	1141	667	1074	666	1073	637	1025	639	1029	616	992
			F	5.8	-0.8R	5.9	-0.8R	6.1	-0.8R	6.1	-0.7R	6.3	-0.7R	6.3	-0.7R	6.4	-0.7R	6.4	-0.6R	6.5	-0.6R
		12"	q_a q_f	671	1081	610	982	568	915	538	866	514	828	494	796	480	773	468	754	459	738
			F	6.4	-1.2R	6.7	-1.3R	7	-1.3R	7.1	-1.2R	7.3	-1.2R	7.4	-1.2R	7.5	-1.1R	7.6	-1.1R	7.7	-1.1R
		18"	q_a q_f	597	961	549	883	458	737	440	708	427	687	377	607	374	603	372	599	341	549
			F	6.9	-1.5R	7.2	-1.5R	7.9	-1.8R	8	-1.8R	8.1	-1.7R	8.7	-1.9R	8.7	-1.8R	8.7	-1.7R	9.2	-1.8R
		24"	q_a q_f	519	836	482	777	399	642	390	627	339	545	338	544	304	489	308	496	283	455
			F	7.5	-2R	7.7	-1.9R	8.6	-2.3R	8.6	-2.2R	9.4	-2.5R	9.3	-2.3R	10	-2.5R	9.9	-2.3R	10.4	-2.5R
	22 ga	4"	q_a q_f	918	1479	883	1421	858	1381	840	1352	826	1330	815	1312	750	1199	620	991	521	833
			F	5.7	-0.4R	5.8	-0.4R	5.8	-0.3R	5.8	-0.3R	5.9	-0.3R	5.9	-0.3R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R
		6"	q_a q_f	747	1203	703	1132	673	1084	651	1048	634	1021	621	999	610	982	601	967	521	833
			F	6.2	-0.7R	6.4	-0.6R	6.5	-0.6R	6.5	-0.6R	6.6	-0.5R	6.6	-0.5R	6.7	-0.5R	6.7	-0.4R	6.7	-0.4R
		8"	q_a q_f	648	1043	621	1000	567	913	559	899	524	844	523	841	498	802	499	804	481	774
			F	6.7	-0.9R	6.8	-0.8R	7	-0.9R	7	-0.8R	7.2	-0.8R	7.2	-0.7R	7.4	-0.7R	7.3	-0.7R	7.5	-0.7R
		12"	q_a q_f	540	869	487	785	452	727	424	683	402	648	387	623	375	603	365	588	357	575
			F	7.4	-1.3R	7.7	-1.4R	8	-1.4R	8.2	-1.4R	8.3	-1.3R	8.5	-1.3R	8.6	-1.3R	8.7	-1.2R	8.8	-1.2R
		18"	q_a q_f	482	776	440	708	364	586	347	559	335	540	298	479	295	474	292	470	268	431
			F	7.9	-1.7R	8.2	-1.7R	9	-2R	9.2	-1.9R	9.3	-1.8R	9.9	-2.1R	9.9	-1.9R	9.9	-1.8R	10.5	-2R
		24"	q_a q_f	420	677	386	622	319	514	309	498	268	432	268	431	241	388	243	392	223	359
			F	8.6	-2.2R	8.8	-2.1R	9.8	-2.5R	9.8	-2.4R	10.6	-2.7R	10.6	-2.5R	11.3	-2.8R	11.2	-2.5R	11.8	-2.7R

B-36 36/7/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

2.9 **BN-36**

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)											
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"		
36/7	16 ga	4"	q_a q_f	2171 3495	2115 3405	2075 3341	2046 3294	2023 3257	2005 3229	1991 3205	1752 2804	1472 2356		
			F	3.1 -0.2R	3.1 -0.2R	3.2 -0.2R	3.2 -0.2R	3.2 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R	3.3 -0.1R		
		6"	q_a q_f	1813 2920	1734 2792	1679 2703	1638 2637	1606 2586	1581 2546	1561 2513	1544 2486	1472 2356		
			F	3.4 -0.3R	3.5 -0.3R	3.6 -0.3R	3.7 -0.3R	3.7 -0.3R	3.7 -0.2R	3.8 -0.2R	3.8 -0.2R	3.8 -0.2R		
		8"	q_a q_f	1584 2551	1543 2484	1427 2297	1418 2284	1343 2162	1345 2166	1291 2078	1298 2089	1255 2021		
			F	3.7 -0.4R	3.8 -0.4R	3.9 -0.4R	4 -0.4R	4.1 -0.4R	4.1 -0.4R	4.2 -0.4R	4.2 -0.3R	4.3 -0.3R		
		12"	q_a q_f	1318 2121	1211 1949	1137 1830	1083 1743	1041 1676	1009 1624	982 1582	961 1547	943 1518		
			F	4.1 -0.6R	4.3 -0.6R	4.5 -0.7R	4.6 -0.6R	4.8 -0.6R	4.9 -0.6R	5 -0.6R	5 -0.6R	5.1 -0.6R		
		18"	q_a q_f	1170 1883	1088 1752	923 1486	897 1444	877 1412	786 1265	781 1258	777 1251	712 1146		
			F	4.3 -0.8R	4.6 -0.8R	5.1 -0.9R	5.2 -0.9R	5.3 -0.9R	5.7 -1R	5.7 -0.9R	5.8 -0.9R	6.1 -1R		
		24"	q_a q_f	1013 1631	959 1545	811 1305	800 1288	700 1127	704 1133	631 1016	640 1031	585 942		
			F	4.7 -1R	4.9 -1R	5.5 -1.2R	5.5 -1.1R	6 -1.2R	6.1 -1.2R	6.5 -1.3R	6.5 -1.2R	6.9 -1.3R		
	18 ga	4"	q_a q_f	1667 2684	1615 2601	1579 2543	1552 2499	1532 2466	1515 2440	1502 2418	1251 2002	1051 1682		
			F	3.7 -0.2R	3.8 -0.2R	3.8 -0.2R	3.9 -0.2R	3.9 -0.2R	3.9 -0.1R	3.9 -0.1R	4 -0.1R	4 -0.1R		
		6"	q_a q_f	1385 2230	1316 2118	1267 2040	1231 1983	1204 1939	1182 1904	1165 1875	1150 1852	1051 1682		
			F	4.1 -0.4R	4.2 -0.3R	4.3 -0.3R	4.4 -0.3R	4.4 -0.3R	4.5 -0.3R	4.5 -0.3R	4.5 -0.2R	4.5 -0.2R		
		8"	q_a q_f	1210 1948	1170 1884	1076 1732	1065 1715	1005 1617	1004 1616	960 1546	964 1552	930 1498		
			F	4.4 -0.5R	4.5 -0.4R	4.7 -0.5R	4.7 -0.4R	4.9 -0.4R	4.9 -0.4R	5 -0.4R	5 -0.4R	5.1 -0.4R		
		12"	q_a q_f	1012 1629	922 1485	861 1386	816 1314	782 1258	755 1215	733 1180	715 1151	700 1127		
			F	4.8 -0.7R	5.1 -0.7R	5.3 -0.7R	5.5 -0.7R	5.6 -0.7R	5.7 -0.7R	5.8 -0.7R	5.9 -0.7R	6 -0.7R		
		18"	q_a q_f	903 1454	832 1340	705 1135	680 1095	662 1066	588 946	581 935	576 928	528 850		
			F	5.1 -0.9R	5.4 -0.9R	5.9 -1R	6.1 -1R	6.2 -1R	6.6 -1.1R	6.7 -1R	6.7 -1R	7.1 -1.1R		
		24"	q_a q_f	789 1271	739 1190	621 1001	607 977	528 851	527 849	473 761	478 769	438 705		
			F	5.5 -1.1R	5.7 -1.1R	6.4 -1.3R	6.5 -1.2R	7 -1.4R	7.1 -1.3R	7.6 -1.4R	7.5 -1.3R	8 -1.5R		
	20 ga	4"	q_a q_f	1183 1904	1138 1832	1107 1782	1084 1744	1066 1716	1052 1693	982 1570	811 1298	682 1091		
			F	4.8 -0.3R	4.8 -0.2R	4.9 -0.2R	4.9 -0.2R	5 -0.2R	5 -0.2R	5 -0.2R	5 -0.1R	5 -0.1R		
		6"	q_a q_f	979 1576	922 1484	882 1420	853 1373	830 1337	813 1309	798 1285	787 1266	682 1091		
			F	5.2 -0.4R	5.3 -0.4R	5.4 -0.4R	5.5 -0.4R	5.6 -0.3R	5.6 -0.3R	5.6 -0.3R	5.7 -0.3R	5.7 -0.3R		
		8"	q_a q_f	857 1380	820 1321	750 1207	738 1187	693 1115	689 1110	658 1059	658 1059	634 1020		
			F	5.5 -0.6R	5.6 -0.5R	5.9 -0.5R	5.9 -0.5R	6.1 -0.5R	6.1 -0.5R	6.2 -0.5R	6.2 -0.4R	6.3 -0.4R		
		12"	q_a q_f	722 1163	652 1050	604 973	569 916	542 873	521 839	504 812	490 789	479 771		
			F	6 -0.8R	6.3 -0.8R	6.6 -0.8R	6.8 -0.8R	6.9 -0.8R	7.1 -0.8R	7.2 -0.8R	7.3 -0.8R	7.4 -0.8R		
		18"	q_a q_f	650 1046	592 954	499 804	475 766	458 737	405 652	399 643	395 636	362 583		
			F	6.4 -1R	6.7 -1R	7.3 -1.2R	7.5 -1.2R	7.6 -1.1R	8.1 -1.3R	8.2 -1.2R	8.2 -1.1R	8.7 -1.2R		
		24"	q_a q_f	574 925	530 854	441 709	425 685	370 595	366 589	329 530	331 533	303 489		
			F	6.8 -1.3R	7.1 -1.2R	7.8 -1.5R	7.9 -1.4R	8.6 -1.6R	8.6 -1.5R	9.2 -1.7R	9.1 -1.5R	9.7 -1.7R		
	22 ga	4"	q_a q_f	948 1526	907 1461	879 1416	859 1382	843 1357	830 1336	750 1199	620 991	521 833		
			F	5.6 -0.3R	5.7 -0.3R	5.7 -0.2R	5.8 -0.2R	5.8 -0.2R	5.8 -0.2R	5.8 -0.2R	5.9 -0.2R	5.9 -0.2R		
		6"	q_a q_f	784 1262	734 1182	699 1126	674 1085	654 1053	639 1029	626 1009	616 991	521 833		
			F	6 -0.5R	6.2 -0.4R	6.3 -0.4R	6.4 -0.4R	6.4 -0.4R	6.5 -0.4R	6.5 -0.3R	6.6 -0.3R	6.6 -0.3R		
		8"	q_a q_f	688 1108	654 1053	595 959	583 939	546 880	542 873	516 831	516 830	496 798		
			F	6.4 -0.6R	6.5 -0.6R	6.8 -0.6R	6.8 -0.5R	7 -0.6R	7 -0.5R	7.2 -0.5R	7.2 -0.5R	7.3 -0.5R		
		12"	q_a q_f	583 939	524 843	483 777	453 729	428 690	410 660	396 637	384 618	374 603		
			F	7 -0.9R	7.3 -0.9R	7.5 -0.9R	7.8 -0.9R	7.9 -0.9R	8.1 -0.9R	8.2 -0.9R	8.3 -0.8R	8.4 -0.8R		
		18"	q_a q_f	527 849	477 768	399 642	377 608	362 582	321 516	315 508	311 501	285 459		
			F	7.3 -1.1R	7.7 -1.1R	8.4 -1.3R	8.5 -1.3R	8.7 -1.2R	9.2 -1.4R	9.3 -1.3R	9.4 -1.2R	9.8 -1.4R		
		24"	q_a q_f	469 756	428 689	354 570	339 546	295 474	291 469	262 422	262 423	241 387		
			F	7.8 -1.4R	8.1 -1.4R	8.9 -1.6R	9.1 -1.5R	9.8 -1.8R	9.8 -1.6R	10.4 -1.8R	10.4 -1.7R	10.9 -1.8R		

B-36 36/7 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

BN-36 2.9

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI®

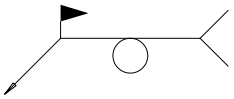
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/9	16 ga	4"	q_a q_f	2617	4213	2510	4041	2433	3917	2376	3826	2332	3754	2297	3698	2120	3393	1752	2804	1472	2356
			F	3 -0.2R		3 -0.2R		3.1 -0.2R		3.1 -0.2R		3.2 -0.2R		3.2 -0.2R		3.2 -0.2R		3.2 -0.1R		3.2 -0.1R	
		6"	q_a q_f	2220	3575	2081	3351	1983	3192	1909	3074	1853	2983	1808	2911	1772	2852	1741	2803	1472	2356
			F	3.2 -0.3R		3.3 -0.3R		3.4 -0.3R		3.5 -0.3R		3.5 -0.3R		3.6 -0.3R		3.6 -0.3R		3.7 -0.3R		3.7 -0.3R	
		8"	q_a q_f	1981	3189	1878	3023	1714	2759	1673	2694	1569	2526	1553	2500	1479	2381	1474	2373	1417	2282
			F	3.4 -0.4R		3.5 -0.4R		3.7 -0.4R		3.7 -0.4R		3.9 -0.4R		3.9 -0.4R		4 -0.4R		4 -0.4R		4.1 -0.4R	
		12"	q_a q_f	1711	2755	1537	2475	1415	2278	1325	2133	1256	2023	1202	1935	1158	1864	1119	1802	1086	1749
			F	3.6 -0.6R		3.9 -0.6R		4.1 -0.6R		4.2 -0.6R		4.4 -0.6R		4.5 -0.7R		4.6 -0.7R		4.7 -0.6R		4.8 -0.6R	
		18"	q_a q_f	1566	2521	1414	2277	1200	1932	1137	1831	1084	1745	958	1543	933	1503	913	1470	834	1343
			F	3.8 -0.7R		4 -0.7R		4.4 -0.8R		4.6 -0.8R		4.7 -0.8R		5.1 -0.9R		5.1 -0.9R		5.2 -0.9R		5.5 -1R	
		24"	q_a q_f	1413	2274	1287	2071	1082	1743	1029	1657	895	1440	874	1407	782	1259	775	1249	708	1140
			F	4 -0.8R		4.2 -0.8R		4.7 -1R		4.8 -1R		5.2 -1.1R		5.3 -1.1R		5.7 -1.2R		5.7 -1.1R		6.1 -1.3R	
	18 ga	4"	q_a q_f	2015	3244	1920	3091	1852	2981	1801	2900	1762	2837	1731	2787	1514	2422	1251	2002	1051	1682
			F	3.6 -0.2R		3.7 -0.2R		3.7 -0.2R		3.8 -0.2R		3.8 -0.2R		3.8 -0.2R		3.9 -0.2R		3.9 -0.2R		3.9 -0.2R	
		6"	q_a q_f	1709	2752	1590	2560	1506	2424	1443	2324	1395	2246	1357	2185	1326	2135	1251	2002	1051	1682
			F	3.9 -0.4R		4 -0.4R		4.1 -0.4R		4.2 -0.3R		4.2 -0.3R		4.3 -0.3R		4.3 -0.3R		4.4 -0.3R		4.4 -0.3R	
		8"	q_a q_f	1529	2462	1438	2315	1305	2101	1267	2040	1184	1906	1167	1879	1108	1785	1101	1773	1051	1682
			F	4.1 -0.5R		4.2 -0.5R		4.4 -0.5R		4.4 -0.5R		4.6 -0.5R		4.6 -0.4R		4.7 -0.5R		4.8 -0.4R		4.9 -0.4R	
		12"	q_a q_f	1331	2143	1186	1910	1085	1748	1011	1628	954	1536	904	1455	863	1390	832	1339	808	1300
			F	4.4 -0.6R		4.6 -0.7R		4.8 -0.7R		5 -0.7R		5.2 -0.7R		5.3 -0.7R		5.4 -0.7R		5.5 -0.7R		5.6 -0.7R	
		18"	q_a q_f	1224	1971	1097	1766	926	1491	865	1392	819	1319	723	1165	701	1128	684	1102	627	1010
			F	4.5 -0.7R		4.8 -0.8R		5.2 -0.9R		5.4 -0.9R		5.6 -0.9R		5.9 -1R		6 -1R		6.1 -1R		6.4 -1.1R	
		24"	q_a q_f	1114	1793	1004	1617	836	1346	788	1268	684	1101	663	1068	593	954	586	944	537	865
			F	4.8 -0.9R		5 -0.9R		5.5 -1.1R		5.7 -1.1R		6.1 -1.2R		6.2 -1.2R		6.6 -1.3R		6.7 -1.3R		7 -1.4R	
	20 ga	4"	q_a q_f	1438	2316	1358	2187	1301	2095	1259	2027	1226	1974	1200	1933	982	1570	811	1298	682	1091
			F	4.6 -0.3R		4.7 -0.3R		4.8 -0.3R		4.8 -0.2R		4.9 -0.2R		4.9 -0.2R		4.9 -0.2R		4.9 -0.2R		5 -0.2R	
		6"	q_a q_f	1223	1969	1127	1814	1059	1705	1009	1624	970	1562	939	1513	915	1473	811	1298	682	1091
			F	4.9 -0.4R		5.1 -0.4R		5.2 -0.4R		5.3 -0.4R		5.4 -0.4R		5.4 -0.4R		5.5 -0.4R		5.5 -0.3R		5.6 -0.3R	
		8"	q_a q_f	1100	1770	1022	1646	922	1484	889	1431	826	1331	810	1305	767	1235	759	1222	682	1091
			F	5.2 -0.5R		5.3 -0.5R		5.5 -0.6R		5.6 -0.5R		5.8 -0.6R		5.8 -0.5R		5.9 -0.5R		6 -0.5R		6.1 -0.5R	
		12"	q_a q_f	966	1555	853	1374	775	1248	711	1145	661	1065	623	1003	595	959	573	923	555	893
			F	5.5 -0.7R		5.8 -0.8R		6 -0.8R		6.2 -0.8R		6.4 -0.8R		6.6 -0.8R		6.7 -0.8R		6.8 -0.8R		6.9 -0.8R	
		18"	q_a q_f	895	1441	794	1278	660	1062	610	983	573	923	506	814	490	789	477	769	438	705
			F	5.7 -0.8R		6 -0.9R		6.5 -1.1R		6.7 -1.1R		6.9 -1.1R		7.3 -1.2R		7.4 -1.2R		7.5 -1.2R		7.9 -1.3R	
		24"	q_a q_f	822	1323	729	1173	601	968	560	902	485	782	467	751	420	675	413	666	379	610
			F	6 -1R		6.3 -1.1R		6.8 -1.3R		7 -1.3R		7.5 -1.4R		7.6 -1.4R		8.1 -1.5R		8.2 -1.5R		8.6 -1.6R	
	22 ga	4"	q_a q_f	1158	1865	1088	1751	1037	1670	1000	1610	971	1564	926	1481	750	1199	620	991	521	833
			F	5.4 -0.3R		5.5 -0.3R		5.6 -0.3R		5.6 -0.3R		5.7 -0.2R		5.7 -0.2R		5.7 -0.2R		5.8 -0.2R		5.8 -0.2R	
		6"	q_a q_f	987	1590	904	1456	846	1361	802	1292	769	1238	743	1196	721	1162	620	991	521	833
			F	5.8 -0.5R		5.9 -0.5R		6 -0.5R		6.1 -0.4R		6.2 -0.4R		6.3 -0.4R		6.4 -0.4R		6.4 -0.4R		6.4 -0.4R	
		8"	q_a q_f	891	1435	823	1325	739	1190	709	1141	658	1059	643	1034	605	975	599	964	521	833
			F	6 -0.6R		6.2 -0.6R		6.4 -0.6R		6.5 -0.6R		6.7 -0.6R		6.7 -0.6R		6.9 -0.6R		6.9 -0.5R		7 -0.6R	
		12"	q_a q_f	788	1268	692	1114	621	999	565	910	524	844	494	796	472	759	453	729	438	705
			F	6.4 -0.8R		6.7 -0.8R		7 -0.9R		7.2 -0.9R		7.4 -0.9R		7.6 -0.9R		7.7 -0.9R		7.8 -0.9R		8 -0.9R	
		18"	q_a q_f	733	1181	645	1038	532	856	489	787	457	736	405	652	391	630	380	612	348	561
			F	6.6 -0.9R		6.9 -1R		7.5 -1.2R		7.7 -1.2R		7.9 -1.2R		8.4 -1.3R		8.5 -1.3R		8.6 -1.3R		9 -1.4R	
		24"	q_a q_f	677	1090	591	952	487	784	451	726	390	628	375	604	338	544	331	534	304	489
			F	6.9 -1.1R		7.2 -1.2R		7.8 -1.4R		8 -1.4R		8.6 -1.6R		8.7 -1.5R		9.2 -1.7R		9.3 -1.6R		9.8 -1.8R	

B-36 36/9 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

2.10 **B-36**

Arc Spot/Seam Welds to Supports with Top Seam Welded Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	
36/4	16 ga	4"	q_a / q_f	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2120 / 3393	1752 / 2804	1472 / 2356
			F	2.6 +0R	2.6 +0R	2.6 +0R	2.6 +0R	2.6 +0R	2.6 +0R	2.6 +0R	2.6 +0R	2.6 +0R
		6"	q_a / q_f	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2120 / 3393	1752 / 2804	1472 / 2356
			F	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R
		8"	q_a / q_f	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2421 / 3994	2120 / 3393	1752 / 2804	1472 / 2356
			F	3 -0.1R	3 -0.1R	3 -0.1R	3 +0R	3 +0R	3 +0R	3 +0R	3 +0R	3.1 +0R
		12"	q_a / q_f	2318 / 3825	2258 / 3725	2214 / 3654	2182 / 3601	2157 / 3560	2137 / 3527	2120 / 3393	1752 / 2804	1472 / 2356
			F	3.4 -0.2R	3.4 -0.1R	3.4 -0.1R	3.5 -0.1R	3.5 -0.1R	3.5 -0.1R	3.5 -0.1R	3.5 -0.1R	3.5 -0.1R
		18"	q_a / q_f	2077 / 3427	2055 / 3391	1829 / 3019	1849 / 3051	1864 / 3075	1718 / 2835	1744 / 2878	1752 / 2804	1472 / 2356
			F	3.7 -0.2R	3.7 -0.2R	4 -0.2R	4 -0.2R	3.9 -0.2R	4.1 -0.2R	4.1 -0.2R	4 -0.1R	4.2 -0.1R
		24"	q_a / q_f	1758 / 2901	1801 / 2972	1578 / 2604	1640 / 2705	1480 / 2442	1542 / 2544	1419 / 2341	1476 / 2436	1377 / 2271
			F	4.4 -0.4R	4.2 -0.3R	4.6 -0.4R	4.4 -0.3R	4.7 -0.3R	4.5 -0.2R	4.8 -0.3R	4.6 -0.2R	4.8 -0.2R
	18 ga	4"	q_a / q_f	1900 / 3136	1900 / 3136	1900 / 3136	1900 / 3136	1900 / 3136	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.2 +0R	3.2 +0R
		6"	q_a / q_f	1900 / 3136	1900 / 3136	1900 / 3136	1900 / 3136	1900 / 3136	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	3.4 -0.1R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R
		8"	q_a / q_f	1900 / 3136	1900 / 3136	1900 / 3136	1900 / 3136	1900 / 3136	1869 / 2990	1514 / 2422	1251 / 2002	1051 / 1682
			F	3.6 -0.1R	3.6 -0.1R	3.7 -0.1R	3.6 -0.1R	3.7 -0.1R	3.6 +0R	3.7 +0R	3.7 +0R	3.7 +0R
		12"	q_a / q_f	1783 / 2942	1733 / 2859	1697 / 2799	1670 / 2755	1649 / 2721	1632 / 2693	1514 / 2422	1251 / 2002	1051 / 1682
			F	4.1 -0.2R	4.1 -0.2R	4.1 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R
		18"	q_a / q_f	1594 / 2631	1574 / 2596	1396 / 2304	1409 / 2325	1419 / 2342	1305 / 2154	1325 / 2186	1251 / 2002	1051 / 1682
			F	4.5 -0.3R	4.4 -0.2R	4.8 -0.3R	4.7 -0.2R	4.6 -0.2R	4.9 -0.2R	4.8 -0.2R	4.8 -0.1R	5 -0.2R
		24"	q_a / q_f	1348 / 2225	1377 / 2273	1203 / 1986	1248 / 2059	1124 / 1855	1170 / 1931	1075 / 1774	1118 / 1845	1041 / 1682
			F	5.2 -0.5R	4.9 -0.3R	5.4 -0.4R	5.2 -0.3R	5.5 -0.3R	5.3 -0.3R	5.6 -0.3R	5.4 -0.2R	5.7 -0.3R
	20 ga	4"	q_a / q_f	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	982 / 1570	811 / 1298	682 / 1091
			F	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R
		6"	q_a / q_f	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	982 / 1570	811 / 1298	682 / 1091
			F	4.4 -0.1R	4.4 -0.1R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R
		8"	q_a / q_f	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	1121 / 1850	982 / 1570	811 / 1298	682 / 1091
			F	4.6 -0.1R	4.6 -0.1R	4.7 -0.1R	4.6 -0.1R	4.7 -0.1R	4.7 -0.1R	4.7 +0R	4.7 +0R	4.7 +0R
		12"	q_a / q_f	1108 / 1829	1083 / 1787	1065 / 1758	1052 / 1736	1042 / 1719	1033 / 1705	982 / 1570	811 / 1298	682 / 1091
			F	5.1 -0.2R	5.2 -0.2R	5.2 -0.2R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R
		18"	q_a / q_f	997 / 1645	990 / 1634	887 / 1463	898 / 1481	906 / 1495	838 / 1383	852 / 1406	811 / 1298	682 / 1091
			F	5.6 -0.3R	5.6 -0.3R	6 -0.3R	5.9 -0.2R	5.8 -0.2R	6.1 -0.2R	6 -0.2R	6 -0.2R	6.2 -0.2R
		24"	q_a / q_f	846 / 1395	871 / 1436	766 / 1264	798 / 1317	723 / 1193	754 / 1244	696 / 1148	725 / 1196	677 / 1091
			F	6.4 -0.6R	6.1 -0.4R	6.7 -0.5R	6.4 -0.4R	6.8 -0.4R	6.6 -0.3R	6.9 -0.3R	6.7 -0.3R	7 -0.3R
	22 ga	4"	q_a / q_f	805 / 1329	805 / 1329	805 / 1329	805 / 1329	805 / 1329	805 / 1329	750 / 1199	620 / 991	521 / 833
			F	4.8 +0R	4.8 +0R	4.8 +0R	4.8 +0R	4.8 +0R	4.8 +0R	4.8 +0R	4.9 +0R	4.9 +0R
		6"	q_a / q_f	805 / 1329	805 / 1329	805 / 1329	805 / 1329	805 / 1329	805 / 1329	750 / 1199	620 / 991	521 / 833
			F	5.1 -0.1R	5.2 -0.1R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R
		8"	q_a / q_f	805 / 1329	805 / 1329	805 / 1329	805 / 1329	805 / 1329	805 / 1329	750 / 1199	620 / 991	521 / 833
			F	5.4 -0.1R	5.4 -0.1R	5.5 -0.1R	5.4 -0.1R	5.5 -0.1R	5.5 -0.1R	5.5 -0.1R	5.5 +0R	5.5 +0R
		12"	q_a / q_f	805 / 1329	804 / 1326	792 / 1307	784 / 1293	777 / 1282	772 / 1273	750 / 1199	620 / 991	521 / 833
			F	6 -0.2R	6.1 -0.2R	6.1 -0.2R	6.1 -0.2R	6.1 -0.1R	6.2 -0.1R	6.2 -0.1R	6.2 -0.1R	6.2 -0.1R
		18"	q_a / q_f	741 / 1222	738 / 1217	664 / 1096	674 / 1112	681 / 1123	632 / 1043	643 / 1060	620 / 991	521 / 833
			F	6.5 -0.3R	6.5 -0.3R	6.9 -0.3R	6.8 -0.3R	6.7 -0.2R	7.1 -0.3R	7 -0.2R	6.9 -0.2R	7.1 -0.2R
		24"	q_a / q_f	630 / 1039	651 / 1074	576 / 950	601 / 991	546 / 901	570 / 941	528 / 871	550 / 907	515 / 833
			F	7.4 -0.6R	7.1 -0.4R	7.7 -0.5R	7.4 -0.4R	7.9 -0.4R	7.6 -0.3R	8 -0.4R	7.7 -0.3R	8 -0.3R

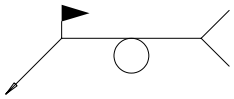
B-36 36/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC Steel Deck®

B-36 2.10

Arc Spot/Seam Welds to Supports with Top Seam Welded Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



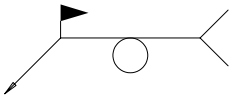
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7	16 ga	4"	q_a q_f	4726	7798	4685	7730	4656	7682	4327	6924	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	2.5 +0R		2.6 +0R		2.6 +0R		2.6 +0R		2.6 +0R		2.6 +0R		2.6 +0R		2.6 +0R		2.6 +0R	
		6"	q_a q_f	4163	6869	4085	6741	4030	6650	3990	6583	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	2.8 -0.1R		2.8 -0.1R		2.8 +0R		2.8 +0R		2.8 +0R		2.8 +0R		2.8 +0R		2.8 +0R		2.8 +0R	
		8"	q_a q_f	3712	6125	3713	6127	3528	5821	3557	5868	3313	5301	2618	4188	2120	3393	1752	2804	1472	2356
			F	2.9 -0.1R		2.9 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 +0R		3 +0R	
		12"	q_a q_f	3089	5097	2941	4853	2838	4683	2762	4558	2704	4461	2618	4188	2120	3393	1752	2804	1472	2356
			F	3.3 -0.2R		3.3 -0.2R		3.4 -0.2R		3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R	
		18"	q_a q_f	2699	4453	2616	4316	2255	3721	2256	3723	2257	3724	2041	3367	2063	3393	1752	2804	1472	2356
			F	3.6 -0.3R		3.6 -0.2R		3.9 -0.3R		3.9 -0.2R		3.8 -0.2R		4 -0.2R		4 -0.2R		3.9 -0.2R		4.1 -0.2R	
		24"	q_a q_f	2251	3715	2254	3718	1925	3177	1975	3259	1754	2893	1813	2991	1648	2719	1707	2804	1472	2356
			F	4.1 -0.5R		4 -0.4R		4.4 -0.4R		4.2 -0.3R		4.5 -0.4R		4.4 -0.3R		4.6 -0.3R		4.5 -0.3R		4.7 -0.3R	
	18 ga	4"	q_a q_f	3656	6032	3620	5973	3595	5931	3089	4943	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R	
		6"	q_a q_f	3201	5281	3135	5173	3089	5097	3055	4943	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.4 -0.1R		3.4 -0.1R		3.4 -0.1R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R	
		8"	q_a q_f	2844	4693	2841	4687	2692	4443	2712	4475	2365	3784	1869	2990	1514	2422	1251	2002	1051	1682
			F	3.6 -0.1R		3.5 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.7 -0.1R		3.6 -0.1R		3.7 -0.1R	
		12"	q_a q_f	2362	3897	2243	3700	2159	3562	2097	3461	2050	3383	1869	2990	1514	2422	1251	2002	1051	1682
			F	4 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R	
		18"	q_a q_f	2064	3406	1994	3291	1716	2831	1713	2826	1710	2822	1545	2549	1514	2422	1251	2002	1051	1682
			F	4.3 -0.3R		4.3 -0.3R		4.6 -0.3R		4.6 -0.3R		4.5 -0.2R		4.8 -0.3R		4.7 -0.2R		4.7 -0.2R		4.9 -0.2R	
		24"	q_a q_f	1726	2849	1720	2838	1467	2421	1501	2476	1331	2196	1373	2266	1247	2058	1251	2002	1051	1682
			F	4.9 -0.5R		4.7 -0.4R		5.2 -0.5R		5 -0.4R		5.3 -0.4R		5.2 -0.3R		5.4 -0.4R		5.3 -0.3R		5.5 -0.3R	
	20 ga	4"	q_a q_f	2238	3693	2222	3667	2211	3648	2003	3205	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	4.1 +0R		4.1 +0R		4.1 +0R		4.1 +0R		4.1 +0R		4.1 +0R		4.1 +0R		4.1 +0R		4.1 +0R	
		6"	q_a q_f	1991	3286	1960	3233	1937	3196	1921	3169	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	4.3 -0.1R		4.3 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R	
		8"	q_a q_f	1786	2947	1791	2955	1709	2819	1724	2844	1534	2454	1212	1939	982	1570	811	1298	682	1091
			F	4.6 -0.1R		4.5 -0.1R		4.6 -0.1R		4.6 -0.1R		4.7 -0.1R		4.6 -0.1R		4.7 -0.1R		4.7 -0.1R		4.7 -0.1R	
		12"	q_a q_f	1493	2463	1428	2357	1383	2282	1350	2227	1324	2185	1212	1939	982	1570	811	1298	682	1091
			F	5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.1R		5.3 -0.1R		5.3 -0.1R	
		18"	q_a q_f	1304	2152	1271	2097	1100	1814	1104	1822	1107	1827	1003	1655	982	1570	811	1298	682	1091
			F	5.4 -0.4R		5.4 -0.3R		5.8 -0.4R		5.8 -0.3R		5.7 -0.3R		6 -0.3R		5.9 -0.3R		5.9 -0.2R		6.1 -0.3R	
		24"	q_a q_f	1084	1789	1094	1804	937	1545	965	1593	859	1417	891	1469	810	1337	811	1298	682	1091
			F	6.1 -0.6R		5.9 -0.5R		6.4 -0.6R		6.2 -0.4R		6.6 -0.5R		6.4 -0.4R		6.7 -0.4R		6.6 -0.4R		6.8 -0.4R	
	22 ga	4"	q_a q_f	1611	2658	1611	2658	1611	2658	1530	2448	1171	1874	926	1481	750	1199	620	991	521	833
			F	4.8 +0R		4.8 +0R		4.8 +0R		4.8 +0R		4.8 +0R		4.8 +0R		4.8 +0R		4.8 +0R		4.8 +0R	
		6"	q_a q_f	1473	2430	1453	2397	1438	2373	1428	2356	1171	1874	926	1481	750	1199	620	991	521	833
			F	5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R	
		8"	q_a q_f	1329	2193	1335	2202	1278	2109	1291	2129	1171	1874	926	1481	750	1199	620	991	521	833
			F	5.4 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.5 -0.1R		5.4 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R	
		12"	q_a q_f	1117	1842	1073	1770	1042	1720	1020	1683	1003	1654	926	1481	750	1199	620	991	521	833
			F	5.9 -0.3R		5.9 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R	
		18"	q_a q_f	976	1611	956	1577	830	1370	836	1380	840	1387	763	1259	750	1199	620	991	521	833
			F	6.3 -0.4R		6.3 -0.3R		6.7 -0.4R		6.7 -0.3R		6.6 -0.3R		6.9 -0.3R		6.8 -0.3R		6.8 -0.3R		7 -0.3R	
		24"	q_a q_f	809	1336	822	1356	706	1165	731	1206	651	1074	677	1118	617	1018	620	991	521	833
			F	7 -0.7R		6.8 -0.5R		7.4 -0.6R		7.2 -0.5R		7.6 -0.5R		7.4 -0.4R		7.7 -0.5R		7.5 -0.4R		7.9 -0.4R	

B-36 36/7 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

2.10 **B-36**

Arc Spot/Seam Welds to Supports with Button Punch Side Seam Attachments

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)											
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"		
36/4	16 ga	4"	q_a q_f	920 1518	748 1234	633 1044	551 909	489 807	441 728	403 665	372 614	347 572		
			F	7.4 -1.9R	8.2 -2R	8.8 -2.1R	9.4 -2.1R	9.8 -2.2R	10.2 -2.2R	10.6 -2.2R	10.9 -2.1R	11.2 -2.1R		
		6"	q_a q_f	887 1463	714 1179	600 989	518 854	456 752	408 673	370 610	339 559	313 517		
			F	8.2 -2.3R	9.2 -2.6R	10.1 -2.8R	10.9 -3R	11.6 -3.1R	12.2 -3.1R	12.8 -3.2R	13.3 -3.2R	13.7 -3.3R		
		8"	q_a q_f	870 1435	701 1157	583 962	503 830	439 725	393 649	353 583	323 534	297 490		
			F	8.7 -2.6R	9.8 -2.9R	11 -3.3R	11.8 -3.5R	12.8 -3.8R	13.4 -3.8R	14.3 -4R	14.8 -4R	15.6 -4.2R		
		12"	q_a q_f	853 1408	681 1124	566 934	484 799	423 697	375 618	337 555	305 504	280 462		
			F	9.3 -3R	10.7 -3.5R	12 -4R	13.3 -4.4R	14.4 -4.7R	15.4 -5R	16.4 -5.2R	17.3 -5.4R	18.2 -5.6R		
		18"	q_a q_f	845 1394	674 1113	555 916	475 783	414 684	364 600	327 539	296 489	269 444		
			F	9.6 -3.2R	11.1 -3.8R	12.9 -4.5R	14.2 -4.9R	15.4 -5.3R	17 -6R	18 -6.2R	19 -6.4R	20.5 -7R		
		24"	q_a q_f	837 1380	668 1102	550 907	470 775	406 670	360 594	320 528	290 479	263 435		
			F	9.9 -3.5R	11.5 -4R	13.4 -4.8R	14.7 -5.3R	16.5 -6R	17.6 -6.3R	19.4 -7.1R	20.3 -7.3R	22 -7.9R		
	18 ga	4"	q_a q_f	740 1221	605 998	514 849	450 743	402 663	364 601	334 551	311 514	294 485		
			F	8.6 -2.1R	9.4 -2.3R	10.2 -2.3R	10.7 -2.4R	11.3 -2.4R	11.7 -2.4R	12.1 -2.4R	12.4 -2.4R	12.8 -2.4R		
		6"	q_a q_f	706 1166	571 943	481 794	417 688	368 608	331 546	301 496	278 459	260 430		
			F	9.5 -2.6R	10.6 -2.9R	11.6 -3.1R	12.5 -3.3R	13.2 -3.4R	13.9 -3.5R	14.5 -3.6R	15.1 -3.6R	15.6 -3.6R		
		8"	q_a q_f	690 1138	558 921	464 766	402 664	352 580	316 522	284 469	263 434	244 402		
			F	10 -3R	11.2 -3.3R	12.6 -3.7R	13.5 -3.9R	14.6 -4.2R	15.3 -4.3R	16.3 -4.5R	16.8 -4.5R	17.7 -4.7R		
		12"	q_a q_f	673 1111	538 888	448 739	383 633	335 553	298 491	268 441	245 404	227 375		
			F	10.7 -3.4R	12.3 -3.9R	13.7 -4.4R	15.1 -4.9R	16.4 -5.2R	17.5 -5.6R	18.6 -5.8R	19.7 -6.1R	20.6 -6.3R		
		18"	q_a q_f	665 1097	531 877	437 721	374 617	327 539	286 473	258 425	236 389	216 356		
			F	11 -3.6R	12.7 -4.2R	14.7 -5.1R	16.1 -5.5R	17.4 -5.9R	19.3 -6.7R	20.5 -7R	21.5 -7.2R	23.3 -7.9R		
		24"	q_a q_f	656 1083	525 866	431 711	369 609	318 525	283 467	251 414	229 379	210 347		
			F	11.4 -3.9R	13.1 -4.5R	15.2 -5.4R	16.7 -5.9R	18.7 -6.7R	20 -7.1R	21.9 -7.9R	23 -8.1R	24.9 -8.9R		
	20 ga	4"	q_a q_f	473 781	394 651	341 563	303 500	275 453	253 417	237 391	225 371	214 354		
			F	10.4 -2.4R	11.4 -2.6R	12.2 -2.7R	12.9 -2.8R	13.5 -2.8R	14 -2.8R	14.4 -2.8R	14.8 -2.8R	15.2 -2.7R		
		6"	q_a q_f	441 727	361 596	308 508	270 445	241 398	219 362	204 336	191 316	181 299		
			F	11.4 -3R	12.7 -3.4R	13.9 -3.6R	14.9 -3.8R	15.7 -4R	16.5 -4.1R	17.2 -4.1R	17.9 -4.2R	18.5 -4.2R		
		8"	q_a q_f	424 700	348 574	291 481	256 422	225 371	204 337	187 309	176 291	164 271		
			F	12 -3.4R	13.4 -3.8R	15 -4.3R	16 -4.5R	17.3 -4.8R	18.1 -4.9R	19.3 -5.2R	19.9 -5.2R	20.9 -5.4R		
		12"	q_a q_f	408 672	328 541	275 453	237 390	208 343	186 307	170 281	158 261	148 244		
			F	12.8 -3.9R	14.6 -4.6R	16.3 -5.1R	17.9 -5.6R	19.3 -6R	20.7 -6.4R	22 -6.7R	23.1 -7R	24.2 -7.3R		
		18"	q_a q_f	399 659	321 530	263 435	227 375	200 330	175 288	160 265	149 246	136 225		
			F	13.2 -4.2R	15.1 -4.9R	17.4 -5.8R	19.1 -6.4R	20.6 -6.8R	22.7 -7.7R	24.1 -8R	25.3 -8.3R	27.3 -9.1R		
		24"	q_a q_f	391 645	314 519	258 426	222 367	191 316	171 282	154 254	143 236	131 216		
			F	13.6 -4.5R	15.6 -5.2R	18 -6.2R	19.7 -6.8R	22 -7.8R	23.5 -8.2R	25.8 -9.1R	27 -9.4R	29.2 -10.2R		
	22 ga	4"	q_a q_f	364 600	310 511	272 448	244 403	224 369	209 346	198 328	190 313	182 300		
			F	11.7 -2.7R	12.8 -2.8R	13.7 -3R	14.5 -3R	15.1 -3.1R	15.7 -3.1R	16.2 -3.1R	16.6 -3R	17 -3R		
		6"	q_a q_f	334 551	276 456	238 393	211 348	191 314	176 291	165 273	156 258	149 245		
			F	12.9 -3.3R	14.3 -3.7R	15.5 -4R	16.6 -4.2R	17.6 -4.3R	18.5 -4.5R	19.3 -4.5R	20 -4.6R	20.6 -4.6R		
		8"	q_a q_f	317 523	263 434	222 366	197 325	174 287	161 266	148 245	141 233	132 218		
			F	13.5 -3.7R	15 -4.1R	16.7 -4.7R	17.9 -4.9R	19.3 -5.3R	20.2 -5.4R	21.5 -5.7R	22.1 -5.7R	23.3 -5.9R		
		12"	q_a q_f	300 496	243 401	205 338	178 293	157 259	143 236	132 218	123 203	115 190		
			F	14.3 -4.3R	16.4 -5R	18.2 -5.6R	20 -6.2R	21.6 -6.6R	23 -7R	24.4 -7.4R	25.7 -7.7R	26.9 -8R		
		18"	q_a q_f	292 482	236 390	194 320	168 277	149 246	132 217	122 201	114 188	104 172		
			F	14.8 -4.6R	16.9 -5.3R	19.4 -6.4R	21.2 -7R	22.9 -7.5R	25.3 -8.4R	26.7 -8.8R	28.1 -9.1R	30.3 -9.9R		
		24"	q_a q_f	284 468	230 379	188 311	163 270	141 232	128 211	115 190	108 178	99 163		
			F	15.3 -4.9R	17.4 -5.7R	20.1 -6.8R	22 -7.5R	24.5 -8.5R	26.1 -9R	28.6 -10R	30 -10.3R	32.3 -11.2R		

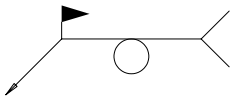
B-36 36/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Button Punch

ASC Steel Deck®

B-36 2.10

Arc Spot/Seam Welds to Supports with Button Punch Side Seam Attachments

Diaphragm Shear in pounds per linear foot (plf)

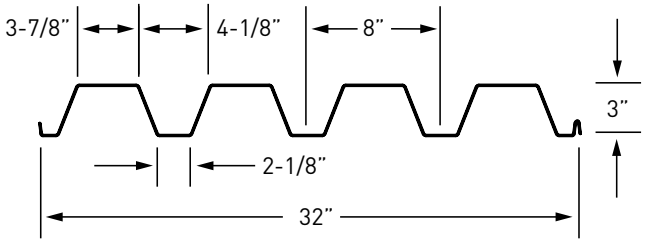


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/7	16 ga	4"	q_a q_f	1279	2110	1035	1707	872	1439	756	1247	669	1103	601	991	547	902	502	829	466	769
			F	6.2 -1.6R		6.8 -1.7R		7.4 -1.9R		7.9 -2R		8.4 -2R		8.8 -2.1R		9.2 -2.1R		9.5 -2.2R		9.8 -2.2R	
		6"	q_a q_f	1245	2055	1001	1652	839	1384	722	1192	635	1048	568	936	513	847	469	774	433	714
			F	6.6 -1.8R		7.4 -2.1R		8.2 -2.3R		8.9 -2.5R		9.5 -2.7R		10.1 -2.8R		10.6 -2.9R		11.1 -3R		11.6 -3.1R	
		8"	q_a q_f	1229	2027	988	1630	822	1356	708	1168	619	1021	553	912	497	820	454	749	416	687
			F	6.9 -2R		7.7 -2.3R		8.7 -2.6R		9.4 -2.8R		10.2 -3.1R		10.8 -3.2R		11.6 -3.5R		12.1 -3.6R		12.8 -3.7R	
		12"	q_a q_f	1212	2000	968	1597	805	1329	689	1137	602	993	534	881	480	792	436	719	400	659
			F	7.1 -2.2R		8.2 -2.6R		9.2 -3R		10.2 -3.3R		11.1 -3.7R		12 -4R		12.8 -4.2R		13.6 -4.5R		14.3 -4.7R	
		18"	q_a q_f	1204	1986	961	1586	794	1310	680	1121	594	980	523	863	470	776	427	704	388	641
			F	7.3 -2.3R		8.4 -2.7R		9.7 -3.3R		10.7 -3.7R		11.6 -4R		12.8 -4.5R		13.7 -4.8R		14.5 -5R		15.6 -5.5R	
		24"	q_a q_f	1195	1972	955	1575	789	1301	675	1113	585	966	519	857	463	765	420	694	383	632
			F	7.5 -2.4R		8.6 -2.9R		9.9 -3.4R		10.9 -3.8R		12.2 -4.4R		13.1 -4.7R		14.4 -5.2R		15.2 -5.5R		16.4 -6R	
	18 ga	4"	q_a q_f	1021	1685	830	1369	702	1159	611	1008	543	895	489	807	447	737	414	683	388	639
			F	7.2 -1.7R		7.9 -1.9R		8.6 -2.1R		9.2 -2.2R		9.7 -2.3R		10.1 -2.3R		10.5 -2.4R		10.9 -2.4R		11.2 -2.4R	
		6"	q_a q_f	988	1630	797	1314	669	1104	578	953	509	840	456	752	413	682	380	628	354	584
			F	7.7 -2.1R		8.6 -2.4R		9.5 -2.6R		10.2 -2.8R		10.9 -3R		11.6 -3.1R		12.2 -3.3R		12.7 -3.4R		13.2 -3.4R	
		8"	q_a q_f	971	1603	783	1292	652	1076	563	930	493	813	441	728	397	655	365	603	338	557
			F	7.9 -2.2R		8.9 -2.6R		10 -2.9R		10.8 -3.2R		11.7 -3.5R		12.4 -3.6R		13.2 -3.9R		13.8 -4R		14.6 -4.2R	
		12"	q_a q_f	955	1575	763	1259	636	1049	544	898	476	785	423	697	380	627	347	573	321	529
			F	8.3 -2.5R		9.5 -2.9R		10.6 -3.4R		11.7 -3.7R		12.7 -4.1R		13.7 -4.4R		14.6 -4.7R		15.5 -5R		16.3 -5.2R	
		18"	q_a q_f	946	1562	757	1248	624	1030	535	882	468	772	412	679	370	611	338	558	310	511
			F	8.4 -2.6R		9.7 -3.1R		11.1 -3.7R		12.2 -4.1R		13.3 -4.5R		14.6 -5R		15.6 -5.4R		16.5 -5.6R		17.8 -6.2R	
		24"	q_a q_f	938	1548	750	1237	619	1021	530	875	459	758	408	673	363	600	332	548	304	502
			F	8.6 -2.7R		9.9 -3.2R		11.4 -3.9R		12.5 -4.3R		13.9 -4.9R		15 -5.3R		16.3 -5.9R		17.3 -6.2R		18.6 -6.7R	
	20 ga	4"	q_a q_f	640	1057	527	870	452	746	398	657	358	590	326	539	304	501	285	470	270	445
			F	8.7 -2R		9.6 -2.2R		10.4 -2.4R		11 -2.5R		11.6 -2.6R		12.1 -2.7R		12.6 -2.8R		13 -2.8R		13.4 -2.8R	
		6"	q_a q_f	607	1002	494	815	419	691	365	602	325	535	293	484	270	446	252	415	236	390
			F	9.3 -2.4R		10.4 -2.7R		11.4 -3R		12.3 -3.3R		13.1 -3.5R		13.8 -3.6R		14.5 -3.8R		15.1 -3.9R		15.7 -4R	
		8"	q_a q_f	590	974	481	793	402	663	351	578	308	508	278	459	254	418	237	390	220	362
			F	9.6 -2.6R		10.8 -3R		12 -3.4R		12.9 -3.7R		14 -4R		14.8 -4.2R		15.7 -4.5R		16.4 -4.6R		17.3 -4.8R	
		12"	q_a q_f	574	947	461	760	385	636	332	547	291	480	260	429	237	391	218	360	203	335
			F	10 -2.8R		11.4 -3.4R		12.7 -3.9R		14 -4.3R		15.1 -4.7R		16.3 -5.1R		17.3 -5.4R		18.3 -5.7R		19.3 -6R	
		18"	q_a q_f	565	933	454	749	374	617	322	531	283	467	249	410	227	374	209	345	192	317
			F	10.2 -3R		11.6 -3.5R		13.3 -4.2R		14.6 -4.7R		15.8 -5.2R		17.3 -5.8R		18.5 -6.2R		19.5 -6.5R		21 -7.1R	
		24"	q_a q_f	557	919	447	738	369	608	317	523	275	453	245	404	220	363	203	335	186	307
			F	10.4 -3.1R		11.9 -3.7R		13.6 -4.4R		14.9 -5R		16.5 -5.7R		17.7 -6.1R		19.3 -6.8R		20.4 -7.1R		22 -7.7R	
	22 ga	4"	q_a q_f	486	803	405	669	351	579	312	516	283	468	262	433	246	406	233	384	222	366
			F	9.9 -2.2R		10.9 -2.5R		11.7 -2.6R		12.4 -2.8R		13.1 -2.9R		13.7 -3R		14.2 -3R		14.7 -3.1R		15.1 -3.1R	
		6"	q_a q_f	453	748	372	614	318	524	279	461	250	413	229	378	213	351	200	329	189	311
			F	10.5 -2.6R		11.7 -3R		12.8 -3.3R		13.8 -3.6R		14.7 -3.8R		15.5 -4R		16.2 -4.1R		16.9 -4.2R		17.6 -4.3R	
		8"	q_a q_f	436	720	359	592	301	497	265	437	233	385	214	354	196	324	184	304	172	284
			F	10.9 -2.8R		12.1 -3.2R		13.5 -3.7R		14.5 -4R		15.7 -4.4R		16.6 -4.6R		17.6 -4.9R		18.3 -5R		19.3 -5.3R	
		12"	q_a q_f	420	693	339	559	284	469	246	406	217	358	196	323	180	296	166	274	155	256
			F	11.3 -3.1R		12.8 -3.7R		14.3 -4.2R		15.7 -4.7R		16.9 -5.2R		18.2 -5.6R		19.3 -6R		20.4 -6.3R		21.5 -6.6R	
		18"	q_a q_f	411	679	332	548	273	451	236	390	208	344	185	305	170	280	157	259	144	238
			F	11.5 -3.3R		13.1 -3.9R		14.9 -4.6R		16.3 -5.2R		17.7 -5.7R		19.4 -6.4R		20.6 -6.8R		21.7 -7.1R		23.3 -7.8R	
		24"	q_a q_f	403	665	325	537	268	442	232	382	200	330	181	299	163	269	151	249	139	229
			F	11.8 -3.4R		13.4 -4.1R		15.2 -4.9R		16.7 -5.4R		18.5 -6.2R		19.8 -6.7R		21.5 -7.4R		22.7 -7.8R		24.4 -8.5R	

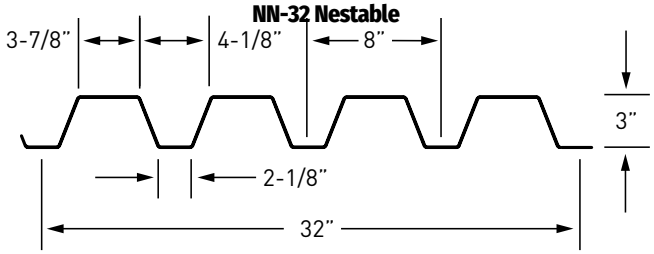
B-36 36/7 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Button Punch

3.1 DGN-32, N-32 & NN-32

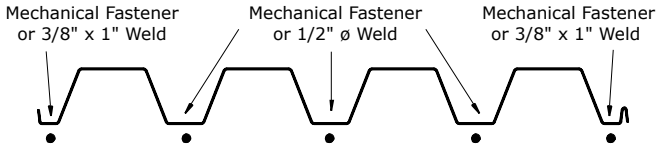
DGN-32 & N-32



NN-32 Nestable



Attachment Patterns



Note: Weld sizes are effective not visible. Refer to AISI S100 or AWS D1.3 for additional welding requirements.

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.97	0.0299	50	65	0.569	0.814	1.68	0.483	1.195
21	2.17	0.0330	50	65	0.628	0.893	1.68	0.531	1.192
20	2.35	0.0359	50	65	0.681	0.968	1.68	0.576	1.193
19	2.74	0.0420	50	65	0.795	1.125	1.69	0.668	1.190
18	3.11	0.0478	50	65	0.902	1.275	1.69	0.755	1.189
16	3.87	0.0598	50	65	1.123	1.575	1.69	0.931	1.185

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.272	0.349	1.37	0.402	1.78	0.668	0.754	0.716	0.774
21	0.322	0.398	1.40	0.453	1.77	0.773	0.870	0.813	0.878
20	0.372	0.446	1.41	0.505	1.76	0.848	0.930	0.888	0.943
19	0.487	0.553	1.45	0.611	1.74	1.035	1.125	1.065	1.125
18	0.604	0.661	1.48	0.715	1.72	1.219	1.275	1.238	1.275
16	0.871	0.879	1.54	0.927	1.70	1.556	1.575	1.563	1.575

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	504	571	627	722	771	873	960	1105
	Interior	877	974	1057	1195	1304	1450	1572	1778
20	End	714	805	882	1012	1093	1232	1350	1548
	Interior	1241	1373	1484	1670	1846	2042	2207	2485
18	End	1228	1376	1500	1708	1879	2105	2295	2613
	Interior	2135	2345	2521	2818	3175	3488	3751	4192
16	End	1874	2087	2266	2568	2867	3193	3468	3928
	Interior	3262	3563	3817	4242	4853	5300	5677	6310
Constants		h = 2.907"		r = 0.125"		θ = 70.7°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	435	193	109	70	48	36	27	21	17
		Φf_b	654	291	163	105	73	53	41	32	26
		L/360	489	145	61	31	18	11	8	5	4
		L/240	734	217	92	47	27	17	11	8	6
		L/180	978	290	122	63	36	23	15	11	8
		L/120	1467	435	183	94	54	34	23	16	12
	Double Span	f_b/Ω	502	223	125	80	56	41	31	25	20
		Φf_b	754	335	189	121	84	62	47	37	30
		L/360	1273	377	159	81	47	30	20	14	10
		L/240	1909	566	239	122	71	45	30	21	15
		L/180	2546	754	318	163	94	59	40	28	20
		L/120	3818	1131	477	244	141	89	60	42	31
	Triple Span	f_b/Ω	627	279	157	100	70	51	39	31	25
		Φf_b	943	419	236	151	105	77	59	47	38
		L/360	997	295	125	64	37	23	16	11	8
		L/240	1496	443	187	96	55	35	23	16	12
		L/180	1994	591	249	128	74	47	31	22	16
		L/120	2991	886	374	191	111	70	47	33	24
20	Single Span	f_b/Ω	557	247	139	89	62	45	35	27	22
		Φf_b	837	372	209	134	93	68	52	41	33
		L/360	606	180	76	39	22	14	9	7	5
		L/240	909	269	114	58	34	21	14	10	7
		L/180	1212	359	152	78	45	28	19	13	10
		L/120	1818	539	227	116	67	42	28	20	15
	Double Span	f_b/Ω	630	280	158	101	70	51	39	31	25
		Φf_b	947	421	237	152	105	77	59	47	38
		L/360	1550	459	194	99	57	36	24	17	12
		L/240	2326	689	291	149	86	54	36	26	19
		L/180	3101	919	388	198	115	72	48	34	25
		L/120	4651	1378	581	298	172	108	73	51	37
	Triple Span	f_b/Ω	788	350	197	126	88	64	49	39	32
		Φf_b	1184	526	296	189	132	97	74	58	47
		L/360	1215	360	152	78	45	28	19	13	10
		L/240	1822	540	228	117	67	42	28	20	15
		L/180	2429	720	304	155	90	57	38	27	19
		L/120	3644	1080	455	233	135	85	57	40	29
18	Single Span	f_b/Ω	825	367	206	132	92	67	52	41	33
		Φf_b	1240	551	310	198	138	101	77	61	50
		L/360	845	250	106	54	31	20	13	9	7
		L/240	1268	376	158	81	47	30	20	14	10
		L/180	1690	501	211	108	63	39	26	19	14
		L/120	2535	751	317	162	94	59	40	28	20
	Double Span	f_b/Ω	892	396	223	143	99	73	56	44	36
		Φf_b	1341	596	335	215	149	109	84	66	54
		L/360	2097	621	262	134	78	49	33	23	17
		L/240	3146	932	393	201	117	73	49	35	25
		L/180	4195	1243	524	268	155	98	66	46	34
		L/120	6292	1864	786	403	233	147	98	69	50
	Triple Span	f_b/Ω	1115	496	279	178	124	91	70	55	45
		Φf_b	1676	745	419	268	186	137	105	83	67
		L/360	1643	487	205	105	61	38	26	18	13
		L/240	2465	730	308	158	91	57	39	27	20
		L/180	3286	974	411	210	122	77	51	36	26
		L/120	4929	1460	616	315	183	115	77	54	39
16	Single Span	f_b/Ω	1097	487	274	175	122	90	69	54	44
		Φf_b	1648	733	412	264	183	135	103	81	66
		L/360	1067	316	133	68	40	25	17	12	9
		L/240	1600	474	200	102	59	37	25	18	13
		L/180	2134	632	267	137	79	50	33	23	17
		L/120	3201	948	400	205	119	75	50	35	26
	Double Span	f_b/Ω	1156	514	289	185	128	94	72	57	46
		Φf_b	1737	772	434	278	193	142	109	86	69
		L/360	2591	768	324	166	96	60	40	28	21
		L/240	3886	1151	486	249	144	91	61	43	31
		L/180	5182	1535	648	332	192	121	81	57	41
		L/120	7772	2303	972	497	288	181	121	85	62
	Triple Span	f_b/Ω	1445	642	361	231	161	118	90	71	58
		Φf_b	2172	965	543	347	241	177	136	107	87
		L/360	2030	601	254	130	75	47	32	22	16
		L/240	3044	902	381	195	113	71	48	33	24
		L/180	4059	1203	507	260	150	95	63	45	32
		L/120	6089	1804	761	390	226	142	95	67	49

3.2 DGN-32
Allowable Wind Uplift Loads

N-32					Support Fastener Pattern: 32 / 5								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
22	#12-14 ITW Buildex TEKS	16ga	165	Single Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		131	88	66	53	44	38	31	25	20
	Hilti X-ENP-19 L15	≥ 1/4"	660		309	206	126	80	56	41	31	25	20
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	80	56	41	31	25	20
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		369	224	126	80	56	41	31	25	20
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	56	41	31	25	20
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		131	88	66	53	44	38	31	25	20
	Hilti X-ENP-19 L15	≥ 1/4"	660		309	206	126	80	56	41	31	25	20
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	80	56	41	31	25	20
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		369	224	126	80	56	41	31	25	20
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	56	41	31	25	20
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	280		131	88	66	53	44	38	33	29	25
	Hilti X-ENP-19 L15	≥ 1/4"	660		309	206	155	101	70	51	39	31	25
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	51	39	31	25
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		369	246	157	101	70	51	39	31	25
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	51	39	31	25

N-32					Support Fastener Pattern: 32 / 5								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		158	105	79	63	53	45	39	31	25
	Hilti X-ENP-19 L15	≥ 1/4"	705		330	220	158	101	70	52	39	31	25
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	52	39	31	25
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		447	281	158	101	70	52	39	31	25
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	39	31	25
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		158	105	79	63	53	45	39	31	25
	Hilti X-ENP-19 L15	≥ 1/4"	705		330	220	158	101	70	52	39	31	25
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	52	39	31	25
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		447	281	158	101	70	52	39	31	25
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	39	31	25
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		158	105	79	63	53	45	39	35	32
	Hilti X-ENP-19 L15	≥ 1/4"	705		330	220	165	126	88	64	49	39	32
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	49	39	32
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		447	298	197	126	88	64	49	39	32
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	39	32

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

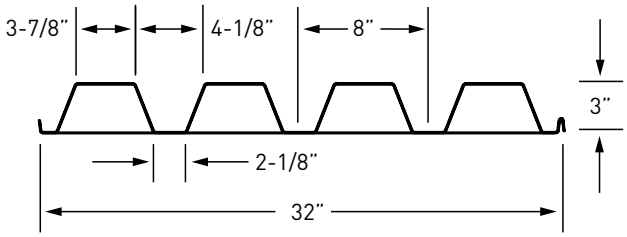
N-32					Support Fastener Pattern: 32 / 5								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		210	140	105	84	70	60	53	44	36
	Hilti X-ENP-19 L15	≥ 1/4"	805		377	252	189	143	99	73	56	44	36
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	51	44	36
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		606	397	223	143	99	73	56	44	36
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	40	36
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		210	140	105	84	70	60	53	44	36
	Hilti X-ENP-19 L15	≥ 1/4"	805		377	252	189	143	99	73	56	44	36
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	51	44	36
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		606	397	223	143	99	73	56	44	36
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	40	36
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		210	140	105	84	70	60	53	47	42
	Hilti X-ENP-19 L15	≥ 1/4"	805		377	252	189	151	124	91	70	55	45
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	51	45	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		606	404	279	179	124	91	70	55	45
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	40	36

N-32					Support Fastener Pattern: 32 / 5								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		241	161	121	97	80	69	60	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	880		413	275	206	165	129	95	72	57	46
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	51	45	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		761	507	290	185	129	95	72	57	46
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	40	36
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		241	161	121	97	80	69	60	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	880		413	275	206	165	129	95	72	57	46
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	51	45	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		761	507	290	185	129	95	72	57	46
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	40	36
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	77	52	39	31	26	22	19	17	15
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		241	161	121	97	80	69	60	54	48
	Hilti X-ENP-19 L15	≥ 1/4"	880		413	275	206	165	138	118	90	71	58
	Hilti X-HSN 24	1/8" - 3/8"	435		204	136	102	82	68	58	51	45	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		761	507	362	232	161	118	90	71	58
	Simpson XL Screws	≥ 1/8"	385		180	120	90	72	60	52	45	40	36

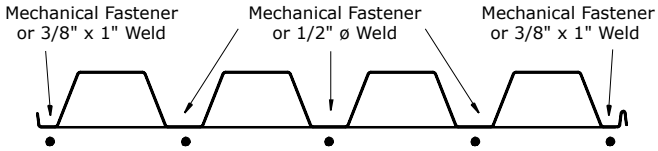
Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

3.3 DGNF-32 & NF-32



Attachment Patterns



Note: Weld sizes are effective not visible. Refer to AISI S100-2007 or AWS D1.3 for additional welding requirements.

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.96	0.0359 / 0.036	50	65	1.114	1.740	1.07	0.867	1.250
20/18	4.44	0.0359 / 0.047	50	65	1.254	1.877	0.96	0.884	1.223
20/16	4.96	0.0359 / 0.059	50	65	1.406	1.999	0.87	0.899	1.192
18/20	4.71	0.0478 / 0.036	50	65	1.330	2.143	1.19	1.129	1.269
18/18	5.19	0.0478 / 0.047	50	65	1.470	2.316	1.09	1.153	1.255
18/16	5.71	0.0478 / 0.059	50	65	1.622	2.474	1.00	1.173	1.235
16/20	5.47	0.0598 / 0.036	50	65	1.547	2.522	1.27	1.385	1.277
16/18	5.95	0.0598 / 0.047	50	65	1.687	2.725	1.18	1.415	1.271
16/16	6.47	0.0598 / 0.059	50	65	1.839	2.914	1.10	1.442	1.259

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.547	0.488	0.76	0.808	1.39	1.381	1.454	1.501	1.549
20/18	0.622	0.490	0.66	0.838	1.24	1.480	1.623	1.612	1.708
20/16	0.729	0.522	0.62	0.863	1.11	1.515	1.816	1.676	1.877
18/20	0.784	0.798	0.99	1.057	1.45	1.835	1.839	1.938	1.940
18/18	0.859	0.816	0.90	1.093	1.33	1.972	2.019	2.087	2.118
18/16	0.966	0.810	0.81	1.123	1.22	2.107	2.234	2.230	2.314
16/20	1.057	1.073	1.13	1.306	1.49	2.316	2.218	2.385	2.319
16/18	1.132	1.098	1.04	1.346	1.39	2.495	2.405	2.572	2.512
16/16	1.238	1.119	0.96	1.380	1.30	2.661	2.636	2.746	2.729

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	504	571	627	722	771	873	960	1105
	Interior	877	974	1057	1195	1304	1450	1572	1778
20	End	714	805	882	1012	1093	1232	1350	1548
	Interior	1241	1373	1484	1670	1846	2042	2207	2485
18	End	1228	1376	1500	1708	1879	2105	2295	2613
	Interior	2135	2345	2521	2818	3175	3488	3751	4192
16	End	1874	2087	2266	2568	2867	3193	3468	3928
	Interior	3262	3563	3817	4242	4853	5300	5677	6310
Constants		h = 2.907"		r = 0.125"		θ = 70.7°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	609	271	152	97	68	50	38	30	24
		Φf_b	915	407	229	146	102	75	57	45	37
		L/360	1025	304	128	66	38	24	16	11	8
		L/240	1537	455	192	98	57	36	24	17	12
		L/180	2049	607	256	131	76	48	32	22	16
		L/120	3074	911	384	197	114	72	48	34	25
	Double Span	f_b/Ω	1008	448	252	161	112	82	63	50	40
		Φf_b	1516	674	379	242	168	124	95	75	61
		L/360	2468	731	309	158	91	58	39	27	20
		L/240	3703	1097	463	237	137	86	58	41	30
		L/180	4937	1463	617	316	183	115	77	54	39
		L/120	7405	2194	926	474	274	173	116	81	59
	Triple Span	f_b/Ω	951	423	238	152	106	78	59	47	38
		Φf_b	1430	636	357	229	159	117	89	71	57
		L/360	1934	573	242	124	72	45	30	21	15
		L/240	2901	859	363	186	107	68	45	32	23
		L/180	3867	1146	483	248	143	90	60	42	31
		L/120	5801	1719	725	371	215	135	91	64	46
20/18	Single Span	f_b/Ω	611	272	153	98	68	50	38	30	24
		Φf_b	919	408	230	147	102	75	57	45	37
		L/360	1101	326	138	70	41	26	17	12	9
		L/240	1651	489	206	106	61	39	26	18	13
		L/180	2202	652	275	141	82	51	34	24	18
		L/120	3303	979	413	211	122	77	52	36	26
	Double Span	f_b/Ω	1045	464	261	167	116	85	65	52	42
		Φf_b	1571	698	393	251	175	128	98	78	63
		L/360	2652	786	331	170	98	62	41	29	21
		L/240	3978	1179	497	255	147	93	62	44	32
		L/180	5304	1571	663	339	196	124	83	58	42
		L/120	7956	2357	994	509	295	186	124	87	64
	Triple Span	f_b/Ω	955	424	239	153	106	78	60	47	38
		Φf_b	1435	638	359	230	159	117	90	71	57
		L/360	2077	616	260	133	77	48	32	23	17
		L/240	3116	923	390	199	115	73	49	34	25
		L/180	4155	1231	519	266	154	97	65	46	33
		L/120	6232	1847	779	399	231	145	97	68	50
20/16	Single Span	f_b/Ω	652	290	163	104	72	53	41	32	26
		Φf_b	979	435	245	157	109	80	61	48	39
		L/360	1144	339	143	73	42	27	18	13	9
		L/240	1717	509	215	110	64	40	27	19	14
		L/180	2289	678	286	146	85	53	36	25	18
		L/120	3433	1017	429	220	127	80	54	38	27
	Double Span	f_b/Ω	1076	478	269	172	120	88	67	53	43
		Φf_b	1617	719	404	259	180	132	101	80	65
		L/360	2757	817	345	176	102	64	43	30	22
		L/240	4135	1225	517	265	153	96	65	45	33
		L/180	5514	1634	689	353	204	129	86	61	44
		L/120	8270	2451	1034	529	306	193	129	91	66
	Triple Span	f_b/Ω	1018	453	255	163	113	83	64	50	41
		Φf_b	1530	680	383	245	170	125	96	76	61
		L/360	2160	640	270	138	80	50	34	24	17
		L/240	3240	960	405	207	120	76	51	36	26
		L/180	4319	1280	540	276	160	101	67	47	35
		L/120	6479	1920	810	415	240	151	101	71	52

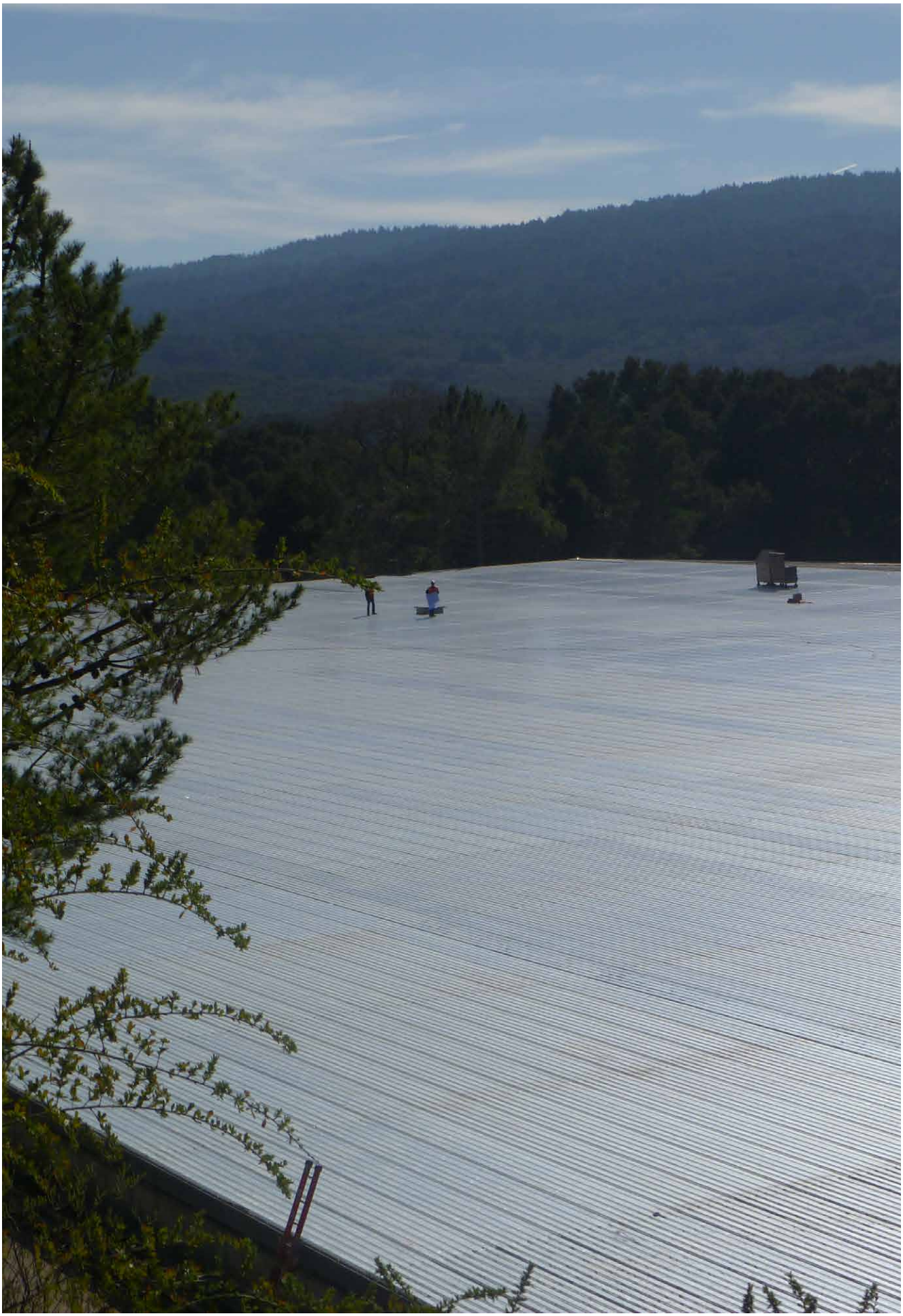
3.3 **DGNF-32 & NF-32**

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

18/20	Single Span	f_b/Ω	995	442	249	159	111	81	62	49	40
		Φf_b	1495	665	374	239	166	122	93	74	60
		L/360	1323	392	165	85	49	31	21	15	11
		L/240	1985	588	248	127	74	46	31	22	16
		L/180	2646	784	331	169	98	62	41	29	21
		L/120	3969	1176	496	254	147	93	62	44	32
	Double Span	f_b/Ω	1319	586	330	211	147	108	82	65	53
		Φf_b	1983	881	496	317	220	162	124	98	79
		L/360	3187	944	398	204	118	74	50	35	25
		L/240	4781	1417	598	306	177	112	75	52	38
		L/180	6374	1889	797	408	236	149	100	70	51
		L/120	9562	2833	1195	612	354	223	149	105	76
	Triple Span	f_b/Ω	1555	691	389	249	173	127	97	77	62
		Φf_b	2336	1038	584	374	260	191	146	115	93
		L/360	2497	740	312	160	92	58	39	27	20
		L/240	3745	1110	468	240	139	87	59	41	30
		L/180	4994	1480	624	320	185	116	78	55	40
		L/120	7490	2219	936	479	277	175	117	82	60
18/18	Single Span	f_b/Ω	1018	452	254	163	113	83	64	50	41
		Φf_b	1529	680	382	245	170	125	96	76	61
		L/360	1425	422	178	91	53	33	22	16	11
		L/240	2137	633	267	137	79	50	33	23	17
		L/180	2850	844	356	182	106	66	45	31	23
		L/120	4275	1267	534	274	158	100	67	47	34
	Double Span	f_b/Ω	1363	606	341	218	151	111	85	67	55
		Φf_b	2049	911	512	328	228	167	128	101	82
		L/360	3433	1017	429	220	127	80	54	38	27
		L/240	5149	1526	644	330	191	120	80	57	41
		L/180	6865	2034	858	439	254	160	107	75	55
		L/120	10298	3051	1287	659	381	240	161	113	82
	Triple Span	f_b/Ω	1590	707	397	254	177	130	99	79	64
		Φf_b	2390	1062	597	382	266	195	149	118	96
		L/360	2689	797	336	172	100	63	42	30	22
		L/240	4034	1195	504	258	149	94	63	44	32
		L/180	5378	1593	672	344	199	125	84	59	43
		L/120	8067	2390	1008	516	299	188	126	89	65
18/16	Single Span	f_b/Ω	1011	449	253	162	112	82	63	50	40
		Φf_b	1519	675	380	243	169	124	95	75	61
		L/360	1522	451	190	97	56	36	24	17	12
		L/240	2284	677	285	146	85	53	36	25	18
		L/180	3045	902	381	195	113	71	48	33	24
		L/120	4567	1353	571	292	169	107	71	50	37
	Double Span	f_b/Ω	1401	623	350	224	156	114	88	69	56
		Φf_b	2105	936	526	337	234	172	132	104	84
		L/360	3667	1087	458	235	136	86	57	40	29
		L/240	5501	1630	688	352	204	128	86	60	44
		L/180	7335	2173	917	469	272	171	115	80	59
		L/120	11002	3260	1375	704	407	257	172	121	88
	Triple Span	f_b/Ω	1579	702	395	253	175	129	99	78	63
		Φf_b	2373	1055	593	380	264	194	148	117	95
		L/360	2873	851	359	184	106	67	45	32	23
		L/240	4310	1277	539	276	160	101	67	47	34
		L/180	5746	1703	718	368	213	134	90	63	46
		L/120	8619	2554	1077	552	319	201	135	95	69

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

16/20	Single Span	f_b/Ω	1338	595	335	214	149	109	84	66	54
		Φf_b	2011	894	503	322	223	164	126	99	80
		L/360	1629	483	204	104	60	38	25	18	13
		L/240	2443	724	305	156	90	57	38	27	20
		L/180	3257	965	407	208	121	76	51	36	26
		L/120	4886	1448	611	313	181	114	76	54	39
	Double Span	f_b/Ω	1630	724	407	261	181	133	102	80	65
		Φf_b	2449	1089	612	392	272	200	153	121	98
		L/360	3923	1162	490	251	145	92	61	43	31
		L/240	5885	1744	736	377	218	137	92	65	47
		L/180	7847	2325	981	502	291	183	123	86	63
		L/120	11770	3487	1471	753	436	275	184	129	94
	Triple Span	f_b/Ω	2037	905	509	326	226	166	127	101	81
		Φf_b	3062	1361	765	490	340	250	191	151	122
		L/360	3073	911	384	197	114	72	48	34	25
		L/240	4610	1366	576	295	171	108	72	51	37
		L/180	6147	1821	768	393	228	143	96	67	49
		L/120	9220	2732	1153	590	341	215	144	101	74
16/18	Single Span	f_b/Ω	1369	609	342	219	152	112	86	68	55
		Φf_b	2058	915	515	329	229	168	129	102	82
		L/360	1756	520	220	112	65	41	27	19	14
		L/240	2634	781	329	169	98	61	41	29	21
		L/180	3512	1041	439	225	130	82	55	39	28
		L/120	5268	1561	659	337	195	123	82	58	42
	Double Span	f_b/Ω	1679	746	420	269	187	137	105	83	67
		Φf_b	2523	1121	631	404	280	206	158	125	101
		L/360	4230	1253	529	271	157	99	66	46	34
		L/240	6345	1880	793	406	235	148	99	70	51
		L/180	8461	2507	1058	541	313	197	132	93	68
		L/120	12691	3760	1586	812	470	296	198	139	102
	Triple Span	f_b/Ω	2098	933	525	336	233	171	131	104	84
		Φf_b	3154	1402	788	505	350	257	197	156	126
		L/360	3314	982	414	212	123	77	52	36	27
		L/240	4971	1473	621	318	184	116	78	55	40
		L/180	6628	1964	828	424	245	155	104	73	53
		L/120	9942	2946	1243	636	368	232	155	109	80
16/16	Single Span	f_b/Ω	1396	621	349	223	155	114	87	69	56
		Φf_b	2099	933	525	336	233	171	131	104	84
		L/360	1875	556	234	120	69	44	29	21	15
		L/240	2813	833	352	180	104	66	44	31	23
		L/180	3750	1111	469	240	139	87	59	41	30
		L/120	5625	1667	703	360	208	131	88	62	45
	Double Span	f_b/Ω	1721	765	430	275	191	141	108	85	69
		Φf_b	2587	1150	647	414	287	211	162	128	103
		L/360	4517	1338	565	289	167	105	71	50	36
		L/240	6775	2007	847	434	251	158	106	74	54
		L/180	9033	2677	1129	578	335	211	141	99	72
		L/120	13550	4015	1694	867	502	316	212	149	108
	Triple Span	f_b/Ω	2152	956	538	344	239	176	134	106	86
		Φf_b	3234	1437	809	517	359	264	202	160	129
		L/360	3538	1048	442	226	131	83	55	39	28
		L/240	5307	1573	663	340	197	124	83	58	42
		L/180	7077	2097	885	453	262	165	111	78	57
		L/120	10615	3145	1327	679	393	248	166	116	85

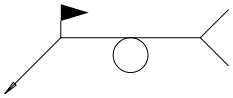


ASC Steel Deck®

DGN-32 & DGNF-32 3.4

Arc Spot/Seam Welds to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	2744	4391	2744	4391	2744	4391	2744	4391	2744	4391	2744	4391	2351	3761	1857	2972	1504	2407
			F	3.2	-0.1R	3.3	-0.1R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R
		6"	q_a q_f	2744	4391	2744	4391	2744	4391	2744	4391	2744	4391	2744	4391	2351	3761	1857	2972	1504	2407
			F	3.6	-0.2R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R
		8"	q_a q_f	2744	4391	2744	4391	2744	4391	2712	4391	2679	4391	2655	4381	2351	3761	1857	2972	1504	2407
			F	4	-0.3R	4.1	-0.2R	4.2	-0.2R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R
		12"	q_a q_f	2476	4086	2280	3762	2175	3589	2110	3481	2065	3407	2033	3354	2008	3314	1857	2972	1504	2407
			F	4.6	-0.4R	4.8	-0.4R	5	-0.3R	5	-0.3R	5.1	-0.2R	5.1	-0.2R	5.2	-0.2R	5.2	-0.2R	5.2	-0.2R
		18"	q_a q_f	2159	3563	1807	2982	1813	2992	1659	2737	1552	2561	1593	2629	1521	2509	1463	2415	1502	2407
			F	5.2	-0.6R	5.8	-0.7R	5.7	-0.5R	6	-0.5R	6.3	-0.5R	6.2	-0.4R	6.4	-0.4R	6.5	-0.4R	6.4	-0.3R
		24"	q_a q_f	1795	2962	1540	2540	1405	2318	1322	2182	1266	2089	1226	2022	1195	1972	1171	1933	1152	1901
			F	6	-1R	6.6	-1R	7	-0.9R	7.2	-0.8R	7.4	-0.8R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.8	-0.6R
	18 ga	4"	q_a q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F	4.1	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	+0R	4.3	+0R	4.3	+0R
		6"	q_a q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F	4.7	-0.3R	4.8	-0.2R	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R
		8"	q_a q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F	5.1	-0.4R	5.3	-0.3R	5.4	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R
		12"	q_a q_f	1826	2921	1805	2921	1723	2843	1672	2759	1637	2701	1612	2660	1593	2628	1340	2144	1085	1737
			F	5.9	-0.7R	6.3	-0.6R	6.5	-0.5R	6.6	-0.5R	6.7	-0.4R	6.8	-0.4R	6.8	-0.3R	6.9	-0.3R	6.9	-0.3R
		18"	q_a q_f	1707	2816	1430	2360	1437	2370	1315	2170	1231	2032	1264	2086	1207	1992	1162	1917	1085	1737
			F	6.6	-0.9R	7.5	-1R	7.4	-0.8R	7.9	-0.8R	8.3	-0.8R	8.1	-0.6R	8.4	-0.6R	8.6	-0.6R	8.4	-0.5R
		24"	q_a q_f	1418	2340	1218	2010	1113	1836	1048	1729	1004	1657	972	1605	949	1565	930	1534	915	1510
			F	7.5	-1.4R	8.4	-1.4R	9	-1.3R	9.4	-1.2R	9.7	-1.2R	9.9	-1.1R	10.1	-1R	10.2	-1R	10.4	-0.9R
	20 ga	4"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	5.7	-0.2R	5.8	-0.2R	5.8	-0.2R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R
		6"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	6.4	-0.4R	6.6	-0.4R	6.7	-0.3R	6.8	-0.3R	6.9	-0.2R	6.9	-0.2R	6.9	-0.2R	6.9	-0.2R	7	-0.2R
		8"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	7	-0.7R	7.4	-0.6R	7.6	-0.5R	7.7	-0.4R	7.8	-0.4R	7.8	-0.3R	7.9	-0.3R	7.9	-0.3R	7.9	-0.3R
		12"	q_a q_f	1081	1730	1081	1730	1042	1720	1013	1671	993	1638	978	1614	967	1596	879	1407	712	1140
			F	8.1	-1.1R	8.7	-1R	9	-0.9R	9.3	-0.8R	9.4	-0.7R	9.6	-0.7R	9.7	-0.6R	9.8	-0.6R	9.8	-0.5R
		18"	q_a q_f	1027	1694	864	1425	870	1435	798	1316	748	1234	769	1268	734	1212	707	1167	712	1140
			F	8.8	-1.4R	10.2	-1.6R	10.3	-1.3R	11	-1.3R	11.6	-1.3R	11.5	-1.1R	11.9	-1.1R	12.3	-1.1R	12	-1R
		24"	q_a q_f	852	1405	735	1212	673	1111	635	1048	610	1006	591	975	577	952	566	934	557	920
			F	10	-2R	11.4	-2.1R	12.3	-2.1R	13	-2.1R	13.5	-2R	13.9	-1.9R	14.2	-1.8R	14.5	-1.7R	14.7	-1.6R
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.9	-0.4R	7.1	-0.3R	7.2	-0.2R	7.2	-0.2R	7.3	-0.2R	7.3	-0.1R	7.3	-0.1R	7.3	-0.1R	7.4	-0.1R
		6"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	7.8	-0.6R	8.1	-0.5R	8.3	-0.4R	8.4	-0.4R	8.5	-0.3R	8.6	-0.3R	8.6	-0.3R	8.6	-0.3R	8.7	-0.2R
		8"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	8.6	-0.9R	9.1	-0.8R	9.3	-0.7R	9.5	-0.6R	9.6	-0.6R	9.7	-0.5R	9.8	-0.5R	9.9	-0.4R	9.9	-0.4R
		12"	q_a q_f	772	1235	769	1235	735	1212	713	1177	699	1153	688	1135	680	1122	673	1077	545	872
			F	9.8	-1.4R	10.6	-1.3R	11.1	-1.2R	11.5	-1.1R	11.7	-1.1R	11.9	-1R	12.1	-0.9R	12.2	-0.8R	12.3	-0.8R
		18"	q_a q_f	727	1199	610	1006	613	1011	561	926	526	867	540	891	515	850	496	819	509	840
			F	10.6	-1.8R	12.4	-2.1R	12.6	-1.8R	13.6	-1.8R	14.4	-1.9R	14.2	-1.6R	14.8	-1.6R	15.3	-1.6R	15.1	-1.4R
		24"	q_a q_f	604	996	519	856	474	783	447	738	429	707	415	685	405	668	397	655	391	645
			F	11.9	-2.5R	13.7	-2.7R	15	-2.8R	15.9	-2.8R	16.6	-2.7R	17.2	-2.6R	17.7	-2.5R	18.1	-2.4R	18.4	-2.3R

N-32 32/5 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: DeltaGrip DG4™

3.5 DGN-32 & DGNF-32

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	3.2 -0.1R	3.3 -0.1R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R
		6"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	3.6 -0.2R	3.7 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R
		8"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	4 -0.2R	4.1 -0.2R	4.2 -0.2R	4.2 -0.1R	4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R
		12"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	4.7 -0.4R	4.9 -0.4R	5 -0.3R	5.1 -0.3R	5.1 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R
		18"	q_a q_f	1452 2337	1357 2185	1402 2257	1352 2176	1314 2116	1349 2173	1322 2128	1299 2091	1326 2135
			F	5.3 -0.6R	5.9 -0.6R	5.8 -0.5R	6.1 -0.5R	6.4 -0.5R	6.2 -0.4R	6.4 -0.4R	6.6 -0.3R	6.4 -0.3R
		24"	q_a q_f	1248 2010	1194 1922	1164 1874	1146 1845	1133 1824	1124 1809	1117 1798	1111 1789	1107 1782
			F	6.2 -1R	6.8 -0.9R	7.1 -0.9R	7.4 -0.8R	7.5 -0.7R	7.7 -0.7R	7.8 -0.6R	7.8 -0.6R	7.9 -0.5R
	18 ga	4"	q_a q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 2380	1182 1903	1182 2380	1085 1737
			F	3.2 -0.1R	3.3 -0.1R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R
		6"	q_a q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1085 1737
			F	3.6 -0.2R	3.7 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R
		8"	q_a q_f	1182 1903	1182 2380	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 2380	1085 1737
			F	4 -0.2R	4.1 -0.2R	4.2 -0.2R	4.2 -0.1R	4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R
		12"	q_a q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1478 1737
			F	4.7 -0.4R	4.9 -0.4R	5 -0.3R	5.1 -0.3R	5.1 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R
		18"	q_a q_f	1159 1866	1083 1744	1119 1802	1079 1737	1049 1688	1077 1734	1055 1698	1036 1669	1058 1704
			F	5.3 -0.6R	5.9 -0.6R	5.8 -0.5R	6.1 -0.5R	6.4 -0.5R	6.2 -0.4R	6.4 -0.4R	6.6 -0.3R	6.4 -0.3R
		24"	q_a q_f	996 1604	953 1534	929 1495	914 1472	904 1455	896 1443	891 1434	887 1427	883 1422
			F	6.2 -1R	6.8 -0.9R	7.1 -0.9R	7.4 -0.8R	7.5 -0.7R	7.7 -0.7R	7.8 -0.6R	7.8 -0.6R	7.9 -0.5R
	20 ga	4"	q_a q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1407	712 1140
			F	5.7 -0.2R	5.8 -0.2R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	6 -0.1R
		6"	q_a q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1407	712 1140
			F	6.5 -0.4R	6.7 -0.3R	6.8 -0.3R	6.8 -0.2R	6.9 -0.2R	6.9 -0.2R	6.9 -0.2R	7 -0.2R	7 -0.1R
		8"	q_a q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1407	712 1140
			F	7.1 -0.6R	7.4 -0.5R	7.6 -0.5R	7.7 -0.4R	7.8 -0.3R	7.9 -0.3R	7.9 -0.3R	8 -0.3R	8 -0.2R
		12"	q_a q_f	888 1429	877 1412	868 1398	862 1388	858 1382	856 1377	853 1374	852 1371	712 1140
			F	8.2 -1R	8.8 -0.9R	9.2 -0.8R	9.4 -0.8R	9.5 -0.7R	9.7 -0.6R	9.8 -0.6R	9.8 -0.5R	9.9 -0.5R
		18"	q_a q_f	812 1307	746 1200	772 1243	738 1187	712 1147	734 1182	716 1152	700 1128	712 1140
			F	9.1 -1.4R	10.5 -1.6R	10.5 -1.3R	11.2 -1.3R	11.8 -1.3R	11.6 -1.1R	12 -1R	12.4 -1R	12.2 -0.9R
		24"	q_a q_f	685 1104	646 1040	624 1005	611 984	602 969	595 958	590 950	586 944	583 939
			F	10.4 -2.1R	11.8 -2.1R	12.7 -2.1R	13.4 -2R	13.8 -1.9R	14.2 -1.8R	14.5 -1.7R	14.8 -1.6R	15 -1.5R
	22 ga	4"	q_a q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1077	545 872
			F	7 -0.3R	7.1 -0.3R	7.2 -0.2R	7.3 -0.2R	7.3 -0.2R	7.3 -0.1R	7.3 -0.1R	7.4 -0.1R	7.4 -0.1R
		6"	q_a q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1077	545 872
			F	7.9 -0.6R	8.2 -0.5R	8.4 -0.4R	8.5 -0.4R	8.5 -0.3R	8.6 -0.3R	8.6 -0.3R	8.7 -0.2R	8.7 -0.2R
		8"	q_a q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1077	545 872
			F	8.7 -0.9R	9.2 -0.8R	9.4 -0.7R	9.6 -0.6R	9.7 -0.5R	9.8 -0.5R	9.9 -0.4R	9.9 -0.4R	10 -0.4R
		12"	q_a q_f	703 1132	685 1102	675 1086	668 1076	664 1069	661 1064	658 1060	657 1057	545 872
			F	10 -1.4R	10.8 -1.3R	11.3 -1.2R	11.6 -1.1R	11.9 -1R	12.1 -0.9R	12.2 -0.8R	12.3 -0.8R	12.4 -0.7R
		18"	q_a q_f	630 1015	569 917	589 948	558 899	536 863	553 891	537 865	524 844	538 866
			F	11 -1.9R	12.8 -2.1R	12.9 -1.7R	13.9 -1.8R	14.7 -1.8R	14.5 -1.5R	15.1 -1.5R	15.6 -1.5R	15.3 -1.3R
		24"	q_a q_f	526 846	488 785	468 753	455 732	446 718	440 708	435 701	432 695	429 690
			F	12.4 -2.6R	14.2 -2.8R	15.5 -2.8R	16.4 -2.7R	17.1 -2.6R	17.6 -2.5R	18.1 -2.4R	18.4 -2.3R	18.7 -2.2R

N-32 32/5 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DGN-32 & DGNF-32 3.5

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	3.2 -0.1R		3.2 -0.1R		3.2 -0.1R		3.3 -0.1R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R	
		6"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	3.5 -0.2R		3.6 -0.2R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 -0.1R	
		8"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	3.8 -0.3R		4 -0.3R		4.1 -0.2R		4.1 -0.2R		4.2 -0.2R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R	
		12"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	4.4 -0.5R		4.6 -0.4R		4.8 -0.4R		4.9 -0.4R		5 -0.3R		5 -0.3R		5.1 -0.3R		5.1 -0.2R		5.1 -0.2R	
		18"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	4.8 -0.7R		5.4 -0.7R		5.4 -0.6R		5.8 -0.6R		6.1 -0.6R		6 -0.5R		6.2 -0.5R		6.3 -0.5R		6.2 -0.4R	
		24"	q_a q_f	1478	2380	1460	2350	1393	2242	1350	2174	1321	2127	1300	2093	1284	2067	1271	2046	1261	2030
			F	5.4 -1R		6 -1R		6.5 -1R		6.8 -0.9R		7 -0.9R		7.2 -0.8R		7.3 -0.8R		7.4 -0.8R		7.5 -0.7R	
	18 ga	4"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1085	1737
			F	4.1 -0.2R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R	
		6"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1085	1737
			F	4.5 -0.3R		4.7 -0.3R		4.7 -0.2R		4.8 -0.2R		4.8 -0.2R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R	
		8"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1085	1737
			F	4.9 -0.4R		5.1 -0.4R		5.3 -0.3R		5.4 -0.3R		5.4 -0.3R		5.5 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.2R	
		12"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1085	1737
			F	5.5 -0.7R		5.9 -0.7R		6.2 -0.6R		6.4 -0.6R		6.5 -0.5R		6.6 -0.5R		6.6 -0.4R		6.7 -0.4R		6.8 -0.4R	
		18"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1085	1737
			F	6 -0.9R		6.9 -1R		7 -0.9R		7.5 -0.9R		7.9 -0.9R		7.8 -0.8R		8 -0.8R		8.3 -0.8R		8.2 -0.7R	
		24"	q_a q_f	1182	1903	1165	1875	1111	1788	1077	1734	1054	1696	1037	1669	1024	1648	1013	1632	1005	1619
			F	6.7 -1.3R		7.6 -1.4R		8.2 -1.4R		8.7 -1.4R		9 -1.3R		9.3 -1.3R		9.5 -1.2R		9.7 -1.2R		9.9 -1.1R	
	20 ga	4"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1407	712	1140
			F	5.5 -0.3R		5.7 -0.2R		5.8 -0.2R		5.8 -0.2R		5.8 -0.2R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R	
		6"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1407	712	1140
			F	6.2 -0.5R		6.4 -0.4R		6.6 -0.4R		6.7 -0.3R		6.7 -0.3R		6.8 -0.3R		6.8 -0.2R		6.9 -0.2R		6.9 -0.2R	
		8"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1407	712	1140
			F	6.7 -0.7R		7.1 -0.6R		7.3 -0.6R		7.5 -0.5R		7.6 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R		7.8 -0.3R	
		12"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1407	712	1140
			F	7.4 -1.1R		8.1 -1.1R		8.5 -1R		8.8 -0.9R		9 -0.9R		9.2 -0.8R		9.3 -0.8R		9.5 -0.7R		9.5 -0.7R	
		18"	q_a q_f	888	1429	888	1429	888	1429	876	1410	835	1345	859	1383	830	1337	807	1299	712	1140
			F	8 -1.3R		9.2 -1.6R		9.5 -1.4R		10.3 -1.5R		10.9 -1.5R		10.8 -1.3R		11.3 -1.3R		11.7 -1.3R		11.5 -1.2R	
		24"	q_a q_f	873	1406	789	1271	744	1197	715	1151	695	1120	681	1096	670	1079	662	1065	655	1054
			F	8.7 -1.8R		10.1 -2R		11.1 -2.1R		11.8 -2.1R		12.4 -2.1R		12.9 -2.1R		13.3 -2R		13.6 -1.9R		13.9 -1.9R	
	22 ga	4"	q_a q_f	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1077	545	872
			F	6.7 -0.4R		7 -0.3R		7.1 -0.3R		7.1 -0.3R		7.2 -0.2R		7.2 -0.2R		7.3 -0.2R		7.3 -0.2R		7.3 -0.2R	
		6"	q_a q_f	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1077	545	872
			F	7.5 -0.7R		7.8 -0.6R		8.1 -0.5R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.5 -0.4R		8.5 -0.3R		8.5 -0.3R	
		8"	q_a q_f	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1077	545	872
			F	8.1 -0.9R		8.6 -0.9R		8.9 -0.8R		9.2 -0.8R		9.4 -0.7R		9.5 -0.6R		9.6 -0.6R		9.7 -0.5R		9.7 -0.5R	
		12"	q_a q_f	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1077	545	872
			F	8.9 -1.4R		9.8 -1.4R		10.4 -1.4R		10.8 -1.3R		11.1 -1.2R		11.4 -1.2R		11.6 -1.1R		11.8 -1R		11.9 -1R	
		18"	q_a q_f	739	1190	695	1120	705	1135	656	1057	622	1001	639	1029	615	990	595	958	545	872
			F	9.5 -1.7R		11.1 -2R		11.6 -1.9R		12.5 -2R		13.3 -2R		13.3 -1.8R		13.9 -1.8R		14.5 -1.9R		14.3 -1.7R	
		24"	q_a q_f	676	1088	599	965	558	899	532	857	514	828	502	808	492	792	484	779	478	770
			F	10.3 -2.1R		12 -2.5R		13.3 -2.7R		14.3 -2.8R		15.1 -2.8R		15.7 -2.8R		16.3 -2.7R		16.7 -2.7R		17.1 -2.6R	

N-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

3.6 DGN-32 & DGNF-32

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a / q_f	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1857 / 2972	1504 / 2407
			F	3.2 -0.1R	3.3 -0.1R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R
		6"	q_a / q_f	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1857 / 2972	1504 / 2407
			F	3.6 -0.2R	3.7 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R
		8"	q_a / q_f	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1907 / 3070	1857 / 2972	1504 / 2407
			F	4 -0.2R	4.1 -0.2R	4.2 -0.2R	4.2 -0.1R	4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R
		12"	q_a / q_f	1892 / 3046	1852 / 2982	1831 / 2948	1818 / 2926	1809 / 2912	1802 / 2901	1797 / 2893	1793 / 2887	1504 / 2407
			F	4.7 -0.4R	4.9 -0.4R	5 -0.3R	5.1 -0.3R	5.1 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R	5.2 -0.2R
		18"	q_a / q_f	1711 / 2755	1564 / 2519	1620 / 2608	1544 / 2486	1489 / 2397	1535 / 2472	1495 / 2407	1462 / 2354	1498 / 2407
			F	5.2 -0.6R	5.9 -0.7R	5.7 -0.5R	6.1 -0.5R	6.4 -0.5R	6.2 -0.4R	6.4 -0.4R	6.6 -0.4R	6.4 -0.3R
		24"	q_a / q_f	1439 / 2317	1350 / 2174	1303 / 2097	1273 / 2049	1252 / 2016	1238 / 1992	1226 / 1974	1217 / 1960	1210 / 1949
			F	6.1 -1R	6.7 -0.9R	7.1 -0.9R	7.3 -0.8R	7.5 -0.7R	7.6 -0.7R	7.7 -0.6R	7.8 -0.6R	7.9 -0.5R
	18 ga	4"	q_a / q_f	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1340 / 2144	1085 / 1737
			F	4.1 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		6"	q_a / q_f	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1340 / 2144	1085 / 1737
			F	4.7 -0.2R	4.8 -0.2R	4.8 -0.2R	4.9 -0.1R	4.9 -0.1R	4.9 -0.1R	4.9 -0.1R	4.9 -0.1R	5 -0.1R
		8"	q_a / q_f	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1544 / 2485	1340 / 2144	1085 / 1737
			F	5.2 -0.4R	5.3 -0.3R	5.4 -0.3R	5.5 -0.2R	5.5 -0.2R	5.6 -0.2R	5.6 -0.2R	5.6 -0.1R	5.6 -0.1R
		12"	q_a / q_f	1524 / 2453	1491 / 2400	1473 / 2372	1462 / 2354	1455 / 2342	1449 / 2333	1445 / 2326	1340 / 2144	1085 / 1737
			F	6 -0.6R	6.3 -0.6R	6.5 -0.5R	6.6 -0.4R	6.7 -0.4R	6.8 -0.3R	6.8 -0.3R	6.9 -0.3R	6.9 -0.3R
		18"	q_a / q_f	1377 / 2216	1257 / 2023	1301 / 2095	1239 / 1995	1194 / 1923	1232 / 1983	1199 / 1930	1172 / 1887	1085 / 1737
			F	6.7 -0.9R	7.6 -1R	7.5 -0.8R	8 -0.7R	8.4 -0.7R	8.2 -0.6R	8.4 -0.6R	8.7 -0.6R	8.5 -0.5R
		24"	q_a / q_f	1157 / 1862	1084 / 1745	1044 / 1681	1020 / 1642	1003 / 1615	991 / 1596	982 / 1581	975 / 1569	969 / 1560
			F	7.7 -1.4R	8.6 -1.4R	9.1 -1.3R	9.5 -1.2R	9.8 -1.1R	10 -1R	10.2 -1R	10.3 -0.9R	10.4 -0.9R
	20 ga	4"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	5.7 -0.2R	5.8 -0.2R	5.8 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R
		6"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	6.5 -0.4R	6.6 -0.3R	6.8 -0.3R	6.8 -0.2R	6.9 -0.2R	6.9 -0.2R	6.9 -0.2R	7 -0.2R	7 -0.1R
		8"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	7.1 -0.6R	7.4 -0.5R	7.6 -0.5R	7.7 -0.4R	7.8 -0.4R	7.9 -0.3R	7.9 -0.3R	7.9 -0.3R	8 -0.2R
		12"	q_a / q_f	1077 / 1730	1043 / 1679	1025 / 1650	1013 / 1631	1005 / 1618	1000 / 1609	995 / 1602	879 / 1407	712 / 1140
			F	8.2 -1R	8.8 -1R	9.1 -0.9R	9.3 -0.8R	9.5 -0.7R	9.6 -0.6R	9.7 -0.6R	9.8 -0.5R	9.9 -0.5R
		18"	q_a / q_f	959 / 1543	858 / 1381	886 / 1427	836 / 1346	800 / 1288	827 / 1331	800 / 1289	779 / 1255	712 / 1140
			F	9 -1.4R	10.4 -1.6R	10.4 -1.3R	11.2 -1.3R	11.8 -1.3R	11.6 -1.1R	12 -1.1R	12.4 -1R	12.1 -0.9R
		24"	q_a / q_f	796 / 1281	732 / 1178	697 / 1123	676 / 1089	662 / 1065	651 / 1048	643 / 1036	637 / 1026	632 / 1017
			F	10.3 -2R	11.7 -2.1R	12.6 -2.1R	13.2 -2R	13.7 -1.9R	14.1 -1.8R	14.4 -1.7R	14.7 -1.6R	14.9 -1.5R
	22 ga	4"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	7 -0.3R	7.1 -0.3R	7.2 -0.2R	7.3 -0.2R	7.3 -0.2R	7.3 -0.1R	7.3 -0.1R	7.3 -0.1R	7.4 -0.1R
		6"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	7.9 -0.6R	8.2 -0.5R	8.4 -0.4R	8.5 -0.4R	8.5 -0.3R	8.6 -0.3R	8.6 -0.3R	8.7 -0.2R	8.7 -0.2R
		8"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	8.7 -0.9R	9.1 -0.8R	9.4 -0.7R	9.6 -0.6R	9.7 -0.5R	9.8 -0.5R	9.9 -0.4R	9.9 -0.4R	10 -0.4R
		12"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	764 / 1231	758 / 1221	754 / 1214	673 / 1077	545 / 872
			F	9.9 -1.4R	10.7 -1.3R	11.3 -1.2R	11.6 -1.1R	11.8 -1R	12 -0.9R	12.2 -0.9R	12.3 -0.8R	12.4 -0.7R
		18"	q_a / q_f	740 / 1191	650 / 1046	669 / 1076	625 / 1007	595 / 957	614 / 989	593 / 954	575 / 926	545 / 872
			F	10.9 -1.8R	12.6 -2.1R	12.8 -1.8R	13.8 -1.8R	14.6 -1.8R	14.4 -1.5R	15 -1.5R	15.5 -1.5R	15.2 -1.3R
		24"	q_a / q_f	611 / 983	552 / 888	520 / 838	501 / 806	488 / 785	478 / 770	471 / 758	465 / 749	460 / 741
			F	12.3 -2.6R	14.1 -2.8R	15.3 -2.8R	16.2 -2.7R	17 -2.6R	17.5 -2.5R	18 -2.4R	18.3 -2.3R	18.6 -2.2R

N-32 32/5 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DGN-32 & DGNF-32 3.6

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a q_f	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1857	2972	1504	2407
			F	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.3	-0.1R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R
		6"	q_a q_f	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1857	2972	1504	2407
			F	3.5	-0.2R	3.6	-0.2R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		8"	q_a q_f	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1857	2972	1504	2407
			F	3.8	-0.3R	4	-0.3R	4.1	-0.2R	4.1	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R
		12"	q_a q_f	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1857	2972	1504	2407
			F	4.3	-0.5R	4.6	-0.5R	4.8	-0.4R	4.9	-0.4R	5	-0.3R	5	-0.3R	5.1	-0.3R	5.1	-0.3R	5.1	-0.2R
		18"	q_a q_f	1907	3070	1907	3070	1907	3070	1828	2943	1740	2801	1789	2881	1727	2780	1676	2699	1504	2407
			F	4.7	-0.7R	5.4	-0.7R	5.4	-0.6R	5.7	-0.6R	6	-0.6R	5.9	-0.5R	6.1	-0.5R	6.3	-0.5R	6.2	-0.4R
		24"	q_a q_f	1837	2958	1653	2661	1552	2498	1489	2397	1445	2327	1414	2276	1390	2238	1371	2208	1356	2183
			F	5.3	-1R	6	-1R	6.4	-1R	6.7	-0.9R	6.9	-0.9R	7.1	-0.9R	7.3	-0.8R	7.4	-0.8R	7.5	-0.7R
	18 ga	4"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1340	2144	1085	1737
			F	4	-0.2R	4.1	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R
		6"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1340	2144	1085	1737
			F	4.5	-0.3R	4.7	-0.3R	4.7	-0.2R	4.8	-0.2R	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R
		8"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1340	2144	1085	1737
			F	4.9	-0.4R	5.1	-0.4R	5.3	-0.3R	5.3	-0.3R	5.4	-0.3R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R
		12"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1340	2144	1085	1737
			F	5.5	-0.7R	5.9	-0.7R	6.2	-0.6R	6.3	-0.6R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R	6.7	-0.4R	6.7	-0.4R
		18"	q_a q_f	1544	2485	1537	2475	1544	2485	1466	2360	1394	2244	1434	2309	1383	2227	1340	2144	1085	1737
			F	5.9	-0.9R	6.8	-1R	6.9	-0.9R	7.4	-0.9R	7.8	-0.9R	7.7	-0.8R	8	-0.8R	8.3	-0.8R	8.1	-0.7R
		24"	q_a q_f	1477	2379	1327	2136	1244	2003	1193	1920	1158	1864	1132	1822	1112	1791	1097	1766	1085	1737
			F	6.6	-1.3R	7.5	-1.4R	8.1	-1.4R	8.6	-1.4R	9	-1.3R	9.2	-1.3R	9.5	-1.2R	9.7	-1.2R	9.8	-1.1R
	20 ga	4"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	4	-0.2R	4.1	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R
		6"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	4.5	-0.3R	4.7	-0.3R	4.7	-0.2R	4.8	-0.2R	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R
		8"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	4.9	-0.4R	5.1	-0.4R	5.3	-0.3R	5.3	-0.3R	5.4	-0.3R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R
		12"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	5.5	-0.7R	5.9	-0.7R	6.2	-0.6R	6.3	-0.6R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R	6.7	-0.4R	6.7	-0.4R
		18"	q_a q_f	1081	1730	1048	1688	1058	1703	980	1577	925	1489	949	1528	911	1466	879	1407	712	1140
			F	5.9	-0.9R	6.8	-1R	6.9	-0.9R	7.4	-0.9R	7.8	-0.9R	7.7	-0.8R	8	-0.8R	8.3	-0.8R	8.1	-0.7R
		24"	q_a q_f	1030	1658	904	1455	835	1345	793	1276	764	1229	742	1195	726	1169	714	1149	704	1133
			F	6.6	-1.3R	7.5	-1.4R	8.1	-1.4R	8.6	-1.4R	9	-1.3R	9.2	-1.3R	9.5	-1.2R	9.7	-1.2R	9.8	-1.1R
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.7	-0.4R	6.9	-0.4R	7.1	-0.3R	7.1	-0.3R	7.2	-0.2R	7.2	-0.2R	7.2	-0.2R	7.3	-0.2R	7.3	-0.2R
		6"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	7.4	-0.7R	7.8	-0.6R	8	-0.6R	8.2	-0.5R	8.3	-0.5R	8.4	-0.4R	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R
		8"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	8	-0.9R	8.6	-0.9R	8.9	-0.8R	9.1	-0.8R	9.3	-0.7R	9.5	-0.7R	9.6	-0.6R	9.6	-0.6R	9.7	-0.5R
		12"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	8.8	-1.3R	9.7	-1.4R	10.3	-1.4R	10.8	-1.3R	11.1	-1.3R	11.3	-1.2R	11.5	-1.1R	11.7	-1.1R	11.8	-1R
		18"	q_a q_f	772	1235	772	1235	772	1235	731	1177	685	1104	701	1129	670	1079	645	1039	545	872
			F	9.4	-1.7R	11	-2R	11.4	-1.9R	12.4	-2R	13.2	-2.1R	13.2	-1.8R	13.8	-1.9R	14.4	-1.9R	14.2	-1.7R
		24"	q_a q_f	772	1235	690	1111	629	1013	591	952	566	911	547	881	533	858	522	840	513	826
			F	10.1	-2.1R	11.8	-2.5R	13.1	-2.7R	14.1	-2.8R	14.9	-2.8R	15.6	-2.8R	16.1	-2.7R	16.6	-2.7R	17	-2.6R

N-32 32/7 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

3.6 DGN-32 & DGNF-32

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1857 2972	1504 2407
			F	3.2 -0.1R	3.2 -0.1R	3.2 -0.1R	3.3 -0.1R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R
		6"	q_a q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1857 2972	1504 2407
			F	3.5 -0.2R	3.6 -0.2R	3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	3.7 -0.1R	3.8 -0.1R	3.8 -0.1R	3.8 -0.1R
		8"	q_a q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1857 2972	1504 2407
			F	3.8 -0.3R	4 -0.3R	4.1 -0.2R	4.1 -0.2R	4.2 -0.2R	4.2 -0.2R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R
		12"	q_a q_f	1990 3203	1942 3126	1916 3085	1900 3059	1889 3041	1881 3028	1875 3018	1857 2972	1504 2407
			F	4.3 -0.5R	4.6 -0.5R	4.8 -0.4R	4.9 -0.4R	5 -0.3R	5 -0.3R	5.1 -0.3R	5.1 -0.3R	5.1 -0.2R
		18"	q_a q_f	1790 2881	1625 2616	1682 2708	1598 2573	1537 2475	1587 2554	1542 2483	1506 2425	1504 2407
			F	4.7 -0.7R	5.4 -0.7R	5.4 -0.6R	5.7 -0.6R	6 -0.6R	5.9 -0.5R	6.1 -0.5R	6.3 -0.5R	6.2 -0.4R
		24"	q_a q_f	1498 2412	1397 2249	1342 2161	1308 2106	1285 2069	1268 2042	1256 2022	1246 2006	1238 1993
			F	5.3 -1R	6 -1R	6.4 -1R	6.7 -0.9R	6.9 -0.9R	7.1 -0.9R	7.3 -0.8R	7.4 -0.8R	7.5 -0.7R
	18 ga	4"	q_a q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1340 2144	1085 1737
			F	4 -0.2R	4.1 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R	4.2 -0.1R
		6"	q_a q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1340 2144	1085 1737
			F	4.5 -0.3R	4.6 -0.3R	4.7 -0.2R	4.8 -0.2R	4.8 -0.2R	4.9 -0.1R	4.9 -0.1R	4.9 -0.1R	4.9 -0.1R
		8"	q_a q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1340 2144	1085 1737
			F	4.9 -0.4R	5.1 -0.4R	5.2 -0.3R	5.3 -0.3R	5.4 -0.3R	5.5 -0.2R	5.5 -0.2R	5.5 -0.2R	5.5 -0.2R
		12"	q_a q_f	1602 2579	1562 2515	1541 2481	1528 2459	1518 2445	1512 2434	1507 2426	1340 2144	1085 1737
			F	5.5 -0.7R	5.9 -0.7R	6.2 -0.6R	6.3 -0.6R	6.5 -0.5R	6.5 -0.5R	6.6 -0.4R	6.7 -0.4R	6.7 -0.4R
		18"	q_a q_f	1439 2317	1305 2101	1351 2174	1282 2065	1233 1985	1272 2049	1236 1990	1207 1943	1085 1737
			F	5.9 -0.9R	6.8 -1R	6.9 -0.9R	7.4 -0.9R	7.8 -0.9R	7.7 -0.8R	8 -0.8R	8.3 -0.8R	8.1 -0.7R
		24"	q_a q_f	1203 1937	1120 1804	1076 1732	1048 1688	1029 1657	1016 1635	1005 1618	997 1605	990 1595
			F	6.6 -1.3R	7.5 -1.4R	8.1 -1.4R	8.6 -1.4R	8.9 -1.3R	9.2 -1.3R	9.5 -1.2R	9.6 -1.2R	9.8 -1.1R
	20 ga	4"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	5.5 -0.3R	5.7 -0.2R	5.7 -0.2R	5.8 -0.2R	5.8 -0.2R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R
		6"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	6.1 -0.5R	6.4 -0.4R	6.5 -0.4R	6.6 -0.3R	6.7 -0.3R	6.8 -0.3R	6.8 -0.3R	6.8 -0.2R	6.9 -0.2R
		8"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	6.6 -0.7R	7 -0.7R	7.3 -0.6R	7.4 -0.5R	7.5 -0.5R	7.6 -0.5R	7.7 -0.4R	7.8 -0.4R	7.8 -0.4R
		12"	q_a q_f	1081 1730	1081 1730	1066 1716	1052 1694	1043 1679	1036 1668	1031 1660	879 1407	712 1140
			F	7.3 -1.1R	8 -1.1R	8.5 -1R	8.8 -1R	9 -0.9R	9.2 -0.8R	9.3 -0.8R	9.4 -0.7R	9.5 -0.7R
		18"	q_a q_f	999 1609	888 1429	916 1475	861 1386	822 1323	849 1367	821 1322	798 1285	712 1140
			F	7.9 -1.3R	9.1 -1.6R	9.4 -1.4R	10.2 -1.5R	10.8 -1.5R	10.8 -1.3R	11.2 -1.3R	11.6 -1.3R	11.5 -1.2R
		24"	q_a q_f	827 1332	755 1216	717 1154	693 1116	677 1090	665 1071	656 1057	649 1046	644 1037
			F	8.6 -1.7R	9.9 -2R	10.9 -2.1R	11.7 -2.1R	12.2 -2.1R	12.7 -2.1R	13.1 -2R	13.5 -2R	13.7 -1.9R
	22 ga	4"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	6.7 -0.4R	6.9 -0.4R	7 -0.3R	7.1 -0.3R	7.2 -0.2R	7.2 -0.2R	7.2 -0.2R	7.3 -0.2R	7.3 -0.2R
		6"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	7.4 -0.7R	7.8 -0.6R	8 -0.6R	8.2 -0.5R	8.3 -0.5R	8.4 -0.4R	8.4 -0.4R	8.5 -0.3R	8.5 -0.3R
		8"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	8 -0.9R	8.5 -0.9R	8.9 -0.8R	9.1 -0.8R	9.3 -0.7R	9.4 -0.7R	9.5 -0.6R	9.6 -0.6R	9.7 -0.5R
		12"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	8.8 -1.3R	9.7 -1.4R	10.3 -1.4R	10.7 -1.3R	11.1 -1.3R	11.3 -1.2R	11.5 -1.1R	11.7 -1.1R	11.8 -1R
		18"	q_a q_f	770 1235	671 1081	689 1109	642 1034	609 981	629 1013	606 975	587 945	545 872
			F	9.4 -1.7R	10.9 -2R	11.4 -1.9R	12.4 -2R	13.2 -2.1R	13.2 -1.8R	13.8 -1.9R	14.3 -1.9R	14.2 -1.7R
		24"	q_a q_f	635 1022	569 916	534 860	513 826	498 802	488 785	480 772	473 762	468 754
			F	10.1 -2.1R	11.8 -2.5R	13.1 -2.7R	14.1 -2.8R	14.9 -2.8R	15.5 -2.8R	16.1 -2.7R	16.5 -2.7R	17 -2.6R

N-32 32/5 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DGN-32 & DGNF-32 3.6

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1857	2972	1504	2407
			F	3.1 -0.1R		3.2 -0.1R		3.2 -0.1R		3.2 -0.1R		3.2 -0.1R		3.2 -0.1R		3.3 -0.1R		3.3 -0.1R		3.3 +0R	
		6"	q_a q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1857	2972	1504	2407
			F	3.4 -0.2R		3.5 -0.2R		3.6 -0.2R		3.6 -0.2R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R	
		8"	q_a q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1857	2972	1504	2407
			F	3.6 -0.3R		3.8 -0.3R		3.9 -0.3R		4 -0.3R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.2 -0.2R	
		12"	q_a q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1857	2972	1504	2407
			F	3.9 -0.5R		4.3 -0.5R		4.5 -0.5R		4.6 -0.5R		4.7 -0.4R		4.8 -0.4R		4.9 -0.4R		4.9 -0.3R		5 -0.3R	
		18"	q_a q_f	2053	3306	1986	3198	2019	3250	1884	3034	1788	2879	1839	2960	1771	2851	1717	2764	1504	2407
			F	4.2 -0.6R		4.8 -0.7R		4.9 -0.7R		5.3 -0.7R		5.6 -0.7R		5.5 -0.6R		5.8 -0.6R		5.9 -0.6R		5.9 -0.6R	
		24"	q_a q_f	1919	3090	1713	2757	1600	2577	1530	2463	1482	2386	1447	2329	1420	2287	1399	2253	1383	2226
			F	4.5 -0.8R		5.1 -0.9R		5.6 -1R		6 -1R		6.2 -1R		6.5 -1R		6.7 -1R		6.8 -0.9R		6.9 -0.9R	
	18 ga	4"	q_a q_f	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1340	2144	1085	1737
			F	3.9 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R	
		6"	q_a q_f	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1340	2144	1085	1737
			F	4.3 -0.3R		4.5 -0.3R		4.6 -0.3R		4.7 -0.3R		4.7 -0.2R		4.7 -0.2R		4.8 -0.2R		4.8 -0.2R		4.8 -0.2R	
		8"	q_a q_f	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1340	2144	1085	1737
			F	4.5 -0.5R		4.8 -0.5R		5 -0.4R		5.1 -0.4R		5.2 -0.4R		5.3 -0.3R		5.3 -0.3R		5.4 -0.3R		5.4 -0.3R	
		12"	q_a q_f	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1340	2144	1085	1737
			F	4.9 -0.7R		5.4 -0.7R		5.7 -0.7R		5.9 -0.7R		6.1 -0.6R		6.2 -0.6R		6.3 -0.6R		6.4 -0.5R		6.5 -0.5R	
		18"	q_a q_f	1662	2676	1595	2567	1619	2607	1511	2432	1433	2307	1473	2371	1418	2283	1340	2144	1085	1737
			F	5.2 -0.8R		6 -1R		6.2 -0.9R		6.7 -1R		7.1 -1R		7.1 -0.9R		7.4 -0.9R		7.7 -1R		7.6 -0.9R	
		24"	q_a q_f	1543	2485	1375	2214	1283	2066	1226	1974	1187	1910	1158	1865	1136	1830	1119	1802	1085	1737
			F	5.5 -1R		6.4 -1.2R		7 -1.3R		7.5 -1.4R		7.9 -1.4R		8.2 -1.4R		8.5 -1.4R		8.7 -1.4R		9 -1.3R	
	20 ga	4"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	5.3 -0.3R		5.5 -0.3R		5.6 -0.3R		5.7 -0.2R		5.7 -0.2R		5.8 -0.2R		5.8 -0.2R		5.8 -0.2R		5.8 -0.2R	
		6"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	5.7 -0.5R		6 -0.5R		6.3 -0.5R		6.4 -0.4R		6.5 -0.4R		6.6 -0.4R		6.6 -0.4R		6.7 -0.3R		6.7 -0.3R	
		8"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	6 -0.7R		6.5 -0.7R		6.8 -0.7R		7 -0.7R		7.2 -0.6R		7.3 -0.6R		7.4 -0.6R		7.5 -0.5R		7.5 -0.5R	
		12"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	6.5 -0.9R		7.2 -1R		7.7 -1.1R		8 -1.1R		8.3 -1R		8.5 -1R		8.7 -1R		8.9 -0.9R		9 -0.9R	
		18"	q_a q_f	1081	1730	1081	1730	1081	1730	1007	1622	948	1527	972	1565	931	1499	879	1407	712	1140
			F	6.8 -1.1R		7.8 -1.4R		8.3 -1.4R		9 -1.5R		9.6 -1.6R		9.7 -1.5R		10.2 -1.5R		10.6 -1.6R		10.6 -1.4R	
		24"	q_a q_f	1077	1730	937	1509	862	1387	815	1312	783	1260	759	1222	742	1194	728	1172	712	1140
			F	7.1 -1.3R		8.3 -1.7R		9.2 -1.9R		9.9 -2R		10.6 -2.1R		11.1 -2.1R		11.5 -2.1R		11.9 -2.1R		12.3 -2.1R	
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.4 -0.5R		6.7 -0.4R		6.8 -0.4R		6.9 -0.4R		7 -0.3R		7.1 -0.3R		7.1 -0.3R		7.1 -0.2R		7.2 -0.2R	
		6"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.9 -0.7R		7.3 -0.7R		7.6 -0.7R		7.8 -0.6R		8 -0.6R		8.1 -0.5R		8.2 -0.5R		8.2 -0.5R		8.3 -0.5R	
		8"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	7.2 -0.9R		7.8 -0.9R		8.3 -0.9R		8.6 -0.9R		8.8 -0.9R		9 -0.8R		9.1 -0.8R		9.2 -0.7R		9.3 -0.7R	
		12"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	7.7 -1.1R		8.6 -1.3R		9.2 -1.4R		9.7 -1.4R		10.1 -1.4R		10.4 -1.4R		10.7 -1.3R		10.9 -1.3R		11.1 -1.3R	
		18"	q_a q_f	772	1235	772	1235	772	1235	751	1210	703	1131	717	1155	684	1102	658	1059	545	872
			F	8 -1.3R		9.3 -1.7R		9.9 -1.7R		10.8 -1.9R		11.6 -2.1R		11.8 -2R		12.4 -2R		12.9 -2.1R		12.9 -1.9R	
		24"	q_a q_f	772	1235	716	1154	650	1046	608	980	580	934	560	901	544	876	532	857	522	841
			F	8.4 -1.6R		9.7 -2R		10.9 -2.3R		11.8 -2.5R		12.6 -2.6R		13.3 -2.7R		13.9 -2.8R		14.4 -2.8R		14.9 -2.8R	

N-32 32/7 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

3.7 DGN-32 & DGNF-32

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a 1888	1888	1888	1888	1888	1888	1888	1857	1504	
			q_f 3040	3040	3040	3040	3040	3040	3040	2972	2407	
			F 3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	
		6"	q_a 1888	1888	1888	1888	1888	1888	1888	1857	1504	
			q_f 3040	3040	3040	3040	3040	3040	3040	2972	2407	
			F 3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	
		8"	q_a 1888	1888	1888	1888	1888	1888	1888	1857	1504	
			q_f 3040	3040	3040	3040	3040	3040	3040	2972	2407	
			F 4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	
		12"	q_a 1879	1841	1820	1807	1798	1792	1787	1783	1504	
			q_f 3026	2964	2930	2909	2895	2884	2877	2870	2407	
			F 5.1 -0.3R	5.2 -0.2R	5.2 -0.2R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	
		18"	q_a 1701	1557	1612	1537	1483	1529	1489	1456	1492	
			q_f 2739	2506	2595	2475	2387	2461	2397	2344	2403	
			F 5.9 -0.4R	6.5 -0.4R	6.1 -0.3R	6.5 -0.3R	6.7 -0.2R	6.5 -0.2R	6.6 -0.2R	6.8 -0.2R	6.6 -0.1R	
		24"	q_a 1432	1344	1297	1268	1248	1233	1222	1214	1207	
			q_f 2305	2165	2089	2042	2009	1986	1968	1954	1943	
			F 7.3 -0.8R	7.6 -0.7R	7.9 -0.5R	8 -0.5R	8.1 -0.4R	8.1 -0.4R	8.2 -0.3R	8.2 -0.3R	8.3 -0.3R	
	18 ga	4"	q_a 1551	1551	1551	1551	1551	1551	1551	1340	1085	
			q_f 2497	2497	2497	2497	2497	2497	2497	2144	1737	
			F 4.2 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	
		6"	q_a 1551	1551	1551	1551	1551	1551	1551	1340	1085	
			q_f 2497	2497	2497	2497	2497	2497	2497	2144	1737	
			F 4.9 -0.1R	4.9 -0.1R	5 -0.1R	5 -0.1R	5 -0.1R	5 +0R	5 +0R	5 +0R	5 +0R	
		8"	q_a 1551	1551	1551	1551	1551	1551	1551	1340	1085	
			q_f 2497	2497	2497	2497	2497	2497	2497	2144	1737	
			F 5.5 -0.2R	5.6 -0.2R	5.6 -0.1R	5.6 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	
		12"	q_a 1529	1495	1477	1466	1458	1453	1449	1340	1085	
			q_f 2461	2408	2379	2361	2348	2339	2332	2144	1737	
			F 6.6 -0.4R	6.8 -0.3R	6.9 -0.3R	7 -0.2R	7 -0.2R	7 -0.2R	7.1 -0.2R	7.1 -0.1R	7.1 -0.1R	
		18"	q_a 1380	1260	1304	1242	1197	1234	1201	1174	1085	
			q_f 2222	2028	2100	2000	1927	1987	1934	1891	1737	
			F 7.7 -0.7R	8.5 -0.7R	8.1 -0.4R	8.6 -0.4R	8.9 -0.4R	8.6 -0.3R	8.9 -0.3R	9.1 -0.3R	8.8 -0.2R	
		24"	q_a 1159	1086	1046	1022	1005	993	983	976	970	
			q_f 1867	1748	1685	1645	1618	1598	1583	1572	1562	
			F 9.5 -1.2R	10.1 -1R	10.4 -0.9R	10.6 -0.8R	10.8 -0.7R	10.9 -0.6R	11 -0.5R	11 -0.5R	11.1 -0.5R	
	20 ga	4"	q_a 1081	1081	1081	1081	1081	1081	1081	879	712	
			q_f 1730	1730	1730	1730	1730	1730	1730	1407	1140	
			F 5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	6 -0.1R	6 +0R	6 +0R	6 +0R	6 +0R	6 +0R	
		6"	q_a 1081	1081	1081	1081	1081	1081	1081	879	712	
			q_f 1730	1730	1730	1730	1730	1730	1730	1407	1140	
			F 6.8 -0.3R	6.9 -0.2R	7 -0.1R	7 -0.1R	7 -0.1R	7 -0.1R	7.1 -0.1R	7.1 -0.1R	7.1 -0.1R	
		8"	q_a 1081	1081	1081	1081	1081	1081	1081	879	712	
			q_f 1730	1730	1730	1730	1730	1730	1730	1407	1140	
			F 7.7 -0.4R	7.9 -0.3R	8 -0.2R	8 -0.2R	8.1 -0.2R	8.1 -0.2R	8.1 -0.1R	8.1 -0.1R	8.1 -0.1R	
		12"	q_a 1081	1054	1035	1023	1014	1009	1004	879	712	
			q_f 1730	1697	1666	1647	1633	1624	1616	1407	1140	
			F 9.3 -0.8R	9.7 -0.6R	9.8 -0.5R	10 -0.4R	10 -0.4R	10.1 -0.3R	10.1 -0.3R	10.2 -0.3R	10.2 -0.2R	
		18"	q_a 969	865	894	842	805	832	806	784	712	
			q_f 1559	1393	1439	1356	1297	1340	1297	1263	1140	
			F 10.7 -1.2R	12.1 -1.2R	11.6 -0.8R	12.3 -0.8R	12.9 -0.8R	12.4 -0.6R	12.8 -0.6R	13.2 -0.6R	12.8 -0.5R	
		24"	q_a 803	737	702	680	665	655	647	640	635	
			q_f 1293	1187	1131	1095	1071	1054	1041	1031	1022	
			F 13.1 -2R	14.2 -1.8R	14.8 -1.6R	15.2 -1.4R	15.5 -1.2R	15.7 -1.1R	15.9 -1R	16 -0.9R	16.1 -0.9R	
	22 ga	4"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 7.2 -0.2R	7.3 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 +0R	
		6"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 8.4 -0.4R	8.6 -0.3R	8.7 -0.2R	8.7 -0.2R	8.8 -0.2R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	
		8"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 9.5 -0.6R	9.8 -0.5R	9.9 -0.4R	10 -0.3R	10.1 -0.3R	10.1 -0.2R	10.2 -0.2R	10.2 -0.2R	10.2 -0.2R	
		12"	q_a 772	772	772	772	772	766	762	673	545	
			q_f 1235	1235	1235	1235	1235	1234	1226	1077	872	
			F 11.5 -1.1R	12.1 -0.9R	12.3 -0.8R	12.5 -0.6R	12.6 -0.6R	12.7 -0.5R	12.8 -0.4R	12.9 -0.4R	12.9 -0.4R	
		18"	q_a 750	657	675	631	599	619	597	579	545	
			q_f 1207	1058	1087	1016	965	997	961	932	872	
			F 13.3 -1.7R	15 -1.7R	14.6 -1.2R	15.5 -1.2R	16.2 -1.1R	15.7 -0.9R	16.2 -0.9R	16.7 -0.8R	16.2 -0.7R	
		24"	q_a 619	557	525	505	491	481	474	468	463	
			q_f 996	898	845	813	791	775	763	753	746	
			F 16.1 -2.7R	17.6 -2.5R	18.5 -2.2R	19.1 -2R	19.6 -1.8R	19.9 -1.7R	20.1 -1.5R	20.3 -1.4R	20.5 -1.3R	

N-32 32/5 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

ASC STEEL DECK®

DGN-32 & DGNF-32 3.7

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a q_f	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1857	2972	1504	2407
			F	3.3 -0.1R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R	
		6"	q_a q_f	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1857	2972	1504	2407
			F	3.7 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		8"	q_a q_f	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1857	2972	1504	2407
			F	4.1 -0.2R		4.2 -0.1R		4.2 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R	
		12"	q_a q_f	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1857	2972	1504	2407
			F	4.9 -0.4R		5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		18"	q_a q_f	1888	3040	1888	3040	1888	3040	1821	2931	1733	2790	1783	2871	1721	2771	1671	2691	1504	2407
			F	5.5 -0.6R		6.2 -0.6R		5.9 -0.4R		6.3 -0.4R		6.5 -0.4R		6.3 -0.3R		6.5 -0.3R		6.7 -0.3R		6.5 -0.2R	
		24"	q_a q_f	1827	2941	1645	2648	1546	2488	1483	2388	1441	2319	1410	2269	1386	2231	1367	2202	1353	2178
			F	6.7 -1R		7.2 -0.8R		7.5 -0.7R		7.6 -0.7R		7.8 -0.6R		7.9 -0.5R		8 -0.5R		8 -0.4R		8.1 -0.4R	
	18 ga	4"	q_a q_f	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1340	2144	1085	1737
			F	4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R	
		6"	q_a q_f	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1340	2144	1085	1737
			F	4.8 -0.2R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R	
		8"	q_a q_f	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1340	2144	1085	1737
			F	5.3 -0.3R		5.5 -0.2R		5.5 -0.2R		5.6 -0.2R		5.6 -0.1R		5.6 -0.1R		5.6 -0.1R		5.7 -0.1R		5.7 -0.1R	
		12"	q_a q_f	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1340	2144	1085	1737
			F	6.3 -0.6R		6.6 -0.5R		6.7 -0.4R		6.8 -0.3R		6.9 -0.3R		6.9 -0.3R		7 -0.2R		7 -0.2R		7 -0.2R	
		18"	q_a q_f	1551	2497	1541	2480	1551	2497	1469	2364	1396	2248	1436	2312	1385	2230	1340	2144	1085	1737
			F	7.1 -0.8R		8 -0.9R		7.8 -0.6R		8.3 -0.6R		8.6 -0.6R		8.4 -0.5R		8.7 -0.5R		8.9 -0.4R		8.7 -0.4R	
		24"	q_a q_f	1481	2385	1330	2141	1247	2007	1195	1924	1159	1866	1133	1825	1114	1793	1098	1768	1085	1737
			F	8.5 -1.4R		9.3 -1.3R		9.8 -1.1R		10.1 -1R		10.3 -0.9R		10.5 -0.9R		10.6 -0.8R		10.7 -0.7R		10.8 -0.7R	
	20 ga	4"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	5.8 -0.2R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		6 -0.1R		6 -0.1R		6 +0R	
		6"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	6.6 -0.4R		6.8 -0.3R		6.9 -0.2R		6.9 -0.2R		7 -0.2R		7 -0.1R		7 -0.1R		7 -0.1R		7 -0.1R	
		8"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	7.4 -0.6R		7.6 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		8 -0.2R		8 -0.2R		8 -0.2R		8.1 -0.2R	
		12"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	8.7 -1R		9.2 -0.8R		9.5 -0.7R		9.7 -0.6R		9.8 -0.5R		9.9 -0.5R		9.9 -0.4R		10 -0.4R		10 -0.4R	
		18"	q_a q_f	1081	1730	1058	1703	1066	1716	987	1588	930	1498	955	1537	916	1474	879	1407	712	1140
			F	9.8 -1.4R		11.2 -1.5R		11 -1.1R		11.7 -1.1R		12.3 -1.1R		12 -0.9R		12.4 -0.8R		12.8 -0.8R		12.5 -0.7R	
		24"	q_a q_f	1041	1676	912	1468	842	1355	798	1285	768	1237	746	1202	730	1175	717	1155	707	1138
			F	11.5 -2.1R		12.8 -2.1R		13.6 -1.9R		14.2 -1.8R		14.6 -1.7R		14.9 -1.5R		15.2 -1.4R		15.4 -1.3R		15.5 -1.2R	
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	7.1 -0.3R		7.2 -0.2R		7.3 -0.2R		7.3 -0.1R		7.3 -0.1R		7.4 -0.1R		7.4 -0.1R		7.4 -0.1R		7.4 -0.1R	
		6"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	8.2 -0.5R		8.4 -0.4R		8.5 -0.3R		8.6 -0.3R		8.7 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.2R		8.8 -0.2R	
		8"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	9.1 -0.8R		9.5 -0.6R		9.7 -0.5R		9.8 -0.5R		9.9 -0.4R		10 -0.4R		10 -0.3R		10.1 -0.3R		10.1 -0.3R	
		12"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	10.7 -1.3R		11.4 -1.2R		11.8 -1R		12.1 -0.9R		12.2 -0.8R		12.4 -0.7R		12.5 -0.7R		12.6 -0.6R		12.6 -0.6R	
		18"	q_a q_f	772	1235	772	1235	772	1235	738	1188	691	1113	706	1137	675	1086	649	1046	545	872
			F	12 -1.9R		13.7 -2R		13.7 -1.6R		14.6 -1.6R		15.4 -1.5R		15.1 -1.3R		15.6 -1.2R		16.1 -1.2R		15.7 -1R	
		24"	q_a q_f	772	1235	699	1125	636	1024	597	961	570	919	551	888	537	864	525	846	516	831
			F	13.9 -2.8R		15.7 -2.8R		16.8 -2.7R		17.6 -2.5R		18.2 -2.3R		18.7 -2.2R		19 -2.1R		19.3 -1.9R		19.6 -1.8R	

N-32 32/7 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

3.7 DGN-32 & DGNF-32

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a 1826	1826	1826	1826	1826	1826	1826	1826	1504	
			q_f 2939	2939	2939	2939	2939	2939	2939	2939	2407	
			F 3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	
		6"	q_a 1826	1826	1826	1826	1826	1826	1826	1826	1504	
			q_f 2939	2939	2939	2939	2939	2939	2939	2939	2407	
			F 3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	
		8"	q_a 1826	1826	1826	1826	1826	1826	1826	1826	1504	
			q_f 2939	2939	2939	2939	2939	2939	2939	2939	2407	
			F 4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	
		12"	q_a 1826	1800	1781	1769	1761	1755	1751	1747	1504	
			q_f 2939	2898	2868	2849	2835	2826	2819	2813	2407	
			F 5.1 -0.3R	5.2 -0.2R	5.2 -0.2R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	
		18"	q_a 1666	1529	1583	1512	1460	1505	1466	1435	1470	
			q_f 2682	2462	2548	2434	2351	2422	2361	2311	2367	
			F 5.9 -0.4R	6.5 -0.4R	6.1 -0.3R	6.5 -0.3R	6.7 -0.2R	6.5 -0.2R	6.6 -0.2R	6.8 -0.2R	6.6 -0.1R	
		24"	q_a 1406	1323	1279	1252	1233	1219	1209	1200	1194	
			q_f 2263	2131	2059	2015	1985	1962	1946	1933	1922	
			F 7.3 -0.8R	7.6 -0.7R	7.9 -0.5R	8 -0.5R	8.1 -0.4R	8.1 -0.4R	8.2 -0.3R	8.2 -0.3R	8.3 -0.3R	
	18 ga	4"	q_a 1569	1569	1569	1569	1569	1569	1569	1340	1085	
			q_f 2526	2526	2526	2526	2526	2526	2526	2144	1737	
			F 4.2 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	
		6"	q_a 1569	1569	1569	1569	1569	1569	1569	1340	1085	
			q_f 2526	2526	2526	2526	2526	2526	2526	2144	1737	
			F 4.9 -0.1R	4.9 -0.1R	5 -0.1R	5 -0.1R	5 -0.1R	5 +0R	5 +0R	5 +0R	5 +0R	
		8"	q_a 1569	1569	1569	1569	1569	1569	1569	1340	1085	
			q_f 2526	2526	2526	2526	2526	2526	2526	2144	1737	
			F 5.5 -0.2R	5.6 -0.2R	5.6 -0.1R	5.6 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	
		12"	q_a 1541	1507	1488	1477	1469	1463	1458	1340	1085	
			q_f 2481	2426	2396	2377	2365	2355	2348	2144	1737	
			F 6.6 -0.4R	6.8 -0.3R	6.9 -0.3R	7 -0.2R	7 -0.2R	7 -0.2R	7.1 -0.2R	7.1 -0.1R	7.1 -0.1R	
		18"	q_a 1390	1267	1312	1249	1203	1241	1207	1180	1085	
			q_f 2238	2040	2112	2011	1937	1998	1944	1900	1737	
			F 7.7 -0.7R	8.5 -0.7R	8.1 -0.4R	8.6 -0.4R	8.9 -0.4R	8.6 -0.3R	8.9 -0.3R	9.1 -0.3R	8.8 -0.2R	
		24"	q_a 1167	1092	1051	1026	1009	997	987	980	974	
			q_f 1878	1758	1693	1652	1625	1604	1589	1577	1568	
			F 9.5 -1.2R	10.1 -1R	10.4 -0.9R	10.6 -0.8R	10.8 -0.7R	10.9 -0.6R	11 -0.5R	11 -0.5R	11.1 -0.5R	
	20 ga	4"	q_a 1081	1081	1081	1081	1081	1081	1081	879	712	
			q_f 1730	1730	1730	1730	1730	1730	1730	1407	1140	
			F 5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	6 -0.1R	6 +0R	6 +0R	6 +0R	6 +0R	6 +0R	
		6"	q_a 1081	1081	1081	1081	1081	1081	1081	879	712	
			q_f 1730	1730	1730	1730	1730	1730	1730	1407	1140	
			F 6.8 -0.3R	6.9 -0.2R	7 -0.1R	7 -0.1R	7 -0.1R	7 -0.1R	7.1 -0.1R	7.1 -0.1R	7.1 -0.1R	
		8"	q_a 1081	1081	1081	1081	1081	1081	1081	879	712	
			q_f 1730	1730	1730	1730	1730	1730	1730	1407	1140	
			F 7.7 -0.4R	7.9 -0.3R	8 -0.2R	8 -0.2R	8.1 -0.2R	8.1 -0.2R	8.1 -0.1R	8.1 -0.1R	8.1 -0.1R	
		12"	q_a 1081	1081	1074	1060	1050	1043	1038	879	712	
			q_f 1730	1730	1729	1706	1691	1680	1671	1407	1140	
			F 9.3 -0.8R	9.7 -0.6R	9.8 -0.5R	10 -0.4R	10 -0.4R	10.1 -0.3R	10.1 -0.3R	10.2 -0.3R	10.2 -0.2R	
		18"	q_a 1008	894	922	866	826	854	825	802	712	
			q_f 1622	1439	1484	1394	1330	1375	1329	1292	1140	
			F 10.7 -1.2R	12.1 -1.2R	11.6 -0.8R	12.3 -0.8R	12.9 -0.8R	12.4 -0.6R	12.8 -0.6R	13.2 -0.6R	12.8 -0.5R	
		24"	q_a 834	760	721	697	680	668	659	652	646	
			q_f 1342	1224	1161	1122	1095	1076	1061	1050	1040	
			F 13.1 -2R	14.2 -1.8R	14.8 -1.6R	15.2 -1.4R	15.5 -1.2R	15.7 -1.1R	15.9 -1R	16 -0.9R	16.1 -0.9R	
	22 ga	4"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 7.2 -0.2R	7.3 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 +0R	
		6"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 8.4 -0.4R	8.6 -0.3R	8.7 -0.2R	8.7 -0.2R	8.8 -0.2R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	
		8"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 9.5 -0.6R	9.8 -0.5R	9.9 -0.4R	10 -0.3R	10.1 -0.3R	10.1 -0.2R	10.2 -0.2R	10.2 -0.2R	10.2 -0.2R	
		12"	q_a 772	772	772	772	772	772	772	673	545	
			q_f 1235	1235	1235	1235	1235	1235	1235	1077	872	
			F 11.5 -1.1R	12.1 -0.9R	12.3 -0.8R	12.5 -0.6R	12.6 -0.6R	12.7 -0.5R	12.8 -0.4R	12.9 -0.4R	12.9 -0.4R	
		18"	q_a 772	688	704	655	620	640	616	596	545	
			q_f 1235	1108	1134	1055	998	1031	991	960	872	
			F 13.3 -1.7R	15 -1.7R	14.6 -1.2R	15.5 -1.2R	16.2 -1.1R	15.7 -0.9R	16.2 -0.9R	16.7 -0.8R	16.2 -0.7R	
		24"	q_a 654	583	546	522	506	495	486	480	474	
			q_f 1053	939	878	841	815	797	783	772	763	
			F 16.1 -2.7R	17.6 -2.5R	18.5 -2.2R	19.1 -2R	19.6 -1.8R	19.9 -1.7R	20.1 -1.5R	20.3 -1.4R	20.5 -1.3R	

N-32 32/5 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DGN-32 & DGNF-32 3.7

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a q_f	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1504	2407
			F	3.3	-0.1R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R
		6"	q_a q_f	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1504	2407
			F	3.7	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R
		8"	q_a q_f	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1504	2407
			F	4.1	-0.2R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R
		12"	q_a q_f	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1504	2407
			F	4.9	-0.4R	5	-0.3R	5.1	-0.2R	5.2	-0.2R	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		18"	q_a q_f	1826	2939	1826	2939	1826	2939	1795	2890	1711	2754	1760	2834	1700	2738	1652	2660	1504	2407
			F	5.5	-0.6R	6.2	-0.6R	5.9	-0.4R	6.3	-0.4R	6.5	-0.4R	6.3	-0.3R	6.5	-0.3R	6.7	-0.3R	6.5	-0.2R
		24"	q_a q_f	1791	2884	1618	2605	1524	2453	1465	2358	1424	2293	1395	2245	1372	2209	1354	2181	1340	2158
			F	6.7	-1R	7.2	-0.8R	7.5	-0.7R	7.6	-0.7R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.4R	8.1	-0.4R
	18 ga	4"	q_a q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1340	2144	1085	1737
			F	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R
		6"	q_a q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1340	2144	1085	1737
			F	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		8"	q_a q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1340	2144	1085	1737
			F	5.3	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R	5.6	-0.1R	5.7	-0.1R	5.7	-0.1R
		12"	q_a q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1340	2144	1085	1737
			F	6.3	-0.6R	6.6	-0.5R	6.7	-0.4R	6.8	-0.3R	6.9	-0.3R	6.9	-0.3R	7	-0.2R	7	-0.2R	7	-0.2R
		18"	q_a q_f	1569	2526	1550	2495	1569	2526	1476	2376	1403	2258	1443	2322	1391	2239	1340	2144	1085	1737
			F	7.1	-0.8R	8	-0.9R	7.8	-0.6R	8.3	-0.6R	8.6	-0.6R	8.4	-0.5R	8.7	-0.5R	8.9	-0.4R	8.7	-0.4R
		24"	q_a q_f	1492	2402	1337	2153	1253	2017	1200	1932	1164	1874	1138	1832	1118	1799	1102	1774	1085	1737
			F	8.5	-1.4R	9.3	-1.3R	9.8	-1.1R	10.1	-1R	10.3	-0.9R	10.5	-0.9R	10.6	-0.8R	10.7	-0.7R	10.8	-0.7R
	20 ga	4"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	2526	1081	1730	879	2144	712	1140
			F	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R
		6"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		8"	q_a q_f	1081	1730	1081	2526	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	2144	712	1140
			F	5.3	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R	5.6	-0.1R	5.7	-0.1R	5.7	-0.1R
		12"	q_a q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	1085	1140
			F	6.3	-0.6R	6.6	-0.5R	6.7	-0.4R	6.8	-0.3R	6.9	-0.3R	6.9	-0.3R	7	-0.2R	7	-0.2R	7	-0.2R
		18"	q_a q_f	1081	1730	1081	1730	1081	1730	1013	1631	953	1534	977	1572	935	1506	879	1407	712	1140
			F	7.1	-0.8R	8	-0.9R	7.8	-0.6R	8.3	-0.6R	8.6	-0.6R	8.4	-0.5R	8.7	-0.5R	8.9	-0.4R	8.7	-0.4R
		24"	q_a q_f	1081	1730	944	1520	867	1396	819	1319	786	1266	763	1228	745	1199	731	1176	712	1140
			F	8.5	-1.4R	9.3	-1.3R	9.8	-1.1R	10.1	-1R	10.3	-0.9R	10.5	-0.9R	10.6	-0.8R	10.7	-0.7R	10.8	-0.7R
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1481	772	1235	673	1243	545	872
			F	6.4	-0.2R	6.5	-0.2R	6.5	-0.1R	6.5	-0.1R	6.5	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	7.3	-0.4R	7.5	-0.3R	7.6	-0.3R	7.6	-0.2R	7.7	-0.2R	7.7	-0.2R	7.7	-0.2R	7.8	-0.1R	7.8	-0.1R
		8"	q_a q_f	772	1235	772	1481	772	1235	772	1235	772	1235	772	1235	772	1235	673	1243	545	872
			F	8.1	-0.6R	8.4	-0.5R	8.6	-0.4R	8.7	-0.4R	8.8	-0.3R	8.8	-0.3R	8.9	-0.3R	8.9	-0.2R	8.9	-0.2R
		12"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	629	872
			F	9.6	-1.1R	10.2	-1R	10.5	-0.8R	10.7	-0.7R	10.8	-0.7R	11	-0.6R	11	-0.5R	11.1	-0.5R	11.2	-0.5R
		18"	q_a q_f	772	1235	772	1235	772	1235	767	1235	716	1153	730	1175	695	1120	668	1075	545	872
			F	10.8	-1.6R	12.3	-1.7R	12.2	-1.3R	13	-1.3R	13.7	-1.3R	13.3	-1R	13.8	-1R	14.2	-1R	13.9	-0.8R
		24"	q_a q_f	772	1235	738	1188	666	1073	622	1001	592	953	570	918	553	891	540	870	530	853
			F	12.6	-2.4R	14.1	-2.4R	15	-2.2R	15.7	-2.1R	16.2	-1.9R	16.6	-1.8R	16.8	-1.7R	17.1	-1.6R	17.3	-1.5R

N-32 32/7 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

3.7 DGN-32 & DGNF-32

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2351 3761	1857 2972	1504 2407
			F	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R
		6"	q_a q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2351 3761	1857 2972	1504 2407
			F	3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R
		8"	q_a q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2351 3761	1857 2972	1504 2407
			F	4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		12"	q_a q_f	2197 3537	2128 3426	2091 3366	2067 3329	2051 3303	2040 3284	2031 3270	1857 2972	1504 2407
			F	5.1 -0.3R	5.2 -0.2R	5.2 -0.2R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R
		18"	q_a q_f	1956 3149	1751 2818	1809 2912	1707 2748	1633 2629	1687 2717	1634 2631	1591 2562	1504 2407
			F	5.9 -0.4R	6.5 -0.4R	6.1 -0.3R	6.5 -0.3R	6.7 -0.2R	6.5 -0.2R	6.6 -0.2R	6.8 -0.2R	6.6 -0.1R
		24"	q_a q_f	1624 2614	1494 2405	1424 2293	1381 2223	1351 2175	1330 2141	1313 2115	1301 2094	1291 2078
			F	7.3 -0.8R	7.6 -0.7R	7.9 -0.5R	8 -0.5R	8.1 -0.4R	8.1 -0.4R	8.2 -0.3R	8.2 -0.3R	8.3 -0.3R
	18 ga	4"	q_a q_f	1826 2921	1826 2921	1826 2921	1826 2921	1826 2921	1826 2921	1696 2713	1340 2144	1085 1737
			F	4.2 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		6"	q_a q_f	1826 2921	1826 2921	1826 2921	1826 2921	1826 2921	1826 2921	1696 2713	1340 2144	1085 1737
			F	4.9 -0.1R	4.9 -0.1R	5 -0.1R	5 -0.1R	5 -0.1R	5 +0R	5 +0R	5 +0R	5 +0R
		8"	q_a q_f	1826 2921	1826 2921	1826 2921	1826 2921	1826 2921	1826 2921	1696 2713	1340 2144	1085 1737
			F	5.5 -0.2R	5.6 -0.2R	5.6 -0.1R	5.6 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R
		12"	q_a q_f	1777 2861	1719 2767	1687 2717	1668 2685	1654 2663	1645 2648	1637 2636	1340 2144	1085 1737
			F	6.6 -0.4R	6.8 -0.3R	6.9 -0.3R	7 -0.2R	7 -0.2R	7 -0.2R	7.1 -0.2R	7.1 -0.1R	7.1 -0.1R
		18"	q_a q_f	1580 2543	1410 2271	1457 2345	1373 2210	1313 2113	1356 2184	1313 2114	1278 2057	1085 1737
			F	7.7 -0.7R	8.5 -0.7R	8.1 -0.4R	8.6 -0.4R	8.9 -0.4R	8.6 -0.3R	8.9 -0.3R	9.1 -0.3R	8.8 -0.2R
		24"	q_a q_f	1310 2109	1202 1936	1145 1843	1109 1785	1084 1746	1067 1717	1053 1696	1043 1679	1034 1665
			F	9.5 -1.2R	10.1 -1R	10.4 -0.9R	10.6 -0.8R	10.8 -0.7R	10.9 -0.6R	11 -0.5R	11 -0.5R	11.1 -0.5R
	20 ga	4"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	6 -0.1R	6 +0R	6 +0R	6 +0R	6 +0R	6 +0R
		6"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	6.8 -0.3R	6.9 -0.2R	7 -0.1R	7 -0.1R	7 -0.1R	7 -0.1R	7.1 -0.1R	7.1 -0.1R	7.1 -0.1R
		8"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	7.7 -0.4R	7.9 -0.3R	8 -0.2R	8 -0.2R	8.1 -0.2R	8.1 -0.2R	8.1 -0.1R	8.1 -0.1R	8.1 -0.1R
		12"	q_a q_f	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	1081 1730	879 1407	712 1140
			F	9.3 -0.8R	9.7 -0.6R	9.8 -0.5R	10 -0.4R	10 -0.4R	10.1 -0.3R	10.1 -0.3R	10.2 -0.3R	10.2 -0.2R
		18"	q_a q_f	1072 1726	940 1514	967 1557	904 1455	859 1383	887 1429	855 1377	830 1336	712 1140
			F	10.7 -1.2R	12.1 -1.2R	11.6 -0.8R	12.3 -0.8R	12.9 -0.8R	12.4 -0.6R	12.8 -0.6R	13.2 -0.6R	12.8 -0.5R
		24"	q_a q_f	885 1425	798 1285	752 1210	723 1164	704 1133	690 1110	679 1093	670 1079	664 1069
			F	13.1 -2R	14.2 -1.8R	14.8 -1.6R	15.2 -1.4R	15.5 -1.2R	15.7 -1.1R	15.9 -1R	16 -0.9R	16.1 -0.9R
	22 ga	4"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	7.2 -0.2R	7.3 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 +0R
		6"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	8.4 -0.4R	8.6 -0.3R	8.7 -0.2R	8.7 -0.2R	8.8 -0.2R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R
		8"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	9.5 -0.6R	9.8 -0.5R	9.9 -0.4R	10 -0.3R	10.1 -0.3R	10.1 -0.2R	10.2 -0.2R	10.2 -0.2R	10.2 -0.2R
		12"	q_a q_f	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	772 1235	673 1077	545 872
			F	11.5 -1.1R	12.1 -0.9R	12.3 -0.8R	12.5 -0.6R	12.6 -0.6R	12.7 -0.5R	12.8 -0.4R	12.9 -0.4R	12.9 -0.4R
		18"	q_a q_f	772 1235	689 1110	705 1136	656 1056	621 1000	641 1032	616 992	597 961	545 872
			F	13.3 -1.7R	15 -1.7R	14.6 -1.2R	15.5 -1.2R	16.2 -1.1R	15.7 -0.9R	16.2 -0.9R	16.7 -0.8R	16.2 -0.7R
		24"	q_a q_f	656 1055	584 941	546 880	523 842	507 816	496 798	487 784	480 773	475 764
			F	16.1 -2.7R	17.6 -2.5R	18.5 -2.2R	19.1 -2R	19.6 -1.8R	19.9 -1.7R	20.1 -1.5R	20.3 -1.4R	20.5 -1.3R

N-32 32/5 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DGN-32 & DGNF-32 3.7

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →		4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2351	3761	1857	2972	1504	2407
			F		3.3 -0.1R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R		3.3 +0R	
		6"	q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2351	3761	1857	2972	1504	2407
			F		3.7 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		8"	q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2351	3761	1857	2972	1504	2407
			F		4.1 -0.2R		4.2 -0.1R		4.2 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R	
		12"	q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2351	3761	1857	2972	1504	2407
			F		4.9 -0.4R		5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		18"	q_a	q_f	2393	3852	2140	3445	2159	3476	2000	3220	1888	3039	1937	3119	1859	2994	1797	2893	1504	2407
			F		5.5 -0.6R		6.2 -0.6R		5.9 -0.4R		6.3 -0.4R		6.5 -0.4R		6.3 -0.3R		6.5 -0.3R		6.7 -0.3R		6.5 -0.2R	
		24"	q_a	q_f	2101	3383	1844	2970	1705	2745	1618	2605	1559	2510	1516	2441	1483	2388	1458	2347	1437	2313
			F		6.7 -1R		7.2 -0.8R		7.5 -0.7R		7.6 -0.7R		7.8 -0.6R		7.9 -0.5R		8 -0.5R		8 -0.4R		8.1 -0.4R	
	18 ga	4"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R	
		6"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		4.8 -0.2R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R	
		8"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		5.3 -0.3R		5.5 -0.2R		5.5 -0.2R		5.6 -0.2R		5.6 -0.1R		5.6 -0.1R		5.6 -0.1R		5.7 -0.1R		5.7 -0.1R	
		12"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		6.3 -0.6R		6.6 -0.5R		6.7 -0.4R		6.8 -0.3R		6.9 -0.3R		6.9 -0.3R		7 -0.2R		7 -0.2R		7 -0.2R	
		18"	q_a	q_f	1826	2921	1725	2777	1738	2798	1608	2589	1516	2441	1556	2504	1492	2402	1340	2144	1085	1737
			F		7.1 -0.8R		8 -0.9R		7.8 -0.6R		8.3 -0.6R		8.6 -0.6R		8.4 -0.5R		8.7 -0.5R		8.9 -0.4R		8.7 -0.4R	
		24"	q_a	q_f	1698	2734	1487	2394	1372	2209	1301	2094	1252	2015	1216	1958	1189	1915	1168	1881	1085	1737
			F		8.5 -1.4R		9.3 -1.3R		9.8 -1.1R		10.1 -1R		10.3 -0.9R		10.5 -0.9R		10.6 -0.8R		10.7 -0.7R		10.8 -0.7R	
	20 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		5.8 -0.2R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		5.9 -0.1R		6 -0.1R		6 -0.1R		6 +0R	
		6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		6.6 -0.4R		6.8 -0.3R		6.9 -0.2R		6.9 -0.2R		7 -0.2R		7 -0.1R		7 -0.1R		7 -0.1R		7 -0.1R	
		8"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		7.4 -0.6R		7.6 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		8 -0.2R		8 -0.2R		8 -0.2R		8.1 -0.2R	
		12"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		8.7 -1R		9.2 -0.8R		9.5 -0.7R		9.7 -0.6R		9.8 -0.5R		9.9 -0.5R		9.9 -0.4R		10 -0.4R		10 -0.4R	
		18"	q_a	q_f	1081	1730	1081	1730	1081	1730	1057	1702	990	1594	1012	1630	967	1557	879	1407	712	1140
			F		9.8 -1.4R		11.2 -1.5R		11 -1.1R		11.7 -1.1R		12.3 -1.1R		12 -0.9R		12.4 -0.8R		12.8 -0.8R		12.5 -0.7R	
		24"	q_a	q_f	1081	1730	1000	1610	911	1466	855	1377	817	1316	790	1272	769	1238	753	1212	712	1140
			F		11.5 -2.1R		12.8 -2.1R		13.6 -1.9R		14.2 -1.8R		14.6 -1.7R		14.9 -1.5R		15.2 -1.4R		15.4 -1.3R		15.5 -1.2R	
	22 ga	4"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		7.1 -0.3R		7.2 -0.2R		7.3 -0.2R		7.3 -0.1R		7.3 -0.1R		7.4 -0.1R		7.4 -0.1R		7.4 -0.1R		7.4 -0.1R	
		6"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		8.2 -0.5R		8.4 -0.4R		8.5 -0.3R		8.6 -0.3R		8.7 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.2R		8.8 -0.2R	
		8"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		9.1 -0.8R		9.5 -0.6R		9.7 -0.5R		9.8 -0.5R		9.9 -0.4R		10 -0.4R		10 -0.3R		10.1 -0.3R		10.1 -0.3R	
		12"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		10.7 -1.3R		11.4 -1.2R		11.8 -1R		12.1 -0.9R		12.2 -0.8R		12.4 -0.7R		12.5 -0.7R		12.6 -0.6R		12.6 -0.6R	
		18"	q_a	q_f	772	1235	772	1235	772	1235	768	1235	717	1154	731	1176	696	1121	669	1076	545	872
			F		12 -1.9R		13.7 -2R		13.7 -1.6R		14.6 -1.6R		15.4 -1.5R		15.1 -1.3R		15.6 -1.2R		16.1 -1.2R		15.7 -1R	
		24"	q_a	q_f	772	1235	739	1190	668	1075	623	1003	593	954	571	919	554	892	541	871	530	854
			F		13.9 -2.8R		15.7 -2.8R		16.8 -2.7R		17.6 -2.5R		18.2 -2.3R		18.7 -2.2R		19 -2.1R		19.3 -1.9R		19.6 -1.8R	

N-32 32/7 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

3.7 DGN-32 & DGNF-32

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a / q_f	2658 / 4280	2658 / 4280	2658 / 4280	2658 / 4280	2658 / 4280	2658 / 4280	2351 / 3761	1857 / 2972	1504 / 2407
			F	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R	3.3 +0R
		6"	q_a / q_f	2658 / 4280	2658 / 4280	2658 / 4280	2658 / 4280	2658 / 4280	2658 / 4280	2351 / 3761	1857 / 2972	1504 / 2407
			F	3.8 -0.1R	3.8 -0.1R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R
		8"	q_a / q_f	2658 / 4280	2647 / 4262	2621 / 4220	2604 / 4193	2593 / 4175	2585 / 4162	2351 / 3761	1857 / 2972	1504 / 2407
			F	4.2 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		12"	q_a / q_f	2344 / 3774	2257 / 3634	2210 / 3558	2180 / 3510	2160 / 3477	2145 / 3454	2134 / 3436	1857 / 2972	1504 / 2407
			F	5.1 -0.3R	5.2 -0.2R	5.2 -0.2R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R	5.3 -0.1R
		18"	q_a / q_f	2075 / 3340	1837 / 2958	1895 / 3051	1779 / 2864	1696 / 2731	1753 / 2822	1694 / 2727	1646 / 2650	1504 / 2407
			F	5.9 -0.4R	6.5 -0.4R	6.1 -0.3R	6.5 -0.3R	6.7 -0.2R	6.5 -0.2R	6.6 -0.2R	6.8 -0.2R	6.6 -0.1R
		24"	q_a / q_f	1716 / 2762	1563 / 2516	1481 / 2384	1430 / 2302	1395 / 2247	1370 / 2206	1352 / 2176	1337 / 2152	1325 / 2133
			F	7.3 -0.8R	7.6 -0.7R	7.9 -0.5R	8 -0.5R	8.1 -0.4R	8.1 -0.4R	8.2 -0.3R	8.2 -0.3R	8.3 -0.3R
	18 ga	4"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	4.2 -0.1R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		6"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	4.9 -0.1R	4.9 -0.1R	5 -0.1R	5 -0.1R	5 -0.1R	5 +0R	5 +0R	5 +0R	5 +0R
		8"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	5.5 -0.2R	5.6 -0.2R	5.6 -0.1R	5.6 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R
		12"	q_a / q_f	1826 / 2921	1763 / 2838	1728 / 2782	1706 / 2747	1691 / 2723	1680 / 2705	1672 / 2692	1340 / 2144	1085 / 1737
			F	6.6 -0.4R	6.8 -0.3R	6.9 -0.3R	7 -0.2R	7 -0.2R	7 -0.2R	7.1 -0.2R	7.1 -0.1R	7.1 -0.1R
		18"	q_a / q_f	1620 / 2608	1440 / 2318	1486 / 2392	1397 / 2250	1334 / 2148	1379 / 2220	1333 / 2146	1296 / 2087	1085 / 1737
			F	7.7 -0.7R	8.5 -0.7R	8.1 -0.4R	8.6 -0.4R	8.9 -0.4R	8.6 -0.3R	8.9 -0.3R	9.1 -0.3R	8.8 -0.2R
		24"	q_a / q_f	1341 / 2159	1226 / 1973	1164 / 1874	1126 / 1812	1099 / 1770	1081 / 1740	1066 / 1717	1055 / 1699	1046 / 1684
			F	9.5 -1.2R	10.1 -1R	10.4 -0.9R	10.6 -0.8R	10.8 -0.7R	10.9 -0.6R	11 -0.5R	11 -0.5R	11.1 -0.5R
	20 ga	4"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	6 -0.1R	6 +0R	6 +0R	6 +0R	6 +0R	6 +0R
		6"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	6.8 -0.3R	6.9 -0.2R	7 -0.1R	7 -0.1R	7 -0.1R	7 -0.1R	7.1 -0.1R	7.1 -0.1R	7.1 -0.1R
		8"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	7.7 -0.4R	7.9 -0.3R	8 -0.2R	8 -0.2R	8.1 -0.2R	8.1 -0.2R	8.1 -0.1R	8.1 -0.1R	8.1 -0.1R
		12"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	9.3 -0.8R	9.7 -0.6R	9.8 -0.5R	10 -0.4R	10 -0.4R	10.1 -0.3R	10.1 -0.3R	10.2 -0.3R	10.2 -0.2R
		18"	q_a / q_f	1081 / 1730	950 / 1530	976 / 1572	911 / 1467	865 / 1393	894 / 1439	861 / 1387	835 / 1345	712 / 1140
			F	10.7 -1.2R	12.1 -1.2R	11.6 -0.8R	12.3 -0.8R	12.9 -0.8R	12.4 -0.6R	12.8 -0.6R	13.2 -0.6R	12.8 -0.5R
		24"	q_a / q_f	896 / 1442	806 / 1298	758 / 1221	729 / 1173	708 / 1141	694 / 1117	683 / 1099	674 / 1086	667 / 1074
			F	13.1 -2R	14.2 -1.8R	14.8 -1.6R	15.2 -1.4R	15.5 -1.2R	15.7 -1.1R	15.9 -1R	16 -0.9R	16.1 -0.9R
	22 ga	4"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	7.2 -0.2R	7.3 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 -0.1R	7.4 +0R
		6"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	8.4 -0.4R	8.6 -0.3R	8.7 -0.2R	8.7 -0.2R	8.8 -0.2R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R
		8"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	9.5 -0.6R	9.8 -0.5R	9.9 -0.4R	10 -0.3R	10.1 -0.3R	10.1 -0.2R	10.2 -0.2R	10.2 -0.2R	10.2 -0.2R
		12"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	11.5 -1.1R	12.1 -0.9R	12.3 -0.8R	12.5 -0.6R	12.6 -0.6R	12.7 -0.5R	12.8 -0.4R	12.9 -0.4R	12.9 -0.4R
		18"	q_a / q_f	772 / 1235	708 / 1141	723 / 1164	670 / 1079	633 / 1019	653 / 1052	627 / 1010	607 / 977	545 / 872
			F	13.3 -1.7R	15 -1.7R	14.6 -1.2R	15.5 -1.2R	16.2 -1.1R	15.7 -0.9R	16.2 -0.9R	16.7 -0.8R	16.2 -0.7R
		24"	q_a / q_f	678 / 1092	601 / 967	559 / 900	534 / 859	516 / 832	504 / 811	495 / 796	487 / 784	481 / 775
			F	16.1 -2.7R	17.6 -2.5R	18.5 -2.2R	19.1 -2R	19.6 -1.8R	19.9 -1.7R	20.1 -1.5R	20.3 -1.4R	20.5 -1.3R

N-32 32/5 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DGN-32 & DGNF-32 3.7

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

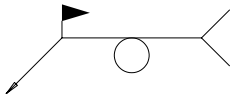
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →		4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a	q_f	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2351	3761	1857	2972	1504	2407
			F		3.3	-0.1R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R	3.3	+0R
		6"	q_a	q_f	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2351	3761	1857	2972	1504	2407
			F		3.7	-0.1R	3.7	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R
		8"	q_a	q_f	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2351	3761	1857	2972	1504	2407
			F		4.1	-0.2R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R
		12"	q_a	q_f	2658	4280	2658	4280	2656	4275	2585	4162	2537	4084	2501	4027	2351	3761	1857	2972	1504	2407
			F		4.9	-0.4R	5	-0.3R	5.1	-0.2R	5.2	-0.2R	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		18"	q_a	q_f	2640	4251	2251	3625	2257	3635	2081	3350	1956	3150	2004	3227	1919	3089	1851	2972	1504	2407
			F		5.5	-0.6R	6.2	-0.6R	5.9	-0.4R	6.3	-0.4R	6.5	-0.4R	6.3	-0.3R	6.5	-0.3R	6.7	-0.3R	6.5	-0.2R
		24"	q_a	q_f	2239	3605	1942	3127	1782	2869	1682	2709	1614	2599	1565	2520	1527	2459	1498	2412	1475	2374
			F		6.7	-1R	7.2	-0.8R	7.5	-0.7R	7.6	-0.7R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.4R	8.1	-0.4R
	18 ga	4"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R	4.3	+0R
		6"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		8"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		5.3	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R	5.6	-0.1R	5.7	-0.1R	5.7	-0.1R
		12"	q_a	q_f	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1826	2921	1696	2713	1340	2144	1085	1737
			F		6.3	-0.6R	6.6	-0.5R	6.7	-0.4R	6.8	-0.3R	6.9	-0.3R	6.9	-0.3R	7	-0.2R	7	-0.2R	7	-0.2R
		18"	q_a	q_f	1826	2921	1762	2837	1771	2851	1635	2633	1539	2478	1578	2541	1512	2435	1340	2144	1085	1737
			F		7.1	-0.8R	8	-0.9R	7.8	-0.6R	8.3	-0.6R	8.6	-0.6R	8.4	-0.5R	8.7	-0.5R	8.9	-0.4R	8.7	-0.4R
		24"	q_a	q_f	1745	2809	1520	2447	1398	2251	1322	2129	1270	2045	1233	1985	1204	1939	1182	1903	1085	1737
			F		8.5	-1.4R	9.3	-1.3R	9.8	-1.1R	10.1	-1R	10.3	-0.9R	10.5	-0.9R	10.6	-0.8R	10.7	-0.7R	10.8	-0.7R
	20 ga	4"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		5.8	-0.2R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	5.9	-0.1R	6	-0.1R	6	-0.1R	6	+0R
		6"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		6.6	-0.4R	6.8	-0.3R	6.9	-0.2R	6.9	-0.2R	7	-0.2R	7	-0.1R	7	-0.1R	7	-0.1R	7	-0.1R
		8"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		7.4	-0.6R	7.6	-0.4R	7.8	-0.4R	7.9	-0.3R	7.9	-0.3R	8	-0.2R	8	-0.2R	8	-0.2R	8.1	-0.2R
		12"	q_a	q_f	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	1081	1730	879	1407	712	1140
			F		8.7	-1R	9.2	-0.8R	9.5	-0.7R	9.7	-0.6R	9.8	-0.5R	9.9	-0.5R	9.9	-0.4R	10	-0.4R	10	-0.4R
		18"	q_a	q_f	1081	1730	1081	1730	1081	1730	1066	1716	998	1606	1019	1641	973	1567	879	1407	712	1140
			F		9.8	-1.4R	11.2	-1.5R	11	-1.1R	11.7	-1.1R	12.3	-1.1R	12	-0.9R	12.4	-0.8R	12.8	-0.8R	12.5	-0.7R
		24"	q_a	q_f	1081	1730	1012	1629	920	1481	863	1389	824	1326	796	1281	774	1246	757	1219	712	1140
			F		11.5	-2.1R	12.8	-2.1R	13.6	-1.9R	14.2	-1.8R	14.6	-1.7R	14.9	-1.5R	15.2	-1.4R	15.4	-1.3R	15.5	-1.2R
	22 ga	4"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		7.1	-0.3R	7.2	-0.2R	7.3	-0.2R	7.3	-0.1R	7.3	-0.1R	7.4	-0.1R	7.4	-0.1R	7.4	-0.1R	7.4	-0.1R
		6"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		8.2	-0.5R	8.4	-0.4R	8.5	-0.3R	8.6	-0.3R	8.7	-0.2R	8.7	-0.2R	8.7	-0.2R	8.7	-0.2R	8.8	-0.2R
		8"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		9.1	-0.8R	9.5	-0.6R	9.7	-0.5R	9.8	-0.5R	9.9	-0.4R	10	-0.4R	10	-0.3R	10.1	-0.3R	10.1	-0.3R
		12"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F		10.7	-1.3R	11.4	-1.2R	11.8	-1R	12.1	-0.9R	12.2	-0.8R	12.4	-0.7R	12.5	-0.7R	12.6	-0.6R	12.6	-0.6R
		18"	q_a	q_f	772	1235	772	1235	772	1235	772	1235	732	1179	745	1200	709	1141	673	1077	545	872
			F		12	-1.9R	13.7	-2R	13.7	-1.6R	14.6	-1.6R	15.4	-1.5R	15.1	-1.3R	15.6	-1.2R	16.1	-1.2R	15.7	-1R
		24"	q_a	q_f	772	1235	765	1231	687	1106	639	1028	606	976	582	938	564	909	550	886	539	868
			F		13.9	-2.8R	15.7	-2.8R	16.8	-2.7R	17.6	-2.5R	18.2	-2.3R	18.7	-2.2R	19	-2.1R	19.3	-1.9R	19.6	-1.8R

N-32 32/7 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

3.8 **N-32**

Arc Spot/Seam Welds to Supports with Top Seam Welded Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	
32/5	16 ga	4"	q_a / q_f	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2351 / 3761	1857 / 2972	1504 / 2407
			F	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R	2.8 +0R
		6"	q_a / q_f	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2351 / 3761	1857 / 2972	1504 / 2407
			F	3.1 -0.1R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R	3.1 +0R
		8"	q_a / q_f	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2744 / 4391	2351 / 3761	1857 / 2972	1504 / 2407
			F	3.3 -0.1R	3.3 -0.1R	3.4 -0.1R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R
		12"	q_a / q_f	2733 / 4391	2563 / 4229	2472 / 4078	2414 / 3984	2375 / 3920	2347 / 3873	2326 / 3761	1857 / 2972	1504 / 2407
			F	3.7 -0.2R	3.8 -0.1R	3.8 -0.1R	3.9 -0.1R	3.9 -0.1R	3.9 -0.1R	3.9 -0.1R	3.9 -0.1R	3.9 -0.1R
		18"	q_a / q_f	2387 / 3939	2039 / 3365	2072 / 3419	1914 / 3158	1803 / 2975	1858 / 3066	1781 / 2939	1720 / 2838	1504 / 2407
			F	4.1 -0.3R	4.5 -0.3R	4.3 -0.2R	4.5 -0.2R	4.6 -0.2R	4.5 -0.1R	4.6 -0.1R	4.7 -0.1R	4.6 -0.1R
		24"	q_a / q_f	1972 / 3253	1730 / 2854	1602 / 2643	1523 / 2513	1469 / 2424	1431 / 2361	1401 / 2312	1379 / 2275	1360 / 2244
			F	4.8 -0.5R	5 -0.4R	5.2 -0.4R	5.3 -0.3R	5.3 -0.3R	5.4 -0.3R	5.4 -0.2R	5.5 -0.2R	5.5 -0.2R
	18 ga	4"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	3.4 +0R	3.5 +0R	3.5 +0R	3.5 +0R	3.5 +0R	3.5 +0R	3.5 +0R	3.5 +0R	3.5 +0R
		6"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	3.7 -0.1R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R
		8"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	4 -0.1R	4 -0.1R	4.1 -0.1R	4.1 -0.1R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R	4.1 +0R
		12"	q_a / q_f	1826 / 2921	1826 / 2921	1826 / 2921	1826 / 2921	1798 / 2921	1775 / 2921	1696 / 2713	1340 / 2144	1085 / 1737
			F	4.5 -0.2R	4.6 -0.2R	4.6 -0.1R	4.6 -0.1R	4.7 -0.1R	4.7 -0.1R	4.7 -0.1R	4.7 -0.1R	4.7 -0.1R
		18"	q_a / q_f	1825 / 2921	1550 / 2558	1571 / 2591	1447 / 2387	1360 / 2245	1401 / 2312	1341 / 2213	1294 / 2135	1085 / 1737
			F	4.9 -0.3R	5.3 -0.3R	5.1 -0.2R	5.3 -0.2R	5.5 -0.2R	5.4 -0.2R	5.5 -0.1R	5.6 -0.1R	5.5 -0.1R
		24"	q_a / q_f	1509 / 2490	1316 / 2171	1214 / 2003	1151 / 1899	1109 / 1829	1078 / 1778	1055 / 1740	1036 / 1710	1022 / 1686
			F	5.6 -0.6R	5.9 -0.5R	6.1 -0.4R	6.2 -0.4R	6.3 -0.3R	6.3 -0.3R	6.4 -0.3R	6.4 -0.2R	6.4 -0.2R
	20 ga	4"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	4.5 +0R	4.5 +0R	4.5 +0R	4.5 +0R	4.5 +0R	4.5 +0R	4.5 +0R	4.5 +0R	4.5 +0R
		6"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	4.8 -0.1R	4.8 -0.1R	4.8 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R
		8"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	5.1 -0.1R	5.2 -0.1R	5.2 -0.1R	5.2 -0.1R	5.2 -0.1R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R
		12"	q_a / q_f	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	1081 / 1730	879 / 1407	712 / 1140
			F	5.7 -0.2R	5.8 -0.2R	5.8 -0.2R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R	5.9 -0.1R
		18"	q_a / q_f	1081 / 1730	995 / 1642	1016 / 1677	942 / 1554	890 / 1469	919 / 1516	882 / 1456	853 / 1407	712 / 1140
			F	6.2 -0.4R	6.6 -0.4R	6.4 -0.2R	6.7 -0.2R	6.8 -0.2R	6.7 -0.2R	6.8 -0.2R	6.9 -0.2R	6.8 -0.1R
		24"	q_a / q_f	952 / 1572	844 / 1392	786 / 1297	750 / 1238	726 / 1198	709 / 1169	695 / 1147	685 / 1130	677 / 1117
			F	7 -0.6R	7.3 -0.6R	7.5 -0.5R	7.7 -0.4R	7.7 -0.4R	7.8 -0.3R	7.9 -0.3R	7.9 -0.3R	7.9 -0.3R
	22 ga	4"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	5.3 +0R	5.3 +0R	5.3 +0R	5.3 +0R	5.3 +0R	5.3 +0R	5.3 +0R	5.3 +0R	5.3 +0R
		6"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	5.7 -0.1R	5.7 -0.1R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R
		8"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	6 -0.1R	6 -0.1R	6.1 -0.1R	6.1 -0.1R	6.1 -0.1R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R
		12"	q_a / q_f	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	772 / 1235	673 / 1077	545 / 872
			F	6.6 -0.3R	6.7 -0.2R	6.8 -0.2R	6.8 -0.1R	6.8 -0.1R	6.9 -0.1R	6.9 -0.1R	6.9 -0.1R	6.9 -0.1R
		18"	q_a / q_f	772 / 1235	752 / 1235	770 / 1235	717 / 1183	679 / 1121	702 / 1158	675 / 1114	654 / 1077	545 / 872
			F	7.1 -0.4R	7.6 -0.4R	7.4 -0.3R	7.7 -0.3R	7.9 -0.2R	7.7 -0.2R	7.9 -0.2R	8 -0.2R	7.8 -0.2R
		24"	q_a / q_f	713 / 1176	637 / 1051	597 / 985	572 / 944	555 / 916	543 / 896	534 / 881	526 / 869	521 / 859
			F	8.1 -0.7R	8.4 -0.6R	8.7 -0.5R	8.8 -0.5R	8.9 -0.4R	8.9 -0.4R	9 -0.3R	9 -0.3R	9.1 -0.3R

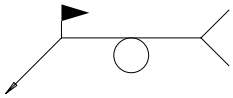
N-32 32/5 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC Steel Deck®

N-32 3.8

Arc Spot/Seam Welds to Supports with Button Punch Side Seam Attachments

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a	972	1603	655	1082	517	852	433	715	378	623	338	558	308	509	285	471	267	440
			q_f																		
			F	7.9	-2R	9.4	-2.3R	10.6	-2.4R	11.4	-2.4R	12.1	-2.4R	12.6	-2.4R	13.1	-2.3R	13.5	-2.2R	13.8	-2.2R
		6"	q_a	938	1548	622	1027	483	797	400	660	344	568	305	503	275	454	252	416	233	385
			q_f																		
			F	8.7	-2.5R	10.7	-3R	12.3	-3.4R	13.6	-3.5R	14.7	-3.6R	15.6	-3.7R	16.4	-3.7R	17	-3.6R	17.6	-3.6R
		8"	q_a	922	1521	605	999	467	770	383	632	328	541	288	475	258	426	235	388	217	357
			q_f																		
			F	9.1	-2.8R	11.6	-3.5R	13.5	-4R	15.2	-4.4R	16.6	-4.6R	17.8	-4.8R	18.9	-4.8R	19.8	-4.9R	20.6	-4.9R
		12"	q_a	905	1493	589	972	450	742	367	605	311	513	271	448	242	399	218	361	200	330
			q_f																		
			F	9.7	-3.1R	12.6	-4.2R	15.1	-5R	17.2	-5.6R	19.2	-6.1R	20.9	-6.4R	22.4	-6.7R	23.8	-6.9R	25	-7.1R
		18"	q_a	897	1480	578	953	442	729	357	588	300	495	262	432	231	382	207	342	190	313
			q_f																		
			F	10	-3.3R	13.3	-4.7R	16	-5.5R	18.8	-6.5R	21.5	-7.4R	23.2	-7.8R	25.5	-8.5R	27.6	-9.1R	28.9	-9.2R
		24"	q_a	888	1466	572	944	433	715	350	577	294	486	255	420	225	371	202	333	183	302
			q_f																		
			F	10.3	-3.5R	13.8	-5R	17	-6.2R	20	-7.3R	22.8	-8.3R	25.4	-9.2R	27.8	-9.9R	30.1	-10.6R	32.2	-11.2R
	18 ga	4"	q_a	777	1282	536	885	427	705	362	597	318	525	287	473	264	435	245	405	231	381
			q_f																		
			F	9.1	-2.3R	10.9	-2.6R	12.1	-2.7R	13.1	-2.7R	13.8	-2.7R	14.4	-2.7R	14.9	-2.6R	15.4	-2.5R	15.7	-2.4R
		6"	q_a	743	1227	503	830	394	650	328	542	285	470	254	418	230	380	212	350	197	326
			q_f																		
			F	10	-2.8R	12.3	-3.4R	14.1	-3.8R	15.6	-4R	16.8	-4.1R	17.8	-4.1R	18.6	-4.1R	19.3	-4.1R	20	-4R
		8"	q_a	727	1199	486	802	377	622	312	514	268	442	237	391	214	352	195	322	181	298
			q_f																		
			F	10.5	-3.1R	13.2	-3.9R	15.4	-4.5R	17.3	-4.9R	18.9	-5.2R	20.2	-5.3R	21.4	-5.4R	22.4	-5.5R	23.3	-5.5R
		12"	q_a	710	1172	469	775	360	595	295	487	251	415	220	363	197	325	179	295	164	271
			q_f																		
			F	11.1	-3.5R	14.3	-4.7R	17.1	-5.5R	19.6	-6.2R	21.7	-6.8R	23.7	-7.2R	25.4	-7.5R	26.9	-7.7R	28.3	-7.9R
		18"	q_a	702	1158	458	756	352	581	285	470	240	396	211	348	186	308	168	277	154	254
			q_f																		
			F	11.4	-3.7R	15.2	-5.2R	18.2	-6.2R	21.3	-7.3R	24.3	-8.3R	26.3	-8.7R	28.8	-9.5R	31.2	-10.2R	32.6	-10.3R
		24"	q_a	693	1144	453	747	344	567	278	459	235	387	204	336	180	297	162	267	147	243
			q_f																		
			F	11.8	-4R	15.7	-5.6R	19.4	-7R	22.7	-8.2R	25.8	-9.3R	28.7	-10.3R	31.4	-11.1R	34	-11.8R	36.3	-12.5R
	20 ga	4"	q_a	493	813	357	590	293	483	254	420	229	377	210	347	196	324	186	307	177	292
			q_f																		
			F	11.1	-2.6R	13	-3R	14.5	-3.1R	15.6	-3.2R	16.5	-3.1R	17.2	-3.1R	17.7	-3R	18.2	-2.9R	18.6	-2.8R
		6"	q_a	459	758	324	535	260	428	221	365	195	322	177	292	163	269	152	252	144	237
			q_f																		
			F	12	-3.2R	14.7	-3.9R	16.8	-4.3R	18.5	-4.6R	19.8	-4.7R	21	-4.7R	22	-4.7R	22.8	-4.7R	23.5	-4.6R
		8"	q_a	443	730	307	507	243	401	204	337	179	295	160	264	146	242	136	224	127	210
			q_f																		
			F	12.6	-3.6R	15.8	-4.6R	18.3	-5.2R	20.5	-5.7R	22.3	-6R	23.8	-6.1R	25.2	-6.3R	26.4	-6.3R	27.4	-6.3R
		12"	q_a	426	703	291	480	226	373	188	310	162	267	144	237	130	214	119	197	111	182
			q_f																		
			F	13.3	-4R	17.1	-5.4R	20.3	-6.4R	23.1	-7.2R	25.6	-7.8R	27.8	-8.3R	29.8	-8.7R	31.5	-8.9R	33.1	-9.1R
		18"	q_a	418	689	280	461	218	360	178	293	151	249	134	221	119	197	108	178	101	166
			q_f																		
			F	13.7	-4.3R	18.1	-6R	21.5	-7.2R	25.1	-8.5R	28.5	-9.6R	30.8	-10.1R	33.8	-11R	36.5	-11.7R	38.1	-11.8R
		24"	q_a	409	675	274	452	210	346	171	282	145	240	127	209	113	187	102	169	94	155
			q_f																		
			F	14.1	-4.6R	18.7	-6.4R	22.8	-8.1R	26.7	-9.5R	30.3	-10.7R	33.7	-11.8R	36.8	-12.8R	39.7	-13.7R	42.4	-14.4R
	22 ga	4"	q_a	379	625	285	470	239	394	211	348	192	317	179	296	169	279	162	267	155	256
			q_f																		
			F	12.5	-2.9R	14.7	-3.3R	16.3	-3.4R	17.5	-3.5R	18.4	-3.4R	19.2	-3.4R	19.8	-3.3R	20.4	-3.2R	20.8	-3.1R
		6"	q_a	345	570	251	415	205	339	178	293	159	262	146	241	136	224	128	212	122	201
			q_f																		
			F	13.6	-3.5R	16.5	-4.3R	18.8	-4.7R	20.6	-5R	22.1	-5.1R	23.4	-5.2R	24.5	-5.2R	25.4	-5.1R	26.2	-5.1R
		8"	q_a	329	542	235	387	189	311	161	265	142	235	129	213	119	197	112	184	105	174
			q_f																		
			F	14.2	-3.9R	17.7	-5R	20.5	-5.7R	22.8	-6.2R	24.8	-6.5R	26.5	-6.7R	28	-6.9R	29.3	-6.9R	30.4	-6.9R
		12"	q_a	312	515	218	360	172	284	144	238	126	207	113	186	103	169	95	157	89	146
			q_f																		
			F	15	-4.4R	19.1	-5.9R	22.6	-7R	25.7	-7.9R	28.4	-8.6R	30.9	-9.1R	33	-9.5R	35	-9.8R	36.7	-10R
		18"	q_a	304	501	207	342	164	270	134	221	115	189	103	170	92	152	84	138	79	130
			q_f																		
			F	15.4	-4.7R	20.2	-6.6R	23.9	-7.8R	27.9	-9.3R	31.7	-10.5R	34.2	-11R	37.4	-12R	40.4	-12.8R	42.1	-13R
		24"	q_a	295	487	201	332	155	256	128	210	109	180	96	158	86	142	78	129	72	119
			q_f																		
			F	15.9	-5R	20.8	-7R	25.4	-8.8R	29.7	-10.4R	33.6	-11.8R	37.3	-13R	40.7	-14R	43.9	-15R	46.9	-15.8R

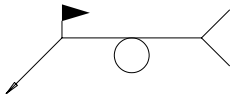
N-32 32/5 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Button Punch

N PANELS

3.8 **N-32**

Arc Spot/Seam Welds to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)



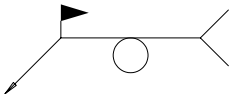
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	2389	3942	2184	3604	2075	3423	2007	3311	1960	3235	1927	3179	1901	3137	1857	2972	1504	2407
			F	3.6	-0.2R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.8	+0R	3.8	+0R
		6"	q_a q_f	1973	3256	1731	2857	1604	2646	1525	2516	1471	2427	1432	2364	1403	2315	1380	2278	1362	2247
			F	4.1	-0.3R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R
		8"	q_a q_f	1738	2868	1479	2440	1342	2214	1258	2076	1201	1982	1160	1915	1130	1864	1105	1824	1086	1792
			F	4.6	-0.4R	4.8	-0.4R	4.9	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.2	-0.2R
		12"	q_a q_f	1486	2452	1174	1937	1035	1708	952	1570	896	1479	857	1413	827	1364	804	1326	785	1295
			F	5.3	-0.7R	5.7	-0.6R	6	-0.6R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R	6.4	-0.4R	6.4	-0.4R	6.5	-0.3R
		18"	q_a q_f	1336	2204	968	1597	880	1453	766	1264	690	1139	680	1122	634	1045	597	986	600	989
			F	5.9	-1R	6.9	-1.1R	6.9	-0.9R	7.4	-0.9R	7.8	-0.9R	7.7	-0.7R	8	-0.7R	8.2	-0.7R	8	-0.6R
		24"	q_a q_f	1181	1949	865	1427	726	1198	643	1060	587	969	547	903	518	854	494	816	476	785
			F	6.8	-1.4R	7.8	-1.5R	8.4	-1.4R	8.8	-1.4R	9.2	-1.3R	9.4	-1.2R	9.6	-1.2R	9.8	-1.1R	10	-1R
	18 ga	4"	q_a q_f	1793	2921	1625	2681	1535	2532	1479	2440	1441	2378	1414	2332	1393	2298	1340	2144	1085	1737
			F	4.3	-0.2R	4.4	-0.1R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	+0R
		6"	q_a q_f	1485	2450	1290	2128	1187	1958	1123	1853	1080	1783	1049	1731	1026	1693	1008	1663	993	1638
			F	4.9	-0.3R	5.1	-0.3R	5.1	-0.2R	5.2	-0.2R	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		8"	q_a q_f	1313	2166	1099	1813	990	1634	925	1526	881	1454	850	1402	827	1364	808	1333	792	1308
			F	5.4	-0.5R	5.7	-0.4R	5.8	-0.3R	5.9	-0.3R	5.9	-0.3R	6	-0.2R	6	-0.2R	6	-0.2R	6.1	-0.2R
		12"	q_a q_f	1119	1846	878	1449	769	1269	704	1161	660	1089	629	1038	606	999	587	969	573	945
			F	6.3	-0.8R	6.7	-0.7R	7	-0.6R	7.1	-0.6R	7.3	-0.5R	7.4	-0.5R	7.4	-0.4R	7.5	-0.4R	7.5	-0.4R
		18"	q_a q_f	1008	1664	731	1206	659	1087	571	942	513	846	503	829	467	771	440	726	440	726
			F	6.9	-1.1R	8	-1.2R	8	-1R	8.6	-1R	9	-1R	8.9	-0.8R	9.2	-0.8R	9.5	-0.8R	9.3	-0.7R
		24"	q_a q_f	898	1481	657	1084	548	904	483	796	439	724	408	673	385	634	366	604	352	580
			F	7.9	-1.6R	9	-1.6R	9.7	-1.6R	10.2	-1.5R	10.6	-1.5R	10.9	-1.4R	11.1	-1.3R	11.3	-1.2R	11.4	-1.2R
	20 ga	4"	q_a q_f	1081	1730	1014	1673	964	1590	932	1538	911	1503	895	1477	883	1458	874	1407	712	1140
			F	5.5	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R
		6"	q_a q_f	916	1511	804	1326	745	1229	708	1169	683	1128	666	1098	652	1076	641	1058	633	1044
			F	6.2	-0.4R	6.3	-0.3R	6.4	-0.3R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		8"	q_a q_f	807	1331	686	1133	623	1028	584	964	558	921	539	890	525	866	514	848	505	833
			F	6.8	-0.6R	7	-0.5R	7.2	-0.4R	7.3	-0.3R	7.4	-0.3R	7.4	-0.3R	7.5	-0.2R	7.5	-0.2R	7.5	-0.2R
		12"	q_a q_f	680	1123	545	899	481	793	442	729	416	687	398	657	384	634	373	616	365	602
			F	7.7	-0.9R	8.2	-0.8R	8.5	-0.7R	8.7	-0.7R	8.9	-0.6R	9	-0.5R	9.1	-0.5R	9.1	-0.5R	9.2	-0.4R
		18"	q_a q_f	608	1004	449	741	409	674	356	587	320	529	316	521	294	486	278	458	279	460
			F	8.5	-1.3R	9.7	-1.4R	9.7	-1.1R	10.4	-1.1R	10.9	-1.1R	10.7	-0.9R	11.1	-0.9R	11.4	-0.9R	11.2	-0.8R
		24"	q_a q_f	537	885	401	662	337	556	298	492	272	450	254	419	240	397	230	379	221	365
			F	9.7	-1.8R	10.9	-1.9R	11.7	-1.9R	12.3	-1.8R	12.7	-1.7R	13	-1.6R	13.3	-1.5R	13.5	-1.4R	13.7	-1.3R
	22 ga	4"	q_a q_f	772	1235	752	1235	717	1183	695	1147	680	1122	669	1104	661	1091	655	1077	545	872
			F	6.4	-0.2R	6.5	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.7	-0.1R
		6"	q_a q_f	675	1114	596	984	554	915	529	872	511	843	498	822	489	807	481	794	475	784
			F	7.2	-0.4R	7.3	-0.3R	7.4	-0.3R	7.5	-0.2R	7.6	-0.2R	7.6	-0.2R	7.6	-0.2R	7.6	-0.1R	7.7	-0.1R
		8"	q_a q_f	594	979	508	838	463	764	436	719	417	688	403	666	393	649	385	636	379	625
			F	7.8	-0.6R	8.1	-0.5R	8.3	-0.4R	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R	8.6	-0.3R	8.6	-0.2R	8.6	-0.2R
		12"	q_a q_f	497	821	403	666	357	589	330	544	311	513	298	491	288	475	280	462	274	452
			F	8.9	-1R	9.4	-0.9R	9.8	-0.8R	10	-0.7R	10.1	-0.7R	10.3	-0.6R	10.3	-0.5R	10.4	-0.5R	10.5	-0.5R
		18"	q_a q_f	443	730	331	545	303	499	264	436	238	393	235	388	220	362	207	342	209	344
			F	9.7	-1.4R	11	-1.5R	11.1	-1.2R	11.8	-1.2R	12.4	-1.2R	12.2	-1R	12.6	-1R	12.9	-1R	12.7	-0.9R
		24"	q_a q_f	388	640	294	485	248	409	220	363	202	333	189	311	179	295	171	282	165	272
			F	11	-2R	12.3	-2.1R	13.2	-2R	13.8	-1.9R	14.3	-1.8R	14.7	-1.7R	15	-1.6R	15.2	-1.5R	15.4	-1.5R

N-32 32/5 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: #12 SD HWH Screw

3.9 **NN-32** 3.9

Arc Spot/Seam Welds to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	2389	3942	2184	3604	2075	3423	2007	3311	1960	3235	1927	3179	1901	3137	1857	2972	1504	2407
			F	3.6 -0.2R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.8 +0R		3.8 +0R	
		6"	q_a q_f	1973	3256	1731	2857	1604	2646	1525	2516	1471	2427	1432	2364	1403	2315	1380	2278	1362	2247
			F	4.1 -0.3R		4.3 -0.2R		4.3 -0.2R		4.4 -0.2R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R	
		8"	q_a q_f	1738	2868	1479	2440	1342	2214	1258	2076	1201	1982	1160	1915	1130	1864	1105	1824	1086	1792
			F	4.6 -0.4R		4.8 -0.4R		4.9 -0.3R		5 -0.3R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R	
		12"	q_a q_f	1486	2452	1174	1937	1035	1708	952	1570	896	1479	857	1413	827	1364	804	1326	785	1295
			F	5.3 -0.7R		5.7 -0.6R		6 -0.6R		6.1 -0.5R		6.2 -0.5R		6.3 -0.4R		6.4 -0.4R		6.4 -0.4R		6.5 -0.3R	
		18"	q_a q_f	1336	2204	968	1597	880	1453	766	1264	690	1139	680	1122	634	1045	597	986	600	989
			F	5.9 -1R		6.9 -1.1R		6.9 -0.9R		7.4 -0.9R		7.8 -0.9R		7.7 -0.7R		8 -0.7R		8.2 -0.7R		8 -0.6R	
		24"	q_a q_f	1181	1949	865	1427	726	1198	643	1060	587	969	547	903	518	854	494	816	476	785
			F	6.8 -1.4R		7.8 -1.5R		8.4 -1.4R		8.8 -1.4R		9.2 -1.3R		9.4 -1.2R		9.6 -1.2R		9.8 -1.1R		10 -1R	
	18 ga	4"	q_a q_f	1793	2921	1625	2681	1535	2532	1479	2440	1441	2378	1414	2332	1393	2298	1340	2144	1085	1737
			F	4.3 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R	
		6"	q_a q_f	1485	2450	1290	2128	1187	1958	1123	1853	1080	1783	1049	1731	1026	1693	1008	1663	993	1638
			F	4.9 -0.3R		5.1 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		8"	q_a q_f	1313	2166	1099	1813	990	1634	925	1526	881	1454	850	1402	827	1364	808	1333	792	1308
			F	5.4 -0.5R		5.7 -0.4R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R	
		12"	q_a q_f	1119	1846	878	1449	769	1269	704	1161	660	1089	629	1038	606	999	587	969	573	945
			F	6.3 -0.8R		6.7 -0.7R		7 -0.6R		7.1 -0.6R		7.3 -0.5R		7.4 -0.5R		7.4 -0.4R		7.5 -0.4R		7.5 -0.4R	
		18"	q_a q_f	1008	1664	731	1206	659	1087	571	942	513	846	503	829	467	771	440	726	440	726
			F	6.9 -1.1R		8 -1.2R		8 -1R		8.6 -1R		9 -1R		8.9 -0.8R		9.2 -0.8R		9.5 -0.8R		9.3 -0.7R	
		24"	q_a q_f	898	1481	657	1084	548	904	483	796	439	724	408	673	385	634	366	604	352	580
			F	7.9 -1.6R		9 -1.6R		9.7 -1.6R		10.2 -1.5R		10.6 -1.5R		10.9 -1.4R		11.1 -1.3R		11.3 -1.2R		11.4 -1.2R	
	20 ga	4"	q_a q_f	1081	1730	1014	1673	964	1590	932	1538	911	1503	895	1477	883	1458	874	1407	712	1140
			F	5.5 -0.2R		5.6 -0.2R		5.6 -0.1R		5.6 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R	
		6"	q_a q_f	916	1511	804	1326	745	1229	708	1169	683	1128	666	1098	652	1076	641	1058	633	1044
			F	6.2 -0.4R		6.3 -0.3R		6.4 -0.3R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		8"	q_a q_f	807	1331	686	1133	623	1028	584	964	558	921	539	890	525	866	514	848	505	833
			F	6.8 -0.6R		7 -0.5R		7.2 -0.4R		7.3 -0.3R		7.4 -0.3R		7.4 -0.3R		7.5 -0.2R		7.5 -0.2R		7.5 -0.2R	
		12"	q_a q_f	680	1123	545	899	481	793	442	729	416	687	398	657	384	634	373	616	365	602
			F	7.7 -0.9R		8.2 -0.8R		8.5 -0.7R		8.7 -0.7R		8.9 -0.6R		9 -0.5R		9.1 -0.5R		9.1 -0.5R		9.2 -0.4R	
		18"	q_a q_f	608	1004	449	741	409	674	356	587	320	529	316	521	294	486	278	458	279	460
			F	8.5 -1.3R		9.7 -1.4R		9.7 -1.1R		10.4 -1.1R		10.9 -1.1R		10.7 -0.9R		11.1 -0.9R		11.4 -0.9R		11.2 -0.8R	
		24"	q_a q_f	537	885	401	662	337	556	298	492	272	450	254	419	240	397	230	379	221	365
			F	9.7 -1.8R		10.9 -1.9R		11.7 -1.9R		12.3 -1.8R		12.7 -1.7R		13 -1.6R		13.3 -1.5R		13.5 -1.4R		13.7 -1.3R	
	22 ga	4"	q_a q_f	772	1235	752	1235	717	1183	695	1147	680	1122	669	1104	661	1091	655	1077	545	872
			F	6.4 -0.2R		6.5 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R	
		6"	q_a q_f	675	1114	596	984	554	915	529	872	511	843	498	822	489	807	481	794	475	784
			F	7.2 -0.4R		7.3 -0.3R		7.4 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.2R		7.6 -0.2R		7.6 -0.1R		7.7 -0.1R	
		8"	q_a q_f	594	979	508	838	463	764	436	719	417	688	403	666	393	649	385	636	379	625
			F	7.8 -0.6R		8.1 -0.5R		8.3 -0.4R		8.4 -0.4R		8.5 -0.3R		8.5 -0.3R		8.6 -0.3R		8.6 -0.2R		8.6 -0.2R	
		12"	q_a q_f	497	821	403	666	357	589	330	544	311	513	298	491	288	475	280	462	274	452
			F	8.9 -1R		9.4 -0.9R		9.8 -0.8R		10 -0.7R		10.1 -0.7R		10.3 -0.6R		10.3 -0.5R		10.4 -0.5R		10.5 -0.5R	
		18"	q_a q_f	443	730	331	545	303	499	264	436	238	393	235	388	220	362	207	342	209	344
			F	9.7 -1.4R		11 -1.5R		11.1 -1.2R		11.8 -1.2R		12.4 -1.2R		12.2 -1R		12.6 -1R		12.9 -1R		12.7 -0.9R	
		24"	q_a q_f	388	640	294	485	248	409	220	363	202	333	189	311	179	295	171	282	165	272
			F	11 -2R		12.3 -2.1R		13.2 -2R		13.8 -1.9R		14.3 -1.8R		14.7 -1.7R		15 -1.6R		15.2 -1.5R		15.4 -1.5R	

NN-32 32/5 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: #12 SD HWH Screw

ASC STEEL DECK®

NN-32 3.10

No. 12 to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	3.6 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a q_f	1358	2186	1315	2118	1292	2081	1278	2057	1268	2041	1261	2030	1255	2021	1251	2014	1248	2009
			F	4.2 -0.3R		4.3 -0.2R		4.4 -0.2R		4.4 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R	
		8"	q_a q_f	1209	1946	1150	1851	1118	1800	1098	1768	1085	1746	1075	1730	1067	1718	1061	1709	1057	1701
			F	4.6 -0.4R		4.8 -0.3R		5 -0.3R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R	
		12"	q_a q_f	1004	1616	923	1486	880	1417	853	1374	835	1345	822	1323	812	1307	804	1295	798	1284
			F	5.5 -0.7R		5.8 -0.6R		6.1 -0.5R		6.2 -0.5R		6.3 -0.4R		6.4 -0.4R		6.4 -0.4R		6.5 -0.3R		6.5 -0.3R	
		18"	q_a q_f	875	1409	732	1178	734	1181	671	1080	628	1011	644	1037	615	990	591	952	607	977
			F	6.1 -1R		7.1 -1.1R		7 -0.8R		7.5 -0.8R		7.9 -0.8R		7.8 -0.7R		8.1 -0.7R		8.3 -0.7R		8.1 -0.6R	
		24"	q_a q_f	728	1172	624	1004	569	915	535	861	512	824	496	798	483	778	473	762	466	750
			F	7.1 -1.4R		8 -1.5R		8.6 -1.4R		9.1 -1.3R		9.4 -1.2R		9.6 -1.2R		9.8 -1.1R		10 -1R		10.1 -1R	
	18 ga	4"	q_a q_f	1182	1903	1174	1891	1163	1872	1155	1860	1150	1852	1147	1846	1144	1841	1142	1838	1085	1737
			F	4.3 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R	
		6"	q_a q_f	1040	1674	1001	1611	979	1577	966	1556	957	1541	951	1530	946	1522	942	1516	938	1511
			F	5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		8"	q_a q_f	920	1481	867	1397	839	1351	822	1323	810	1304	801	1290	794	1279	789	1271	785	1264
			F	5.5 -0.5R		5.7 -0.4R		5.8 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R	
		12"	q_a q_f	760	1224	692	1114	656	1056	633	1019	618	995	607	977	598	963	592	952	586	944
			F	6.4 -0.8R		6.8 -0.7R		7.1 -0.6R		7.2 -0.5R		7.3 -0.5R		7.4 -0.4R		7.5 -0.4R		7.5 -0.4R		7.6 -0.3R	
		18"	q_a q_f	664	1069	549	884	546	879	497	800	463	746	474	763	451	727	433	698	444	715
			F	7.1 -1.1R		8.2 -1.2R		8.2 -0.9R		8.7 -0.9R		9.2 -0.9R		9 -0.8R		9.3 -0.7R		9.6 -0.7R		9.4 -0.6R	
		24"	q_a q_f	555	893	469	755	424	682	397	639	379	610	365	588	355	572	347	559	341	549
			F	8.3 -1.6R		9.3 -1.6R		10 -1.6R		10.4 -1.5R		10.8 -1.4R		11.1 -1.3R		11.3 -1.2R		11.5 -1.1R		11.6 -1.1R	
	20 ga	4"	q_a q_f	859	1384	839	1350	827	1332	820	1321	816	1313	812	1308	810	1303	807	1300	712	1140
			F	5.5 -0.2R		5.6 -0.1R		5.6 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R	
		6"	q_a q_f	736	1185	702	1130	683	1100	672	1081	664	1069	658	1059	654	1052	650	1047	647	1042
			F	6.2 -0.4R		6.4 -0.3R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		8"	q_a q_f	647	1041	603	971	579	933	565	909	555	893	547	881	542	873	538	866	534	860
			F	6.8 -0.5R		7.1 -0.4R		7.2 -0.4R		7.3 -0.3R		7.4 -0.3R		7.4 -0.3R		7.5 -0.2R		7.5 -0.2R		7.5 -0.2R	
		12"	q_a q_f	533	859	479	771	450	724	432	695	419	675	411	661	404	650	399	642	394	635
			F	7.9 -0.9R		8.4 -0.8R		8.7 -0.7R		8.8 -0.6R		9 -0.6R		9.1 -0.5R		9.1 -0.5R		9.2 -0.4R		9.3 -0.4R	
		18"	q_a q_f	467	752	381	613	375	603	339	546	314	506	320	516	304	490	291	469	298	480
			F	8.7 -1.3R		10 -1.4R		9.9 -1.1R		10.6 -1.1R		11.1 -1.1R		10.9 -0.9R		11.2 -0.9R		11.6 -0.8R		11.3 -0.7R	
		24"	q_a q_f	393	634	323	521	289	466	269	433	256	411	246	396	239	384	233	375	228	368
			F	10 -1.9R		11.2 -1.9R		12 -1.8R		12.6 -1.7R		13 -1.6R		13.3 -1.5R		13.5 -1.4R		13.7 -1.3R		13.9 -1.3R	
	22 ga	4"	q_a q_f	694	1117	674	1085	663	1068	657	1057	652	1050	649	1045	646	1040	644	1037	545	872
			F	6.4 -0.2R		6.5 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R	
		6"	q_a q_f	589	948	558	898	541	871	531	854	523	843	518	834	514	828	511	823	509	819
			F	7.2 -0.4R		7.4 -0.3R		7.5 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.2R		7.6 -0.1R		7.7 -0.1R		7.7 -0.1R	
		8"	q_a q_f	516	831	477	768	456	735	443	714	435	700	428	690	423	682	420	676	417	671
			F	7.9 -0.6R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.5 -0.3R		8.6 -0.3R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R	
		12"	q_a q_f	426	685	378	609	353	569	338	544	327	527	320	515	314	505	309	498	306	492
			F	9.1 -1R		9.6 -0.9R		9.9 -0.8R		10.1 -0.7R		10.2 -0.6R		10.3 -0.6R		10.4 -0.5R		10.5 -0.5R		10.5 -0.4R	
		18"	q_a q_f	373	601	302	486	295	475	266	428	246	396	250	402	236	381	226	364	231	372
			F	10 -1.4R		11.3 -1.5R		11.3 -1.2R		12 -1.2R		12.6 -1.2R		12.3 -1R		12.7 -0.9R		13.1 -0.9R		12.8 -0.8R	
		24"	q_a q_f	313	504	256	412	227	366	210	339	199	321	191	308	185	298	180	290	177	284
			F	11.4 -2R		12.7 -2.1R		13.6 -2R		14.2 -1.9R		14.6 -1.8R		15 -1.6R		15.2 -1.5R		15.4 -1.5R		15.6 -1.4R	

NN-32 32/5 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

3.10 **NN-32**

No. 12 Self-Drilling HWH to Supports with No. 10 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	1478	2380	1478	2380	1478	2380	1470	2367	1464	2357	1460	2350	1457	2345	1454	2341	1452	2338
			F	3.6 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a q_f	1325	2134	1279	2059	1254	2019	1238	1994	1228	1977	1220	1964	1214	1955	1209	1947	1206	1941
			F	4.2 -0.3R		4.3 -0.2R		4.4 -0.2R		4.4 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R	
		8"	q_a q_f	1175	1893	1113	1792	1079	1737	1058	1703	1044	1680	1033	1663	1025	1650	1019	1640	1014	1632
			F	4.6 -0.4R		4.8 -0.3R		5 -0.3R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R	
		12"	q_a q_f	973	1567	890	1433	845	1361	818	1317	799	1286	785	1264	775	1248	767	1235	760	1224
			F	5.5 -0.7R		5.8 -0.6R		6.1 -0.5R		6.2 -0.5R		6.3 -0.4R		6.4 -0.4R		6.4 -0.4R		6.5 -0.3R		6.5 -0.3R	
		18"	q_a q_f	849	1367	706	1136	704	1134	642	1034	600	965	614	989	585	943	563	906	577	929
			F	6.1 -1R		7.1 -1.1R		7 -0.8R		7.5 -0.8R		7.9 -0.8R		7.8 -0.7R		8.1 -0.7R		8.3 -0.7R		8.1 -0.6R	
		24"	q_a q_f	708	1140	602	970	547	881	513	826	490	788	473	762	460	741	451	725	443	713
			F	7.1 -1.4R		8 -1.5R		8.6 -1.4R		9.1 -1.3R		9.4 -1.2R		9.6 -1.2R		9.8 -1.1R		10 -1R		10.1 -1R	
	18 ga	4"	q_a q_f	1174	1890	1149	1850	1136	1829	1128	1816	1122	1807	1118	1800	1115	1795	1113	1791	1085	1737
			F	4.3 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R	
		6"	q_a q_f	1013	1631	971	1563	948	1527	934	1504	924	1488	917	1477	912	1468	908	1461	904	1456
			F	5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		8"	q_a q_f	893	1438	838	1350	809	1302	790	1272	778	1252	768	1237	761	1226	756	1217	752	1210
			F	5.5 -0.5R		5.7 -0.4R		5.8 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R	
		12"	q_a q_f	738	1187	667	1074	630	1014	606	976	591	951	579	932	570	918	564	907	558	899
			F	6.4 -0.8R		6.8 -0.7R		7.1 -0.6R		7.2 -0.5R		7.3 -0.5R		7.4 -0.4R		7.5 -0.4R		7.5 -0.4R		7.6 -0.3R	
		18"	q_a q_f	644	1037	530	853	524	844	476	766	443	713	452	728	430	692	412	664	422	680
			F	7.1 -1.1R		8.2 -1.2R		8.2 -0.9R		8.7 -0.9R		9.2 -0.9R		9 -0.8R		9.3 -0.7R		9.6 -0.7R		9.4 -0.6R	
		24"	q_a q_f	541	870	451	726	406	654	379	610	361	581	348	560	338	544	331	532	324	522
			F	8.3 -1.6R		9.3 -1.6R		10 -1.6R		10.4 -1.5R		10.8 -1.4R		11.1 -1.3R		11.3 -1.2R		11.5 -1.1R		11.6 -1.1R	
	20 ga	4"	q_a q_f	841	1354	818	1317	806	1297	798	1285	793	1277	789	1270	786	1266	784	1262	712	1140
			F	5.5 -0.2R		5.6 -0.1R		5.6 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R	
		6"	q_a q_f	716	1153	679	1094	660	1062	647	1042	639	1029	633	1019	628	1011	625	1006	622	1001
			F	6.2 -0.4R		6.4 -0.3R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		8"	q_a q_f	628	1010	582	937	557	897	542	873	532	856	524	844	518	834	514	827	510	821
			F	6.8 -0.5R		7.1 -0.4R		7.2 -0.4R		7.3 -0.3R		7.4 -0.3R		7.4 -0.3R		7.5 -0.2R		7.5 -0.2R		7.5 -0.2R	
		12"	q_a q_f	518	833	461	743	432	695	413	665	401	645	392	631	385	619	379	611	375	604
			F	7.9 -0.9R		8.4 -0.8R		8.7 -0.7R		8.8 -0.6R		9 -0.6R		9.1 -0.5R		9.1 -0.5R		9.2 -0.4R		9.3 -0.4R	
		18"	q_a q_f	454	730	368	593	360	580	325	523	301	484	306	492	290	467	277	447	283	456
			F	8.7 -1.3R		10 -1.4R		9.9 -1.1R		10.6 -1.1R		11.1 -1.1R		10.9 -0.9R		11.2 -0.9R		11.6 -0.8R		11.3 -0.7R	
		24"	q_a q_f	383	617	312	502	278	447	257	414	244	393	234	377	227	365	221	356	217	349
			F	10 -1.9R		11.2 -1.9R		12 -1.8R		12.6 -1.7R		13 -1.6R		13.3 -1.5R		13.5 -1.4R		13.7 -1.3R		13.9 -1.3R	
	22 ga	4"	q_a q_f	678	1091	656	1056	645	1038	637	1026	632	1018	629	1012	626	1008	624	1004	545	872
			F	6.4 -0.2R		6.5 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R	
		6"	q_a q_f	572	922	539	869	522	840	511	822	503	810	498	801	493	794	490	789	487	785
			F	7.2 -0.4R		7.4 -0.3R		7.5 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.2R		7.6 -0.1R		7.7 -0.1R		7.7 -0.1R	
		8"	q_a q_f	501	806	460	741	439	706	425	685	416	670	409	659	404	651	400	645	397	640
			F	7.9 -0.6R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.5 -0.3R		8.6 -0.3R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R	
		12"	q_a q_f	413	665	365	587	339	546	323	521	313	503	305	491	299	481	294	474	291	468
			F	9.1 -1R		9.6 -0.9R		9.9 -0.8R		10.1 -0.7R		10.2 -0.6R		10.3 -0.6R		10.4 -0.5R		10.5 -0.5R		10.5 -0.4R	
		18"	q_a q_f	363	585	291	469	283	456	255	410	235	378	238	384	225	363	215	347	220	354
			F	10 -1.4R		11.3 -1.5R		11.3 -1.2R		12 -1.2R		12.6 -1.2R		12.3 -1R		12.7 -0.9R		13.1 -0.9R		12.8 -0.8R	
		24"	q_a q_f	304	490	247	397	219	352	202	325	190	306	182	293	176	284	171	276	168	270
			F	11.4 -2R		12.7 -2.1R		13.6 -2R		14.2 -1.9R		14.6 -1.8R		15 -1.6R		15.2 -1.5R		15.4 -1.5R		15.6 -1.4R	

NN-32 32/5 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

NN-32 3.10

No. 12 Self-Drilling HWH to Supports with No. 10 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/7	16 ga	4"	q_a q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			F	3.5	-0.2R	3.6	-0.2R	3.6	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R
		6"	q_a q_f	1478	2380	1478	2380	1478	2380	1473	2371	1447	2329	1428	2298	1413	2275	1402	2257	1392	2242
			F	4	-0.3R	4.1	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R
		8"	q_a q_f	1478	2380	1360	2189	1286	2071	1240	1996	1208	1945	1185	1908	1168	1880	1154	1858	1143	1840
			F	4.3	-0.5R	4.6	-0.4R	4.7	-0.4R	4.8	-0.3R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R
		12"	q_a q_f	1266	2038	1103	1776	1015	1635	961	1547	923	1486	896	1443	875	1409	859	1383	846	1363
			F	4.9	-0.7R	5.4	-0.7R	5.6	-0.7R	5.8	-0.6R	6	-0.6R	6.1	-0.5R	6.2	-0.5R	6.2	-0.5R	6.3	-0.4R
		18"	q_a q_f	1134	1827	902	1452	863	1389	768	1237	703	1132	711	1144	669	1077	637	1025	647	1042
			F	5.3	-0.9R	6.2	-1.1R	6.4	-1R	6.9	-1R	7.3	-1R	7.3	-0.9R	7.6	-0.9R	7.8	-0.9R	7.7	-0.8R
		24"	q_a q_f	991	1596	776	1249	676	1089	617	993	577	929	549	883	527	849	511	822	498	801
			F	5.9	-1.3R	6.9	-1.4R	7.5	-1.5R	8	-1.5R	8.4	-1.4R	8.8	-1.4R	9	-1.3R	9.2	-1.3R	9.4	-1.2R
	18 ga	4"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1085	1737
			F	4.2	-0.2R	4.3	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R
		6"	q_a q_f	1182	1903	1182	1903	1136	1829	1103	1775	1080	1739	1064	1712	1051	1692	1041	1676	1033	1663
			F	4.7	-0.4R	4.9	-0.3R	5	-0.3R	5.1	-0.2R	5.1	-0.2R	5.2	-0.2R	5.2	-0.2R	5.2	-0.2R	5.2	-0.1R
		8"	q_a q_f	1140	1836	1026	1652	963	1551	924	1488	897	1445	878	1414	863	1390	852	1371	842	1356
			F	5.1	-0.5R	5.4	-0.5R	5.6	-0.4R	5.7	-0.4R	5.8	-0.3R	5.9	-0.3R	5.9	-0.3R	5.9	-0.3R	6	-0.2R
		12"	q_a q_f	969	1559	834	1342	761	1225	716	1152	685	1103	663	1067	646	1039	632	1018	622	1001
			F	5.8	-0.8R	6.3	-0.8R	6.6	-0.7R	6.8	-0.7R	7	-0.6R	7.1	-0.6R	7.2	-0.6R	7.3	-0.5R	7.3	-0.5R
		18"	q_a q_f	871	1403	678	1092	644	1037	569	916	519	836	522	841	491	790	466	751	474	763
			F	6.3	-1.1R	7.3	-1.2R	7.4	-1.1R	8	-1.1R	8.5	-1.1R	8.4	-1R	8.8	-1R	9.1	-1R	8.9	-0.8R
		24"	q_a q_f	766	1233	588	947	509	819	461	742	429	691	407	655	390	627	376	606	366	589
			F	6.9	-1.4R	8	-1.6R	8.7	-1.6R	9.3	-1.6R	9.7	-1.6R	10.1	-1.6R	10.4	-1.5R	10.6	-1.4R	10.8	-1.4R
	20 ga	4"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1407	712	1140
			F	5.4	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R	5.6	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R
		6"	q_a q_f	888	1429	830	1336	787	1267	760	1223	741	1193	727	1171	717	1154	709	1141	702	1131
			F	6	-0.4R	6.2	-0.4R	6.3	-0.3R	6.4	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R
		8"	q_a q_f	807	1300	715	1152	665	1071	634	1021	613	987	597	962	586	943	576	928	569	916
			F	6.4	-0.6R	6.8	-0.6R	7	-0.5R	7.1	-0.4R	7.2	-0.4R	7.3	-0.4R	7.3	-0.3R	7.4	-0.3R	7.4	-0.3R
		12"	q_a q_f	689	1110	584	940	527	849	492	792	468	754	451	726	438	705	427	688	419	675
			F	7.2	-0.9R	7.8	-0.9R	8.1	-0.9R	8.4	-0.8R	8.6	-0.7R	8.7	-0.7R	8.8	-0.6R	8.9	-0.6R	9	-0.6R
		18"	q_a q_f	624	1004	473	762	443	713	390	627	354	570	354	569	331	534	314	506	318	512
			F	7.7	-1.2R	8.9	-1.4R	9.1	-1.2R	9.8	-1.3R	10.3	-1.3R	10.2	-1.1R	10.6	-1.1R	11	-1.1R	10.8	-1R
		24"	q_a q_f	541	871	415	668	355	571	319	514	295	475	278	448	265	427	256	411	248	399
			F	8.5	-1.6R	9.7	-1.8R	10.6	-1.9R	11.2	-1.9R	11.7	-1.8R	12.1	-1.8R	12.5	-1.7R	12.8	-1.7R	13	-1.6R
	22 ga	4"	q_a q_f	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	733	1180	673	1077	545	872
			F	6.3	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a q_f	729	1174	660	1062	622	1001	598	962	581	936	569	917	560	902	553	891	545	872
			F	6.9	-0.5R	7.2	-0.4R	7.3	-0.3R	7.4	-0.3R	7.5	-0.3R	7.5	-0.2R	7.5	-0.2R	7.6	-0.2R	7.6	-0.2R
		8"	q_a q_f	648	1043	568	915	525	846	499	803	480	773	467	752	457	735	449	722	442	712
			F	7.5	-0.7R	7.8	-0.6R	8	-0.5R	8.2	-0.5R	8.3	-0.4R	8.4	-0.4R	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R
		12"	q_a q_f	555	894	466	750	417	671	387	623	367	591	353	568	342	550	333	536	326	525
			F	8.3	-1R	8.9	-1R	9.3	-0.9R	9.6	-0.9R	9.8	-0.8R	9.9	-0.8R	10.1	-0.7R	10.2	-0.7R	10.2	-0.6R
		18"	q_a q_f	501	806	377	607	350	563	307	493	278	447	276	445	258	416	245	394	247	397
			F	8.9	-1.3R	10.1	-1.6R	10.4	-1.3R	11.1	-1.4R	11.7	-1.4R	11.6	-1.2R	12	-1.2R	12.4	-1.2R	12.3	-1.1R
		24"	q_a q_f	434	698	333	535	283	455	253	407	233	375	219	352	208	335	200	322	193	311
			F	9.7	-1.8R	11.1	-2R	12	-2.1R	12.7	-2.1R	13.3	-2R	13.7	-2R	14.1	-1.9R	14.4	-1.8R	14.6	-1.8R

NN-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

3.11 **NN-32**

Hilti X-HSN-24 Fasteners to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a / q_f	1807	2909	1758	2831	1732	2788	1715	2761	1704	2743	1696	2730	1689	2720	1685	2712	1504	2407
			F	3.6 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.8 -0.1R		3.8 +0R		3.8 +0R	
		6"	q_a / q_f	1538	2477	1460	2351	1418	2283	1391	2240	1373	2211	1360	2190	1350	2174	1342	2161	1336	2151
			F	4.1 -0.3R		4.3 -0.2R		4.3 -0.2R		4.4 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R	
		8"	q_a / q_f	1349	2172	1251	2013	1198	1928	1165	1876	1143	1840	1126	1813	1114	1794	1104	1778	1097	1766
			F	4.6 -0.4R		4.8 -0.3R		4.9 -0.3R		5 -0.3R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R	
		12"	q_a / q_f	1112	1791	992	1597	928	1494	888	1430	861	1387	842	1355	827	1332	816	1313	806	1298
			F	5.4 -0.7R		5.8 -0.6R		6 -0.6R		6.2 -0.5R		6.3 -0.4R		6.4 -0.4R		6.4 -0.4R		6.5 -0.3R		6.5 -0.3R	
		18"	q_a / q_f	975	1570	791	1273	774	1246	698	1124	646	1040	657	1058	623	1003	596	960	609	980
			F	6.1 -1R		7 -1.1R		7 -0.8R		7.5 -0.8R		7.9 -0.8R		7.7 -0.7R		8 -0.7R		8.3 -0.7R		8.1 -0.6R	
		24"	q_a / q_f	825	1328	670	1079	597	961	553	891	524	844	503	810	488	785	476	766	466	750
			F	7 -1.4R		8 -1.5R		8.6 -1.4R		9 -1.3R		9.3 -1.3R		9.6 -1.2R		9.8 -1.1R		9.9 -1R		10.1 -1R	
	18 ga	4"	q_a / q_f	1398	2250	1351	2175	1326	2135	1310	2109	1299	2092	1291	2079	1285	2069	1281	2062	1085	1737
			F	4.3 -0.2R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R	
		6"	q_a / q_f	1178	1896	1107	1782	1069	1721	1045	1683	1029	1657	1017	1638	1008	1624	1001	1612	996	1603
			F	4.9 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.2R		5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		8"	q_a / q_f	1029	1657	943	1519	897	1445	869	1399	850	1368	836	1345	825	1328	817	1315	810	1304
			F	5.5 -0.5R		5.7 -0.4R		5.8 -0.3R		5.9 -0.3R		6 -0.3R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R	
		12"	q_a / q_f	850	1368	748	1204	694	1117	660	1063	638	1027	622	1001	609	981	600	965	592	953
			F	6.4 -0.8R		6.8 -0.7R		7 -0.6R		7.2 -0.6R		7.3 -0.5R		7.4 -0.4R		7.5 -0.4R		7.5 -0.4R		7.6 -0.3R	
		18"	q_a / q_f	748	1204	597	960	580	934	520	837	479	770	486	782	460	740	439	706	447	720
			F	7.1 -1.1R		8.1 -1.2R		8.1 -0.9R		8.7 -0.9R		9.1 -0.9R		8.9 -0.8R		9.3 -0.8R		9.6 -0.7R		9.4 -0.6R	
		24"	q_a / q_f	637	1025	506	815	447	720	412	663	388	625	372	598	359	578	349	562	341	549
			F	8.2 -1.6R		9.2 -1.6R		9.9 -1.6R		10.4 -1.5R		10.7 -1.4R		11 -1.3R		11.2 -1.2R		11.4 -1.2R		11.6 -1.1R	
	20 ga	4"	q_a / q_f	999	1609	957	1540	934	1503	919	1480	909	1464	902	1452	897	1444	879	1407	712	1140
			F	5.5 -0.2R		5.6 -0.1R		5.6 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 -0.1R	
		6"	q_a / q_f	833	1342	773	1245	741	1193	721	1160	707	1138	697	1122	689	1110	683	1100	679	1093
			F	6.2 -0.4R		6.4 -0.3R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R		6.6 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		8"	q_a / q_f	727	1170	656	1056	619	996	595	958	579	933	568	914	559	901	553	890	547	881
			F	6.8 -0.5R		7.1 -0.5R		7.2 -0.4R		7.3 -0.3R		7.4 -0.3R		7.4 -0.3R		7.5 -0.2R		7.5 -0.2R		7.5 -0.2R	
		12"	q_a / q_f	602	970	521	839	478	770	452	728	434	699	422	679	412	663	404	651	398	641
			F	7.8 -0.9R		8.3 -0.8R		8.6 -0.7R		8.8 -0.6R		9 -0.6R		9.1 -0.5R		9.1 -0.5R		9.2 -0.4R		9.2 -0.4R	
		18"	q_a / q_f	533	859	414	667	399	642	354	570	324	522	328	529	309	498	294	474	300	483
			F	8.7 -1.3R		9.9 -1.4R		9.9 -1.1R		10.5 -1.1R		11 -1.1R		10.8 -0.9R		11.2 -0.9R		11.5 -0.9R		11.3 -0.7R	
		24"	q_a / q_f	450	725	356	572	311	500	284	457	266	428	253	407	243	392	236	380	230	370
			F	9.9 -1.9R		11.1 -1.9R		11.9 -1.8R		12.5 -1.7R		12.9 -1.6R		13.2 -1.5R		13.5 -1.4R		13.7 -1.4R		13.8 -1.3R	
	22 ga	4"	q_a / q_f	772	1235	764	1230	743	1196	729	1174	720	1160	714	1149	709	1141	673	1077	545	872
			F	6.4 -0.2R		6.5 -0.2R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.7 -0.1R	
		6"	q_a / q_f	667	1073	613	987	584	941	567	912	554	893	546	878	539	868	534	859	530	853
			F	7.2 -0.4R		7.4 -0.3R		7.5 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.2R		7.6 -0.2R		7.6 -0.1R		7.7 -0.1R	
		8"	q_a / q_f	581	936	520	837	487	784	467	752	453	730	443	714	436	701	430	692	425	684
			F	7.9 -0.6R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.5 -0.3R		8.5 -0.3R		8.6 -0.3R		8.6 -0.2R		8.6 -0.2R	
		12"	q_a / q_f	484	779	414	667	378	608	355	572	340	547	329	530	321	516	314	506	309	497
			F	9 -1R		9.5 -0.9R		9.8 -0.8R		10.1 -0.7R		10.2 -0.6R		10.3 -0.6R		10.4 -0.5R		10.5 -0.5R		10.5 -0.4R	
		18"	q_a / q_f	428	688	329	529	313	505	278	447	254	408	256	411	240	387	228	368	232	374
			F	9.9 -1.4R		11.2 -1.5R		11.2 -1.2R		11.9 -1.2R		12.5 -1.2R		12.3 -1R		12.7 -1R		13 -0.9R		12.8 -0.8R	
		24"	q_a / q_f	361	581	284	458	247	397	224	361	209	336	198	319	190	306	184	296	179	288
			F	11.3 -2R		12.6 -2.1R		13.4 -2R		14.1 -1.9R		14.5 -1.8R		14.9 -1.7R		15.2 -1.6R		15.4 -1.5R		15.6 -1.4R	

NN-32 32/5 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

NN-32 3.11

Hilti X-ENP-19 Fasteners to Supports with No. 12 Self-Drilling Side Lap Screws

HILTI®

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	1939	3122	1886	3036	1857	2990	1839	2961	1827	2941	1818	2926	1811	2915	1805	2907	1504	2407
			F	3.5	-0.2R	3.6	-0.2R	3.6	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R
		6"	q_a q_f	1650	2656	1564	2519	1518	2445	1490	2398	1470	2367	1456	2344	1445	2326	1436	2313	1430	2302
			F	3.9	-0.3R	4.1	-0.3R	4.2	-0.3R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R
		8"	q_a q_f	1446	2328	1339	2156	1282	2064	1246	2007	1222	1968	1205	1939	1191	1918	1181	1901	1172	1888
			F	4.3	-0.5R	4.6	-0.4R	4.7	-0.4R	4.8	-0.3R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R
		12"	q_a q_f	1192	1920	1062	1710	993	1598	950	1529	921	1483	900	1449	884	1423	872	1403	862	1387
			F	4.9	-0.7R	5.3	-0.7R	5.6	-0.7R	5.8	-0.6R	5.9	-0.6R	6.1	-0.5R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R
		18"	q_a q_f	1045	1683	847	1364	828	1333	747	1202	691	1113	703	1131	666	1072	637	1026	651	1048
			F	5.3	-0.9R	6.2	-1.1R	6.3	-1R	6.8	-1R	7.3	-1R	7.2	-0.9R	7.5	-0.9R	7.8	-0.9R	7.7	-0.8R
		24"	q_a q_f	885	1425	717	1155	639	1029	592	953	560	902	538	866	521	839	508	818	498	801
			F	5.8	-1.3R	6.8	-1.4R	7.4	-1.5R	8	-1.5R	8.3	-1.4R	8.7	-1.4R	8.9	-1.4R	9.1	-1.3R	9.3	-1.3R
	18 ga	4"	q_a q_f	1500	2414	1449	2332	1421	2288	1404	2260	1392	2241	1384	2227	1377	2217	1340	2144	1085	1737
			F	3.5	-0.2R	3.6	-0.2R	3.6	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R
		6"	q_a q_f	1263	2033	1186	1909	1145	1843	1119	1801	1101	1773	1088	1752	1079	1737	1071	1725	1065	1715
			F	3.9	-0.3R	4.1	-0.3R	4.2	-0.3R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R
		8"	q_a q_f	1103	1776	1010	1626	961	1546	930	1497	909	1463	893	1438	882	1420	873	1405	866	1394
			F	4.3	-0.5R	4.6	-0.4R	4.7	-0.4R	4.8	-0.3R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R
		12"	q_a q_f	911	1466	801	1289	742	1195	706	1137	682	1098	664	1070	651	1048	641	1032	632	1018
			F	4.9	-0.7R	5.3	-0.7R	5.6	-0.7R	5.8	-0.6R	5.9	-0.6R	6.1	-0.5R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R
		18"	q_a q_f	802	1291	639	1028	621	1000	556	895	511	823	520	836	491	791	469	755	478	769
			F	5.3	-0.9R	6.2	-1.1R	6.3	-1R	6.8	-1R	7.3	-1R	7.2	-0.9R	7.5	-0.9R	7.8	-0.9R	7.7	-0.8R
		24"	q_a q_f	683	1099	543	873	479	771	441	710	415	669	397	640	384	618	373	601	365	587
			F	5.8	-1.3R	6.8	-1.4R	7.4	-1.5R	8	-1.5R	8.3	-1.4R	8.7	-1.4R	8.9	-1.4R	9.1	-1.3R	9.3	-1.3R
	20 ga	4"	q_a q_f	1071	1725	1025	1650	1000	1610	984	1585	974	1568	966	1555	960	1546	879	1407	712	1140
			F	5.4	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.1R	5.6	-0.1R	5.6	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R
		6"	q_a q_f	893	1438	828	1333	793	1276	771	1241	756	1217	745	1200	737	1187	731	1177	712	1140
			F	5.9	-0.4R	6.2	-0.4R	6.3	-0.3R	6.4	-0.3R	6.4	-0.3R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.2R
		8"	q_a q_f	779	1254	703	1131	662	1066	637	1025	620	998	607	978	598	963	591	951	585	941
			F	6.4	-0.6R	6.7	-0.6R	6.9	-0.5R	7.1	-0.5R	7.2	-0.4R	7.3	-0.4R	7.3	-0.3R	7.4	-0.3R	7.4	-0.3R
		12"	q_a q_f	646	1040	558	899	512	824	484	779	464	748	451	725	440	709	432	695	425	685
			F	7.1	-0.9R	7.7	-0.9R	8.1	-0.9R	8.3	-0.8R	8.5	-0.8R	8.7	-0.7R	8.8	-0.7R	8.9	-0.6R	9	-0.6R
		18"	q_a q_f	572	921	444	714	426	687	379	610	347	558	351	565	330	532	315	507	321	516
			F	7.7	-1.2R	8.8	-1.4R	9	-1.2R	9.7	-1.3R	10.2	-1.3R	10.2	-1.1R	10.6	-1.1R	10.9	-1.1R	10.8	-1R
		24"	q_a q_f	483	777	381	613	333	536	304	489	284	458	270	435	260	419	252	406	246	395
			F	8.4	-1.6R	9.6	-1.8R	10.5	-1.9R	11.1	-1.9R	11.6	-1.9R	12	-1.8R	12.4	-1.8R	12.7	-1.7R	12.9	-1.6R
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	771	1235	764	1230	758	1221	673	1077	545	872
			F	6.3	-0.3R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a q_f	715	1151	657	1057	625	1007	606	976	593	955	583	939	576	928	571	919	545	872
			F	6.9	-0.5R	7.1	-0.4R	7.3	-0.4R	7.4	-0.3R	7.4	-0.3R	7.5	-0.3R	7.5	-0.2R	7.6	-0.2R	7.6	-0.2R
		8"	q_a q_f	623	1003	557	896	521	839	499	804	485	780	474	763	466	750	459	739	454	731
			F	7.4	-0.7R	7.8	-0.6R	8	-0.6R	8.2	-0.5R	8.3	-0.4R	8.3	-0.4R	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R
		12"	q_a q_f	519	835	444	714	404	651	380	612	363	585	352	566	343	552	336	541	330	532
			F	8.2	-1R	8.8	-1R	9.3	-1R	9.5	-0.9R	9.7	-0.8R	9.9	-0.8R	10	-0.7R	10.1	-0.7R	10.2	-0.6R
		18"	q_a q_f	458	738	352	567	335	540	297	478	271	437	273	440	257	414	244	393	248	400
			F	8.8	-1.3R	10	-1.6R	10.3	-1.4R	11	-1.4R	11.6	-1.4R	11.5	-1.2R	12	-1.3R	12.3	-1.2R	12.2	-1.1R
		24"	q_a q_f	387	623	305	490	264	425	240	386	224	360	212	341	203	327	197	317	191	308
			F	9.6	-1.8R	10.9	-2R	11.9	-2.1R	12.6	-2.1R	13.1	-2R	13.6	-2R	14	-1.9R	14.3	-1.9R	14.5	-1.8R

NN-32 32/5 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #12 SD HWH Screw

3.12 **NN-32**

Pneutek SDK61 Fasteners to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a / q_f	1835	2954	1791	2884	1768	2846	1753	2823	1743	2807	1736	2795	1730	2786	1726	2779	1504	2407
			F	3.7 -0.1R		3.7 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a / q_f	1573	2533	1501	2416	1462	2353	1437	2314	1421	2287	1409	2268	1399	2253	1392	2241	1386	2232
			F	4.4 -0.2R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R	
		8"	q_a / q_f	1383	2226	1290	2077	1241	1997	1210	1947	1188	1913	1173	1889	1161	1870	1152	1855	1145	1843
			F	5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		12"	q_a / q_f	1141	1837	1025	1650	963	1551	925	1489	899	1447	880	1417	866	1394	855	1376	846	1362
			F	6.1 -0.5R		6.4 -0.4R		6.5 -0.3R		6.6 -0.3R		6.6 -0.2R		6.6 -0.2R		6.7 -0.2R		6.7 -0.2R		6.7 -0.2R	
		18"	q_a / q_f	998	1607	815	1312	802	1292	726	1169	674	1085	687	1106	652	1050	625	1006	639	1029
			F	7.2 -0.8R		8.1 -0.8R		7.7 -0.5R		8.2 -0.5R		8.6 -0.5R		8.3 -0.4R		8.5 -0.4R		8.8 -0.4R		8.5 -0.3R	
		24"	q_a / q_f	841	1353	692	1114	620	998	577	928	548	882	527	849	512	824	500	804	490	789
			F	8.9 -1.4R		9.6 -1.2R		10 -1R		10.3 -0.9R		10.5 -0.8R		10.6 -0.7R		10.7 -0.6R		10.8 -0.6R		10.8 -0.5R	
	18 ga	4"	q_a / q_f	1436	2312	1392	2242	1369	2204	1354	2180	1344	2164	1337	2152	1331	2143	1327	2136	1085	1737
			F	4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R	
		6"	q_a / q_f	1216	1957	1148	1848	1112	1790	1089	1753	1073	1728	1062	1710	1053	1696	1047	1685	1041	1676
			F	5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 +0R		5.4 +0R	
		8"	q_a / q_f	1064	1712	980	1578	936	1507	908	1462	889	1431	875	1409	865	1393	857	1380	850	1369
			F	5.9 -0.3R		6 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a / q_f	877	1413	777	1251	724	1165	691	1112	669	1076	652	1051	640	1031	631	1016	623	1003
			F	7.2 -0.6R		7.4 -0.4R		7.6 -0.4R		7.6 -0.3R		7.7 -0.3R		7.7 -0.2R		7.8 -0.2R		7.8 -0.2R		7.8 -0.2R	
		18"	q_a / q_f	771	1241	621	1000	604	973	544	876	502	809	510	821	483	777	461	743	471	758
			F	8.3 -0.9R		9.3 -0.9R		8.9 -0.6R		9.5 -0.6R		9.9 -0.5R		9.6 -0.4R		9.9 -0.4R		10.1 -0.4R		9.8 -0.3R	
		24"	q_a / q_f	655	1054	525	846	466	751	431	693	407	655	390	628	377	607	367	591	359	579
			F	10.3 -1.5R		11.1 -1.3R		11.5 -1.1R		11.8 -1R		12 -0.9R		12.1 -0.8R		12.3 -0.7R		12.4 -0.7R		12.4 -0.6R	
	20 ga	4"	q_a / q_f	1037	1669	996	1603	973	1567	959	1545	950	1529	943	1518	938	1510	879	1407	712	1140
			F	5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R	
		6"	q_a / q_f	867	1396	808	1300	776	1249	756	1217	742	1195	732	1179	725	1167	719	1158	712	1140
			F	6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		8"	q_a / q_f	756	1218	686	1105	649	1044	625	1007	609	981	598	963	589	949	583	938	577	929
			F	7.3 -0.3R		7.4 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.1R		7.6 -0.1R		7.6 -0.1R		7.6 -0.1R		7.7 -0.1R	
		12"	q_a / q_f	626	1008	544	877	501	807	475	765	457	736	444	715	434	699	427	687	420	677
			F	8.8 -0.7R		9.1 -0.5R		9.2 -0.4R		9.3 -0.3R		9.4 -0.3R		9.4 -0.3R		9.5 -0.2R		9.5 -0.2R		9.5 -0.2R	
		18"	q_a / q_f	553	891	433	697	419	674	372	600	342	550	346	558	327	526	311	501	318	511
			F	10.1 -1R		11.3 -1R		10.8 -0.7R		11.5 -0.7R		11.9 -0.6R		11.5 -0.5R		11.9 -0.5R		12.2 -0.5R		11.8 -0.4R	
		24"	q_a / q_f	467	751	370	596	325	523	297	479	279	449	266	428	256	412	249	400	242	390
			F	12.4 -1.8R		13.3 -1.5R		13.8 -1.3R		14.1 -1.1R		14.3 -1R		14.5 -0.9R		14.7 -0.8R		14.8 -0.8R		14.8 -0.7R	
	22 ga	4"	q_a / q_f	772	1235	772	1235	772	1235	765	1231	756	1216	749	1206	744	1198	673	1077	545	872
			F	6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a / q_f	696	1121	643	1035	614	988	596	960	584	940	575	926	568	915	563	906	545	872
			F	7.5 -0.2R		7.6 -0.2R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R	
		8"	q_a / q_f	607	977	545	878	512	824	492	791	478	769	468	753	460	741	454	731	449	723
			F	8.4 -0.4R		8.6 -0.3R		8.6 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.1R		8.8 -0.1R		8.8 -0.1R		8.8 -0.1R	
		12"	q_a / q_f	504	812	434	698	397	638	374	602	358	577	347	559	339	545	332	534	327	526
			F	10 -0.7R		10.3 -0.6R		10.5 -0.5R		10.6 -0.4R		10.7 -0.3R		10.7 -0.3R		10.8 -0.3R		10.8 -0.2R		10.8 -0.2R	
		18"	q_a / q_f	446	719	344	554	330	531	292	470	267	430	270	434	254	409	242	389	246	396
			F	11.5 -1.1R		12.8 -1.1R		12.3 -0.7R		12.9 -0.7R		13.5 -0.7R		13 -0.5R		13.4 -0.5R		13.7 -0.5R		13.4 -0.4R	
		24"	q_a / q_f	375	604	297	478	258	416	235	379	220	354	209	336	200	323	194	312	189	304
			F	14 -1.9R		14.9 -1.7R		15.5 -1.4R		15.9 -1.3R		16.1 -1.1R		16.3 -1R		16.5 -0.9R		16.6 -0.8R		16.7 -0.8R	

NN-32 32/5 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #12 SD HWH Screw

ASC Steel Deck®

NN-32 3.12

Pneutek SDK63 Fasteners to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	1793	2887	1753	2823	1732	2788	1718	2767	1709	2752	1703	2741	1697	2733	1693	2727	1504	2407
			F	3.7 -0.1R		3.7 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a q_f	1542	2483	1475	2375	1439	2316	1416	2279	1400	2254	1389	2236	1380	2222	1374	2211	1368	2203
			F	4.4 -0.2R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R	
		8"	q_a q_f	1358	2186	1271	2046	1224	1970	1195	1923	1175	1891	1160	1868	1149	1850	1140	1836	1133	1825
			F	5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		12"	q_a q_f	1121	1804	1010	1626	951	1532	915	1473	890	1433	872	1404	859	1382	848	1365	839	1351
			F	6.1 -0.5R		6.4 -0.4R		6.5 -0.3R		6.6 -0.3R		6.6 -0.2R		6.6 -0.2R		6.7 -0.2R		6.7 -0.2R		6.7 -0.2R	
		18"	q_a q_f	980	1577	803	1292	792	1276	718	1156	667	1074	681	1096	647	1041	620	998	635	1022
			F	7.2 -0.8R		8.1 -0.8R		7.7 -0.5R		8.2 -0.5R		8.6 -0.5R		8.3 -0.4R		8.5 -0.4R		8.8 -0.4R		8.5 -0.3R	
		24"	q_a q_f	824	1326	683	1099	613	987	571	919	543	874	523	842	508	818	496	799	487	784
			F	8.9 -1.4R		9.6 -1.2R		10 -1R		10.3 -0.9R		10.5 -0.8R		10.6 -0.7R		10.7 -0.6R		10.8 -0.6R		10.8 -0.5R	
	18 ga	4"	q_a q_f	1446	2329	1402	2257	1378	2218	1363	2194	1352	2177	1345	2165	1339	2156	1335	2144	1085	1737
			F	4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R	
		6"	q_a q_f	1223	1970	1154	1859	1117	1799	1094	1761	1078	1736	1066	1717	1058	1703	1051	1692	1045	1683
			F	5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 +0R		5.4 +0R	
		8"	q_a q_f	1070	1723	985	1586	940	1513	912	1468	892	1437	878	1414	868	1397	860	1384	853	1373
			F	5.9 -0.3R		6 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a q_f	883	1422	781	1257	727	1170	694	1117	671	1080	655	1054	642	1034	632	1018	625	1006
			F	7.2 -0.6R		7.4 -0.4R		7.6 -0.4R		7.6 -0.3R		7.7 -0.3R		7.7 -0.2R		7.8 -0.2R		7.8 -0.2R		7.8 -0.2R	
		18"	q_a q_f	776	1249	624	1005	607	978	546	879	504	812	511	823	484	779	463	745	472	760
			F	8.3 -0.9R		9.3 -0.9R		8.9 -0.6R		9.5 -0.6R		9.9 -0.5R		9.6 -0.4R		9.9 -0.4R		10.1 -0.4R		9.8 -0.3R	
		24"	q_a q_f	660	1062	528	851	468	754	432	696	408	657	391	630	378	609	368	593	360	580
			F	10.3 -1.5R		11.1 -1.3R		11.5 -1.1R		11.8 -1R		12 -0.9R		12.1 -0.8R		12.3 -0.7R		12.4 -0.7R		12.4 -0.6R	
	20 ga	4"	q_a q_f	1081	1730	1033	1663	1007	1622	991	1596	980	1578	972	1565	966	1555	879	1407	712	1140
			F	5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R	
		6"	q_a q_f	900	1449	833	1342	797	1284	775	1248	760	1223	749	1206	741	1192	734	1182	712	1140
			F	6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		8"	q_a q_f	785	1264	707	1138	666	1072	640	1030	622	1002	610	982	600	966	593	954	587	944
			F	7.3 -0.3R		7.4 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.1R		7.6 -0.1R		7.6 -0.1R		7.6 -0.1R		7.7 -0.1R	
		12"	q_a q_f	651	1048	562	905	515	829	486	783	467	751	452	728	442	711	433	698	427	687
			F	8.8 -0.7R		9.1 -0.5R		9.2 -0.4R		9.3 -0.3R		9.4 -0.3R		9.4 -0.3R		9.5 -0.2R		9.5 -0.2R		9.5 -0.2R	
		18"	q_a q_f	577	929	446	719	429	690	380	613	348	561	352	567	332	534	316	508	322	518
			F	10.1 -1R		11.3 -1R		10.8 -0.7R		11.5 -0.7R		11.9 -0.6R		11.5 -0.5R		11.9 -0.5R		12.2 -0.5R		11.8 -0.4R	
		24"	q_a q_f	487	784	384	618	335	539	305	492	286	460	272	438	261	421	253	407	247	397
			F	12.4 -1.8R		13.3 -1.5R		13.8 -1.3R		14.1 -1.1R		14.3 -1R		14.5 -0.9R		14.7 -0.8R		14.8 -0.8R		14.8 -0.7R	
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a q_f	736	1186	673	1083	639	1029	618	995	604	972	593	955	585	942	579	932	545	872
			F	7.5 -0.2R		7.6 -0.2R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R	
		8"	q_a q_f	642	1034	570	918	532	857	509	819	493	793	481	774	472	760	465	749	460	740
			F	8.4 -0.4R		8.6 -0.3R		8.6 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.1R		8.8 -0.1R		8.8 -0.1R		8.8 -0.1R	
		12"	q_a q_f	536	863	456	734	413	666	387	624	370	596	357	575	348	560	340	548	334	538
			F	10 -0.7R		10.3 -0.6R		10.5 -0.5R		10.6 -0.4R		10.7 -0.3R		10.7 -0.3R		10.8 -0.3R		10.8 -0.2R		10.8 -0.2R	
		18"	q_a q_f	473	761	362	582	343	552	303	487	276	444	277	446	260	419	247	398	251	404
			F	11.5 -1.1R		12.8 -1.1R		12.3 -0.7R		12.9 -0.7R		13.5 -0.7R		13 -0.5R		13.4 -0.5R		13.7 -0.5R		13.4 -0.4R	
		24"	q_a q_f	401	646	314	506	271	437	246	395	228	368	216	348	207	333	200	322	194	312
			F	14 -1.9R		14.9 -1.7R		15.5 -1.4R		15.9 -1.3R		16.1 -1.1R		16.3 -1R		16.5 -0.9R		16.6 -0.8R		16.7 -0.8R	

NN-32 32/5 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #12 SD HWH Screw

3.12 **NN-32**

Pneutek K64 Fasteners to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a / q_f	2135	3437	2059	3315	2018	3249	1992	3208	1975	3180	1962	3159	1952	3143	1857	2972	1504	2407
			F	3.7	-0.1R	3.7	-0.1R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R	3.8	+0R
		6"	q_a / q_f	1794	2888	1681	2707	1620	2609	1582	2548	1557	2506	1538	2476	1524	2453	1512	2435	1503	2407
			F	4.4	-0.2R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	+0R	4.5	+0R	4.5	+0R
		8"	q_a / q_f	1566	2522	1431	2303	1358	2187	1313	2114	1282	2065	1260	2029	1243	2002	1230	1981	1220	1964
			F	5	-0.3R	5.1	-0.2R	5.2	-0.2R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R
		12"	q_a / q_f	1294	2084	1134	1826	1050	1690	998	1606	962	1549	937	1508	917	1477	902	1453	890	1433
			F	6.1	-0.5R	6.4	-0.4R	6.5	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.2R
		18"	q_a / q_f	1141	1836	904	1455	879	1415	784	1263	721	1160	733	1180	692	1114	660	1062	673	1083
			F	7.2	-0.8R	8.1	-0.8R	7.7	-0.5R	8.2	-0.5R	8.6	-0.5R	8.3	-0.4R	8.5	-0.4R	8.8	-0.4R	8.5	-0.3R
		24"	q_a / q_f	976	1571	769	1239	678	1091	623	1003	586	944	560	902	541	870	525	846	513	826
			F	8.9	-1.4R	9.6	-1.2R	10	-1R	10.3	-0.9R	10.5	-0.8R	10.6	-0.7R	10.7	-0.6R	10.8	-0.6R	10.8	-0.5R
	18 ga	4"	q_a / q_f	1652	2659	1580	2543	1541	2480	1516	2441	1500	2415	1488	2395	1478	2380	1340	2144	1085	1737
			F	4.5	-0.1R	4.5	-0.1R	4.5	+0R	4.5	+0R	4.5	+0R	4.5	+0R	4.5	+0R	4.5	+0R	4.5	+0R
		6"	q_a / q_f	1376	2216	1275	2053	1221	1965	1187	1911	1164	1874	1147	1847	1135	1827	1125	1811	1085	1737
			F	5.2	-0.2R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.3	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	+0R	5.4	+0R
		8"	q_a / q_f	1200	1932	1082	1742	1019	1641	980	1578	954	1535	934	1504	920	1481	909	1463	899	1448
			F	5.9	-0.3R	6	-0.2R	6.1	-0.2R	6.1	-0.1R	6.1	-0.1R	6.2	-0.1R	6.2	-0.1R	6.2	-0.1R	6.2	-0.1R
		12"	q_a / q_f	995	1602	860	1384	788	1269	745	1199	715	1151	693	1116	677	1090	664	1070	654	1053
			F	7.2	-0.6R	7.4	-0.4R	7.6	-0.4R	7.6	-0.3R	7.7	-0.3R	7.7	-0.2R	7.8	-0.2R	7.8	-0.2R	7.8	-0.2R
		18"	q_a / q_f	882	1420	683	1100	656	1057	583	938	534	859	540	869	508	818	484	779	493	794
			F	8.3	-0.9R	9.3	-0.9R	8.9	-0.6R	9.5	-0.6R	9.9	-0.5R	9.6	-0.4R	9.9	-0.4R	10.1	-0.4R	9.8	-0.3R
		24"	q_a / q_f	752	1210	587	945	512	825	468	753	438	705	416	670	400	644	388	624	378	608
			F	10.3	-1.5R	11.1	-1.3R	11.5	-1.1R	11.8	-1R	12	-0.9R	12.1	-0.8R	12.3	-0.7R	12.4	-0.7R	12.4	-0.6R
	20 ga	4"	q_a / q_f	1081	1730	1081	1730	1061	1709	1041	1676	1027	1654	1017	1638	1010	1626	879	1407	712	1140
			F	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	+0R	5.7	+0R	5.7	+0R	5.7	+0R	5.7	+0R	5.7	+0R
		6"	q_a / q_f	956	1539	876	1410	833	1341	806	1298	788	1268	775	1247	765	1231	757	1219	712	1140
			F	6.5	-0.2R	6.6	-0.2R	6.6	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R
		8"	q_a / q_f	834	1342	742	1195	694	1117	664	1068	643	1036	629	1012	617	994	609	980	602	969
			F	7.3	-0.3R	7.4	-0.3R	7.5	-0.2R	7.6	-0.2R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.7	-0.1R
		12"	q_a / q_f	695	1119	592	953	538	867	505	813	483	777	467	751	454	732	445	716	437	704
			F	8.8	-0.7R	9.1	-0.5R	9.2	-0.4R	9.3	-0.3R	9.4	-0.3R	9.4	-0.3R	9.5	-0.2R	9.5	-0.2R	9.5	-0.2R
		18"	q_a / q_f	617	994	470	757	446	719	395	635	360	580	362	583	340	548	324	521	329	529
			F	10.1	-1R	11.3	-1R	10.8	-0.7R	11.5	-0.7R	11.9	-0.6R	11.5	-0.5R	11.9	-0.5R	12.2	-0.5R	11.8	-0.4R
		24"	q_a / q_f	523	843	408	656	353	568	320	515	298	479	282	454	270	435	261	420	254	408
			F	12.4	-1.8R	13.3	-1.5R	13.8	-1.3R	14.1	-1.1R	14.3	-1R	14.5	-0.9R	14.7	-0.8R	14.8	-0.8R	14.8	-0.7R
	22 ga	4"	q_a / q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.6	-0.1R	6.6	-0.1R	6.7	-0.1R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R
		6"	q_a / q_f	738	1188	674	1085	640	1030	619	996	604	973	594	956	586	943	580	933	545	872
			F	7.5	-0.2R	7.6	-0.2R	7.7	-0.1R	7.7	-0.1R	7.7	-0.1R	7.7	-0.1R	7.7	-0.1R	7.7	-0.1R	7.7	-0.1R
		8"	q_a / q_f	644	1036	571	920	533	858	509	820	493	794	481	775	473	761	466	750	460	741
			F	8.4	-0.4R	8.6	-0.3R	8.6	-0.2R	8.7	-0.2R	8.7	-0.2R	8.7	-0.1R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R
		12"	q_a / q_f	537	865	456	735	414	667	388	625	370	596	358	576	348	560	341	548	335	539
			F	10	-0.7R	10.3	-0.6R	10.5	-0.5R	10.6	-0.4R	10.7	-0.3R	10.7	-0.3R	10.8	-0.3R	10.8	-0.2R	10.8	-0.2R
		18"	q_a / q_f	474	763	362	583	343	552	303	488	276	445	278	447	261	420	248	399	251	405
			F	11.5	-1.1R	12.8	-1.1R	12.3	-0.7R	12.9	-0.7R	13.5	-0.7R	13	-0.5R	13.4	-0.5R	13.7	-0.5R	13.4	-0.4R
		24"	q_a / q_f	402	648	315	507	272	438	246	396	229	368	216	348	207	334	200	322	194	313
			F	14	-1.9R	14.9	-1.7R	15.5	-1.4R	15.9	-1.3R	16.1	-1.1R	16.3	-1R	16.5	-0.9R	16.6	-0.8R	16.7	-0.8R

NN-32 32/5 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #12 SD HWH Screw

ASC Steel Deck®

NN-32 3.12

Pneutek K66 Fasteners to Supports with No. 12 Self-Drilling Side Lap Screws

Diaphragm Shear in pounds per linear foot (plf)

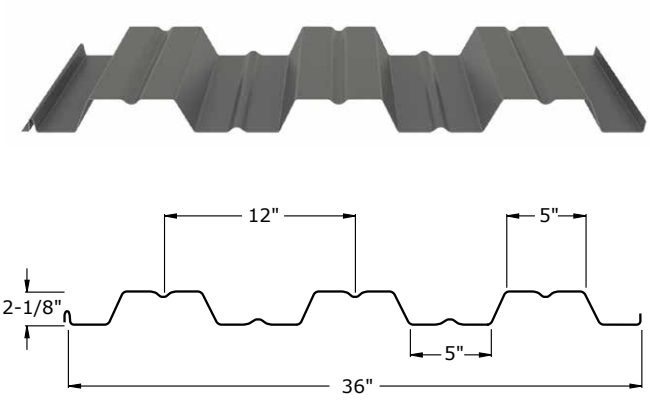
PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	2274	3661	2179	3508	2127	3425	2095	3373	2073	3338	2057	3312	2045	3292	1857	2972	1504	2407
			F	3.7 -0.1R		3.7 -0.1R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a q_f	1898	3055	1762	2838	1690	2721	1645	2648	1614	2598	1591	2562	1575	2535	1561	2514	1504	2407
			F	4.4 -0.2R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R	
		8"	q_a q_f	1655	2664	1496	2409	1412	2273	1359	2188	1323	2131	1298	2089	1278	2058	1263	2033	1251	2013
			F	5 -0.3R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R	
		12"	q_a q_f	1371	2207	1188	1913	1092	1758	1032	1662	992	1597	963	1551	941	1515	924	1488	910	1465
			F	6.1 -0.5R		6.4 -0.4R		6.5 -0.3R		6.6 -0.3R		6.6 -0.2R		6.6 -0.2R		6.7 -0.2R		6.7 -0.2R		6.7 -0.2R	
		18"	q_a q_f	1213	1954	944	1521	910	1465	809	1302	741	1193	750	1208	707	1138	673	1084	687	1106
			F	7.2 -0.8R		8.1 -0.8R		7.7 -0.5R		8.2 -0.5R		8.6 -0.5R		8.3 -0.4R		8.5 -0.4R		8.8 -0.4R		8.5 -0.3R	
		24"	q_a q_f	1041	1677	810	1304	708	1140	647	1042	607	977	578	930	556	895	539	868	525	846
			F	8.9 -1.4R		9.6 -1.2R		10 -1R		10.3 -0.9R		10.5 -0.8R		10.6 -0.7R		10.7 -0.6R		10.8 -0.6R		10.8 -0.5R	
	18 ga	4"	q_a q_f	1695	2729	1616	2602	1573	2533	1547	2490	1529	2461	1515	2440	1505	2423	1340	2144	1085	1737
			F	4.5 -0.1R		4.5 -0.1R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R		4.5 +0R	
		6"	q_a q_f	1409	2269	1300	2093	1242	1999	1206	1941	1181	1901	1163	1872	1149	1850	1139	1833	1085	1737
			F	5.2 -0.2R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 +0R		5.4 +0R	
		8"	q_a q_f	1229	1978	1103	1775	1036	1667	994	1601	966	1555	946	1523	930	1498	918	1478	908	1463
			F	5.9 -0.3R		6 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a q_f	1020	1643	877	1413	802	1291	756	1217	724	1166	702	1130	685	1102	671	1081	661	1064
			F	7.2 -0.6R		7.4 -0.4R		7.6 -0.4R		7.6 -0.3R		7.7 -0.3R		7.7 -0.2R		7.8 -0.2R		7.8 -0.2R		7.8 -0.2R	
		18"	q_a q_f	906	1459	697	1122	667	1073	591	952	541	870	546	879	514	827	488	786	497	801
			F	8.3 -0.9R		9.3 -0.9R		8.9 -0.6R		9.5 -0.6R		9.9 -0.5R		9.6 -0.4R		9.9 -0.4R		10.1 -0.4R		9.8 -0.3R	
		24"	q_a q_f	773	1245	601	967	523	841	476	766	444	716	422	680	405	653	392	632	382	615
			F	10.3 -1.5R		11.1 -1.3R		11.5 -1.1R		11.8 -1R		12 -0.9R		12.1 -0.8R		12.3 -0.7R		12.4 -0.7R		12.4 -0.6R	
	20 ga	4"	q_a q_f	1081	1730	1081	1730	1072	1726	1051	1692	1037	1669	1026	1652	1018	1640	879	1407	712	1140
			F	5.7 -0.1R		5.7 -0.1R		5.7 -0.1R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R	
		6"	q_a q_f	968	1558	884	1424	840	1352	812	1308	794	1278	780	1256	770	1239	762	1226	712	1140
			F	6.5 -0.2R		6.6 -0.2R		6.6 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R		6.7 -0.1R	
		8"	q_a q_f	844	1359	750	1207	700	1126	669	1076	648	1043	632	1018	621	1000	612	985	605	974
			F	7.3 -0.3R		7.4 -0.3R		7.5 -0.2R		7.6 -0.2R		7.6 -0.1R		7.6 -0.1R		7.6 -0.1R		7.6 -0.1R		7.7 -0.1R	
		12"	q_a q_f	704	1134	599	964	543	875	509	820	486	783	470	756	457	736	447	720	440	708
			F	8.8 -0.7R		9.1 -0.5R		9.2 -0.4R		9.3 -0.3R		9.4 -0.3R		9.4 -0.3R		9.5 -0.2R		9.5 -0.2R		9.5 -0.2R	
		18"	q_a q_f	625	1007	475	765	450	725	398	641	363	584	365	587	342	551	325	524	330	532
			F	10.1 -1R		11.3 -1R		10.8 -0.7R		11.5 -0.7R		11.9 -0.6R		11.5 -0.5R		11.9 -0.5R		12.2 -0.5R		11.8 -0.4R	
		24"	q_a q_f	531	856	413	665	357	574	323	520	300	483	284	458	272	438	263	423	255	411
			F	12.4 -1.8R		13.3 -1.5R		13.8 -1.3R		14.1 -1.1R		14.3 -1R		14.5 -0.9R		14.7 -0.8R		14.8 -0.8R		14.8 -0.7R	
	22 ga	4"	q_a q_f	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	772	1235	673	1077	545	872
			F	6.6 -0.1R		6.6 -0.1R		6.7 -0.1R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a q_f	763	1228	693	1115	655	1055	632	1017	616	992	605	973	596	959	589	949	545	872
			F	7.5 -0.2R		7.6 -0.2R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R		7.7 -0.1R	
		8"	q_a q_f	666	1072	587	946	546	878	520	837	502	809	490	788	480	773	473	761	467	751
			F	8.4 -0.4R		8.6 -0.3R		8.6 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.1R		8.8 -0.1R		8.8 -0.1R		8.8 -0.1R	
		12"	q_a q_f	558	898	469	755	423	681	395	637	377	607	364	586	354	570	346	557	339	546
			F	10 -0.7R		10.3 -0.6R		10.5 -0.5R		10.6 -0.4R		10.7 -0.3R		10.7 -0.3R		10.8 -0.3R		10.8 -0.2R		10.8 -0.2R	
		18"	q_a q_f	491	790	374	602	352	566	310	499	282	454	282	455	265	427	251	405	255	410
			F	11.5 -1.1R		12.8 -1.1R		12.3 -0.7R		12.9 -0.7R		13.5 -0.7R		13 -0.5R		13.4 -0.5R		13.7 -0.5R		13.4 -0.4R	
		24"	q_a q_f	420	676	326	525	280	451	253	407	234	377	221	356	211	340	204	328	198	318
			F	14 -1.9R		14.9 -1.7R		15.5 -1.4R		15.9 -1.3R		16.1 -1.1R		16.3 -1R		16.5 -0.9R		16.6 -0.8R		16.7 -0.8R	

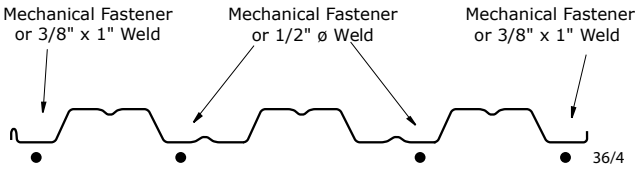
NN-32 32/5 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #12 SD HWH Screw

N PANELS

4.1 DG2WH-36 & 2WH-36



Attachment Patterns



Note: Weld sizes are effective not visible. Refer to AISI S100-2007 or AWS D1.3 for additional welding requirements.

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.58	0.0290	50	65	0.449	0.353	1.04	0.328	0.890
21	1.79	0.0330	50	65	0.509	0.403	1.04	0.371	0.889
20	1.95	0.0359	50	65	0.554	0.437	1.05	0.403	0.888
19	2.26	0.0420	50	65	0.646	0.507	1.05	0.468	0.887
18	2.54	0.0474	50	65	0.728	0.570	1.05	0.525	0.885
16	3.19	0.0598	50	65	0.915	0.713	1.05	0.654	0.883

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.292	0.247	0.92	0.256	1.17	0.330	0.323	0.338	0.333
21	0.362	0.298	0.95	0.307	1.14	0.387	0.380	0.392	0.388
20	0.415	0.337	0.97	0.345	1.13	0.430	0.420	0.432	0.426
19	0.524	0.408	0.98	0.425	1.11	0.507	0.503	0.507	0.504
18	0.627	0.472	1.00	0.500	1.09	0.570	0.570	0.570	0.570
16	0.897	0.654	1.05	0.653	1.06	0.713	0.713	0.713	0.713

Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	320	398	510	591	489	610	780	905
	Interior	529	639	793	907	787	950	1180	1349
21	End	407	505	643	744	623	773	984	1139
	Interior	676	811	1003	1143	1006	1207	1492	1700
20	End	477	589	748	864	729	901	1144	1322
	Interior	793	948	1168	1329	1180	1411	1737	1977
19	End	639	785	990	1141	978	1200	1515	1745
	Interior	1067	1268	1551	1758	1587	1886	2307	2616
18	End	801	978	1229	1412	1225	1496	1880	2161
	Interior	1342	1585	1930	2182	1996	2358	2870	3245
16	End	1234	1493	1858	2126	1889	2284	2843	3253
	Interior	2082	2435	2935	3301	3097	3623	4367	4911
Constants		h = 1.966"		r = 0.125"		θ = 64°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

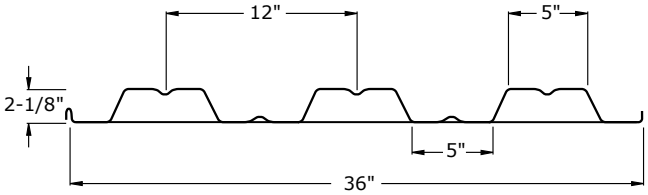
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	308	137	77	49	34	25	19	15	12
		Φf_b	462	205	116	74	51	38	29	23	18
		L/360	231	68	29	15	9	5	4	3	2
		L/240	346	103	43	22	13	8	5	4	3
		L/180	461	137	58	30	17	11	7	5	4
		L/120	692	205	86	44	26	16	11	8	6
	Double Span	f_b/Ω	319	142	80	51	35	26	20	16	13
		Φf_b	480	213	120	77	53	39	30	24	19
		L/360	548	162	69	35	20	13	9	6	4
		L/240	822	244	103	53	30	19	13	9	7
		L/180	1097	325	137	70	41	26	17	12	9
		L/120	1645	487	206	105	61	38	26	18	13
	Triple Span	f_b/Ω	399	177	100	64	44	33	25	20	16
		Φf_b	600	267	150	96	67	49	37	30	24
		L/360	430	127	54	27	16	10	7	5	3
		L/240	644	191	81	41	24	15	10	7	5
		L/180	859	255	107	55	32	20	13	9	7
		L/120	1289	382	161	82	48	30	20	14	10
21	Single Span	f_b/Ω	372	165	93	60	41	30	23	18	15
		Φf_b	560	249	140	90	62	46	35	28	22
		L/360	268	79	33	17	10	6	4	3	2
		L/240	402	119	50	26	15	9	6	4	3
		L/180	536	159	67	34	20	12	8	6	4
		L/120	804	238	100	51	30	19	13	9	6
	Double Span	f_b/Ω	383	170	96	61	43	31	24	19	15
		Φf_b	576	256	144	92	64	47	36	28	23
		L/360	638	189	80	41	24	15	10	7	5
		L/240	957	283	120	61	35	22	15	10	8
		L/180	1276	378	159	82	47	30	20	14	10
		L/120	1914	567	239	122	71	45	30	21	15
	Triple Span	f_b/Ω	479	213	120	77	53	39	30	24	19
		Φf_b	720	320	180	115	80	59	45	36	29
		L/360	500	148	62	32	19	12	8	5	4
		L/240	750	222	94	48	28	17	12	8	6
		L/180	999	296	125	64	37	23	16	11	8
		L/120	1499	444	187	96	56	35	23	16	12
20	Single Span	f_b/Ω	420	187	105	67	47	34	26	21	17
		Φf_b	631	281	158	101	70	52	39	31	25
		L/360	295	87	37	19	11	7	5	3	2
		L/240	443	131	55	28	16	10	7	5	4
		L/180	590	175	74	38	22	14	9	6	5
		L/120	885	262	111	57	33	21	14	10	7
	Double Span	f_b/Ω	431	191	108	69	48	35	27	21	17
		Φf_b	648	288	162	104	72	53	40	32	26
		L/360	700	207	88	45	26	16	11	8	6
		L/240	1050	311	131	67	39	24	16	12	8
		L/180	1400	415	175	90	52	33	22	15	11
		L/120	2100	622	263	134	78	49	33	23	17
	Triple Span	f_b/Ω	539	239	135	86	60	44	34	27	22
		Φf_b	809	360	202	130	90	66	51	40	32
		L/360	548	162	69	35	20	13	9	6	4
		L/240	823	244	103	53	30	19	13	9	7
		L/180	1097	325	137	70	41	26	17	12	9
		L/120	1645	487	206	105	61	38	26	18	13

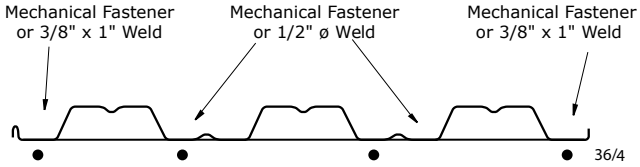
4.1 DG2WH-36 & 2WH-36

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
19	Single Span	f_b/Ω	509	226	127	81	57	42	32	25	20
		Φf_b	765	340	191	122	85	62	48	38	31
		L/360	346	103	43	22	13	8	5	4	3
		L/240	519	154	65	33	19	12	8	6	4
		L/180	692	205	86	44	26	16	11	8	6
		L/120	1038	308	130	66	38	24	16	11	8
	Double Span	f_b/Ω	530	236	133	85	59	43	33	26	21
		Φf_b	797	354	199	128	89	65	50	39	32
		L/360	830	246	104	53	31	19	13	9	7
		L/240	1245	369	156	80	46	29	19	14	10
		L/180	1660	492	207	106	61	39	26	18	13
		L/120	2489	738	311	159	92	58	39	27	20
	Triple Span	f_b/Ω	663	295	166	106	74	54	41	33	27
		Φf_b	996	443	249	159	111	81	62	49	40
		L/360	650	193	81	42	24	15	10	7	5
		L/240	975	289	122	62	36	23	15	11	8
		L/180	1300	385	163	83	48	30	20	14	10
		L/120	1950	578	244	125	72	45	30	21	16
18	Single Span	f_b/Ω	589	262	147	94	65	48	37	29	24
		Φf_b	886	394	221	142	98	72	55	44	35
		L/360	389	115	49	25	14	9	6	4	3
		L/240	584	173	73	37	22	14	9	6	5
		L/180	778	231	97	50	29	18	12	9	6
		L/120	1168	346	146	75	43	27	18	13	9
	Double Span	f_b/Ω	624	277	156	100	69	51	39	31	25
		Φf_b	938	417	235	150	104	77	59	46	38
		L/360	938	278	117	60	35	22	15	10	8
		L/240	1406	417	176	90	52	33	22	15	11
		L/180	1875	556	234	120	69	44	29	21	15
		L/120	2813	833	352	180	104	66	44	31	23
	Triple Span	f_b/Ω	780	347	195	125	87	64	49	39	31
		Φf_b	1173	521	293	188	130	96	73	58	47
		L/360	735	218	92	47	27	17	11	8	6
		L/240	1102	326	138	71	41	26	17	12	9
		L/180	1469	435	184	94	54	34	23	16	12
		L/120	2204	653	275	141	82	51	34	24	18
16	Single Span	f_b/Ω	816	363	204	131	91	67	51	40	33
		Φf_b	1227	545	307	196	136	100	77	61	49
		L/360	487	144	61	31	18	11	8	5	4
		L/240	731	216	91	47	27	17	11	8	6
		L/180	974	289	122	62	36	23	15	11	8
		L/120	1461	433	183	94	54	34	23	16	12
	Double Span	f_b/Ω	815	362	204	130	91	67	51	40	33
		Φf_b	1225	544	306	196	136	100	77	60	49
		L/360	1173	348	147	75	43	27	18	13	9
		L/240	1760	522	220	113	65	41	28	19	14
		L/180	2347	695	293	150	87	55	37	26	19
		L/120	3520	1043	440	225	130	82	55	39	28
	Triple Span	f_b/Ω	1019	453	255	163	113	83	64	50	41
		Φf_b	1531	681	383	245	170	125	96	76	61
		L/360	919	272	115	59	34	21	14	10	7
		L/240	1379	409	172	88	51	32	22	15	11
		L/180	1838	545	230	118	68	43	29	20	15
		L/120	2758	817	345	176	102	64	43	30	22

DG2WHF-36 & 2WHF-36 4.2





Note: Weld sizes are effective not visible. Refer to AISI S100-2007 or AWS D1.3 for additional welding requirements.

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.54	0.0359 / 0.036	50	65	1.008	0.770	0.65	0.496	0.874
20/18	4.01	0.0359 / 0.047	50	65	1.147	0.820	0.58	0.504	0.845
20/16	4.53	0.0359 / 0.059	50	65	1.299	0.864	0.53	0.510	0.815
18/20	4.13	0.0474 / 0.036	50	65	1.187	0.961	0.72	0.648	0.900
18/18	4.61	0.0474 / 0.047	50	65	1.326	1.025	0.66	0.658	0.879
18/16	5.12	0.0474 / 0.059	50	65	1.477	1.083	0.61	0.667	0.856
16/20	4.78	0.0598 / 0.036	50	65	1.381	1.159	0.79	0.809	0.916
16/18	5.25	0.0598 / 0.047	50	65	1.520	1.235	0.73	0.822	0.901
16/16	5.77	0.0598 / 0.059	50	65	1.671	1.306	0.68	0.833	0.884

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.510	0.391	0.56	0.457	1.00	0.732	0.603	0.745	0.659
20/18	0.591	0.401	0.50	0.476	0.87	0.776	0.690	0.791	0.733
20/16	0.692	0.406	0.46	0.492	0.73	0.816	0.771	0.832	0.802
18/20	0.715	0.590	0.69	0.593	1.07	0.959	0.749	0.960	0.820
18/18	0.796	0.599	0.63	0.616	0.95	1.023	0.849	1.024	0.907
18/16	0.897	0.607	0.57	0.639	0.83	1.081	0.948	1.081	0.993
16/20	0.939	0.779	0.77	0.740	1.10	1.156	0.905	1.157	0.989
16/18	1.020	0.792	0.71	0.766	1.01	1.232	1.017	1.233	1.089
16/16	1.121	0.803	0.66	0.792	0.91	1.303	1.132	1.304	1.190

Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	320	398	510	591	489	610	780	905
	Interior	529	639	793	907	787	950	1180	1349
21	End	407	505	643	744	623	773	984	1139
	Interior	676	811	1003	1143	1006	1207	1492	1700
20	End	477	589	748	864	729	901	1144	1322
	Interior	793	948	1168	1329	1180	1411	1737	1977
19	End	639	785	990	1141	978	1200	1515	1745
	Interior	1067	1268	1551	1758	1587	1886	2307	2616
18	End	801	978	1229	1412	1225	1496	1880	2161
	Interior	1342	1585	1930	2182	1996	2358	2870	3245
16	End	1234	1493	1858	2126	1889	2284	2843	3253
	Interior	2082	2435	2935	3301	3097	3623	4367	4911
Constants		h = 1.966"		r = 0.125"		θ = 64°			

4.2 DG2WHF-36 & 2WHF-36

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	487	217	122	78	54	40	30	24	19
		Φf_b	733	326	183	117	81	60	46	36	29
		L/360	509	151	64	33	19	12	8	6	4
		L/240	763	226	95	49	28	18	12	8	6
		L/180	1017	301	127	65	38	24	16	11	8
		L/120	1526	452	191	98	57	36	24	17	12
	Double Span	f_b/Ω	570	253	143	91	63	47	36	28	23
		Φf_b	857	381	214	137	95	70	54	42	34
		L/360	1084	321	136	69	40	25	17	12	9
		L/240	1626	482	203	104	60	38	25	18	13
		L/180	2168	642	271	139	80	51	34	24	17
		L/120	3252	964	407	208	120	76	51	36	26
	Triple Span	f_b/Ω	713	317	178	114	79	58	45	35	29
		Φf_b	1071	476	268	171	119	87	67	53	43
		L/360	849	252	106	54	31	20	13	9	7
		L/240	1274	377	159	82	47	30	20	14	10
		L/180	1698	503	212	109	63	40	27	19	14
		L/120	2548	755	318	163	94	59	40	28	20
20/18	Single Span	f_b/Ω	500	222	125	80	56	41	31	25	20
		Φf_b	752	334	188	120	84	61	47	37	30
		L/360	540	160	67	35	20	13	8	6	4
		L/240	810	240	101	52	30	19	13	9	6
		L/180	1080	320	135	69	40	25	17	12	9
		L/120	1619	480	202	104	60	38	25	18	13
	Double Span	f_b/Ω	593	264	148	95	66	48	37	29	24
		Φf_b	892	396	223	143	99	73	56	44	36
		L/360	1206	357	151	77	45	28	19	13	10
		L/240	1809	536	226	116	67	42	28	20	14
		L/180	2412	715	302	154	89	56	38	26	19
		L/120	3618	1072	452	232	134	84	57	40	29
	Triple Span	f_b/Ω	742	330	185	119	82	61	46	37	30
		Φf_b	1115	496	279	178	124	91	70	55	45
		L/360	945	280	118	60	35	22	15	10	8
		L/240	1417	420	177	91	52	33	22	16	11
		L/180	1890	560	236	121	70	44	30	21	15
		L/120	2835	840	354	181	105	66	44	31	23
20/16	Single Span	f_b/Ω	507	225	127	81	56	41	32	25	20
		Φf_b	762	339	191	122	85	62	48	38	30
		L/360	568	168	71	36	21	13	9	6	5
		L/240	852	253	107	55	32	20	13	9	7
		L/180	1136	337	142	73	42	27	18	12	9
		L/120	1705	505	213	109	63	40	27	19	14
	Double Span	f_b/Ω	614	273	154	98	68	50	38	30	25
		Φf_b	923	410	231	148	103	75	58	46	37
		L/360	1319	391	165	84	49	31	21	14	11
		L/240	1978	586	247	127	73	46	31	22	16
		L/180	2638	782	330	169	98	62	41	29	21
		L/120	3957	1172	495	253	147	92	62	43	32
	Triple Span	f_b/Ω	768	341	192	123	85	63	48	38	31
		Φf_b	1154	513	289	185	128	94	72	57	46
		L/360	1033	306	129	66	38	24	16	11	8
		L/240	1550	459	194	99	57	36	24	17	12
		L/180	2067	612	258	132	77	48	32	23	17
		L/120	3100	918	387	198	115	72	48	34	25

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	Single Span	f_b/Ω	736	327	184	118	82	60	46	36	29
		Φf_b	1106	491	276	177	123	90	69	55	44
		L/360	656	194	82	42	24	15	10	7	5
		L/240	983	291	123	63	36	23	15	11	8
		L/180	1311	389	164	84	49	31	20	14	10
		L/120	1967	583	246	126	73	46	31	22	16
	Double Span	f_b/Ω	740	329	185	118	82	60	46	37	30
		Φf_b	1112	494	278	178	124	91	70	55	44
		L/360	1349	400	169	86	50	31	21	15	11
		L/240	2023	599	253	129	75	47	32	22	16
		L/180	2697	799	337	173	100	63	42	30	22
		L/120	4046	1199	506	259	150	94	63	44	32
	Triple Span	f_b/Ω	925	411	231	148	103	76	58	46	37
		Φf_b	1390	618	348	222	154	113	87	69	56
		L/360	1056	313	132	68	39	25	17	12	8
		L/240	1585	470	198	101	59	37	25	17	13
		L/180	2113	626	264	135	78	49	33	23	17
		L/120	3169	939	396	203	117	74	50	35	25
18/18	Single Span	f_b/Ω	747	332	187	120	83	61	47	37	30
		Φf_b	1123	499	281	180	125	92	70	55	45
		L/360	699	207	87	45	26	16	11	8	6
		L/240	1048	311	131	67	39	24	16	12	8
		L/180	1398	414	175	89	52	33	22	15	11
		L/120	2097	621	262	134	78	49	33	23	17
	Double Span	f_b/Ω	768	341	192	123	85	63	48	38	31
		Φf_b	1155	513	289	185	128	94	72	57	46
		L/360	1493	442	187	96	55	35	23	16	12
		L/240	2239	663	280	143	83	52	35	25	18
		L/180	2985	884	373	191	111	70	47	33	24
		L/120	4478	1327	560	287	166	104	70	49	36
	Triple Span	f_b/Ω	960	427	240	154	107	78	60	47	38
		Φf_b	1443	641	361	231	160	118	90	71	58
		L/360	1169	346	146	75	43	27	18	13	9
		L/240	1754	520	219	112	65	41	27	19	14
		L/180	2338	693	292	150	87	55	37	26	19
		L/120	3508	1039	438	224	130	82	55	38	28
18/16	Single Span	f_b/Ω	758	337	189	121	84	62	47	37	30
		Φf_b	1139	506	285	182	127	93	71	56	46
		L/360	738	219	92	47	27	17	12	8	6
		L/240	1108	328	138	71	41	26	17	12	9
		L/180	1477	438	185	95	55	34	23	16	12
		L/120	2215	656	277	142	82	52	35	24	18
	Double Span	f_b/Ω	797	354	199	128	89	65	50	39	32
		Φf_b	1198	532	299	192	133	98	75	59	48
		L/360	1634	484	204	105	61	38	26	18	13
		L/240	2451	726	306	157	91	57	38	27	20
		L/180	3267	968	408	209	121	76	51	36	26
		L/120	4901	1452	613	314	182	114	77	54	39
	Triple Span	f_b/Ω	996	443	249	159	111	81	62	49	40
		Φf_b	1497	665	374	240	166	122	94	74	60
		L/360	1280	379	160	82	47	30	20	14	10
		L/240	1920	569	240	123	71	45	30	21	15
		L/180	2560	758	320	164	95	60	40	28	20
		L/120	3839	1138	480	246	142	90	60	42	31

4.2 DG2WHF-36 & 2WHF-36

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

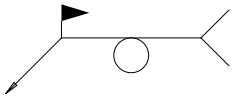
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	972	432	243	155	108	79	61	48	39
		Φf_b	1460	649	365	234	162	119	91	72	58
		L/360	790	234	99	51	29	18	12	9	6
		L/240	1185	351	148	76	44	28	19	13	9
		L/180	1580	468	197	101	59	37	25	17	13
		L/120	2370	702	296	152	88	55	37	26	19
	Double Span	f_b/Ω	923	410	231	148	103	75	58	46	37
		Φf_b	1388	617	347	222	154	113	87	69	56
		L/360	1627	482	203	104	60	38	25	18	13
		L/240	2441	723	305	156	90	57	38	27	20
		L/180	3255	964	407	208	121	76	51	36	26
		L/120	4882	1447	610	312	181	114	76	54	39
	Triple Span	f_b/Ω	1154	513	288	185	128	94	72	57	46
		Φf_b	1734	771	434	278	193	142	108	86	69
		L/360	1275	378	159	82	47	30	20	14	10
		L/240	1912	567	239	122	71	45	30	21	15
		L/180	2550	756	319	163	94	59	40	28	20
		L/120	3825	1133	478	245	142	89	60	42	31
16/18	Single Span	f_b/Ω	988	439	247	158	110	81	62	49	40
		Φf_b	1484	660	371	237	165	121	93	73	59
		L/360	842	249	105	54	31	20	13	9	7
		L/240	1263	374	158	81	47	29	20	14	10
		L/180	1684	499	210	108	62	39	26	18	13
		L/120	2526	748	316	162	94	59	39	28	20
	Double Span	f_b/Ω	955	424	239	153	106	78	60	47	38
		Φf_b	1435	638	359	230	159	117	90	71	57
		L/360	1792	531	224	115	66	42	28	20	14
		L/240	2688	796	336	172	100	63	42	29	22
		L/180	3584	1062	448	229	133	84	56	39	29
		L/120	5376	1593	672	344	199	125	84	59	43
	Triple Span	f_b/Ω	1194	531	298	191	133	97	75	59	48
		Φf_b	1794	797	449	287	199	146	112	89	72
		L/360	1404	416	175	90	52	33	22	15	11
		L/240	2106	624	263	135	78	49	33	23	17
		L/180	2808	832	351	180	104	65	44	31	22
		L/120	4211	1248	526	270	156	98	66	46	34
16/16	Single Span	f_b/Ω	1002	445	250	160	111	82	63	49	40
		Φf_b	1506	669	376	241	167	123	94	74	60
		L/360	891	264	111	57	33	21	14	10	7
		L/240	1336	396	167	85	49	31	21	15	11
		L/180	1781	528	223	114	66	42	28	20	14
		L/120	2672	792	334	171	99	62	42	29	21
	Double Span	f_b/Ω	989	439	247	158	110	81	62	49	40
		Φf_b	1486	660	371	238	165	121	93	73	59
		L/360	1957	580	245	125	72	46	31	21	16
		L/240	2936	870	367	188	109	68	46	32	23
		L/180	3915	1160	489	251	145	91	61	43	31
		L/120	5872	1740	734	376	217	137	92	64	47
	Triple Span	f_b/Ω	1236	549	309	198	137	101	77	61	49
		Φf_b	1857	825	464	297	206	152	116	92	74
		L/360	1533	454	192	98	57	36	24	17	12
		L/240	2300	681	287	147	85	54	36	25	18
		L/180	3067	909	383	196	114	72	48	34	25
		L/120	4600	1363	575	294	170	107	72	50	37

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.3

Arc Spot/Seam Welds to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3906	2080	3328	1794	2870
			F	2.4 +5.4R		2.4 +4.6R		2.5 +4.1R		2.5 +3.6R		2.5 +3.2R		2.5 +2.9R		2.5 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3906	2080	3328	1794	2870
			F	2.8 +5.4R		2.8 +4.6R		2.9 +4R		2.9 +3.6R		2.9 +3.2R		3 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a q_f	2389	3942	2409	3974	2346	3871	2367	3905	2319	3826	2339	3859	2300	3795	2080	3328	1794	2870
			F	3.1 +5.3R		3.2 +4.5R		3.3 +4R		3.3 +3.5R		3.3 +3.2R		3.4 +2.9R		3.4 +2.6R		3.4 +2.4R		3.4 +2.2R	
		12"	q_a q_f	2003	3304	1964	3240	1934	3191	1910	3151	1890	3119	1874	3093	1861	3070	1849	3051	1794	2870
			F	3.8 +5.1R		3.9 +4.4R		4 +3.8R		4.1 +3.4R		4.1 +3R		4.2 +2.8R		4.2 +2.5R		4.2 +2.3R		4.2 +2.2R	
		18"	q_a q_f	1629	3304	1639	2705	1647	2718	1506	2484	1526	2518	1543	2546	1441	2377	1462	2413	1480	2443
			F	4.7 +4.9R		4.8 +4.1R		5 +3.6R		5.1 +3.2R		5.2 +2.8R		5.2 +2.5R		5.3 +2.3R		5.3 +2.1R		5.4 +2R	
		24"	q_a q_f	1399	2309	1446	2385	1296	2138	1345	2220	1231	2032	1279	2110	1187	1959	1232	2032	1155	1906
			F	5.4 +4.6R		5.7 +3.9R		5.8 +3.3R		6 +2.9R		6.1 +2.6R		6.2 +2.3R		6.3 +2.1R		6.4 +1.9R		6.4 +1.7R	
	18 ga	4"	q_a q_f	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1734	2774	1477	2364	1274	2038
			F	2.9 +9.7R		3 +8.3R		3.1 +7.2R		3.1 +6.4R		3.2 +5.8R		3.2 +5.3R		3.3 +4.8R		3.3 +4.5R		3.3 +4.1R	
		6"	q_a q_f	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1734	2774	1477	2364	1274	2038
			F	3.4 +9.6R		3.6 +8.2R		3.6 +7.2R		3.7 +6.4R		3.8 +5.7R		3.8 +5.2R		3.8 +4.8R		3.9 +4.4R		3.9 +4.1R	
		8"	q_a q_f	1859	3068	1871	3087	1827	3014	1843	3041	1806	2980	1822	3006	1734	2774	1477	2364	1274	2038
			F	3.9 +9.5R		4.1 +8.1R		4.2 +7.1R		4.3 +6.3R		4.3 +5.7R		4.4 +5.1R		4.4 +4.7R		4.5 +4.3R		4.5 +4R	
		12"	q_a q_f	1561	2576	1532	2527	1509	2490	1491	2460	1476	2435	1464	2415	1453	2398	1444	2364	1274	2038
			F	4.8 +9.2R		5 +7.9R		5.2 +6.9R		5.3 +6.1R		5.4 +5.5R		5.4 +5R		5.5 +4.5R		5.5 +4.2R		5.6 +3.9R	
		18"	q_a q_f	1271	2576	1280	2111	1286	2122	1177	1941	1193	1968	1206	1990	1127	1859	1144	1887	1158	1911
			F	5.9 +8.9R		6.2 +7.5R		6.4 +6.5R		6.6 +5.7R		6.7 +5.1R		6.8 +4.6R		6.9 +4.2R		7 +3.9R		7.1 +3.6R	
		24"	q_a q_f	1092	1802	1129	1862	1012	1670	1051	1735	963	1588	1000	1650	929	1533	964	1590	904	1492
			F	6.9 +8.5R		7.2 +7.2R		7.5 +6.1R		7.7 +5.4R		7.9 +4.8R		8.1 +4.3R		8.3 +3.9R		8.4 +3.5R		8.5 +3.2R	
	20 ga	4"	q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1845	983	1572	847	1356
			F	3.6 +19.4R		3.8 +16.6R		4 +14.5R		4.1 +12.9R		4.2 +11.6R		4.2 +10.6R		4.3 +9.7R		4.4 +8.9R		4.4 +8.3R	
		6"	q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1845	983	1572	847	1356
			F	4.4 +19.2R		4.6 +16.5R		4.8 +14.4R		4.9 +12.8R		5 +11.5R		5.1 +10.4R		5.2 +9.6R		5.2 +8.8R		5.3 +8.2R	
		8"	q_a q_f	1121	1850	1121	1850	1111	1833	1121	1849	1099	1814	1109	1829	1091	1801	983	1572	847	1356
			F	5.1 +19.1R		5.3 +16.3R		5.5 +14.2R		5.7 +12.6R		5.8 +11.4R		5.9 +10.3R		6 +9.5R		6.1 +8.7R		6.1 +8.1R	
		12"	q_a q_f	952	1571	935	1543	922	1521	911	1504	903	1490	896	1478	890	1468	885	1460	847	1356
			F	6.3 +18.7R		6.6 +15.9R		6.9 +13.9R		7.1 +12.3R		7.3 +11R		7.4 +10R		7.5 +9.2R		7.6 +8.4R		7.7 +7.8R	
		18"	q_a q_f	777	1571	783	1292	787	1299	721	1190	732	1207	740	1221	692	1142	703	1159	712	1174
			F	7.7 +18.1R		8.2 +15.4R		8.6 +13.3R		8.9 +11.7R		9.1 +10.5R		9.4 +9.5R		9.5 +8.6R		9.7 +7.9R		9.8 +7.3R	
		24"	q_a q_f	667	1101	691	1140	620	1023	645	1064	591	975	614	1013	571	942	593	978	556	918
			F	8.9 +17.6R		9.5 +14.9R		10 +12.8R		10.4 +11.2R		10.7 +9.9R		11 +8.9R		11.3 +8.1R		11.5 +7.4R		11.7 +6.8R	
	22 ga	4"	q_a q_f	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	714	1142	615	984
			F	4.1 +33.1R		4.5 +28.3R		4.7 +24.8R		4.9 +22R		5.1 +19.8R		5.2 +18R		5.3 +16.5R		5.4 +15.2R		5.4 +14.1R	
		6"	q_a q_f	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	714	1142	615	984
			F	5.1 +32.8R		5.5 +28.1R		5.8 +24.6R		6 +21.8R		6.2 +19.6R		6.3 +17.8R		6.4 +16.3R		6.5 +15.1R		6.6 +14R	
		8"	q_a q_f	765	1261	771	1272	751	1239	757	1250	742	1224	748	1235	736	1214	714	1142	615	984
			F	6 +32.6R		6.4 +27.9R		6.7 +24.3R		7 +21.6R		7.2 +19.4R		7.4 +17.6R		7.5 +16.2R		7.6 +14.9R		7.7 +13.8R	
		12"	q_a q_f	641	1057	628	1037	619	1021	611	1009	605	998	600	990	596	983	592	977	589	971
			F	7.5 +32.1R		8 +27.4R		8.4 +23.8R		8.8 +21.1R		9.1 +18.9R		9.3 +17.2R		9.5 +15.7R		9.7 +14.5R		9.8 +13.4R	
		18"	q_a q_f	521	1057	525	866	527	870	482	795	489	806	494	815	461	761	468	772	474	782
			F	9.2 +31.4R		9.9 +26.6R		10.5 +23.1R		11 +20.4R		11.4 +18.2R		11.7 +16.4R		12 +15R		12.3 +13.7R		12.5 +12.7R	
		24"	q_a q_f	448	739	463	763	415	684	431	711	394	650	409	675	380	627	394	651	370	610
			F	10.5 +30.7R		11.4 +25.9R		12.2 +22.4R		12.8 +19.6R		13.3 +17.4R		13.8 +15.7R		14.2 +14.2R		14.5 +13R		14.9 +11.9R	

2WH-36 36/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: DeltaGrip DG4™

4.4 DG2WH-36 & DG2WHF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/3	16 ga	4"	q_a / q_f	978 / 1575	978 / 1575	978 / 1575	978 / 1575	978 / 1575	978 / 1575	978 / 1575	978 / 1575	978 / 1575
			F	2.4 +5.4R	2.4 +4.6R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.5 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a / q_f	969 / 1561	969 / 1560	969 / 1560	969 / 1560	969 / 1560	969 / 1560	969 / 1560	969 / 1560	969 / 1560
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4R	2.9 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a / q_f	958 / 1542	960 / 1545	957 / 1541	959 / 1544	957 / 1541	958 / 1543	957 / 1540	958 / 1542	957 / 1540
			F	3.2 +5.3R	3.3 +4.6R	3.3 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.4 +2.7R	3.5 +2.5R	3.5 +2.3R
		12"	q_a / q_f	927 / 1493	927 / 1492	926 / 1491	926 / 1490	925 / 1490	925 / 1489	925 / 1489	925 / 1489	924 / 1488
			F	4 +5.2R	4.1 +4.5R	4.1 +3.9R	4.2 +3.5R	4.2 +3.1R	4.3 +2.8R	4.3 +2.6R	4.3 +2.4R	4.3 +2.2R
		18"	q_a / q_f	872 / 1493	882 / 1420	889 / 1431	867 / 1397	875 / 1409	881 / 1419	865 / 1393	872 / 1403	877 / 1412
			F	5 +5R	5.2 +4.3R	5.3 +3.7R	5.3 +3.3R	5.4 +3R	5.5 +2.7R	5.5 +2.4R	5.5 +2.3R	5.6 +2.1R
		24"	q_a / q_f	813 / 1308	840 / 1352	807 / 1299	830 / 1336	803 / 1293	823 / 1325	800 / 1288	818 / 1317	798 / 1285
			F	6 +4.8R	6.2 +4R	6.3 +3.5R	6.4 +3.1R	6.5 +2.8R	6.6 +2.5R	6.6 +2.3R	6.7 +2.1R	6.8 +1.9R
	18 ga	4"	q_a / q_f	775 / 1248	775 / 1248	775 / 1248	775 / 1248	775 / 1248	775 / 1248	775 / 1248	775 / 1248	775 / 1248
			F	3 +9.7R	3 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.2 +5.3R	3.3 +4.8R	3.3 +4.5R	3.3 +4.2R
		6"	q_a / q_f	768 / 1237	768 / 1237	768 / 1236	768 / 1236	768 / 1236	768 / 1236	768 / 1236	768 / 1236	768 / 1236
			F	3.5 +9.6R	3.6 +8.3R	3.7 +7.2R	3.8 +6.4R	3.8 +5.8R	3.9 +5.2R	3.9 +4.8R	3.9 +4.4R	3.9 +4.1R
		8"	q_a / q_f	759 / 1222	760 / 1224	758 / 1221	760 / 1223	758 / 1221	759 / 1223	758 / 1220	759 / 1222	758 / 1220
			F	4.1 +9.6R	4.2 +8.2R	4.3 +7.2R	4.4 +6.4R	4.4 +5.7R	4.5 +5.2R	4.5 +4.8R	4.5 +4.4R	4.6 +4.1R
		12"	q_a / q_f	735 / 1183	734 / 1182	734 / 1181	733 / 1180	733 / 1180	733 / 1180	732 / 1179	732 / 1179	732 / 1179
			F	5.1 +9.4R	5.3 +8R	5.4 +7R	5.5 +6.2R	5.6 +5.6R	5.6 +5.1R	5.7 +4.6R	5.7 +4.3R	5.7 +4R
		18"	q_a / q_f	690 / 1183	698 / 1124	704 / 1133	687 / 1105	693 / 1116	698 / 1123	685 / 1102	690 / 1111	694 / 1117
			F	6.5 +9R	6.7 +7.7R	6.9 +6.7R	7 +5.9R	7.2 +5.3R	7.2 +4.8R	7.3 +4.4R	7.4 +4.1R	7.4 +3.8R
		24"	q_a / q_f	643 / 1035	664 / 1070	638 / 1027	656 / 1057	635 / 1022	651 / 1048	633 / 1019	647 / 1042	631 / 1016
			F	7.8 +8.7R	8.1 +7.3R	8.3 +6.4R	8.5 +5.6R	8.6 +5R	8.7 +4.5R	8.9 +4.1R	9 +3.8R	9 +3.5R
	20 ga	4"	q_a / q_f	585 / 942	585 / 942	585 / 942	585 / 942	585 / 942	585 / 942	585 / 942	585 / 942	585 / 942
			F	3.7 +19.4R	3.9 +16.7R	4 +14.6R	4.1 +12.9R	4.2 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.4 +8.3R
		6"	q_a / q_f	577 / 929	577 / 929	577 / 929	577 / 929	577 / 929	577 / 929	577 / 929	577 / 929	577 / 929
			F	4.6 +19.3R	4.8 +16.6R	4.9 +14.5R	5 +12.9R	5.1 +11.6R	5.2 +10.5R	5.3 +9.6R	5.3 +8.9R	5.4 +8.3R
		8"	q_a / q_f	567 / 913	569 / 916	567 / 913	568 / 915	567 / 912	568 / 914	566 / 912	567 / 914	566 / 912
			F	5.4 +19.2R	5.6 +16.4R	5.8 +14.4R	5.9 +12.8R	6 +11.5R	6.1 +10.4R	6.2 +9.6R	6.2 +8.8R	6.3 +8.2R
		12"	q_a / q_f	542 / 873	542 / 872	541 / 871	541 / 870	540 / 870	540 / 869	540 / 869	539 / 869	539 / 868
			F	6.8 +18.9R	7.1 +16.1R	7.3 +14.1R	7.5 +12.5R	7.6 +11.2R	7.8 +10.2R	7.9 +9.3R	7.9 +8.6R	8 +8R
		18"	q_a / q_f	499 / 873	507 / 816	511 / 823	495 / 797	501 / 807	505 / 814	493 / 794	498 / 801	502 / 808
			F	8.7 +18.3R	9.1 +15.6R	9.4 +13.6R	9.7 +12R	9.9 +10.8R	10.1 +9.8R	10.2 +8.9R	10.3 +8.2R	10.4 +7.6R
		24"	q_a / q_f	457 / 735	475 / 765	451 / 727	467 / 753	448 / 721	462 / 744	446 / 718	458 / 738	444 / 715
			F	10.3 +17.8R	10.9 +15R	11.3 +13R	11.7 +11.5R	11.9 +10.2R	12.2 +9.3R	12.4 +8.4R	12.5 +7.7R	12.7 +7.1R
	22 ga	4"	q_a / q_f	470 / 757	470 / 756	470 / 756	470 / 756	470 / 756	470 / 756	470 / 756	470 / 756	470 / 756
			F	4.3 +33.1R	4.6 +28.4R	4.8 +24.8R	5 +22.1R	5.1 +19.9R	5.3 +18.1R	5.4 +16.6R	5.4 +15.3R	5.5 +14.2R
		6"	q_a / q_f	461 / 742	461 / 742	461 / 741	460 / 741	460 / 741	460 / 741	460 / 741	460 / 741	460 / 741
			F	5.4 +33R	5.7 +28.2R	6 +24.7R	6.2 +21.9R	6.3 +19.7R	6.5 +17.9R	6.6 +16.5R	6.7 +15.2R	6.8 +14.1R
		8"	q_a / q_f	449 / 723	451 / 726	449 / 722	450 / 725	448 / 722	450 / 724	448 / 721	449 / 723	448 / 721
			F	6.4 +32.8R	6.8 +28R	7.1 +24.5R	7.3 +21.8R	7.5 +19.6R	7.7 +17.8R	7.8 +16.3R	7.9 +15.1R	8 +14R
		12"	q_a / q_f	422 / 680	421 / 678	420 / 677	420 / 676	419 / 675	419 / 675	419 / 674	418 / 674	418 / 673
			F	8.3 +32.3R	8.8 +27.6R	9.1 +24.1R	9.4 +21.4R	9.7 +19.2R	9.9 +17.4R	10 +16R	10.2 +14.7R	10.3 +13.7R
		18"	q_a / q_f	379 / 680	385 / 621	390 / 628	374 / 602	379 / 611	384 / 617	371 / 598	376 / 605	380 / 611
			F	10.7 +31.5R	11.3 +26.8R	11.8 +23.4R	12.2 +20.7R	12.6 +18.5R	12.9 +16.8R	13.1 +15.3R	13.3 +14.1R	13.5 +13.1R
		24"	q_a / q_f	339 / 546	356 / 573	334 / 537	348 / 560	330 / 531	342 / 551	328 / 527	339 / 545	326 / 525
			F	12.7 +30.8R	13.5 +26.1R	14.2 +22.6R	14.7 +19.9R	15.2 +17.8R	15.5 +16R	15.9 +14.6R	16.1 +13.4R	16.4 +12.4R

2WH-36 36/3 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.4

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	2.4 +5.4R		2.4 +4.6R		2.5 +4.1R		2.5 +3.6R		2.5 +3.2R		2.5 +2.9R		2.6 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	2.8 +5.4R		2.8 +4.6R		2.9 +4R		2.9 +3.6R		2.9 +3.2R		3 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.1 +5.3R		3.2 +4.5R		3.3 +4R		3.3 +3.5R		3.4 +3.2R		3.4 +2.9R		3.4 +2.6R		3.4 +2.4R		3.4 +2.3R	
		12"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.9 +5.2R		4 +4.4R		4 +3.8R		4.1 +3.4R		4.1 +3.1R		4.2 +2.8R		4.2 +2.5R		4.2 +2.3R		4.3 +2.2R	
		18"	q_a / q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.8 +4.9R		4.9 +4.2R		5 +3.6R		5.1 +3.2R		5.2 +2.8R		5.3 +2.6R		5.3 +2.3R		5.4 +2.2R		5.4 +2R	
		24"	q_a / q_f	986	1587	986	1587	981	1579	986	1587	971	1563	986	1587	964	1551	986	1587	959	1543
			F	5.6 +4.6R		5.8 +3.9R		6 +3.4R		6.1 +2.9R		6.2 +2.6R		6.3 +2.3R		6.4 +2.1R		6.5 +1.9R		6.5 +1.8R	
	18 ga	4"	q_a / q_f	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			F	2.9 +9.7R		3 +8.3R		3.1 +7.3R		3.1 +6.4R		3.2 +5.8R		3.2 +5.3R		3.3 +4.8R		3.3 +4.5R		3.3 +4.1R	
		6"	q_a / q_f	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			F	3.5 +9.6R		3.6 +8.2R		3.7 +7.2R		3.7 +6.4R		3.8 +5.7R		3.8 +5.2R		3.9 +4.8R		3.9 +4.4R		3.9 +4.1R	
		8"	q_a / q_f	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			F	4 +9.5R		4.1 +8.1R		4.2 +7.1R		4.3 +6.3R		4.3 +5.7R		4.4 +5.2R		4.4 +4.7R		4.5 +4.4R		4.5 +4R	
		12"	q_a / q_f	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			F	4.9 +9.3R		5.1 +7.9R		5.2 +6.9R		5.3 +6.1R		5.4 +5.5R		5.5 +5R		5.5 +4.6R		5.6 +4.2R		5.6 +3.9R	
		18"	q_a / q_f	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			F	6.1 +8.9R		6.3 +7.6R		6.5 +6.6R		6.7 +5.8R		6.8 +5.2R		7 +4.7R		7 +4.3R		7.1 +3.9R		7.2 +3.6R	
		24"	q_a / q_f	781	1258	781	1258	775	1248	781	1258	767	1235	781	1258	761	1226	781	1258	757	1219
			F	7.1 +8.5R		7.4 +7.2R		7.7 +6.2R		7.9 +5.4R		8.1 +4.8R		8.3 +4.3R		8.4 +3.9R		8.5 +3.6R		8.6 +3.3R	
	20 ga	4"	q_a / q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	3.7 +19.4R		3.8 +16.6R		4 +14.5R		4.1 +12.9R		4.2 +11.6R		4.3 +10.6R		4.3 +9.7R		4.4 +8.9R		4.4 +8.3R	
		6"	q_a / q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	4.4 +19.2R		4.7 +16.5R		4.8 +14.4R		4.9 +12.8R		5 +11.5R		5.1 +10.5R		5.2 +9.6R		5.3 +8.9R		5.3 +8.2R	
		8"	q_a / q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	5.2 +19.1R		5.4 +16.3R		5.6 +14.3R		5.7 +12.7R		5.9 +11.4R		6 +10.3R		6 +9.5R		6.1 +8.7R		6.2 +8.1R	
		12"	q_a / q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	6.4 +18.7R		6.7 +16R		7 +13.9R		7.2 +12.3R		7.4 +11.1R		7.5 +10.1R		7.6 +9.2R		7.7 +8.5R		7.8 +7.9R	
		18"	q_a / q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	8 +18.2R		8.4 +15.4R		8.8 +13.4R		9.1 +11.8R		9.3 +10.5R		9.5 +9.5R		9.7 +8.7R		9.9 +8R		10 +7.4R	
		24"	q_a / q_f	552	889	577	929	540	869	562	904	532	856	551	887	526	847	544	875	522	841
			F	9.2 +17.6R		9.8 +14.9R		10.3 +12.8R		10.7 +11.2R		11 +10R		11.3 +9R		11.6 +8.1R		11.8 +7.4R		12 +6.8R	
	22 ga	4"	q_a / q_f	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			F	4.2 +33.1R		4.5 +28.3R		4.7 +24.8R		4.9 +22R		5.1 +19.8R		5.2 +18R		5.3 +16.5R		5.4 +15.2R		5.5 +14.2R	
		6"	q_a / q_f	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			F	5.2 +32.9R		5.6 +28.1R		5.8 +24.6R		6 +21.9R		6.2 +19.7R		6.4 +17.9R		6.5 +16.4R		6.6 +15.1R		6.7 +14R	
		8"	q_a / q_f	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			F	6.1 +32.6R		6.5 +27.9R		6.8 +24.4R		7.1 +21.6R		7.3 +19.5R		7.4 +17.7R		7.6 +16.2R		7.7 +14.9R		7.8 +13.9R	
		12"	q_a / q_f	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			F	7.7 +32.1R		8.2 +27.4R		8.6 +23.9R		8.9 +21.2R		9.2 +19R		9.4 +17.2R		9.6 +15.8R		9.8 +14.5R		9.9 +13.5R	
		18"	q_a / q_f	461	770	468	754	474	763	448	721	455	733	461	742	441	711	448	721	453	729
			F	9.5 +31.4R		10.3 +26.6R		10.8 +23.1R		11.3 +20.4R		11.7 +18.2R		12 +16.5R		12.3 +15R		12.5 +13.8R		12.8 +12.8R	
		24"	q_a / q_f	406	654	425	685	393	633	411	661	385	620	401	645	380	611	394	634	375	604
			F	11 +30.7R		11.9 +25.9R		12.6 +22.4R		13.3 +19.7R		13.8 +17.5R		14.2 +15.7R		14.6 +14.3R		14.9 +13R		15.2 +12R	

2WH-36 36/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

4.4 DG2WH-36 & DG2WHF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/6	16 ga	4"	q_a / q_f	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587
			F	2.3 +5.4R	2.4 +4.6R	2.4 +4R	2.5 +3.6R	2.5 +3.2R	2.5 +2.9R	2.5 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a / q_f	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587
			F	2.7 +5.3R	2.8 +4.6R	2.9 +4R	2.9 +3.6R	2.9 +3.2R	2.9 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a / q_f	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587
			F	3.1 +5.3R	3.2 +4.5R	3.2 +3.9R	3.3 +3.5R	3.3 +3.1R	3.4 +2.9R	3.4 +2.6R	3.4 +2.4R	3.4 +2.2R
		12"	q_a / q_f	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587
			F	3.7 +5.1R	3.9 +4.4R	3.9 +3.8R	4 +3.4R	4.1 +3R	4.1 +2.7R	4.1 +2.5R	4.2 +2.3R	4.2 +2.1R
		18"	q_a / q_f	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587
			F	4.6 +4.8R	4.7 +4.1R	4.9 +3.5R	5 +3.1R	5.1 +2.8R	5.1 +2.5R	5.2 +2.3R	5.3 +2.1R	5.3 +1.9R
		24"	q_a / q_f	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587	986 / 1587
			F	5.2 +4.6R	5.5 +3.8R	5.7 +3.3R	5.8 +2.9R	6 +2.5R	6.1 +2.3R	6.2 +2R	6.2 +1.8R	6.3 +1.7R
	18 ga	4"	q_a / q_f	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258
			F	2.9 +9.7R	3 +8.3R	3.1 +7.2R	3.1 +6.4R	3.2 +5.8R	3.2 +5.3R	3.2 +4.8R	3.3 +4.4R	3.3 +4.1R
		6"	q_a / q_f	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258
			F	3.4 +9.6R	3.5 +8.2R	3.6 +7.2R	3.7 +6.4R	3.7 +5.7R	3.8 +5.2R	3.8 +4.8R	3.9 +4.4R	3.9 +4.1R
		8"	q_a / q_f	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258
			F	3.9 +9.5R	4 +8.1R	4.1 +7.1R	4.2 +6.3R	4.3 +5.6R	4.3 +5.1R	4.4 +4.7R	4.4 +4.3R	4.5 +4R
		12"	q_a / q_f	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258
			F	4.7 +9.2R	4.9 +7.9R	5.1 +6.8R	5.2 +6.1R	5.3 +5.4R	5.4 +4.9R	5.4 +4.5R	5.5 +4.1R	5.5 +3.8R
		18"	q_a / q_f	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258
			F	5.8 +8.8R	6 +7.5R	6.3 +6.5R	6.4 +5.7R	6.6 +5.1R	6.7 +4.6R	6.8 +4.2R	6.9 +3.8R	7 +3.5R
		24"	q_a / q_f	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258	781 / 1258
			F	6.6 +8.5R	7 +7.1R	7.3 +6.1R	7.5 +5.3R	7.7 +4.7R	7.9 +4.2R	8 +3.8R	8.2 +3.5R	8.3 +3.2R
	20 ga	4"	q_a / q_f	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953
			F	3.6 +19.4R	3.8 +16.6R	3.9 +14.5R	4.1 +12.9R	4.2 +11.6R	4.2 +10.5R	4.3 +9.7R	4.3 +8.9R	4.4 +8.3R
		6"	q_a / q_f	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953
			F	4.3 +19.2R	4.6 +16.4R	4.7 +14.4R	4.9 +12.8R	5 +11.5R	5.1 +10.4R	5.1 +9.6R	5.2 +8.8R	5.3 +8.2R
		8"	q_a / q_f	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953
			F	5 +19R	5.3 +16.3R	5.5 +14.2R	5.6 +12.6R	5.7 +11.3R	5.9 +10.3R	5.9 +9.4R	6 +8.7R	6.1 +8.1R
		12"	q_a / q_f	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953
			F	6.1 +18.6R	6.5 +15.9R	6.7 +13.8R	6.9 +12.3R	7.1 +11R	7.3 +10R	7.4 +9.1R	7.5 +8.4R	7.6 +7.8R
		18"	q_a / q_f	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953
			F	7.4 +18.1R	7.9 +15.3R	8.3 +13.3R	8.6 +11.7R	8.9 +10.4R	9.1 +9.4R	9.3 +8.6R	9.5 +7.8R	9.6 +7.2R
		24"	q_a / q_f	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953	592 / 953
			F	8.4 +17.6R	9 +14.8R	9.6 +12.8R	10 +11.2R	10.3 +9.9R	10.7 +8.8R	10.9 +8R	11.2 +7.3R	11.4 +6.7R
	22 ga	4"	q_a / q_f	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770
			F	4.1 +33R	4.4 +28.3R	4.7 +24.8R	4.9 +22R	5 +19.8R	5.2 +18R	5.3 +16.5R	5.3 +15.2R	5.4 +14.1R
		6"	q_a / q_f	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770
			F	5 +32.8R	5.4 +28.1R	5.7 +24.5R	5.9 +21.8R	6.1 +19.6R	6.3 +17.8R	6.4 +16.3R	6.5 +15R	6.6 +14R
		8"	q_a / q_f	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770
			F	5.8 +32.5R	6.3 +27.8R	6.6 +24.3R	6.9 +21.6R	7.1 +19.4R	7.3 +17.6R	7.4 +16.1R	7.6 +14.8R	7.7 +13.8R
		12"	q_a / q_f	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770
			F	7.2 +32R	7.8 +27.3R	8.2 +23.8R	8.6 +21.1R	8.8 +18.9R	9.1 +17.1R	9.3 +15.6R	9.5 +14.4R	9.6 +13.3R
		18"	q_a / q_f	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770	478 / 770
			F	8.7 +31.4R	9.5 +26.6R	10.1 +23R	10.6 +20.3R	11 +18.1R	11.4 +16.3R	11.7 +14.9R	11.9 +13.6R	12.2 +12.6R
		24"	q_a / q_f	474 / 763	478 / 770	452 / 728	476 / 767	439 / 707	461 / 741	430 / 693	449 / 723	424 / 682
			F	9.9 +30.8R	10.8 +26R	11.6 +22.4R	12.2 +19.6R	12.8 +17.4R	13.2 +15.6R	13.7 +14.1R	14 +12.9R	14.3 +11.8R

2WH-36 36/6 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.5

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

HILTI®

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"				
36/3	16 ga	4"	q_a q_f	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021				
			F	2.4 +5.4R	2.4 +4.6R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.5 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R				
		6"	q_a q_f	1237 1992	1237 1991	1237 1991	1237 1991	1236 1991	1236 1990	1236 1990	1236 1990	1236 1990				
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4R	2.9 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R				
		8"	q_a q_f	1214 1954	1218 1961	1213 1952	1216 1958	1212 1951	1215 1956	1211 1950	1214 1954	1211 1950				
			F	3.2 +5.3R	3.3 +4.6R	3.3 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.4 +2.7R	3.5 +2.5R	3.5 +2.3R				
		12"	q_a q_f	1156 1861	1154 1858	1153 1856	1152 1854	1151 1853	1150 1852	1150 1851	1149 1850	1149 1849				
			F	4 +5.2R	4.1 +4.5R	4.1 +3.9R	4.2 +3.5R	4.2 +3.1R	4.3 +2.8R	4.3 +2.6R	4.3 +2.4R	4.3 +2.2R				
		18"	q_a q_f	1058 1861	1074 1730	1085 1747	1048 1688	1061 1709	1071 1725	1043 1679	1054 1697	1063 1711				
			F	5 +5R	5.2 +4.3R	5.3 +3.7R	5.3 +3.3R	5.4 +2.9R	5.4 +2.7R	5.5 +2.4R	5.5 +2.2R	5.6 +2.1R				
		24"	q_a q_f	963 1550	1004 1616	951 1531	986 1588	943 1518	974 1568	938 1510	965 1554	934 1504				
			F	6 +4.7R	6.1 +4R	6.3 +3.5R	6.4 +3.1R	6.5 +2.7R	6.6 +2.5R	6.6 +2.3R	6.7 +2.1R	6.7 +1.9R				
	18 ga	4"	q_a q_f	1008 1622	1008 1622	1008 1622	1008 1622	1007 1622	1007 1622	1007 1622	1007 1622	1007 1622				
			F	3 +9.7R	3 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.2 +5.3R	3.3 +4.8R	3.3 +4.5R	3.3 +4.2R				
		6"	q_a q_f	993 1598	992 1598	992 1597	992 1597	992 1597	992 1597	992 1597	992 1596	992 1596				
			F	3.5 +9.6R	3.6 +8.3R	3.7 +7.2R	3.8 +6.4R	3.8 +5.8R	3.9 +5.2R	3.9 +4.8R	3.9 +4.4R	3.9 +4.1R				
		8"	q_a q_f	973 1567	976 1572	972 1565	975 1570	971 1564	974 1568	971 1563	973 1567	971 1563				
			F	4.1 +9.6R	4.2 +8.2R	4.3 +7.2R	4.4 +6.4R	4.4 +5.7R	4.5 +5.2R	4.5 +4.8R	4.5 +4.4R	4.6 +4.1R				
		12"	q_a q_f	925 1490	924 1487	923 1485	922 1484	921 1483	920 1482	920 1481	919 1480	919 1480				
			F	5.1 +9.4R	5.3 +8R	5.4 +7R	5.5 +6.2R	5.5 +5.6R	5.6 +5.1R	5.7 +4.6R	5.7 +4.3R	5.7 +4R				
		18"	q_a q_f	845 1490	858 1381	867 1396	837 1347	847 1364	855 1377	832 1340	841 1354	848 1366				
			F	6.5 +9R	6.7 +7.7R	6.9 +6.7R	7 +5.9R	7.1 +5.3R	7.2 +4.8R	7.3 +4.4R	7.4 +4R	7.4 +3.7R				
		24"	q_a q_f	767 1235	801 1289	757 1219	786 1265	751 1209	776 1249	747 1202	769 1238	744 1197				
			F	7.7 +8.7R	8 +7.3R	8.2 +6.3R	8.4 +5.6R	8.6 +5R	8.7 +4.5R	8.8 +4.1R	8.9 +3.8R	9 +3.5R				
	20 ga	4"	q_a q_f	767 1236	767 1235	767 1235	767 1235	767 1235	767 1235	767 1235	767 1235	767 1235				
			F	3.7 +19.4R	3.9 +16.6R	4 +14.6R	4.1 +12.9R	4.2 +11.6R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.4 +8.3R				
		6"	q_a q_f	751 1209	750 1208	750 1208	750 1207	750 1207	750 1207	749 1207	749 1206	749 1206				
			F	4.6 +19.3R	4.8 +16.5R	4.9 +14.5R	5 +12.9R	5.1 +11.6R	5.2 +10.5R	5.3 +9.6R	5.3 +8.9R	5.4 +8.3R				
		8"	q_a q_f	730 1175	733 1180	728 1173	731 1177	728 1172	730 1176	727 1171	729 1174	727 1170				
			F	5.3 +19.2R	5.6 +16.4R	5.7 +14.4R	5.9 +12.8R	6 +11.5R	6.1 +10.4R	6.1 +9.6R	6.2 +8.8R	6.3 +8.2R				
		12"	q_a q_f	681 1096	679 1093	678 1091	677 1089	676 1088	675 1087	674 1086	674 1085	673 1084				
			F	6.8 +18.8R	7.1 +16.1R	7.3 +14.1R	7.5 +12.5R	7.6 +11.2R	7.7 +10.2R	7.8 +9.3R	7.9 +8.6R	8 +8R				
		18"	q_a q_f	606 1096	617 993	624 1005	596 960	606 975	613 987	592 952	599 965	606 975				
			F	8.7 +18.3R	9.1 +15.6R	9.4 +13.6R	9.6 +12R	9.9 +10.8R	10 +9.7R	10.2 +8.9R	10.3 +8.2R	10.4 +7.6R				
		24"	q_a q_f	539 868	566 911	529 851	552 889	522 841	543 874	518 834	536 863	515 829				
			F	10.3 +17.7R	10.8 +15R	11.2 +13R	11.6 +11.5R	11.9 +10.2R	12.1 +9.2R	12.3 +8.4R	12.5 +7.7R	12.6 +7.1R				
	22 ga	4"	q_a q_f	618 995	618 995	618 995	618 995	618 995	618 995	618 994	618 994	615 984				
			F	4.3 +33.1R	4.6 +28.4R	4.8 +24.8R	5 +22.1R	5.1 +19.9R	5.3 +18.1R	5.4 +16.6R	5.4 +15.3R	5.5 +14.2R				
		6"	q_a q_f	599 964	598 963	598 962	597 962	597 961	597 961	597 961	597 961	597 960				
			F	5.4 +33R	5.7 +28.2R	6 +24.7R	6.2 +21.9R	6.3 +19.7R	6.5 +17.9R	6.6 +16.4R	6.7 +15.2R	6.8 +14.1R				
		8"	q_a q_f	575 926	579 931	573 923	576 928	572 921	575 926	571 920	574 924	571 919				
			F	6.4 +32.7R	6.8 +28R	7.1 +24.5R	7.3 +21.8R	7.5 +19.6R	7.6 +17.8R	7.8 +16.3R	7.9 +15R	8 +14R				
		12"	q_a q_f	524 843	521 839	520 837	518 834	517 833	516 831	515 830	515 829	514 828				
			F	8.3 +32.3R	8.7 +27.6R	9.1 +24.1R	9.4 +21.4R	9.6 +19.2R	9.8 +17.4R	10 +16R	10.1 +14.7R	10.3 +13.6R				
		18"	q_a q_f	452 843	461 743	468 754	442 711	450 724	456 735	437 703	443 714	449 723				
			F	10.6 +31.5R	11.2 +26.8R	11.8 +23.3R	12.2 +20.6R	12.5 +18.5R	12.8 +16.8R	13 +15.3R	13.2 +14.1R	13.4 +13R				
		24"	q_a q_f	395 635	416 670	384 618	403 649	378 608	394 635	373 601	388 625	370 595				
			F	12.5 +30.8R	13.4 +26.1R	14 +22.6R	14.6 +19.9R	15 +17.7R	15.4 +16R	15.8 +14.6R	16 +13.4R	16.3 +12.3R				

2WH-36 36/3 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

4.5 DG2WH-36 & DG2WHF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/4	16 ga	4"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	2.4 +5.4R	2.4 +4.6R	2.5 +4.1R	2.5 +3.6R	2.5 +3.2R	2.5 +2.9R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	2.8 +5.4R	2.8 +4.6R	2.9 +4R	2.9 +3.6R	2.9 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	3.1 +5.3R	3.2 +4.5R	3.3 +4R	3.3 +3.5R	3.4 +3.2R	3.4 +2.9R	3.4 +2.6R	3.4 +2.4R	3.4 +2.3R
		12"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	3.8 +5.1R	3.9 +4.4R	4 +3.8R	4.1 +3.4R	4.1 +3R	4.2 +2.8R	4.2 +2.5R	4.2 +2.3R	4.3 +2.2R
		18"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1260 2029	1271 2047	1271 2047
			F	4.7 +4.9R	4.9 +4.1R	5 +3.6R	5.1 +3.2R	5.2 +2.8R	5.3 +2.6R	5.3 +2.3R	5.4 +2.1R	5.4 +2R
		24"	q_a q_f	1162 1870	1214 1955	1133 1824	1180 1899	1114 1794	1156 1862	1102 1774	1139 1834	1093 1759
			F	5.5 +4.6R	5.7 +3.9R	5.9 +3.3R	6.1 +2.9R	6.2 +2.6R	6.3 +2.3R	6.4 +2.1R	6.4 +1.9R	6.5 +1.8R
	18 ga	4"	q_a q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			F	2.9 +9.7R	3 +8.3R	3.1 +7.2R	3.1 +6.4R	3.2 +5.8R	3.2 +5.3R	3.3 +4.8R	3.3 +4.5R	3.3 +4.1R
		6"	q_a q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			F	3.5 +9.6R	3.6 +8.2R	3.7 +7.2R	3.7 +6.4R	3.8 +5.7R	3.8 +5.2R	3.9 +4.8R	3.9 +4.4R	3.9 +4.1R
		8"	q_a q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			F	4 +9.5R	4.1 +8.1R	4.2 +7.1R	4.3 +6.3R	4.3 +5.7R	4.4 +5.1R	4.4 +4.7R	4.5 +4.3R	4.5 +4R
		12"	q_a q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			F	4.9 +9.3R	5.1 +7.9R	5.2 +6.9R	5.3 +6.1R	5.4 +5.5R	5.5 +5R	5.5 +4.6R	5.6 +4.2R	5.6 +3.9R
		18"	q_a q_f	1021 1644	1021 1644	1021 1644	1015 1635	1021 1644	1021 1644	1004 1616	1017 1637	1021 1644
			F	6 +8.9R	6.3 +7.5R	6.5 +6.5R	6.7 +5.8R	6.8 +5.2R	6.9 +4.7R	7 +4.2R	7.1 +3.9R	7.2 +3.6R
		24"	q_a q_f	925 1489	967 1556	901 1450	939 1511	886 1426	920 1480	875 1409	906 1458	868 1397
			F	7 +8.5R	7.4 +7.2R	7.6 +6.2R	7.9 +5.4R	8.1 +4.8R	8.2 +4.3R	8.4 +3.9R	8.5 +3.6R	8.6 +3.3R
	20 ga	4"	q_a q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			F	3.6 +19.4R	3.8 +16.6R	4 +14.5R	4.1 +12.9R	4.2 +11.6R	4.3 +10.6R	4.3 +9.7R	4.4 +8.9R	4.4 +8.3R
		6"	q_a q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			F	4.4 +19.2R	4.6 +16.5R	4.8 +14.4R	4.9 +12.8R	5 +11.5R	5.1 +10.5R	5.2 +9.6R	5.3 +8.8R	5.3 +8.2R
		8"	q_a q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			F	5.1 +19.1R	5.4 +16.3R	5.6 +14.3R	5.7 +12.7R	5.8 +11.4R	5.9 +10.3R	6 +9.5R	6.1 +8.7R	6.2 +8.1R
		12"	q_a q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			F	6.4 +18.7R	6.7 +16R	7 +13.9R	7.2 +12.3R	7.3 +11.1R	7.5 +10R	7.6 +9.2R	7.7 +8.5R	7.8 +7.8R
		18"	q_a q_f	733 1260	745 1200	754 1214	711 1144	722 1163	732 1178	699 1125	709 1142	718 1156
			F	7.9 +18.2R	8.4 +15.4R	8.7 +13.4R	9 +11.8R	9.3 +10.5R	9.5 +9.5R	9.7 +8.7R	9.8 +8R	9.9 +7.4R
		24"	q_a q_f	643 1036	674 1085	621 1000	649 1045	607 977	632 1017	597 961	620 998	590 950
			F	9.1 +17.6R	9.7 +14.9R	10.2 +12.8R	10.6 +11.2R	10.9 +10R	11.2 +9R	11.5 +8.1R	11.7 +7.4R	11.9 +6.8R
	22 ga	4"	q_a q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			F	4.2 +33.1R	4.5 +28.3R	4.7 +24.8R	4.9 +22R	5.1 +19.8R	5.2 +18R	5.3 +16.5R	5.4 +15.2R	5.5 +14.1R
		6"	q_a q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			F	5.2 +32.8R	5.5 +28.1R	5.8 +24.6R	6 +21.8R	6.2 +19.7R	6.3 +17.9R	6.5 +16.4R	6.6 +15.1R	6.7 +14R
		8"	q_a q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			F	6.1 +32.6R	6.5 +27.9R	6.8 +24.4R	7.1 +21.6R	7.3 +19.5R	7.4 +17.7R	7.6 +16.2R	7.7 +14.9R	7.8 +13.8R
		12"	q_a q_f	637 1025	636 1024	631 1017	628 1011	625 1006	622 1002	620 999	618 996	615 984
			F	7.6 +32.1R	8.1 +27.4R	8.6 +23.9R	8.9 +21.2R	9.2 +19R	9.4 +17.2R	9.6 +15.7R	9.7 +14.5R	9.9 +13.4R
		18"	q_a q_f	541 1025	550 885	556 895	518 834	527 848	534 860	506 814	514 827	521 838
			F	9.4 +31.4R	10.2 +26.6R	10.7 +23.1R	11.2 +20.4R	11.6 +18.2R	11.9 +16.5R	12.2 +15R	12.5 +13.8R	12.7 +12.7R
		24"	q_a q_f	469 756	491 791	448 721	468 754	434 699	453 729	425 684	442 711	418 673
			F	10.8 +30.7R	11.7 +25.9R	12.5 +22.4R	13.1 +19.6R	13.6 +17.5R	14.1 +15.7R	14.5 +14.2R	14.8 +13R	15.1 +12R

2WH-36 36/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

ASC STEEL DECK®

DG2WH-36 & DG2WHF-36 4.5

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/6	16 ga	4"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	2.3 +5.4R		2.4 +4.6R		2.4 +4R		2.5 +3.6R		2.5 +3.2R		2.5 +2.9R		2.5 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	2.7 +5.3R		2.8 +4.6R		2.8 +4R		2.9 +3.5R		2.9 +3.2R		2.9 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	3.1 +5.3R		3.2 +4.5R		3.2 +3.9R		3.3 +3.5R		3.3 +3.1R		3.3 +2.8R		3.4 +2.6R		3.4 +2.4R		3.4 +2.2R	
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	3.7 +5.1R		3.8 +4.3R		3.9 +3.8R		4 +3.4R		4.1 +3R		4.1 +2.7R		4.1 +2.5R		4.2 +2.3R		4.2 +2.1R	
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			F	4.5 +4.8R		4.7 +4.1R		4.8 +3.5R		5 +3.1R		5 +2.8R		5.1 +2.5R		5.2 +2.3R		5.2 +2.1R		5.3 +1.9R	
		24"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1260	2028
			F	5.2 +4.6R		5.4 +3.8R		5.6 +3.3R		5.8 +2.8R		5.9 +2.5R		6 +2.2R		6.1 +2R		6.2 +1.8R		6.3 +1.7R	
	18 ga	4"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			F	2.9 +9.7R		3 +8.3R		3.1 +7.2R		3.1 +6.4R		3.2 +5.8R		3.2 +5.3R		3.2 +4.8R		3.3 +4.4R		3.3 +4.1R	
		6"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			F	3.4 +9.6R		3.5 +8.2R		3.6 +7.2R		3.7 +6.4R		3.7 +5.7R		3.8 +5.2R		3.8 +4.8R		3.9 +4.4R		3.9 +4.1R	
		8"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			F	3.9 +9.4R		4 +8.1R		4.1 +7.1R		4.2 +6.3R		4.3 +5.6R		4.3 +5.1R		4.4 +4.7R		4.4 +4.3R		4.5 +4R	
		12"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			F	4.7 +9.2R		4.9 +7.8R		5 +6.8R		5.2 +6R		5.3 +5.4R		5.3 +4.9R		5.4 +4.5R		5.5 +4.1R		5.5 +3.8R	
		18"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			F	5.7 +8.8R		6 +7.5R		6.2 +6.5R		6.4 +5.7R		6.5 +5.1R		6.7 +4.6R		6.8 +4.1R		6.9 +3.8R		7 +3.5R	
		24"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1011	1627	1021	1644	998	1606
			F	6.5 +8.5R		6.9 +7.1R		7.2 +6.1R		7.4 +5.3R		7.7 +4.7R		7.8 +4.2R		8 +3.8R		8.1 +3.4R		8.3 +3.1R	
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			F	3.6 +19.4R		3.8 +16.6R		3.9 +14.5R		4.1 +12.9R		4.2 +11.6R		4.2 +10.5R		4.3 +9.7R		4.3 +8.9R		4.4 +8.3R	
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			F	4.3 +19.2R		4.5 +16.4R		4.7 +14.4R		4.9 +12.8R		5 +11.5R		5.1 +10.4R		5.1 +9.5R		5.2 +8.8R		5.3 +8.2R	
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			F	5 +19R		5.2 +16.3R		5.4 +14.2R		5.6 +12.6R		5.7 +11.3R		5.8 +10.3R		5.9 +9.4R		6 +8.7R		6.1 +8R	
		12"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			F	6 +18.6R		6.4 +15.9R		6.7 +13.8R		6.9 +12.2R		7.1 +11R		7.2 +9.9R		7.4 +9.1R		7.5 +8.4R		7.6 +7.7R	
		18"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			F	7.3 +18.1R		7.8 +15.3R		8.2 +13.3R		8.5 +11.7R		8.8 +10.4R		9 +9.4R		9.2 +8.5R		9.4 +7.8R		9.6 +7.2R	
		24"	q_a	745	1200	783	1260	709	1142	746	1201	687	1105	720	1159	671	1081	701	1129	660	1063
			F	8.3 +17.7R		8.9 +14.8R		9.4 +12.8R		9.9 +11.1R		10.2 +9.9R		10.6 +8.8R		10.8 +8R		11.1 +7.3R		11.3 +6.7R	
	22 ga	4"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			F	4.1 +33R		4.4 +28.3R		4.7 +24.7R		4.9 +22R		5 +19.8R		5.1 +18R		5.3 +16.5R		5.3 +15.2R		5.4 +14.1R	
		6"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			F	5 +32.8R		5.4 +28.1R		5.7 +24.5R		5.9 +21.8R		6.1 +19.6R		6.2 +17.8R		6.4 +16.3R		6.5 +15R		6.6 +14R	
		8"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			F	5.8 +32.5R		6.2 +27.8R		6.6 +24.3R		6.8 +21.5R		7.1 +19.4R		7.2 +17.6R		7.4 +16.1R		7.5 +14.8R		7.6 +13.8R	
		12"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			F	7.1 +32R		7.7 +27.3R		8.1 +23.8R		8.5 +21R		8.8 +18.9R		9 +17.1R		9.2 +15.6R		9.4 +14.4R		9.6 +13.3R	
		18"	q_a	632	1025	637	1025	637	1025	593	955	605	974	614	988	573	923	584	940	593	954
			F	8.6 +31.4R		9.4 +26.6R		10 +23R		10.5 +20.3R		10.9 +18.1R		11.3 +16.3R		11.6 +14.8R		11.9 +13.6R		12.1 +12.6R	
		24"	q_a	534	859	560	901	501	807	526	847	481	775	504	811	468	753	488	786	458	737
			F	9.7 +30.8R		10.6 +26R		11.4 +22.4R		12 +19.6R		12.6 +17.4R		13.1 +15.6R		13.5 +14.1R		13.9 +12.8R		14.2 +11.8R	

2WH-36 36/6 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

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4.5 **DG2WH-36 & DG2WHF-36**

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																		
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a q_f	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172
			F	2.4 +5.4R		2.4 +4.6R		2.5 +4.1R		2.5 +3.6R		2.5 +3.2R		2.5 +2.9R		2.5 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a q_f	1327	2136	1327	2136	1326	2135	1326	2135	1326	2135	1326	2134	1326	2134	1325	2134	1325	2134
			F	2.8 +5.3R		2.8 +4.6R		2.9 +4R		2.9 +3.6R		2.9 +3.2R		3 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a q_f	1298	2090	1303	2098	1297	2088	1301	2095	1296	2087	1299	2092	1295	2086	1298	2090	1295	2085
			F	3.1 +5.3R		3.2 +4.5R		3.3 +4R		3.3 +3.5R		3.3 +3.2R		3.4 +2.9R		3.4 +2.6R		3.4 +2.4R		3.4 +2.2R	
		12"	q_a q_f	1229	1979	1227	1975	1225	1973	1224	1970	1223	1969	1222	1967	1221	1966	1220	1965	1220	1964
			F	3.8 +5.1R		3.9 +4.4R		4 +3.8R		4.1 +3.4R		4.1 +3R		4.1 +2.8R		4.2 +2.5R		4.2 +2.3R		4.2 +2.2R	
		18"	q_a q_f	1115	1979	1133	1825	1146	1845	1103	1776	1118	1800	1129	1818	1096	1765	1109	1785	1119	1802
			F	4.7 +4.9R		4.8 +4.1R		5 +3.6R		5.1 +3.2R		5.2 +2.8R		5.2 +2.5R		5.3 +2.3R		5.3 +2.1R		5.4 +2R	
		24"	q_a q_f	1007	1622	1053	1695	993	1598	1032	1662	984	1584	1018	1639	977	1574	1008	1623	973	1567
			F	5.4 +4.6R		5.6 +3.9R		5.8 +3.3R		6 +2.9R		6.1 +2.6R		6.2 +2.3R		6.3 +2.1R		6.4 +1.9R		6.4 +1.7R	
	18 ga	4"	q_a q_f	1083	1744	1083	1744	1083	1743	1083	1743	1083	1743	1083	1743	1083	1743	1083	1743	1083	1743
			F	2.9 +9.7R		3 +8.3R		3.1 +7.2R		3.1 +6.4R		3.2 +5.8R		3.2 +5.3R		3.3 +4.8R		3.3 +4.5R		3.3 +4.1R	
		6"	q_a q_f	1064	1714	1064	1713	1064	1713	1064	1712	1063	1712	1063	1712	1063	1712	1063	1712	1063	1712
			F	3.4 +9.6R		3.6 +8.2R		3.6 +7.2R		3.7 +6.4R		3.8 +5.7R		3.8 +5.2R		3.8 +4.8R		3.9 +4.4R		3.9 +4.1R	
		8"	q_a q_f	1041	1675	1045	1682	1039	1673	1043	1679	1039	1672	1042	1677	1038	1671	1041	1675	1038	1671
			F	3.9 +9.5R		4.1 +8.1R		4.2 +7.1R		4.3 +6.3R		4.3 +5.7R		4.4 +5.1R		4.4 +4.7R		4.5 +4.3R		4.5 +4R	
		12"	q_a q_f	983	1583	982	1580	980	1578	979	1576	978	1575	977	1573	977	1572	976	1571	976	1571
			F	4.8 +9.2R		5 +7.9R		5.1 +6.9R		5.3 +6.1R		5.3 +5.5R		5.4 +5R		5.5 +4.5R		5.5 +4.2R		5.6 +3.9R	
		18"	q_a q_f	890	1583	905	1457	915	1473	880	1416	892	1436	901	1451	874	1408	885	1424	893	1437
			F	5.9 +8.9R		6.2 +7.5R		6.4 +6.5R		6.6 +5.7R		6.7 +5.1R		6.8 +4.6R		6.9 +4.2R		7 +3.9R		7.1 +3.6R	
		24"	q_a q_f	802	1292	839	1351	790	1272	822	1324	783	1260	811	1305	778	1252	802	1292	774	1246
			F	6.9 +8.5R		7.2 +7.1R		7.5 +6.1R		7.7 +5.4R		7.9 +4.8R		8.1 +4.3R		8.2 +3.9R		8.4 +3.5R		8.5 +3.2R	
	20 ga	4"	q_a q_f	824	1327	824	1327	824	1326	824	1326	824	1326	824	1326	824	1326	824	1326	824	1326
			F	3.6 +19.4R		3.8 +16.6R		4 +14.5R		4.1 +12.9R		4.2 +11.6R		4.2 +10.6R		4.3 +9.7R		4.4 +8.9R		4.4 +8.3R	
		6"	q_a q_f	804	1294	803	1293	803	1292	802	1292	802	1292	802	1291	802	1291	802	1291	802	1291
			F	4.4 +19.2R		4.6 +16.5R		4.8 +14.4R		4.9 +12.8R		5 +11.5R		5.1 +10.4R		5.2 +9.6R		5.2 +8.8R		5.3 +8.2R	
		8"	q_a q_f	778	1253	782	1259	777	1250	780	1256	776	1249	779	1254	775	1248	778	1252	774	1247
			F	5.1 +19.1R		5.3 +16.3R		5.5 +14.2R		5.7 +12.6R		5.8 +11.4R		5.9 +10.3R		6 +9.4R		6.1 +8.7R		6.1 +8.1R	
		12"	q_a q_f	721	1160	718	1156	717	1154	715	1151	714	1150	713	1148	712	1147	712	1146	711	1145
			F	6.3 +18.7R		6.6 +15.9R		6.9 +13.9R		7.1 +12.3R		7.3 +11R		7.4 +10R		7.5 +9.1R		7.6 +8.4R		7.7 +7.8R	
		18"	q_a q_f	634	1160	647	1041	655	1055	623	1004	634	1020	642	1033	618	994	626	1008	633	1020
			F	7.7 +18.1R		8.2 +15.4R		8.6 +13.3R		8.9 +11.7R		9.1 +10.5R		9.3 +9.5R		9.5 +8.6R		9.7 +7.9R		9.8 +7.3R	
		24"	q_a q_f	561	903	590	950	549	883	574	925	541	871	564	907	536	863	556	895	532	857
			F	8.8 +17.6R		9.5 +14.9R		10 +12.8R		10.4 +11.2R		10.7 +9.9R		11 +8.9R		11.3 +8.1R		11.5 +7.4R		11.7 +6.8R	
	22 ga	4"	q_a q_f	663	1067	663	1067	663	1067	662	1066	662	1066	662	1066	662	1066	662	1066	615	984
			F	4.1 +33.1R		4.5 +28.3R		4.7 +24.8R		4.9 +22R		5.1 +19.8R		5.2 +18R		5.3 +16.5R		5.4 +15.2R		5.4 +14.1R	
		6"	q_a q_f	639	1029	638	1028	638	1027	638	1026	637	1026	637	1025	637	1025	637	1025	615	984
			F	5.1 +32.8R		5.5 +28.1R		5.8 +24.6R		6 +21.8R		6.2 +19.6R		6.3 +17.8R		6.4 +16.3R		6.5 +15.1R		6.6 +14R	
		8"	q_a q_f	611	983	615	990	609	980	612	986	607	978	611	983	606	976	609	981	606	975
			F	6 +32.6R		6.4 +27.9R		6.7 +24.3R		7 +21.6R		7.2 +19.4R		7.4 +17.6R		7.5 +16.2R		7.6 +14.9R		7.7 +13.8R	
		12"	q_a q_f	551	888	549	883	546	880	545	877	543	875	542	873	541	871	540	870	540	869
			F	7.5 +32.1R		8 +27.4R		8.4 +23.8R		8.8 +21.1R		9 +18.9R		9.3 +17.2R		9.5 +15.7R		9.6 +14.5R		9.8 +13.4R	
		18"	q_a q_f	471	888	481	775	488	786	459	739	468	753	475	764	453	729	460	741	466	751
			F	9.2 +31.4R		9.9 +26.6R		10.5 +23.1R		11 +20.3R		11.4 +18.2R		11.7 +16.4R		12 +14.9R		12.3 +13.7R		12.5 +12.7R	
		24"	q_a q_f	409	658	432	695	397	639	417	671	389	627	407	655	384	618	400	644	380	612
			F	10.5 +30.7R		11.4 +25.9R		12.1 +22.4R		12.8 +19.6R		13.3 +17.4R		13.8 +15.7R		14.2 +14.2R		14.5 +12.9R		14.8 +11.9R	

2WH-36 36/3 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.5

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	2.3 +5.4R	2.4 +4.6R	2.4 +4R	2.5 +3.6R	2.5 +3.2R	2.5 +2.9R	2.5 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	2.7 +5.3R	2.8 +4.5R	2.8 +4R	2.9 +3.5R	2.9 +3.2R	2.9 +2.9R	2.9 +2.6R	3 +2.4R	3 +2.3R
		8"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	3 +5.2R	3.1 +4.5R	3.2 +3.9R	3.2 +3.5R	3.3 +3.1R	3.3 +2.8R	3.3 +2.6R	3.4 +2.4R	3.4 +2.2R
		12"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	3.6 +5.1R	3.7 +4.3R	3.8 +3.7R	3.9 +3.3R	4 +3R	4 +2.7R	4.1 +2.4R	4.1 +2.3R	4.1 +2.1R
		18"	q_a q_f	1364 2204	1369 2204	1369 2204	1332 2144	1353 2178	1369 2203	1315 2117	1333 2146	1348 2170
			F	4.3 +4.8R	4.5 +4R	4.7 +3.5R	4.8 +3.1R	4.9 +2.7R	5 +2.4R	5 +2.2R	5.1 +2R	5.2 +1.9R
		24"	q_a q_f	1210 1949	1267 2039	1177 1894	1227 1976	1155 1860	1201 1933	1141 1836	1181 1902	1130 1819
			F	4.9 +4.6R	5.1 +3.8R	5.3 +3.2R	5.5 +2.8R	5.7 +2.4R	5.8 +2.2R	5.9 +1.9R	6 +1.8R	6.1 +1.6R
	18 ga	4"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	2.9 +9.6R	3 +8.3R	3 +7.2R	3.1 +6.4R	3.2 +5.8R	3.2 +5.2R	3.2 +4.8R	3.3 +4.4R	3.3 +4.1R
		6"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	3.3 +9.5R	3.5 +8.2R	3.6 +7.1R	3.6 +6.3R	3.7 +5.7R	3.7 +5.2R	3.8 +4.7R	3.8 +4.4R	3.9 +4.1R
		8"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	3.8 +9.4R	3.9 +8R	4 +7R	4.1 +6.2R	4.2 +5.6R	4.3 +5.1R	4.3 +4.6R	4.4 +4.3R	4.4 +4R
		12"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	4.5 +9.2R	4.7 +7.8R	4.9 +6.8R	5 +6R	5.1 +5.4R	5.2 +4.9R	5.3 +4.4R	5.4 +4.1R	5.4 +3.8R
		18"	q_a q_f	1087 1770	1099 1770	1099 1770	1061 1707	1077 1734	1090 1755	1046 1685	1061 1708	1073 1727
			F	5.4 +8.8R	5.7 +7.4R	5.9 +6.4R	6.1 +5.6R	6.3 +5R	6.4 +4.5R	6.5 +4.1R	6.7 +3.7R	6.7 +3.4R
		24"	q_a q_f	963 1551	1008 1623	935 1506	976 1571	918 1478	954 1536	906 1458	938 1511	897 1444
			F	6 +8.5R	6.4 +7.1R	6.7 +6.1R	7 +5.3R	7.2 +4.6R	7.4 +4.1R	7.6 +3.7R	7.8 +3.3R	7.9 +3.1R
	20 ga	4"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	3.5 +19.3R	3.7 +16.6R	3.9 +14.5R	4 +12.9R	4.1 +11.6R	4.2 +10.5R	4.3 +9.6R	4.3 +8.9R	4.4 +8.3R
		6"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	4.2 +19.1R	4.4 +16.4R	4.6 +14.3R	4.8 +12.7R	4.9 +11.4R	5 +10.4R	5.1 +9.5R	5.1 +8.8R	5.2 +8.1R
		8"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	4.8 +19R	5.1 +16.2R	5.3 +14.1R	5.5 +12.5R	5.6 +11.3R	5.7 +10.2R	5.8 +9.4R	5.9 +8.6R	6 +8R
		12"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	5.7 +18.6R	6.1 +15.8R	6.4 +13.8R	6.6 +12.2R	6.8 +10.9R	7 +9.9R	7.1 +9R	7.3 +8.3R	7.4 +7.7R
		18"	q_a q_f	765 1357	778 1252	787 1267	738 1189	751 1209	761 1225	724 1166	736 1184	745 1199
			F	6.8 +18.1R	7.3 +15.3R	7.7 +13.2R	8.1 +11.6R	8.4 +10.3R	8.6 +9.3R	8.8 +8.4R	9 +7.7R	9.2 +7.1R
		24"	q_a q_f	668 1076	700 1127	642 1034	672 1081	626 1008	653 1051	615 990	639 1028	607 977
			F	7.6 +17.7R	8.2 +14.9R	8.7 +12.8R	9.2 +11.1R	9.6 +9.8R	9.9 +8.8R	10.2 +7.9R	10.5 +7.2R	10.7 +6.5R
	22 ga	4"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	4 +33R	4.3 +28.3R	4.6 +24.7R	4.8 +21.9R	5 +19.7R	5.1 +17.9R	5.2 +16.4R	5.3 +15.2R	5.4 +14.1R
		6"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	4.8 +32.7R	5.2 +28R	5.5 +24.5R	5.8 +21.7R	6 +19.5R	6.1 +17.7R	6.3 +16.2R	6.4 +15R	6.5 +13.9R
		8"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	5.5 +32.5R	6 +27.8R	6.3 +24.2R	6.6 +21.5R	6.9 +19.3R	7.1 +17.5R	7.2 +16R	7.4 +14.8R	7.5 +13.7R
		12"	q_a q_f	672 1082	665 1071	660 1062	655 1055	652 1049	649 1045	646 1041	644 1037	615 984
			F	6.7 +32R	7.2 +27.3R	7.7 +23.7R	8.1 +21R	8.4 +18.8R	8.7 +17R	8.9 +15.5R	9.1 +14.3R	9.3 +13.2R
		18"	q_a q_f	563 1082	571 919	577 929	536 863	545 878	552 889	522 840	530 854	537 865
			F	7.9 +31.4R	8.6 +26.6R	9.3 +23R	9.8 +20.3R	10.2 +18R	10.6 +16.2R	10.9 +14.8R	11.2 +13.5R	11.5 +12.4R
		24"	q_a q_f	486 783	508 819	462 744	483 777	447 719	466 750	436 702	453 730	428 690
			F	8.7 +31R	9.6 +26.1R	10.4 +22.5R	11.1 +19.6R	11.6 +17.4R	12.1 +15.6R	12.6 +14R	13 +12.8R	13.3 +11.7R

2WH-36 36/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

4.5 DG2WH-36 & DG2WHF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/6	16 ga	4"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	2.3 +5.4R	2.4 +4.6R	2.4 +4R	2.4 +3.6R	2.5 +3.2R	2.5 +2.9R	2.5 +2.7R	2.5 +2.5R	2.6 +2.3R
		6"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	2.6 +5.3R	2.7 +4.5R	2.8 +4R	2.8 +3.5R	2.9 +3.2R	2.9 +2.9R	2.9 +2.6R	2.9 +2.4R	3 +2.2R
		8"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	2.9 +5.2R	3 +4.4R	3.1 +3.9R	3.2 +3.4R	3.2 +3.1R	3.3 +2.8R	3.3 +2.6R	3.3 +2.4R	3.3 +2.2R
		12"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	3.5 +5R	3.6 +4.3R	3.7 +3.7R	3.8 +3.3R	3.9 +2.9R	3.9 +2.6R	4 +2.4R	4 +2.2R	4 +2R
		18"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	4 +4.8R	4.2 +4R	4.4 +3.4R	4.5 +3R	4.7 +2.7R	4.8 +2.4R	4.8 +2.1R	4.9 +2R	5 +1.8R
		24"	q_a q_f	1369 2204	1369 2204	1368 2202	1369 2204	1332 2144	1369 2204	1307 2105	1365 2197	1289 2076
			F	4.5 +4.6R	4.8 +3.8R	5 +3.2R	5.2 +2.8R	5.3 +2.4R	5.5 +2.1R	5.6 +1.9R	5.7 +1.7R	5.8 +1.5R
	18 ga	4"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	2.8 +9.6R	2.9 +8.2R	3 +7.2R	3.1 +6.4R	3.1 +5.8R	3.2 +5.2R	3.2 +4.8R	3.2 +4.4R	3.3 +4.1R
		6"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	3.3 +9.5R	3.4 +8.1R	3.5 +7.1R	3.6 +6.3R	3.6 +5.7R	3.7 +5.1R	3.7 +4.7R	3.8 +4.3R	3.8 +4R
		8"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	3.6 +9.4R	3.8 +8R	3.9 +7R	4 +6.2R	4.1 +5.5R	4.2 +5R	4.2 +4.6R	4.3 +4.2R	4.3 +3.9R
		12"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	4.3 +9.1R	4.5 +7.8R	4.7 +6.7R	4.8 +5.9R	4.9 +5.3R	5 +4.8R	5.1 +4.4R	5.2 +4R	5.3 +3.7R
		18"	q_a q_f	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770	1099 1770
			F	5 +8.8R	5.3 +7.4R	5.5 +6.4R	5.8 +5.6R	5.9 +4.9R	6.1 +4.4R	6.2 +4R	6.4 +3.6R	6.5 +3.3R
		24"	q_a q_f	1099 1770	1099 1770	1085 1746	1099 1770	1055 1699	1099 1770	1035 1667	1081 1740	1021 1644
			F	5.5 +8.5R	5.9 +7.1R	6.2 +6.1R	6.5 +5.2R	6.7 +4.6R	7 +4.1R	7.1 +3.6R	7.3 +3.3R	7.5 +3R
	20 ga	4"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	3.5 +19.3R	3.7 +16.5R	3.8 +14.4R	4 +12.8R	4.1 +11.5R	4.1 +10.5R	4.2 +9.6R	4.3 +8.9R	4.3 +8.2R
		6"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	4.1 +19.1R	4.3 +16.3R	4.5 +14.3R	4.7 +12.7R	4.8 +11.4R	4.9 +10.3R	5 +9.5R	5 +8.7R	5.1 +8.1R
		8"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	4.6 +18.9R	4.9 +16.2R	5.1 +14.1R	5.3 +12.5R	5.4 +11.2R	5.6 +10.2R	5.7 +9.3R	5.8 +8.6R	5.8 +7.9R
		12"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1356
			F	5.3 +18.6R	5.7 +15.8R	6 +13.7R	6.3 +12.1R	6.5 +10.8R	6.7 +9.8R	6.9 +8.9R	7 +8.2R	7.1 +7.6R
		18"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	837 1347	843 1357	843 1356
			F	6.2 +18.2R	6.7 +15.3R	7.1 +13.2R	7.5 +11.6R	7.8 +10.3R	8.1 +9.2R	8.3 +8.4R	8.5 +7.6R	8.7 +7R
		24"	q_a q_f	769 1238	809 1303	728 1172	766 1233	703 1132	737 1186	686 1105	717 1154	674 1085
			F	6.8 +17.9R	7.4 +15R	7.9 +12.8R	8.4 +11.2R	8.8 +9.8R	9.1 +8.8R	9.4 +7.9R	9.7 +7.1R	10 +6.5R
	22 ga	4"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	3.9 +32.9R	4.2 +28.2R	4.5 +24.7R	4.7 +21.9R	4.9 +19.7R	5 +17.9R	5.1 +16.4R	5.2 +15.1R	5.3 +14R
		6"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	4.6 +32.7R	5 +28R	5.3 +24.4R	5.6 +21.7R	5.8 +19.5R	6 +17.7R	6.1 +16.2R	6.2 +14.9R	6.3 +13.8R
		8"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	5.2 +32.4R	5.7 +27.7R	6.1 +24.2R	6.4 +21.4R	6.6 +19.2R	6.8 +17.4R	7 +15.9R	7.1 +14.7R	7.3 +13.6R
		12"	q_a q_f	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	686 1104	615 984
			F	6.1 +32R	6.7 +27.2R	7.2 +23.7R	7.6 +20.9R	7.9 +18.7R	8.2 +16.9R	8.5 +15.4R	8.7 +14.2R	8.9 +13.1R
		18"	q_a q_f	651 1104	661 1064	668 1075	609 980	620 998	629 1013	586 944	597 961	606 976
			F	7 +31.5R	7.8 +26.7R	8.4 +23.1R	9 +20.3R	9.4 +18R	9.8 +16.2R	10.2 +14.7R	10.5 +13.4R	10.8 +12.3R
		24"	q_a q_f	550 886	576 927	515 829	539 868	493 793	515 829	478 769	498 802	467 751
			F	7.6 +31.2R	8.5 +26.3R	9.3 +22.6R	9.9 +19.8R	10.5 +17.5R	11 +15.6R	11.5 +14.1R	11.9 +12.8R	12.2 +11.7R

2WH-36 36/6 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.6

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a q_f	1244	2002	1244	2002	1243	2002	1243	2002	1243	2002	1243	2002	1243	2002	1243	2002	1243	2002
			F	2.4 +5.4R		2.5 +4.7R		2.5 +4.1R		2.5 +3.6R		2.5 +3.3R		2.6 +3R		2.6 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a q_f	1226	1974	1226	1973	1225	1973	1225	1973	1225	1972	1225	1972	1225	1972	1225	1972	1225	1972
			F	2.8 +5.4R		2.9 +4.6R		2.9 +4.1R		3 +3.6R		3 +3.3R		3 +3R		3 +2.7R		3 +2.5R		3.1 +2.3R	
		8"	q_a q_f	1203	1937	1207	1943	1202	1935	1205	1940	1201	1934	1204	1939	1201	1933	1203	1937	1201	1933
			F	3.3 +5.4R		3.3 +4.6R		3.4 +4R		3.4 +3.6R		3.4 +3.2R		3.5 +2.9R		3.5 +2.7R		3.5 +2.5R		3.5 +2.3R	
		12"	q_a q_f	1147	1846	1145	1843	1144	1841	1143	1840	1142	1838	1141	1837	1141	1836	1140	1835	1140	1835
			F	4.1 +5.3R		4.2 +4.6R		4.3 +4R		4.3 +3.6R		4.3 +3.2R		4.4 +2.9R		4.4 +2.7R		4.4 +2.5R		4.4 +2.3R	
		18"	q_a q_f	1051	1846	1067	1717	1078	1735	1041	1676	1054	1697	1064	1713	1036	1668	1047	1685	1055	1699
			F	5.4 +5.2R		5.5 +4.5R		5.5 +3.9R		5.6 +3.5R		5.6 +3.1R		5.7 +2.8R		5.7 +2.6R		5.7 +2.4R		5.7 +2.2R	
		24"	q_a q_f	957	1541	998	1606	945	1522	980	1578	938	1510	968	1559	933	1502	960	1545	929	1496
			F	6.6 +5R		6.7 +4.3R		6.8 +3.8R		6.8 +3.3R		6.9 +3R		6.9 +2.7R		7 +2.5R		7 +2.3R		7 +2.1R	
	18 ga	4"	q_a q_f	1013	1630	1013	1630	1013	1630	1012	1630	1012	1630	1012	1630	1012	1630	1012	1630	1012	1630
			F	3 +9.7R		3.1 +8.3R		3.1 +7.3R		3.2 +6.5R		3.2 +5.8R		3.3 +5.3R		3.3 +4.9R		3.3 +4.5R		3.3 +4.2R	
		6"	q_a q_f	997	1606	997	1605	997	1605	997	1605	997	1604	996	1604	996	1604	996	1604	996	1604
			F	3.6 +9.7R		3.7 +8.3R		3.8 +7.3R		3.8 +6.5R		3.9 +5.8R		3.9 +5.3R		3.9 +4.8R		4 +4.5R		4 +4.2R	
		8"	q_a q_f	978	1574	981	1579	977	1572	979	1577	976	1571	978	1575	976	1571	978	1574	975	1570
			F	4.2 +9.7R		4.3 +8.3R		4.4 +7.2R		4.5 +6.4R		4.5 +5.8R		4.5 +5.3R		4.6 +4.8R		4.6 +4.5R		4.6 +4.1R	
		12"	q_a q_f	929	1496	928	1494	926	1492	926	1490	925	1489	924	1488	924	1487	923	1486	923	1486
			F	5.4 +9.5R		5.5 +8.2R		5.6 +7.2R		5.7 +6.4R		5.7 +5.7R		5.8 +5.2R		5.8 +4.8R		5.8 +4.4R		5.9 +4.1R	
		18"	q_a q_f	848	1496	861	1387	870	1401	840	1352	850	1369	859	1382	835	1345	844	1359	851	1371
			F	7.1 +9.3R		7.3 +8R		7.4 +7R		7.5 +6.2R		7.5 +5.6R		7.6 +5.1R		7.6 +4.6R		7.7 +4.3R		7.7 +4R	
		24"	q_a q_f	770	1239	803	1293	759	1223	788	1269	753	1213	778	1253	749	1206	771	1242	746	1200
			F	8.7 +9.1R		8.9 +7.7R		9 +6.7R		9.2 +6R		9.3 +5.4R		9.3 +4.9R		9.4 +4.5R		9.5 +4.1R		9.5 +3.8R	
	20 ga	4"	q_a q_f	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257
			F	3.8 +19.5R		4 +16.7R		4.1 +14.6R		4.2 +13R		4.3 +11.7R		4.3 +10.6R		4.4 +9.7R		4.4 +9R		4.5 +8.3R	
		6"	q_a q_f	763	1229	763	1228	763	1228	762	1228	762	1227	762	1227	762	1227	762	1227	762	1227
			F	4.7 +19.4R		4.9 +16.6R		5 +14.6R		5.1 +12.9R		5.2 +11.7R		5.3 +10.6R		5.3 +9.7R		5.4 +9R		5.4 +8.3R	
		8"	q_a q_f	741	1194	745	1199	740	1191	743	1196	739	1190	742	1194	739	1189	741	1193	738	1189
			F	5.6 +19.3R		5.8 +16.6R		5.9 +14.5R		6.1 +12.9R		6.2 +11.6R		6.2 +10.5R		6.3 +9.7R		6.3 +8.9R		6.4 +8.3R	
		12"	q_a q_f	691	1112	689	1109	687	1106	686	1104	685	1103	684	1102	684	1101	683	1100	683	1099
			F	7.3 +19.1R		7.6 +16.4R		7.7 +14.3R		7.9 +12.7R		8 +11.5R		8.1 +10.4R		8.1 +9.5R		8.2 +8.8R		8.3 +8.2R	
		18"	q_a q_f	613	1112	624	1005	632	1018	603	971	613	986	620	998	598	963	606	976	613	986
			F	9.8 +18.8R		10.1 +16R		10.3 +14R		10.5 +12.4R		10.6 +11.2R		10.7 +10.2R		10.8 +9.3R		10.9 +8.6R		11 +8R	
		24"	q_a q_f	544	876	572	921	534	859	558	898	527	848	548	882	522	841	541	871	519	836
			F	12 +18.3R		12.4 +15.6R		12.7 +13.6R		12.9 +12.1R		13.1 +10.8R		13.3 +9.8R		13.4 +9R		13.5 +8.3R		13.6 +7.7R	
	22 ga	4"	q_a q_f	633	1020	633	1020	633	1019	633	1019	633	1019	633	1019	633	1019	633	1019	615	984
			F	4.4 +33.2R		4.7 +28.5R		4.9 +24.9R		5.1 +22.1R		5.2 +19.9R		5.3 +18.1R		5.4 +16.6R		5.5 +15.3R		5.6 +14.2R	
		6"	q_a q_f	612	986	612	985	611	984	611	984	611	983	611	983	610	983	610	983	610	982
			F	5.6 +33.1R		5.9 +28.4R		6.2 +24.8R		6.4 +22.1R		6.5 +19.9R		6.6 +18.1R		6.7 +16.6R		6.8 +15.3R		6.9 +14.2R	
		8"	q_a q_f	587	946	591	952	585	942	589	948	584	941	587	945	583	939	586	943	583	938
			F	6.8 +33R		7.2 +28.3R		7.4 +24.7R		7.6 +22R		7.8 +19.8R		7.9 +18R		8 +16.5R		8.1 +15.2R		8.2 +14.1R	
		12"	q_a q_f	533	858	531	855	529	852	527	849	526	847	525	846	524	844	524	843	523	842
			F	9.1 +32.7R		9.5 +28R		9.8 +24.5R		10 +21.8R		10.2 +19.6R		10.4 +17.8R		10.5 +16.3R		10.6 +15R		10.7 +14R	
		18"	q_a q_f	459	858	468	754	475	765	448	721	456	734	463	745	442	712	449	723	455	733
			F	12.3 +32.1R		12.8 +27.4R		13.2 +24R		13.5 +21.3R		13.7 +19.1R		13.9 +17.4R		14.1 +15.9R		14.2 +14.7R		14.4 +13.6R	
		24"	q_a q_f	400	643	422	679	389	626	408	657	382	614	399	642	377	607	392	631	374	601
			F	15.2 +31.4R		15.9 +26.8R		16.3 +23.4R		16.7 +20.7R		17 +18.6R		17.3 +16.9R		17.5 +15.4R		17.7 +14.2R		17.9 +13.2R	

2WH-36 36/3 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

4.6 DG2WH-36 & DG2WHF-36

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	2.4 +5.4R	2.4 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.6 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4.1R	3 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	3.3 +5.4R	3.3 +4.6R	3.4 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R
		12"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	4.1 +5.3R	4.2 +4.5R	4.2 +4R	4.3 +3.5R	4.3 +3.2R	4.3 +2.9R	4.3 +2.6R	4.4 +2.4R	4.4 +2.3R
		18"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1253 2018	1259 2027	1259 2027
			F	5.2 +5.1R	5.3 +4.4R	5.4 +3.8R	5.5 +3.4R	5.5 +3R	5.6 +2.8R	5.6 +2.5R	5.6 +2.3R	5.7 +2.2R
		24"	q_a q_f	1155 1860	1207 1944	1127 1814	1174 1889	1109 1785	1151 1852	1097 1766	1134 1826	1088 1751
			F	6.3 +4.9R	6.5 +4.2R	6.6 +3.6R	6.7 +3.2R	6.7 +2.9R	6.8 +2.6R	6.8 +2.4R	6.9 +2.2R	6.9 +2R
	18 ga	4"	q_a q_f	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.9R	3.3 +4.5R	3.3 +4.2R
		6"	q_a q_f	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652
			F	3.6 +9.7R	3.7 +8.3R	3.8 +7.2R	3.8 +6.4R	3.9 +5.8R	3.9 +5.3R	3.9 +4.8R	3.9 +4.5R	4 +4.1R
		8"	q_a q_f	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652
			F	4.2 +9.6R	4.3 +8.2R	4.4 +7.2R	4.4 +6.4R	4.5 +5.8R	4.5 +5.2R	4.5 +4.8R	4.6 +4.4R	4.6 +4.1R
		12"	q_a q_f	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652
			F	5.3 +9.5R	5.4 +8.1R	5.5 +7.1R	5.6 +6.3R	5.7 +5.7R	5.7 +5.1R	5.8 +4.7R	5.8 +4.3R	5.8 +4R
		18"	q_a q_f	1026 1652	1026 1652	1026 1652	1018 1640	1026 1652	1026 1652	1007 1620	1020 1642	1026 1652
			F	6.9 +9.2R	7 +7.8R	7.2 +6.8R	7.3 +6.1R	7.4 +5.5R	7.4 +5R	7.5 +4.5R	7.6 +4.2R	7.6 +3.9R
		24"	q_a q_f	927 1493	970 1561	903 1454	941 1515	888 1430	922 1484	878 1413	908 1462	870 1401
			F	8.3 +8.9R	8.5 +7.5R	8.7 +6.6R	8.9 +5.8R	9 +5.2R	9.1 +4.7R	9.2 +4.3R	9.3 +4R	9.3 +3.7R
	20 ga	4"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	3.8 +19.5R	3.9 +16.7R	4.1 +14.6R	4.2 +13R	4.2 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R
		6"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	4.6 +19.4R	4.8 +16.6R	5 +14.5R	5.1 +12.9R	5.2 +11.6R	5.3 +10.6R	5.3 +9.7R	5.4 +8.9R	5.4 +8.3R
		8"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	5.5 +19.3R	5.7 +16.5R	5.9 +14.4R	6 +12.8R	6.1 +11.5R	6.2 +10.5R	6.2 +9.6R	6.3 +8.9R	6.3 +8.2R
		12"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	7.1 +19R	7.4 +16.3R	7.6 +14.2R	7.7 +12.6R	7.8 +11.4R	7.9 +10.3R	8 +9.5R	8.1 +8.7R	8.2 +8.1R
		18"	q_a q_f	741 1283	753 1213	762 1227	717 1155	729 1174	739 1189	705 1135	716 1152	724 1166
			F	9.3 +18.5R	9.7 +15.8R	9.9 +13.8R	10.1 +12.2R	10.3 +11R	10.5 +10R	10.6 +9.1R	10.7 +8.4R	10.8 +7.8R
		24"	q_a q_f	649 1046	680 1095	626 1008	654 1054	611 984	637 1026	601 968	624 1005	594 956
			F	11.3 +18R	11.7 +15.3R	12.1 +13.3R	12.4 +11.8R	12.6 +10.5R	12.8 +9.6R	13 +8.7R	13.1 +8R	13.2 +7.4R
	22 ga	4"	q_a q_f	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	615 984
			F	4.3 +33.2R	4.6 +28.4R	4.9 +24.9R	5 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.5 +14.2R
		6"	q_a q_f	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	615 984
			F	5.5 +33.1R	5.8 +28.3R	6.1 +24.8R	6.3 +22R	6.4 +19.8R	6.6 +18R	6.7 +16.5R	6.8 +15.2R	6.8 +14.2R
		8"	q_a q_f	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	653 1052	615 984
			F	6.7 +32.9R	7 +28.2R	7.3 +24.6R	7.5 +21.9R	7.7 +19.7R	7.8 +17.9R	7.9 +16.4R	8 +15.1R	8.1 +14.1R
		12"	q_a q_f	652 1050	646 1040	641 1032	637 1026	634 1021	632 1017	629 1013	627 1010	615 984
			F	8.8 +32.5R	9.2 +27.8R	9.5 +24.3R	9.8 +21.6R	10 +19.4R	10.2 +17.6R	10.3 +16.1R	10.4 +14.9R	10.5 +13.8R
		18"	q_a q_f	549 1050	557 897	563 907	524 844	533 859	540 870	511 823	520 837	526 848
			F	11.6 +31.8R	12.2 +27.1R	12.6 +23.7R	13 +21R	13.2 +18.8R	13.5 +17.1R	13.7 +15.6R	13.8 +14.4R	14 +13.4R
		24"	q_a q_f	475 765	497 800	453 729	473 762	438 706	457 736	429 690	446 718	422 679
			F	14.1 +31R	14.8 +26.4R	15.4 +22.9R	15.8 +20.3R	16.2 +18.2R	16.5 +16.4R	16.8 +15R	17 +13.8R	17.2 +12.8R

2WH-36 36/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.6

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/6	16 ga	4"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	2.4 +5.4R		2.4 +4.7R		2.5 +4.1R		2.5 +3.6R		2.5 +3.3R		2.5 +3R		2.6 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	2.8 +5.4R		2.9 +4.6R		2.9 +4R		2.9 +3.6R		3 +3.2R		3 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	3.2 +5.4R		3.3 +4.6R		3.3 +4R		3.4 +3.6R		3.4 +3.2R		3.4 +2.9R		3.5 +2.7R		3.5 +2.5R		3.5 +2.3R	
		12"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	4 +5.2R		4.1 +4.5R		4.2 +3.9R		4.2 +3.5R		4.3 +3.1R		4.3 +2.8R		4.3 +2.6R		4.3 +2.4R		4.4 +2.2R	
		18"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	5.1 +5R		5.2 +4.3R		5.3 +3.8R		5.4 +3.3R		5.5 +3R		5.5 +2.7R		5.5 +2.5R		5.6 +2.3R		5.6 +2.1R	
		24"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1256	2022
			F	6.1 +4.8R		6.3 +4.1R		6.4 +3.5R		6.5 +3.1R		6.6 +2.8R		6.7 +2.5R		6.7 +2.3R		6.8 +2.1R		6.8 +2R	
	18 ga	4"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	3 +9.7R		3.1 +8.3R		3.1 +7.3R		3.2 +6.5R		3.2 +5.8R		3.3 +5.3R		3.3 +4.8R		3.3 +4.5R		3.3 +4.2R	
		6"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	3.6 +9.6R		3.7 +8.3R		3.7 +7.2R		3.8 +6.4R		3.8 +5.8R		3.9 +5.3R		3.9 +4.8R		3.9 +4.4R		4 +4.1R	
		8"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	4.1 +9.6R		4.2 +8.2R		4.3 +7.2R		4.4 +6.4R		4.4 +5.7R		4.5 +5.2R		4.5 +4.8R		4.5 +4.4R		4.6 +4.1R	
		12"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	5.2 +9.4R		5.3 +8R		5.4 +7R		5.5 +6.2R		5.6 +5.6R		5.7 +5.1R		5.7 +4.7R		5.7 +4.3R		5.8 +4R	
		18"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	6.7 +9.1R		6.9 +7.8R		7 +6.8R		7.1 +6R		7.2 +5.4R		7.3 +4.9R		7.4 +4.5R		7.4 +4.1R		7.5 +3.8R	
		24"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1012	1630	1026	1652	999	1609
			F	8 +8.7R		8.2 +7.4R		8.4 +6.4R		8.6 +5.7R		8.8 +5.1R		8.9 +4.6R		9 +4.2R		9.1 +3.8R		9.1 +3.6R	
	20 ga	4"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	3.7 +19.4R		3.9 +16.7R		4 +14.6R		4.2 +13R		4.2 +11.7R		4.3 +10.6R		4.4 +9.7R		4.4 +9R		4.5 +8.3R	
		6"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	4.6 +19.3R		4.8 +16.6R		4.9 +14.5R		5.1 +12.9R		5.1 +11.6R		5.2 +10.5R		5.3 +9.7R		5.3 +8.9R		5.4 +8.3R	
		8"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	5.4 +19.2R		5.6 +16.5R		5.8 +14.4R		5.9 +12.8R		6 +11.5R		6.1 +10.5R		6.2 +9.6R		6.2 +8.8R		6.3 +8.2R	
		12"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	6.9 +18.9R		7.2 +16.2R		7.4 +14.1R		7.6 +12.5R		7.7 +11.3R		7.8 +10.2R		7.9 +9.4R		8 +8.7R		8.1 +8R	
		18"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	8.9 +18.4R		9.3 +15.7R		9.6 +13.7R		9.9 +12.1R		10.1 +10.8R		10.2 +9.8R		10.4 +9R		10.5 +8.3R		10.6 +7.7R	
		24"	q_a	751	1209	792	1275	714	1149	751	1209	691	1112	724	1166	675	1087	705	1135	664	1068
			F	10.7 +17.8R		11.2 +15.1R		11.6 +13.1R		11.9 +11.6R		12.2 +10.4R		12.4 +9.4R		12.6 +8.5R		12.8 +7.8R		12.9 +7.2R	
	22 ga	4"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			F	4.3 +33.2R		4.6 +28.4R		4.8 +24.9R		5 +22.1R		5.2 +19.9R		5.3 +18.1R		5.4 +16.6R		5.5 +15.3R		5.5 +14.2R	
		6"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			F	5.4 +33R		5.8 +28.3R		6 +24.7R		6.2 +22R		6.4 +19.8R		6.5 +18R		6.6 +16.5R		6.7 +15.2R		6.8 +14.1R	
		8"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			F	6.5 +32.8R		6.9 +28.1R		7.2 +24.6R		7.4 +21.8R		7.6 +19.6R		7.7 +17.8R		7.8 +16.4R		7.9 +15.1R		8 +14R	
		12"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			F	8.5 +32.4R		8.9 +27.7R		9.3 +24.2R		9.6 +21.5R		9.8 +19.3R		10 +17.5R		10.1 +16R		10.3 +14.8R		10.4 +13.7R	
		18"	q_a	638	1052	648	1044	653	1052	599	964	610	982	619	997	578	931	588	947	597	962
			F	11 +31.6R		11.6 +26.9R		12.1 +23.5R		12.5 +20.8R		12.8 +18.6R		13.1 +16.9R		13.3 +15.4R		13.5 +14.2R		13.7 +13.2R	
		24"	q_a	540	869	565	910	506	815	531	854	485	781	508	817	471	759	492	791	461	742
			F	13.2 +30.8R		14 +26.2R		14.6 +22.7R		15.1 +20R		15.6 +17.9R		15.9 +16.2R		16.2 +14.7R		16.5 +13.5R		16.7 +12.5R	

2WH-36 36/6 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

4.6 DG2WH-36 & DG2WHF-36

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)											
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"		
36/3	16 ga	4"	q_a q_f	1203 1937	1203 1937	1203 1937	1203 1937	1203 1937	1203 1937	1203 1937	1203 1937	1203 1937		
			F	2.4 +5.4R	2.5 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.6 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R		
		6"	q_a q_f	1187 1911	1187 1911	1187 1910	1186 1910	1186 1910	1186 1910	1186 1910	1186 1910	1186 1909		
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4.1R	3 +3.6R	3 +3.3R	3 +3R	3 +2.7R	3 +2.5R	3.1 +2.3R		
		8"	q_a q_f	1166 1878	1170 1883	1165 1876	1168 1881	1165 1875	1167 1879	1164 1874	1166 1878	1164 1874		
			F	3.3 +5.4R	3.3 +4.6R	3.4 +4R	3.4 +3.6R	3.4 +3.2R	3.5 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R		
		12"	q_a q_f	1114 1794	1113 1792	1112 1790	1111 1788	1110 1787	1109 1786	1109 1785	1108 1785	1108 1784		
			F	4.1 +5.3R	4.2 +4.6R	4.3 +4R	4.3 +3.6R	4.3 +3.2R	4.4 +2.9R	4.4 +2.7R	4.4 +2.5R	4.4 +2.3R		
		18"	q_a q_f	1025 1794	1040 1675	1050 1691	1016 1636	1029 1656	1038 1671	1012 1629	1022 1645	1030 1658		
			F	5.4 +5.2R	5.5 +4.5R	5.5 +3.9R	5.6 +3.5R	5.6 +3.1R	5.7 +2.8R	5.7 +2.6R	5.7 +2.4R	5.7 +2.2R		
		24"	q_a q_f	937 1508	975 1570	926 1491	959 1544	919 1480	948 1526	915 1472	940 1514	911 1467		
			F	6.6 +5R	6.7 +4.3R	6.8 +3.8R	6.8 +3.3R	6.9 +3R	6.9 +2.7R	7 +2.5R	7 +2.3R	7 +2.1R		
	18 ga	4"	q_a q_f	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1652	1026 1651	1026 1651		
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.9R	3.3 +4.5R	3.3 +4.2R		
		6"	q_a q_f	1010 1626	1010 1626	1010 1626	1009 1625	1009 1625	1009 1625	1009 1625	1009 1625	1009 1625		
			F	3.6 +9.7R	3.7 +8.3R	3.8 +7.3R	3.8 +6.5R	3.9 +5.8R	3.9 +5.3R	3.9 +4.8R	4 +4.5R	4 +4.2R		
		8"	q_a q_f	990 1593	993 1599	989 1592	992 1596	988 1591	990 1595	988 1590	990 1593	987 1589		
			F	4.2 +9.7R	4.3 +8.3R	4.4 +7.2R	4.5 +6.4R	4.5 +5.8R	4.5 +5.3R	4.6 +4.8R	4.6 +4.5R	4.6 +4.1R		
		12"	q_a q_f	940 1513	938 1510	937 1508	936 1507	935 1506	934 1504	934 1504	933 1503	933 1502		
			F	5.4 +9.5R	5.5 +8.2R	5.6 +7.2R	5.7 +6.4R	5.7 +5.7R	5.8 +5.2R	5.8 +4.8R	5.8 +4.4R	5.9 +4.1R		
		18"	q_a q_f	856 1513	870 1400	879 1415	847 1364	858 1382	867 1396	843 1357	852 1372	859 1384		
			F	7.1 +9.3R	7.3 +8R	7.4 +7R	7.5 +6.2R	7.5 +5.6R	7.6 +5.1R	7.6 +4.6R	7.7 +4.3R	7.7 +4R		
		24"	q_a q_f	776 1249	810 1305	766 1232	795 1280	759 1222	785 1263	754 1215	777 1251	751 1209		
			F	8.7 +9.1R	8.9 +7.7R	9 +6.7R	9.2 +6R	9.3 +5.4R	9.3 +4.9R	9.4 +4.5R	9.5 +4.1R	9.5 +3.8R		
	20 ga	4"	q_a q_f	836 1346	836 1346	836 1346	836 1346	836 1345	836 1345	836 1345	835 1345	835 1345		
			F	3.8 +19.5R	4 +16.7R	4.1 +14.6R	4.2 +13R	4.3 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R		
		6"	q_a q_f	815 1312	814 1311	814 1310	814 1310	813 1309	813 1309	813 1309	813 1309	813 1309		
			F	4.7 +19.4R	4.9 +16.6R	5 +14.6R	5.1 +12.9R	5.2 +11.7R	5.3 +10.6R	5.3 +9.7R	5.4 +9R	5.4 +8.3R		
		8"	q_a q_f	788 1269	793 1276	787 1267	790 1272	786 1265	789 1270	785 1264	788 1268	784 1263		
			F	5.6 +19.3R	5.8 +16.6R	5.9 +14.5R	6.1 +12.9R	6.2 +11.6R	6.2 +10.5R	6.3 +9.7R	6.3 +8.9R	6.4 +8.3R		
		12"	q_a q_f	729 1173	726 1170	725 1167	723 1164	722 1162	721 1161	720 1160	719 1158	719 1157		
			F	7.3 +19.1R	7.6 +16.4R	7.7 +14.3R	7.9 +12.7R	8 +11.5R	8.1 +10.4R	8.1 +9.5R	8.2 +8.8R	8.3 +8.2R		
		18"	q_a q_f	640 1173	653 1051	662 1065	629 1013	639 1030	648 1043	623 1003	632 1017	639 1029		
			F	9.8 +18.8R	10.1 +16R	10.3 +14R	10.5 +12.4R	10.6 +11.2R	10.7 +10.2R	10.8 +9.3R	10.9 +8.6R	11 +8R		
		24"	q_a q_f	565 910	595 958	553 890	579 932	545 878	568 914	540 869	560 901	536 863		
			F	12 +18.3R	12.4 +15.6R	12.7 +13.6R	12.9 +12.1R	13.1 +10.8R	13.3 +9.8R	13.4 +9R	13.5 +8.3R	13.6 +7.7R		
	22 ga	4"	q_a q_f	704 1133	703 1133	703 1132	703 1132	703 1132	703 1132	703 1131	703 1131	615 984		
			F	4.4 +33.2R	4.7 +28.5R	4.9 +24.9R	5.1 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.6 +14.2R		
		6"	q_a q_f	676 1088	675 1086	674 1085	674 1085	673 1084	673 1083	673 1083	672 1083	615 984		
			F	5.6 +33.1R	5.9 +28.4R	6.2 +24.8R	6.4 +22.1R	6.5 +19.9R	6.6 +18.1R	6.7 +16.6R	6.8 +15.3R	6.9 +14.2R		
		8"	q_a q_f	643 1035	648 1043	640 1031	644 1037	639 1028	642 1034	637 1026	641 1031	615 984		
			F	6.8 +33R	7.2 +28.3R	7.4 +24.7R	7.6 +22R	7.8 +19.8R	7.9 +18R	8 +16.5R	8.1 +15.2R	8.2 +14.1R		
		12"	q_a q_f	575 926	572 921	570 917	568 914	566 911	565 909	563 907	562 906	562 904		
			F	9.1 +32.7R	9.5 +28R	9.8 +24.5R	10 +21.8R	10.2 +19.6R	10.4 +17.8R	10.5 +16.3R	10.6 +15R	10.7 +14R		
		18"	q_a q_f	488 926	498 802	506 814	474 763	483 778	490 789	467 751	474 764	481 774		
			F	12.3 +32.1R	12.8 +27.4R	13.2 +24R	13.5 +21.3R	13.7 +19.1R	13.9 +17.4R	14.1 +15.9R	14.2 +14.7R	14.4 +13.6R		
		24"	q_a q_f	421 678	445 717	408 656	429 690	399 643	418 673	393 633	410 660	389 627		
			F	15.2 +31.4R	15.9 +26.8R	16.3 +23.4R	16.7 +20.7R	17 +18.6R	17.3 +16.9R	17.5 +15.4R	17.7 +14.2R	17.9 +13.2R		

2WH-36 36/3 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.6

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	2.4 +5.4R	2.4 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.6 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4.1R	3 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	3.3 +5.4R	3.3 +4.6R	3.4 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R
		12"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	4.1 +5.3R	4.2 +4.5R	4.2 +4R	4.3 +3.5R	4.3 +3.2R	4.3 +2.9R	4.3 +2.6R	4.4 +2.4R	4.4 +2.3R
		18"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	5.2 +5.1R	5.3 +4.4R	5.4 +3.8R	5.5 +3.4R	5.5 +3R	5.6 +2.8R	5.6 +2.5R	5.6 +2.3R	5.7 +2.2R
		24"	q_a q_f	1133 1824	1183 1905	1107 1782	1152 1854	1090 1755	1130 1820	1079 1737	1115 1794	1070 1723
			F	6.3 +4.9R	6.5 +4.2R	6.6 +3.6R	6.7 +3.2R	6.7 +2.9R	6.8 +2.6R	6.8 +2.4R	6.9 +2.2R	6.9 +2R
	18 ga	4"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.9R	3.3 +4.5R	3.3 +4.2R
		6"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	3.6 +9.7R	3.7 +8.3R	3.8 +7.2R	3.8 +6.4R	3.9 +5.8R	3.9 +5.3R	3.9 +4.8R	3.9 +4.5R	4 +4.1R
		8"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	4.2 +9.6R	4.3 +8.2R	4.4 +7.2R	4.4 +6.4R	4.5 +5.8R	4.5 +5.2R	4.5 +4.8R	4.6 +4.4R	4.6 +4.1R
		12"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	5.3 +9.5R	5.4 +8.1R	5.5 +7.1R	5.6 +6.3R	5.7 +5.7R	5.7 +5.1R	5.8 +4.7R	5.8 +4.3R	5.8 +4R
		18"	q_a q_f	1040 1674	1040 1674	1040 1674	1027 1653	1040 1674	1040 1674	1014 1633	1028 1655	1039 1673
			F	6.9 +9.2R	7 +7.8R	7.2 +6.8R	7.3 +6.1R	7.4 +5.5R	7.4 +5R	7.5 +4.5R	7.6 +4.2R	7.6 +3.9R
		24"	q_a q_f	934 1504	977 1573	909 1464	948 1526	894 1439	928 1495	883 1422	914 1471	875 1409
			F	8.3 +8.9R	8.5 +7.5R	8.7 +6.6R	8.9 +5.8R	9 +5.2R	9.1 +4.7R	9.2 +4.3R	9.3 +4R	9.3 +3.7R
	20 ga	4"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	3.8 +19.5R	3.9 +16.7R	4.1 +14.6R	4.2 +13R	4.2 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R
		6"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	4.6 +19.4R	4.8 +16.6R	5 +14.5R	5.1 +12.9R	5.2 +11.6R	5.3 +10.6R	5.3 +9.7R	5.4 +8.9R	5.4 +8.3R
		8"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	5.5 +19.3R	5.7 +16.5R	5.9 +14.4R	6 +12.8R	6.1 +11.5R	6.2 +10.5R	6.2 +9.6R	6.3 +8.9R	6.3 +8.2R
		12"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	7.1 +19R	7.4 +16.3R	7.6 +14.2R	7.7 +12.6R	7.8 +11.4R	7.9 +10.3R	8 +9.5R	8.1 +8.7R	8.2 +8.1R
		18"	q_a q_f	771 1377	784 1262	793 1277	744 1198	757 1218	767 1234	730 1175	741 1193	750 1208
			F	9.3 +18.5R	9.7 +15.8R	9.9 +13.8R	10.1 +12.2R	10.3 +11R	10.5 +10R	10.6 +9.1R	10.7 +8.4R	10.8 +7.8R
		24"	q_a q_f	673 1084	705 1135	647 1041	676 1089	630 1014	657 1057	619 996	643 1035	610 982
			F	11.3 +18R	11.7 +15.3R	12.1 +13.3R	12.4 +11.8R	12.6 +10.5R	12.8 +9.6R	13 +8.7R	13.1 +8R	13.2 +7.4R
	22 ga	4"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	4.3 +33.2R	4.6 +28.4R	4.9 +24.9R	5 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.5 +14.2R
		6"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	5.5 +33.1R	5.8 +28.3R	6.1 +24.8R	6.3 +22R	6.4 +19.8R	6.6 +18R	6.7 +16.5R	6.8 +15.2R	6.8 +14.2R
		8"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	6.7 +32.9R	7 +28.2R	7.3 +24.6R	7.5 +21.9R	7.7 +19.7R	7.8 +17.9R	7.9 +16.4R	8 +15.1R	8.1 +14.1R
		12"	q_a q_f	699 1125	691 1112	684 1102	679 1093	675 1087	672 1081	669 1077	666 1073	615 984
			F	8.8 +32.5R	9.2 +27.8R	9.5 +24.3R	9.8 +21.6R	10 +19.4R	10.2 +17.6R	10.3 +16.1R	10.4 +14.9R	10.5 +13.8R
		18"	q_a q_f	581 1125	589 949	595 959	551 887	560 902	568 914	535 862	544 876	551 888
			F	11.6 +31.8R	12.2 +27.1R	12.6 +23.7R	13 +21R	13.2 +18.8R	13.5 +17.1R	13.7 +15.6R	13.8 +14.4R	14 +13.4R
		24"	q_a q_f	501 807	523 843	474 764	496 798	457 736	477 768	446 718	464 746	437 704
			F	14.1 +31R	14.8 +26.4R	15.4 +22.9R	15.8 +20.3R	16.2 +18.2R	16.5 +16.4R	16.8 +15R	17 +13.8R	17.2 +12.8R

2WH-36 36/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

4.6 DG2WH-36 & DG2WHF-36

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/6	16 ga	4"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	2.4 +5.4R	2.4 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.5 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4R	2.9 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	3.2 +5.4R	3.3 +4.6R	3.3 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R
		12"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	4 +5.2R	4.1 +4.5R	4.2 +3.9R	4.2 +3.5R	4.3 +3.1R	4.3 +2.8R	4.3 +2.6R	4.3 +2.4R	4.4 +2.2R
		18"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	5.1 +5R	5.2 +4.3R	5.3 +3.8R	5.4 +3.3R	5.5 +3R	5.5 +2.7R	5.5 +2.5R	5.6 +2.3R	5.6 +2.1R
		24"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	6.1 +4.8R	6.3 +4.1R	6.4 +3.5R	6.5 +3.1R	6.6 +2.8R	6.7 +2.5R	6.7 +2.3R	6.8 +2.1R	6.8 +2R
	18 ga	4"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.8R	3.3 +4.5R	3.3 +4.2R
		6"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	3.6 +9.6R	3.7 +8.3R	3.7 +7.2R	3.8 +6.4R	3.8 +5.8R	3.9 +5.3R	3.9 +4.8R	3.9 +4.4R	4 +4.1R
		8"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	4.1 +9.6R	4.2 +8.2R	4.3 +7.2R	4.4 +6.4R	4.4 +5.7R	4.5 +5.2R	4.5 +4.8R	4.5 +4.4R	4.6 +4.1R
		12"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	5.2 +9.4R	5.3 +8R	5.4 +7R	5.5 +6.2R	5.6 +5.6R	5.7 +5.1R	5.7 +4.7R	5.7 +4.3R	5.8 +4R
		18"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674	1040 1674
			F	6.7 +9.1R	6.9 +7.8R	7 +6.8R	7.1 +6R	7.2 +5.4R	7.3 +4.9R	7.4 +4.5R	7.4 +4.1R	7.5 +3.8R
		24"	q_a q_f	1040 1674	1040 1674	1040 1674	1040 1674	1035 1667	1040 1674	1017 1637	1040 1674	1004 1616
			F	8 +8.7R	8.2 +7.4R	8.4 +6.4R	8.6 +5.7R	8.8 +5.1R	8.9 +4.6R	9 +4.2R	9.1 +3.8R	9.1 +3.6R
	20 ga	4"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	3.7 +19.4R	3.9 +16.7R	4 +14.6R	4.2 +13R	4.2 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R
		6"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	4.6 +19.3R	4.8 +16.6R	4.9 +14.5R	5.1 +12.9R	5.1 +11.6R	5.2 +10.5R	5.3 +9.7R	5.3 +8.9R	5.4 +8.3R
		8"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	5.4 +19.2R	5.6 +16.5R	5.8 +14.4R	5.9 +12.8R	6 +11.5R	6.1 +10.5R	6.2 +9.6R	6.2 +8.8R	6.3 +8.2R
		12"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1356
			F	6.9 +18.9R	7.2 +16.2R	7.4 +14.1R	7.6 +12.5R	7.7 +11.3R	7.8 +10.2R	7.9 +9.4R	8 +8.7R	8.1 +8R
		18"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	841 1354	856 1377	847 1356
			F	8.9 +18.4R	9.3 +15.7R	9.6 +13.7R	9.9 +12.1R	10.1 +10.8R	10.2 +9.8R	10.4 +9R	10.5 +8.3R	10.6 +7.7R
		24"	q_a q_f	773 1245	814 1311	732 1179	770 1239	706 1137	740 1192	689 1109	720 1159	677 1089
			F	10.7 +17.8R	11.2 +15.1R	11.6 +13.1R	11.9 +11.6R	12.2 +10.4R	12.4 +9.4R	12.6 +8.5R	12.8 +7.8R	12.9 +7.2R
	22 ga	4"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	4.3 +33.2R	4.6 +28.4R	4.8 +24.9R	5 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.5 +14.2R
		6"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	5.4 +33R	5.8 +28.3R	6 +24.7R	6.2 +22R	6.4 +19.8R	6.5 +18R	6.6 +16.5R	6.7 +15.2R	6.8 +14.1R
		8"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	6.5 +32.8R	6.9 +28.1R	7.2 +24.6R	7.4 +21.8R	7.6 +19.6R	7.7 +17.8R	7.8 +16.4R	7.9 +15.1R	8 +14R
		12"	q_a q_f	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	731 1177	714 1142	615 984
			F	8.5 +32.4R	8.9 +27.7R	9.3 +24.2R	9.6 +21.5R	9.8 +19.3R	10 +17.5R	10.1 +16R	10.3 +14.8R	10.4 +13.7R
		18"	q_a q_f	669 1177	677 1091	684 1100	622 1001	633 1019	642 1033	598 962	608 979	615 984
			F	11 +31.6R	11.6 +26.9R	12.1 +23.5R	12.5 +20.8R	12.8 +18.6R	13.1 +16.9R	13.3 +15.4R	13.5 +14.2R	13.7 +13.2R
		24"	q_a q_f	564 909	590 950	526 848	551 887	502 809	525 845	486 783	507 816	474 764
			F	13.2 +30.8R	14 +26.2R	14.6 +22.7R	15.1 +20R	15.6 +17.9R	15.9 +16.2R	16.2 +14.7R	16.5 +13.5R	16.7 +12.5R

2WH-36 36/6 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.6

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a q_f	1565	2519	1564	2519	1564	2518	1564	2518	1564	2518	1564	2518	1564	2518	1564	2518	1564	2518
			F	2.4 +5.4R		2.5 +4.7R		2.5 +4.1R		2.5 +3.6R		2.5 +3.3R		2.6 +3R		2.6 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a q_f	1530	2464	1530	2463	1529	2462	1529	2461	1529	2461	1528	2461	1528	2460	1528	2460	1528	2460
			F	2.8 +5.4R		2.9 +4.6R		2.9 +4.1R		3 +3.6R		3 +3.3R		3 +3R		3 +2.7R		3 +2.5R		3.1 +2.3R	
		8"	q_a q_f	1488	2395	1495	2407	1485	2391	1491	2401	1484	2389	1489	2397	1483	2387	1487	2394	1482	2386
			F	3.3 +5.4R		3.3 +4.6R		3.4 +4R		3.4 +3.6R		3.4 +3.2R		3.5 +2.9R		3.5 +2.7R		3.5 +2.5R		3.5 +2.3R	
		12"	q_a q_f	1389	2236	1385	2230	1382	2225	1380	2222	1378	2219	1377	2217	1375	2215	1374	2213	1373	2211
			F	4.1 +5.3R		4.2 +4.6R		4.3 +4R		4.3 +3.6R		4.3 +3.2R		4.4 +2.9R		4.4 +2.7R		4.4 +2.5R		4.4 +2.3R	
		18"	q_a q_f	1235	2236	1258	2026	1274	2051	1217	1959	1236	1990	1250	2013	1207	1943	1223	1969	1236	1990
			F	5.4 +5.2R		5.5 +4.5R		5.5 +3.9R		5.6 +3.5R		5.6 +3.1R		5.7 +2.8R		5.7 +2.6R		5.7 +2.4R		5.7 +2.2R	
		24"	q_a q_f	1100	1770	1155	1859	1079	1737	1127	1814	1066	1716	1108	1784	1057	1702	1094	1762	1051	1691
			F	6.6 +5R		6.7 +4.3R		6.8 +3.8R		6.8 +3.3R		6.9 +3R		6.9 +2.7R		7 +2.5R		7 +2.3R		7 +2.1R	
	18 ga	4"	q_a q_f	1265	2037	1265	2037	1265	2037	1265	2037	1265	2036	1265	2036	1265	2036	1265	2036	1265	2036
			F	3 +9.7R		3.1 +8.3R		3.1 +7.3R		3.2 +6.5R		3.2 +5.8R		3.3 +5.3R		3.3 +4.9R		3.3 +4.5R		3.3 +4.2R	
		6"	q_a q_f	1236	1991	1236	1990	1235	1989	1235	1988	1235	1988	1234	1988	1234	1987	1234	1987	1234	1987
			F	3.6 +9.7R		3.7 +8.3R		3.8 +7.3R		3.8 +6.5R		3.9 +5.8R		3.9 +5.3R		3.9 +4.8R		4 +4.5R		4 +4.2R	
		8"	q_a q_f	1200	1933	1206	1942	1198	1929	1203	1937	1197	1927	1201	1934	1196	1925	1200	1931	1195	1924
			F	4.2 +9.7R		4.3 +8.3R		4.4 +7.2R		4.5 +6.4R		4.5 +5.8R		4.5 +5.3R		4.6 +4.8R		4.6 +4.5R		4.6 +4.1R	
		12"	q_a q_f	1117	1799	1114	1793	1112	1790	1110	1786	1108	1784	1107	1782	1106	1780	1105	1779	1104	1777
			F	5.4 +9.5R		5.5 +8.2R		5.6 +7.2R		5.7 +6.4R		5.7 +5.7R		5.8 +5.2R		5.8 +4.8R		5.8 +4.4R		5.9 +4.1R	
		18"	q_a q_f	990	1799	1009	1624	1022	1645	974	1569	990	1594	1002	1613	966	1555	979	1576	990	1594
			F	7.1 +9.3R		7.3 +8R		7.4 +7R		7.5 +6.2R		7.5 +5.6R		7.6 +5.1R		7.6 +4.6R		7.7 +4.3R		7.7 +4R	
		24"	q_a q_f	879	1415	924	1487	861	1387	900	1450	851	1369	885	1424	843	1357	873	1406	838	1349
			F	8.7 +9.1R		8.9 +7.7R		9 +6.7R		9.2 +6R		9.3 +5.4R		9.3 +4.9R		9.4 +4.5R		9.5 +4.1R		9.5 +3.8R	
	20 ga	4"	q_a q_f	932	1501	932	1500	932	1500	931	1500	931	1499	931	1499	931	1499	931	1499	847	1356
			F	3.8 +19.5R		4 +16.7R		4.1 +14.6R		4.2 +13R		4.3 +11.7R		4.3 +10.6R		4.4 +9.7R		4.4 +9R		4.5 +8.3R	
		6"	q_a q_f	903	1454	902	1453	902	1452	901	1451	901	1451	901	1450	900	1450	900	1449	847	1356
			F	4.7 +19.4R		4.9 +16.6R		5 +14.6R		5.1 +12.9R		5.2 +11.7R		5.3 +10.6R		5.3 +9.7R		5.4 +9R		5.4 +8.3R	
		8"	q_a q_f	868	1398	873	1406	866	1394	870	1401	864	1391	868	1398	863	1389	867	1395	847	1356
			F	5.6 +19.3R		5.8 +16.6R		5.9 +14.5R		6.1 +12.9R		6.2 +11.6R		6.2 +10.5R		6.3 +9.7R		6.3 +8.9R		6.4 +8.3R	
		12"	q_a q_f	792	1275	789	1270	786	1266	784	1263	783	1260	781	1258	780	1256	779	1254	778	1253
			F	7.3 +19.1R		7.6 +16.4R		7.7 +14.3R		7.9 +12.7R		8 +11.5R		8.1 +10.4R		8.1 +9.5R		8.2 +8.8R		8.3 +8.2R	
		18"	q_a q_f	685	1275	699	1126	709	1142	670	1079	682	1098	692	1114	662	1066	672	1083	681	1096
			F	9.8 +18.8R		10.1 +16R		10.3 +14R		10.5 +12.4R		10.6 +11.2R		10.7 +10.2R		10.8 +9.3R		10.9 +8.6R		11 +8R	
		24"	q_a q_f	599	964	632	1017	583	939	612	985	573	923	599	964	567	913	589	949	562	905
			F	12 +18.3R		12.4 +15.6R		12.7 +13.6R		12.9 +12.1R		13.1 +10.8R		13.3 +9.8R		13.4 +9R		13.5 +8.3R		13.6 +7.7R	
	22 ga	4"	q_a q_f	690	1111	690	1111	690	1111	690	1111	690	1110	690	1110	689	1110	689	1110	615	984
			F	4.4 +33.2R		4.7 +28.5R		4.9 +24.9R		5.1 +22.1R		5.2 +19.9R		5.3 +18.1R		5.4 +16.6R		5.5 +15.3R		5.6 +14.2R	
		6"	q_a q_f	664	1068	663	1067	662	1066	662	1066	662	1065	661	1065	661	1064	661	1064	615	984
			F	5.6 +33.1R		5.9 +28.4R		6.2 +24.8R		6.4 +22.1R		6.5 +19.9R		6.6 +18.1R		6.7 +16.6R		6.8 +15.3R		6.9 +14.2R	
		8"	q_a q_f	632	1018	637	1026	630	1014	634	1021	628	1012	632	1017	627	1010	630	1015	615	984
			F	6.8 +33R		7.2 +28.3R		7.4 +24.7R		7.6 +22R		7.8 +19.8R		7.9 +18R		8 +16.5R		8.1 +15.2R		8.2 +14.1R	
		12"	q_a q_f	568	914	565	909	562	905	560	902	559	899	557	897	556	896	555	894	555	893
			F	9.1 +32.7R		9.5 +28R		9.8 +24.5R		10 +21.8R		10.2 +19.6R		10.4 +17.8R		10.5 +16.3R		10.6 +15R		10.7 +14R	
		18"	q_a q_f	482	914	493	793	500	805	469	755	478	770	485	781	462	744	470	757	476	767
			F	12.3 +32.1R		12.8 +27.4R		13.2 +24R		13.5 +21.3R		13.7 +19.1R		13.9 +17.4R		14.1 +15.9R		14.2 +14.7R		14.4 +13.6R	
		24"	q_a q_f	417	672	441	710	404	651	425	684	396	638	414	667	390	629	407	655	386	622
			F	15.2 +31.4R		15.9 +26.8R		16.3 +23.4R		16.7 +20.7R		17 +18.6R		17.3 +16.9R		17.5 +15.4R		17.7 +14.2R		17.9 +13.2R	

2WH-36 36/3 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

4.6 DG2WH-36 & DG2WHF-36

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/4	16 ga	4"	q_a q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568
			F	2.4 +5.4R	2.4 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.6 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4.1R	3 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R
		8"	q_a q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568
			F	3.3 +5.4R	3.3 +4.6R	3.4 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R
		12"	q_a q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568
			F	4.1 +5.3R	4.2 +4.5R	4.2 +4R	4.3 +3.5R	4.3 +3.2R	4.3 +2.9R	4.3 +2.6R	4.4 +2.4R	4.4 +2.3R
		18"	q_a q_f	1496 2568	1521 2449	1539 2478	1450 2335	1474 2373	1493 2404	1426 2296	1447 2330	1465 2358
			F	5.2 +5.1R	5.3 +4.4R	5.4 +3.8R	5.5 +3.4R	5.5 +3R	5.6 +2.8R	5.6 +2.5R	5.6 +2.3R	5.7 +2.2R
		24"	q_a q_f	1313 2114	1375 2215	1267 2040	1324 2132	1238 1994	1290 2077	1219 1962	1265 2036	1204 1939
			F	6.3 +4.9R	6.5 +4.2R	6.6 +3.6R	6.7 +3.2R	6.7 +2.9R	6.8 +2.6R	6.8 +2.4R	6.9 +2.2R	6.9 +2R
	18 ga	4"	q_a q_f	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1274 2038
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.9R	3.3 +4.5R	3.3 +4.2R
		6"	q_a q_f	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1274 2038
			F	3.6 +9.7R	3.7 +8.3R	3.8 +7.2R	3.8 +6.4R	3.9 +5.8R	3.9 +5.3R	3.9 +4.8R	3.9 +4.5R	4 +4.1R
		8"	q_a q_f	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1274 2038
			F	4.2 +9.6R	4.3 +8.2R	4.4 +7.2R	4.4 +6.4R	4.5 +5.8R	4.5 +5.2R	4.5 +4.8R	4.6 +4.4R	4.6 +4.1R
		12"	q_a q_f	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1291 2079	1274 2038
			F	5.3 +9.5R	5.4 +8.1R	5.5 +7.1R	5.6 +6.3R	5.7 +5.7R	5.7 +5.1R	5.8 +4.7R	5.8 +4.3R	5.8 +4R
		18"	q_a q_f	1197 2079	1217 1959	1231 1982	1158 1865	1178 1896	1193 1921	1138 1832	1155 1860	1169 1883
			F	6.9 +9.2R	7 +7.8R	7.2 +6.8R	7.3 +6.1R	7.4 +5.5R	7.4 +5R	7.5 +4.5R	7.6 +4.2R	7.6 +3.9R
		24"	q_a q_f	1048 1688	1098 1768	1010 1627	1056 1701	987 1588	1028 1655	970 1562	1007 1622	958 1543
			F	8.3 +8.9R	8.5 +7.5R	8.7 +6.6R	8.9 +5.8R	9 +5.2R	9.1 +4.7R	9.2 +4.3R	9.3 +4R	9.3 +3.7R
	20 ga	4"	q_a q_f	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	847 1356
			F	3.8 +19.5R	3.9 +16.7R	4.1 +14.6R	4.2 +13R	4.2 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R
		6"	q_a q_f	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	847 1356
			F	4.6 +19.4R	4.8 +16.6R	5 +14.5R	5.1 +12.9R	5.2 +11.6R	5.3 +10.6R	5.3 +9.7R	5.4 +8.9R	5.4 +8.3R
		8"	q_a q_f	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	847 1356
			F	5.5 +19.3R	5.7 +16.5R	5.9 +14.4R	6 +12.8R	6.1 +11.5R	6.2 +10.5R	6.2 +9.6R	6.3 +8.9R	6.3 +8.2R
		12"	q_a q_f	959 1544	959 1544	956 1540	951 1531	947 1524	943 1518	940 1513	937 1509	847 1356
			F	7.1 +19R	7.4 +16.3R	7.6 +14.2R	7.7 +12.6R	7.8 +11.4R	7.9 +10.3R	8 +9.5R	8.1 +8.7R	8.2 +8.1R
		18"	q_a q_f	821 1544	834 1342	843 1358	786 1266	800 1288	811 1305	768 1237	780 1256	791 1273
			F	9.3 +18.5R	9.7 +15.8R	9.9 +13.8R	10.1 +12.2R	10.3 +11R	10.5 +10R	10.6 +9.1R	10.7 +8.4R	10.8 +7.8R
		24"	q_a q_f	712 1147	745 1200	680 1095	711 1145	660 1062	688 1107	646 1040	671 1081	636 1023
			F	11.3 +18R	11.7 +15.3R	12.1 +13.3R	12.4 +11.8R	12.6 +10.5R	12.8 +9.6R	13 +8.7R	13.1 +8R	13.2 +7.4R
	22 ga	4"	q_a q_f	716 1153	716 1153	716 1153	716 1153	716 1153	716 1153	716 1153	714 1142	615 984
			F	4.3 +33.2R	4.6 +28.4R	4.9 +24.9R	5 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.5 +14.2R
		6"	q_a q_f	716 1153	716 1153	716 1153	716 1153	716 1153	716 1153	716 1153	714 1142	615 984
			F	5.5 +33.1R	5.8 +28.3R	6.1 +24.8R	6.3 +22R	6.4 +19.8R	6.6 +18R	6.7 +16.5R	6.8 +15.2R	6.8 +14.2R
		8"	q_a q_f	716 1153	716 1153	716 1153	716 1153	716 1153	716 1153	716 1153	714 1142	615 984
			F	6.7 +32.9R	7 +28.2R	7.3 +24.6R	7.5 +21.9R	7.7 +19.7R	7.8 +17.9R	7.9 +16.4R	8 +15.1R	8.1 +14.1R
		12"	q_a q_f	690 1111	682 1099	676 1089	672 1081	668 1075	664 1070	662 1065	659 1061	615 984
			F	8.8 +32.5R	9.2 +27.8R	9.5 +24.3R	9.8 +21.6R	10 +19.4R	10.2 +17.6R	10.3 +16.1R	10.4 +14.9R	10.5 +13.8R
		18"	q_a q_f	575 1111	583 939	589 949	546 880	556 894	563 906	531 855	540 869	547 880
			F	11.6 +31.8R	12.2 +27.1R	12.6 +23.7R	13 +21R	13.2 +18.8R	13.5 +17.1R	13.7 +15.6R	13.8 +14.4R	14 +13.4R
		24"	q_a q_f	497 799	519 835	470 757	491 791	454 731	473 762	443 713	460 741	434 700
			F	14.1 +31R	14.8 +26.4R	15.4 +22.9R	15.8 +20.3R	16.2 +18.2R	16.5 +16.4R	16.8 +15R	17 +13.8R	17.2 +12.8R

2WH-36 36/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

ASC STEEL DECK®

DG2WH-36 & DG2WHF-36 4.6

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/6	16 ga	4"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	2.4 +5.4R		2.4 +4.7R		2.5 +4.1R		2.5 +3.6R		2.5 +3.3R		2.5 +3R		2.6 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	2.8 +5.4R		2.9 +4.6R		2.9 +4R		2.9 +3.6R		3 +3.2R		3 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	3.2 +5.4R		3.3 +4.6R		3.3 +4R		3.4 +3.6R		3.4 +3.2R		3.4 +2.9R		3.5 +2.7R		3.5 +2.5R		3.5 +2.3R	
		12"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	4 +5.2R		4.1 +4.5R		4.2 +3.9R		4.2 +3.5R		4.3 +3.1R		4.3 +2.8R		4.3 +2.6R		4.3 +2.4R		4.4 +2.2R	
		18"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	5.1 +5R		5.2 +4.3R		5.3 +3.8R		5.4 +3.3R		5.5 +3R		5.5 +2.7R		5.5 +2.5R		5.6 +2.3R		5.6 +2.1R	
		24"	q_a	1521	2449	1595	2568	1448	2331	1523	2453	1402	2257	1470	2366	1371	2207	1432	2305	1348	2170
			q_f																		
			F	6.1 +4.8R		6.3 +4.1R		6.4 +3.5R		6.5 +3.1R		6.6 +2.8R		6.7 +2.5R		6.7 +2.3R		6.8 +2.1R		6.8 +2R	
	18 ga	4"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	3 +9.7R		3.1 +8.3R		3.1 +7.3R		3.2 +6.5R		3.2 +5.8R		3.3 +5.3R		3.3 +4.8R		3.3 +4.5R		3.3 +4.2R	
		6"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	3.6 +9.6R		3.7 +8.3R		3.7 +7.2R		3.8 +6.4R		3.8 +5.8R		3.9 +5.3R		3.9 +4.8R		3.9 +4.4R		4 +4.1R	
		8"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	4.1 +9.6R		4.2 +8.2R		4.3 +7.2R		4.4 +6.4R		4.4 +5.7R		4.5 +5.2R		4.5 +4.8R		4.5 +4.4R		4.6 +4.1R	
		12"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	5.2 +9.4R		5.3 +8R		5.4 +7R		5.5 +6.2R		5.6 +5.6R		5.7 +5.1R		5.7 +4.7R		5.7 +4.3R		5.8 +4R	
		18"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	6.7 +9.1R		6.9 +7.8R		7 +6.8R		7.1 +6R		7.2 +5.4R		7.3 +4.9R		7.4 +4.5R		7.4 +4.1R		7.5 +3.8R	
		24"	q_a	1212	1951	1277	2056	1151	1853	1211	1950	1113	1792	1167	1879	1088	1751	1136	1829	1069	1721
			q_f																		
			F	8 +8.7R		8.2 +7.4R		8.4 +6.4R		8.6 +5.7R		8.8 +5.1R		8.9 +4.6R		9 +4.2R		9.1 +3.8R		9.1 +3.6R	
	20 ga	4"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	3.7 +19.4R		3.9 +16.7R		4 +14.6R		4.2 +13R		4.2 +11.7R		4.3 +10.6R		4.4 +9.7R		4.4 +9R		4.5 +8.3R	
		6"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	4.6 +19.3R		4.8 +16.6R		4.9 +14.5R		5.1 +12.9R		5.1 +11.6R		5.2 +10.5R		5.3 +9.7R		5.3 +8.9R		5.4 +8.3R	
		8"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	5.4 +19.2R		5.6 +16.5R		5.8 +14.4R		5.9 +12.8R		6 +11.5R		6.1 +10.5R		6.2 +9.6R		6.2 +8.8R		6.3 +8.2R	
		12"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	6.9 +18.9R		7.2 +16.2R		7.4 +14.1R		7.6 +12.5R		7.7 +11.3R		7.8 +10.2R		7.9 +9.4R		8 +8.7R		8.1 +8R	
		18"	q_a	959	1544	959	1544	959	1544	902	1452	919	1480	933	1503	872	1404	888	1430	847	1356
			q_f																		
			F	8.9 +18.4R		9.3 +15.7R		9.6 +13.7R		9.9 +12.1R		10.1 +10.8R		10.2 +9.8R		10.4 +9R		10.5 +8.3R		10.6 +7.7R	
		24"	q_a	811	1305	851	1370	762	1227	800	1288	732	1179	767	1234	712	1146	743	1196	697	1122
			q_f																		
			F	10.7 +17.8R		11.2 +15.1R		11.6 +13.1R		11.9 +11.6R		12.2 +10.4R		12.4 +9.4R		12.6 +8.5R		12.8 +7.8R		12.9 +7.2R	
	22 ga	4"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	4.3 +33.2R		4.6 +28.4R		4.8 +24.9R		5 +22.1R		5.2 +19.9R		5.3 +18.1R		5.4 +16.6R		5.5 +15.3R		5.5 +14.2R	
		6"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	5.4 +33R		5.8 +28.3R		6 +24.7R		6.2 +22R		6.4 +19.8R		6.5 +18R		6.6 +16.5R		6.7 +15.2R		6.8 +14.1R	
		8"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	6.5 +32.8R		6.9 +28.1R		7.2 +24.6R		7.4 +21.8R		7.6 +19.6R		7.7 +17.8R		7.8 +16.4R		7.9 +15.1R		8 +14R	
		12"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	8.5 +32.4R		8.9 +27.7R		9.3 +24.2R		9.6 +21.5R		9.8 +19.3R		10 +17.5R		10.1 +16R		10.3 +14.8R		10.4 +13.7R	
		18"	q_a	663	1153	672	1082	678	1092	618	995	629	1012	638	1027	594	956	605	973	613	984
			q_f																		
			F	11 +31.6R		11.6 +26.9R		12.1 +23.5R		12.5 +20.8R		12.8 +18.6R		13.1 +16.9R		13.3 +15.4R		13.5 +14.2R		13.7 +13.2R	
		24"	q_a	561	902	585	943	523	841	547	881	499	804	522	840	483	778	504	811	472	760
			q_f																		
			F	13.2 +30.8R		14 +26.2R		14.6 +22.7R		15.1 +20R		15.6 +17.9R		15.9 +16.2R		16.2 +14.7R		16.5 +13.5R		16.7 +12.5R	

2WH-36 36/6 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

4.6 DG2WH-36 & DG2WHF-36

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/3	16 ga	4"	q_a q_f	1731 2787	1730 2786	1730 2786	1730 2785	1730 2785	1730 2785	1730 2785	1729 2784	1729 2784
			F	2.4 +5.4R	2.5 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.6 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R
		6"	q_a q_f	1685 2713	1684 2712	1684 2711	1683 2710	1683 2709	1682 2708	1682 2708	1682 2707	1681 2707
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4.1R	3 +3.6R	3 +3.3R	3 +3R	3 +2.7R	3 +2.5R	3.1 +2.3R
		8"	q_a q_f	1630 2624	1639 2638	1626 2618	1634 2630	1624 2614	1630 2625	1622 2612	1628 2621	1621 2610
			F	3.3 +5.4R	3.3 +4.6R	3.4 +4R	3.4 +3.6R	3.4 +3.2R	3.5 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R
		12"	q_a q_f	1504 2422	1499 2414	1495 2408	1492 2403	1490 2399	1488 2395	1486 2393	1485 2390	1483 2388
			F	4.1 +5.3R	4.2 +4.6R	4.3 +4R	4.3 +3.6R	4.3 +3.2R	4.4 +2.9R	4.4 +2.7R	4.4 +2.5R	4.4 +2.3R
		18"	q_a q_f	1319 2422	1345 2166	1363 2195	1295 2085	1317 2121	1334 2148	1282 2065	1301 2094	1316 2119
			F	5.4 +5.2R	5.5 +4.5R	5.5 +3.9R	5.6 +3.5R	5.6 +3.1R	5.7 +2.8R	5.7 +2.6R	5.7 +2.4R	5.7 +2.2R
		24"	q_a q_f	1163 1872	1225 1972	1137 1831	1191 1917	1121 1804	1168 1880	1110 1786	1151 1854	1102 1773
			F	6.6 +5R	6.7 +4.3R	6.8 +3.8R	6.8 +3.3R	6.9 +3R	6.9 +2.7R	7 +2.5R	7 +2.3R	7 +2.1R
	18 ga	4"	q_a q_f	1319 2123	1319 2123	1318 2123	1318 2123	1318 2122	1318 2122	1318 2122	1318 2122	1274 2038
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.9R	3.3 +4.5R	3.3 +4.2R
		6"	q_a q_f	1286 2071	1286 2070	1285 2069	1285 2068	1284 2068	1284 2067	1284 2067	1284 2067	1274 2038
			F	3.6 +9.7R	3.7 +8.3R	3.8 +7.3R	3.8 +6.5R	3.9 +5.8R	3.9 +5.3R	3.9 +4.8R	4 +4.5R	4 +4.2R
		8"	q_a q_f	1246 2006	1252 2016	1243 2002	1249 2011	1242 1999	1247 2007	1241 1998	1245 2004	1240 1996
			F	4.2 +9.7R	4.3 +8.3R	4.4 +7.2R	4.5 +6.4R	4.5 +5.8R	4.5 +5.3R	4.6 +4.8R	4.6 +4.5R	4.6 +4.1R
		12"	q_a q_f	1154 1859	1151 1853	1148 1848	1146 1845	1144 1842	1143 1840	1141 1838	1140 1836	1139 1834
			F	5.4 +9.5R	5.5 +8.2R	5.6 +7.2R	5.7 +6.4R	5.7 +5.7R	5.8 +5.2R	5.8 +4.8R	5.8 +4.4R	5.9 +4.1R
		18"	q_a q_f	1017 1859	1037 1669	1050 1691	1000 1609	1016 1636	1029 1656	990 1594	1004 1617	1016 1635
			F	7.1 +9.3R	7.3 +8R	7.4 +7R	7.5 +6.2R	7.5 +5.6R	7.6 +5.1R	7.6 +4.6R	7.7 +4.3R	7.7 +4R
		24"	q_a q_f	899 1448	946 1523	880 1417	921 1483	868 1398	904 1455	860 1385	892 1436	854 1375
			F	8.7 +9.1R	8.9 +7.7R	9 +6.7R	9.2 +6R	9.3 +5.4R	9.3 +4.9R	9.4 +4.5R	9.5 +4.1R	9.5 +3.8R
	20 ga	4"	q_a q_f	953 1534	953 1534	952 1533	952 1533	952 1533	952 1533	952 1533	952 1533	847 1356
			F	3.8 +19.5R	4 +16.7R	4.1 +14.6R	4.2 +13R	4.3 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R
		6"	q_a q_f	922 1485	921 1483	921 1482	920 1482	920 1481	920 1481	919 1480	919 1480	847 1356
			F	4.7 +19.4R	4.9 +16.6R	5 +14.6R	5.1 +12.9R	5.2 +11.7R	5.3 +10.6R	5.3 +9.7R	5.4 +9R	5.4 +8.3R
		8"	q_a q_f	885 1425	891 1434	882 1421	887 1429	881 1418	885 1425	880 1416	883 1422	847 1356
			F	5.6 +19.3R	5.8 +16.6R	5.9 +14.5R	6.1 +12.9R	6.2 +11.6R	6.2 +10.5R	6.3 +9.7R	6.3 +8.9R	6.4 +8.3R
		12"	q_a q_f	805 1297	802 1291	799 1287	797 1283	795 1280	794 1278	793 1276	791 1274	791 1273
			F	7.3 +19.1R	7.6 +16.4R	7.7 +14.3R	7.9 +12.7R	8 +11.5R	8.1 +10.4R	8.1 +9.5R	8.2 +8.8R	8.3 +8.2R
		18"	q_a q_f	694 1297	709 1141	719 1158	679 1092	691 1112	701 1128	670 1079	681 1096	689 1110
			F	9.8 +18.8R	10.1 +16R	10.3 +14R	10.5 +12.4R	10.6 +11.2R	10.7 +10.2R	10.8 +9.3R	10.9 +8.6R	11 +8R
		24"	q_a q_f	606 975	639 1029	589 949	619 996	579 932	605 974	572 921	595 958	567 913
			F	12 +18.3R	12.4 +15.6R	12.7 +13.6R	12.9 +12.1R	13.1 +10.8R	13.3 +9.8R	13.4 +9R	13.5 +8.3R	13.6 +7.7R
	22 ga	4"	q_a q_f	742 1195	742 1194	741 1194	741 1193	741 1193	741 1193	741 1193	714 1142	615 984
			F	4.4 +33.2R	4.7 +28.5R	4.9 +24.9R	5.1 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.6 +14.2R
		6"	q_a q_f	709 1142	708 1141	708 1139	707 1139	707 1138	706 1137	706 1137	706 1136	615 984
			F	5.6 +33.1R	5.9 +28.4R	6.2 +24.8R	6.4 +22.1R	6.5 +19.9R	6.6 +18.1R	6.7 +16.6R	6.8 +15.3R	6.9 +14.2R
		8"	q_a q_f	672 1082	678 1091	669 1077	674 1085	667 1074	671 1081	666 1072	669 1078	615 984
			F	6.8 +33R	7.2 +28.3R	7.4 +24.7R	7.6 +22R	7.8 +19.8R	7.9 +18R	8 +16.5R	8.1 +15.2R	8.2 +14.1R
		12"	q_a q_f	597 962	593 955	590 951	588 947	586 944	585 941	583 939	582 937	581 936
			F	9.1 +32.7R	9.5 +28R	9.8 +24.5R	10 +21.8R	10.2 +19.6R	10.4 +17.8R	10.5 +16.3R	10.6 +15R	10.7 +14R
		18"	q_a q_f	502 962	513 826	521 839	487 784	496 799	504 811	479 770	487 784	494 795
			F	12.3 +32.1R	12.8 +27.4R	13.2 +24R	13.5 +21.3R	13.7 +19.1R	13.9 +17.4R	14.1 +15.9R	14.2 +14.7R	14.4 +13.6R
		24"	q_a q_f	432 696	457 736	417 672	439 707	408 657	427 688	401 646	419 674	397 639
			F	15.2 +31.4R	15.9 +26.8R	16.3 +23.4R	16.7 +20.7R	17 +18.6R	17.3 +16.9R	17.5 +15.4R	17.7 +14.2R	17.9 +13.2R

2WH-36 36/3 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG2WH-36 & DG2WHF-36 4.6

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	2.4 +5.4R		2.4 +4.7R		2.5 +4.1R		2.5 +3.6R		2.5 +3.3R		2.6 +3R		2.6 +2.7R		2.6 +2.5R		2.6 +2.3R	
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	2.8 +5.4R		2.9 +4.6R		2.9 +4.1R		3 +3.6R		3 +3.2R		3 +2.9R		3 +2.7R		3 +2.5R		3 +2.3R	
		8"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	3.3 +5.4R		3.3 +4.6R		3.4 +4R		3.4 +3.6R		3.4 +3.2R		3.4 +2.9R		3.5 +2.7R		3.5 +2.5R		3.5 +2.3R	
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	4.1 +5.3R		4.2 +4.5R		4.2 +4R		4.3 +3.5R		4.3 +3.2R		4.3 +2.9R		4.3 +2.6R		4.4 +2.4R		4.4 +2.3R	
		18"	q_a	1588	2853	1614	2599	1633	2630	1531	2464	1557	2506	1577	2540	1500	2415	1524	2453	1543	2484
			q_f																		
			F	5.2 +5.1R		5.3 +4.4R		5.4 +3.8R		5.5 +3.4R		5.5 +3R		5.6 +2.8R		5.6 +2.5R		5.6 +2.3R		5.7 +2.2R	
		24"	q_a	1385	2230	1451	2336	1329	2140	1390	2238	1295	2084	1350	2173	1271	2046	1320	2126	1253	2018
			q_f																		
			F	6.3 +4.9R		6.5 +4.2R		6.6 +3.6R		6.7 +3.2R		6.7 +2.9R		6.8 +2.6R		6.8 +2.4R		6.9 +2.2R		6.9 +2R	
	18 ga	4"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	3 +9.7R		3.1 +8.3R		3.1 +7.3R		3.2 +6.5R		3.2 +5.8R		3.3 +5.3R		3.3 +4.9R		3.3 +4.5R		3.3 +4.2R	
		6"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	3.6 +9.7R		3.7 +8.3R		3.8 +7.2R		3.8 +6.4R		3.9 +5.8R		3.9 +5.3R		3.9 +4.8R		3.9 +4.5R		4 +4.1R	
		8"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	4.2 +9.6R		4.3 +8.2R		4.4 +7.2R		4.4 +6.4R		4.5 +5.8R		4.5 +5.2R		4.5 +4.8R		4.6 +4.4R		4.6 +4.1R	
		12"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	5.3 +9.5R		5.4 +8.1R		5.5 +7.1R		5.6 +6.3R		5.7 +5.7R		5.7 +5.1R		5.8 +4.7R		5.8 +4.3R		5.8 +4R	
		18"	q_a	1226	2171	1247	2007	1262	2031	1184	1907	1204	1939	1220	1964	1162	1871	1180	1900	1195	1923
			q_f																		
			F	6.9 +9.2R		7 +7.8R		7.2 +6.8R		7.3 +6.1R		7.4 +5.5R		7.4 +5R		7.5 +4.5R		7.6 +4.2R		7.6 +3.9R	
		24"	q_a	1072	1725	1123	1807	1031	1659	1078	1735	1005	1617	1047	1686	987	1589	1025	1650	974	1568
			q_f																		
			F	8.3 +8.9R		8.5 +7.5R		8.7 +6.6R		8.9 +5.8R		9 +5.2R		9.1 +4.7R		9.2 +4.3R		9.3 +4R		9.3 +3.7R	
	20 ga	4"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	3.8 +19.5R		3.9 +16.7R		4.1 +14.6R		4.2 +13R		4.2 +11.7R		4.3 +10.6R		4.4 +9.7R		4.4 +9R		4.5 +8.3R	
		6"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	4.6 +19.4R		4.8 +16.6R		5 +14.5R		5.1 +12.9R		5.2 +11.6R		5.3 +10.6R		5.3 +9.7R		5.4 +8.9R		5.4 +8.3R	
		8"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	5.5 +19.3R		5.7 +16.5R		5.9 +14.4R		6 +12.8R		6.1 +11.5R		6.2 +10.5R		6.2 +9.6R		6.3 +8.9R		6.3 +8.2R	
		12"	q_a	982	1581	977	1574	970	1562	965	1553	960	1545	956	1539	953	1534	950	1529	847	1356
			q_f																		
			F	7.1 +19R		7.4 +16.3R		7.6 +14.2R		7.7 +12.6R		7.8 +11.4R		7.9 +10.3R		8 +9.5R		8.1 +8.7R		8.2 +8.1R	
		18"	q_a	831	1581	844	1359	854	1374	795	1280	809	1302	820	1320	776	1249	788	1269	799	1286
			q_f																		
			F	9.3 +18.5R		9.7 +15.8R		9.9 +13.8R		10.1 +12.2R		10.3 +11R		10.5 +10R		10.6 +9.1R		10.7 +8.4R		10.8 +7.8R	
		24"	q_a	720	1160	754	1214	687	1106	718	1156	666	1072	694	1118	651	1048	677	1090	641	1031
			q_f																		
			F	11.3 +18R		11.7 +15.3R		12.1 +13.3R		12.4 +11.8R		12.6 +10.5R		12.8 +9.6R		13 +8.7R		13.1 +8R		13.2 +7.4R	
	22 ga	4"	q_a	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	714	1142	615	984
			q_f																		
			F	4.3 +33.2R		4.6 +28.4R		4.9 +24.9R		5 +22.1R		5.2 +19.9R		5.3 +18.1R		5.4 +16.6R		5.5 +15.3R		5.5 +14.2R	
		6"	q_a	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	714	1142	615	984
			q_f																		
			F	5.5 +33.1R		5.8 +28.3R		6.1 +24.8R		6.3 +22R		6.4 +19.8R		6.6 +18R		6.7 +16.5R		6.8 +15.2R		6.8 +14.2R	
		8"	q_a	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	714	1142	615	984
			q_f																		
			F	6.7 +32.9R		7 +28.2R		7.3 +24.6R		7.5 +21.9R		7.7 +19.7R		7.8 +17.9R		7.9 +16.4R		8 +15.1R		8.1 +14.1R	
		12"	q_a	723	1164	713	1148	706	1137	700	1128	696	1120	692	1114	688	1108	686	1104	615	984
			q_f																		
			F	8.8 +32.5R		9.2 +27.8R		9.5 +24.3R		9.8 +21.6R		10 +19.4R		10.2 +17.6R		10.3 +16.1R		10.4 +14.9R		10.5 +13.8R	
		18"	q_a	598	1164	606	975	612	985	565	909	574	924	582	936	547	881	556	895	564	907
			q_f																		
			F	11.6 +31.8R		12.2 +27.1R		12.6 +23.7R		13 +21R		13.2 +18.8R		13.5 +17.1R		13.7 +15.6R		13.8 +14.4R		14 +13.4R	
		24"	q_a	515	829	537	865	486	782	507	816	467	752	487	784	454	732	473	761	445	717
			q_f																		
			F	14.1 +31R		14.8 +26.4R		15.4 +22.9R		15.8 +20.3R		16.2 +18.2R		16.5 +16.4R		16.8 +15R		17 +13.8R		17.2 +12.8R	

2WH-36 36/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

4.6 DG2WH-36 & DG2WHF-36

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

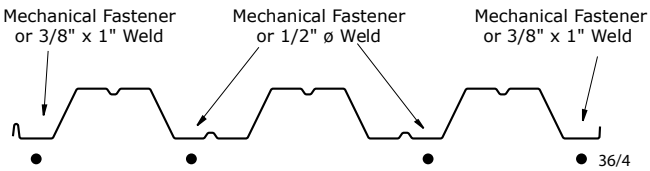
Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"				
36/6	16 ga	4"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853				
			F	2.4 +5.4R	2.4 +4.7R	2.5 +4.1R	2.5 +3.6R	2.5 +3.3R	2.5 +3R	2.6 +2.7R	2.6 +2.5R	2.6 +2.3R				
		6"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853				
			F	2.8 +5.4R	2.9 +4.6R	2.9 +4R	2.9 +3.6R	3 +3.2R	3 +2.9R	3 +2.7R	3 +2.5R	3 +2.3R				
		8"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853				
			F	3.2 +5.4R	3.3 +4.6R	3.3 +4R	3.4 +3.6R	3.4 +3.2R	3.4 +2.9R	3.5 +2.7R	3.5 +2.5R	3.5 +2.3R				
		12"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853				
			F	4 +5.2R	4.1 +4.5R	4.2 +3.9R	4.2 +3.5R	4.3 +3.1R	4.3 +2.8R	4.3 +2.6R	4.3 +2.4R	4.4 +2.2R				
		18"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1726 2779	1758 2831	1772 2853				
			F	5.1 +5R	5.2 +4.3R	5.3 +3.8R	5.4 +3.3R	5.5 +3R	5.5 +2.7R	5.5 +2.5R	5.6 +2.3R	5.6 +2.1R				
		24"	q_a q_f	1589 2559	1672 2693	1503 2420	1580 2544	1450 2334	1519 2446	1414 2276	1476 2377	1387 2234				
			F	6.1 +4.8R	6.3 +4.1R	6.4 +3.5R	6.5 +3.1R	6.6 +2.8R	6.7 +2.5R	6.7 +2.3R	6.8 +2.1R	6.8 +2R				
	18 ga	4"	q_a q_f	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1274 2038				
			F	3 +9.7R	3.1 +8.3R	3.1 +7.3R	3.2 +6.5R	3.2 +5.8R	3.3 +5.3R	3.3 +4.8R	3.3 +4.5R	3.3 +4.2R				
		6"	q_a q_f	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1274 2038				
			F	3.6 +9.6R	3.7 +8.3R	3.7 +7.2R	3.8 +6.4R	3.8 +5.8R	3.9 +5.3R	3.9 +4.8R	3.9 +4.4R	4 +4.1R				
		8"	q_a q_f	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1274 2038				
			F	4.1 +9.6R	4.2 +8.2R	4.3 +7.2R	4.4 +6.4R	4.4 +5.7R	4.5 +5.2R	4.5 +4.8R	4.5 +4.4R	4.6 +4.1R				
		12"	q_a q_f	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1274 2038				
			F	5.2 +9.4R	5.3 +8R	5.4 +7R	5.5 +6.2R	5.6 +5.6R	5.7 +5.1R	5.7 +4.7R	5.7 +4.3R	5.8 +4R				
		18"	q_a q_f	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1348 2171	1343 2163	1348 2171	1274 2038				
			F	6.7 +9.1R	6.9 +7.8R	7 +6.8R	7.1 +6R	7.2 +5.4R	7.3 +4.9R	7.4 +4.5R	7.4 +4.1R	7.5 +3.8R				
		24"	q_a q_f	1233 1986	1299 2091	1169 1882	1229 1979	1129 1817	1183 1905	1102 1774	1150 1852	1082 1742				
			F	8 +8.7R	8.2 +7.4R	8.4 +6.4R	8.6 +5.7R	8.8 +5.1R	8.9 +4.6R	9 +4.2R	9.1 +3.8R	9.1 +3.6R				
	20 ga	4"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1572	847 1356				
			F	3.7 +19.4R	3.9 +16.7R	4 +14.6R	4.2 +13R	4.2 +11.7R	4.3 +10.6R	4.4 +9.7R	4.4 +9R	4.5 +8.3R				
		6"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1572	847 1356				
			F	4.6 +19.3R	4.8 +16.6R	4.9 +14.5R	5.1 +12.9R	5.1 +11.6R	5.2 +10.5R	5.3 +9.7R	5.3 +8.9R	5.4 +8.3R				
		8"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1572	847 1356				
			F	5.4 +19.2R	5.6 +16.5R	5.8 +14.4R	5.9 +12.8R	6 +11.5R	6.1 +10.5R	6.2 +9.6R	6.2 +8.8R	6.3 +8.2R				
		12"	q_a q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1572	847 1356				
			F	6.9 +18.9R	7.2 +16.2R	7.4 +14.1R	7.6 +12.5R	7.7 +11.3R	7.8 +10.2R	7.9 +9.4R	8 +8.7R	8.1 +8R				
		18"	q_a q_f	969 1581	982 1581	982 1581	910 1464	927 1492	941 1515	879 1415	895 1441	847 1356				
			F	8.9 +18.4R	9.3 +15.7R	9.6 +13.7R	9.9 +12.1R	10.1 +10.8R	10.2 +9.8R	10.4 +9R	10.5 +8.3R	10.6 +7.7R				
		24"	q_a q_f	819 1318	859 1382	769 1237	806 1298	738 1188	772 1243	717 1154	748 1204	701 1129				
			F	10.7 +17.8R	11.2 +15.1R	11.6 +13.1R	11.9 +11.6R	12.2 +10.4R	12.4 +9.4R	12.6 +8.5R	12.8 +7.8R	12.9 +7.2R				
	22 ga	4"	q_a q_f	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	714 1142	615 984				
			F	4.3 +33.2R	4.6 +28.4R	4.8 +24.9R	5 +22.1R	5.2 +19.9R	5.3 +18.1R	5.4 +16.6R	5.5 +15.3R	5.5 +14.2R				
		6"	q_a q_f	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	714 1142	615 984				
			F	5.4 +33R	5.8 +28.3R	6 +24.7R	6.2 +22R	6.4 +19.8R	6.5 +18R	6.6 +16.5R	6.7 +15.2R	6.8 +14.1R				
		8"	q_a q_f	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	714 1142	615 984				
			F	6.5 +32.8R	6.9 +28.1R	7.2 +24.6R	7.4 +21.8R	7.6 +19.6R	7.7 +17.8R	7.8 +16.4R	7.9 +15.1R	8 +14R				
		12"	q_a q_f	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	774 1246	714 1142	615 984				
			F	8.5 +32.4R	8.9 +27.7R	9.3 +24.2R	9.6 +21.5R	9.8 +19.3R	10 +17.5R	10.1 +16R	10.3 +14.8R	10.4 +13.7R				
		18"	q_a q_f	685 1246	692 1115	698 1124	634 1021	645 1038	653 1052	608 978	618 995	615 984				
			F	11 +31.6R	11.6 +26.9R	12.1 +23.5R	12.5 +20.8R	12.8 +18.6R	13.1 +16.9R	13.3 +15.4R	13.5 +14.2R	13.7 +13.2R				
		24"	q_a q_f	573 923	603 971	534 860	561 903	511 823	534 859	494 795	514 828	481 775				
			F	13.2 +30.8R	14 +26.2R	14.6 +22.7R	15.1 +20R	15.6 +17.9R	15.9 +16.2R	16.2 +14.7R	16.5 +13.5R	16.7 +12.5R				

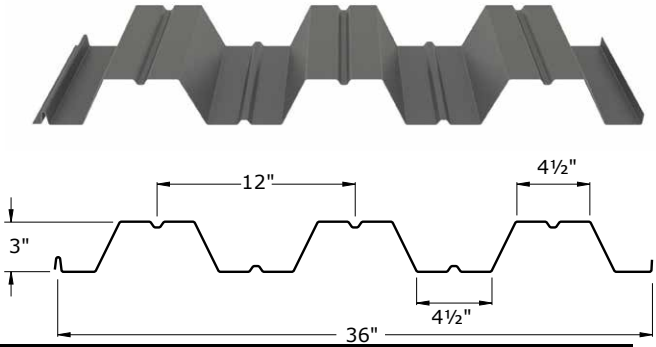
2WH-36 36/6 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

DG3WxH-36 & 3WxH-36 4.7

Attachment Patterns



Note: Weld sizes are effective not visible. Refer to AISI S100-2007 or AWS D1.3 for additional welding requirements.



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_g in³/ft	r in
22	1.76	0.0299	50	65	0.504	0.770	1.48	0.497	1.236
21	1.93	0.0330	50	65	0.556	0.850	1.48	0.548	1.236
20	2.10	0.0359	50	65	0.605	0.927	1.48	0.595	1.236
19	2.44	0.0420	50	65	0.708	1.083	1.48	0.695	1.236
18	2.77	0.0478	50	65	0.806	1.233	1.49	0.789	1.236
16	3.45	0.0598	50	65	1.008	1.540	1.49	0.984	1.236

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in²/ft	S_e+ in³/ft	y_b in	S_e- in³/ft	y_b in	I_e+ in⁴/ft	I_e- in⁴/ft	I+ in⁴/ft	I- in⁴/ft
22	0.309	0.392	1.33	0.404	1.63	0.727	0.720	0.741	0.737
21	0.362	0.452	1.36	0.465	1.61	0.823	0.813	0.832	0.826
20	0.414	0.510	1.39	0.524	1.59	0.910	0.900	0.916	0.909
19	0.532	0.636	1.43	0.654	1.55	1.083	1.073	1.083	1.077
18	0.651	0.761	1.46	0.781	1.52	1.233	1.230	1.233	1.231
16	0.887	0.984	1.49	0.982	1.50	1.540	1.540	1.540	1.540

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs							
		ASD, R/Ω				LRFD, ϕR			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	296	368	471	550	452	564	721	842
	Interior	522	630	783	900	776	937	1164	1338
21	End	379	470	598	697	580	719	915	1066
	Interior	667	801	990	1135	993	1191	1472	1688
20	End	424	524	666	775	649	802	1020	1186
	Interior	746	893	1101	1261	1110	1329	1638	1876
19	End	600	737	930	1078	918	1127	1423	1650
	Interior	1054	1252	1532	1747	1568	1863	2280	2599
18	End	743	908	1141	1320	1137	1389	1746	2020
	Interior	1305	1542	1878	2136	1941	2294	2794	3178
16	End	1143	1383	1723	1983	1749	2116	2636	3034
	Interior	2008	2350	2834	3206	2986	3495	4216	4768
Constants		h = 3.2"		r = 0.125"		θ = 63.5°			

4.7 DG3WxH-36 & 3WxH-36

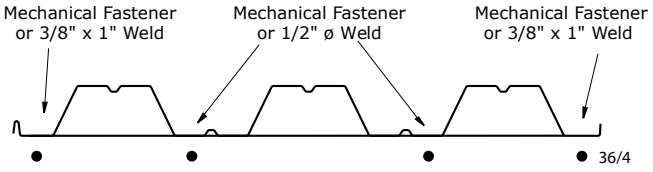
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

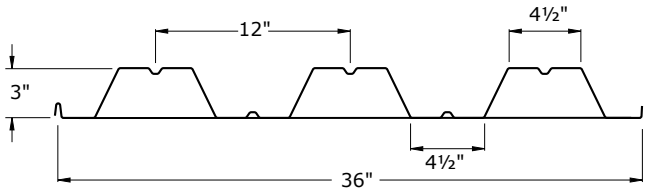
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	490	218	122	78	54	40	31	24	20
		Φf_b	736	327	184	118	82	60	46	36	29
		L/360	506	150	63	32	19	12	8	6	4
		L/240	759	225	95	49	28	18	12	8	6
		L/180	1012	300	127	65	37	24	16	11	8
		L/120	1518	450	190	97	56	35	24	17	12
	Double Span	f_b/Ω	504	224	126	81	56	41	31	25	20
		Φf_b	758	337	189	121	84	62	47	37	30
		L/360	1212	359	151	78	45	28	19	13	10
		L/240	1818	539	227	116	67	42	28	20	15
		L/180	2424	718	303	155	90	57	38	27	19
		L/120	3635	1077	454	233	135	85	57	40	29
	Triple Span	f_b/Ω	630	280	157	101	70	51	39	31	25
		Φf_b	947	421	237	152	105	77	59	47	38
		L/360	949	281	119	61	35	22	15	10	8
		L/240	1424	422	178	91	53	33	22	16	11
		L/180	1899	563	237	122	70	44	30	21	15
		L/120	2848	844	356	182	105	66	44	31	23
21	Single Span	f_b/Ω	564	251	141	90	63	46	35	28	23
		Φf_b	847	377	212	136	94	69	53	42	34
		L/360	568	168	71	36	21	13	9	6	5
		L/240	852	253	107	55	32	20	13	9	7
		L/180	1137	337	142	73	42	27	18	12	9
		L/120	1705	505	213	109	63	40	27	19	14
	Double Span	f_b/Ω	580	258	145	93	64	47	36	29	23
		Φf_b	872	388	218	140	97	71	54	43	35
		L/360	1358	402	170	87	50	32	21	15	11
		L/240	2037	604	255	130	75	48	32	22	16
		L/180	2716	805	339	174	101	63	42	30	22
		L/120	4074	1207	509	261	151	95	64	45	33
	Triple Span	f_b/Ω	725	322	181	116	81	59	45	36	29
		Φf_b	1090	484	272	174	121	89	68	54	44
		L/360	1064	315	133	68	39	25	17	12	9
		L/240	1596	473	199	102	59	37	25	18	13
		L/180	2128	630	266	136	79	50	33	23	17
		L/120	3192	946	399	204	118	74	50	35	26
20	Single Span	f_b/Ω	636	283	159	102	71	52	40	31	25
		Φf_b	956	425	239	153	106	78	60	47	38
		L/360	625	185	78	40	23	15	10	7	5
		L/240	938	278	117	60	35	22	15	10	8
		L/180	1250	370	156	80	46	29	20	14	10
		L/120	1876	556	234	120	69	44	29	21	15
	Double Span	f_b/Ω	654	291	163	105	73	53	41	32	26
		Φf_b	983	437	246	157	109	80	61	49	39
		L/360	1495	443	187	96	55	35	23	16	12
		L/240	2243	664	280	144	83	52	35	25	18
		L/180	2990	886	374	191	111	70	47	33	24
		L/120	4485	1329	561	287	166	105	70	49	36
	Triple Span	f_b/Ω	817	363	204	131	91	67	51	40	33
		Φf_b	1228	546	307	197	136	100	77	61	49
		L/360	1171	347	146	75	43	27	18	13	9
		L/240	1757	521	220	112	65	41	27	19	14
		L/180	2342	694	293	150	87	55	37	26	19
		L/120	3514	1041	439	225	130	82	55	39	28

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
19	Single Span	f_b/Ω	793	353	198	127	88	65	50	39	32
		Φf_b	1193	530	298	191	133	97	75	59	48
		L/360	740	219	92	47	27	17	12	8	6
		L/240	1110	329	139	71	41	26	17	12	9
		L/180	1480	438	185	95	55	35	23	16	12
		L/120	2219	658	277	142	82	52	35	24	18
	Double Span	f_b/Ω	815	362	204	130	91	67	51	40	33
		Φf_b	1226	545	306	196	136	100	77	61	49
		L/360	1771	525	221	113	66	41	28	19	14
		L/240	2657	787	332	170	98	62	42	29	21
		L/180	3542	1050	443	227	131	83	55	39	28
		L/120	5313	1574	664	340	197	124	83	58	43
	Triple Span	f_b/Ω	1019	453	255	163	113	83	64	50	41
		Φf_b	1532	681	383	245	170	125	96	76	61
		L/360	1387	411	173	89	51	32	22	15	11
		L/240	2081	617	260	133	77	49	33	23	17
		L/180	2775	822	347	178	103	65	43	30	22
		L/120	4162	1233	520	266	154	97	65	46	33
18	Single Span	f_b/Ω	949	422	237	152	105	77	59	47	38
		Φf_b	1426	634	357	228	158	116	89	70	57
		L/360	842	250	105	54	31	20	13	9	7
		L/240	1263	374	158	81	47	29	20	14	10
		L/180	1684	499	211	108	62	39	26	18	13
		L/120	2527	749	316	162	94	59	39	28	20
	Double Span	f_b/Ω	974	433	244	156	108	80	61	48	39
		Φf_b	1464	651	366	234	163	120	92	72	59
		L/360	2025	600	253	130	75	47	32	22	16
		L/240	3038	900	380	194	113	71	47	33	24
		L/180	4050	1200	506	259	150	94	63	44	32
		L/120	6075	1800	759	389	225	142	95	67	49
	Triple Span	f_b/Ω	1218	541	304	195	135	99	76	60	49
		Φf_b	1830	814	458	293	203	149	114	90	73
		L/360	1586	470	198	102	59	37	25	17	13
		L/240	2380	705	297	152	88	56	37	26	19
		L/180	3173	940	397	203	118	74	50	35	25
		L/120	4759	1410	595	305	176	111	74	52	38
16	Single Span	f_b/Ω	1228	546	307	196	136	100	77	61	49
		Φf_b	1845	820	461	295	205	151	115	91	74
		L/360	1052	312	131	67	39	25	16	12	8
		L/240	1577	467	197	101	58	37	25	17	13
		L/180	2103	623	263	135	78	49	33	23	17
		L/120	3155	935	394	202	117	74	49	35	25
	Double Span	f_b/Ω	1225	545	306	196	136	100	77	61	49
		Φf_b	1842	819	460	295	205	150	115	91	74
		L/360	2533	751	317	162	94	59	40	28	20
		L/240	3800	1126	475	243	141	89	59	42	30
		L/180	5066	1501	633	324	188	118	79	56	41
		L/120	7600	2252	950	486	281	177	119	83	61
	Triple Span	f_b/Ω	1532	681	383	245	170	125	96	76	61
		Φf_b	2302	1023	576	368	256	188	144	114	92
		L/360	1984	588	248	127	73	46	31	22	16
		L/240	2977	882	372	191	110	69	47	33	24
		L/180	3969	1176	496	254	147	93	62	44	32
		L/120	5953	1764	744	381	220	139	93	65	48

4.8 DG3WxHF-36 & 3WxHF-36





Note: Weld sizes are effective not visible. Refer to AISI S100-2007 or AWS D1.3 for additional welding requirements.

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w	t_{beam}	F_y	F_u	A_g	I_g	y_b	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	in
20/20	3.69	0.0359 / 0.036	50	65	1.054	1.542	0.91	0.712	1.209
20/18	4.16	0.0359 / 0.047	50	65	1.193	1.640	0.81	0.723	1.172
20/16	4.68	0.0359 / 0.059	50	65	1.344	1.727	0.74	0.732	1.133
18/20	4.35	0.0478 / 0.036	50	65	1.253	1.932	1.02	0.934	1.242
18/18	4.83	0.0478 / 0.047	50	65	1.392	2.058	0.93	0.949	1.216
18/16	5.35	0.0478 / 0.059	50	65	1.543	2.172	0.85	0.962	1.186
16/20	5.03	0.0598 / 0.036	50	65	1.450	2.309	1.10	1.155	1.262
16/18	5.51	0.0598 / 0.047	50	65	1.593	2.457	1.01	1.174	1.242
16/16	6.03	0.0598 / 0.059	50	65	1.744	2.595	0.94	1.191	1.220

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Compression Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e	S_e+	y_b	S_e-	y_b	I_e+	I_e-	I+	I-
	in^2/ft	in^3/ft	in	in^3/ft	in	in^4/ft	in^4/ft	in^4/ft	in^4/ft
20/20	0.481	0.538	0.75	0.645	1.42	1.506	1.186	1.518	1.305
20/18	0.551	0.540	0.66	0.674	1.23	1.582	1.363	1.601	1.455
20/16	0.650	0.562	0.61	0.701	1.04	1.640	1.512	1.669	1.584
18/20	0.691	0.875	0.98	0.844	1.49	1.930	1.484	1.931	1.633
18/18	0.761	0.878	0.88	0.879	1.34	2.056	1.693	2.057	1.815
18/16	0.860	0.875	0.80	0.910	1.19	2.170	1.868	2.171	1.969
16/20	0.923	1.175	1.11	1.047	1.53	2.306	1.790	2.307	1.963
16/18	0.997	1.194	1.02	1.084	1.40	2.454	2.012	2.455	2.160
16/16	1.095	1.211	0.95	1.119	1.28	2.592	2.214	2.593	2.341

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs							
		ASD, R/Ω				LRFD, ϕR			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	296	368	471	550	452	564	721	842
	Interior	522	630	783	900	776	937	1164	1338
21	End	379	470	598	697	580	719	915	1066
	Interior	667	801	990	1135	993	1191	1472	1688
20	End	424	524	666	775	649	802	1020	1186
	Interior	746	893	1101	1261	1110	1329	1638	1876
19	End	600	737	930	1078	918	1127	1423	1650
	Interior	1054	1252	1532	1747	1568	1863	2280	2599
18	End	743	908	1141	1320	1137	1389	1746	2020
	Interior	1305	1542	1878	2136	1941	2294	2794	3178
16	End	1143	1383	1723	1983	1749	2116	2636	3034
	Interior	2008	2350	2834	3206	2986	3495	4216	4768
Constants		h = 3.2"		r = 0.125"		θ = 63.5°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	671	298	168	107	75	55	42	33	27
		Φf_b	1009	448	252	161	112	82	63	50	40
		L/360	1037	307	130	66	38	24	16	11	8
		L/240	1555	461	194	100	58	36	24	17	12
		L/180	2073	614	259	133	77	48	32	23	17
		L/120	3110	921	389	199	115	73	49	34	25
	Double Span	f_b/Ω	805	358	201	129	89	66	50	40	32
		Φf_b	1209	538	302	194	134	99	76	60	48
		L/360	2497	740	312	160	92	58	39	27	20
		L/240	3746	1110	468	240	139	87	59	41	30
		L/180	4994	1480	624	320	185	116	78	55	40
		L/120	7491	2220	936	479	277	175	117	82	60
	Triple Span	f_b/Ω	1006	447	251	161	112	82	63	50	40
		Φf_b	1512	672	378	242	168	123	94	75	60
		L/360	1956	580	245	125	72	46	31	21	16
		L/240	2934	869	367	188	109	68	46	32	23
		L/180	3912	1159	489	250	145	91	61	43	31
		L/120	5868	1739	734	376	217	137	92	64	47
20/18	Single Span	f_b/Ω	674	299	168	108	75	55	42	33	27
		Φf_b	1013	450	253	162	113	83	63	50	41
		L/360	1094	324	137	70	41	26	17	12	9
		L/240	1640	486	205	105	61	38	26	18	13
		L/180	2187	648	273	140	81	51	34	24	17
		L/120	3281	972	410	210	122	77	51	36	26
	Double Span	f_b/Ω	841	374	210	135	93	69	53	42	34
		Φf_b	1264	562	316	202	140	103	79	62	51
		L/360	2634	780	329	169	98	61	41	29	21
		L/240	3951	1171	494	253	146	92	62	43	32
		L/180	5268	1561	659	337	195	123	82	58	42
		L/120	7902	2341	988	506	293	184	123	87	63
	Triple Span	f_b/Ω	1051	467	263	168	117	86	66	52	42
		Φf_b	1580	702	395	253	176	129	99	78	63
		L/360	2064	611	258	132	76	48	32	23	17
		L/240	3095	917	387	198	115	72	48	34	25
		L/180	4127	1223	516	264	153	96	64	45	33
		L/120	6191	1834	774	396	229	144	97	68	50
20/16	Single Span	f_b/Ω	701	312	175	112	78	57	44	35	28
		Φf_b	1054	468	263	169	117	86	66	52	42
		L/360	1140	338	142	73	42	27	18	13	9
		L/240	1710	507	214	109	63	40	27	19	14
		L/180	2279	675	285	146	84	53	36	25	18
		L/120	3419	1013	427	219	127	80	53	38	27
	Double Span	f_b/Ω	875	389	219	140	97	71	55	43	35
		Φf_b	1314	584	329	210	146	107	82	65	53
		L/360	2745	813	343	176	102	64	43	30	22
		L/240	4118	1220	515	264	153	96	64	45	33
		L/180	5491	1627	686	351	203	128	86	60	44
		L/120	8236	2440	1030	527	305	192	129	90	66
	Triple Span	f_b/Ω	1093	486	273	175	121	89	68	54	44
		Φf_b	1643	730	411	263	183	134	103	81	66
		L/360	2151	637	269	138	80	50	34	24	17
		L/240	3226	956	403	206	119	75	50	35	26
		L/180	4301	1275	538	275	159	100	67	47	34
		L/120	6452	1912	807	413	239	150	101	71	52

4.8 DG3WxHF-36 & 3WxHF-36

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	Single Span	f_b/Ω	1092	485	273	175	121	89	68	54	44
		Φf_b	1641	729	410	263	182	134	103	81	66
		L/360	1318	391	165	84	49	31	21	14	11
		L/240	1978	586	247	127	73	46	31	22	16
		L/180	2637	781	330	169	98	61	41	29	21
		L/120	3955	1172	494	253	146	92	62	43	32
	Double Span	f_b/Ω	1053	468	263	168	117	86	66	52	42
		Φf_b	1583	703	396	253	176	129	99	78	63
		L/360	3176	941	397	203	118	74	50	35	25
		L/240	4764	1411	595	305	176	111	74	52	38
		L/180	6352	1882	794	407	235	148	99	70	51
		L/120	9527	2823	1191	610	353	222	149	105	76
	Triple Span	f_b/Ω	1316	585	329	211	146	107	82	65	53
		Φf_b	1978	879	495	317	220	161	124	98	79
		L/360	2488	737	311	159	92	58	39	27	20
		L/240	3732	1106	466	239	138	87	58	41	30
		L/180	4976	1474	622	318	184	116	78	55	40
		L/120	7464	2211	933	478	276	174	117	82	60
18/18	Single Span	f_b/Ω	1095	487	274	175	122	89	68	54	44
		Φf_b	1646	732	412	263	183	134	103	81	66
		L/360	1404	416	176	90	52	33	22	15	11
		L/240	2107	624	263	135	78	49	33	23	17
		L/180	2809	832	351	180	104	66	44	31	22
		L/120	4213	1248	527	270	156	98	66	46	34
	Double Span	f_b/Ω	1097	487	274	175	122	90	69	54	44
		Φf_b	1648	733	412	264	183	135	103	81	66
		L/360	3383	1002	423	217	125	79	53	37	27
		L/240	5075	1504	634	325	188	118	79	56	41
		L/180	6766	2005	846	433	251	158	106	74	54
		L/120	10149	3007	1269	650	376	237	159	111	81
	Triple Span	f_b/Ω	1371	609	343	219	152	112	86	68	55
		Φf_b	2060	916	515	330	229	168	129	102	82
		L/360	2650	785	331	170	98	62	41	29	21
		L/240	3975	1178	497	254	147	93	62	44	32
		L/180	5301	1571	663	339	196	124	83	58	42
		L/120	7951	2356	994	509	294	185	124	87	64
18/16	Single Span	f_b/Ω	1092	485	273	175	121	89	68	54	44
		Φf_b	1641	729	410	263	182	134	103	81	66
		L/360	1482	439	185	95	55	35	23	16	12
		L/240	2223	659	278	142	82	52	35	24	18
		L/180	2965	878	371	190	110	69	46	33	24
		L/120	4447	1318	556	285	165	104	69	49	36
	Double Span	f_b/Ω	1135	505	284	182	126	93	71	56	45
		Φf_b	1706	758	427	273	190	139	107	84	68
		L/360	3571	1058	446	229	132	83	56	39	29
		L/240	5356	1587	669	343	198	125	84	59	43
		L/180	7141	2116	893	457	264	167	112	78	57
		L/120	10712	3174	1339	686	397	250	167	118	86
	Triple Span	f_b/Ω	1419	631	355	227	158	116	89	70	57
		Φf_b	2133	948	533	341	237	174	133	105	85
		L/360	2797	829	350	179	104	65	44	31	22
		L/240	4196	1243	524	269	155	98	66	46	34
		L/180	5594	1658	699	358	207	130	87	61	45
		L/120	8392	2486	1049	537	311	196	131	92	67

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	1466	651	366	235	163	120	92	72	59
		Φf_b	2203	979	551	353	245	180	138	109	88
		L/360	1575	467	197	101	58	37	25	17	13
		L/240	2363	700	295	151	88	55	37	26	19
		L/180	3151	934	394	202	117	73	49	35	25
		L/120	4726	1400	591	302	175	110	74	52	38
	Double Span	f_b/Ω	1306	581	327	209	145	107	82	65	52
		Φf_b	1963	873	491	314	218	160	123	97	79
		L/360	3795	1124	474	243	141	89	59	42	30
		L/240	5692	1687	712	364	211	133	89	62	46
		L/180	7590	2249	949	486	281	177	119	83	61
		L/120	11385	3373	1423	729	422	266	178	125	91
	Triple Span	f_b/Ω	1633	726	408	261	181	133	102	81	65
		Φf_b	2454	1091	613	393	273	200	153	121	98
		L/360	2973	881	372	190	110	69	46	33	24
		L/240	4459	1321	557	285	165	104	70	49	36
		L/180	5946	1762	743	381	220	139	93	65	48
		L/120	8919	2643	1115	571	330	208	139	98	71
16/18	Single Span	f_b/Ω	1490	662	372	238	166	122	93	74	60
		Φf_b	2239	995	560	358	249	183	140	111	90
		L/360	1676	497	210	107	62	39	26	18	13
		L/240	2515	745	314	161	93	59	39	28	20
		L/180	3353	993	419	215	124	78	52	37	27
		L/120	5029	1490	629	322	186	117	79	55	40
	Double Span	f_b/Ω	1352	601	338	216	150	110	85	67	54
		Φf_b	2033	903	508	325	226	166	127	100	81
		L/360	4038	1197	505	258	150	94	63	44	32
		L/240	6057	1795	757	388	224	141	95	66	48
		L/180	8077	2393	1010	517	299	188	126	89	65
		L/120	12115	3590	1514	775	449	283	189	133	97
	Triple Span	f_b/Ω	1690	751	423	270	188	138	106	83	68
		Φf_b	2541	1129	635	407	282	207	159	125	102
		L/360	3164	937	395	202	117	74	49	35	25
		L/240	4745	1406	593	304	176	111	74	52	38
		L/180	6327	1875	791	405	234	148	99	69	51
		L/120	9491	2812	1186	607	352	221	148	104	76
16/16	Single Span	f_b/Ω	1511	671	378	242	168	123	94	75	60
		Φf_b	2271	1009	568	363	252	185	142	112	91
		L/360	1771	525	221	113	66	41	28	19	14
		L/240	2656	787	332	170	98	62	42	29	21
		L/180	3541	1049	443	227	131	83	55	39	28
		L/120	5312	1574	664	340	197	124	83	58	42
	Double Span	f_b/Ω	1396	620	349	223	155	114	87	69	56
		Φf_b	2098	933	525	336	233	171	131	104	84
		L/360	4265	1264	533	273	158	99	67	47	34
		L/240	6398	1896	800	409	237	149	100	70	51
		L/180	8531	2528	1066	546	316	199	133	94	68
		L/120	12796	3791	1599	819	474	298	200	140	102
	Triple Span	f_b/Ω	1745	776	436	279	194	142	109	86	70
		Φf_b	2623	1166	656	420	291	214	164	130	105
		L/360	3341	990	418	214	124	78	52	37	27
		L/240	5012	1485	627	321	186	117	78	55	40
		L/180	6683	1980	835	428	248	156	104	73	53
		L/120	10024	2970	1253	642	371	234	157	110	80

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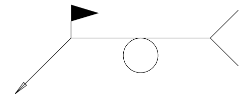
4.9 **DG3WxH-36 & DG3WxHF-36**

Arc Spot/Seam Welds to Supports with DeltaGrip® DG4™ Tool Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																		
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a q_f	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875
			F	2.4 +7R		2.5 +6R		2.5 +5.2R		2.6 +4.6R		2.6 +4.2R		2.6 +3.8R		2.6 +3.5R		2.6 +3.2R		2.7 +3R	
		6"	q_a q_f	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875
			F	2.8 +6.9R		2.9 +5.9R		2.9 +5.2R		3 +4.6R		3 +4.1R		3 +3.8R		3.1 +3.4R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	2392	3875	2410	3875	2348	3874	2368	3875	2320	3828	2340	3861	2301	3797	2320	3828	2287	3774
			F	3.2 +6.8R		3.2 +5.9R		3.3 +5.1R		3.4 +4.6R		3.4 +4.1R		3.4 +3.7R		3.5 +3.4R		3.5 +3.1R		3.5 +2.9R	
		12"	q_a q_f	2006	3310	1967	3245	1937	3195	1912	3156	1893	3123	1876	3096	1863	3073	1851	3054	1841	3037
			F	3.8 +6.7R		4 +5.7R		4 +5R		4.1 +4.4R		4.2 +4R		4.2 +3.6R		4.3 +3.3R		4.3 +3R		4.3 +2.8R	
		18"	q_a q_f	1633	3310	1643	2711	1650	2723	1509	2490	1529	2523	1546	2550	1443	2382	1465	2417	1483	2446
			F	4.7 +6.4R		4.9 +5.5R		5 +4.8R		5.1 +4.2R		5.2 +3.8R		5.3 +3.4R		5.4 +3.1R		5.4 +2.8R		5.5 +2.6R	
		24"	q_a q_f	1405	2318	1450	2393	1300	2145	1349	2226	1235	2037	1282	2115	1190	1964	1234	2037	1158	1910
			F	5.5 +6.2R		5.7 +5.2R		5.9 +4.5R		6 +3.9R		6.2 +3.5R		6.3 +3.2R		6.4 +2.9R		6.4 +2.6R		6.5 +2.4R	
	18 ga	4"	q_a q_f	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575
			F	2.9 +12.2R		3 +10.5R		3.1 +9.1R		3.2 +8.1R		3.2 +7.3R		3.3 +6.7R		3.3 +6.1R		3.3 +5.6R		3.4 +5.2R	
		6"	q_a q_f	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575
			F	3.4 +12.1R		3.6 +10.4R		3.7 +9.1R		3.7 +8.1R		3.8 +7.3R		3.8 +6.6R		3.9 +6R		3.9 +5.6R		4 +5.2R	
		8"	q_a q_f	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575
			F	3.9 +12R		4.1 +10.3R		4.2 +9R		4.3 +8R		4.3 +7.2R		4.4 +6.5R		4.5 +6R		4.5 +5.5R		4.5 +5.1R	
		12"	q_a q_f	1586	2575	1555	2566	1532	2528	1513	2497	1498	2472	1485	2451	1475	2433	1465	2418	1458	2405
			F	4.8 +11.8R		5 +10.1R		5.1 +8.8R		5.3 +7.8R		5.4 +7R		5.4 +6.3R		5.5 +5.8R		5.6 +5.4R		5.6 +5R	
		18"	q_a q_f	1292	2575	1300	2146	1307	2156	1195	1972	1211	1999	1225	2020	1144	1888	1161	1916	1175	1939
			F	5.9 +11.4R		6.2 +9.7R		6.4 +8.4R		6.6 +7.4R		6.7 +6.7R		6.9 +6R		7 +5.5R		7 +5R		7.1 +4.7R	
		24"	q_a q_f	1111	1833	1148	1894	1029	1698	1068	1763	978	1614	1016	1676	943	1557	979	1615	918	1515
			F	6.8 +11.1R		7.2 +9.3R		7.5 +8.1R		7.7 +7.1R		7.9 +6.3R		8.1 +5.7R		8.3 +5.1R		8.4 +4.7R		8.5 +4.3R	
	20 ga	4"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	3.5 +25R		3.8 +21.4R		3.9 +18.7R		4.1 +16.6R		4.2 +15R		4.3 +13.6R		4.4 +12.5R		4.4 +11.5R		4.5 +10.7R	
		6"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	4.3 +24.8R		4.5 +21.3R		4.7 +18.6R		4.9 +16.5R		5 +14.9R		5.1 +13.5R		5.2 +12.4R		5.3 +11.4R		5.4 +10.6R	
		8"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	5 +24.7R		5.3 +21.1R		5.5 +18.4R		5.7 +16.4R		5.8 +14.7R		5.9 +13.4R		6 +12.3R		6.1 +11.3R		6.2 +10.5R	
		12"	q_a q_f	952	1522	937	1522	923	1522	913	1506	904	1491	897	1480	891	1470	885	1461	881	1454
			F	6.2 +24.3R		6.5 +20.7R		6.8 +18.1R		7.1 +16R		7.3 +14.4R		7.4 +13.1R		7.6 +12R		7.7 +11R		7.8 +10.2R	
		18"	q_a q_f	779	1522	785	1295	789	1302	723	1193	733	1209	741	1223	693	1144	704	1161	713	1176
			F	7.6 +23.7R		8.1 +20.2R		8.5 +17.5R		8.9 +15.5R		9.1 +13.9R		9.4 +12.5R		9.6 +11.4R		9.8 +10.5R		9.9 +9.7R	
		24"	q_a q_f	670	1105	693	1143	622	1026	646	1067	592	977	616	1016	572	944	594	980	557	920
			F	8.7 +23.2R		9.4 +19.7R		9.9 +17R		10.4 +14.9R		10.7 +13.3R		11.1 +12R		11.3 +10.9R		11.6 +9.9R		11.8 +9.2R	
	22 ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	3.8 +39.5R		4.2 +33.8R		4.5 +29.6R		4.7 +26.3R		4.9 +23.7R		5 +21.5R		5.1 +19.7R		5.2 +18.2R		5.3 +16.9R	
		6"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4.7 +39.3R		5.2 +33.6R		5.5 +29.4R		5.7 +26.1R		5.9 +23.5R		6.1 +21.3R		6.2 +19.6R		6.3 +18.1R		6.5 +16.8R	
		8"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.6 +39R		6.1 +33.4R		6.4 +29.2R		6.7 +25.9R		6.9 +23.3R		7.1 +21.2R		7.3 +19.4R		7.4 +17.9R		7.5 +16.6R	
		12"	q_a q_f	675	1085	663	1085	653	1077	645	1064	638	1053	633	1045	629	1037	625	1031	621	1025
			F	7 +38.5R		7.6 +32.9R		8.1 +28.7R		8.4 +25.4R		8.7 +22.8R		9 +20.7R		9.2 +19R		9.3 +17.5R		9.5 +16.2R	
		18"	q_a q_f	550	1085	554	914	557	919	510	841	517	852	522	862	488	805	495	817	501	827
			F	8.7 +37.8R		9.5 +32.2R		10.1 +28R		10.6 +24.7R		11 +22.1R		11.3 +20R		11.6 +18.2R		11.9 +16.8R		12.1 +15.5R	
		24"	q_a q_f	473	781	489	807	439	724	456	752	417	688	433	715	403	664	418	689	392	647
			F	10 +37.2R		10.9 +31.5R		11.7 +27.3R		12.3 +24R		12.9 +21.4R		13.3 +19.3R		13.7 +17.5R		14.1 +16R		14.4 +14.8R	

3WxH-36 36/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.10

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"				
36/3	16 ga	4"	q_a q_f	978 1575	978 1575	978 1575	978 1575	978 1575	978 1575	978 1575	978 1575	978 1575				
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R				
		6"	q_a q_f	969 1561	969 1560	969 1560	969 1560	969 1560	969 1560	969 1560	969 1560	969 1560				
			F	2.8 +7R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R				
		8"	q_a q_f	958 1542	960 1545	957 1541	959 1544	957 1541	958 1543	957 1540	958 1542	957 1540				
			F	3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +3R				
		12"	q_a q_f	927 1493	927 1492	926 1491	926 1490	925 1490	925 1489	925 1489	925 1489	924 1488				
			F	4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.3 +4.5R	4.3 +4.1R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R				
		18"	q_a q_f	872 1493	882 1420	889 1431	868 1397	875 1410	881 1419	865 1393	872 1403	877 1412				
			F	5.1 +6.6R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.5 +3.9R	5.5 +3.5R	5.6 +3.2R	5.6 +3R	5.7 +2.8R				
		24"	q_a q_f	813 1309	840 1352	807 1299	830 1336	803 1293	823 1325	800 1288	818 1317	798 1285				
			F	6 +6.3R	6.2 +5.4R	6.4 +4.7R	6.5 +4.1R	6.6 +3.7R	6.7 +3.3R	6.7 +3R	6.8 +2.8R	6.8 +2.6R				
	18 ga	4"	q_a q_f	782 1259	782 1259	782 1259	782 1259	782 1259	782 1259	782 1259	782 1259	782 1259				
			F	2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.2R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R				
		6"	q_a q_f	775 1247	775 1247	775 1247	774 1247	774 1247	774 1247	774 1247	774 1247	774 1247				
			F	3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.9 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R				
		8"	q_a q_f	765 1232	767 1235	765 1232	766 1234	765 1231	766 1233	765 1231	766 1233	764 1231				
			F	4.1 +12.1R	4.2 +10.4R	4.3 +9.1R	4.4 +8.1R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R				
		12"	q_a q_f	741 1193	740 1192	740 1191	740 1191	739 1190	739 1190	739 1190	739 1189	739 1189				
			F	5.1 +11.9R	5.3 +10.2R	5.4 +8.9R	5.5 +7.9R	5.6 +7.1R	5.6 +6.5R	5.7 +5.9R	5.7 +5.5R	5.8 +5.1R				
		18"	q_a q_f	697 1193	705 1134	710 1143	693 1116	699 1126	704 1134	691 1112	696 1121	700 1128				
			F	6.5 +11.6R	6.7 +9.9R	6.9 +8.6R	7 +7.6R	7.1 +6.9R	7.2 +6.2R	7.3 +5.7R	7.4 +5.2R	7.5 +4.9R				
		24"	q_a q_f	649 1045	671 1080	644 1037	663 1067	641 1032	657 1058	639 1029	653 1052	637 1026				
			F	7.7 +11.2R	8 +9.5R	8.2 +8.3R	8.4 +7.3R	8.6 +6.5R	8.7 +5.9R	8.9 +5.4R	8.9 +5R	9 +4.6R				
	20 ga	4"	q_a q_f	585 942	585 942	585 942	585 942	585 942	585 942	585 942	585 942	585 942				
			F	3.6 +25R	3.8 +21.5R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R				
		6"	q_a q_f	577 929	577 929	577 929	577 929	577 929	577 929	577 929	577 929	577 929				
			F	4.4 +24.9R	4.7 +21.4R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R				
		8"	q_a q_f	567 913	569 916	567 913	568 915	567 912	568 914	566 912	567 914	566 912				
			F	5.2 +24.8R	5.5 +21.2R	5.7 +18.6R	5.9 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.4R	6.3 +11.4R	6.3 +10.6R				
		12"	q_a q_f	542 873	542 872	541 871	541 870	540 870	540 869	540 869	540 869	539 868				
			F	6.7 +24.5R	7 +20.9R	7.3 +18.3R	7.5 +16.2R	7.7 +14.6R	7.8 +13.3R	7.9 +12.1R	8 +11.2R	8.1 +10.4R				
		18"	q_a q_f	499 873	507 816	511 823	495 797	501 807	505 814	493 794	498 801	502 808				
			F	8.6 +23.9R	9.1 +20.4R	9.4 +17.8R	9.7 +15.8R	9.9 +14.1R	10.1 +12.8R	10.3 +11.7R	10.4 +10.8R	10.5 +10R				
		24"	q_a q_f	457 735	475 765	451 727	467 753	448 721	462 744	446 718	458 738	444 715				
			F	10.2 +23.4R	10.8 +19.9R	11.3 +17.2R	11.7 +15.2R	12 +13.6R	12.2 +12.3R	12.4 +11.2R	12.6 +10.3R	12.8 +9.5R				
	22 ga	4"	q_a q_f	485 781	485 781	485 781	485 781	485 781	485 781	485 781	485 781	485 780				
			F	3.9 +39.5R	4.3 +33.9R	4.6 +29.7R	4.8 +26.4R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R				
		6"	q_a q_f	476 767	476 766	476 766	476 766	476 766	476 766	476 766	475 766	475 765				
			F	5 +39.4R	5.4 +33.7R	5.7 +29.5R	5.9 +26.2R	6.1 +23.6R	6.3 +21.5R	6.4 +19.7R	6.5 +18.1R	6.6 +16.9R				
		8"	q_a q_f	465 748	467 751	464 747	466 750	464 747	465 749	464 746	465 748	463 746				
			F	6 +39.2R	6.4 +33.6R	6.8 +29.4R	7 +26.1R	7.2 +23.5R	7.4 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R				
		12"	q_a q_f	438 705	437 704	436 703	436 702	435 701	435 700	435 700	434 699	434 699				
			F	7.8 +38.7R	8.3 +33.1R	8.7 +29R	9 +25.7R	9.3 +23.1R	9.5 +21R	9.7 +19.2R	9.8 +17.7R	10 +16.4R				
		18"	q_a q_f	395 705	401 646	406 654	390 628	395 637	400 643	387 623	392 631	396 637				
			F	10.1 +38R	10.8 +32.4R	11.3 +28.3R	11.8 +25R	12.1 +22.5R	12.4 +20.4R	12.6 +18.6R	12.9 +17.1R	13 +15.9R				
		24"	q_a q_f	355 571	371 598	349 562	364 585	345 556	358 577	343 552	354 570	341 550				
			F	12.1 +37.3R	12.9 +31.7R	13.6 +27.5R	14.2 +24.3R	14.6 +21.7R	15 +19.7R	15.3 +17.9R	15.6 +16.5R	15.8 +15.2R				

3WxH-36 36/3 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

4.10 DG3WxH-36 & DG3WxHF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	2.4 +7R		2.5 +6R		2.5 +5.2R		2.6 +4.6R		2.6 +4.2R		2.6 +3.8R		2.6 +3.5R		2.7 +3.2R		2.7 +3R	
		6"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	2.8 +6.9R		2.9 +5.9R		2.9 +5.2R		3 +4.6R		3 +4.1R		3 +3.8R		3.1 +3.5R		3.1 +3.2R		3.1 +3R	
		8"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	3.2 +6.9R		3.3 +5.9R		3.3 +5.1R		3.4 +4.6R		3.4 +4.1R		3.5 +3.7R		3.5 +3.4R		3.5 +3.2R		3.5 +2.9R	
		12"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	3.9 +6.7R		4 +5.7R		4.1 +5R		4.2 +4.4R		4.2 +4R		4.3 +3.6R		4.3 +3.3R		4.3 +3.1R		4.4 +2.8R	
		18"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	4.8 +6.5R		5 +5.5R		5.1 +4.8R		5.2 +4.2R		5.3 +3.8R		5.4 +3.4R		5.4 +3.1R		5.5 +2.9R		5.5 +2.7R	
		24"	q_a	986	1587	986	1587	981	1580	986	1587	971	1564	986	1587	964	1552	986	1587	959	1544
			q_f																		
			F	5.6 +6.2R		5.8 +5.2R		6 +4.5R		6.2 +4R		6.3 +3.5R		6.4 +3.2R		6.5 +2.9R		6.5 +2.7R		6.6 +2.5R	
	18 ga	4"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	2.9 +12.2R		3 +10.5R		3.1 +9.2R		3.2 +8.1R		3.2 +7.3R		3.3 +6.7R		3.3 +6.1R		3.3 +5.6R		3.4 +5.2R	
		6"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	3.4 +12.1R		3.6 +10.4R		3.7 +9.1R		3.7 +8.1R		3.8 +7.3R		3.9 +6.6R		3.9 +6.1R		3.9 +5.6R		4 +5.2R	
		8"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	3.9 +12R		4.1 +10.3R		4.2 +9R		4.3 +8R		4.4 +7.2R		4.4 +6.5R		4.5 +6R		4.5 +5.5R		4.6 +5.1R	
		12"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	4.9 +11.8R		5.1 +10.1R		5.2 +8.8R		5.3 +7.8R		5.4 +7R		5.5 +6.4R		5.6 +5.8R		5.6 +5.4R		5.7 +5R	
		18"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	6 +11.5R		6.3 +9.7R		6.5 +8.5R		6.7 +7.5R		6.8 +6.7R		7 +6.1R		7.1 +5.5R		7.1 +5.1R		7.2 +4.7R	
		24"	q_a	788	1268	788	1268	783	1261	788	1268	775	1248	788	1268	769	1239	788	1268	765	1232
			q_f																		
			F	7 +11.1R		7.4 +9.4R		7.7 +8.1R		7.9 +7.1R		8.1 +6.3R		8.3 +5.7R		8.4 +5.2R		8.5 +4.8R		8.6 +4.4R	
	20 ga	4"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	3.5 +25R		3.8 +21.4R		3.9 +18.7R		4.1 +16.7R		4.2 +15R		4.3 +13.6R		4.4 +12.5R		4.4 +11.5R		4.5 +10.7R	
		6"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	4.3 +24.8R		4.6 +21.3R		4.8 +18.6R		4.9 +16.5R		5.1 +14.9R		5.2 +13.5R		5.2 +12.4R		5.3 +11.4R		5.4 +10.6R	
		8"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	5 +24.7R		5.3 +21.1R		5.6 +18.5R		5.7 +16.4R		5.9 +14.8R		6 +13.4R		6.1 +12.3R		6.2 +11.3R		6.2 +10.5R	
		12"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	6.3 +24.3R		6.7 +20.8R		7 +18.1R		7.2 +16.1R		7.4 +14.4R		7.5 +13.1R		7.7 +12R		7.8 +11.1R		7.9 +10.3R	
		18"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	7.8 +23.8R		8.4 +20.2R		8.8 +17.6R		9.1 +15.5R		9.3 +13.9R		9.6 +12.6R		9.8 +11.5R		9.9 +10.6R		10.1 +9.8R	
		24"	q_a	553	890	577	930	540	870	562	905	532	857	552	888	527	848	544	876	522	841
			q_f																		
			F	9.1 +23.2R		9.7 +19.7R		10.3 +17R		10.7 +15R		11 +13.4R		11.3 +12R		11.6 +10.9R		11.8 +10R		12 +9.2R	
	22 ga	4"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	3.8 +39.5R		4.2 +33.8R		4.5 +29.6R		4.7 +26.3R		4.9 +23.7R		5 +21.5R		5.1 +19.7R		5.2 +18.2R		5.3 +16.9R	
		6"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	4.8 +39.3R		5.2 +33.6R		5.5 +29.4R		5.8 +26.1R		6 +23.5R		6.1 +21.4R		6.3 +19.6R		6.4 +18.1R		6.5 +16.8R	
		8"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	5.7 +39.1R		6.2 +33.4R		6.5 +29.2R		6.8 +25.9R		7 +23.3R		7.2 +21.2R		7.3 +19.4R		7.5 +17.9R		7.6 +16.6R	
		12"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	7.2 +38.6R		7.8 +33R		8.2 +28.8R		8.6 +25.5R		8.9 +22.9R		9.1 +20.8R		9.3 +19R		9.5 +17.5R		9.6 +16.3R	
		18"	q_a	481	793	489	788	493	793	469	755	476	767	482	776	462	744	469	755	474	763
			q_f																		
			F	9 +37.9R		9.8 +32.2R		10.4 +28R		10.9 +24.8R		11.3 +22.2R		11.6 +20.1R		11.9 +18.3R		12.1 +16.8R		12.4 +15.6R	
		24"	q_a	426	685	446	717	413	664	431	693	404	651	421	677	399	642	413	665	395	636
			q_f																		
			F	10.5 +37.2R		11.4 +31.5R		12.1 +27.3R		12.8 +24R		13.3 +21.4R		13.7 +19.3R		14.1 +17.6R		14.5 +16.1R		14.8 +14.9R	

3WxH-36 36/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.10

No. 12 Self-Drilling Screws to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																									
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/6	16 ga	4"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	2.4 +6.9R		2.4 +6R		2.5 +5.2R		2.5 +4.6R		2.6 +4.2R		2.6 +3.8R		2.6 +3.5R		2.6 +3.2R		2.7 +3R	
		6"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	2.7 +6.9R		2.8 +5.9R		2.9 +5.2R		2.9 +4.6R		3 +4.1R		3 +3.7R		3 +3.4R		3.1 +3.2R		3.1 +2.9R	
		8"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.1 +6.8R		3.2 +5.8R		3.2 +5.1R		3.3 +4.5R		3.3 +4.1R		3.4 +3.7R		3.4 +3.4R		3.4 +3.1R		3.5 +2.9R	
		12"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.6 +6.6R		3.8 +5.7R		3.9 +4.9R		4 +4.4R		4 +3.9R		4.1 +3.5R		4.2 +3.2R		4.2 +3R		4.2 +2.8R	
		18"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.4 +6.4R		4.6 +5.4R		4.7 +4.7R		4.9 +4.1R		5 +3.7R		5.1 +3.3R		5.1 +3R		5.2 +2.7R		5.3 +2.5R	
		24"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.9 +6.1R		5.2 +5.1R		5.4 +4.4R		5.6 +3.8R		5.8 +3.4R		5.9 +3R		6 +2.7R		6.1 +2.5R		6.2 +2.3R	
	18 ga	4"	q_a q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	2.8 +12.2R		3 +10.4R		3.1 +9.1R		3.1 +8.1R		3.2 +7.3R		3.2 +6.6R		3.3 +6.1R		3.3 +5.6R		3.3 +5.2R	
		6"	q_a q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	3.3 +12.1R		3.5 +10.3R		3.6 +9R		3.7 +8R		3.7 +7.2R		3.8 +6.6R		3.8 +6R		3.9 +5.5R		3.9 +5.1R	
		8"	q_a q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	3.8 +12R		3.9 +10.2R		4.1 +8.9R		4.2 +7.9R		4.2 +7.1R		4.3 +6.5R		4.4 +5.9R		4.4 +5.5R		4.5 +5.1R	
		12"	q_a q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	4.5 +11.7R		4.7 +10R		4.9 +8.7R		5 +7.7R		5.1 +6.9R		5.2 +6.2R		5.3 +5.7R		5.4 +5.3R		5.5 +4.9R	
		18"	q_a q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	5.4 +11.4R		5.7 +9.6R		5.9 +8.3R		6.1 +7.3R		6.3 +6.5R		6.5 +5.9R		6.6 +5.4R		6.7 +4.9R		6.8 +4.5R	
		24"	q_a q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	6 +11R		6.4 +9.3R		6.8 +8R		7 +7R		7.3 +6.2R		7.5 +5.5R		7.7 +5R		7.8 +4.5R		8 +4.2R	
	20 ga	4"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	3.4 +24.9R		3.7 +21.4R		3.9 +18.7R		4 +16.6R		4.1 +14.9R		4.2 +13.6R		4.3 +12.4R		4.4 +11.5R		4.4 +10.7R	
		6"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	4.1 +24.8R		4.4 +21.2R		4.6 +18.5R		4.8 +16.4R		4.9 +14.8R		5 +13.4R		5.1 +12.3R		5.2 +11.4R		5.3 +10.5R	
		8"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	4.7 +24.6R		5 +21R		5.3 +18.3R		5.5 +16.3R		5.6 +14.6R		5.8 +13.3R		5.9 +12.2R		6 +11.2R		6 +10.4R	
		12"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	5.6 +24.2R		6.1 +20.6R		6.4 +18R		6.7 +15.9R		6.9 +14.3R		7.1 +12.9R		7.2 +11.8R		7.3 +10.9R		7.5 +10.1R	
		18"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	6.7 +23.7R		7.3 +20.1R		7.7 +17.4R		8.1 +15.4R		8.4 +13.7R		8.7 +12.4R		8.9 +11.2R		9.1 +10.3R		9.3 +9.5R	
		24"	q_a q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	7.5 +23.3R		8.2 +19.7R		8.8 +17R		9.2 +14.9R		9.6 +13.2R		10 +11.8R		10.3 +10.7R		10.6 +9.8R		10.8 +9R	
	22 ga	4"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	3.7 +39.4R		4.1 +33.8R		4.4 +29.5R		4.6 +26.2R		4.8 +23.6R		4.9 +21.5R		5.1 +19.7R		5.2 +18.1R		5.3 +16.8R	
		6"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	4.5 +39.2R		4.9 +33.5R		5.3 +29.3R		5.5 +26R		5.7 +23.4R		5.9 +21.3R		6.1 +19.5R		6.2 +18R		6.3 +16.7R	
		8"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	5.2 +38.9R		5.7 +33.3R		6.1 +29.1R		6.4 +25.8R		6.6 +23.2R		6.8 +21R		7 +19.3R		7.2 +17.8R		7.3 +16.5R	
		12"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	6.3 +38.5R		6.9 +32.8R		7.4 +28.6R		7.8 +25.3R		8.1 +22.7R		8.4 +20.5R		8.7 +18.8R		8.9 +17.3R		9 +16R	
		18"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	7.5 +37.9R		8.3 +32.2R		9 +27.9R		9.5 +24.6R		9.9 +22R		10.3 +19.8R		10.7 +18R		11 +16.6R		11.2 +15.3R	
		24"	q_a q_f	493	793	493	793	493	793	493	793	493	793	493	793	480	773	493	793	470	757
			F	8.4 +37.4R		9.3 +31.7R		10.1 +27.3R		10.8 +24R		11.3 +21.3R		11.8 +19.2R		12.3 +17.4R		12.7 +15.9R		13 +14.6R	

3WxH-36 36/6 Support Attachment: #12 SD HWH Screw Side Seam Attachment: DeltaGrip DG4™

4.11 DG3WxH-36 & DG3WxHF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"				
36/3	16 ga	4"	q_a / q_f	1255 / 2021	1255 / 2021	1255 / 2021	1255 / 2021	1255 / 2021	1255 / 2021	1255 / 2021	1255 / 2021	1255 / 2021				
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R				
		6"	q_a / q_f	1237 / 1992	1237 / 1991	1237 / 1991	1237 / 1991	1236 / 1991	1236 / 1990	1236 / 1990	1236 / 1990	1236 / 1990				
			F	2.8 +6.9R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R				
		8"	q_a / q_f	1214 / 1954	1218 / 1961	1213 / 1952	1216 / 1958	1212 / 1951	1215 / 1956	1211 / 1950	1214 / 1954	1211 / 1950				
			F	3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +3R				
		12"	q_a / q_f	1156 / 1861	1154 / 1858	1153 / 1856	1152 / 1854	1151 / 1853	1150 / 1852	1150 / 1851	1149 / 1850	1149 / 1849				
			F	4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.2 +4.5R	4.3 +4R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R				
		18"	q_a / q_f	1058 / 1861	1074 / 1730	1085 / 1747	1048 / 1688	1061 / 1709	1071 / 1725	1043 / 1679	1054 / 1697	1063 / 1711				
			F	5.1 +6.6R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.5 +3.9R	5.5 +3.5R	5.6 +3.2R	5.6 +3R	5.6 +2.8R				
		24"	q_a / q_f	963 / 1550	1004 / 1617	951 / 1531	986 / 1588	943 / 1519	974 / 1568	938 / 1510	965 / 1554	934 / 1504				
			F	6 +6.3R	6.2 +5.4R	6.3 +4.7R	6.5 +4.1R	6.6 +3.7R	6.6 +3.3R	6.7 +3R	6.8 +2.8R	6.8 +2.6R				
	18 ga	4"	q_a / q_f	1016 / 1636	1016 / 1635	1016 / 1635	1016 / 1635	1016 / 1635	1016 / 1635	1016 / 1635	1016 / 1635	1016 / 1635				
			F	2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.2R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R				
		6"	q_a / q_f	1001 / 1611	1000 / 1611	1000 / 1610	1000 / 1610	1000 / 1610	1000 / 1610	1000 / 1610	1000 / 1610	1000 / 1610				
			F	3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.8 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R				
		8"	q_a / q_f	981 / 1580	985 / 1585	980 / 1578	983 / 1583	980 / 1577	982 / 1581	979 / 1577	981 / 1580	979 / 1576				
			F	4 +12.1R	4.2 +10.4R	4.3 +9.1R	4.4 +8.1R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R				
		12"	q_a / q_f	933 / 1503	932 / 1500	931 / 1498	930 / 1497	929 / 1496	928 / 1495	928 / 1494	928 / 1493	927 / 1493				
			F	5.1 +11.9R	5.2 +10.2R	5.4 +8.9R	5.5 +7.9R	5.6 +7.1R	5.6 +6.5R	5.7 +5.9R	5.7 +5.5R	5.8 +5.1R				
		18"	q_a / q_f	853 / 1503	866 / 1394	875 / 1409	844 / 1360	855 / 1377	863 / 1390	840 / 1353	849 / 1367	856 / 1379				
			F	6.4 +11.6R	6.7 +9.9R	6.9 +8.6R	7 +7.6R	7.1 +6.8R	7.2 +6.2R	7.3 +5.7R	7.4 +5.2R	7.4 +4.8R				
		24"	q_a / q_f	775 / 1247	808 / 1301	765 / 1231	794 / 1278	758 / 1221	784 / 1262	754 / 1214	776 / 1250	751 / 1209				
			F	7.6 +11.2R	8 +9.5R	8.2 +8.3R	8.4 +7.3R	8.6 +6.5R	8.7 +5.9R	8.8 +5.4R	8.9 +4.9R	9 +4.6R				
	20 ga	4"	q_a / q_f	767 / 1236	767 / 1235	767 / 1235	767 / 1235	767 / 1235	767 / 1235	767 / 1235	767 / 1235	767 / 1235				
			F	3.6 +25R	3.8 +21.4R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R				
		6"	q_a / q_f	751 / 1209	750 / 1208	750 / 1208	750 / 1207	750 / 1207	750 / 1207	749 / 1207	749 / 1206	749 / 1206				
			F	4.4 +24.9R	4.7 +21.3R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R				
		8"	q_a / q_f	730 / 1175	733 / 1180	728 / 1173	731 / 1177	728 / 1172	730 / 1176	727 / 1171	729 / 1174	727 / 1170				
			F	5.2 +24.8R	5.5 +21.2R	5.7 +18.6R	5.9 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.4R	6.3 +11.4R	6.3 +10.6R				
		12"	q_a / q_f	681 / 1096	679 / 1093	678 / 1091	677 / 1089	676 / 1088	675 / 1087	674 / 1086	674 / 1085	673 / 1084				
			F	6.7 +24.5R	7 +20.9R	7.3 +18.3R	7.5 +16.2R	7.6 +14.6R	7.8 +13.2R	7.9 +12.1R	8 +11.2R	8.1 +10.4R				
		18"	q_a / q_f	606 / 1096	617 / 993	625 / 1005	596 / 960	606 / 975	613 / 987	592 / 952	599 / 965	606 / 975				
			F	8.5 +23.9R	9 +20.4R	9.4 +17.8R	9.6 +15.7R	9.9 +14.1R	10.1 +12.8R	10.2 +11.7R	10.4 +10.8R	10.5 +10R				
		24"	q_a / q_f	539 / 868	566 / 911	529 / 851	552 / 889	522 / 841	543 / 874	518 / 834	536 / 863	515 / 829				
			F	10.1 +23.3R	10.7 +19.8R	11.2 +17.2R	11.6 +15.2R	11.9 +13.6R	12.1 +12.3R	12.4 +11.2R	12.6 +10.3R	12.7 +9.5R				
	22 ga	4"	q_a / q_f	638 / 1027	638 / 1027	638 / 1027	638 / 1027	638 / 1026	637 / 1026	637 / 1026	637 / 1026	637 / 1026				
			F	3.9 +39.5R	4.3 +33.9R	4.5 +29.6R	4.8 +26.4R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R				
		6"	q_a / q_f	619 / 996	618 / 995	618 / 995	618 / 994	617 / 994	617 / 994	617 / 994	617 / 993	617 / 993				
			F	5 +39.4R	5.4 +33.7R	5.7 +29.5R	5.9 +26.2R	6.1 +23.6R	6.2 +21.4R	6.4 +19.7R	6.5 +18.1R	6.6 +16.8R				
		8"	q_a / q_f	596 / 959	599 / 965	594 / 956	597 / 961	593 / 955	596 / 959	592 / 953	595 / 957	592 / 953				
			F	6 +39.2R	6.4 +33.6R	6.7 +29.3R	7 +26.1R	7.2 +23.4R	7.4 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R				
		12"	q_a / q_f	545 / 877	542 / 873	541 / 871	539 / 868	538 / 867	537 / 865	537 / 864	536 / 863	535 / 862				
			F	7.8 +38.7R	8.3 +33.1R	8.7 +28.9R	9 +25.7R	9.3 +23.1R	9.5 +21R	9.6 +19.2R	9.8 +17.7R	9.9 +16.4R				
		18"	q_a / q_f	472 / 877	482 / 776	489 / 787	462 / 744	471 / 758	477 / 768	457 / 736	464 / 747	470 / 756				
			F	10 +38R	10.7 +32.4R	11.3 +28.2R	11.7 +25R	12 +22.4R	12.3 +20.3R	12.6 +18.6R	12.8 +17.1R	13 +15.9R				
		24"	q_a / q_f	414 / 666	436 / 702	403 / 649	423 / 681	396 / 638	414 / 666	392 / 631	407 / 656	389 / 626				
			F	11.9 +37.3R	12.8 +31.7R	13.5 +27.5R	14 +24.3R	14.5 +21.7R	14.9 +19.6R	15.2 +17.9R	15.5 +16.4R	15.8 +15.2R				

3WxH-36 36/3 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

ASC STEEL DECK®

DG3WxH-36 & DG3WxHF-36 4.11

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

HILTI®

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"				
36/3	16 ga	4"	q_a q_f	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021	1255 2021				
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R				
		6"	q_a q_f	1237 1992	1237 1991	1237 1991	1237 1991	1236 1991	1236 1990	1236 1990	1236 1990	1236 1990				
			F	2.8 +6.9R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R				
		8"	q_a q_f	1214 1954	1218 1961	1213 1952	1216 1958	1212 1951	1215 1956	1211 1950	1214 1954	1211 1950				
			F	3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +3R				
		12"	q_a q_f	1156 1861	1154 1858	1153 1856	1152 1854	1151 1853	1150 1852	1150 1851	1149 1850	1149 1849				
			F	4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.2 +4.5R	4.3 +4R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R				
		18"	q_a q_f	1058 1861	1074 1730	1085 1747	1048 1688	1061 1709	1071 1725	1043 1679	1054 1697	1063 1711				
			F	5.1 +6.6R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.5 +3.9R	5.5 +3.5R	5.6 +3.2R	5.6 +3R	5.6 +2.8R				
		24"	q_a q_f	963 1550	1004 1617	951 1531	986 1588	943 1519	974 1568	938 1510	965 1554	934 1504				
			F	6 +6.3R	6.2 +5.4R	6.3 +4.7R	6.5 +4.1R	6.6 +3.7R	6.6 +3.3R	6.7 +3R	6.8 +2.8R	6.8 +2.6R				
	18 ga	4"	q_a q_f	1016 1636	1016 1635	1016 1635	1016 1635	1016 1635	1016 1635	1016 1635	1016 1635	1016 1635				
			F	2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.2R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R				
		6"	q_a q_f	1001 1611	1000 1611	1000 1610	1000 1610	1000 1610	1000 1610	1000 1610	1000 1610	1000 1610				
			F	3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.8 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R				
		8"	q_a q_f	981 1580	985 1585	980 1578	983 1583	980 1577	982 1581	979 1577	981 1580	979 1576				
			F	4 +12.1R	4.2 +10.4R	4.3 +9.1R	4.4 +8.1R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R				
		12"	q_a q_f	933 1503	932 1500	931 1498	930 1497	929 1496	928 1495	928 1494	928 1493	927 1493				
			F	5.1 +11.9R	5.2 +10.2R	5.4 +8.9R	5.5 +7.9R	5.6 +7.1R	5.6 +6.5R	5.7 +5.9R	5.7 +5.5R	5.8 +5.1R				
		18"	q_a q_f	853 1503	866 1394	875 1409	844 1360	855 1377	863 1390	840 1353	849 1367	856 1379				
			F	6.4 +11.6R	6.7 +9.9R	6.9 +8.6R	7 +7.6R	7.1 +6.8R	7.2 +6.2R	7.3 +5.7R	7.4 +5.2R	7.4 +4.8R				
		24"	q_a q_f	775 1247	808 1301	765 1231	794 1278	758 1221	784 1262	754 1214	776 1250	751 1209				
			F	7.6 +11.2R	8 +9.5R	8.2 +8.3R	8.4 +7.3R	8.6 +6.5R	8.7 +5.9R	8.8 +5.4R	8.9 +4.9R	9 +4.6R				
	20 ga	4"	q_a q_f	767 1236	767 1235	767 1235	767 1235	767 1235	767 1235	767 1235	767 1235	767 1235				
			F	3.6 +25R	3.8 +21.4R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R				
		6"	q_a q_f	751 1209	750 1208	750 1208	750 1207	750 1207	750 1207	749 1207	749 1206	749 1206				
			F	4.4 +24.9R	4.7 +21.3R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R				
		8"	q_a q_f	730 1175	733 1180	728 1173	731 1177	728 1172	730 1176	727 1171	729 1174	727 1170				
			F	5.2 +24.8R	5.5 +21.2R	5.7 +18.6R	5.9 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.4R	6.3 +11.4R	6.3 +10.6R				
		12"	q_a q_f	681 1096	679 1093	678 1091	677 1089	676 1088	675 1087	674 1086	674 1085	673 1084				
			F	6.7 +24.5R	7 +20.9R	7.3 +18.3R	7.5 +16.2R	7.6 +14.6R	7.8 +13.2R	7.9 +12.1R	8 +11.2R	8.1 +10.4R				
		18"	q_a q_f	606 1096	617 993	625 1005	596 960	606 975	613 987	592 952	599 965	606 975				
			F	8.5 +23.9R	9 +20.4R	9.4 +17.8R	9.6 +15.7R	9.9 +14.1R	10.1 +12.8R	10.2 +11.7R	10.4 +10.8R	10.5 +10R				
		24"	q_a q_f	539 868	566 911	529 851	552 889	522 841	543 874	518 834	536 863	515 829				
			F	10.1 +23.3R	10.7 +19.8R	11.2 +17.2R	11.6 +15.2R	11.9 +13.6R	12.1 +12.3R	12.4 +11.2R	12.6 +10.3R	12.7 +9.5R				
	22 ga	4"	q_a q_f	638 1027	638 1027	638 1027	638 1027	638 1026	637 1026	637 1026	637 1026	637 1026				
			F	3.9 +39.5R	4.3 +33.9R	4.5 +29.6R	4.8 +26.4R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R				
		6"	q_a q_f	619 996	618 995	618 995	618 994	617 994	617 994	617 994	617 993	617 993				
			F	5 +39.4R	5.4 +33.7R	5.7 +29.5R	5.9 +26.2R	6.1 +23.6R	6.2 +21.4R	6.4 +19.7R	6.5 +18.1R	6.6 +16.8R				
		8"	q_a q_f	596 959	599 965	594 956	597 961	593 955	596 959	592 953	595 957	592 953				
			F	6 +39.2R	6.4 +33.6R	6.7 +29.3R	7 +26.1R	7.2 +23.4R	7.4 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R				
		12"	q_a q_f	545 877	542 873	541 871	539 868	538 867	537 865	537 864	536 863	535 862				
			F	7.8 +38.7R	8.3 +33.1R	8.7 +28.9R	9 +25.7R	9.3 +23.1R	9.5 +21R	9.6 +19.2R	9.8 +17.7R	9.9 +16.4R				
		18"	q_a q_f	472 877	482 776	489 787	462 744	471 758	477 768	457 736	464 747	470 756				
			F	10 +38R	10.7 +32.4R	11.3 +28.2R	11.7 +25R	12 +22.4R	12.3 +20.3R	12.6 +18.6R	12.8 +17.1R	13 +15.9R				
		24"	q_a q_f	414 666	436 702	403 649	423 681	396 638	414 666	392 631	407 656	389 626				
			F	11.9 +37.3R	12.8 +31.7R	13.5 +27.5R	14 +24.3R	14.5 +21.7R	14.9 +19.6R	15.2 +17.9R	15.5 +16.4R	15.8 +15.2R				

3WxH-36 36/3 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

4.11 DG3WxH-36 & DG3WxHF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/6	16 ga	4"	q_a 1271 / q_f 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	
			F 2.4 +6.9R	2.4 +6R	2.5 +5.2R	2.5 +4.6R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.6 +3.2R	2.7 +3R	
		6"	q_a 1271 / q_f 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	
			F 2.7 +6.9R	2.8 +5.9R	2.9 +5.1R	2.9 +4.6R	3 +4.1R	3 +3.7R	3 +3.4R	3 +3.2R	3.1 +2.9R	
		8"	q_a 1271 / q_f 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	
			F 3.1 +6.8R	3.2 +5.8R	3.2 +5.1R	3.3 +4.5R	3.3 +4R	3.4 +3.7R	3.4 +3.4R	3.4 +3.1R	3.5 +2.9R	
		12"	q_a 1271 / q_f 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	
			F 3.6 +6.6R	3.8 +5.6R	3.9 +4.9R	4 +4.3R	4 +3.9R	4.1 +3.5R	4.1 +3.2R	4.2 +3R	4.2 +2.8R	
		18"	q_a 1271 / q_f 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	
			F 4.3 +6.4R	4.5 +5.4R	4.7 +4.7R	4.8 +4.1R	4.9 +3.6R	5 +3.3R	5.1 +3R	5.2 +2.7R	5.2 +2.5R	
		24"	q_a 1271 / q_f 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	1271 / 2047	
			F 4.9 +6.1R	5.2 +5.1R	5.4 +4.4R	5.6 +3.8R	5.7 +3.4R	5.8 +3R	5.9 +2.7R	6 +2.5R	6.1 +2.3R	
	18 ga	4"	q_a 1029 / q_f 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	
			F 2.8 +12.2R	3 +10.4R	3.1 +9.1R	3.1 +8.1R	3.2 +7.3R	3.2 +6.6R	3.3 +6.1R	3.3 +5.6R	3.3 +5.2R	
		6"	q_a 1029 / q_f 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	
			F 3.3 +12.1R	3.5 +10.3R	3.6 +9R	3.7 +8R	3.7 +7.2R	3.8 +6.6R	3.8 +6R	3.9 +5.5R	3.9 +5.1R	
		8"	q_a 1029 / q_f 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	
			F 3.7 +11.9R	3.9 +10.2R	4 +8.9R	4.1 +7.9R	4.2 +7.1R	4.3 +6.5R	4.4 +5.9R	4.4 +5.5R	4.4 +5.1R	
		12"	q_a 1029 / q_f 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	
			F 4.5 +11.7R	4.7 +10R	4.9 +8.7R	5 +7.7R	5.1 +6.9R	5.2 +6.2R	5.3 +5.7R	5.4 +5.2R	5.4 +4.9R	
		18"	q_a 1029 / q_f 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	
			F 5.3 +11.4R	5.6 +9.6R	5.9 +8.3R	6.1 +7.3R	6.3 +6.5R	6.4 +5.9R	6.5 +5.3R	6.7 +4.9R	6.8 +4.5R	
		24"	q_a 1029 / q_f 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	1029 / 1657	
			F 6 +11.1R	6.4 +9.3R	6.7 +8R	7 +7R	7.2 +6.2R	7.4 +5.5R	7.6 +5R	7.8 +4.5R	7.9 +4.1R	
	20 ga	4"	q_a 783 / q_f 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	
			F 3.4 +24.9R	3.7 +21.4R	3.9 +18.7R	4 +16.6R	4.1 +14.9R	4.2 +13.6R	4.3 +12.4R	4.4 +11.5R	4.4 +10.7R	
		6"	q_a 783 / q_f 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	
			F 4.1 +24.7R	4.4 +21.2R	4.6 +18.5R	4.8 +16.4R	4.9 +14.8R	5 +13.4R	5.1 +12.3R	5.2 +11.4R	5.3 +10.5R	
		8"	q_a 783 / q_f 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	
			F 4.6 +24.6R	5 +21R	5.2 +18.3R	5.4 +16.3R	5.6 +14.6R	5.7 +13.3R	5.8 +12.1R	5.9 +11.2R	6 +10.4R	
		12"	q_a 783 / q_f 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	
			F 5.6 +24.2R	6 +20.6R	6.3 +18R	6.6 +15.9R	6.8 +14.2R	7 +12.9R	7.2 +11.8R	7.3 +10.9R	7.4 +10.1R	
		18"	q_a 783 / q_f 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	783 / 1260	
			F 6.6 +23.7R	7.2 +20.1R	7.6 +17.4R	8 +15.4R	8.3 +13.7R	8.6 +12.3R	8.8 +11.2R	9 +10.3R	9.2 +9.5R	
		24"	q_a 783 / q_f 1260	783 / 1260	773 / 1244	783 / 1260	739 / 1190	766 / 1233	716 / 1153	741 / 1193	699 / 1126	
			F 7.4 +23.3R	8.1 +19.7R	8.6 +17R	9.1 +14.9R	9.5 +13.2R	9.9 +11.8R	10.2 +10.7R	10.5 +9.7R	10.7 +8.9R	
	22 ga	4"	q_a 656 / q_f 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	
			F 3.6 +39.4R	4 +33.8R	4.3 +29.5R	4.6 +26.2R	4.8 +23.6R	4.9 +21.4R	5 +19.7R	5.2 +18.1R	5.2 +16.8R	
		6"	q_a 656 / q_f 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	
			F 4.5 +39.2R	4.9 +33.5R	5.2 +29.3R	5.5 +26R	5.7 +23.4R	5.9 +21.2R	6.1 +19.5R	6.2 +18R	6.3 +16.7R	
		8"	q_a 656 / q_f 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	
			F 5.1 +38.9R	5.6 +33.3R	6 +29.1R	6.3 +25.8R	6.6 +23.2R	6.8 +21R	7 +19.2R	7.1 +17.7R	7.3 +16.5R	
		12"	q_a 656 / q_f 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	
			F 6.2 +38.5R	6.9 +32.8R	7.3 +28.6R	7.7 +25.3R	8.1 +22.7R	8.4 +20.5R	8.6 +18.8R	8.8 +17.3R	9 +16R	
		18"	q_a 656 / q_f 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	656 / 1056	640 / 1030	648 / 1043	654 / 1054	
			F 7.4 +37.9R	8.2 +32.2R	8.8 +27.9R	9.4 +24.6R	9.8 +22R	10.2 +19.8R	10.6 +18R	10.9 +16.5R	11.1 +15.3R	
		24"	q_a 634 / q_f 1021	650 / 1046	586 / 943	604 / 972	555 / 893	573 / 923	534 / 860	552 / 888	519 / 835	
			F 8.2 +37.4R	9.2 +31.7R	9.9 +27.4R	10.6 +24R	11.2 +21.3R	11.7 +19.2R	12.1 +17.4R	12.5 +15.8R	12.9 +14.6R	

3WxH-36 36/6 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.11

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

HILTI®

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	ga	4"	q_a q_f	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172	1349	2172
			F	2.4 +7R		2.5 +6R		2.5 +5.2R		2.6 +4.6R		2.6 +4.2R		2.6 +3.8R		2.6 +3.5R		2.6 +3.2R		2.7 +3R	
		6"	q_a q_f	1327	2136	1327	2136	1326	2135	1326	2135	1326	2135	1326	2134	1326	2134	1325	2134	1325	2134
			F	2.8 +6.9R		2.9 +5.9R		2.9 +5.2R		3 +4.6R		3 +4.1R		3 +3.8R		3.1 +3.4R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	1298	2090	1303	2098	1297	2088	1301	2095	1296	2087	1300	2092	1295	2086	1298	2091	1295	2085
			F	3.2 +6.8R		3.2 +5.9R		3.3 +5.1R		3.4 +4.6R		3.4 +4.1R		3.4 +3.7R		3.5 +3.4R		3.5 +3.1R		3.5 +2.9R	
		12"	q_a q_f	1229	1979	1227	1975	1225	1973	1224	1970	1223	1969	1222	1967	1221	1966	1220	1965	1220	1964
			F	3.8 +6.7R		4 +5.7R		4 +5R		4.1 +4.4R		4.2 +4R		4.2 +3.6R		4.3 +3.3R		4.3 +3R		4.3 +2.8R	
		18"	q_a q_f	1115	1979	1133	1825	1146	1845	1103	1776	1118	1800	1129	1818	1096	1765	1109	1785	1119	1802
			F	4.7 +6.4R		4.9 +5.5R		5 +4.8R		5.1 +4.2R		5.2 +3.8R		5.3 +3.4R		5.4 +3.1R		5.4 +2.8R		5.5 +2.6R	
		24"	q_a q_f	1008	1622	1053	1696	993	1599	1032	1662	984	1584	1018	1639	978	1574	1008	1623	973	1567
			F	5.5 +6.2R		5.7 +5.2R		5.9 +4.5R		6 +3.9R		6.2 +3.5R		6.3 +3.2R		6.4 +2.9R		6.4 +2.6R		6.5 +2.4R	
	ga	4"	q_a q_f	1092	1758	1092	1758	1092	1758	1092	1758	1092	1757	1092	1757	1091	1757	1091	1757	1091	1757
			F	2.9 +12.2R		3 +10.5R		3.1 +9.1R		3.2 +8.1R		3.2 +7.3R		3.3 +6.7R		3.3 +6.1R		3.3 +5.6R		3.4 +5.2R	
		6"	q_a q_f	1073	1728	1073	1727	1073	1727	1072	1727	1072	1726	1072	1726	1072	1726	1072	1726	1072	1726
			F	3.4 +12.1R		3.6 +10.4R		3.7 +9.1R		3.7 +8.1R		3.8 +7.3R		3.8 +6.6R		3.9 +6R		3.9 +5.6R		4 +5.2R	
		8"	q_a q_f	1049	1690	1053	1696	1048	1688	1052	1693	1047	1686	1050	1691	1047	1686	1049	1690	1047	1685
			F	3.9 +12R		4.1 +10.3R		4.2 +9R		4.3 +8R		4.3 +7.2R		4.4 +6.5R		4.5 +6R		4.5 +5.5R		4.5 +5.1R	
		12"	q_a q_f	992	1597	990	1594	989	1592	988	1590	987	1589	986	1587	985	1586	985	1585	984	1585
			F	4.8 +11.8R		5 +10.1R		5.1 +8.8R		5.3 +7.8R		5.4 +7R		5.4 +6.3R		5.5 +5.8R		5.6 +5.4R		5.6 +5R	
		18"	q_a q_f	898	1597	913	1470	923	1487	888	1430	900	1450	910	1465	883	1421	893	1438	901	1451
			F	5.9 +11.4R		6.2 +9.7R		6.4 +8.4R		6.6 +7.4R		6.7 +6.7R		6.9 +6R		7 +5.5R		7.1 +5R		7.1 +4.7R	
		24"	q_a q_f	810	1305	847	1364	798	1285	830	1337	791	1273	819	1318	785	1265	810	1305	782	1259
			F	6.8 +11.1R		7.2 +9.3R		7.5 +8.1R		7.7 +7.1R		7.9 +6.3R		8.1 +5.7R		8.3 +5.1R		8.4 +4.7R		8.5 +4.3R	
	ga	4"	q_a q_f	824	1327	824	1327	824	1326	824	1326	824	1326	824	1326	824	1326	824	1326	824	1326
			F	3.5 +25R		3.8 +21.4R		3.9 +18.7R		4.1 +16.6R		4.2 +15R		4.3 +13.6R		4.4 +12.5R		4.4 +11.5R		4.5 +10.7R	
		6"	q_a q_f	804	1294	803	1293	803	1292	803	1292	802	1292	802	1291	802	1291	802	1291	802	1291
			F	4.3 +24.8R		4.5 +21.3R		4.7 +18.6R		4.9 +16.5R		5 +14.9R		5.1 +13.5R		5.2 +12.4R		5.3 +11.4R		5.4 +10.6R	
		8"	q_a q_f	778	1253	782	1259	777	1250	780	1256	776	1249	779	1254	775	1248	778	1252	774	1247
			F	5 +24.7R		5.3 +21.1R		5.5 +18.4R		5.7 +16.4R		5.8 +14.7R		5.9 +13.4R		6 +12.3R		6.1 +11.3R		6.2 +10.5R	
		12"	q_a q_f	721	1160	718	1157	717	1154	715	1152	714	1150	713	1148	712	1147	712	1146	711	1145
			F	6.2 +24.3R		6.5 +20.7R		6.8 +18.1R		7.1 +16R		7.3 +14.4R		7.4 +13.1R		7.6 +12R		7.7 +11R		7.8 +10.2R	
		18"	q_a q_f	635	1160	647	1041	655	1055	623	1004	634	1020	642	1033	618	994	626	1008	634	1020
			F	7.6 +23.7R		8.1 +20.2R		8.5 +17.5R		8.9 +15.5R		9.1 +13.9R		9.4 +12.5R		9.6 +11.4R		9.8 +10.5R		9.9 +9.7R	
		24"	q_a q_f	561	903	590	950	549	884	574	925	541	872	564	907	536	863	556	895	532	857
			F	8.7 +23.2R		9.4 +19.7R		9.9 +17R		10.4 +14.9R		10.7 +13.3R		11.1 +12R		11.3 +10.9R		11.6 +9.9R		11.8 +9.2R	
	ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	3.8 +39.5R		4.2 +33.8R		4.5 +29.6R		4.7 +26.3R		4.9 +23.7R		5 +21.5R		5.1 +19.7R		5.2 +18.2R		5.3 +16.9R	
		6"	q_a q_f	661	1064	660	1063	660	1062	659	1062	659	1061	659	1061	659	1061	659	1060	658	1060
			F	4.7 +39.3R		5.2 +33.6R		5.5 +29.4R		5.7 +26.1R		5.9 +23.5R		6.1 +21.4R		6.2 +19.6R		6.4 +18.1R		6.5 +16.8R	
		8"	q_a q_f	633	1019	637	1026	631	1016	635	1022	630	1014	633	1019	629	1012	632	1017	628	1011
			F	5.6 +39R		6.1 +33.4R		6.4 +29.2R		6.7 +25.9R		6.9 +23.3R		7.1 +21.2R		7.3 +19.4R		7.4 +17.9R		7.5 +16.6R	
		12"	q_a q_f	574	924	571	920	569	916	567	913	566	911	565	910	564	908	563	907	563	906
			F	7 +38.5R		7.6 +32.9R		8.1 +28.7R		8.4 +25.4R		8.7 +22.8R		9 +20.7R		9.2 +19R		9.4 +17.5R		9.5 +16.2R	
		18"	q_a q_f	493	924	503	810	510	822	481	774	490	788	497	800	474	764	482	776	488	786
			F	8.7 +37.8R		9.5 +32.2R		10.1 +28R		10.6 +24.7R		11 +22.1R		11.3 +20R		11.6 +18.2R		11.9 +16.8R		12.1 +15.5R	
		24"	q_a q_f	429	690	453	729	417	671	438	704	409	658	427	688	404	650	420	677	400	644
			F	10 +37.2R		10.9 +31.5R		11.7 +27.3R		12.3 +24R		12.9 +21.4R		13.3 +19.3R		13.7 +17.5R		14.1 +16R		14.4 +14.8R	

3WxH-36 36/3 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

4.11 DG3WxH-36 & DG3WxHF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)										
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/4	16 ga	4"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	
			F	2.4 +6.9R	2.4 +6R	2.5 +5.2R	2.5 +4.6R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.6 +3.2R	2.7 +3R	
		6"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	
			F	2.7 +6.9R	2.8 +5.9R	2.9 +5.1R	2.9 +4.6R	3 +4.1R	3 +3.7R	3 +3.4R	3 +3.2R	3.1 +2.9R	
		8"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	
			F	3.1 +6.8R	3.2 +5.8R	3.2 +5.1R	3.3 +4.5R	3.3 +4.1R	3.4 +3.7R	3.4 +3.4R	3.4 +3.1R	3.5 +2.9R	
		12"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	
			F	3.6 +6.6R	3.8 +5.6R	3.9 +4.9R	4 +4.4R	4 +3.9R	4.1 +3.5R	4.1 +3.2R	4.2 +3R	4.2 +2.8R	
		18"	q_a q_f	1365 2204	1369 2204	1369 2204	1333 2146	1353 2179	1369 2204	1316 2118	1333 2147	1348 2170	
			F	4.3 +6.4R	4.5 +5.4R	4.7 +4.7R	4.8 +4.1R	4.9 +3.6R	5 +3.3R	5.1 +3R	5.2 +2.7R	5.2 +2.5R	
		24"	q_a q_f	1212 1952	1268 2041	1178 1897	1228 1978	1156 1862	1202 1934	1142 1838	1182 1903	1131 1821	
			F	4.9 +6.1R	5.2 +5.1R	5.4 +4.4R	5.6 +3.8R	5.7 +3.4R	5.9 +3R	6 +2.7R	6.1 +2.5R	6.2 +2.3R	
	18 ga	4"	q_a q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	
			F	2.8 +12.2R	3 +10.4R	3.1 +9.1R	3.1 +8.1R	3.2 +7.3R	3.2 +6.6R	3.3 +6.1R	3.3 +5.6R	3.3 +5.2R	
		6"	q_a q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	
			F	3.3 +12.1R	3.5 +10.3R	3.6 +9R	3.7 +8R	3.7 +7.2R	3.8 +6.6R	3.8 +6R	3.9 +5.5R	3.9 +5.1R	
		8"	q_a q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	
			F	3.7 +12R	3.9 +10.2R	4 +8.9R	4.1 +7.9R	4.2 +7.1R	4.3 +6.5R	4.4 +5.9R	4.4 +5.5R	4.4 +5.1R	
		12"	q_a q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	
			F	4.5 +11.7R	4.7 +10R	4.9 +8.7R	5 +7.7R	5.1 +6.9R	5.2 +6.2R	5.3 +5.7R	5.4 +5.3R	5.4 +4.9R	
		18"	q_a q_f	1098 1784	1108 1784	1108 1784	1072 1725	1088 1752	1101 1773	1057 1702	1072 1726	1084 1745	
			F	5.3 +11.4R	5.6 +9.6R	5.9 +8.3R	6.1 +7.3R	6.3 +6.5R	6.4 +5.9R	6.6 +5.3R	6.7 +4.9R	6.8 +4.5R	
		24"	q_a q_f	974 1568	1019 1641	946 1523	987 1589	928 1494	965 1553	916 1475	949 1527	907 1460	
			F	6 +11.1R	6.4 +9.3R	6.7 +8R	7 +7R	7.2 +6.2R	7.4 +5.5R	7.6 +5R	7.8 +4.5R	7.9 +4.2R	
	20 ga	4"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	
			F	3.4 +24.9R	3.7 +21.4R	3.9 +18.7R	4 +16.6R	4.1 +14.9R	4.2 +13.6R	4.3 +12.4R	4.4 +11.5R	4.4 +10.7R	
		6"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	
			F	4.1 +24.7R	4.4 +21.2R	4.6 +18.5R	4.8 +16.4R	4.9 +14.8R	5 +13.4R	5.1 +12.3R	5.2 +11.4R	5.3 +10.5R	
		8"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	
			F	4.7 +24.6R	5 +21R	5.2 +18.3R	5.4 +16.3R	5.6 +14.6R	5.7 +13.3R	5.9 +12.2R	6 +11.2R	6 +10.4R	
		12"	q_a q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	
			F	5.6 +24.2R	6 +20.6R	6.4 +18R	6.6 +15.9R	6.8 +14.3R	7 +12.9R	7.2 +11.8R	7.3 +10.9R	7.4 +10.1R	
		18"	q_a q_f	766 1357	778 1253	788 1268	739 1190	752 1210	761 1226	725 1167	736 1185	745 1200	
			F	6.7 +23.7R	7.2 +20.1R	7.7 +17.4R	8.1 +15.4R	8.4 +13.7R	8.6 +12.4R	8.9 +11.2R	9.1 +10.3R	9.3 +9.5R	
		24"	q_a q_f	669 1078	701 1129	643 1036	673 1083	627 1009	653 1052	616 991	639 1030	607 978	
			F	7.4 +23.3R	8.1 +19.7R	8.7 +17R	9.2 +14.9R	9.6 +13.2R	9.9 +11.8R	10.2 +10.7R	10.5 +9.8R	10.8 +8.9R	
	22 ga	4"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F	3.7 +39.4R	4 +33.8R	4.3 +29.5R	4.6 +26.2R	4.8 +23.6R	4.9 +21.4R	5 +19.7R	5.2 +18.1R	5.2 +16.8R	
		6"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F	4.5 +39.2R	4.9 +33.5R	5.3 +29.3R	5.5 +26R	5.7 +23.4R	5.9 +21.3R	6.1 +19.5R	6.2 +18R	6.3 +16.7R	
		8"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F	5.2 +38.9R	5.7 +33.3R	6.1 +29.1R	6.4 +25.8R	6.6 +23.2R	6.8 +21R	7 +19.2R	7.1 +17.7R	7.3 +16.5R	
		12"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	676 1085	674 1085	672 1082	
			F	6.3 +38.5R	6.9 +32.8R	7.4 +28.6R	7.8 +25.3R	8.1 +22.7R	8.4 +20.5R	8.6 +18.8R	8.8 +17.3R	9 +16R	
		18"	q_a q_f	590 1085	599 964	605 974	563 906	572 922	580 934	549 883	557 897	565 909	
			F	7.4 +37.9R	8.2 +32.2R	8.9 +27.9R	9.4 +24.6R	9.9 +22R	10.3 +19.8R	10.6 +18R	10.9 +16.5R	11.2 +15.3R	
		24"	q_a q_f	511 823	534 860	486 782	508 818	470 757	490 790	460 740	478 769	452 727	
			F	8.3 +37.4R	9.2 +31.7R	10 +27.4R	10.7 +24R	11.3 +21.3R	11.8 +19.2R	12.2 +17.4R	12.6 +15.8R	12.9 +14.6R	

3WxH-36 36/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.11

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

HILTI®

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/6	16 ga	4"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			F	2.3 +6.9R		2.4 +5.9R		2.4 +5.2R		2.5 +4.6R		2.5 +4.1R		2.6 +3.8R		2.6 +3.4R		2.6 +3.2R		2.6 +3R	
		6"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			F	2.6 +6.8R		2.7 +5.8R		2.8 +5.1R		2.8 +4.5R		2.9 +4.1R		2.9 +3.7R		3 +3.4R		3 +3.1R		3 +2.9R	
		8"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			F	2.9 +6.7R		3 +5.8R		3.1 +5R		3.2 +4.4R		3.2 +4R		3.3 +3.6R		3.3 +3.3R		3.3 +3R		3.4 +2.8R	
		12"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			F	3.3 +6.6R		3.5 +5.6R		3.6 +4.8R		3.7 +4.3R		3.8 +3.8R		3.9 +3.4R		3.9 +3.1R		4 +2.9R		4 +2.7R	
		18"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			F	3.8 +6.4R		4 +5.3R		4.2 +4.6R		4.4 +4R		4.5 +3.6R		4.6 +3.2R		4.7 +2.9R		4.8 +2.6R		4.9 +2.4R	
		24"	q_a q_f	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1352	2177
			F	4.2 +6.2R		4.4 +5.1R		4.7 +4.4R		4.9 +3.8R		5.1 +3.3R		5.2 +2.9R		5.3 +2.6R		5.5 +2.4R		5.6 +2.1R	
	18 ga	4"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			F	2.8 +12.1R		2.9 +10.4R		3 +9.1R		3.1 +8.1R		3.1 +7.3R		3.2 +6.6R		3.2 +6R		3.3 +5.6R		3.3 +5.2R	
		6"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			F	3.1 +12R		3.3 +10.3R		3.4 +9R		3.5 +8R		3.6 +7.2R		3.7 +6.5R		3.7 +5.9R		3.8 +5.5R		3.8 +5.1R	
		8"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			F	3.5 +11.9R		3.7 +10.1R		3.8 +8.8R		3.9 +7.8R		4 +7R		4.1 +6.4R		4.2 +5.8R		4.2 +5.4R		4.3 +5R	
		12"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			F	4 +11.7R		4.3 +9.9R		4.5 +8.6R		4.6 +7.6R		4.8 +6.8R		4.9 +6.1R		5 +5.6R		5.1 +5.1R		5.1 +4.7R	
		18"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			F	4.6 +11.4R		4.9 +9.6R		5.2 +8.3R		5.4 +7.3R		5.6 +6.4R		5.8 +5.8R		5.9 +5.2R		6.1 +4.8R		6.2 +4.4R	
		24"	q_a q_f	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1105	1780	1108	1784	1083	1744
			F	4.9 +11.2R		5.4 +9.4R		5.7 +8R		6 +7R		6.2 +6.1R		6.5 +5.5R		6.7 +4.9R		6.9 +4.4R		7 +4R	
	20 ga	4"	q_a q_f	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			F	3.3 +24.9R		3.5 +21.3R		3.7 +18.6R		3.9 +16.5R		4 +14.9R		4.1 +13.5R		4.2 +12.4R		4.3 +11.4R		4.3 +10.6R	
		6"	q_a q_f	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			F	3.8 +24.7R		4.1 +21.1R		4.3 +18.4R		4.5 +16.4R		4.7 +14.7R		4.8 +13.3R		4.9 +12.2R		5 +11.3R		5.1 +10.4R	
		8"	q_a q_f	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			F	4.2 +24.5R		4.6 +20.9R		4.8 +18.2R		5.1 +16.2R		5.2 +14.5R		5.4 +13.2R		5.5 +12R		5.6 +11.1R		5.7 +10.3R	
		12"	q_a q_f	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			F	4.8 +24.2R		5.3 +20.6R		5.6 +17.9R		5.9 +15.8R		6.2 +14.1R		6.4 +12.8R		6.6 +11.7R		6.7 +10.7R		6.9 +9.9R	
		18"	q_a q_f	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			F	5.5 +23.9R		6 +20.2R		6.5 +17.5R		6.9 +15.4R		7.2 +13.7R		7.5 +12.3R		7.8 +11.1R		8 +10.2R		8.2 +9.4R	
		24"	q_a q_f	843	1357	843	1357	799	1287	827	1331	762	1226	789	1270	736	1185	761	1226	717	1155
			F	5.9 +23.6R		6.5 +19.9R		7.1 +17.2R		7.6 +15R		8 +13.3R		8.4 +11.9R		8.7 +10.7R		9 +9.7R		9.3 +8.9R	
	22 ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	3.4 +39.3R		3.8 +33.7R		4.1 +29.4R		4.4 +26.1R		4.6 +23.5R		4.8 +21.4R		4.9 +19.6R		5 +18.1R		5.1 +16.8R	
		6"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4 +39.1R		4.5 +33.4R		4.9 +29.2R		5.2 +25.9R		5.4 +23.3R		5.6 +21.1R		5.8 +19.3R		5.9 +17.8R		6 +16.5R	
		8"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4.5 +38.9R		5.1 +33.2R		5.5 +29R		5.8 +25.7R		6.1 +23R		6.3 +20.9R		6.5 +19.1R		6.7 +17.6R		6.8 +16.3R	
		12"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.2 +38.5R		5.9 +32.8R		6.4 +28.5R		6.8 +25.2R		7.2 +22.6R		7.5 +20.4R		7.8 +18.6R		8 +17.1R		8.2 +15.8R	
		18"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	658	1059	666	1072	672	1082
			F	5.9 +38.1R		6.7 +32.4R		7.3 +28.1R		7.9 +24.7R		8.3 +22R		8.8 +19.8R		9.1 +18R		9.4 +16.5R		9.7 +15.1R	
		24"	q_a q_f	659	1062	674	1084	606	975	623	1004	572	921	590	950	549	883	566	911	532	856
			F	6.3 +37.9R		7.2 +32.1R		8 +27.7R		8.6 +24.3R		9.2 +21.6R		9.7 +19.3R		10.1 +17.5R		10.5 +15.9R		10.9 +14.6R	

3WxH-36 36/6 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip DG4™

4.12 DG3WxH-36 & DG3WxHF-36

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a q_f	1244	2002	1244	2002	1243	2002	1243	2002	1243	2002	1243	2002	1243	2002	1243	2002	1243	2002
			F	2.4 +7R		2.5 +6R		2.5 +5.3R		2.6 +4.7R		2.6 +4.2R		2.6 +3.8R		2.7 +3.5R		2.7 +3.2R		2.7 +3R	
		6"	q_a q_f	1226	1974	1226	1973	1225	1973	1225	1973	1225	1972	1225	1972	1225	1972	1225	1972	1225	1972
			F	2.9 +7R		2.9 +6R		3 +5.2R		3 +4.7R		3.1 +4.2R		3.1 +3.8R		3.1 +3.5R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	1203	1937	1207	1943	1202	1935	1205	1941	1201	1934	1204	1939	1201	1933	1203	1937	1201	1933
			F	3.3 +7R		3.4 +6R		3.4 +5.2R		3.5 +4.6R		3.5 +4.2R		3.5 +3.8R		3.6 +3.5R		3.6 +3.2R		3.6 +3R	
		12"	q_a q_f	1147	1846	1145	1843	1144	1841	1143	1840	1142	1838	1141	1837	1141	1836	1140	1836	1140	1835
			F	4.2 +6.9R		4.3 +5.9R		4.3 +5.2R		4.4 +4.6R		4.4 +4.1R		4.4 +3.8R		4.5 +3.4R		4.5 +3.2R		4.5 +3R	
		18"	q_a q_f	1051	1846	1067	1717	1078	1735	1041	1676	1054	1697	1064	1713	1036	1668	1047	1685	1055	1699
			F	5.4 +6.8R		5.5 +5.8R		5.6 +5.1R		5.7 +4.5R		5.7 +4R		5.7 +3.7R		5.8 +3.4R		5.8 +3.1R		5.8 +2.9R	
		24"	q_a q_f	957	1541	998	1606	945	1522	980	1578	938	1510	968	1559	933	1502	960	1545	929	1496
			F	6.6 +6.6R		6.7 +5.6R		6.8 +4.9R		6.9 +4.4R		7 +3.9R		7 +3.6R		7.1 +3.3R		7.1 +3R		7.1 +2.8R	
	18 ga	4"	q_a q_f	1020	1643	1020	1643	1020	1643	1020	1643	1020	1643	1020	1642	1020	1642	1020	1642	1020	1642
			F	3 +12.3R		3.1 +10.5R		3.2 +9.2R		3.2 +8.2R		3.3 +7.4R		3.3 +6.7R		3.3 +6.1R		3.4 +5.7R		3.4 +5.3R	
		6"	q_a q_f	1005	1618	1005	1618	1005	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1617	1004	1616
			F	3.6 +12.2R		3.7 +10.5R		3.8 +9.2R		3.8 +8.2R		3.9 +7.3R		3.9 +6.7R		4 +6.1R		4 +5.6R		4 +5.2R	
		8"	q_a q_f	985	1586	989	1592	984	1585	987	1589	984	1584	986	1588	983	1583	985	1587	983	1583
			F	4.2 +12.2R		4.3 +10.4R		4.4 +9.1R		4.5 +8.1R		4.5 +7.3R		4.6 +6.6R		4.6 +6.1R		4.6 +5.6R		4.7 +5.2R	
		12"	q_a q_f	937	1508	935	1506	934	1504	933	1503	933	1501	932	1501	931	1500	931	1499	931	1498
			F	5.4 +12.1R		5.5 +10.4R		5.6 +9.1R		5.7 +8R		5.7 +7.2R		5.8 +6.6R		5.8 +6R		5.9 +5.6R		5.9 +5.2R	
		18"	q_a q_f	856	1508	869	1399	878	1413	847	1364	858	1381	866	1395	843	1357	852	1371	859	1383
			F	7 +11.9R		7.2 +10.2R		7.3 +8.9R		7.4 +7.9R		7.5 +7.1R		7.6 +6.4R		7.6 +5.9R		7.7 +5.5R		7.7 +5.1R	
		24"	q_a q_f	777	1251	811	1305	767	1234	796	1281	760	1224	786	1265	756	1217	778	1253	753	1212
			F	8.6 +11.6R		8.8 +9.9R		9 +8.7R		9.1 +7.7R		9.2 +6.9R		9.3 +6.3R		9.4 +5.7R		9.4 +5.3R		9.5 +4.9R	
	20 ga	4"	q_a q_f	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257	781	1257
			F	3.7 +25.1R		3.9 +21.5R		4 +18.8R		4.2 +16.7R		4.3 +15R		4.4 +13.7R		4.4 +12.5R		4.5 +11.6R		4.5 +10.7R	
		6"	q_a q_f	763	1229	763	1228	763	1228	762	1228	762	1227	762	1227	762	1227	762	1227	762	1227
			F	4.6 +25R		4.8 +21.4R		5 +18.8R		5.1 +16.7R		5.2 +15R		5.3 +13.6R		5.4 +12.5R		5.5 +11.5R		5.5 +10.7R	
		8"	q_a q_f	741	1194	745	1199	740	1191	743	1196	739	1190	742	1194	739	1189	741	1193	738	1189
			F	5.5 +24.9R		5.7 +21.4R		5.9 +18.7R		6.1 +16.6R		6.2 +15R		6.3 +13.6R		6.3 +12.5R		6.4 +11.5R		6.5 +10.7R	
		12"	q_a q_f	691	1112	689	1109	687	1106	686	1104	685	1103	684	1102	684	1101	683	1100	683	1099
			F	7.2 +24.8R		7.5 +21.2R		7.7 +18.5R		7.9 +16.5R		8 +14.8R		8.1 +13.5R		8.2 +12.4R		8.3 +11.4R		8.3 +10.6R	
		18"	q_a q_f	613	1112	624	1005	632	1018	603	971	613	986	620	998	598	963	606	976	613	986
			F	9.7 +24.4R		10 +20.9R		10.3 +18.2R		10.5 +16.2R		10.6 +14.6R		10.8 +13.2R		10.9 +12.1R		11 +11.2R		11.1 +10.4R	
		24"	q_a q_f	544	876	572	921	534	859	558	898	527	849	548	882	522	841	541	871	519	836
			F	11.9 +23.9R		12.3 +20.4R		12.7 +17.8R		12.9 +15.8R		13.1 +14.2R		13.3 +12.9R		13.5 +11.8R		13.6 +10.9R		13.7 +10.1R	
	22 ga	4"	q_a q_f	653	1052	653	1051	653	1051	653	1051	653	1051	653	1051	653	1051	652	1050	652	1050
			F	4 +39.6R		4.4 +34R		4.6 +29.7R		4.8 +26.4R		5 +23.8R		5.1 +21.6R		5.2 +19.8R		5.3 +18.3R		5.4 +17R	
		6"	q_a q_f	633	1018	632	1018	632	1017	631	1017	631	1016	631	1016	631	1016	631	1015	631	1015
			F	5.2 +39.5R		5.6 +33.9R		5.9 +29.6R		6.1 +26.4R		6.2 +23.7R		6.4 +21.6R		6.5 +19.8R		6.6 +18.2R		6.7 +16.9R	
		8"	q_a q_f	608	979	612	985	606	976	609	981	605	974	608	979	604	973	607	977	604	972
			F	6.4 +39.4R		6.8 +33.8R		7 +29.6R		7.3 +26.3R		7.5 +23.6R		7.6 +21.5R		7.7 +19.7R		7.8 +18.2R		7.9 +16.9R	
		12"	q_a q_f	554	892	552	889	550	886	549	883	548	882	547	880	546	879	545	878	544	877
			F	8.6 +39.1R		9 +33.5R		9.4 +29.3R		9.6 +26R		9.8 +23.4R		10 +21.3R		10.1 +19.5R		10.2 +18R		10.3 +16.7R	
		18"	q_a q_f	479	892	489	787	496	799	468	754	477	768	484	779	463	745	470	757	476	766
			F	11.7 +38.6R		12.2 +33R		12.6 +28.8R		12.9 +25.6R		13.2 +23R		13.4 +20.9R		13.6 +19.2R		13.7 +17.7R		13.9 +16.4R	
		24"	q_a q_f	419	674	442	711	408	656	428	689	401	645	418	674	396	637	412	663	393	632
			F	14.5 +37.9R		15.1 +32.4R		15.6 +28.3R		16 +25.1R		16.4 +22.5R		16.6 +20.4R		16.9 +18.7R		17.1 +17.2R		17.2 +16R	

3WxH-36 36/3 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

PNEUTEK

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R
		6"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	2.9 +7R	2.9 +6R	3 +5.2R	3 +4.6R	3.1 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R
		8"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	3.3 +6.9R	3.4 +5.9R	3.4 +5.2R	3.5 +4.6R	3.5 +4.2R	3.5 +3.8R	3.5 +3.5R	3.6 +3.2R	3.6 +3R
		12"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	4.1 +6.8R	4.2 +5.9R	4.3 +5.1R	4.3 +4.6R	4.4 +4.1R	4.4 +3.7R	4.4 +3.4R	4.4 +3.2R	4.5 +2.9R
		18"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1254 2018	1259 2027	1259 2027
			F	5.3 +6.7R	5.4 +5.7R	5.5 +5R	5.6 +4.4R	5.6 +4R	5.7 +3.6R	5.7 +3.3R	5.7 +3.1R	5.8 +2.8R
		24"	q_a q_f	1157 1862	1208 1945	1128 1816	1175 1891	1110 1787	1151 1854	1097 1767	1135 1827	1088 1752
			F	6.4 +6.5R	6.5 +5.5R	6.6 +4.8R	6.7 +4.3R	6.8 +3.8R	6.9 +3.5R	6.9 +3.2R	7 +2.9R	7 +2.7R
	18 ga	4"	q_a q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			F	2.9 +12.2R	3.1 +10.5R	3.1 +9.2R	3.2 +8.2R	3.3 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.7R	3.4 +5.2R
		6"	q_a q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			F	3.5 +12.2R	3.7 +10.5R	3.8 +9.2R	3.8 +8.1R	3.9 +7.3R	3.9 +6.7R	4 +6.1R	4 +5.6R	4 +5.2R
		8"	q_a q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			F	4.1 +12.2R	4.3 +10.4R	4.4 +9.1R	4.4 +8.1R	4.5 +7.3R	4.5 +6.6R	4.6 +6.1R	4.6 +5.6R	4.6 +5.2R
		12"	q_a q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			F	5.2 +12R	5.4 +10.3R	5.5 +9R	5.6 +8R	5.7 +7.2R	5.7 +6.5R	5.8 +6R	5.8 +5.5R	5.9 +5.1R
		18"	q_a q_f	1034 1664	1034 1664	1034 1664	1029 1656	1034 1664	1034 1664	1017 1637	1030 1658	1034 1664
			F	6.8 +11.7R	7 +10R	7.1 +8.8R	7.3 +7.8R	7.4 +7R	7.4 +6.3R	7.5 +5.8R	7.6 +5.4R	7.6 +5R
		24"	q_a q_f	937 1509	980 1577	913 1470	951 1531	898 1445	932 1500	887 1428	918 1477	879 1416
			F	8.2 +11.4R	8.5 +9.7R	8.7 +8.5R	8.8 +7.5R	9 +6.7R	9.1 +6.1R	9.2 +5.6R	9.2 +5.1R	9.3 +4.8R
	20 ga	4"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	3.6 +25.1R	3.9 +21.5R	4 +18.8R	4.2 +16.7R	4.3 +15R	4.3 +13.7R	4.4 +12.5R	4.5 +11.6R	4.5 +10.7R
		6"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	4.5 +25R	4.8 +21.4R	4.9 +18.7R	5.1 +16.6R	5.2 +15R	5.3 +13.6R	5.4 +12.5R	5.4 +11.5R	5.5 +10.7R
		8"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	5.4 +24.9R	5.6 +21.3R	5.8 +18.6R	6 +16.6R	6.1 +14.9R	6.2 +13.6R	6.3 +12.4R	6.4 +11.5R	6.4 +10.6R
		12"	q_a q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283
			F	7 +24.6R	7.3 +21.1R	7.5 +18.4R	7.7 +16.4R	7.9 +14.7R	8 +13.4R	8.1 +12.3R	8.2 +11.3R	8.2 +10.5R
		18"	q_a q_f	742 1283	754 1214	763 1228	718 1156	730 1175	739 1190	706 1136	716 1153	725 1167
			F	9.2 +24.1R	9.6 +20.6R	9.9 +18R	10.1 +16R	10.3 +14.4R	10.5 +13R	10.6 +11.9R	10.7 +11R	10.8 +10.2R
		24"	q_a q_f	651 1047	681 1097	627 1010	655 1055	612 986	638 1027	602 969	625 1006	595 957
			F	11.2 +23.6R	11.7 +20.1R	12.1 +17.5R	12.4 +15.5R	12.6 +13.9R	12.8 +12.6R	13 +11.5R	13.2 +10.6R	13.3 +9.8R
	22 ga	4"	q_a q_f	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082
			F	4 +39.6R	4.3 +33.9R	4.6 +29.7R	4.8 +26.4R	5 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.3R	5.4 +17R
		6"	q_a q_f	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082
			F	5.1 +39.5R	5.5 +33.8R	5.8 +29.6R	6 +26.3R	6.2 +23.7R	6.3 +21.5R	6.4 +19.7R	6.5 +18.2R	6.6 +16.9R
		8"	q_a q_f	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082
			F	6.2 +39.3R	6.6 +33.7R	6.9 +29.5R	7.2 +26.2R	7.4 +23.6R	7.5 +21.4R	7.6 +19.6R	7.7 +18.1R	7.8 +16.8R
		12"	q_a q_f	672 1082	672 1082	669 1078	665 1071	662 1066	660 1062	658 1059	656 1056	654 1053
			F	8.3 +38.9R	8.7 +33.3R	9.1 +29.1R	9.4 +25.9R	9.6 +23.3R	9.8 +21.2R	9.9 +19.4R	10.1 +17.9R	10.2 +16.6R
		18"	q_a q_f	575 1082	584 940	590 950	550 886	559 901	567 913	537 865	546 878	553 890
			F	11 +38.3R	11.6 +32.7R	12.1 +28.5R	12.4 +25.3R	12.7 +22.7R	13 +20.6R	13.2 +18.9R	13.4 +17.4R	13.5 +16.2R
		24"	q_a q_f	499 803	522 840	476 766	497 801	461 743	481 775	451 727	469 756	444 715
			F	13.4 +37.5R	14.1 +32R	14.7 +27.9R	15.2 +24.7R	15.6 +22.1R	15.9 +20R	16.2 +18.3R	16.4 +16.9R	16.6 +15.6R

3WxH-36 36/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

4.12 DG3WxH-36 & DG3WxHF-36

Pneutek SDK61 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/6	16 ga	4"	q_a / q_f	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R
		6"	q_a / q_f	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027
			F	2.8 +6.9R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R
		8"	q_a / q_f	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027
			F	3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +2.9R
		12"	q_a / q_f	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027
			F	4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.2 +4.5R	4.3 +4R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R
		18"	q_a / q_f	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027
			F	5 +6.5R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.4 +3.9R	5.5 +3.5R	5.5 +3.2R	5.6 +3R	5.6 +2.7R
		24"	q_a / q_f	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027	1259 / 2027
			F	5.9 +6.3R	6.1 +5.3R	6.3 +4.6R	6.4 +4.1R	6.5 +3.7R	6.6 +3.3R	6.7 +3R	6.7 +2.8R	6.8 +2.6R
	18 ga	4"	q_a / q_f	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664
			F	2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.1R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R
		6"	q_a / q_f	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664
			F	3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.8 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R
		8"	q_a / q_f	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664
			F	4 +12.1R	4.2 +10.3R	4.3 +9R	4.4 +8R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R
		12"	q_a / q_f	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664
			F	5 +11.9R	5.2 +10.2R	5.3 +8.9R	5.4 +7.9R	5.5 +7.1R	5.6 +6.4R	5.7 +5.9R	5.7 +5.4R	5.7 +5R
		18"	q_a / q_f	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664
			F	6.4 +11.5R	6.6 +9.8R	6.8 +8.6R	6.9 +7.6R	7.1 +6.8R	7.2 +6.2R	7.3 +5.6R	7.3 +5.2R	7.4 +4.8R
		24"	q_a / q_f	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664	1034 / 1664
			F	7.5 +11.2R	7.8 +9.5R	8.1 +8.2R	8.3 +7.3R	8.5 +6.5R	8.6 +5.9R	8.7 +5.3R	8.8 +4.9R	8.9 +4.5R
	20 ga	4"	q_a / q_f	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283
			F	3.6 +25R	3.8 +21.4R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R
		6"	q_a / q_f	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283
			F	4.4 +24.9R	4.7 +21.3R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R
		8"	q_a / q_f	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283
			F	5.2 +24.8R	5.5 +21.2R	5.7 +18.5R	5.8 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.3R	6.3 +11.4R	6.3 +10.6R
		12"	q_a / q_f	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283
			F	6.6 +24.4R	6.9 +20.9R	7.2 +18.2R	7.4 +16.2R	7.6 +14.6R	7.7 +13.2R	7.8 +12.1R	7.9 +11.2R	8 +10.4R
		18"	q_a / q_f	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283	797 / 1283
			F	8.4 +23.9R	8.9 +20.3R	9.2 +17.7R	9.5 +15.7R	9.8 +14.1R	10 +12.8R	10.1 +11.7R	10.3 +10.7R	10.4 +9.9R
		24"	q_a / q_f	797 / 1283	797 / 1283	779 / 1254	797 / 1283	745 / 1199	772 / 1242	721 / 1161	746 / 1201	703 / 1133
			F	9.9 +23.3R	10.5 +19.8R	11 +17.2R	11.4 +15.1R	11.7 +13.5R	12 +12.2R	12.2 +11.1R	12.4 +10.2R	12.6 +9.5R
	22 ga	4"	q_a / q_f	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082
			F	3.9 +39.5R	4.3 +33.9R	4.5 +29.6R	4.8 +26.3R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R
		6"	q_a / q_f	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082
			F	4.9 +39.4R	5.3 +33.7R	5.6 +29.5R	5.9 +26.2R	6.1 +23.6R	6.2 +21.4R	6.4 +19.6R	6.5 +18.1R	6.6 +16.8R
		8"	q_a / q_f	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082
			F	5.9 +39.2R	6.4 +33.5R	6.7 +29.3R	7 +26R	7.2 +23.4R	7.3 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R
		12"	q_a / q_f	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082
			F	7.7 +38.7R	8.2 +33.1R	8.6 +28.9R	8.9 +25.6R	9.2 +23R	9.4 +20.9R	9.6 +19.2R	9.7 +17.7R	9.9 +16.4R
		18"	q_a / q_f	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	672 / 1082	646 / 1040	654 / 1053	660 / 1063
			F	9.8 +38R	10.5 +32.4R	11.1 +28.2R	11.5 +24.9R	11.9 +22.4R	12.2 +20.3R	12.5 +18.5R	12.7 +17.1R	12.9 +15.8R
		24"	q_a / q_f	642 / 1034	658 / 1059	592 / 953	610 / 983	561 / 902	579 / 932	539 / 867	556 / 896	523 / 842
			F	11.6 +37.2R	12.5 +31.6R	13.2 +27.4R	13.8 +24.2R	14.3 +21.6R	14.7 +19.6R	15 +17.8R	15.3 +16.4R	15.6 +15.1R

3WxH-36 36/6 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip DG4™

ASC STEEL DECK®

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a / q_f	1203	1937	1203	1937	1203	1937	1203	1937	1203	1937	1203	1937	1203	1937	1203	1937	1203	1937
			F	2.4	+7R	2.5	+6R	2.5	+5.3R	2.6	+4.7R	2.6	+4.2R	2.6	+3.8R	2.7	+3.5R	2.7	+3.2R	2.7	+3R
		6"	q_a / q_f	1187	1911	1187	1911	1187	1910	1186	1910	1186	1910	1186	1910	1186	1910	1186	1910	1186	1909
			F	2.9	+7R	2.9	+6R	3	+5.2R	3	+4.7R	3.1	+4.2R	3.1	+3.8R	3.1	+3.5R	3.1	+3.2R	3.1	+3R
		8"	q_a / q_f	1166	1878	1170	1883	1165	1876	1168	1881	1165	1875	1167	1879	1164	1874	1166	1878	1164	1874
			F	3.3	+7R	3.4	+6R	3.4	+5.2R	3.5	+4.6R	3.5	+4.2R	3.5	+3.8R	3.6	+3.5R	3.6	+3.2R	3.6	+3R
		12"	q_a / q_f	1114	1794	1113	1792	1112	1790	1111	1788	1110	1787	1109	1786	1109	1785	1108	1785	1108	1784
			F	4.2	+6.9R	4.3	+5.9R	4.3	+5.2R	4.4	+4.6R	4.4	+4.1R	4.4	+3.8R	4.5	+3.4R	4.5	+3.2R	4.5	+3R
		18"	q_a / q_f	1025	1794	1040	1675	1050	1691	1016	1637	1029	1656	1038	1671	1012	1629	1022	1645	1030	1658
			F	5.4	+6.8R	5.5	+5.8R	5.6	+5.1R	5.7	+4.5R	5.7	+4R	5.7	+3.7R	5.8	+3.4R	5.8	+3.1R	5.8	+2.9R
		24"	q_a / q_f	937	1508	975	1570	926	1491	959	1544	919	1480	948	1527	915	1473	940	1514	911	1467
			F	6.6	+6.6R	6.7	+5.6R	6.8	+4.9R	6.9	+4.4R	7	+3.9R	7	+3.6R	7.1	+3.3R	7.1	+3R	7.1	+2.8R
	18 ga	4"	q_a / q_f	1032	1662	1032	1662	1032	1662	1032	1662	1032	1661	1032	1661	1032	1661	1032	1661	1032	1661
			F	3	+12.3R	3.1	+10.5R	3.2	+9.2R	3.2	+8.2R	3.3	+7.4R	3.3	+6.7R	3.3	+6.1R	3.4	+5.7R	3.4	+5.3R
		6"	q_a / q_f	1016	1636	1016	1636	1016	1636	1016	1635	1016	1635	1015	1635	1015	1635	1015	1635	1015	1635
			F	3.6	+12.2R	3.7	+10.5R	3.8	+9.2R	3.8	+8.2R	3.9	+7.3R	3.9	+6.7R	4	+6.1R	4	+5.6R	4	+5.2R
		8"	q_a / q_f	996	1603	999	1609	995	1602	998	1607	994	1601	997	1605	994	1600	996	1604	994	1600
			F	4.2	+12.2R	4.3	+10.4R	4.4	+9.1R	4.5	+8.1R	4.5	+7.3R	4.6	+6.6R	4.6	+6.1R	4.6	+5.6R	4.7	+5.2R
		12"	q_a / q_f	946	1523	945	1521	943	1519	942	1517	942	1516	941	1515	940	1514	940	1513	940	1513
			F	5.4	+12.1R	5.5	+10.4R	5.6	+9.1R	5.7	+8R	5.7	+7.2R	5.8	+6.6R	5.8	+6R	5.9	+5.6R	5.9	+5.2R
		18"	q_a / q_f	863	1523	876	1411	886	1426	854	1375	865	1393	874	1406	849	1368	859	1382	866	1394
			F	7	+11.9R	7.2	+10.2R	7.3	+8.9R	7.4	+7.9R	7.5	+7.1R	7.6	+6.4R	7.6	+5.9R	7.7	+5.5R	7.7	+5.1R
		24"	q_a / q_f	783	1260	817	1315	772	1243	802	1291	766	1232	791	1274	761	1225	784	1262	758	1220
			F	8.6	+11.6R	8.8	+9.9R	9	+8.7R	9.1	+7.7R	9.2	+6.9R	9.3	+6.3R	9.4	+5.7R	9.4	+5.3R	9.5	+4.9R
	20 ga	4"	q_a / q_f	836	1346	836	1346	836	1346	836	1346	836	1345	836	1345	836	1345	835	1345	835	1345
			F	3.7	+25.1R	3.9	+21.5R	4	+18.8R	4.2	+16.7R	4.3	+15R	4.4	+13.7R	4.4	+12.5R	4.5	+11.6R	4.5	+10.7R
		6"	q_a / q_f	815	1312	814	1311	814	1310	814	1310	813	1309	813	1309	813	1309	813	1309	813	1309
			F	4.6	+25R	4.8	+21.4R	5	+18.8R	5.1	+16.7R	5.2	+15R	5.3	+13.6R	5.4	+12.5R	5.5	+11.5R	5.5	+10.7R
		8"	q_a / q_f	788	1269	793	1276	787	1267	790	1272	786	1265	789	1270	785	1264	788	1268	784	1263
			F	5.5	+24.9R	5.7	+21.4R	5.9	+18.7R	6.1	+16.6R	6.2	+15R	6.3	+13.6R	6.3	+12.5R	6.4	+11.5R	6.5	+10.7R
		12"	q_a / q_f	729	1173	726	1170	725	1167	723	1164	722	1162	721	1161	720	1160	720	1158	719	1157
			F	7.2	+24.8R	7.5	+21.2R	7.7	+18.5R	7.9	+16.5R	8	+14.8R	8.1	+13.5R	8.2	+12.4R	8.3	+11.4R	8.3	+10.6R
		18"	q_a / q_f	640	1173	653	1051	662	1065	629	1013	640	1030	648	1043	623	1003	632	1017	639	1029
			F	9.7	+24.4R	10	+20.9R	10.3	+18.2R	10.5	+16.2R	10.6	+14.6R	10.8	+13.2R	10.9	+12.1R	11	+11.2R	11.1	+10.4R
		24"	q_a / q_f	565	910	595	958	553	890	579	932	545	878	568	914	540	869	560	902	536	863
			F	11.9	+23.9R	12.3	+20.4R	12.7	+17.8R	12.9	+15.8R	13.1	+14.2R	13.3	+12.9R	13.5	+11.8R	13.6	+10.9R	13.7	+10.1R
	22 ga	4"	q_a / q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4	+39.6R	4.4	+34R	4.6	+29.7R	4.8	+26.4R	5	+23.8R	5.1	+21.6R	5.2	+19.8R	5.3	+18.3R	5.4	+17R
		6"	q_a / q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.2	+39.5R	5.6	+33.9R	5.9	+29.6R	6.1	+26.4R	6.2	+23.7R	6.4	+21.6R	6.5	+19.8R	6.6	+18.2R	6.7	+16.9R
		8"	q_a / q_f	663	1068	668	1075	661	1064	665	1070	659	1061	663	1067	658	1060	661	1065	657	1058
			F	6.4	+39.4R	6.8	+33.8R	7	+29.6R	7.3	+26.3R	7.5	+23.6R	7.6	+21.5R	7.7	+19.7R	7.8	+18.2R	7.9	+16.9R
		12"	q_a / q_f	597	961	594	956	591	952	589	949	588	946	586	944	585	942	584	941	584	939
			F	8.6	+39.1R	9	+33.5R	9.4	+29.3R	9.6	+26R	9.8	+23.4R	10	+21.3R	10.1	+19.5R	10.2	+18R	10.3	+16.7R
		18"	q_a / q_f	509	961	519	836	527	848	495	797	504	812	512	824	488	785	496	798	503	809
			F	11.7	+38.6R	12.2	+33R	12.6	+28.8R	12.9	+25.6R	13.2	+23R	13.4	+20.9R	13.6	+19.2R	13.7	+17.7R	13.9	+16.4R
		24"	q_a / q_f	441	709	465	749	427	687	449	723	419	674	438	705	413	665	430	692	409	658
			F	14.5	+37.9R	15.1	+32.4R	15.6	+28.3R	16	+25.1R	16.4	+22.5R	16.6	+20.4R	16.9	+18.7R	17.1	+17.2R	17.2	+16R

3WxH-36 36/3 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

4.12 DG3WxH-36 & DG3WxHF-36

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	2.4 +7R		2.5 +6R		2.5 +5.2R		2.6 +4.7R		2.6 +4.2R		2.6 +3.8R		2.6 +3.5R		2.7 +3.2R		2.7 +3R	
		6"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	2.9 +7R		2.9 +6R		3 +5.2R		3 +4.6R		3.1 +4.2R		3.1 +3.8R		3.1 +3.5R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	3.3 +6.9R		3.4 +5.9R		3.4 +5.2R		3.5 +4.6R		3.5 +4.2R		3.5 +3.8R		3.5 +3.5R		3.6 +3.2R		3.6 +3R	
		12"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	4.1 +6.8R		4.2 +5.9R		4.3 +5.1R		4.3 +4.6R		4.4 +4.1R		4.4 +3.7R		4.4 +3.4R		4.4 +3.2R		4.5 +2.9R	
		18"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	5.3 +6.7R		5.4 +5.7R		5.5 +5R		5.6 +4.4R		5.6 +4R		5.7 +3.6R		5.7 +3.3R		5.7 +3.1R		5.8 +2.8R	
		24"	q_a q_f	1134	1826	1184	1907	1108	1783	1153	1856	1091	1756	1131	1821	1079	1738	1115	1795	1071	1724
			F	6.4 +6.5R		6.5 +5.5R		6.6 +4.8R		6.7 +4.3R		6.8 +3.8R		6.9 +3.5R		6.9 +3.2R		7 +2.9R		7 +2.7R	
	18 ga	4"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	2.9 +12.2R		3.1 +10.5R		3.1 +9.2R		3.2 +8.2R		3.3 +7.3R		3.3 +6.7R		3.3 +6.1R		3.4 +5.7R		3.4 +5.2R	
		6"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	3.5 +12.2R		3.7 +10.5R		3.8 +9.2R		3.8 +8.1R		3.9 +7.3R		3.9 +6.7R		4 +6.1R		4 +5.6R		4 +5.2R	
		8"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	4.1 +12.2R		4.3 +10.4R		4.4 +9.1R		4.4 +8.1R		4.5 +7.3R		4.5 +6.6R		4.6 +6.1R		4.6 +5.6R		4.6 +5.2R	
		12"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	5.2 +12R		5.4 +10.3R		5.5 +9R		5.6 +8R		5.7 +7.2R		5.7 +6.5R		5.8 +6R		5.8 +5.5R		5.9 +5.1R	
		18"	q_a q_f	1046	1684	1046	1684	1046	1684	1036	1668	1046	1684	1046	1684	1023	1648	1037	1669	1046	1684
			F	6.8 +11.7R		7 +10R		7.1 +8.8R		7.3 +7.8R		7.4 +7R		7.4 +6.3R		7.5 +5.8R		7.6 +5.4R		7.6 +5R	
		24"	q_a q_f	944	1519	986	1588	919	1479	957	1541	903	1453	937	1509	892	1436	923	1486	884	1423
			F	8.2 +11.4R		8.5 +9.7R		8.7 +8.5R		8.8 +7.5R		9 +6.7R		9.1 +6.1R		9.2 +5.6R		9.2 +5.1R		9.3 +4.8R	
	20 ga	4"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	3.6 +25.1R		3.9 +21.5R		4 +18.8R		4.2 +16.7R		4.3 +15R		4.3 +13.7R		4.4 +12.5R		4.5 +11.6R		4.5 +10.7R	
		6"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	4.5 +25R		4.8 +21.4R		4.9 +18.7R		5.1 +16.6R		5.2 +15R		5.3 +13.6R		5.4 +12.5R		5.4 +11.5R		5.5 +10.7R	
		8"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	5.4 +24.9R		5.6 +21.3R		5.8 +18.6R		6 +16.6R		6.1 +14.9R		6.2 +13.6R		6.3 +12.4R		6.4 +11.5R		6.4 +10.6R	
		12"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	7 +24.6R		7.3 +21.1R		7.5 +18.4R		7.7 +16.4R		7.9 +14.7R		8 +13.4R		8.1 +12.3R		8.2 +11.3R		8.2 +10.5R	
		18"	q_a q_f	772	1377	785	1264	794	1279	745	1199	757	1219	767	1235	730	1176	741	1194	751	1209
			F	9.2 +24.1R		9.6 +20.6R		9.9 +18R		10.1 +16R		10.3 +14.4R		10.5 +13R		10.6 +11.9R		10.7 +11R		10.8 +10.2R	
		24"	q_a q_f	675	1086	706	1137	648	1043	677	1090	631	1016	657	1059	619	997	643	1036	611	984
			F	11.2 +23.6R		11.7 +20.1R		12.1 +17.5R		12.4 +15.5R		12.6 +13.9R		12.8 +12.6R		13 +11.5R		13.2 +10.6R		13.3 +9.8R	
	22 ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4 +39.6R		4.3 +33.9R		4.6 +29.7R		4.8 +26.4R		5 +23.7R		5.1 +21.6R		5.2 +19.8R		5.3 +18.3R		5.4 +17R	
		6"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.1 +39.5R		5.5 +33.8R		5.8 +29.6R		6 +26.3R		6.2 +23.7R		6.3 +21.5R		6.4 +19.7R		6.5 +18.2R		6.6 +16.9R	
		8"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	6.2 +39.3R		6.6 +33.7R		6.9 +29.5R		7.2 +26.2R		7.4 +23.6R		7.5 +21.4R		7.6 +19.6R		7.7 +18.1R		7.8 +16.8R	
		12"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	8.3 +38.9R		8.7 +33.3R		9.1 +29.1R		9.4 +25.9R		9.6 +23.3R		9.8 +21.2R		9.9 +19.4R		10.1 +17.9R		10.2 +16.6R	
		18"	q_a q_f	608	1085	616	992	623	1002	578	930	587	946	595	958	562	904	571	919	578	931
			F	11 +38.3R		11.6 +32.7R		12.1 +28.5R		12.4 +25.3R		12.7 +22.7R		13 +20.6R		13.2 +18.9R		13.4 +17.4R		13.5 +16.2R	
		24"	q_a q_f	525	846	548	883	498	802	520	837	481	774	501	807	469	755	488	785	460	741
			F	13.4 +37.5R		14.1 +32R		14.7 +27.9R		15.2 +24.7R		15.6 +22.1R		15.9 +20R		16.2 +18.3R		16.4 +16.9R		16.6 +15.6R	

3WxH-36 36/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek SDK63 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/6	16 ga	4"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R
		6"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	2.8 +6.9R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R
		8"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +2.9R
		12"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.2 +4.5R	4.3 +4R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R
		18"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	5 +6.5R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.4 +3.9R	5.5 +3.5R	5.5 +3.2R	5.6 +3R	5.6 +2.7R
		24"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	5.9 +6.3R	6.1 +5.3R	6.3 +4.6R	6.4 +4.1R	6.5 +3.7R	6.6 +3.3R	6.7 +3R	6.7 +2.8R	6.8 +2.6R
	18 ga	4"	q_a q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			F	2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.1R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R
		6"	q_a q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			F	3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.8 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R
		8"	q_a q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			F	4 +12.1R	4.2 +10.3R	4.3 +9R	4.4 +8R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R
		12"	q_a q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			F	5 +11.9R	5.2 +10.2R	5.3 +8.9R	5.4 +7.9R	5.5 +7.1R	5.6 +6.4R	5.7 +5.9R	5.7 +5.4R	5.7 +5R
		18"	q_a q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			F	6.4 +11.5R	6.6 +9.8R	6.8 +8.6R	6.9 +7.6R	7.1 +6.8R	7.2 +6.2R	7.3 +5.6R	7.3 +5.2R	7.4 +4.8R
		24"	q_a q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			F	7.5 +11.2R	7.8 +9.5R	8.1 +8.2R	8.3 +7.3R	8.5 +6.5R	8.6 +5.9R	8.7 +5.3R	8.8 +4.9R	8.9 +4.5R
	20 ga	4"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377
			F	3.6 +25R	3.8 +21.4R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R
		6"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377
			F	4.4 +24.9R	4.7 +21.3R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R
		8"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377
			F	5.2 +24.8R	5.5 +21.2R	5.7 +18.5R	5.8 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.3R	6.3 +11.4R	6.3 +10.6R
		12"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377
			F	6.6 +24.4R	6.9 +20.9R	7.2 +18.2R	7.4 +16.2R	7.6 +14.6R	7.7 +13.2R	7.8 +12.1R	7.9 +11.2R	8 +10.4R
		18"	q_a q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377
			F	8.4 +23.9R	8.9 +20.3R	9.2 +17.7R	9.5 +15.7R	9.8 +14.1R	10 +12.8R	10.1 +11.7R	10.3 +10.7R	10.4 +9.9R
		24"	q_a q_f	856 1377	856 1377	805 1296	832 1340	766 1234	793 1277	740 1191	765 1232	721 1160
			F	9.9 +23.3R	10.5 +19.8R	11 +17.2R	11.4 +15.1R	11.7 +13.5R	12 +12.2R	12.2 +11.1R	12.4 +10.2R	12.6 +9.5R
	22 ga	4"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	3.9 +39.5R	4.3 +33.9R	4.5 +29.6R	4.8 +26.3R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R
		6"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	4.9 +39.4R	5.3 +33.7R	5.6 +29.5R	5.9 +26.2R	6.1 +23.6R	6.2 +21.4R	6.4 +19.6R	6.5 +18.1R	6.6 +16.8R
		8"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	5.9 +39.2R	6.4 +33.5R	6.7 +29.3R	7 +26R	7.2 +23.4R	7.3 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R
		12"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	7.7 +38.7R	8.2 +33.1R	8.6 +28.9R	8.9 +25.6R	9.2 +23R	9.4 +20.9R	9.6 +19.2R	9.7 +17.7R	9.9 +16.4R
		18"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	672 1082	678 1085	678 1085
			F	9.8 +38R	10.5 +32.4R	11.1 +28.2R	11.5 +24.9R	11.9 +22.4R	12.2 +20.3R	12.5 +18.5R	12.7 +17.1R	12.9 +15.8R
		24"	q_a q_f	678 1085	678 1085	622 1001	639 1029	585 942	603 971	560 902	578 930	542 872
			F	11.6 +37.2R	12.5 +31.6R	13.2 +27.4R	13.8 +24.2R	14.3 +21.6R	14.7 +19.6R	15 +17.8R	15.3 +16.4R	15.6 +15.1R

3WxH-36 36/6 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip DG4™

4.12 DG3WxH-36 & DG3WxHF-36

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																									
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a q_f	1565	2519	1564	2519	1564	2518	1564	2518	1564	2518	1564	2518	1564	2518	1564	2518	1564	2518
			F	2.4 +7R		2.5 +6R		2.5 +5.3R		2.6 +4.7R		2.6 +4.2R		2.6 +3.8R		2.7 +3.5R		2.7 +3.2R		2.7 +3R	
		6"	q_a q_f	1531	2464	1530	2463	1529	2462	1529	2462	1529	2461	1528	2461	1528	2460	1528	2460	1528	2460
			F	2.9 +7R		2.9 +6R		3 +5.2R		3 +4.7R		3.1 +4.2R		3.1 +3.8R		3.1 +3.5R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	1488	2396	1495	2407	1485	2391	1491	2401	1484	2389	1489	2397	1483	2387	1487	2394	1482	2386
			F	3.3 +7R		3.4 +6R		3.4 +5.2R		3.5 +4.6R		3.5 +4.2R		3.5 +3.8R		3.6 +3.5R		3.6 +3.2R		3.6 +3R	
		12"	q_a q_f	1389	2236	1385	2230	1382	2226	1380	2222	1378	2219	1377	2217	1376	2215	1374	2213	1374	2211
			F	4.2 +6.9R		4.3 +5.9R		4.3 +5.2R		4.4 +4.6R		4.4 +4.1R		4.4 +3.8R		4.5 +3.4R		4.5 +3.2R		4.5 +3R	
		18"	q_a q_f	1236	2236	1258	2026	1274	2051	1217	1959	1236	1990	1251	2013	1207	1943	1223	1969	1236	1990
			F	5.4 +6.8R		5.5 +5.8R		5.6 +5.1R		5.7 +4.5R		5.7 +4R		5.7 +3.7R		5.8 +3.4R		5.8 +3.1R		5.8 +2.9R	
		24"	q_a q_f	1100	1771	1155	1859	1079	1737	1127	1814	1066	1716	1108	1784	1057	1702	1094	1762	1051	1692
			F	6.6 +6.6R		6.7 +5.6R		6.8 +4.9R		6.9 +4.4R		7 +3.9R		7 +3.6R		7.1 +3.3R		7.1 +3R		7.1 +2.8R	
	18 ga	4"	q_a q_f	1276	2054	1276	2054	1276	2054	1275	2054	1275	2053	1275	2053	1275	2053	1275	2053	1275	2053
			F	3 +12.3R		3.1 +10.5R		3.2 +9.2R		3.2 +8.2R		3.3 +7.4R		3.3 +6.7R		3.3 +6.1R		3.4 +5.7R		3.4 +5.3R	
		6"	q_a q_f	1247	2008	1246	2007	1246	2006	1245	2005	1245	2005	1245	2004	1245	2004	1245	2004	1244	2004
			F	3.6 +12.2R		3.7 +10.5R		3.8 +9.2R		3.8 +8.2R		3.9 +7.3R		3.9 +6.7R		4 +6.1R		4 +5.6R		4 +5.2R	
		8"	q_a q_f	1211	1949	1217	1959	1209	1946	1214	1954	1207	1944	1212	1951	1206	1942	1210	1948	1206	1941
			F	4.2 +12.2R		4.3 +10.4R		4.4 +9.1R		4.5 +8.1R		4.5 +7.3R		4.6 +6.6R		4.6 +6.1R		4.6 +5.6R		4.7 +5.2R	
		12"	q_a q_f	1127	1815	1124	1810	1122	1806	1120	1803	1118	1800	1117	1798	1116	1797	1115	1795	1114	1794
			F	5.4 +12.1R		5.5 +10.4R		5.6 +9.1R		5.7 +8R		5.7 +7.2R		5.8 +6.6R		5.8 +6R		5.9 +5.6R		5.9 +5.2R	
		18"	q_a q_f	1000	1815	1018	1640	1031	1660	984	1584	1000	1609	1012	1629	976	1571	989	1592	999	1609
			F	7 +11.9R		7.2 +10.2R		7.3 +8.9R		7.4 +7.9R		7.5 +7.1R		7.6 +6.4R		7.6 +5.9R		7.7 +5.5R		7.7 +5.1R	
		24"	q_a q_f	888	1429	933	1502	870	1401	910	1464	859	1384	894	1439	852	1372	882	1420	846	1363
			F	8.6 +11.6R		8.8 +9.9R		9 +8.7R		9.1 +7.7R		9.2 +6.9R		9.3 +6.3R		9.4 +5.7R		9.4 +5.3R		9.5 +4.9R	
	20 ga	4"	q_a q_f	932	1501	932	1500	932	1500	931	1500	931	1499	931	1499	931	1499	931	1499	931	1499
			F	3.7 +25.1R		3.9 +21.5R		4 +18.8R		4.2 +16.7R		4.3 +15R		4.4 +13.7R		4.4 +12.5R		4.5 +11.6R		4.5 +10.7R	
		6"	q_a q_f	903	1454	902	1453	902	1452	901	1451	901	1451	901	1450	900	1450	900	1449	900	1449
			F	4.6 +25R		4.8 +21.4R		5 +18.8R		5.1 +16.7R		5.2 +15R		5.3 +13.6R		5.4 +12.5R		5.5 +11.5R		5.5 +10.7R	
		8"	q_a q_f	868	1398	874	1406	866	1394	870	1401	864	1391	868	1398	863	1390	867	1395	862	1388
			F	5.5 +24.9R		5.7 +21.4R		5.9 +18.7R		6.1 +16.6R		6.2 +15R		6.3 +13.6R		6.3 +12.5R		6.4 +11.5R		6.5 +10.7R	
		12"	q_a q_f	792	1275	789	1270	786	1266	784	1263	783	1260	781	1258	780	1256	779	1254	778	1253
			F	7.2 +24.8R		7.5 +21.2R		7.7 +18.5R		7.9 +16.5R		8 +14.8R		8.1 +13.5R		8.2 +12.4R		8.3 +11.4R		8.3 +10.6R	
		18"	q_a q_f	685	1275	699	1126	709	1142	670	1079	682	1099	692	1114	662	1066	673	1083	681	1096
			F	9.7 +24.4R		10 +20.9R		10.3 +18.2R		10.5 +16.2R		10.6 +14.6R		10.8 +13.2R		10.9 +12.1R		11 +11.2R		11.1 +10.4R	
		24"	q_a q_f	599	964	632	1017	583	939	612	986	574	923	599	964	567	913	589	949	562	905
			F	11.9 +23.9R		12.3 +20.4R		12.7 +17.8R		12.9 +15.8R		13.1 +14.2R		13.3 +12.9R		13.5 +11.8R		13.6 +10.9R		13.7 +10.1R	
	22 ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4 +39.6R		4.4 +34R		4.6 +29.7R		4.8 +26.4R		5 +23.8R		5.1 +21.6R		5.2 +19.8R		5.3 +18.3R		5.4 +17R	
		6"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.2 +39.5R		5.6 +33.9R		5.9 +29.6R		6.1 +26.4R		6.2 +23.7R		6.4 +21.6R		6.5 +19.8R		6.6 +18.2R		6.7 +16.9R	
		8"	q_a q_f	665	1071	670	1078	663	1067	667	1073	661	1064	665	1070	660	1062	663	1068	659	1061
			F	6.4 +39.4R		6.8 +33.8R		7 +29.6R		7.3 +26.3R		7.5 +23.6R		7.6 +21.5R		7.7 +19.7R		7.8 +18.2R		7.9 +16.9R	
		12"	q_a q_f	598	963	595	958	593	954	591	951	589	948	588	946	587	944	586	943	585	942
			F	8.6 +39.1R		9 +33.5R		9.4 +29.3R		9.6 +26R		9.8 +23.4R		10 +21.3R		10.1 +19.5R		10.2 +18R		10.3 +16.7R	
		18"	q_a q_f	509	963	520	838	528	850	496	798	505	813	513	825	489	787	497	800	503	810
			F	11.7 +38.6R		12.2 +33R		12.6 +28.8R		12.9 +25.6R		13.2 +23R		13.4 +20.9R		13.6 +19.2R		13.7 +17.7R		13.9 +16.4R	
		24"	q_a q_f	441	710	466	750	428	688	450	724	419	675	438	706	413	665	431	693	409	659
			F	14.5 +37.9R		15.1 +32.4R		15.6 +28.3R		16 +25.1R		16.4 +22.5R		16.6 +20.4R		16.9 +18.7R		17.1 +17.2R		17.2 +16R	

3WxH-36 36/3 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																									
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/4	16 ga	4"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			F	2.4 +7R		2.5 +6R		2.5 +5.2R		2.6 +4.7R		2.6 +4.2R		2.6 +3.8R		2.6 +3.5R		2.7 +3.2R		2.7 +3R	
		6"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			F	2.9 +7R		2.9 +6R		3 +5.2R		3 +4.6R		3.1 +4.2R		3.1 +3.8R		3.1 +3.5R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			F	3.3 +6.9R		3.4 +5.9R		3.4 +5.2R		3.5 +4.6R		3.5 +4.2R		3.5 +3.8R		3.5 +3.5R		3.6 +3.2R		3.6 +3R	
		12"	q_a q_f	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			F	4.1 +6.8R		4.2 +5.9R		4.3 +5.1R		4.3 +4.6R		4.4 +4.1R		4.4 +3.7R		4.4 +3.4R		4.4 +3.2R		4.5 +2.9R	
		18"	q_a q_f	1497	2568	1522	2451	1540	2480	1451	2337	1475	2375	1494	2405	1427	2297	1448	2331	1465	2359
			F	5.3 +6.7R		5.4 +5.7R		5.5 +5R		5.6 +4.4R		5.6 +4R		5.7 +3.6R		5.7 +3.3R		5.7 +3.1R		5.8 +2.8R	
		24"	q_a q_f	1315	2118	1377	2217	1269	2043	1326	2135	1240	1996	1291	2079	1220	1964	1266	2038	1205	1941
			F	6.4 +6.5R		6.5 +5.5R		6.6 +4.8R		6.7 +4.3R		6.8 +3.8R		6.9 +3.5R		6.9 +3.2R		7 +2.9R		7 +2.7R	
	18 ga	4"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			F	2.9 +12.2R		3.1 +10.5R		3.1 +9.2R		3.2 +8.2R		3.3 +7.3R		3.3 +6.7R		3.3 +6.1R		3.4 +5.7R		3.4 +5.2R	
		6"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			F	3.5 +12.2R		3.7 +10.5R		3.8 +9.2R		3.8 +8.1R		3.9 +7.3R		3.9 +6.7R		4 +6.1R		4 +5.6R		4 +5.2R	
		8"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			F	4.1 +12.2R		4.3 +10.4R		4.4 +9.1R		4.4 +8.1R		4.5 +7.3R		4.5 +6.6R		4.6 +6.1R		4.6 +5.6R		4.6 +5.2R	
		12"	q_a q_f	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			F	5.2 +12R		5.4 +10.3R		5.5 +9R		5.6 +8R		5.7 +7.2R		5.7 +6.5R		5.8 +6R		5.8 +5.5R		5.9 +5.1R	
		18"	q_a q_f	1210	2096	1230	1980	1244	2004	1171	1885	1190	1917	1206	1941	1150	1852	1168	1880	1182	1903
			F	6.8 +11.7R		7 +10R		7.1 +8.8R		7.3 +7.8R		7.4 +7R		7.4 +6.3R		7.5 +5.8R		7.6 +5.4R		7.6 +5R	
		24"	q_a q_f	1061	1708	1111	1789	1022	1646	1068	1720	998	1607	1040	1674	981	1580	1019	1640	969	1561
			F	8.2 +11.4R		8.5 +9.7R		8.7 +8.5R		8.8 +7.5R		9 +6.7R		9.1 +6.1R		9.2 +5.6R		9.2 +5.1R		9.3 +4.8R	
	20 ga	4"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	3.6 +25.1R		3.9 +21.5R		4 +18.8R		4.2 +16.7R		4.3 +15R		4.3 +13.7R		4.4 +12.5R		4.5 +11.6R		4.5 +10.7R	
		6"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	4.5 +25R		4.8 +21.4R		4.9 +18.7R		5.1 +16.6R		5.2 +15R		5.3 +13.6R		5.4 +12.5R		5.4 +11.5R		5.5 +10.7R	
		8"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	5.4 +24.9R		5.6 +21.3R		5.8 +18.6R		6 +16.6R		6.1 +14.9R		6.2 +13.6R		6.3 +12.4R		6.4 +11.5R		6.4 +10.6R	
		12"	q_a q_f	952	1522	952	1522	952	1522	952	1522	947	1522	944	1519	940	1514	938	1510	935	1506
			F	7 +24.6R		7.3 +21.1R		7.5 +18.4R		7.7 +16.4R		7.9 +14.7R		8 +13.4R		8.1 +12.3R		8.2 +11.3R		8.2 +10.5R	
		18"	q_a q_f	822	1522	835	1344	844	1359	787	1268	801	1289	811	1306	769	1238	781	1258	791	1274
			F	9.2 +24.1R		9.6 +20.6R		9.9 +18R		10.1 +16R		10.3 +14.4R		10.5 +13R		10.6 +11.9R		10.7 +11R		10.8 +10.2R	
		24"	q_a q_f	714	1149	747	1202	681	1097	712	1147	661	1064	689	1109	647	1041	672	1082	636	1025
			F	11.2 +23.6R		11.7 +20.1R		12.1 +17.5R		12.4 +15.5R		12.6 +13.9R		12.8 +12.6R		13 +11.5R		13.2 +10.6R		13.3 +9.8R	
	22 ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4 +39.6R		4.3 +33.9R		4.6 +29.7R		4.8 +26.4R		5 +23.7R		5.1 +21.6R		5.2 +19.8R		5.3 +18.3R		5.4 +17R	
		6"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.1 +39.5R		5.5 +33.8R		5.8 +29.6R		6 +26.3R		6.2 +23.7R		6.3 +21.5R		6.4 +19.7R		6.5 +18.2R		6.6 +16.9R	
		8"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	6.2 +39.3R		6.6 +33.7R		6.9 +29.5R		7.2 +26.2R		7.4 +23.6R		7.5 +21.4R		7.6 +19.6R		7.7 +18.1R		7.8 +16.8R	
		12"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	8.3 +38.9R		8.7 +33.3R		9.1 +29.1R		9.4 +25.9R		9.6 +23.3R		9.8 +21.2R		9.9 +19.4R		10.1 +17.9R		10.2 +16.6R	
		18"	q_a q_f	609	1085	617	994	624	1004	578	931	588	947	596	959	562	906	571	920	579	932
			F	11 +38.3R		11.6 +32.7R		12.1 +28.5R		12.4 +25.3R		12.7 +22.7R		13 +20.6R		13.2 +18.9R		13.4 +17.4R		13.5 +16.2R	
		24"	q_a q_f	526	847	549	885	499	803	521	839	481	775	502	808	470	756	488	786	461	742
			F	13.4 +37.5R		14.1 +32R		14.7 +27.9R		15.2 +24.7R		15.6 +22.1R		15.9 +20R		16.2 +18.3R		16.4 +16.9R		16.6 +15.6R	

3WxH-36 36/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

4.12 DG3WxH-36 & DG3WxHF-36

Pneutek K64 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/6	16 ga	4"	q_a 1595 q_f 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	
			F 2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R	
		6"	q_a 1595 q_f 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	
			F 2.8 +6.9R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R	
		8"	q_a 1595 q_f 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	
			F 3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +2.9R	
		12"	q_a 1595 q_f 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	
			F 4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.2 +4.5R	4.3 +4R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R	
		18"	q_a 1595 q_f 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	
			F 5 +6.5R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.4 +3.9R	5.5 +3.5R	5.5 +3.2R	5.6 +3R	5.6 +2.7R	
		24"	q_a 1595 q_f 2568	1595 2568	1577 2539	1595 2568	1509 2429	1564 2518	1462 2353	1513 2436	1427 2298	
			F 5.9 +6.3R	6.1 +5.3R	6.3 +4.6R	6.4 +4.1R	6.5 +3.7R	6.6 +3.3R	6.7 +3R	6.7 +2.8R	6.8 +2.6R	
	18 ga	4"	q_a 1302 q_f 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	
			F 2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.1R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R	
		6"	q_a 1302 q_f 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	
			F 3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.8 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R	
		8"	q_a 1302 q_f 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	
			F 4 +12.1R	4.2 +10.3R	4.3 +9R	4.4 +8R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R	
		12"	q_a 1302 q_f 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	
			F 5 +11.9R	5.2 +10.2R	5.3 +8.9R	5.4 +7.9R	5.5 +7.1R	5.6 +6.4R	5.7 +5.9R	5.7 +5.4R	5.7 +5R	
		18"	q_a 1302 q_f 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	
			F 6.4 +11.5R	6.6 +9.8R	6.8 +8.6R	6.9 +7.6R	7.1 +6.8R	7.2 +6.2R	7.3 +5.6R	7.3 +5.2R	7.4 +4.8R	
		24"	q_a 1302 q_f 2096	1302 2096	1270 2045	1302 2096	1214 1954	1258 2025	1175 1892	1216 1958	1146 1846	
			F 7.5 +11.2R	7.8 +9.5R	8.1 +8.2R	8.3 +7.3R	8.5 +6.5R	8.6 +5.9R	8.7 +5.3R	8.8 +4.9R	8.9 +4.5R	
	20 ga	4"	q_a 952 q_f 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	
			F 3.6 +25R	3.8 +21.4R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R	
		6"	q_a 952 q_f 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	
			F 4.4 +24.9R	4.7 +21.3R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R	
		8"	q_a 952 q_f 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	
			F 5.2 +24.8R	5.5 +21.2R	5.7 +18.5R	5.8 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.3R	6.3 +11.4R	6.3 +10.6R	
		12"	q_a 952 q_f 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	
			F 6.6 +24.4R	6.9 +20.9R	7.2 +18.2R	7.4 +16.2R	7.6 +14.6R	7.7 +13.2R	7.8 +12.1R	7.9 +11.2R	8 +10.4R	
		18"	q_a 952 q_f 1522	952 1522	952 1522	952 1522	952 1522	952 1522	925 1489	936 1507	946 1522	
			F 8.4 +23.9R	8.9 +20.3R	9.2 +17.7R	9.5 +15.7R	9.8 +14.1R	10 +12.8R	10.1 +11.7R	10.3 +10.7R	10.4 +9.9R	
		24"	q_a 919 q_f 1480	941 1515	848 1365	874 1407	803 1292	829 1335	772 1242	797 1283	749 1206	
			F 9.9 +23.3R	10.5 +19.8R	11 +17.2R	11.4 +15.1R	11.7 +13.5R	12 +12.2R	12.2 +11.1R	12.4 +10.2R	12.6 +9.5R	
	22 ga	4"	q_a 678 q_f 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F 3.9 +39.5R	4.3 +33.9R	4.5 +29.6R	4.8 +26.3R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R	
		6"	q_a 678 q_f 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F 4.9 +39.4R	5.3 +33.7R	5.6 +29.5R	5.9 +26.2R	6.1 +23.6R	6.2 +21.4R	6.4 +19.6R	6.5 +18.1R	6.6 +16.8R	
		8"	q_a 678 q_f 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F 5.9 +39.2R	6.4 +33.5R	6.7 +29.3R	7 +26R	7.2 +23.4R	7.3 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R	
		12"	q_a 678 q_f 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	
			F 7.7 +38.7R	8.2 +33.1R	8.6 +28.9R	8.9 +25.6R	9.2 +23R	9.4 +20.9R	9.6 +19.2R	9.7 +17.7R	9.9 +16.4R	
		18"	q_a 678 q_f 1085	678 1085	678 1085	678 1085	678 1085	678 1085	673 1084	678 1085	678 1085	
			F 9.8 +38R	10.5 +32.4R	11.1 +28.2R	11.5 +24.9R	11.9 +22.4R	12.2 +20.3R	12.5 +18.5R	12.7 +17.1R	12.9 +15.8R	
		24"	q_a 678 q_f 1085	678 1085	623 1003	640 1030	586 944	604 972	561 903	578 931	543 874	
			F 11.6 +37.2R	12.5 +31.6R	13.2 +27.4R	13.8 +24.2R	14.3 +21.6R	14.7 +19.6R	15 +17.8R	15.3 +16.4R	15.6 +15.1R	

3WxH-36 36/6 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip DG4™

ASC Steel Deck®

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/3	16 ga	4"	q_a q_f	1731	2787	1730	2786	1730	2786	1730	2785	1730	2785	1730	2785	1730	2785	1729	2784	1729	2784
			F	2.4 +7R		2.5 +6R		2.5 +5.3R		2.6 +4.7R		2.6 +4.2R		2.6 +3.8R		2.7 +3.5R		2.7 +3.2R		2.7 +3R	
		6"	q_a q_f	1685	2714	1684	2712	1684	2711	1683	2710	1683	2709	1682	2708	1682	2708	1682	2707	1681	2707
			F	2.9 +7R		2.9 +6R		3 +5.2R		3 +4.7R		3.1 +4.2R		3.1 +3.8R		3.1 +3.5R		3.1 +3.2R		3.1 +3R	
		8"	q_a q_f	1630	2624	1639	2638	1626	2618	1634	2630	1624	2614	1630	2625	1622	2612	1628	2621	1621	2610
			F	3.3 +7R		3.4 +6R		3.4 +5.2R		3.5 +4.6R		3.5 +4.2R		3.5 +3.8R		3.6 +3.5R		3.6 +3.2R		3.6 +3R	
		12"	q_a q_f	1504	2422	1499	2414	1495	2408	1492	2403	1490	2399	1488	2395	1486	2393	1485	2390	1483	2388
			F	4.2 +6.9R		4.3 +5.9R		4.3 +5.2R		4.4 +4.6R		4.4 +4.1R		4.4 +3.8R		4.5 +3.4R		4.5 +3.2R		4.5 +3R	
		18"	q_a q_f	1320	2422	1346	2166	1364	2195	1295	2085	1317	2121	1334	2148	1283	2065	1301	2095	1316	2119
			F	5.4 +6.8R		5.5 +5.8R		5.6 +5.1R		5.7 +4.5R		5.7 +4R		5.7 +3.7R		5.8 +3.4R		5.8 +3.1R		5.8 +2.9R	
		24"	q_a q_f	1163	1873	1225	1972	1137	1831	1191	1917	1121	1805	1168	1880	1110	1787	1151	1854	1102	1774
			F	6.6 +6.6R		6.7 +5.6R		6.8 +4.9R		6.9 +4.4R		7 +3.9R		7 +3.6R		7.1 +3.3R		7.1 +3R		7.1 +2.8R	
	18 ga	4"	q_a q_f	1332	2144	1332	2144	1332	2144	1331	2144	1331	2143	1331	2143	1331	2143	1331	2143	1331	2143
			F	3 +12.3R		3.1 +10.5R		3.2 +9.2R		3.2 +8.2R		3.3 +7.4R		3.3 +6.7R		3.3 +6.1R		3.4 +5.7R		3.4 +5.3R	
		6"	q_a q_f	1299	2092	1298	2090	1298	2090	1297	2089	1297	2088	1297	2088	1297	2088	1296	2087	1296	2087
			F	3.6 +12.2R		3.7 +10.5R		3.8 +9.2R		3.8 +8.2R		3.9 +7.3R		3.9 +6.7R		4 +6.1R		4 +5.6R		4 +5.2R	
		8"	q_a q_f	1259	2026	1265	2037	1256	2022	1262	2031	1255	2020	1259	2027	1253	2018	1258	2025	1253	2017
			F	4.2 +12.2R		4.3 +10.4R		4.4 +9.1R		4.5 +8.1R		4.5 +7.3R		4.6 +6.6R		4.6 +6.1R		4.6 +5.6R		4.7 +5.2R	
		12"	q_a q_f	1166	1878	1163	1872	1160	1868	1158	1864	1156	1861	1155	1859	1153	1857	1152	1855	1151	1854
			F	5.4 +12.1R		5.5 +10.4R		5.6 +9.1R		5.7 +8R		5.7 +7.2R		5.8 +6.6R		5.8 +6R		5.9 +5.6R		5.9 +5.2R	
		18"	q_a q_f	1028	1878	1048	1687	1062	1709	1010	1627	1027	1654	1040	1674	1001	1612	1015	1634	1027	1653
			F	7 +11.9R		7.2 +10.2R		7.3 +8.9R		7.4 +7.9R		7.5 +7.1R		7.6 +6.4R		7.6 +5.9R		7.7 +5.5R		7.7 +5.1R	
		24"	q_a q_f	909	1464	957	1540	890	1433	931	1499	878	1414	914	1472	870	1400	902	1452	864	1391
			F	8.6 +11.6R		8.8 +9.9R		9 +8.7R		9.1 +7.7R		9.2 +6.9R		9.3 +6.3R		9.4 +5.7R		9.4 +5.3R		9.5 +4.9R	
	20 ga	4"	q_a q_f	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	3.7 +25.1R		3.9 +21.5R		4 +18.8R		4.2 +16.7R		4.3 +15R		4.4 +13.7R		4.4 +12.5R		4.5 +11.6R		4.5 +10.7R	
		6"	q_a q_f	922	1485	921	1483	921	1482	920	1482	920	1481	920	1481	919	1480	919	1480	919	1479
			F	4.6 +25R		4.8 +21.4R		5 +18.8R		5.1 +16.7R		5.2 +15R		5.3 +13.6R		5.4 +12.5R		5.5 +11.5R		5.5 +10.7R	
		8"	q_a q_f	885	1425	891	1434	883	1421	887	1429	881	1418	885	1425	880	1416	883	1422	879	1415
			F	5.5 +24.9R		5.7 +21.4R		5.9 +18.7R		6.1 +16.6R		6.2 +15R		6.3 +13.6R		6.3 +12.5R		6.4 +11.5R		6.5 +10.7R	
		12"	q_a q_f	805	1297	802	1291	799	1287	797	1283	795	1280	794	1278	793	1276	792	1274	791	1273
			F	7.2 +24.8R		7.5 +21.2R		7.7 +18.5R		7.9 +16.5R		8 +14.8R		8.1 +13.5R		8.2 +12.4R		8.3 +11.4R		8.3 +10.6R	
		18"	q_a q_f	695	1297	709	1142	719	1158	679	1093	691	1113	701	1128	670	1079	681	1096	690	1110
			F	9.7 +24.4R		10 +20.9R		10.3 +18.2R		10.5 +16.2R		10.6 +14.6R		10.8 +13.2R		10.9 +12.1R		11 +11.2R		11.1 +10.4R	
		24"	q_a q_f	606	976	639	1029	590	949	619	996	579	933	605	974	572	921	595	958	567	913
			F	11.9 +23.9R		12.3 +20.4R		12.7 +17.8R		12.9 +15.8R		13.1 +14.2R		13.3 +12.9R		13.5 +11.8R		13.6 +10.9R		13.7 +10.1R	
	22 ga	4"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	4 +39.6R		4.4 +34R		4.6 +29.7R		4.8 +26.4R		5 +23.8R		5.1 +21.6R		5.2 +19.8R		5.3 +18.3R		5.4 +17R	
		6"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	5.2 +39.5R		5.6 +33.9R		5.9 +29.6R		6.1 +26.4R		6.2 +23.7R		6.4 +21.6R		6.5 +19.8R		6.6 +18.2R		6.7 +16.9R	
		8"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	6.4 +39.4R		6.8 +33.8R		7 +29.6R		7.3 +26.3R		7.5 +23.6R		7.6 +21.5R		7.7 +19.7R		7.8 +18.2R		7.9 +16.9R	
		12"	q_a q_f	624	1005	620	999	617	994	615	990	613	987	612	985	610	983	609	981	608	979
			F	8.6 +39.1R		9 +33.5R		9.4 +29.3R		9.6 +26R		9.8 +23.4R		10 +21.3R		10.1 +19.5R		10.2 +18R		10.3 +16.7R	
		18"	q_a q_f	527	1005	538	867	546	880	511	823	521	840	529	852	503	810	512	824	519	835
			F	11.7 +38.6R		12.2 +33R		12.6 +28.8R		12.9 +25.6R		13.2 +23R		13.4 +20.9R		13.6 +19.2R		13.7 +17.7R		13.9 +16.4R	
		24"	q_a q_f	455	732	480	773	439	707	462	744	430	692	450	724	423	681	441	710	418	674
			F	14.5 +37.9R		15.1 +32.4R		15.6 +28.3R		16 +25.1R		16.4 +22.5R		16.6 +20.4R		16.9 +18.7R		17.1 +17.2R		17.2 +16R	

3WxH-36 36/3 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

4.12 DG3WxH-36 & DG3WxHF-36

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	
36/4	16 ga	4"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R
		6"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	2.9 +7R	2.9 +6R	3 +5.2R	3 +4.6R	3.1 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R
		8"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	3.3 +6.9R	3.4 +5.9R	3.4 +5.2R	3.5 +4.6R	3.5 +4.2R	3.5 +3.8R	3.5 +3.5R	3.6 +3.2R	3.6 +3R
		12"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	4.1 +6.8R	4.2 +5.9R	4.3 +5.1R	4.3 +4.6R	4.4 +4.1R	4.4 +3.7R	4.4 +3.4R	4.4 +3.2R	4.5 +2.9R
		18"	q_a q_f	1590 2853	1616 2602	1635 2632	1532 2467	1558 2509	1579 2541	1502 2417	1525 2455	1544 2486
			F	5.3 +6.7R	5.4 +5.7R	5.5 +5R	5.6 +4.4R	5.6 +4R	5.7 +3.6R	5.7 +3.3R	5.7 +3.1R	5.8 +2.8R
		24"	q_a q_f	1388 2234	1453 2339	1332 2144	1392 2241	1296 2087	1351 2175	1272 2048	1322 2128	1255 2020
			F	6.4 +6.5R	6.5 +5.5R	6.6 +4.8R	6.7 +4.3R	6.8 +3.8R	6.9 +3.5R	6.9 +3.2R	7 +2.9R	7 +2.7R
	18 ga	4"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	2.9 +12.2R	3.1 +10.5R	3.1 +9.2R	3.2 +8.2R	3.3 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.7R	3.4 +5.2R
		6"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	3.5 +12.2R	3.7 +10.5R	3.8 +9.2R	3.8 +8.1R	3.9 +7.3R	3.9 +6.7R	4 +6.1R	4 +5.6R	4 +5.2R
		8"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	4.1 +12.2R	4.3 +10.4R	4.4 +9.1R	4.4 +8.1R	4.5 +7.3R	4.5 +6.6R	4.6 +6.1R	4.6 +5.6R	4.6 +5.2R
		12"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	5.2 +12R	5.4 +10.3R	5.5 +9R	5.6 +8R	5.7 +7.2R	5.7 +6.5R	5.8 +6R	5.8 +5.5R	5.9 +5.1R
		18"	q_a q_f	1241 2192	1262 2031	1276 2055	1199 1930	1219 1962	1234 1987	1176 1893	1194 1922	1209 1946
			F	6.8 +11.7R	7 +10R	7.1 +8.8R	7.3 +7.8R	7.4 +7R	7.4 +6.3R	7.5 +5.8R	7.6 +5.4R	7.6 +5R
		24"	q_a q_f	1085 1748	1137 1830	1044 1680	1091 1756	1017 1638	1060 1706	999 1609	1038 1671	986 1587
			F	8.2 +11.4R	8.5 +9.7R	8.7 +8.5R	8.8 +7.5R	9 +6.7R	9.1 +6.1R	9.2 +5.6R	9.2 +5.1R	9.3 +4.8R
	20 ga	4"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	3.6 +25.1R	3.9 +21.5R	4 +18.8R	4.2 +16.7R	4.3 +15R	4.3 +13.7R	4.4 +12.5R	4.5 +11.6R	4.5 +10.7R
		6"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	4.5 +25R	4.8 +21.4R	4.9 +18.7R	5.1 +16.6R	5.2 +15R	5.3 +13.6R	5.4 +12.5R	5.4 +11.5R	5.5 +10.7R
		8"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	5.4 +24.9R	5.6 +21.3R	5.8 +18.6R	6 +16.6R	6.1 +14.9R	6.2 +13.6R	6.3 +12.4R	6.4 +11.5R	6.4 +10.6R
		12"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	950 1522	948 1522
			F	7 +24.6R	7.3 +21.1R	7.5 +18.4R	7.7 +16.4R	7.9 +14.7R	8 +13.4R	8.1 +12.3R	8.2 +11.3R	8.2 +10.5R
		18"	q_a q_f	832 1522	845 1361	855 1376	796 1282	810 1303	820 1321	777 1251	789 1270	799 1287
			F	9.2 +24.1R	9.6 +20.6R	9.9 +18R	10.1 +16R	10.3 +14.4R	10.5 +13R	10.6 +11.9R	10.7 +11R	10.8 +10.2R
		24"	q_a q_f	722 1163	755 1216	688 1108	719 1158	667 1074	695 1119	652 1050	678 1091	641 1033
			F	11.2 +23.6R	11.7 +20.1R	12.1 +17.5R	12.4 +15.5R	12.6 +13.9R	12.8 +12.6R	13 +11.5R	13.2 +10.6R	13.3 +9.8R
	22 ga	4"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	4 +39.6R	4.3 +33.9R	4.6 +29.7R	4.8 +26.4R	5 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.3R	5.4 +17R
		6"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	5.1 +39.5R	5.5 +33.8R	5.8 +29.6R	6 +26.3R	6.2 +23.7R	6.3 +21.5R	6.4 +19.7R	6.5 +18.2R	6.6 +16.9R
		8"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	6.2 +39.3R	6.6 +33.7R	6.9 +29.5R	7.2 +26.2R	7.4 +23.6R	7.5 +21.4R	7.6 +19.6R	7.7 +18.1R	7.8 +16.8R
		12"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	8.3 +38.9R	8.7 +33.3R	9.1 +29.1R	9.4 +25.9R	9.6 +23.3R	9.8 +21.2R	9.9 +19.4R	10.1 +17.9R	10.2 +16.6R
		18"	q_a q_f	629 1085	637 1026	643 1036	595 958	605 974	613 986	577 929	586 944	594 956
			F	11 +38.3R	11.6 +32.7R	12.1 +28.5R	12.4 +25.3R	12.7 +22.7R	13 +20.6R	13.2 +18.9R	13.4 +17.4R	13.5 +16.2R
		24"	q_a q_f	543 874	566 911	512 825	535 861	493 794	514 827	480 773	499 803	471 758
			F	13.4 +37.5R	14.1 +32R	14.7 +27.9R	15.2 +24.7R	15.6 +22.1R	15.9 +20R	16.2 +18.3R	16.4 +16.9R	16.6 +15.6R

3WxH-36 36/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

ASC STEEL DECK®

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek K66 Fasteners to Supports with DeltaGrip® DG4™ Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

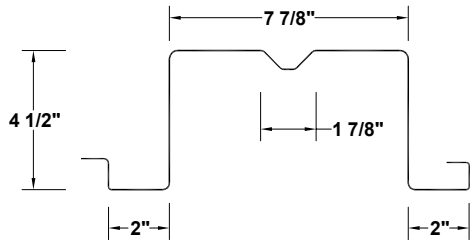
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/6	16 ga	4"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	2.4 +7R	2.5 +6R	2.5 +5.2R	2.6 +4.7R	2.6 +4.2R	2.6 +3.8R	2.6 +3.5R	2.7 +3.2R	2.7 +3R
		6"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	2.8 +6.9R	2.9 +6R	3 +5.2R	3 +4.6R	3 +4.2R	3.1 +3.8R	3.1 +3.5R	3.1 +3.2R	3.1 +3R
		8"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	3.2 +6.9R	3.3 +5.9R	3.4 +5.2R	3.4 +4.6R	3.5 +4.1R	3.5 +3.8R	3.5 +3.4R	3.5 +3.2R	3.6 +2.9R
		12"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	4 +6.8R	4.1 +5.8R	4.2 +5.1R	4.2 +4.5R	4.3 +4R	4.3 +3.7R	4.4 +3.4R	4.4 +3.1R	4.4 +2.9R
		18"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853
			F	5 +6.5R	5.2 +5.6R	5.3 +4.9R	5.4 +4.3R	5.4 +3.9R	5.5 +3.5R	5.5 +3.2R	5.6 +3R	5.6 +2.7R
		24"	q_a q_f	1772 2853	1772 2853	1654 2664	1710 2754	1575 2535	1630 2624	1520 2447	1572 2530	1480 2382
			F	5.9 +6.3R	6.1 +5.3R	6.3 +4.6R	6.4 +4.1R	6.5 +3.7R	6.6 +3.3R	6.7 +3R	6.7 +2.8R	6.8 +2.6R
	18 ga	4"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	2.9 +12.2R	3 +10.5R	3.1 +9.2R	3.2 +8.1R	3.2 +7.3R	3.3 +6.7R	3.3 +6.1R	3.4 +5.6R	3.4 +5.2R
		6"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	3.5 +12.2R	3.6 +10.4R	3.7 +9.1R	3.8 +8.1R	3.8 +7.3R	3.9 +6.6R	3.9 +6.1R	4 +5.6R	4 +5.2R
		8"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	4 +12.1R	4.2 +10.3R	4.3 +9R	4.4 +8R	4.4 +7.2R	4.5 +6.6R	4.5 +6R	4.6 +5.6R	4.6 +5.2R
		12"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	5 +11.9R	5.2 +10.2R	5.3 +8.9R	5.4 +7.9R	5.5 +7.1R	5.6 +6.4R	5.7 +5.9R	5.7 +5.4R	5.7 +5R
		18"	q_a q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192
			F	6.4 +11.5R	6.6 +9.8R	6.8 +8.6R	6.9 +7.6R	7.1 +6.8R	7.2 +6.2R	7.3 +5.6R	7.3 +5.2R	7.4 +4.8R
		24"	q_a q_f	1362 2192	1362 2192	1296 2087	1341 2160	1236 1990	1280 2061	1194 1923	1236 1990	1164 1874
			F	7.5 +11.2R	7.8 +9.5R	8.1 +8.2R	8.3 +7.3R	8.5 +6.5R	8.6 +5.9R	8.7 +5.3R	8.8 +4.9R	8.9 +4.5R
	20 ga	4"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	3.6 +25R	3.8 +21.4R	4 +18.8R	4.1 +16.7R	4.2 +15R	4.3 +13.6R	4.4 +12.5R	4.5 +11.5R	4.5 +10.7R
		6"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	4.4 +24.9R	4.7 +21.3R	4.9 +18.7R	5 +16.6R	5.1 +14.9R	5.2 +13.6R	5.3 +12.4R	5.4 +11.5R	5.4 +10.7R
		8"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	5.2 +24.8R	5.5 +21.2R	5.7 +18.5R	5.8 +16.5R	6 +14.8R	6.1 +13.5R	6.2 +12.3R	6.3 +11.4R	6.3 +10.6R
		12"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			F	6.6 +24.4R	6.9 +20.9R	7.2 +18.2R	7.4 +16.2R	7.6 +14.6R	7.7 +13.2R	7.8 +12.1R	7.9 +11.2R	8 +10.4R
		18"	q_a q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	933 1502	944 1520	952 1522
			F	8.4 +23.9R	8.9 +20.3R	9.2 +17.7R	9.5 +15.7R	9.8 +14.1R	10 +12.8R	10.1 +11.7R	10.3 +10.7R	10.4 +9.9R
		24"	q_a q_f	930 1498	952 1522	857 1379	883 1421	810 1304	837 1347	778 1253	804 1294	755 1215
			F	9.9 +23.3R	10.5 +19.8R	11 +17.2R	11.4 +15.1R	11.7 +13.5R	12 +12.2R	12.2 +11.1R	12.4 +10.2R	12.6 +9.5R
	22 ga	4"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	3.9 +39.5R	4.3 +33.9R	4.5 +29.6R	4.8 +26.3R	4.9 +23.7R	5.1 +21.6R	5.2 +19.8R	5.3 +18.2R	5.4 +16.9R
		6"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	4.9 +39.4R	5.3 +33.7R	5.6 +29.5R	5.9 +26.2R	6.1 +23.6R	6.2 +21.4R	6.4 +19.6R	6.5 +18.1R	6.6 +16.8R
		8"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	5.9 +39.2R	6.4 +33.5R	6.7 +29.3R	7 +26R	7.2 +23.4R	7.3 +21.3R	7.5 +19.5R	7.6 +18R	7.7 +16.7R
		12"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	7.7 +38.7R	8.2 +33.1R	8.6 +28.9R	8.9 +25.6R	9.2 +23R	9.4 +20.9R	9.6 +19.2R	9.7 +17.7R	9.9 +16.4R
		18"	q_a q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			F	9.8 +38R	10.5 +32.4R	11.1 +28.2R	11.5 +24.9R	11.9 +22.4R	12.2 +20.3R	12.5 +18.5R	12.7 +17.1R	12.9 +15.8R
		24"	q_a q_f	678 1085	678 1085	642 1033	658 1059	602 969	619 997	574 925	591 952	554 893
			F	11.6 +37.2R	12.5 +31.6R	13.2 +27.4R	13.8 +24.2R	14.3 +21.6R	14.7 +19.6R	15 +17.8R	15.3 +16.4R	15.6 +15.1R

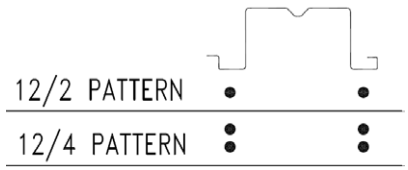
3WxH-36 36/6 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip DG4™

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

5.1 4.5D-12
Deep Deck





Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20	2.98	0.0359	50	65	0.868	2.817	2.40	1.174	1.802
18	3.95	0.0478	50	65	1.154	3.727	2.40	1.553	1.797
16	4.93	0.0598	50	65	1.442	4.634	2.40	1.931	1.792
14	6.17	0.0750	50	65	1.807	5.767	2.40	2.403	1.787

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.735	0.897	2.04	0.992	2.56	2.439	2.742	2.565	2.767
18	1.030	1.361	2.16	1.471	2.45	3.495	3.716	3.572	3.720
16	1.344	1.873	2.26	1.914	2.41	4.580	4.634	4.598	4.634
14	1.774	2.386	2.36	2.403	2.40	5.767	5.767	5.767	5.767

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	463	572	727	923	709	876	1112	1412
	Interior	788	942	1161	1439	1172	1402	1727	2140
18	End	808	986	1238	1595	1235	1508	1895	2441
	Interior	1380	1630	1983	2483	2052	2424	2950	3694
16	End	1243	1503	1871	2392	1902	2300	2863	3660
	Interior	2132	2495	3007	3731	3172	3711	4473	5551
14	End	1918	2298	2834	3592	2935	3515	4336	5496
	Interior	3307	3832	4574	5623	4919	5700	6804	8365
Constants		h = 4"		r = 0.25"		θ = 90°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20	Single Span	f_b/Ω	179	124	91	70	55	45	37	29	20
		Φf_b	269	187	137	105	83	67	56	43	30
		L/360	112	65	41	27	19	14	11	7	4
		L/240	168	97	61	41	29	21	16	11	6
		L/180	224	130	82	55	38	28	21	14	8
		L/120	336	195	123	82	58	42	32	22	12
	Double Span	f_b/Ω	198	138	101	77	61	-	-	-	-
		Φf_b	298	207	152	116	92	-	-	-	-
		L/360	291	169	106	71	50	-	-	-	-
		L/240	437	253	159	107	75	-	-	-	-
		L/180	583	337	212	142	100	-	-	-	-
		L/120	874	506	318	213	150	-	-	-	-
	Triple Span	f_b/Ω	248	172	-	-	-	-	-	-	-
		Φf_b	372	258	-	-	-	-	-	-	-
		L/360	228	132	-	-	-	-	-	-	-
		L/240	342	198	-	-	-	-	-	-	-
		L/180	456	264	-	-	-	-	-	-	-
		L/120	685	396	-	-	-	-	-	-	-
18	Single Span	f_b/Ω	272	189	139	106	84	68	56	43	30
		Φf_b	408	283	208	159	126	102	84	65	45
		L/360	156	90	57	38	27	20	15	10	6
		L/240	234	136	85	57	40	29	22	15	9
		L/180	312	181	114	76	54	39	29	20	12
		L/120	468	271	171	114	80	59	44	30	17
	Double Span	f_b/Ω	294	204	150	115	91	-	-	-	-
		Φf_b	441	307	225	172	136	-	-	-	-
		L/360	392	227	143	96	67	-	-	-	-
		L/240	587	340	214	143	101	-	-	-	-
		L/180	783	453	285	191	134	-	-	-	-
		L/120	1175	680	428	287	201	-	-	-	-
	Triple Span	f_b/Ω	367	255	-	-	-	-	-	-	-
		Φf_b	552	383	-	-	-	-	-	-	-
		L/360	307	178	-	-	-	-	-	-	-
		L/240	460	266	-	-	-	-	-	-	-
		L/180	614	355	-	-	-	-	-	-	-
		L/120	920	533	-	-	-	-	-	-	-
16	Single Span	f_b/Ω	374	260	191	146	115	93	77	60	42
		Φf_b	562	390	287	219	173	140	116	90	62
		L/360	201	116	73	49	34	25	19	13	7
		L/240	301	174	110	74	52	38	28	19	11
		L/180	402	233	146	98	69	50	38	26	15
		L/120	603	349	220	147	103	75	57	39	22
	Double Span	f_b/Ω	382	265	195	149	118	-	-	-	-
		Φf_b	574	399	293	224	177	-	-	-	-
		L/360	488	282	178	119	84	-	-	-	-
		L/240	732	423	267	179	125	-	-	-	-
		L/180	976	565	356	238	167	-	-	-	-
		L/120	1464	847	533	357	251	-	-	-	-
	Triple Span	f_b/Ω	478	332	-	-	-	-	-	-	-
		Φf_b	718	498	-	-	-	-	-	-	-
		L/360	382	221	-	-	-	-	-	-	-
		L/240	573	332	-	-	-	-	-	-	-
		L/180	764	442	-	-	-	-	-	-	-
		L/120	1147	664	-	-	-	-	-	-	-
14	Single Span	f_b/Ω	476	331	243	186	147	119	98	76	53
		Φf_b	716	497	365	280	221	179	148	115	80
		L/360	252	146	92	62	43	32	24	16	9
		L/240	378	219	138	92	65	47	36	24	14
		L/180	504	292	184	123	86	63	47	32	19
		L/120	756	438	276	185	130	95	71	48	28
	Double Span	f_b/Ω	480	333	245	187	148	-	-	-	-
		Φf_b	721	501	368	282	223	-	-	-	-
		L/360	607	351	221	148	104	-	-	-	-
		L/240	911	527	332	222	156	-	-	-	-
		L/180	1214	703	443	296	208	-	-	-	-
		L/120	1821	1054	664	445	312	-	-	-	-
	Triple Span	f_b/Ω	600	416	-	-	-	-	-	-	-
		Φf_b	901	626	-	-	-	-	-	-	-
		L/360	476	275	-	-	-	-	-	-	-
		L/240	713	413	-	-	-	-	-	-	-
		L/180	951	550	-	-	-	-	-	-	-
		L/120	1427	826	-	-	-	-	-	-	-

5.1 4.5D-12
Deep Deck

Allowable Wind Uplift Loads

4.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	78	61	50
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	138	101	78	61	50
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	78	61	50
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	138	101	78	61	50
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	77	62
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	127	97	77	62
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

4.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	78	61	50
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	310	198	138	101	78	61	50
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	138	101	78	61	50
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	551	310	198	138	101	78	61	50
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	101	78	61	50
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	78	61	50
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	310	198	138	101	78	61	50
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	138	101	78	61	50
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	551	310	198	138	101	78	61	50
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	101	78	61	50
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	62
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	248	172	127	97	77	62
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	97	77	62
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	388	248	172	127	97	77	62
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	77	62

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

Allowable Wind Uplift Loads

4.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	74
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	204	150	115	91	74
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	74
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	204	150	115	91	74
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	144	114	92
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

4.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	91	74
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	294	204	150	115	91	74
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	91	74
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	817	460	294	204	150	115	91	74
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	74
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	91	74
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	294	204	150	115	91	74
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	91	74
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	817	460	294	204	150	115	91	74
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	74
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	255	188	144	114	92
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	575	368	255	188	144	114	92
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

5.1 4.5D-12
Deep Deck

Allowable Wind Uplift Loads

4.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	266	195	150	118	96
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	266	195	150	118	96
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	187	148	120
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

4.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	96
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	266	195	150	118	96
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1063	598	383	266	195	150	118	96
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	96
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	266	195	150	118	96
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1063	598	383	266	195	150	118	96
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	244	187	148	120
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	748	479	332	244	187	148	120
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

Allowable Wind Uplift Loads

4.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	188	148	120
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	188	148	120
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	150
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

4.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	245	188	148	120
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	751	481	334	245	188	148	120
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	245	188	148	120
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	751	481	334	245	188	148	120
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	185	150
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	601	417	307	235	185	150
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

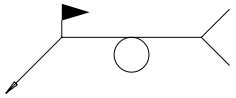
Notes:

1) Deck uplift table evaluates for the allowable bending stress of the panel and the allowable fastener capacity.
2) Overall fastener capacities based on a minimum of: Fastener tensile capacity, Fastener pullout from substrate, and Deck pullover from fastener head.
3) ITW Buildex TEKS fastener capacities per ICC-ES ESR1976 compliance report utilizing a min. substrate Fu=45ksi.
4) Simpson XL fastener capacities per IAPMO-UES ER326 compliance report utilizing a min. substrate Fu=50ksi.
5) Hilti X-HSN 24 and X-ENP-19 pin capacities per ICC-ES ESR-2197 compliance report utilizing a min substrate Fu=58ksi.
6) Spot weld tensile capacities evaluated per AISI S100, Sec.J2.2.3 with a minimum effective weld diameter of 1/2".
7) Shaded values represent conditions where panel capacity governs vs. fastener capacity.

5.1 4.5D-12

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

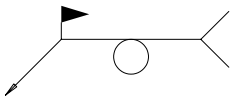
Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2779	4446
			F	2 +19R		2.2 +15.9R		2.3 +13.6R		2.4 +11.9R		2.5 +10.6R		2.5 +9.5R		2.6 +8.7R		2.6 +7.9R		2.7 +7.3R	
		6"	q_a q_f	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2779	4446
			F	2.6 +19R		2.8 +15.9R		2.9 +13.6R		3.1 +11.9R		3.1 +10.6R		3.2 +9.5R		3.3 +8.6R		3.3 +7.9R		3.3 +7.3R	
		8"	q_a q_f	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2779	4446
			F	3.2 +19R		3.4 +15.8R		3.6 +13.6R		3.7 +11.9R		3.8 +10.6R		3.9 +9.5R		3.9 +8.6R		4 +7.9R		4 +7.3R	
		12"	q_a q_f	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2779	4446
			F	4.5 +18.9R		4.7 +15.8R		4.9 +13.5R		5 +11.8R		5.1 +10.5R		5.1 +9.5R		5.2 +8.6R		5.2 +7.9R		5.3 +7.3R	
		18"	q_a q_f	2384	3933	2262	3733	2361	3896	2273	3750	2203	3635	2279	3760	2221	3665	2173	3585	2234	3686
			F	6 +18.8R		6.5 +15.6R		6.3 +13.4R		6.7 +11.7R		6.9 +10.4R		6.8 +9.4R		7 +8.5R		7.2 +7.8R		7 +7.2R	
		24"	q_a q_f	1842	3039	1803	2975	1775	2929	1754	2895	1738	2868	1725	2846	1714	2828	1705	2813	1698	2801
			F	8 +18.6R		8.3 +15.4R		8.5 +13.2R		8.7 +11.6R		8.8 +10.3R		8.9 +9.2R		9 +8.4R		9 +7.7R		9.1 +7.1R	
	16 ga	4"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077
			F	1.7 +33.6R		2.1 +28R		2.3 +24R		2.5 +21R		2.6 +18.6R		2.7 +16.8R		2.8 +15.3R		2.9 +14R		3 +12.9R	
		6"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077
			F	2.4 +33.5R		2.8 +27.9R		3 +24R		3.2 +21R		3.3 +18.6R		3.5 +16.8R		3.6 +15.2R		3.6 +14R		3.7 +12.9R	
		8"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077
			F	3.1 +33.5R		3.5 +27.9R		3.7 +23.9R		3.9 +20.9R		4.1 +18.6R		4.2 +16.8R		4.3 +15.2R		4.4 +14R		4.4 +12.9R	
		12"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077
			F	4.5 +33.4R		4.9 +27.8R		5.2 +23.9R		5.4 +20.9R		5.5 +18.6R		5.6 +16.7R		5.7 +15.2R		5.8 +13.9R		5.9 +12.9R	
		18"	q_a q_f	1809	2986	1713	2826	1787	2948	1717	2833	1662	2743	1720	2838	1675	2763	1637	2700	1683	2777
			F	6.3 +33.3R		7 +27.7R		6.8 +23.8R		7.3 +20.8R		7.6 +18.5R		7.4 +16.6R		7.7 +15.1R		7.9 +13.8R		7.8 +12.8R	
		24"	q_a q_f	1395	2302	1362	2248	1339	2209	1321	2180	1308	2158	1297	2139	1288	2125	1280	2112	1274	2102
			F	8.5 +33R		8.9 +27.5R		9.3 +23.6R		9.5 +20.6R		9.7 +18.3R		9.8 +16.5R		9.9 +15R		10.1 +13.7R		10.1 +12.7R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	1 +58.8R		1.5 +49R		2 +42R		2.3 +36.7R		2.5 +32.6R		2.7 +29.4R		2.9 +26.7R		3 +24.5R		3.1 +22.6R	
		6"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	1.8 +58.7R		2.3 +49R		2.8 +42R		3.1 +36.7R		3.3 +32.6R		3.5 +29.4R		3.7 +26.7R		3.8 +24.5R		3.9 +22.6R	
		8"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	2.5 +58.7R		3.1 +48.9R		3.6 +41.9R		3.9 +36.7R		4.1 +32.6R		4.3 +29.4R		4.5 +26.7R		4.6 +24.5R		4.8 +22.6R	
		12"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	4.1 +58.6R		4.7 +48.8R		5.2 +41.9R		5.5 +36.6R		5.8 +32.6R		6 +29.3R		6.1 +26.6R		6.3 +24.4R		6.4 +22.5R	
		18"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1246	2029	1268	2029	1255	2029	1226	2022	1261	2029
			F	6 +58.4R		7 +48.7R		7 +41.7R		7.6 +36.5R		8.1 +32.4R		8 +29.2R		8.4 +26.5R		8.7 +24.3R		8.5 +22.5R	
		24"	q_a q_f	1049	1730	1023	1688	1004	1657	990	1634	979	1616	971	1601	963	1590	957	1580	952	1571
			F	8.5 +58.2R		9.2 +48.4R		9.7 +41.5R		10.1 +36.3R		10.4 +32.3R		10.7 +29R		10.8 +26.4R		11 +24.2R		11.1 +22.3R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	-1.5 +120.2R		-0.3 +100.2R		0.5 +85.9R		1.2 +75.1R		1.7 +66.8R		2.1 +60.1R		2.4 +54.7R		2.7 +50.1R		2.9 +46.2R	
		6"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	-0.6 +120.2R		0.6 +100.2R		1.5 +85.9R		2.1 +75.1R		2.6 +66.8R		3 +60.1R		3.3 +54.6R		3.6 +50.1R		3.9 +46.2R	
		8"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	0.3 +120.2R		1.5 +100.1R		2.4 +85.8R		3 +75.1R		3.5 +66.8R		4 +60.1R		4.3 +54.6R		4.6 +50.1R		4.8 +46.2R	
		12"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	2.1 +120.1R		3.3 +100R		4.2 +85.7R		4.9 +75R		5.4 +66.7R		5.8 +60R		6.1 +54.6R		6.4 +50R		6.7 +46.2R	
		18"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	4.3 +119.9R		6 +99.8R		6.4 +85.6R		7.3 +74.9R		8.1 +66.5R		8.2 +59.9R		8.7 +54.5R		9.2 +49.9R		9.1 +46.1R	
		24"	q_a q_f	694	1144	679	1120	668	1102	660	1089	654	1079	649	1071	645	1064	641	1058	638	1053
			F	7.2 +119.5R		8.5 +99.6R		9.5 +85.3R		10.2 +74.7R		10.8 +66.4R		11.2 +59.7R		11.6 +54.3R		11.9 +49.8R		12.2 +45.9R	

4.5D-12 12/2 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC Steel Deck®



4.5D-12 5.1

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2779 4446
			F	2 +19R	2.1 +15.9R	2.3 +13.6R	2.4 +11.9R	2.5 +10.6R	2.5 +9.5R	2.6 +8.6R	2.6 +7.9R	2.7 +7.3R
		6"	q_a q_f	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2779 4446
			F	2.6 +19R	2.8 +15.8R	2.9 +13.6R	3 +11.9R	3.1 +10.5R	3.2 +9.5R	3.2 +8.6R	3.3 +7.9R	3.3 +7.3R
		8"	q_a q_f	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2779 4446
			F	3.2 +18.9R	3.4 +15.8R	3.5 +13.5R	3.7 +11.8R	3.7 +10.5R	3.8 +9.5R	3.9 +8.6R	3.9 +7.9R	4 +7.3R
		12"	q_a q_f	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2779 4446
			F	4.3 +18.8R	4.6 +15.7R	4.7 +13.4R	4.9 +11.7R	5 +10.4R	5.1 +9.4R	5.1 +8.5R	5.2 +7.8R	5.2 +7.2R
		18"	q_a q_f	2797 4614	2611 4308	2698 4452	2570 4241	2470 4076	2546 4201	2466 4070	2400 3960	2464 4065
			F	5.8 +18.6R	6.3 +15.4R	6.1 +13.3R	6.5 +11.6R	6.8 +10.3R	6.6 +9.3R	6.8 +8.4R	7 +7.7R	6.9 +7.1R
		24"	q_a q_f	2152 3552	2072 3419	2014 3324	1971 3252	1938 3197	1911 3153	1889 3116	1870 3086	1854 3059
			F	7.5 +18.2R	7.9 +15.2R	8.1 +13R	8.3 +11.3R	8.5 +10R	8.6 +9R	8.7 +8.2R	8.8 +7.5R	8.9 +6.9R
	16 ga	4"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077
			F	1.7 +33.5R	2 +28R	2.3 +24R	2.5 +21R	2.6 +18.6R	2.7 +16.8R	2.8 +15.2R	2.9 +14R	3 +12.9R
		6"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077
			F	2.4 +33.5R	2.7 +27.9R	3 +23.9R	3.2 +20.9R	3.3 +18.6R	3.4 +16.7R	3.5 +15.2R	3.6 +14R	3.7 +12.9R
		8"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077
			F	3.1 +33.4R	3.4 +27.9R	3.7 +23.9R	3.9 +20.9R	4 +18.6R	4.1 +16.7R	4.2 +15.2R	4.3 +13.9R	4.4 +12.9R
		12"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077
			F	4.4 +33.3R	4.8 +27.7R	5 +23.8R	5.2 +20.8R	5.4 +18.5R	5.5 +16.6R	5.6 +15.1R	5.7 +13.9R	5.8 +12.8R
		18"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1859 3067	1913 3077	1852 3055	1800 2970	1847 3047
			F	6 +33.1R	6.7 +27.5R	6.6 +23.6R	7 +20.6R	7.4 +18.3R	7.3 +16.5R	7.6 +15R	7.8 +13.7R	7.7 +12.7R
		24"	q_a q_f	1632 2693	1566 2584	1519 2506	1483 2447	1456 2402	1434 2365	1415 2336	1400 2311	1388 2290
			F	7.9 +32.7R	8.4 +27.2R	8.8 +23.3R	9.1 +20.3R	9.3 +18R	9.5 +16.2R	9.6 +14.7R	9.8 +13.5R	9.9 +12.5R
	18 ga	4"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	0.9 +58.7R	1.5 +49R	1.9 +42R	2.3 +36.7R	2.5 +32.6R	2.7 +29.4R	2.9 +26.7R	3 +24.5R	3.1 +22.6R
		6"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	1.7 +58.7R	2.3 +48.9R	2.7 +41.9R	3.1 +36.7R	3.3 +32.6R	3.5 +29.3R	3.7 +26.7R	3.8 +24.5R	3.9 +22.6R
		8"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	2.5 +58.6R	3.1 +48.9R	3.5 +41.9R	3.8 +36.6R	4.1 +32.6R	4.3 +29.3R	4.5 +26.6R	4.6 +24.4R	4.7 +22.5R
		12"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	3.9 +58.5R	4.6 +48.7R	5 +41.8R	5.4 +36.5R	5.6 +32.5R	5.9 +29.2R	6 +26.6R	6.2 +24.3R	6.3 +22.5R
		18"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	5.7 +58.2R	6.7 +48.4R	6.8 +41.5R	7.4 +36.3R	7.9 +32.2R	7.8 +29R	8.2 +26.4R	8.5 +24.2R	8.4 +22.3R
		24"	q_a q_f	1229 2027	1177 1942	1140 1880	1112 1834	1090 1799	1073 1770	1059 1747	1047 1727	1037 1711
			F	7.9 +57.8R	8.7 +48.1R	9.2 +41.2R	9.7 +36R	10 +32R	10.3 +28.8R	10.5 +26.1R	10.7 +23.9R	10.9 +22.1R
	20 ga	4"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	-1.6 +120.2R	-0.4 +100.2R	0.5 +85.9R	1.2 +75.1R	1.7 +66.8R	2.1 +60.1R	2.4 +54.6R	2.7 +50.1R	2.9 +46.2R
		6"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	-0.7 +120.2R	0.6 +100.1R	1.4 +85.8R	2.1 +75.1R	2.6 +66.8R	3 +60.1R	3.3 +54.6R	3.6 +50.1R	3.8 +46.2R
		8"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	0.2 +120.1R	1.4 +100.1R	2.3 +85.8R	3 +75R	3.5 +66.7R	3.9 +60R	4.2 +54.6R	4.5 +50R	4.8 +46.2R
		12"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	1.9 +119.9R	3.2 +99.9R	4.1 +85.6R	4.7 +74.9R	5.3 +66.6R	5.7 +59.9R	6 +54.5R	6.3 +49.9R	6.6 +46.1R
		18"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	3.9 +119.6R	5.6 +99.6R	6.1 +85.4R	7.1 +74.7R	7.8 +66.3R	7.9 +59.7R	8.5 +54.3R	9 +49.7R	9 +45.9R
		24"	q_a q_f	741 1185	741 1185	741 1185	741 1185	729 1185	718 1185	710 1172	703 1160	697 1150
			F	6.4 +119.1R	7.9 +99.2R	8.9 +85R	9.7 +74.3R	10.3 +66R	10.8 +59.4R	11.2 +54R	11.5 +49.5R	11.8 +45.7R

4.5D-12 12/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

5.1 4.5D-12

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)													
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1979	3186	1975	3179	1972	3175	1970	3171	1968	3168	1966	3166	1935	3115	1774	2856	1637	2636
			F	9.7 +44.9R		10.2 +37.4R		10.6 +32.1R		10.8 +28.1R		11 +25R		11.2 +22.5R		11.3 +20.4R		11.5 +18.7R		11.6 +17.3R	
		6"	q_a q_f	1659	2672	1652	2659	1646	2650	1642	2643	1639	2638	1636	2634	1634	2630	1632	2627	1630	2625
			F	13.6 +44.6R		14.2 +37.2R		14.6 +31.9R		14.8 +27.9R		15.1 +24.8R		15.3 +22.3R		15.4 +20.3R		15.5 +18.6R		15.6 +17.2R	
		8"	q_a q_f	1405	2262	1394	2245	1387	2233	1381	2223	1376	2216	1373	2210	1370	2205	1367	2201	1365	2198
			F	17.4 +44.3R		18 +36.9R		18.4 +31.6R		18.8 +27.6R		19 +24.6R		19.2 +22.1R		19.4 +20.1R		19.6 +18.4R		19.7 +17R	
		12"	q_a q_f	1062	1710	1048	1687	1038	1671	1030	1659	1024	1649	1020	1642	1016	1635	1013	1630	1010	1626
			F	24.6 +43.3R		25.4 +36.1R		26 +30.9R		26.4 +27R		26.8 +24R		27 +21.5R		27.3 +19.6R		27.4 +17.9R		27.6 +16.5R	
		18"	q_a q_f	810	1304	764	1229	795	1281	762	1227	736	1186	762	1226	740	1192	723	1164	743	1197
			F	33.2 +41.8R		35.8 +34.4R		34.6 +29.7R		36.4 +25.8R		37.8 +22.7R		36.7 +20.6R		37.9 +18.6R		38.9 +16.9R		37.9 +15.7R	
		24"	q_a q_f	620	998	605	974	594	957	585	942	578	930	572	921	567	913	563	907	560	902
			F	43.8 +39.5R		45.5 +32.5R		46.7 +27.6R		47.6 +24R		48.4 +21.2R		49 +18.9R		49.5 +17.1R		49.9 +15.6R		50.3 +14.4R	
	16 ga	4"	q_a q_f	1513	2436	1509	2429	1506	2425	1504	2421	1502	2419	1501	2416	1500	2415	1414	2277	1306	2102
			F	9.7 +79.3R		10.6 +66.1R		11.2 +56.6R		11.6 +49.6R		12 +44R		12.3 +39.6R		12.5 +36R		12.7 +33R		12.8 +30.5R	
		6"	q_a q_f	1244	2003	1237	1991	1232	1983	1228	1977	1225	1972	1222	1968	1221	1965	1219	1962	1217	1960
			F	14.1 +79R		15 +65.8R		15.6 +56.4R		16.1 +49.3R		16.5 +43.9R		16.8 +39.5R		17 +35.9R		17.2 +32.9R		17.4 +30.4R	
		8"	q_a q_f	1041	1675	1031	1660	1025	1650	1020	1642	1016	1635	1013	1630	1010	1626	1008	1622	1006	1620
			F	18.3 +78.6R		19.3 +65.5R		20 +56.1R		20.5 +49.1R		20.9 +43.6R		21.3 +39.2R		21.5 +35.7R		21.8 +32.7R		21.9 +30.2R	
		12"	q_a q_f	778	1253	766	1234	758	1220	752	1210	747	1202	743	1196	739	1190	737	1186	734	1182
			F	26.4 +77.5R		27.6 +64.5R		28.4 +55.3R		29.1 +48.3R		29.6 +42.9R		30 +38.6R		30.3 +35.1R		30.6 +32.2R		30.8 +29.7R	
		18"	q_a q_f	591	952	556	895	578	931	553	891	534	860	552	888	536	863	523	841	537	865
			F	36.1 +75.8R		39.2 +62.7R		38.1 +54R		40.2 +47R		42 +41.5R		40.8 +37.5R		42.2 +34R		43.4 +31R		42.3 +28.8R	
		24"	q_a q_f	449	723	437	704	429	690	422	680	418	672	414	666	410	660	407	655	404	651
			F	47.9 +73.2R		50 +60.6R		51.6 +51.6R		52.8 +44.9R		53.8 +39.8R		54.6 +35.7R		55.2 +32.4R		55.7 +29.6R		56.2 +27.3R	
	18 ga	4"	q_a q_f	1154	1858	1150	1852	1147	1847	1145	1844	1144	1841	1142	1839	1141	1837	1131	1820	1044	1680
			F	8.6 +139R		10 +115.8R		11.1 +99.3R		11.8 +86.9R		12.4 +77.2R		12.9 +69.5R		13.3 +63.2R		13.6 +57.9R		13.9 +53.5R	
		6"	q_a q_f	931	1499	924	1488	920	1481	916	1475	914	1471	912	1468	910	1465	908	1462	907	1460
			F	13.5 +138.6R		15 +115.5R		16.1 +99R		16.9 +86.6R		17.5 +77R		18 +69.3R		18.4 +63R		18.7 +57.7R		19 +53.3R	
		8"	q_a q_f	770	1240	762	1228	757	1218	752	1211	749	1206	746	1201	744	1198	742	1195	740	1192
			F	18.2 +138.2R		19.8 +115.1R		20.9 +98.7R		21.8 +86.3R		22.4 +76.7R		23 +69R		23.4 +62.8R		23.8 +57.5R		24.1 +53.1R	
		12"	q_a q_f	571	920	561	904	554	893	549	884	545	877	542	872	539	868	537	864	535	861
			F	27.2 +137R		29 +114.1R		30.4 +97.7R		31.3 +85.5R		32.1 +76R		32.7 +68.3R		33.2 +62.1R		33.7 +56.9R		34 +52.5R	
		18"	q_a q_f	433	698	406	654	422	679	403	649	388	625	401	646	389	626	379	610	390	627
			F	38 +135.1R		42.1 +112.1R		41.1 +96.3R		43.8 +84R		46 +74.4R		44.8 +67.1R		46.5 +60.9R		48 +55.7R		46.9 +51.5R	
		24"	q_a q_f	327	526	317	511	311	500	306	492	302	486	299	481	296	477	294	473	292	470
			F	51.3 +132.2R		54.2 +109.6R		56.3 +93.6R		57.9 +81.7R		59.2 +72.5R		60.2 +65.1R		61.1 +59.1R		61.8 +54.1R		62.4 +49.8R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	3.7 +284.6R		6.6 +237.2R		8.6 +203.3R		10.2 +177.9R		11.4 +158.1R		12.4 +142.3R		13.2 +129.4R		13.8 +118.6R		14.4 +109.5R	
		6"	q_a q_f	638	1028	633	1019	629	1013	626	1008	624	1004	622	1001	620	999	619	997	618	995
			F	9.3 +284.2R		12.3 +236.8R		14.4 +203R		16 +177.6R		17.2 +157.9R		18.2 +142.1R		19 +129.2R		19.7 +118.4R		20.3 +109.3R	
		8"	q_a q_f	522	841	516	830	511	823	508	817	505	813	502	809	501	806	499	804	498	802
			F	14.8 +283.7R		17.8 +236.4R		20 +202.6R		21.7 +177.2R		23 +157.5R		24 +141.8R		24.8 +128.9R		25.5 +118.1R		26.1 +109R	
		12"	q_a q_f	384	619	377	606	371	597	367	591	364	585	361	581	359	578	357	575	356	572
			F	25.2 +282.3R		28.5 +235.2R		30.9 +201.5R		32.7 +176.3R		34.1 +156.7R		35.2 +141R		36.2 +128.1R		36.9 +117.4R		37.6 +108.4R	
		18"	q_a q_f	289	465	270	435	282	454	268	432	258	416	266	429	258	416	251	405	258	416
			F	37.7 +280.1R		43.5 +232.8R		43.4 +199.9R		47.1 +174.5R		50.1 +154.9R		49.2 +139.6R		51.5 +126.7R		53.5 +116R		52.4 +107.2R	
		24"	q_a q_f	218	352	211	340	206	332	202	326	200	321	197	317	195	314	194	312	192	310
			F	52.9 +276.7R		57.5 +230R		60.8 +196.8R		63.4 +171.9R		65.4 +152.6R		67 +137.2R		68.3 +124.6R		69.4 +114.1R		70.4 +105.3R	

4.5D-12 12/2 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

4.5D-12 5.1

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2810	4525	2789	4490	2774	4466	2746	4421	2441	3930	2197	3537	1997	3215	1831	2948	1690	2721
			F	9.5 +44.7R		10 +37.3R		10.4 +31.9R		10.7 +27.9R		10.9 +24.8R		11.1 +22.3R		11.2 +20.3R		11.3 +18.6R		11.5 +17.2R	
		6"	q_a q_f	2125	3421	2097	3376	2076	3343	2061	3319	2049	3299	2040	3284	1997	3215	1831	2948	1690	2721
			F	13.1 +44.3R		13.7 +36.8R		14.2 +31.6R		14.5 +27.6R		14.8 +24.5R		15 +22.1R		15.1 +20.1R		15.3 +18.4R		15.4 +17R	
		8"	q_a q_f	1709	2752	1678	2701	1655	2665	1638	2638	1625	2616	1614	2599	1606	2585	1598	2573	1592	2563
			F	16.5 +43.7R		17.2 +36.3R		17.8 +31.1R		18.2 +27.2R		18.5 +24.1R		18.7 +21.7R		19 +19.7R		19.1 +18.1R		19.3 +16.7R	
		12"	q_a q_f	1249	2010	1214	1955	1189	1915	1171	1885	1156	1861	1145	1843	1135	1827	1127	1815	1120	1804
			F	22.7 +42.3R		23.7 +35.1R		24.5 +29.9R		25.1 +26.1R		25.6 +23.1R		26 +20.8R		26.3 +18.8R		26.5 +17.2R		26.8 +15.9R	
		18"	q_a q_f	947	1524	878	1413	904	1455	857	1380	821	1322	845	1361	817	1315	793	1277	812	1307
			F	29.7 +40.4R		32.4 +32.9R		31.9 +28.3R		33.8 +24.3R		35.3 +21.2R		34.6 +19.2R		35.8 +17.3R		36.9 +15.6R		36.2 +14.5R	
		24"	q_a q_f	734	1182	700	1128	676	1089	658	1060	644	1037	633	1019	624	1004	616	992	609	981
			F	37.6 +37.6R		39.9 +30.5R		41.7 +25.5R		43.1 +21.9R		44.2 +19.1R		45.1 +16.9R		45.9 +15.1R		46.6 +13.7R		47.2 +12.5R	
	16 ga	4"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1752	2820	1592	2564	1460	2350	1347	2169
			F	9.5 +79.1R		10.3 +65.9R		11 +56.5R		11.4 +49.4R		11.8 +43.9R		12.1 +39.5R		12.4 +35.9R		12.6 +32.9R		12.7 +30.4R	
		6"	q_a q_f	1557	2507	1533	2469	1516	2442	1504	2421	1494	2405	1486	2392	1479	2381	1460	2350	1347	2169
			F	13.5 +78.6R		14.5 +65.4R		15.2 +56.1R		15.7 +49R		16.1 +43.6R		16.5 +39.2R		16.7 +35.6R		17 +32.7R		17.2 +30.1R	
		8"	q_a q_f	1249	2010	1223	1969	1204	1939	1190	1916	1179	1898	1170	1884	1163	1873	1157	1863	1152	1855
			F	17.3 +77.9R		18.4 +64.8R		19.2 +55.5R		19.8 +48.5R		20.3 +43.1R		20.7 +38.8R		21 +35.3R		21.3 +32.3R		21.5 +29.8R	
		12"	q_a q_f	913	1469	885	1424	865	1392	850	1368	838	1349	828	1334	821	1321	814	1311	809	1302
			F	24.2 +76.4R		25.7 +63.4R		26.8 +54.2R		27.6 +47.3R		28.2 +42R		28.8 +37.7R		29.2 +34.3R		29.6 +31.4R		29.9 +28.9R	
		18"	q_a q_f	691	1113	639	1029	656	1056	621	1000	594	957	611	983	589	949	572	921	586	944
			F	32.1 +74.2R		35.4 +61R		35.1 +52.4R		37.3 +45.3R		39.2 +39.9R		38.4 +36R		39.9 +32.5R		41.2 +29.6R		40.4 +27.4R	
		24"	q_a q_f	540	870	513	826	494	795	479	772	468	754	459	739	452	727	446	718	441	709
			F	41 +71.1R		43.9 +58.3R		46 +49.3R		47.7 +42.6R		49.1 +37.5R		50.3 +33.4R		51.2 +30.1R		52 +27.4R		52.7 +25.1R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1167	1879	1077	1734
			F	8.3 +138.7R		9.8 +115.6R		10.8 +99.1R		11.6 +86.7R		12.3 +77.1R		12.8 +69.3R		13.2 +63R		13.5 +57.8R		13.8 +53.3R	
		6"	q_a q_f	1143	1840	1123	1809	1109	1786	1099	1769	1090	1755	1084	1745	1078	1736	1074	1728	1070	1722
			F	12.8 +138.2R		14.4 +115.1R		15.6 +98.6R		16.4 +86.3R		17.1 +76.7R		17.6 +69R		18.1 +62.7R		18.4 +57.5R		18.8 +53.1R	
		8"	q_a q_f	915	1473	894	1439	878	1414	867	1396	858	1381	851	1370	845	1360	840	1352	836	1346
			F	17 +137.4R		18.8 +114.4R		20.1 +98R		21 +85.7R		21.8 +76.2R		22.4 +68.5R		22.8 +62.3R		23.3 +57.1R		23.6 +52.7R	
		12"	q_a q_f	670	1079	648	1042	631	1016	619	997	610	981	602	969	596	959	591	951	586	944
			F	24.8 +135.7R		27 +112.9R		28.5 +96.6R		29.7 +84.4R		30.6 +74.9R		31.4 +67.4R		32 +61.2R		32.5 +56.1R		33 +51.7R	
		18"	q_a q_f	508	818	468	754	479	771	453	729	432	696	443	713	427	688	414	667	424	683
			F	33.6 +133.3R		37.8 +110.1R		37.8 +94.5R		40.6 +82.1R		42.9 +72.6R		42.2 +65.5R		44 +59.2R		45.5 +54R		44.8 +50R	
		24"	q_a q_f	400	644	378	609	363	584	351	565	342	551	335	539	329	530	324	522	320	515
			F	43.6 +129.9R		47.3 +107.1R		50.1 +91R		52.2 +79.1R		54 +69.8R		55.4 +62.5R		56.6 +56.5R		57.6 +51.6R		58.5 +47.4R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	3.3 +284.3R		6.3 +236.9R		8.4 +203.1R		10 +177.7R		11.2 +157.9R		12.2 +142.1R		13 +129.2R		13.7 +118.4R		14.2 +109.3R	
		6"	q_a q_f	741	1185	741	1185	741	1185	734	1182	727	1171	722	1163	718	1156	714	1150	711	1145
			F	8.5 +283.6R		11.6 +236.3R		13.8 +202.5R		15.5 +177.2R		16.8 +157.5R		17.8 +141.7R		18.7 +128.8R		19.4 +118.1R		20 +109R	
		8"	q_a q_f	615	990	599	964	587	945	578	931	571	919	566	910	561	903	557	897	554	892
			F	13.4 +282.8R		16.7 +235.6R		19 +201.8R		20.8 +176.6R		22.2 +156.9R		23.3 +141.2R		24.2 +128.3R		24.9 +117.6R		25.6 +108.6R	
		12"	q_a q_f	449	723	433	697	421	678	413	664	406	653	401	645	396	637	392	631	389	625
			F	22.4 +280.8R		26.1 +233.7R		28.8 +200.2R		30.8 +175R		32.4 +155.5R		33.7 +139.8R		34.7 +127.1R		35.6 +116.4R		36.4 +107.4R	
		18"	q_a q_f	343	553	316	508	321	516	303	487	289	465	295	475	284	457	275	443	281	452
			F	32.5 +278R		38.6 +230.6R		39.5 +197.8R		43.3 +172.4R		46.5 +152.7R		46.2 +137.7R		48.6 +124.8R		50.7 +114.1R		50 +105.5R	
		24"	q_a q_f	273	440	257	414	245	395	237	381	230	370	225	362	220	354	216	348	213	343
			F	44 +274.1R		49.5 +227.1R		53.6 +193.8R		56.8 +168.9R		59.4 +149.6R		61.4 +134.2R		63.1 +121.7R		64.6 +111.3R		65.8 +102.5R	

4.5D-12 12/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

5.1 4.5D-12

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2284	3677	2276	3665	2271	3656	2266	3649	2263	3644	2260	3639	2258	3636	2251	3624	2078	3345
			F	10.1 +46.7R		10.6 +38.9R		11 +33.4R		11.3 +29.2R		11.5 +25.9R		11.7 +23.4R		11.8 +21.2R		11.9 +19.5R		12 +18R	
		6"	q_a q_f	1839	2960	1826	2939	1817	2925	1810	2913	1804	2905	1800	2898	1796	2892	1793	2887	1791	2883
			F	14.1 +46.4R		14.7 +38.7R		15.1 +33.1R		15.4 +29R		15.7 +25.8R		15.9 +23.2R		16 +21.1R		16.1 +19.3R		16.3 +17.8R	
		8"	q_a q_f	1520	2447	1504	2422	1492	2403	1484	2389	1477	2378	1471	2369	1467	2362	1463	2356	1460	2350
			F	18.1 +46R		18.7 +38.3R		19.2 +32.8R		19.5 +28.7R		19.8 +25.5R		20 +23R		20.2 +20.9R		20.3 +19.1R		20.4 +17.7R	
		12"	q_a q_f	1126	1813	1107	1782	1092	1759	1082	1742	1074	1728	1067	1718	1062	1709	1057	1702	1053	1696
			F	25.5 +45R		26.3 +37.4R		27 +32R		27.4 +28R		27.8 +24.9R		28.1 +22.4R		28.3 +20.3R		28.5 +18.6R		28.7 +17.2R	
		18"	q_a q_f	854	1375	801	1289	831	1338	794	1278	765	1231	790	1271	766	1233	746	1202	767	1235
			F	34.4 +43.4R		37.1 +35.7R		35.8 +30.8R		37.7 +26.7R		39.2 +23.5R		38.1 +21.3R		39.3 +19.3R		40.4 +17.5R		39.3 +16.3R	
		24"	q_a q_f	644	1037	625	1006	612	985	602	969	594	956	588	946	582	938	578	931	575	925
			F	45.2 +40.9R		47 +33.7R		48.3 +28.6R		49.3 +24.8R		50.1 +21.9R		50.8 +19.6R		51.3 +17.7R		51.8 +16.2R		52.1 +14.9R	
	16 ga	4"	q_a q_f	1740	2801	1732	2789	1727	2780	1723	2774	1720	2768	1717	2764	1715	2761	1713	2758	1684	2711
			F	10.1 +82.5R		11 +68.7R		11.6 +58.9R		12.1 +51.5R		12.5 +45.8R		12.7 +41.2R		13 +37.5R		13.2 +34.4R		13.4 +31.7R	
		6"	q_a q_f	1372	2209	1360	2190	1352	2177	1346	2167	1341	2159	1337	2152	1333	2147	1331	2142	1328	2139
			F	14.6 +82.1R		15.6 +68.4R		16.2 +58.6R		16.7 +51.3R		17.1 +45.6R		17.5 +41R		17.7 +37.3R		17.9 +34.2R		18.1 +31.6R	
		8"	q_a q_f	1123	1808	1109	1785	1099	1769	1091	1756	1085	1747	1080	1739	1076	1733	1073	1727	1070	1723
			F	19 +81.7R		20 +68R		20.8 +58.3R		21.3 +51R		21.7 +45.3R		22.1 +40.8R		22.4 +37.1R		22.6 +34R		22.8 +31.4R	
		12"	q_a q_f	826	1330	809	1303	797	1284	789	1270	782	1258	776	1249	771	1242	768	1236	764	1231
			F	27.3 +80.6R		28.6 +67.1R		29.5 +57.4R		30.2 +50.2R		30.7 +44.6R		31.1 +40.1R		31.5 +36.5R		31.8 +33.4R		32 +30.8R	
		18"	q_a q_f	621	999	580	934	606	975	577	929	555	894	573	922	555	894	540	870	555	893
			F	37.3 +78.8R		40.6 +65.1R		39.5 +56.1R		41.7 +48.8R		43.5 +43.1R		42.3 +39R		43.8 +35.3R		45.1 +32.2R		43.9 +29.8R	
		24"	q_a q_f	469	756	454	731	443	714	435	701	429	691	424	682	420	676	416	670	413	666
			F	49.5 +76R		51.7 +62.8R		53.4 +53.5R		54.7 +46.6R		55.7 +41.3R		56.6 +37R		57.2 +33.5R		57.8 +30.7R		58.3 +28.2R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	8.9 +144.5R		10.4 +120.4R		11.5 +103.2R		12.3 +90.3R		12.9 +80.3R		13.4 +72.3R		13.8 +65.7R		14.2 +60.2R		14.5 +55.6R	
		6"	q_a q_f	1021	1644	1011	1627	1003	1615	997	1606	993	1599	990	1593	987	1589	984	1585	982	1581
			F	14 +144.2R		15.5 +120.1R		16.7 +103R		17.5 +90.1R		18.2 +80.1R		18.7 +72.1R		19.1 +65.5R		19.5 +60R		19.8 +55.4R	
		8"	q_a q_f	829	1334	817	1315	808	1301	801	1290	796	1282	792	1275	789	1270	786	1265	784	1261
			F	18.9 +143.7R		20.5 +119.7R		21.7 +102.6R		22.6 +89.7R		23.3 +79.8R		23.9 +71.8R		24.3 +65.2R		24.7 +59.8R		25 +55.2R	
		12"	q_a q_f	607	977	593	955	583	939	576	927	570	918	565	910	561	904	558	899	556	894
			F	28.2 +142.4R		30.1 +118.6R		31.5 +101.6R		32.5 +88.8R		33.3 +78.9R		34 +71R		34.5 +64.6R		35 +59.2R		35.3 +54.6R	
		18"	q_a q_f	452	728	422	679	439	707	418	673	401	646	415	669	402	648	391	630	403	648
			F	39.4 +140.4R		43.6 +116.4R		42.6 +100.1R		45.4 +87.2R		47.7 +77.3R		46.5 +69.7R		48.3 +63.2R		49.8 +57.8R		48.7 +53.5R	
		24"	q_a q_f	344	554	332	534	323	520	316	510	311	501	307	495	304	489	301	485	299	481
			F	52.9 +137.3R		56 +113.9R		58.3 +97.2R		60 +84.8R		61.3 +75.2R		62.4 +67.5R		63.3 +61.3R		64.1 +56.1R		64.7 +51.7R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	3.8 +296R		6.8 +246.6R		9 +211.4R		10.6 +185R		11.9 +164.4R		12.9 +148R		13.7 +134.5R		14.4 +123.3R		15 +113.8R	
		6"	q_a q_f	695	1119	686	1105	680	1095	675	1087	672	1081	669	1077	666	1073	664	1070	663	1067
			F	9.6 +295.5R		12.7 +246.3R		15 +211.1R		16.6 +184.7R		17.9 +164.2R		18.9 +147.7R		19.8 +134.3R		20.5 +123.1R		21.1 +113.6R	
		8"	q_a q_f	560	902	550	886	543	874	538	866	534	859	530	854	528	850	525	846	523	843
			F	15.3 +295R		18.5 +245.8R		20.8 +210.6R		22.5 +184.3R		23.8 +163.8R		24.9 +147.4R		25.8 +134R		26.5 +122.8R		27.2 +113.4R	
		12"	q_a q_f	408	657	398	641	390	629	385	619	380	612	376	606	373	601	371	597	369	594
			F	26 +293.5R		29.5 +244.5R		32.1 +209.5R		33.9 +183.3R		35.4 +162.9R		36.6 +146.6R		37.6 +133.2R		38.4 +122.1R		39 +112.7R	
		18"	q_a q_f	302	487	281	453	291	469	277	446	266	428	274	442	265	427	258	415	265	427
			F	38.9 +291.2R		45.1 +242R		44.9 +207.7R		48.8 +181.4R		52 +161R		51 +145.1R		53.4 +131.7R		55.5 +120.5R		54.4 +111.4R	
		24"	q_a q_f	232	374	223	359	216	348	211	340	207	333	204	328	201	324	199	321	198	318
			F	54.6 +287.6R		59.4 +239.1R		62.9 +204.5R		65.6 +178.6R		67.7 +158.6R		69.4 +142.5R		70.8 +129.4R		72 +118.6R		73 +109.4R	

4.5D-12 12/2 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

4.5D-12 5.1

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2788	4488	2534	4080	2323	3740	2144	3452
			F	9.8 +46.5R		10.4 +38.7R		10.8 +33.2R		11.1 +29R		11.3 +25.8R		11.5 +23.2R		11.7 +21.1R		11.8 +19.4R		11.9 +17.9R	
		6"	q_a	2253	3628	2214	3564	2186	3519	2164	3485	2148	3458	2134	3436	2123	3419	2114	3404	2107	3392
			F	13.6 +46R		14.2 +38.3R		14.7 +32.8R		15 +28.7R		15.3 +25.5R		15.5 +22.9R		15.7 +20.8R		15.9 +19.1R		16 +17.6R	
		8"	q_a	1803	2904	1761	2835	1731	2786	1708	2749	1690	2720	1675	2697	1664	2678	1654	2663	1645	2649
			F	17.1 +45.4R		17.8 +37.7R		18.4 +32.3R		18.8 +28.2R		19.2 +25.1R		19.5 +22.5R		19.7 +20.5R		19.9 +18.8R		20 +17.3R	
		12"	q_a	1320	2126	1276	2055	1244	2003	1220	1963	1201	1933	1185	1908	1173	1888	1163	1872	1154	1858
			F	23.4 +43.9R		24.6 +36.4R		25.4 +31.1R		26 +27.1R		26.5 +24R		26.9 +21.5R		27.2 +19.5R		27.5 +17.9R		27.8 +16.5R	
		18"	q_a	1001	1612	923	1486	943	1518	892	1435	852	1371	873	1405	842	1355	816	1313	835	1344
			F	30.6 +41.9R		33.4 +34.1R		33 +29.3R		34.9 +25.2R		36.6 +22R		35.8 +19.9R		37.1 +17.9R		38.3 +16.2R		37.5 +15R	
		24"	q_a	789	1270	746	1201	715	1152	692	1115	674	1086	660	1063	648	1044	639	1028	630	1015
			F	38.7 +39.1R		41.1 +31.6R		43 +26.4R		44.5 +22.6R		45.7 +19.7R		46.7 +17.4R		47.5 +15.6R		48.2 +14.1R		48.8 +12.9R	
	16 ga	4"	q_a	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1883	3031	1738	2798
			F	9.8 +82.2R		10.7 +68.5R		11.4 +58.7R		11.9 +51.4R		12.3 +45.7R		12.6 +41.1R		12.8 +37.3R		13.1 +34.2R		13.2 +31.6R	
		6"	q_a	1652	2660	1619	2607	1596	2569	1578	2540	1564	2517	1552	2499	1543	2485	1536	2472	1529	2462
			F	14 +81.7R		15 +68R		15.8 +58.3R		16.3 +51R		16.8 +45.3R		17.1 +40.7R		17.4 +37R		17.6 +33.9R		17.8 +31.3R	
		8"	q_a	1322	2128	1287	2072	1261	2031	1242	2000	1228	1976	1216	1957	1206	1941	1198	1928	1191	1917
			F	17.9 +81R		19.1 +67.4R		19.9 +57.7R		20.6 +50.5R		21.1 +44.8R		21.5 +40.3R		21.8 +36.6R		22.1 +33.6R		22.3 +31R	
		12"	q_a	965	1554	931	1498	906	1458	887	1428	873	1405	861	1386	851	1370	842	1356	835	1345
			F	25 +79.4R		26.6 +65.9R		27.7 +56.3R		28.6 +49.2R		29.3 +43.6R		29.8 +39.2R		30.3 +35.6R		30.7 +32.6R		31 +30R	
		18"	q_a	738	1189	678	1092	690	1110	651	1047	620	999	634	1021	611	983	591	952	604	973
			F	33.1 +77.1R		36.5 +63.3R		36.2 +54.4R		38.6 +47R		40.5 +41.4R		39.8 +37.4R		41.3 +33.7R		42.7 +30.6R		41.9 +28.4R	
		24"	q_a	587	945	552	889	527	849	509	819	494	796	483	777	473	762	465	749	459	738
			F	42.2 +73.9R		45.2 +60.5R		47.5 +51.1R		49.3 +44.2R		50.7 +38.8R		51.9 +34.6R		53 +31.2R		53.8 +28.4R		54.5 +26R	
	18 ga	4"	q_a	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	8.6 +144.3R		10.1 +120.2R		11.2 +103R		12.1 +90.1R		12.7 +80.1R		13.3 +72.1R		13.7 +65.5R		14 +60.1R		14.3 +55.5R	
		6"	q_a	1214	1955	1187	1911	1167	1879	1152	1855	1140	1836	1131	1821	1123	1808	1117	1798	1111	1789
			F	13.2 +143.6R		14.9 +119.7R		16.1 +102.5R		17 +89.7R		17.7 +79.7R		18.3 +71.7R		18.8 +65.2R		19.2 +59.8R		19.5 +55.2R	
		8"	q_a	972	1565	943	1519	922	1485	907	1460	894	1440	885	1424	877	1411	870	1401	864	1391
			F	17.6 +142.9R		19.5 +119R		20.8 +101.9R		21.8 +89.1R		22.6 +79.2R		23.2 +71.2R		23.7 +64.7R		24.1 +59.3R		24.5 +54.8R	
		12"	q_a	710	1143	681	1097	661	1065	646	1041	635	1022	625	1007	617	994	611	984	606	975
			F	25.6 +141.1R		27.9 +117.3R		29.5 +100.4R		30.8 +87.7R		31.7 +77.8R		32.5 +70R		33.2 +63.6R		33.7 +58.2R		34.2 +53.7R	
		18"	q_a	547	881	501	807	507	816	477	768	454	731	463	745	445	717	431	694	439	707
			F	34.6 +138.5R		39 +114.4R		39 +98.2R		41.9 +85.3R		44.3 +75.3R		43.7 +68R		45.5 +61.5R		47.2 +56.1R		46.4 +51.9R	
		24"	q_a	439	707	411	662	391	630	376	605	364	586	355	571	347	559	341	549	335	540
			F	44.8 +135R		48.7 +111.3R		51.6 +94.5R		53.9 +82.1R		55.7 +72.5R		57.3 +64.8R		58.5 +58.6R		59.6 +53.5R		60.5 +49.2R	
	20 ga	4"	q_a	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	3.4 +295.7R		6.5 +246.4R		8.7 +211.2R		10.4 +184.8R		11.6 +164.2R		12.7 +147.8R		13.5 +134.4R		14.2 +123.2R		14.8 +113.7R	
		6"	q_a	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	738	1185
			F	8.8 +294.9R		12 +245.7R		14.3 +210.6R		16.1 +184.2R		17.4 +163.8R		18.5 +147.4R		19.4 +134R		20.1 +122.8R		20.7 +113.3R	
		8"	q_a	656	1057	635	1022	618	996	606	976	597	961	589	949	583	939	578	930	573	923
			F	13.8 +294.1R		17.3 +244.9R		19.7 +209.9R		21.6 +183.6R		23 +163.1R		24.1 +146.8R		25.1 +133.4R		25.9 +122.3R		26.5 +112.9R	
		12"	q_a	480	773	459	739	444	714	432	696	423	682	416	670	410	661	405	653	401	646
			F	23.1 +292R		27 +243R		29.8 +208.1R		31.9 +181.9R		33.6 +161.6R		34.9 +145.4R		36 +132.1R		36.9 +121R		37.7 +111.7R	
		18"	q_a	375	603	342	550	343	552	322	519	306	493	311	500	298	480	288	464	293	472
			F	33.4 +289R		39.8 +239.7R		40.7 +205.6R		44.8 +179.2R		48.1 +158.7R		47.8 +143R		50.3 +129.7R		52.5 +118.5R		51.8 +109.6R	
		24"	q_a	304	490	283	456	268	431	256	413	247	398	240	387	234	377	229	369	225	363
			F	45.2 +284.9R		50.9 +236.1R		55.3 +201.4R		58.6 +175.5R		61.3 +155.4R		63.5 +139.4R		65.3 +126.4R		66.8 +115.6R		68.1 +106.4R	

4.5D-12 12/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

5.1 **4.5D-12**

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2376	3826	2367	3811	2360	3800	2355	3792	2351	3785	2348	3780	2345	3776	2343	3772	2237	3602
			F	16.5 +77.6R		17.5 +64.7R		18.1 +55.4R		18.6 +48.5R		19 +43.1R		19.3 +38.8R		19.5 +35.3R		19.7 +32.3R		19.9 +29.8R	
		6"	q_a q_f	1890	3043	1875	3019	1865	3002	1857	2989	1850	2979	1845	2971	1841	2964	1838	2959	1835	2954
			F	22.9 +76.9R		24 +64R		24.7 +54.8R		25.3 +48R		25.7 +42.6R		26.1 +38.3R		26.4 +34.9R		26.6 +31.9R		26.8 +29.5R	
		8"	q_a q_f	1553	2501	1535	2471	1522	2450	1512	2434	1504	2422	1498	2412	1493	2404	1489	2397	1485	2391
			F	29 +76R		30.2 +63.2R		31.1 +54.1R		31.8 +47.3R		32.3 +42R		32.7 +37.8R		33.1 +34.3R		33.4 +31.5R		33.6 +29R	
		12"	q_a q_f	1145	1844	1124	1809	1108	1784	1097	1766	1088	1751	1080	1739	1074	1730	1069	1722	1065	1715
			F	40.1 +73.7R		41.9 +61.2R		43.1 +52.2R		44.1 +45.6R		44.9 +40.4R		45.5 +36.3R		46 +33R		46.4 +30.2R		46.8 +27.8R	
		18"	q_a q_f	865	1393	809	1303	842	1356	804	1294	773	1245	798	1285	774	1246	754	1213	774	1246
			F	53 +70.4R		57.6 +57.5R		56.5 +49.5R		59.7 +42.7R		62.4 +37.4R		60.9 +33.9R		63 +30.4R		64.9 +27.6R		63.5 +25.7R	
		24"	q_a q_f	652	1050	632	1018	618	995	607	977	599	964	592	953	586	944	582	937	578	930
			F	67.8 +65.8R		71.6 +53.5R		74.4 +44.9R		76.6 +38.6R		78.4 +33.8R		79.9 +30R		81.2 +27R		82.2 +24.5R		83.1 +22.4R	
	16 ga	4"	q_a q_f	1803	2902	1794	2888	1787	2878	1782	2870	1779	2864	1776	2859	1773	2855	1771	2851	1769	2848
			F	16.5 +137.2R		18 +114.3R		19.1 +97.9R		19.9 +85.7R		20.6 +76.2R		21.1 +68.5R		21.5 +62.3R		21.8 +57.1R		22.1 +52.7R	
		6"	q_a q_f	1406	2264	1393	2242	1383	2227	1376	2215	1370	2206	1366	2199	1362	2193	1359	2188	1356	2184
			F	23.7 +136.3R		25.3 +113.6R		26.5 +97.3R		27.4 +85.1R		28.1 +75.6R		28.7 +68.1R		29.2 +61.9R		29.6 +56.7R		29.9 +52.3R	
		8"	q_a q_f	1145	1843	1129	1818	1118	1800	1109	1786	1103	1775	1097	1767	1093	1760	1089	1754	1086	1749
			F	30.4 +135.3R		32.3 +112.6R		33.7 +96.5R		34.7 +84.4R		35.5 +75R		36.1 +67.4R		36.7 +61.3R		37.1 +56.2R		37.5 +51.8R	
		12"	q_a q_f	840	1352	822	1323	809	1302	799	1286	791	1274	785	1264	780	1256	776	1249	772	1243
			F	42.9 +132.8R		45.4 +110.4R		47.2 +94.4R		48.5 +82.5R		49.6 +73.2R		50.4 +65.8R		51.1 +59.7R		51.7 +54.7R		52.2 +50.5R	
		18"	q_a q_f	628	1011	586	944	611	983	582	936	559	900	579	932	560	902	545	878	560	902
			F	57.3 +129.1R		63 +106.3R		62.1 +91.4R		65.9 +79.2R		69.2 +69.8R		67.7 +63.1R		70.2 +56.9R		72.4 +51.8R		70.9 +48.1R	
		24"	q_a q_f	476	767	460	741	448	722	440	708	433	697	427	688	423	681	419	675	416	670
			F	73.9 +123.9R		78.6 +101.8R		82.2 +86.2R		85 +74.7R		87.2 +65.8R		89 +58.7R		90.5 +53R		91.8 +48.3R		92.9 +44.4R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	14.5 +240.6R		17.1 +200.5R		18.9 +171.8R		20.3 +150.3R		21.3 +133.6R		22.2 +120.3R		22.9 +109.3R		23.5 +100.2R		24 +92.5R	
		6"	q_a q_f	1044	1680	1032	1661	1024	1648	1017	1638	1012	1630	1008	1623	1005	1618	1002	1614	1000	1610
			F	22.5 +239.7R		25.2 +199.7R		27.2 +171.1R		28.7 +149.7R		29.8 +133R		30.7 +119.7R		31.5 +108.8R		32.1 +99.8R		32.6 +92.1R	
		8"	q_a q_f	844	1359	830	1337	821	1322	814	1310	808	1301	803	1293	800	1287	796	1282	794	1278
			F	30 +238.5R		33 +198.6R		35.2 +170.2R		36.8 +148.9R		38 +132.3R		39 +119R		39.9 +108.2R		40.6 +99.1R		41.1 +91.5R	
		12"	q_a q_f	617	993	602	969	591	952	583	939	577	928	572	920	567	913	564	908	561	903
			F	44.1 +235.7R		47.6 +196.1R		50.2 +167.9R		52.2 +146.7R		53.8 +130.3R		55 +117.2R		56 +106.4R		56.9 +97.5R		57.6 +90R	
		18"	q_a q_f	458	737	427	687	443	713	421	678	405	651	418	673	405	652	394	634	405	652
			F	60.1 +231.6R		67.4 +191.5R		66.9 +164.5R		71.7 +143.1R		75.7 +126.5R		74.3 +114.1R		77.4 +103.3R		80 +94.3R		78.5 +87.3R	
		24"	q_a q_f	350	563	337	542	327	527	320	515	314	506	310	499	306	493	303	489	301	484
			F	78.7 +225.7R		84.8 +186.5R		89.4 +158.7R		93 +138R		95.8 +122R		98.2 +109.3R		100.1 +99R		101.7 +90.4R		103.1 +83.2R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	5.9 +492.9R		11 +410.8R		14.7 +352.1R		17.4 +308.1R		19.5 +273.8R		21.2 +246.4R		22.6 +224R		23.8 +205.4R		24.8 +189.6R	
		6"	q_a q_f	709	1141	699	1125	692	1114	687	1106	683	1099	679	1094	677	1090	675	1086	673	1083
			F	15.1 +491.9R		20.4 +409.8R		24.2 +351.2R		27.1 +307.3R		29.3 +273.1R		31.1 +245.8R		32.5 +223.5R		33.7 +204.8R		34.8 +189.1R	
		8"	q_a q_f	570	917	559	900	551	887	545	878	541	870	537	865	534	860	532	856	529	852
			F	23.8 +490.5R		29.4 +408.6R		33.4 +350.2R		36.4 +306.3R		38.8 +272.3R		40.7 +245R		42.2 +222.7R		43.5 +204.1R		44.6 +188.4R	
		12"	q_a q_f	412	664	402	648	395	636	389	627	384	619	380	613	377	607	375	603	372	599
			F	40 +487.3R		46.3 +405.7R		50.8 +347.5R		54.3 +303.9R		56.9 +270R		59.1 +242.9R		60.9 +220.7R		62.3 +202.2R		63.6 +186.6R	
		18"	q_a q_f	307	494	285	459	295	474	280	450	268	432	277	445	267	431	260	418	267	430
			F	58.5 +482.6R		69.1 +400.4R		70.1 +343.6R		76.8 +299.7R		82.3 +265.6R		81.4 +239.4R		85.5 +217.1R		89.1 +198.5R		87.7 +183.6R	
		24"	q_a q_f	236	381	226	364	219	353	214	344	210	337	206	332	203	328	201	324	199	321
			F	80 +475.8R		89.2 +394.6R		96 +336.9R		101.3 +293.8R		105.5 +260.4R		108.9 +233.8R		111.7 +212.1R		114.1 +194R		116.1 +178.8R	

4.5D-12 12/2 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

4.5D-12 5.1

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

HILTI®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2729	4394	2502	4028	2309	3718
			F	15.8 +77.1R		16.8 +64.2R		17.6 +55R		18.1 +48.1R		18.5 +42.8R		18.9 +38.5R		19.2 +35R		19.4 +32R		19.6 +29.6R	
		6"	q_a q_f	2292	3690	2249	3620	2218	3570	2194	3532	2176	3503	2161	3479	2149	3460	2139	3444	2130	3430
			F	21.4 +76R		22.7 +63.2R		23.6 +54.1R		24.3 +47.3R		24.8 +42R		25.3 +37.7R		25.6 +34.3R		25.9 +31.4R		26.2 +29R	
		8"	q_a q_f	1834	2952	1787	2878	1754	2824	1729	2784	1709	2752	1694	2727	1681	2706	1670	2689	1661	2674
			F	26.5 +74.7R		28 +62R		29.2 +53R		30.1 +46.2R		30.7 +41R		31.3 +36.8R		31.8 +33.4R		32.2 +30.6R		32.5 +28.2R	
		12"	q_a q_f	1340	2157	1294	2083	1261	2030	1236	1990	1215	1957	1199	1930	1185	1909	1174	1890	1165	1875
			F	35.3 +72R		37.5 +59.4R		39.2 +50.4R		40.6 +43.8R		41.6 +38.7R		42.5 +34.6R		43.2 +31.3R		43.8 +28.5R		44.4 +26.2R	
		18"	q_a q_f	1021	1644	940	1513	957	1541	904	1455	863	1389	883	1421	851	1369	824	1327	842	1356
			F	44.5 +68.5R		49.3 +55.3R		49.6 +47.1R		53 +40.1R		55.8 +34.7R		55.3 +31.3R		57.6 +27.8R		59.6 +24.9R		58.8 +23.1R	
		24"	q_a q_f	809	1302	762	1228	729	1174	705	1135	685	1104	670	1079	657	1058	647	1042	638	1027
			F	54.1 +64.3R		58.8 +51.3R		62.5 +42.3R		65.5 +35.6R		68 +30.6R		70.1 +26.6R		71.9 +23.4R		73.5 +20.9R		74.9 +18.7R	
	16 ga	4"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1871	3013
			F	15.7 +136.6R		17.4 +113.8R		18.5 +97.5R		19.4 +85.3R		20.1 +75.8R		20.6 +68.2R		21.1 +62R		21.5 +56.8R		21.8 +52.4R	
		6"	q_a q_f	1680	2705	1644	2647	1618	2605	1598	2573	1583	2548	1570	2528	1560	2512	1552	2499	1545	2487
			F	22 +135.4R		23.9 +112.7R		25.3 +96.5R		26.3 +84.3R		27.1 +74.9R		27.8 +67.4R		28.3 +61.2R		28.8 +56.1R		29.2 +51.8R	
		8"	q_a q_f	1345	2165	1306	2103	1279	2059	1258	2025	1242	1999	1229	1978	1218	1961	1209	1947	1202	1935
			F	27.6 +134R		29.9 +111.3R		31.5 +95.2R		32.8 +83.2R		33.8 +73.8R		34.5 +66.3R		35.2 +60.2R		35.7 +55.2R		36.2 +50.9R	
		12"	q_a q_f	981	1580	944	1520	917	1477	897	1444	881	1419	869	1399	859	1383	850	1369	843	1357
			F	37.5 +130.9R		40.5 +108.4R		42.8 +92.4R		44.5 +80.4R		45.9 +71.2R		47.1 +63.9R		48 +57.9R		48.8 +52.9R		49.5 +48.7R	
		18"	q_a q_f	754	1215	692	1114	701	1129	661	1064	629	1013	642	1034	618	995	598	963	610	982
			F	47.8 +127R		53.7 +103.8R		54.4 +88.7R		58.4 +76.3R		61.9 +66.8R		61.4 +60.2R		64.1 +53.9R		66.5 +48.8R		65.7 +45.2R	
		24"	q_a q_f	603	971	566	911	539	868	519	835	503	810	491	790	480	774	472	760	465	748
			F	58.6 +122.3R		64.3 +99.4R		68.8 +83.2R		72.5 +71.3R		75.5 +62.1R		78 +54.9R		80.2 +49.1R		82.1 +44.3R		83.7 +40.3R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	13.6 +240R		16.3 +199.9R		18.2 +171.3R		19.7 +149.9R		20.8 +133.2R		21.7 +119.9R		22.5 +109R		23.1 +99.9R		23.6 +92.2R	
		6"	q_a q_f	1235	1988	1204	1939	1183	1904	1166	1878	1154	1857	1143	1841	1135	1827	1128	1816	1122	1807
			F	20.6 +238.6R		23.6 +198.7R		25.8 +170.2R		27.4 +148.8R		28.7 +132.2R		29.7 +118.9R		30.5 +108.1R		31.2 +99.1R		31.8 +91.4R	
		8"	q_a q_f	990	1593	958	1542	935	1506	918	1478	905	1457	894	1440	886	1426	878	1414	872	1404
			F	26.9 +237R		30.3 +197.2R		32.8 +168.8R		34.6 +147.5R		36.1 +131R		37.3 +117.8R		38.2 +107R		39 +98R		39.7 +90.4R	
		12"	q_a q_f	723	1163	692	1115	671	1080	654	1054	642	1033	632	1017	623	1004	617	993	611	983
			F	37.9 +233.6R		42.2 +193.9R		45.4 +165.6R		47.8 +144.4R		49.7 +128.1R		51.3 +115R		52.6 +104.4R		53.7 +95.5R		54.6 +88R	
		18"	q_a q_f	560	902	512	824	516	831	485	782	462	743	469	756	451	727	436	702	444	715
			F	49.5 +229.2R		56.9 +188.7R		58.4 +161.5R		63.3 +139.8R		67.5 +123.1R		67.3 +110.9R		70.6 +100R		73.4 +90.9R		72.7 +84.1R	
		24"	q_a q_f	452	728	422	679	400	645	384	618	371	598	361	582	353	568	346	557	340	548
			F	61.6 +223.9R		68.8 +183.8R		74.5 +155.4R		79.1 +134.2R		82.8 +117.9R		85.9 +105R		88.6 +94.5R		90.9 +85.9R		92.8 +78.6R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	4.9 +492.2R		10.1 +410.1R		13.9 +351.5R		16.7 +307.5R		18.9 +273.3R		20.7 +246R		22.1 +223.6R		23.3 +205R		24.3 +189.2R	
		6"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	13 +490.6R		18.6 +408.7R		22.6 +350.1R		25.6 +306.3R		28 +272.2R		29.9 +244.9R		31.4 +222.6R		32.7 +204R		33.8 +188.3R	
		8"	q_a q_f	666	1073	643	1036	627	1009	614	989	604	973	596	959	589	949	584	940	579	932
			F	20.3 +488.8R		26.3 +406.9R		30.7 +348.5R		34 +304.8R		36.5 +270.8R		38.6 +243.6R		40.3 +221.4R		41.7 +202.8R		43 +187.2R	
		12"	q_a q_f	490	789	467	752	451	726	438	706	429	690	421	678	415	668	410	659	405	652
			F	32.9 +484.9R		40 +403.1R		45.2 +344.9R		49.1 +301.3R		52.3 +267.4R		54.8 +240.4R		56.9 +218.3R		58.6 +199.9R		60.1 +184.4R	
		18"	q_a q_f	385	619	350	563	350	564	328	529	311	501	316	508	303	488	292	471	297	478
			F	46.3 +479.8R		57 +397.2R		60.2 +340.1R		67.1 +295.9R		72.8 +261.7R		73.3 +235.6R		77.6 +213.2R		81.4 +194.6R		81 +179.9R	
		24"	q_a q_f	314	506	291	469	275	442	262	423	253	407	245	395	239	385	234	376	229	369
			F	60.2 +473.7R		70.8 +391.5R		78.8 +333.1R		85.2 +289.5R		90.4 +255.7R		94.8 +228.8R		98.4 +207R		101.5 +188.8R		104.2 +173.5R	

4.5D-12 12/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

5.1 4.5D-12

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2248	3619	2241	3608	2236	3599	2232	3593	2229	3588	2226	3584	2224	3581	2188	3522	2019	3251
			F	4.3 +19.5R		4.5 +16.3R		4.6 +13.9R		4.7 +12.2R		4.8 +10.8R		4.9 +9.8R		4.9 +8.9R		5 +8.1R		5 +7.5R	
		6"	q_a q_f	1818	2927	1806	2908	1797	2894	1791	2883	1786	2875	1782	2868	1778	2863	1775	2858	1773	2854
			F	6 +19.5R		6.3 +16.2R		6.4 +13.9R		6.5 +12.2R		6.6 +10.8R		6.7 +9.7R		6.7 +8.8R		6.8 +8.1R		6.8 +7.5R	
		8"	q_a q_f	1507	2427	1492	2402	1481	2384	1472	2370	1466	2360	1461	2352	1456	2345	1453	2339	1450	2334
			F	7.8 +19.4R		8 +16.2R		8.2 +13.8R		8.3 +12.1R		8.4 +10.8R		8.5 +9.7R		8.5 +8.8R		8.6 +8.1R		8.6 +7.5R	
		12"	q_a q_f	1119	1801	1100	1771	1086	1749	1076	1732	1068	1720	1062	1709	1056	1701	1052	1694	1048	1688
			F	11.2 +19.2R		11.5 +16R		11.7 +13.7R		11.8 +12R		11.9 +10.6R		12 +9.6R		12.1 +8.7R		12.1 +8R		12.2 +7.4R	
		18"	q_a q_f	849	1366	796	1282	827	1331	790	1272	761	1226	786	1266	763	1228	744	1197	764	1230
			F	15.4 +18.8R		16.5 +15.6R		15.7 +13.4R		16.5 +11.7R		17.1 +10.4R		16.5 +9.4R		16.9 +8.5R		17.4 +7.8R		16.9 +7.2R	
		24"	q_a q_f	641	1031	622	1002	609	981	600	965	592	953	586	943	581	935	577	929	573	923
			F	20.9 +18.2R		21.3 +15.1R		21.7 +12.9R		21.9 +11.3R		22.1 +10R		22.3 +9R		22.4 +8.2R		22.5 +7.5R		22.6 +6.9R	
	16 ga	4"	q_a q_f	1732	2788	1724	2776	1719	2767	1715	2761	1712	2756	1709	2752	1707	2748	1705	2746	1668	2685
			F	4.3 +34.4R		4.6 +28.7R		4.9 +24.6R		5.1 +21.5R		5.2 +19.1R		5.3 +17.2R		5.4 +15.6R		5.5 +14.3R		5.6 +13.2R	
		6"	q_a q_f	1368	2202	1356	2183	1348	2170	1342	2160	1337	2152	1333	2146	1330	2141	1327	2136	1325	2133
			F	6.3 +34.4R		6.6 +28.6R		6.9 +24.5R		7.1 +21.5R		7.2 +19.1R		7.4 +17.2R		7.5 +15.6R		7.5 +14.3R		7.6 +13.2R	
		8"	q_a q_f	1120	1803	1106	1781	1096	1765	1088	1752	1083	1743	1078	1735	1074	1729	1071	1724	1068	1719
			F	8.2 +34.3R		8.6 +28.6R		8.9 +24.5R		9.1 +21.4R		9.2 +19R		9.4 +17.1R		9.5 +15.6R		9.5 +14.3R		9.6 +13.2R	
		12"	q_a q_f	824	1327	808	1300	796	1282	787	1267	780	1256	775	1247	770	1240	767	1234	763	1229
			F	12 +34R		12.5 +28.4R		12.8 +24.3R		13 +21.3R		13.2 +18.9R		13.3 +17R		13.4 +15.5R		13.5 +14.2R		13.6 +13.1R	
		18"	q_a q_f	620	998	580	933	605	974	577	928	555	893	572	921	554	893	540	869	554	892
			F	16.8 +33.6R		18.1 +27.9R		17.3 +24R		18.2 +21R		19 +18.6R		18.3 +16.8R		18.9 +15.2R		19.4 +13.9R		18.8 +12.9R	
		24"	q_a q_f	469	754	454	730	443	713	435	700	428	690	423	682	419	675	416	670	413	665
			F	22.9 +32.9R		23.5 +27.4R		24 +23.4R		24.3 +20.5R		24.6 +18.2R		24.8 +16.3R		25 +14.9R		25.2 +13.6R		25.3 +12.6R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	3.8 +60.3R		4.4 +50.3R		4.9 +43.1R		5.2 +37.7R		5.4 +33.5R		5.6 +30.2R		5.8 +27.4R		5.9 +25.1R		6.1 +23.2R	
		6"	q_a q_f	1022	1646	1012	1629	1004	1617	999	1608	994	1601	991	1595	988	1590	985	1586	983	1583
			F	6 +60.2R		6.6 +50.2R		7.1 +43R		7.4 +37.6R		7.7 +33.5R		7.9 +30.1R		8.1 +27.4R		8.2 +25.1R		8.3 +23.2R	
		8"	q_a q_f	830	1336	818	1316	809	1302	802	1291	797	1283	793	1276	789	1271	787	1266	784	1263
			F	8.2 +60.1R		8.8 +50.1R		9.3 +42.9R		9.6 +37.6R		9.9 +33.4R		10.1 +30.1R		10.3 +27.3R		10.4 +25R		10.6 +23.1R	
		12"	q_a q_f	607	978	594	956	584	940	576	928	570	918	566	911	562	905	559	899	556	895
			F	12.5 +59.9R		13.2 +49.9R		13.6 +42.7R		14 +37.4R		14.3 +33.2R		14.5 +29.9R		14.7 +27.2R		14.9 +24.9R		15 +23R	
		18"	q_a q_f	453	729	422	680	439	707	418	673	402	647	416	669	402	648	391	630	403	649
			F	17.8 +59.4R		19.5 +49.4R		18.8 +42.4R		19.9 +37.1R		20.8 +32.9R		20.1 +29.7R		20.8 +26.9R		21.5 +24.7R		20.9 +22.8R	
		24"	q_a q_f	344	555	332	535	323	521	317	510	312	502	307	495	304	490	301	485	299	481
			F	24.6 +58.6R		25.5 +48.8R		26.2 +41.8R		26.7 +36.5R		27.1 +32.4R		27.4 +29.2R		27.7 +26.5R		27.9 +24.3R		28.1 +22.4R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	1.7 +123.4R		2.9 +102.8R		3.8 +88.2R		4.5 +77.1R		5 +68.6R		5.4 +61.7R		5.8 +56.1R		6 +51.4R		6.3 +47.5R	
		6"	q_a q_f	698	1124	689	1110	683	1100	678	1092	674	1086	671	1081	669	1077	667	1074	665	1071
			F	4.2 +123.3R		5.5 +102.8R		6.4 +88.1R		7.1 +77.1R		7.6 +68.5R		8 +61.7R		8.3 +56.1R		8.6 +51.4R		8.9 +47.4R	
		8"	q_a q_f	562	905	552	889	545	878	540	869	535	862	532	857	529	852	527	848	525	845
			F	6.7 +123.2R		8 +102.7R		8.9 +88R		9.6 +77R		10.2 +68.4R		10.6 +61.6R		10.9 +56R		11.2 +51.3R		11.5 +47.4R	
		12"	q_a q_f	409	659	400	643	392	631	386	621	381	614	377	608	374	603	372	599	370	595
			F	11.7 +122.9R		13 +102.4R		14 +87.8R		14.7 +76.8R		15.2 +68.3R		15.7 +61.4R		16 +55.8R		16.3 +51.2R		16.6 +47.3R	
		18"	q_a q_f	303	489	282	454	292	470	278	447	266	429	275	443	266	428	258	416	266	428
			F	17.8 +122.4R		20.3 +101.9R		19.9 +87.4R		21.4 +76.4R		22.7 +67.9R		22.1 +61.1R		23.1 +55.5R		23.9 +50.9R		23.4 +47R	
		24"	q_a q_f	233	375	224	360	217	349	212	341	208	334	205	329	202	325	200	322	198	319
			F	25.7 +121.4R		27.3 +101.1R		28.5 +86.6R		29.3 +75.8R		30 +67.3R		30.6 +60.6R		31 +55.1R		31.4 +50.5R		31.7 +46.6R	

4.5D-12 12/2 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

4.5D-12 5.1

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2709 4362	2463 3965	2258 3635	2084 3355
			F	4.2 +19.5R	4.4 +16.2R	4.6 +13.9R	4.7 +12.2R	4.8 +10.8R	4.9 +9.7R	4.9 +8.9R	5 +8.1R	5 +7.5R
		6"	q_a q_f	2238 3604	2200 3543	2173 3499	2153 3466	2137 3440	2124 3419	2113 3403	2105 3388	2084 3355
			F	5.9 +19.4R	6.2 +16.1R	6.3 +13.8R	6.5 +12.1R	6.6 +10.8R	6.6 +9.7R	6.7 +8.8R	6.7 +8.1R	6.8 +7.4R
		8"	q_a q_f	1792 2885	1751 2819	1722 2772	1699 2736	1682 2708	1668 2686	1657 2668	1647 2652	1639 2639
			F	7.6 +19.2R	7.9 +16R	8 +13.7R	8.2 +12R	8.3 +10.7R	8.4 +9.6R	8.4 +8.7R	8.5 +8R	8.5 +7.4R
		12"	q_a q_f	1312 2112	1268 2042	1237 1992	1213 1954	1195 1924	1180 1900	1168 1881	1158 1865	1150 1851
			F	10.8 +18.9R	11.1 +15.7R	11.3 +13.4R	11.5 +11.7R	11.7 +10.4R	11.8 +9.4R	11.9 +8.5R	11.9 +7.8R	12 +7.2R
		18"	q_a q_f	994 1601	917 1476	938 1510	887 1428	848 1364	869 1399	838 1350	813 1309	832 1339
			F	14.6 +18.3R	15.7 +15.1R	15.2 +13R	15.9 +11.3R	16.6 +10R	16 +9R	16.5 +8.1R	17 +7.4R	16.5 +6.9R
		24"	q_a q_f	782 1258	740 1191	710 1143	688 1107	670 1079	656 1057	645 1039	636 1023	628 1010
			F	19.4 +17.3R	20.1 +14.3R	20.6 +12.1R	20.9 +10.6R	21.2 +9.3R	21.5 +8.4R	21.7 +7.6R	21.8 +6.9R	22 +6.4R
	16 ga	4"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1865 3002	1721 2771
			F	4.2 +34.4R	4.6 +28.6R	4.9 +24.6R	5 +21.5R	5.2 +19.1R	5.3 +17.2R	5.4 +15.6R	5.5 +14.3R	5.6 +13.2R
		6"	q_a q_f	1649 2655	1616 2602	1593 2564	1575 2536	1561 2513	1550 2496	1541 2481	1533 2469	1527 2458
			F	6.1 +34.3R	6.5 +28.5R	6.8 +24.5R	7 +21.4R	7.2 +19R	7.3 +17.1R	7.4 +15.6R	7.5 +14.3R	7.6 +13.2R
		8"	q_a q_f	1319 2124	1284 2068	1259 2027	1240 1997	1226 1973	1214 1954	1204 1939	1196 1926	1189 1915
			F	8 +34.1R	8.4 +28.4R	8.7 +24.3R	8.9 +21.3R	9.1 +18.9R	9.2 +17R	9.4 +15.5R	9.5 +14.2R	9.5 +13.1R
		12"	q_a q_f	963 1551	929 1495	904 1456	886 1426	871 1403	860 1384	850 1368	841 1354	834 1343
			F	11.6 +33.7R	12.1 +28R	12.4 +24R	12.7 +21R	12.9 +18.7R	13.1 +16.8R	13.2 +15.3R	13.3 +14R	13.4 +12.9R
		18"	q_a q_f	736 1185	677 1089	688 1108	649 1045	619 997	633 1019	610 982	591 951	603 971
			F	15.9 +33R	17.2 +27.3R	16.7 +23.5R	17.6 +20.5R	18.4 +18.1R	17.8 +16.4R	18.4 +14.8R	18.9 +13.6R	18.5 +12.6R
		24"	q_a q_f	585 942	551 886	526 847	507 817	493 794	482 775	472 760	464 748	458 737
			F	21.2 +31.9R	22.1 +26.5R	22.7 +22.6R	23.2 +19.7R	23.6 +17.4R	23.9 +15.7R	24.2 +14.2R	24.4 +13R	24.6 +12R
	18 ga	4"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	3.7 +60.2R	4.4 +50.2R	4.8 +43R	5.1 +37.7R	5.4 +33.5R	5.6 +30.1R	5.8 +27.4R	5.9 +25.1R	6 +23.2R
		6"	q_a q_f	1216 1957	1188 1912	1168 1880	1153 1856	1141 1837	1132 1822	1124 1810	1118 1799	1112 1790
			F	5.9 +60.1R	6.5 +50.1R	7 +42.9R	7.3 +37.6R	7.6 +33.4R	7.8 +30R	8 +27.3R	8.1 +25R	8.3 +23.1R
		8"	q_a q_f	973 1567	944 1520	923 1486	907 1461	895 1441	885 1425	877 1412	870 1401	865 1392
			F	8 +59.9R	8.6 +49.9R	9.1 +42.8R	9.5 +37.4R	9.8 +33.3R	10 +29.9R	10.2 +27.2R	10.3 +25R	10.5 +23R
		12"	q_a q_f	710 1144	682 1098	662 1066	647 1041	635 1022	626 1007	618 995	611 984	606 976
			F	11.9 +59.5R	12.7 +49.5R	13.3 +42.4R	13.7 +37.1R	14 +33R	14.3 +29.7R	14.5 +27R	14.7 +24.7R	14.8 +22.8R
		18"	q_a q_f	548 883	502 808	507 817	478 769	455 732	463 746	446 718	431 694	440 708
			F	16.8 +58.7R	18.5 +48.7R	18 +41.9R	19.2 +36.5R	20.1 +32.4R	19.6 +29.2R	20.3 +26.5R	21 +24.2R	20.5 +22.4R
		24"	q_a q_f	440 709	412 663	392 630	376 606	365 587	355 572	347 559	341 549	336 540
			F	22.7 +57.5R	23.9 +47.7R	24.8 +40.8R	25.5 +35.6R	26 +31.6R	26.4 +28.4R	26.8 +25.8R	27 +23.6R	27.3 +21.8R
	20 ga	4"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	1.6 +123.3R	2.9 +102.8R	3.8 +88.1R	4.4 +77.1R	5 +68.5R	5.4 +61.7R	5.7 +56.1R	6 +51.4R	6.2 +47.4R
		6"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	740 1185
			F	4.1 +123.2R	5.4 +102.7R	6.3 +88R	7 +77R	7.5 +68.4R	7.9 +61.6R	8.3 +56R	8.6 +51.3R	8.8 +47.4R
		8"	q_a q_f	659 1061	637 1025	621 999	608 979	599 964	591 951	585 941	579 933	575 925
			F	6.5 +123R	7.8 +102.5R	8.7 +87.8R	9.4 +76.8R	10 +68.3R	10.4 +61.5R	10.8 +55.9R	11.1 +51.2R	11.4 +47.3R
		12"	q_a q_f	483 777	461 742	445 717	434 698	425 684	417 672	411 662	406 654	402 648
			F	11.1 +122.5R	12.5 +102R	13.5 +87.4R	14.3 +76.5R	14.9 +68R	15.4 +61.2R	15.8 +55.6R	16.1 +51R	16.4 +47R
		18"	q_a q_f	377 607	344 553	345 555	324 521	307 495	312 502	299 482	289 466	294 473
			F	16.7 +121.6R	19.2 +101.1R	19 +86.8R	20.6 +75.8R	22 +67.3R	21.5 +60.6R	22.5 +55R	23.4 +50.4R	22.9 +46.6R
		24"	q_a q_f	307 494	285 459	269 434	258 415	249 400	241 389	235 379	230 371	226 364
			F	23.5 +120.2R	25.4 +100R	26.8 +85.5R	27.9 +74.8R	28.7 +66.4R	29.4 +59.7R	29.9 +54.2R	30.4 +49.7R	30.8 +45.8R

4.5D-12 12/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #10 SD HWH Screw

5.1 4.5D-12

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2151	3464	2145	3454	2141	3447	2138	3442	2135	3438	2133	3435	2132	3432	2028	3264	1872	3013
			F	5.5 +0R		5.5 +0R		5.5 +0R		5.5 +0R		5.5 +0R		5.5 +0R		5.5 +0R		5.5 +0R		5.5 +0R	
		6"	q_a q_f	1763	2838	1752	2821	1745	2809	1739	2800	1735	2793	1731	2787	1728	2782	1726	2778	1724	2775
			F	7.2 -0.1R		7.2 -0.1R		7.2 -0.1R		7.3 -0.1R		7.3 -0.1R		7.3 -0.1R		7.3 -0.1R		7.3 +0R		7.3 +0R	
		8"	q_a q_f	1471	2369	1458	2347	1448	2332	1441	2320	1435	2311	1431	2303	1427	2297	1424	2292	1421	2288
			F	9 -0.2R		9 -0.2R		9 -0.1R		9 -0.1R		9 -0.1R		9.1 -0.1R		9.1 -0.1R		9.1 -0.1R		9.1 -0.1R	
		12"	q_a q_f	1098	1769	1082	1741	1069	1722	1060	1707	1053	1695	1047	1686	1042	1678	1039	1672	1035	1667
			F	12.4 -0.4R		12.4 -0.3R		12.5 -0.3R		12.5 -0.3R		12.6 -0.2R		12.6 -0.2R		12.6 -0.2R		12.6 -0.2R		12.6 -0.2R	
		18"	q_a q_f	835	1344	784	1263	815	1313	780	1256	752	1211	777	1252	755	1216	736	1185	757	1219
			F	16.6 -0.8R		17.5 -0.7R		16.6 -0.6R		17.2 -0.5R		17.7 -0.5R		17 -0.4R		17.5 -0.4R		17.9 -0.4R		17.3 -0.3R	
		24"	q_a q_f	633	1019	616	991	604	972	595	957	588	946	582	937	577	930	573	923	569	917
			F	22.1 -1.4R		22.3 -1.2R		22.5 -1.1R		22.7 -1R		22.8 -0.9R		22.9 -0.8R		23 -0.7R		23 -0.7R		23.1 -0.6R	
	16 ga	4"	q_a q_f	1702	2741	1695	2730	1690	2722	1687	2716	1684	2711	1681	2707	1680	2704	1678	2701	1612	2595
			F	6.4 -0.1R		6.4 +0R		6.4 +0R		6.4 +0R		6.4 +0R		6.4 +0R		6.4 +0R		6.4 +0R		6.4 +0R	
		6"	q_a q_f	1351	2176	1341	2158	1333	2146	1327	2136	1322	2129	1319	2123	1316	2118	1313	2114	1311	2111
			F	8.3 -0.1R		8.3 -0.1R		8.4 -0.1R		8.4 -0.1R		8.4 -0.1R		8.4 -0.1R		8.4 -0.1R		8.4 -0.1R		8.4 +0R	
		8"	q_a q_f	1109	1786	1096	1765	1087	1750	1080	1738	1074	1729	1070	1722	1066	1716	1063	1711	1060	1707
			F	10.3 -0.2R		10.3 -0.2R		10.3 -0.2R		10.4 -0.1R		10.4 -0.1R		10.4 -0.1R		10.4 -0.1R		10.4 -0.1R		10.4 -0.1R	
		12"	q_a q_f	818	1317	802	1291	791	1273	782	1260	776	1249	771	1241	766	1234	763	1228	760	1223
			F	14.1 -0.4R		14.2 -0.4R		14.2 -0.3R		14.3 -0.3R		14.3 -0.3R		14.3 -0.2R		14.4 -0.2R		14.4 -0.2R		14.4 -0.2R	
		18"	q_a q_f	617	993	577	929	601	968	573	923	552	888	569	916	552	888	537	865	552	889
			F	18.9 -0.9R		19.8 -0.8R		18.8 -0.6R		19.5 -0.6R		20.1 -0.6R		19.3 -0.5R		19.8 -0.5R		20.3 -0.4R		19.6 -0.4R	
		24"	q_a q_f	466	750	451	726	441	709	433	697	427	687	422	679	418	673	415	668	412	663
			F	24.9 -1.6R		25.2 -1.4R		25.5 -1.2R		25.6 -1.1R		25.8 -1R		25.9 -0.9R		26 -0.8R		26 -0.8R		26.1 -0.7R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	7.4 -0.1R		7.4 -0.1R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.5 +0R	
		6"	q_a q_f	1026	1652	1015	1635	1008	1622	1002	1613	997	1606	994	1600	991	1595	988	1591	986	1588
			F	9.6 -0.1R		9.6 -0.1R		9.7 -0.1R		9.7 -0.1R		9.7 -0.1R		9.7 -0.1R		9.7 -0.1R		9.7 -0.1R		9.7 -0.1R	
		8"	q_a q_f	832	1340	820	1320	811	1305	804	1295	799	1286	795	1279	791	1274	788	1269	786	1265
			F	11.8 -0.2R		11.8 -0.2R		11.9 -0.2R		11.9 -0.1R		11.9 -0.1R		11.9 -0.1R		11.9 -0.1R		11.9 -0.1R		12 -0.1R	
		12"	q_a q_f	609	981	595	958	585	942	577	929	571	920	567	912	563	906	560	901	557	896
			F	16.1 -0.5R		16.2 -0.4R		16.2 -0.4R		16.3 -0.3R		16.3 -0.3R		16.3 -0.3R		16.4 -0.2R		16.4 -0.2R		16.4 -0.2R	
		18"	q_a q_f	453	730	423	681	440	708	419	674	402	647	416	670	403	648	392	631	403	649
			F	21.4 -1R		22.5 -0.9R		21.3 -0.7R		22.1 -0.7R		22.8 -0.6R		21.9 -0.5R		22.5 -0.5R		23 -0.5R		22.3 -0.4R	
		24"	q_a q_f	345	556	333	536	324	522	317	511	312	502	308	496	304	490	302	486	299	482
			F	28.2 -1.8R		28.5 -1.5R		28.8 -1.4R		29 -1.2R		29.1 -1.1R		29.2 -1R		29.3 -0.9R		29.4 -0.9R		29.5 -0.8R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	9.1 -0.1R		9.1 -0.1R		9.1 -0.1R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R	
		6"	q_a q_f	711	1145	702	1130	694	1118	689	1109	685	1103	682	1097	679	1093	677	1089	675	1086
			F	11.6 -0.2R		11.6 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 -0.1R	
		8"	q_a q_f	572	920	561	902	553	890	547	880	542	873	538	867	535	862	533	858	531	854
			F	14.1 -0.3R		14.2 -0.2R		14.2 -0.2R		14.2 -0.2R		14.3 -0.2R		14.3 -0.1R		14.3 -0.1R		14.3 -0.1R		14.3 -0.1R	
		12"	q_a q_f	413	665	403	649	396	637	390	628	385	620	381	614	378	609	375	604	373	600
			F	19.1 -0.6R		19.2 -0.5R		19.2 -0.4R		19.3 -0.4R		19.3 -0.3R		19.4 -0.3R		19.4 -0.3R		19.4 -0.3R		19.4 -0.2R	
		18"	q_a q_f	308	495	286	460	295	475	280	451	269	433	277	446	268	431	260	419	267	430
			F	25.2 -1.1R		26.4 -1.1R		25.1 -0.8R		26.1 -0.8R		26.8 -0.7R		25.8 -0.6R		26.5 -0.6R		27 -0.6R		26.2 -0.5R	
		24"	q_a q_f	237	382	227	366	220	354	214	345	210	338	207	333	204	328	202	324	200	321
			F	33.1 -2.1R		33.5 -1.8R		33.7 -1.6R		34 -1.4R		34.1 -1.3R		34.3 -1.2R		34.4 -1.1R		34.5 -1R		34.5 -0.9R	

4.5D-12 12/2 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

4.5D-12 5.1

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2923	4677	2917	4677	2897	4664	2882	4640	2790	4492	2511	4043	2283	3675	2093	3369	1932	3110
			F	4.2 +19.5R		4.4 +16.2R		4.6 +13.9R		4.7 +12.2R		4.8 +10.8R		4.9 +9.7R		4.9 +8.9R		5 +8.1R		5 +7.5R	
		6"	q_a q_f	2198	3539	2164	3484	2139	3444	2121	3415	2106	3391	2095	3373	2085	3357	2077	3345	1932	3110
			F	5.9 +19.4R		6.2 +16.1R		6.3 +13.8R		6.5 +12.1R		6.6 +10.8R		6.6 +9.7R		6.7 +8.8R		6.7 +8.1R		6.8 +7.4R	
		8"	q_a q_f	1762	2837	1725	2777	1698	2733	1678	2701	1662	2675	1649	2655	1639	2638	1630	2624	1623	2613
			F	7.6 +19.2R		7.9 +16R		8 +13.7R		8.2 +12R		8.3 +10.7R		8.4 +9.6R		8.4 +8.7R		8.5 +8R		8.5 +7.4R	
		12"	q_a q_f	1288	2074	1248	2009	1219	1963	1198	1928	1181	1901	1167	1879	1156	1861	1147	1846	1139	1834
			F	10.8 +18.9R		11.1 +15.7R		11.3 +13.4R		11.5 +11.7R		11.7 +10.4R		11.8 +9.4R		11.9 +8.5R		11.9 +7.8R		12 +7.2R	
		18"	q_a q_f	976	1571	902	1452	925	1489	876	1410	837	1348	860	1384	830	1336	805	1296	825	1328
			F	14.6 +18.3R		15.7 +15.1R		15.2 +13R		15.9 +11.3R		16.6 +10R		16 +9R		16.5 +8.1R		17 +7.4R		16.5 +6.9R	
		24"	q_a q_f	763	1229	725	1167	697	1122	676	1089	660	1063	647	1042	637	1025	628	1011	621	999
			F	19.4 +17.3R		20.1 +14.3R		20.6 +12.1R		20.9 +10.6R		21.2 +9.3R		21.5 +8.4R		21.7 +7.6R		21.8 +6.9R		22 +6.4R	
	16 ga	4"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1802	2902	1664	2679
			F	4.2 +34.4R		4.6 +28.6R		4.9 +24.6R		5 +21.5R		5.2 +19.1R		5.3 +17.2R		5.4 +15.6R		5.5 +14.3R		5.6 +13.2R	
		6"	q_a q_f	1636	2634	1605	2584	1582	2548	1565	2520	1552	2499	1542	2482	1533	2468	1526	2456	1519	2446
			F	6.1 +34.3R		6.5 +28.5R		6.8 +24.5R		7 +21.4R		7.2 +19R		7.3 +17.1R		7.4 +15.6R		7.5 +14.3R		7.6 +13.2R	
		8"	q_a q_f	1309	2107	1276	2054	1251	2015	1233	1986	1219	1963	1208	1945	1199	1930	1191	1917	1184	1907
			F	8 +34.1R		8.4 +28.4R		8.7 +24.3R		8.9 +21.3R		9.1 +18.9R		9.2 +17R		9.4 +15.5R		9.5 +14.2R		9.5 +13.1R	
		12"	q_a q_f	956	1540	923	1486	899	1448	881	1419	867	1396	855	1377	845	1361	837	1348	830	1337
			F	11.6 +33.7R		12.1 +28R		12.4 +24R		12.7 +21R		12.9 +18.7R		13.1 +16.8R		13.2 +15.3R		13.3 +14R		13.4 +12.9R	
		18"	q_a q_f	729	1174	671	1080	683	1100	645	1039	615	991	630	1014	607	977	588	946	601	967
			F	15.9 +33R		17.2 +27.3R		16.7 +23.5R		17.6 +20.5R		18.4 +18.1R		17.8 +16.4R		18.4 +14.8R		18.9 +13.6R		18.5 +12.6R	
		24"	q_a q_f	578	931	545	877	521	839	503	810	489	788	478	770	469	755	462	743	455	733
			F	21.2 +31.9R		22.1 +26.5R		22.7 +22.6R		23.2 +19.7R		23.6 +17.4R		23.9 +15.7R		24.2 +14.2R		24.4 +13R		24.6 +12R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	3.7 +60.2R		4.4 +50.2R		4.8 +43R		5.1 +37.7R		5.4 +33.5R		5.6 +30.1R		5.8 +27.4R		5.9 +25.1R		6 +23.2R	
		6"	q_a q_f	1219	1962	1191	1917	1170	1884	1155	1860	1143	1841	1134	1825	1126	1813	1119	1802	1114	1793
			F	5.9 +60.1R		6.5 +50.1R		7 +42.9R		7.3 +37.6R		7.6 +33.4R		7.8 +30R		8 +27.3R		8.1 +25R		8.3 +23.1R	
		8"	q_a q_f	976	1571	946	1524	925	1490	909	1464	897	1444	887	1428	879	1415	872	1404	866	1394
			F	8 +59.9R		8.6 +49.9R		9.1 +42.8R		9.5 +37.4R		9.8 +33.3R		10 +29.9R		10.2 +27.2R		10.3 +25R		10.5 +23R	
		12"	q_a q_f	712	1147	684	1101	663	1068	648	1043	636	1024	627	1009	619	996	612	986	607	977
			F	11.9 +59.5R		12.7 +49.5R		13.3 +42.4R		13.7 +37.1R		14 +33R		14.3 +29.7R		14.5 +27R		14.7 +24.7R		14.8 +22.8R	
		18"	q_a q_f	550	886	504	811	509	819	479	771	456	734	464	748	447	719	432	696	440	709
			F	16.8 +58.7R		18.5 +48.7R		18 +41.9R		19.2 +36.5R		20.1 +32.4R		19.6 +29.2R		20.3 +26.5R		21 +24.2R		20.5 +22.4R	
		24"	q_a q_f	442	712	413	666	393	633	378	608	366	589	356	574	348	561	342	550	336	542
			F	22.7 +57.5R		23.9 +47.7R		24.8 +40.8R		25.5 +35.6R		26 +31.6R		26.4 +28.4R		26.8 +25.8R		27 +23.6R		27.3 +21.8R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	1.6 +123.3R		2.9 +102.8R		3.8 +88.1R		4.4 +77.1R		5 +68.5R		5.4 +61.7R		5.7 +56.1R		6 +51.4R		6.2 +47.4R	
		6"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	4.1 +123.2R		5.4 +102.7R		6.3 +88R		7 +77R		7.5 +68.4R		7.9 +61.6R		8.3 +56R		8.6 +51.3R		8.8 +47.4R	
		8"	q_a q_f	668	1076	645	1038	628	1011	616	991	606	975	597	962	591	951	585	942	580	934
			F	6.5 +123R		7.8 +102.5R		8.7 +87.8R		9.4 +76.8R		10 +68.3R		10.4 +61.5R		10.8 +55.9R		11.1 +51.2R		11.4 +47.3R	
		12"	q_a q_f	492	793	469	755	452	728	440	708	430	692	422	680	416	669	410	661	406	654
			F	11.1 +122.5R		12.5 +102R		13.5 +87.4R		14.3 +76.5R		14.9 +68R		15.4 +61.2R		15.8 +55.6R		16.1 +51R		16.4 +47R	
		18"	q_a q_f	387	623	352	566	352	566	330	531	313	503	317	510	304	489	293	472	298	479
			F	16.7 +121.6R		19.2 +101.1R		19 +86.8R		20.6 +75.8R		22 +67.3R		21.5 +60.6R		22.5 +55R		23.4 +50.4R		22.9 +46.6R	
		24"	q_a q_f	316	509	293	472	276	445	264	425	254	409	246	396	240	386	234	378	230	370
			F	23.5 +120.2R		25.4 +100R		26.8 +85.5R		27.9 +74.8R		28.7 +66.4R		29.4 +59.7R		29.9 +54.2R		30.4 +49.7R		30.8 +45.8R	

4.5D-12 12/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

5.1 4.5D-12

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2531	4075	2519	4055	2510	4040	2503	4029	2497	4021	2493	4014	2490	4008	2487	4003	2484	3999
			F	4.3 +19.5R		4.5 +16.3R		4.6 +13.9R		4.7 +12.2R		4.8 +10.8R		4.9 +9.8R		4.9 +8.9R		5 +8.1R		5 +7.5R	
		6"	q_a q_f	1974	3179	1956	3149	1942	3127	1932	3111	1924	3098	1918	3088	1913	3080	1908	3073	1905	3067
			F	6 +19.5R		6.3 +16.2R		6.4 +13.9R		6.5 +12.2R		6.6 +10.8R		6.7 +9.7R		6.7 +8.8R		6.8 +8.1R		6.8 +7.5R	
		8"	q_a q_f	1608	2589	1586	2553	1570	2527	1558	2508	1548	2493	1541	2481	1535	2471	1530	2463	1525	2456
			F	7.8 +19.4R		8 +16.2R		8.2 +13.8R		8.3 +12.1R		8.4 +10.8R		8.5 +9.7R		8.5 +8.8R		8.6 +8.1R		8.6 +7.5R	
		12"	q_a q_f	1179	1898	1154	1857	1135	1828	1122	1806	1111	1789	1102	1775	1095	1764	1089	1754	1084	1746
			F	11.2 +19.2R		11.5 +16R		11.7 +13.7R		11.8 +12R		11.9 +10.6R		12 +9.6R		12.1 +8.7R		12.1 +8R		12.2 +7.4R	
		18"	q_a q_f	882	1419	823	1325	857	1381	817	1315	785	1264	813	1309	787	1267	766	1233	786	1266
			F	15.4 +18.8R		16.5 +15.6R		15.7 +13.4R		16.5 +11.7R		17.1 +10.4R		16.5 +9.4R		16.9 +8.5R		17.4 +7.8R		16.9 +7.2R	
		24"	q_a q_f	669	1077	646	1040	630	1014	617	994	608	979	600	966	594	956	589	948	584	941
			F	20.9 +18.2R		21.3 +15.1R		21.7 +12.9R		21.9 +11.3R		22.1 +10R		22.3 +9R		22.4 +8.2R		22.5 +7.5R		22.6 +6.9R	
	16 ga	4"	q_a q_f	1923	3077	1914	3077	1905	3067	1898	3056	1893	3047	1888	3040	1885	3035	1882	3030	1880	3026
			F	4.3 +34.4R		4.6 +28.7R		4.9 +24.6R		5.1 +21.5R		5.2 +19.1R		5.3 +17.2R		5.4 +15.6R		5.5 +14.3R		5.6 +13.2R	
		6"	q_a q_f	1472	2370	1455	2343	1443	2323	1433	2308	1426	2296	1420	2287	1416	2279	1412	2273	1408	2267
			F	6.3 +34.4R		6.6 +28.6R		6.9 +24.5R		7.1 +21.5R		7.2 +19.1R		7.4 +17.2R		7.5 +15.6R		7.5 +14.3R		7.6 +13.2R	
		8"	q_a q_f	1189	1914	1169	1883	1155	1860	1145	1843	1136	1830	1130	1819	1124	1810	1120	1803	1116	1797
			F	8.2 +34.3R		8.6 +28.6R		8.9 +24.5R		9.1 +21.4R		9.2 +19R		9.4 +17.1R		9.5 +15.6R		9.5 +14.3R		9.6 +13.2R	
		12"	q_a q_f	869	1399	847	1364	831	1338	820	1319	810	1305	803	1293	797	1283	792	1275	788	1268
			F	12 +34R		12.5 +28.4R		12.8 +24.3R		13 +21.3R		13.2 +18.9R		13.3 +17R		13.4 +15.5R		13.5 +14.2R		13.6 +13.1R	
		18"	q_a q_f	644	1037	600	966	622	1002	592	953	568	914	587	945	568	914	552	889	568	914
			F	16.8 +33.6R		18.1 +27.9R		17.3 +24R		18.2 +21R		19 +18.6R		18.3 +16.8R		18.9 +15.2R		19.4 +13.9R		18.8 +12.9R	
		24"	q_a q_f	493	793	474	763	460	741	450	724	442	711	435	701	430	693	426	686	422	680
			F	22.9 +32.9R		23.5 +27.4R		24 +23.4R		24.3 +20.5R		24.6 +18.2R		24.8 +16.3R		25 +14.9R		25.2 +13.6R		25.3 +12.6R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	3.8 +60.3R		4.4 +50.3R		4.9 +43.1R		5.2 +37.7R		5.4 +33.5R		5.6 +30.2R		5.8 +27.4R		5.9 +25.1R		6.1 +23.2R	
		6"	q_a q_f	1090	1756	1075	1732	1065	1714	1057	1701	1050	1691	1045	1683	1041	1676	1037	1670	1035	1666
			F	6 +60.2R		6.6 +50.2R		7.1 +43R		7.4 +37.6R		7.7 +33.5R		7.9 +30.1R		8.1 +27.4R		8.2 +25.1R		8.3 +23.2R	
		8"	q_a q_f	876	1411	860	1384	848	1365	838	1350	831	1339	826	1330	821	1322	817	1316	814	1311
			F	8.2 +60.1R		8.8 +50.1R		9.3 +42.9R		9.6 +37.6R		9.9 +33.4R		10.1 +30.1R		10.3 +27.3R		10.4 +25R		10.6 +23.1R	
		12"	q_a q_f	634	1021	618	996	607	978	599	964	591	952	585	942	580	934	576	927	572	921
			F	12.5 +59.9R		13.2 +49.9R		13.6 +42.7R		14 +37.4R		14.3 +33.2R		14.5 +29.9R		14.7 +27.2R		14.9 +24.9R		15 +23R	
		18"	q_a q_f	472	760	438	706	453	729	430	692	412	664	425	685	411	662	399	643	410	660
			F	17.8 +59.4R		19.5 +49.4R		18.8 +42.4R		19.9 +37.1R		20.8 +32.9R		20.1 +29.7R		20.8 +26.9R		21.5 +24.7R		20.9 +22.8R	
		24"	q_a q_f	364	586	348	561	337	543	329	529	322	519	317	510	313	504	309	498	306	493
			F	24.6 +58.6R		25.5 +48.8R		26.2 +41.8R		26.7 +36.5R		27.1 +32.4R		27.4 +29.2R		27.7 +26.5R		27.9 +24.3R		28.1 +22.4R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	1.7 +123.4R		2.9 +102.8R		3.8 +88.2R		4.5 +77.1R		5 +68.6R		5.4 +61.7R		5.8 +56.1R		6 +51.4R		6.3 +47.5R	
		6"	q_a q_f	732	1178	720	1160	712	1146	706	1136	701	1128	697	1122	693	1117	691	1112	689	1108
			F	4.2 +123.3R		5.5 +102.8R		6.4 +88.1R		7.1 +77.1R		7.6 +68.5R		8 +61.7R		8.3 +56.1R		8.6 +51.4R		8.9 +47.4R	
		8"	q_a q_f	586	944	574	924	565	909	558	898	552	889	548	882	544	877	542	872	539	868
			F	6.7 +123.2R		8 +102.7R		8.9 +88R		9.6 +77R		10.2 +68.4R		10.6 +61.6R		10.9 +56R		11.2 +51.3R		11.5 +47.4R	
		12"	q_a q_f	421	677	409	659	401	646	395	636	390	628	386	622	383	617	381	613	378	609
			F	11.7 +122.9R		13 +102.4R		14 +87.8R		14.7 +76.8R		15.2 +68.3R		15.7 +61.4R		16 +55.8R		16.3 +51.2R		16.6 +47.3R	
		18"	q_a q_f	315	507	292	470	300	484	285	459	273	439	281	452	271	437	263	424	270	435
			F	17.8 +122.4R		20.3 +101.9R		19.9 +87.4R		21.4 +76.4R		22.7 +67.9R		22.1 +61.1R		23.1 +55.5R		23.9 +50.9R		23.4 +47R	
		24"	q_a q_f	245	394	233	376	225	362	219	352	214	345	210	339	207	334	205	329	202	326
			F	25.7 +121.4R		27.3 +101.1R		28.5 +86.6R		29.3 +75.8R		30 +67.3R		30.6 +60.6R		31 +55.1R		31.4 +50.5R		31.7 +46.6R	

4.5D-12 12/2 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

4.5D-12 5.1

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2923 4677	2846 4581	2627 4229
			F	4.2 +19.5R	4.4 +16.2R	4.6 +13.9R	4.7 +12.2R	4.8 +10.8R	4.9 +9.7R	4.9 +8.9R	5 +8.1R	5 +7.5R
		6"	q_a q_f	2360 3799	2309 3717	2272 3658	2244 3613	2223 3579	2205 3551	2191 3528	2180 3509	2170 3493
			F	5.9 +19.4R	6.2 +16.1R	6.3 +13.8R	6.5 +12.1R	6.6 +10.8R	6.6 +9.7R	6.7 +8.8R	6.7 +8.1R	6.8 +7.4R
		8"	q_a q_f	1888 3040	1834 2953	1796 2891	1767 2844	1744 2808	1726 2778	1711 2754	1698 2734	1688 2718
			F	7.6 +19.2R	7.9 +16R	8 +13.7R	8.2 +12R	8.3 +10.7R	8.4 +9.6R	8.4 +8.7R	8.5 +8R	8.5 +7.4R
		12"	q_a q_f	1378 2219	1326 2134	1288 2074	1260 2028	1238 1993	1220 1965	1206 1942	1194 1923	1184 1906
			F	10.8 +18.9R	11.1 +15.7R	11.3 +13.4R	11.5 +11.7R	11.7 +10.4R	11.8 +9.4R	11.9 +8.5R	11.9 +7.8R	12 +7.2R
		18"	q_a q_f	1059 1706	971 1564	984 1585	928 1494	884 1423	902 1452	868 1397	840 1352	857 1380
			F	14.6 +18.3R	15.7 +15.1R	15.2 +13R	15.9 +11.3R	16.6 +10R	16 +9R	16.5 +8.1R	17 +7.4R	16.5 +6.9R
		24"	q_a q_f	847 1363	794 1279	757 1218	729 1173	707 1138	689 1109	675 1086	663 1067	653 1051
			F	19.4 +17.3R	20.1 +14.3R	20.6 +12.1R	20.9 +10.6R	21.2 +9.3R	21.5 +8.4R	21.7 +7.6R	21.8 +6.9R	22 +6.4R
	16 ga	4"	q_a q_f	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077	1923 3077
			F	4.2 +34.4R	4.6 +28.6R	4.9 +24.6R	5 +21.5R	5.2 +19.1R	5.3 +17.2R	5.4 +15.6R	5.5 +14.3R	5.6 +13.2R
		6"	q_a q_f	1739 2799	1695 2729	1663 2678	1640 2640	1621 2610	1607 2587	1594 2567	1584 2551	1576 2537
			F	6.1 +34.3R	6.5 +28.5R	6.8 +24.5R	7 +21.4R	7.2 +19R	7.3 +17.1R	7.4 +15.6R	7.5 +14.3R	7.6 +13.2R
		8"	q_a q_f	1394 2245	1349 2171	1316 2119	1291 2079	1272 2048	1257 2023	1244 2003	1234 1986	1225 1972
			F	8 +34.1R	8.4 +28.4R	8.7 +24.3R	8.9 +21.3R	9.1 +18.9R	9.2 +17R	9.4 +15.5R	9.5 +14.2R	9.5 +13.1R
		12"	q_a q_f	1018 1640	975 1570	944 1519	920 1482	902 1452	888 1429	876 1410	866 1394	857 1380
			F	11.6 +33.7R	12.1 +28R	12.4 +24R	12.7 +21R	12.9 +18.7R	13.1 +16.8R	13.2 +15.3R	13.3 +14R	13.4 +12.9R
		18"	q_a q_f	792 1274	723 1163	727 1171	684 1101	650 1046	661 1064	635 1022	614 988	625 1005
			F	15.9 +33R	17.2 +27.3R	16.7 +23.5R	17.6 +20.5R	18.4 +18.1R	17.8 +16.4R	18.4 +14.8R	18.9 +13.6R	18.5 +12.6R
		24"	q_a q_f	640 1031	597 960	565 910	542 873	524 843	509 820	497 801	487 785	479 771
			F	21.2 +31.9R	22.1 +26.5R	22.7 +22.6R	23.2 +19.7R	23.6 +17.4R	23.9 +15.7R	24.2 +14.2R	24.4 +13R	24.6 +12R
	18 ga	4"	q_a q_f	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029	1268 2029
			F	3.7 +60.2R	4.4 +50.2R	4.8 +43R	5.1 +37.7R	5.4 +33.5R	5.6 +30.1R	5.8 +27.4R	5.9 +25.1R	6 +23.2R
		6"	q_a q_f	1268 2029	1244 2003	1218 1961	1198 1929	1183 1904	1171 1885	1160 1868	1152 1855	1145 1843
			F	5.9 +60.1R	6.5 +50.1R	7 +42.9R	7.3 +37.6R	7.6 +33.4R	7.8 +30R	8 +27.3R	8.1 +25R	8.3 +23.1R
		8"	q_a q_f	1025 1650	989 1593	964 1552	945 1521	929 1496	916 1475	906 1459	897 1445	890 1433
			F	8 +59.9R	8.6 +49.9R	9.1 +42.8R	9.5 +37.4R	9.8 +33.3R	10 +29.9R	10.2 +27.2R	10.3 +25R	10.5 +23R
		12"	q_a q_f	754 1215	719 1157	693 1116	674 1086	659 1062	648 1043	638 1027	630 1014	623 1003
			F	11.9 +59.5R	12.7 +49.5R	13.3 +42.4R	13.7 +37.1R	14 +33R	14.3 +29.7R	14.5 +27R	14.7 +24.7R	14.8 +22.8R
		18"	q_a q_f	592 954	539 867	539 868	505 814	479 772	485 781	466 750	450 724	457 735
			F	16.8 +58.7R	18.5 +48.7R	18 +41.9R	19.2 +36.5R	20.1 +32.4R	19.6 +29.2R	20.3 +26.5R	21 +24.2R	20.5 +22.4R
		24"	q_a q_f	484 779	448 722	423 681	404 650	389 626	377 607	368 592	359 579	353 568
			F	22.7 +57.5R	23.9 +47.7R	24.8 +40.8R	25.5 +35.6R	26 +31.6R	26.4 +28.4R	26.8 +25.8R	27 +23.6R	27.3 +21.8R
	20 ga	4"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	1.6 +123.3R	2.9 +102.8R	3.8 +88.1R	4.4 +77.1R	5 +68.5R	5.4 +61.7R	5.7 +56.1R	6 +51.4R	6.2 +47.4R
		6"	q_a q_f	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185	741 1185
			F	4.1 +123.2R	5.4 +102.7R	6.3 +88R	7 +77R	7.5 +68.4R	7.9 +61.6R	8.3 +56R	8.6 +51.3R	8.8 +47.4R
		8"	q_a q_f	685 1103	659 1061	640 1031	626 1008	615 991	607 977	599 965	593 956	588 947
			F	6.5 +123R	7.8 +102.5R	8.7 +87.8R	9.4 +76.8R	10 +68.3R	10.4 +61.5R	10.8 +55.9R	11.1 +51.2R	11.4 +47.3R
		12"	q_a q_f	509 820	483 778	464 748	450 725	439 707	431 693	423 682	418 672	412 664
			F	11.1 +122.5R	12.5 +102R	13.5 +87.4R	14.3 +76.5R	14.9 +68R	15.4 +61.2R	15.8 +55.6R	16.1 +51R	16.4 +47R
		18"	q_a q_f	404 650	366 589	364 586	340 548	322 519	325 523	312 502	300 483	304 490
			F	16.7 +121.6R	19.2 +101.1R	19 +86.8R	20.6 +75.8R	22 +67.3R	21.5 +60.6R	22.5 +55R	23.4 +50.4R	22.9 +46.6R
		24"	q_a q_f	333 537	307 495	288 464	274 442	263 424	255 410	248 399	242 389	237 381
			F	23.5 +120.2R	25.4 +100R	26.8 +85.5R	27.9 +74.8R	28.7 +66.4R	29.4 +59.7R	29.9 +54.2R	30.4 +49.7R	30.8 +45.8R

4.5D-12 12/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #10 SD HWH Screw

5.1 4.5D-12

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2748	4425	2729	4394	2716	4372	2705	4356	2697	4343	2691	4332	2686	4324	2681	4317	2677	4311
			F	4.3 +19.5R		4.5 +16.3R		4.6 +13.9R		4.7 +12.2R		4.8 +10.8R		4.9 +9.8R		4.9 +8.9R		5 +8.1R		5 +7.5R	
		6"	q_a q_f	2091	3366	2065	3325	2047	3295	2033	3273	2022	3256	2013	3242	2006	3230	2000	3221	1995	3212
			F	6 +19.5R		6.3 +16.2R		6.4 +13.9R		6.5 +12.2R		6.6 +10.8R		6.7 +9.7R		6.7 +8.8R		6.8 +8.1R		6.8 +7.5R	
		8"	q_a q_f	1686	2714	1657	2667	1636	2634	1620	2608	1608	2589	1598	2573	1590	2560	1583	2549	1577	2540
			F	7.8 +19.4R		8 +16.2R		8.2 +13.8R		8.3 +12.1R		8.4 +10.8R		8.5 +9.7R		8.5 +8.8R		8.6 +8.1R		8.6 +7.5R	
		12"	q_a q_f	1230	1980	1199	1931	1176	1894	1159	1866	1145	1844	1134	1826	1126	1812	1118	1800	1112	1790
			F	11.2 +19.2R		11.5 +16R		11.7 +13.7R		11.8 +12R		11.9 +10.6R		12 +9.6R		12.1 +8.7R		12.1 +8R		12.2 +7.4R	
		18"	q_a q_f	911	1467	848	1365	878	1414	835	1344	801	1290	827	1332	801	1289	778	1253	800	1288
			F	15.4 +18.8R		16.5 +15.6R		15.7 +13.4R		16.5 +11.7R		17.1 +10.4R		16.5 +9.4R		16.9 +8.5R		17.4 +7.8R		16.9 +7.2R	
		24"	q_a q_f	699	1125	671	1080	651	1048	636	1024	624	1005	615	990	607	978	601	968	596	959
			F	20.9 +18.2R		21.3 +15.1R		21.7 +12.9R		21.9 +11.3R		22.1 +10R		22.3 +9R		22.4 +8.2R		22.5 +7.5R		22.6 +6.9R	
	16 ga	4"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077
			F	4.3 +34.4R		4.6 +28.7R		4.9 +24.6R		5.1 +21.5R		5.2 +19.1R		5.3 +17.2R		5.4 +15.6R		5.5 +14.3R		5.6 +13.2R	
		6"	q_a q_f	1515	2439	1495	2407	1480	2383	1469	2366	1461	2352	1454	2341	1448	2332	1444	2324	1440	2318
			F	6.3 +34.4R		6.6 +28.6R		6.9 +24.5R		7.1 +21.5R		7.2 +19.1R		7.4 +17.2R		7.5 +15.6R		7.5 +14.3R		7.6 +13.2R	
		8"	q_a q_f	1218	1962	1196	1925	1180	1899	1167	1880	1158	1864	1150	1852	1144	1842	1139	1834	1134	1826
			F	8.2 +34.3R		8.6 +28.6R		8.9 +24.5R		9.1 +21.4R		9.2 +19R		9.4 +17.1R		9.5 +15.6R		9.5 +14.3R		9.6 +13.2R	
		12"	q_a q_f	884	1423	862	1389	847	1364	834	1343	824	1326	815	1313	809	1302	803	1293	798	1285
			F	12 +34R		12.5 +28.4R		12.8 +24.3R		13 +21.3R		13.2 +18.9R		13.3 +17R		13.4 +15.5R		13.5 +14.2R		13.6 +13.1R	
		18"	q_a q_f	657	1057	610	983	631	1016	600	965	575	926	593	955	574	924	557	897	573	922
			F	16.8 +33.6R		18.1 +27.9R		17.3 +24R		18.2 +21R		19 +18.6R		18.3 +16.8R		18.9 +15.2R		19.4 +13.9R		18.8 +12.9R	
		24"	q_a q_f	505	814	484	780	469	755	458	737	449	723	442	711	436	702	431	694	427	688
			F	22.9 +32.9R		23.5 +27.4R		24 +23.4R		24.3 +20.5R		24.6 +18.2R		24.8 +16.3R		25 +14.9R		25.2 +13.6R		25.3 +12.6R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	3.8 +60.3R		4.4 +50.3R		4.9 +43.1R		5.2 +37.7R		5.4 +33.5R		5.6 +30.2R		5.8 +27.4R		5.9 +25.1R		6.1 +23.2R	
		6"	q_a q_f	1103	1776	1087	1750	1075	1731	1067	1717	1060	1707	1055	1698	1050	1691	1046	1685	1043	1680
			F	6 +60.2R		6.6 +50.2R		7.1 +43R		7.4 +37.6R		7.7 +33.5R		7.9 +30.1R		8.1 +27.4R		8.2 +25.1R		8.3 +23.2R	
		8"	q_a q_f	885	1425	867	1397	855	1376	845	1361	838	1349	832	1339	827	1331	823	1325	819	1319
			F	8.2 +60.1R		8.8 +50.1R		9.3 +42.9R		9.6 +37.6R		9.9 +33.4R		10.1 +30.1R		10.3 +27.3R		10.4 +25R		10.6 +23.1R	
		12"	q_a q_f	638	1028	622	1002	610	983	602	969	595	958	589	948	584	940	579	932	575	926
			F	12.5 +59.9R		13.2 +49.9R		13.6 +42.7R		14 +37.4R		14.3 +33.2R		14.5 +29.9R		14.7 +27.2R		14.9 +24.9R		15 +23R	
		18"	q_a q_f	476	767	442	711	456	734	433	697	415	668	427	688	413	665	401	646	412	663
			F	17.8 +59.4R		19.5 +49.4R		18.8 +42.4R		19.9 +37.1R		20.8 +32.9R		20.1 +29.7R		20.8 +26.9R		21.5 +24.7R		20.9 +22.8R	
		24"	q_a q_f	368	592	352	566	340	548	331	534	325	523	319	514	315	507	311	501	308	496
			F	24.6 +58.6R		25.5 +48.8R		26.2 +41.8R		26.7 +36.5R		27.1 +32.4R		27.4 +29.2R		27.7 +26.5R		27.9 +24.3R		28.1 +22.4R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	1.7 +123.4R		2.9 +102.8R		3.8 +88.2R		4.5 +77.1R		5 +68.6R		5.4 +61.7R		5.8 +56.1R		6 +51.4R		6.3 +47.5R	
		6"	q_a q_f	736	1185	724	1166	715	1152	709	1141	704	1133	700	1127	696	1121	694	1117	691	1113
			F	4.2 +123.3R		5.5 +102.8R		6.4 +88.1R		7.1 +77.1R		7.6 +68.5R		8 +61.7R		8.3 +56.1R		8.6 +51.4R		8.9 +47.4R	
		8"	q_a q_f	589	949	576	928	567	913	560	901	554	893	550	885	546	880	543	875	541	871
			F	6.7 +123.2R		8 +102.7R		8.9 +88R		9.6 +77R		10.2 +68.4R		10.6 +61.6R		10.9 +56R		11.2 +51.3R		11.5 +47.4R	
		12"	q_a q_f	422	680	411	661	402	648	396	637	391	630	387	623	384	618	381	614	379	610
			F	11.7 +122.9R		13 +102.4R		14 +87.8R		14.7 +76.8R		15.2 +68.3R		15.7 +61.4R		16 +55.8R		16.3 +51.2R		16.6 +47.3R	
		18"	q_a q_f	317	510	293	472	302	486	286	460	274	441	282	453	272	438	264	425	271	436
			F	17.8 +122.4R		20.3 +101.9R		19.9 +87.4R		21.4 +76.4R		22.7 +67.9R		22.1 +61.1R		23.1 +55.5R		23.9 +50.9R		23.4 +47R	
		24"	q_a q_f	246	397	235	378	226	364	220	354	215	346	211	340	208	335	205	331	203	327
			F	25.7 +121.4R		27.3 +101.1R		28.5 +86.6R		29.3 +75.8R		30 +67.3R		30.6 +60.6R		31 +55.1R		31.4 +50.5R		31.7 +46.6R	

4.5D-12 12/2 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

4.5D-12 5.1

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

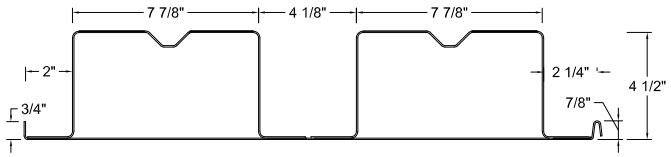
Diaphragm Shear in pounds per linear foot (plf)

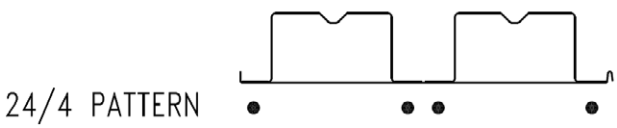
PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2923	4677	2779	4446
			F	4.2 +19.5R		4.4 +16.2R		4.6 +13.9R		4.7 +12.2R		4.8 +10.8R		4.9 +9.7R		4.9 +8.9R		5 +8.1R		5 +7.5R	
		6"	q_a q_f	2464	3967	2400	3863	2353	3789	2319	3733	2291	3689	2270	3654	2252	3626	2237	3602	2224	3581
			F	5.9 +19.4R		6.2 +16.1R		6.3 +13.8R		6.5 +12.1R		6.6 +10.8R		6.6 +9.7R		6.7 +8.8R		6.7 +8.1R		6.8 +7.4R	
		8"	q_a q_f	1977	3183	1910	3076	1862	2999	1826	2940	1798	2895	1776	2859	1757	2829	1742	2804	1729	2783
			F	7.6 +19.2R		7.9 +16R		8 +13.7R		8.2 +12R		8.3 +10.7R		8.4 +9.6R		8.4 +8.7R		8.5 +8R		8.5 +7.4R	
		12"	q_a q_f	1445	2327	1382	2225	1336	2151	1302	2096	1275	2053	1254	2019	1237	1991	1222	1968	1210	1948
			F	10.8 +18.9R		11.1 +15.7R		11.3 +13.4R		11.5 +11.7R		11.7 +10.4R		11.8 +9.4R		11.9 +8.5R		11.9 +7.8R		12 +7.2R	
		18"	q_a q_f	1127	1814	1027	1654	1032	1662	970	1561	921	1483	935	1506	899	1447	868	1397	883	1422
			F	14.6 +18.3R		15.7 +15.1R		15.2 +13R		15.9 +11.3R		16.6 +10R		16 +9R		16.5 +8.1R		17 +7.4R		16.5 +6.9R	
		24"	q_a q_f	914	1472	850	1369	805	1296	771	1241	744	1198	723	1164	705	1136	691	1112	679	1093
			F	19.4 +17.3R		20.1 +14.3R		20.6 +12.1R		20.9 +10.6R		21.2 +9.3R		21.5 +8.4R		21.7 +7.6R		21.8 +6.9R		22 +6.4R	
	16 ga	4"	q_a q_f	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077	1923	3077
			F	4.2 +34.4R		4.6 +28.6R		4.9 +24.6R		5 +21.5R		5.2 +19.1R		5.3 +17.2R		5.4 +15.6R		5.5 +14.3R		5.6 +13.2R	
		6"	q_a q_f	1781	2867	1731	2787	1696	2730	1669	2687	1648	2653	1631	2627	1618	2604	1606	2586	1597	2571
			F	6.1 +34.3R		6.5 +28.5R		6.8 +24.5R		7 +21.4R		7.2 +19R		7.3 +17.1R		7.4 +15.6R		7.5 +14.3R		7.6 +13.2R	
		8"	q_a q_f	1426	2296	1377	2218	1343	2162	1316	2118	1294	2084	1277	2056	1263	2033	1251	2014	1241	1998
			F	8 +34.1R		8.4 +28.4R		8.7 +24.3R		8.9 +21.3R		9.1 +18.9R		9.2 +17R		9.4 +15.5R		9.5 +14.2R		9.5 +13.1R	
		12"	q_a q_f	1048	1687	999	1608	964	1553	938	1511	918	1478	902	1452	889	1431	878	1413	868	1398
			F	11.6 +33.7R		12.1 +28R		12.4 +24R		12.7 +21R		12.9 +18.7R		13.1 +16.8R		13.2 +15.3R		13.3 +14R		13.4 +12.9R	
		18"	q_a q_f	821	1321	747	1202	748	1205	702	1130	666	1072	675	1087	648	1043	626	1007	636	1023
			F	15.9 +33R		17.2 +27.3R		16.7 +23.5R		17.6 +20.5R		18.4 +18.1R		17.8 +16.4R		18.4 +14.8R		18.9 +13.6R		18.5 +12.6R	
		24"	q_a q_f	669	1077	621	999	586	944	560	902	540	869	524	843	511	822	500	804	490	789
			F	21.2 +31.9R		22.1 +26.5R		22.7 +22.6R		23.2 +19.7R		23.6 +17.4R		23.9 +15.7R		24.2 +14.2R		24.4 +13R		24.6 +12R	
	18 ga	4"	q_a q_f	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029	1268	2029
			F	3.7 +60.2R		4.4 +50.2R		4.8 +43R		5.1 +37.7R		5.4 +33.5R		5.6 +30.1R		5.8 +27.4R		5.9 +25.1R		6 +23.2R	
		6"	q_a q_f	1268	2029	1256	2022	1228	1977	1207	1944	1191	1918	1178	1897	1168	1880	1159	1866	1151	1853
			F	5.9 +60.1R		6.5 +50.1R		7 +42.9R		7.3 +37.6R		7.6 +33.4R		7.8 +30R		8 +27.3R		8.1 +25R		8.3 +23.1R	
		8"	q_a q_f	1035	1666	997	1606	971	1563	951	1531	935	1506	923	1486	912	1468	903	1454	895	1441
			F	8 +59.9R		8.6 +49.9R		9.1 +42.8R		9.5 +37.4R		9.8 +33.3R		10 +29.9R		10.2 +27.2R		10.3 +25R		10.5 +23R	
		12"	q_a q_f	764	1230	727	1170	700	1128	680	1095	665	1070	652	1050	642	1034	634	1020	627	1009
			F	11.9 +59.5R		12.7 +49.5R		13.3 +42.4R		13.7 +37.1R		14 +33R		14.3 +29.7R		14.5 +27R		14.7 +24.7R		14.8 +22.8R	
		18"	q_a q_f	602	969	547	880	546	879	511	823	485	780	490	789	470	757	454	730	460	741
			F	16.8 +58.7R		18.5 +48.7R		18 +41.9R		19.2 +36.5R		20.1 +32.4R		19.6 +29.2R		20.3 +26.5R		21 +24.2R		20.5 +22.4R	
		24"	q_a q_f	494	795	457	735	430	692	410	660	395	635	382	615	372	599	363	585	356	574
			F	22.7 +57.5R		23.9 +47.7R		24.8 +40.8R		25.5 +35.6R		26 +31.6R		26.4 +28.4R		26.8 +25.8R		27 +23.6R		27.3 +21.8R	
	20 ga	4"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	1.6 +123.3R		2.9 +102.8R		3.8 +88.1R		4.4 +77.1R		5 +68.5R		5.4 +61.7R		5.7 +56.1R		6 +51.4R		6.2 +47.4R	
		6"	q_a q_f	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185	741	1185
			F	4.1 +123.2R		5.4 +102.7R		6.3 +88R		7 +77R		7.5 +68.4R		7.9 +61.6R		8.3 +56R		8.6 +51.3R		8.8 +47.4R	
		8"	q_a q_f	689	1109	662	1066	643	1035	629	1012	617	994	608	980	601	968	595	958	590	950
			F	6.5 +123R		7.8 +102.5R		8.7 +87.8R		9.4 +76.8R		10 +68.3R		10.4 +61.5R		10.8 +55.9R		11.1 +51.2R		11.4 +47.3R	
		12"	q_a q_f	513	826	486	783	467	752	453	729	441	711	433	696	425	685	419	675	414	666
			F	11.1 +122.5R		12.5 +102R		13.5 +87.4R		14.3 +76.5R		14.9 +68R		15.4 +61.2R		15.8 +55.6R		16.1 +51R		16.4 +47R	
		18"	q_a q_f	408	656	369	594	367	590	343	552	324	522	327	526	313	504	302	486	306	492
			F	16.7 +121.6R		19.2 +101.1R		19 +86.8R		20.6 +75.8R		22 +67.3R		21.5 +60.6R		22.5 +55R		23.4 +50.4R		22.9 +46.6R	
		24"	q_a q_f	337	543	310	500	291	469	277	446	266	427	257	413	249	401	243	391	238	383
			F	23.5 +120.2R		25.4 +100R		26.8 +85.5R		27.9 +74.8R		28.7 +66.4R		29.4 +59.7R		29.9 +54.2R		30.4 +49.7R		30.8 +45.8R	

4.5D-12 12/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #10 SD HWH Screw

5.2 **4.5DF-24**
Deep Deck





Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	4.17	0.035/0.035	50	65	1.211	4.505	1.71	1.575	1.928
20/18	4.70	0.035/0.047	50	65	1.364	4.890	1.54	1.605	1.894
20/16	5.24	0.035/0.059	50	65	1.508	5.190	1.40	1.627	1.856
18/20	5.02	0.047/0.035	50	65	1.457	5.525	1.89	2.055	1.948
18/18	5.56	0.047/0.047	50	65	1.631	5.970	1.72	2.085	1.914
18/16	6.09	0.047/0.059	50	65	1.753	6.400	1.60	2.128	1.910
16/20	5.88	0.059/0.035	50	65	1.704	6.495	2.03	2.526	1.952
16/18	6.41	0.059/0.047	50	65	1.846	7.020	1.88	2.577	1.950
16/16	6.95	0.059/0.059	50	65	2.001	7.515	1.75	2.621	1.938

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.995	0.932	1.23	0.937	2.69	3.845	3.104	4.065	3.571
20/18	1.138	0.945	1.08	1.216	2.46	4.065	3.639	4.340	4.056
20/16	1.297	0.959	0.98	1.477	2.22	4.190	4.135	4.523	4.487
18/20	1.318	1.548	1.63	1.193	2.73	5.105	3.880	5.245	4.428
18/18	1.467	1.533	1.45	1.475	2.54	5.520	4.455	5.670	4.960
18/16	1.569	1.535	1.31	1.762	2.40	5.920	5.050	6.080	5.500
16/20	1.599	2.134	1.87	1.459	2.76	6.375	4.705	6.415	5.302
16/18	1.741	2.177	1.72	1.702	2.63	6.885	5.290	6.930	5.867
16/16	1.895	2.214	1.60	2.027	2.48	7.365	5.965	7.415	6.482

Reactions and supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	463	572	727	923	709	876	1112	1412
	Interior	788	942	1161	1439	1172	1402	1727	2140
18	End	808	986	1238	1595	1235	1508	1895	2441
	Interior	1380	1630	1983	2483	2052	2424	2950	3694
16	End	1243	1503	1871	2392	1902	2300	2863	3660
	Interior	2132	2495	3007	3731	3172	3711	4473	5551
14	End	1918	2298	2834	3592	2935	3515	4336	5496
	Interior	3307	3832	4574	5623	4919	5700	6804	8365
Constants		h = 4"		r = 0.25"		θ = 90°			

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20/20	Single Span	f_b/Ω	186	129	95	73	57	47	38	30	21
		Φf_b	280	194	143	109	86	70	58	45	31
		L/360	178	103	65	43	30	22	17	11	7
		L/240	266	154	97	65	46	33	25	17	10
		L/180	355	206	129	87	61	44	33	23	13
		L/120	533	308	194	130	91	67	50	34	20
	Double Span	f_b/Ω	187	130	95	73	58	-	-	-	-
		Φf_b	281	195	143	110	87	-	-	-	-
		L/360	376	218	137	92	64	-	-	-	-
		L/240	564	326	206	138	97	-	-	-	-
		L/180	752	435	274	184	129	-	-	-	-
		L/120	1128	653	411	275	193	-	-	-	-
	Triple Span	f_b/Ω	234	162	-	-	-	-	-	-	-
		Φf_b	351	244	-	-	-	-	-	-	-
		L/360	295	170	-	-	-	-	-	-	-
		L/240	442	256	-	-	-	-	-	-	-
		L/180	589	341	-	-	-	-	-	-	-
		L/120	884	511	-	-	-	-	-	-	-
20/18	Single Span	f_b/Ω	189	131	96	74	58	47	39	30	21
		Φf_b	283	197	145	111	87	71	59	45	31
		L/360	190	110	69	46	33	24	18	12	7
		L/240	285	165	104	69	49	36	27	18	11
		L/180	379	220	138	93	65	47	36	24	14
		L/120	569	329	207	139	98	71	53	36	21
	Double Span	f_b/Ω	243	169	124	95	75	-	-	-	-
		Φf_b	365	253	186	142	113	-	-	-	-
		L/360	427	247	156	104	73	-	-	-	-
		L/240	640	371	233	156	110	-	-	-	-
		L/180	854	494	311	208	146	-	-	-	-
		L/120	1281	741	467	313	220	-	-	-	-
	Triple Span	f_b/Ω	295	205	-	-	-	-	-	-	-
		Φf_b	443	308	-	-	-	-	-	-	-
		L/360	334	194	-	-	-	-	-	-	-
		L/240	502	290	-	-	-	-	-	-	-
		L/180	669	387	-	-	-	-	-	-	-
		L/120	1003	581	-	-	-	-	-	-	-
20/16	Single Span	f_b/Ω	191	133	98	75	59	48	40	31	21
		Φf_b	288	200	147	112	89	72	59	46	32
		L/360	198	114	72	48	34	25	19	13	7
		L/240	297	172	108	72	51	37	28	19	11
		L/180	395	229	144	97	68	49	37	25	15
		L/120	593	343	216	145	102	74	56	38	22
	Double Span	f_b/Ω	295	205	150	115	91	-	-	-	-
		Φf_b	443	308	226	173	137	-	-	-	-
		L/360	472	273	172	115	81	-	-	-	-
		L/240	709	410	258	173	121	-	-	-	-
		L/180	945	547	344	231	162	-	-	-	-
		L/120	1417	820	516	346	243	-	-	-	-
	Triple Span	f_b/Ω	299	208	-	-	-	-	-	-	-
		Φf_b	450	312	-	-	-	-	-	-	-
		L/360	370	214	-	-	-	-	-	-	-
		L/240	555	321	-	-	-	-	-	-	-
		L/180	740	428	-	-	-	-	-	-	-
		L/120	1110	642	-	-	-	-	-	-	-

5.2 **4.5DF-24**
Deep Deck

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
18/20	Single Span	f_b/Ω	309	215	158	121	95	77	64	49	34
		Φf_b	464	322	237	181	143	116	96	74	52
		L/360	229	133	84	56	39	29	22	15	8
		L/240	344	199	125	84	59	43	32	22	13
		L/180	458	265	167	112	79	57	43	29	17
		L/120	688	398	251	168	118	86	65	44	25
	Double Span	f_b/Ω	238	165	122	93	74	-	-	-	-
		Φf_b	358	249	183	140	111	-	-	-	-
		L/360	466	270	170	114	80	-	-	-	-
		L/240	699	405	255	171	120	-	-	-	-
		L/180	932	540	340	228	160	-	-	-	-
		L/120	1399	809	510	341	240	-	-	-	-
	Triple Span	f_b/Ω	298	207	-	-	-	-	-	-	-
		Φf_b	448	311	-	-	-	-	-	-	-
		L/360	365	211	-	-	-	-	-	-	-
		L/240	548	317	-	-	-	-	-	-	-
		L/180	730	423	-	-	-	-	-	-	-
		L/120	1096	634	-	-	-	-	-	-	-
18/18	Single Span	f_b/Ω	306	212	156	120	94	76	63	49	34
		Φf_b	460	319	235	180	142	115	95	74	51
		L/360	248	143	90	60	42	31	23	16	9
		L/240	372	215	135	91	64	46	35	24	14
		L/180	496	287	181	121	85	62	47	32	18
		L/120	743	430	271	181	127	93	70	48	28
	Double Span	f_b/Ω	294	204	150	115	91	-	-	-	-
		Φf_b	443	307	226	173	137	-	-	-	-
		L/360	522	302	190	127	90	-	-	-	-
		L/240	783	453	285	191	134	-	-	-	-
		L/180	1044	604	381	255	179	-	-	-	-
		L/120	1567	907	571	382	269	-	-	-	-
	Triple Span	f_b/Ω	368	256	-	-	-	-	-	-	-
		Φf_b	553	384	-	-	-	-	-	-	-
		L/360	409	237	-	-	-	-	-	-	-
		L/240	614	355	-	-	-	-	-	-	-
		L/180	818	473	-	-	-	-	-	-	-
		L/120	1227	710	-	-	-	-	-	-	-
18/16	Single Span	f_b/Ω	306	213	156	120	95	77	63	49	34
		Φf_b	461	320	235	180	142	115	95	74	51
		L/360	266	154	97	65	46	33	25	17	10
		L/240	399	231	145	97	68	50	37	26	15
		L/180	531	308	194	130	91	66	50	34	20
		L/120	797	461	291	195	137	100	75	51	30
	Double Span	f_b/Ω	352	244	179	137	109	-	-	-	-
		Φf_b	528	367	270	206	163	-	-	-	-
		L/360	579	335	211	141	99	-	-	-	-
		L/240	869	503	317	212	149	-	-	-	-
		L/180	1158	670	422	283	199	-	-	-	-
		L/120	1737	1005	633	424	298	-	-	-	-
	Triple Span	f_b/Ω	439	305	-	-	-	-	-	-	-
		Φf_b	661	459	-	-	-	-	-	-	-
		L/360	454	262	-	-	-	-	-	-	-
		L/240	680	394	-	-	-	-	-	-	-
		L/180	907	525	-	-	-	-	-	-	-
		L/120	1361	787	-	-	-	-	-	-	-

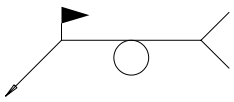
Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
16/20	Single Span	f_b/Ω	426	296	217	166	131	106	88	68	47
		Φf_b	640	445	327	250	198	160	132	102	71
		L/360	280	162	102	68	48	35	26	18	10
		L/240	421	243	153	103	72	53	39	27	16
		L/180	561	324	204	137	96	70	53	36	21
		L/120	841	487	307	205	144	105	79	54	31
	Double Span	f_b/Ω	291	202	149	114	90	-	-	-	-
		Φf_b	438	304	223	171	135	-	-	-	-
		L/360	558	323	203	136	96	-	-	-	-
		L/240	837	484	305	204	144	-	-	-	-
		L/180	1116	646	407	273	191	-	-	-	-
		L/120	1674	969	610	409	287	-	-	-	-
	Triple Span	f_b/Ω	364	253	-	-	-	-	-	-	-
		Φf_b	547	380	-	-	-	-	-	-	-
		L/360	437	253	-	-	-	-	-	-	-
		L/240	656	380	-	-	-	-	-	-	-
		L/180	874	506	-	-	-	-	-	-	-
		L/120	1312	759	-	-	-	-	-	-	-
16/18	Single Span	f_b/Ω	434	302	222	170	134	109	90	70	48
		Φf_b	653	453	333	255	202	163	135	104	73
		L/360	303	175	110	74	52	38	28	19	11
		L/240	454	263	166	111	78	57	43	29	17
		L/180	606	351	221	148	104	76	57	39	22
		L/120	909	526	331	222	156	114	85	58	34
	Double Span	f_b/Ω	340	236	173	133	105	-	-	-	-
		Φf_b	510	354	260	199	158	-	-	-	-
		L/360	618	357	225	151	106	-	-	-	-
		L/240	926	536	338	226	159	-	-	-	-
		L/180	1235	715	450	302	212	-	-	-	-
		L/120	1853	1072	675	452	318	-	-	-	-
	Triple Span	f_b/Ω	425	295	-	-	-	-	-	-	-
		Φf_b	638	443	-	-	-	-	-	-	-
		L/360	484	280	-	-	-	-	-	-	-
		L/240	726	420	-	-	-	-	-	-	-
		L/180	968	560	-	-	-	-	-	-	-
		L/120	1452	840	-	-	-	-	-	-	-
16/16	Single Span	f_b/Ω	442	307	225	173	136	110	91	71	49
		Φf_b	664	461	339	259	205	166	137	106	74
		L/360	324	188	118	79	56	41	30	21	12
		L/240	486	281	177	119	83	61	46	31	18
		L/180	648	375	236	158	111	81	61	41	24
		L/120	972	563	354	237	167	122	91	62	36
	Double Span	f_b/Ω	404	281	206	158	125	-	-	-	-
		Φf_b	608	422	310	237	188	-	-	-	-
		L/360	682	395	249	167	117	-	-	-	-
		L/240	1024	592	373	250	176	-	-	-	-
		L/180	1365	790	497	333	234	-	-	-	-
		L/120	2047	1185	746	500	351	-	-	-	-
	Triple Span	f_b/Ω	506	351	-	-	-	-	-	-	-
		Φf_b	760	528	-	-	-	-	-	-	-
		L/360	535	309	-	-	-	-	-	-	-
		L/240	802	464	-	-	-	-	-	-	-
		L/180	1069	619	-	-	-	-	-	-	-
		L/120	1604	928	-	-	-	-	-	-	-

5.2 **4.5DF-24**

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018
			F	1.5 +10.8R	1.6 +9R	1.7 +7.7R	1.8 +6.8R	1.8 +6R	1.8 +5.4R	1.9 +4.9R	1.9 +4.5R	1.9 +4.2R
		6"	q_a q_f	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018
			F	1.9 +10.8R	2 +9R	2.1 +7.7R	2.1 +6.8R	2.2 +6R	2.2 +5.4R	2.2 +4.9R	2.3 +4.5R	2.3 +4.2R
		8"	q_a q_f	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018
			F	2.2 +10.8R	2.3 +9R	2.4 +7.7R	2.5 +6.7R	2.5 +6R	2.6 +5.4R	2.6 +4.9R	2.6 +4.5R	2.6 +4.1R
		12"	q_a q_f	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018	1886 3018
			F	2.8 +10.7R	3 +8.9R	3.1 +7.6R	3.1 +6.7R	3.2 +5.9R	3.3 +5.3R	3.3 +4.9R	3.3 +4.5R	3.3 +4.1R
		18"	q_a q_f	1886 3018	1886 3018	1886 3018	1886 3018	1847 3018	1880 3018	1821 3004	1770 2921	1802 2974
			F	3.6 +10.6R	3.9 +8.8R	3.8 +7.5R	4 +6.6R	4.2 +5.8R	4.1 +5.3R	4.2 +4.8R	4.3 +4.4R	4.3 +4R
		24"	q_a q_f	1770 2921	1677 2766	1608 2654	1556 2568	1515 2500	1482 2446	1455 2401	1433 2364	1413 2332
			F	4.6 +10.4R	4.8 +8.6R	4.9 +7.4R	5.1 +6.4R	5.1 +5.7R	5.2 +5.1R	5.3 +4.7R	5.3 +4.3R	5.4 +3.9R
	18 ga	4"	q_a q_f	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977
			F	1.5 +15.3R	1.7 +12.7R	1.8 +10.9R	1.9 +9.5R	2 +8.5R	2 +7.6R	2 +6.9R	2.1 +6.4R	2.1 +5.9R
		6"	q_a q_f	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977
			F	1.9 +15.2R	2.1 +12.7R	2.2 +10.9R	2.3 +9.5R	2.4 +8.5R	2.4 +7.6R	2.5 +6.9R	2.5 +6.3R	2.5 +5.9R
		8"	q_a q_f	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977
			F	2.3 +15.2R	2.5 +12.7R	2.6 +10.9R	2.7 +9.5R	2.8 +8.4R	2.8 +7.6R	2.9 +6.9R	2.9 +6.3R	2.9 +5.8R
		12"	q_a q_f	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977
			F	3 +15.1R	3.2 +12.6R	3.3 +10.8R	3.4 +9.4R	3.5 +8.4R	3.6 +7.5R	3.6 +6.9R	3.7 +6.3R	3.7 +5.8R
		18"	q_a q_f	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977	1236 1977
			F	3.9 +15R	4.3 +12.4R	4.2 +10.7R	4.4 +9.3R	4.6 +8.3R	4.6 +7.5R	4.7 +6.8R	4.8 +6.2R	4.7 +5.7R
		24"	q_a q_f	1236 1977	1236 1977	1207 1977	1167 1925	1135 1872	1109 1830	1088 1795	1070 1766	1055 1741
			F	5 +14.7R	5.2 +12.2R	5.4 +10.5R	5.6 +9.1R	5.7 +8.1R	5.8 +7.3R	5.9 +6.6R	5.9 +6.1R	6 +5.6R
	20 ga	4"	q_a q_f	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136
			F	1.5 +22.7R	1.7 +18.9R	1.9 +16.2R	2 +14.2R	2.1 +12.6R	2.2 +11.3R	2.3 +10.3R	2.3 +9.4R	2.4 +8.7R
		6"	q_a q_f	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136
			F	2 +22.6R	2.2 +18.9R	2.4 +16.2R	2.5 +14.2R	2.6 +12.6R	2.7 +11.3R	2.7 +10.3R	2.8 +9.4R	2.8 +8.7R
		8"	q_a q_f	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136
			F	2.4 +22.6R	2.6 +18.8R	2.8 +16.1R	2.9 +14.1R	3 +12.6R	3.1 +11.3R	3.2 +10.3R	3.2 +9.4R	3.3 +8.7R
		12"	q_a q_f	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136
			F	3.2 +22.5R	3.5 +18.7R	3.7 +16.1R	3.8 +14.1R	3.9 +12.5R	4 +11.2R	4.1 +10.2R	4.2 +9.4R	4.2 +8.6R
		18"	q_a q_f	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136
			F	4.2 +22.3R	4.7 +18.6R	4.7 +15.9R	5 +13.9R	5.2 +12.4R	5.2 +11.1R	5.3 +10.1R	5.5 +9.3R	5.4 +8.6R
		24"	q_a q_f	710 1136	710 1136	710 1136	710 1136	710 1136	710 1136	705 1136	695 1136	687 1133
			F	5.5 +22.1R	5.8 +18.4R	6.1 +15.7R	6.3 +13.7R	6.5 +12.2R	6.6 +11R	6.7 +9.9R	6.8 +9.1R	6.8 +8.4R

4.5DF-24 24/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC Steel Deck®

4.5DF-24 5.2

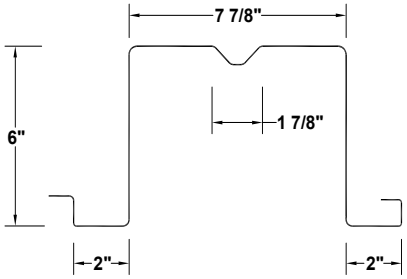
No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

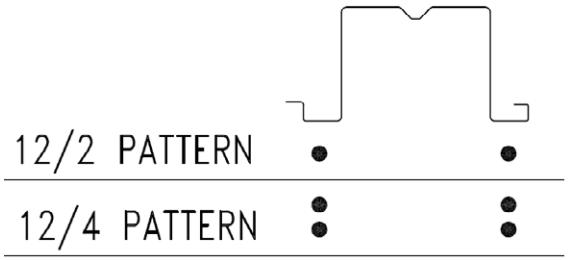
Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
24/4	16 ga	4"	q_a q_f	1536	2474	1525	2456	1517	2443	1511	2433	1506	2425	1502	2419	1499	2413	1449	2334	1338	2154
			F	6.3 +25.5R		6.6 +21.2R		6.8 +18.2R		7 +15.9R		7.1 +14.1R		7.2 +12.7R		7.3 +11.6R		7.4 +10.6R		7.4 +9.8R	
		6"	q_a q_f	1307	2104	1287	2073	1273	2050	1262	2032	1254	2018	1246	2007	1241	1997	1236	1990	1232	1983
			F	8.3 +25.2R		8.6 +21R		8.9 +18R		9.1 +15.7R		9.3 +14R		9.4 +12.6R		9.5 +11.4R		9.6 +10.5R		9.6 +9.6R	
		8"	q_a q_f	1133	1824	1107	1783	1088	1752	1074	1729	1063	1711	1053	1696	1046	1684	1039	1673	1034	1664
			F	10.1 +24.8R		10.6 +20.7R		10.9 +17.7R		11.1 +15.4R		11.3 +13.7R		11.5 +12.3R		11.6 +11.2R		11.7 +10.3R		11.8 +9.5R	
		12"	q_a q_f	906	1458	873	1405	848	1366	830	1336	815	1313	804	1294	794	1278	786	1265	779	1254
			F	13.5 +24.1R		14.2 +19.9R		14.6 +17R		15 +14.8R		15.3 +13.1R		15.5 +11.8R		15.7 +10.7R		15.8 +9.8R		16 +9R	
		18"	q_a q_f	740	1192	683	1099	684	1102	647	1041	617	994	625	1006	602	970	584	939	592	953
			F	17.3 +22.9R		18.9 +18.6R		18.7 +16R		19.7 +13.7R		20.6 +12R		20.2 +10.9R		20.9 +9.7R		21.6 +8.8R		21.2 +8.2R	
		24"	q_a q_f	619	996	578	931	549	883	526	848	509	819	495	797	483	778	473	762	465	749
			F	21.6 +21.4R		22.9 +17.3R		24 +14.4R		24.8 +12.3R		25.5 +10.7R		26 +9.5R		26.5 +8.5R		26.9 +7.7R		27.2 +7R	
	18 ga	4"	q_a q_f	1176	1893	1165	1876	1158	1864	1152	1854	1147	1847	1143	1841	1140	1835	1137	1831	1066	1716
			F	6.7 +35.9R		7.1 +29.9R		7.4 +25.6R		7.6 +22.4R		7.8 +19.9R		7.9 +17.9R		8 +16.3R		8.1 +14.9R		8.2 +13.8R	
		6"	q_a q_f	986	1588	969	1560	956	1539	946	1523	938	1511	932	1500	927	1492	922	1485	919	1479
			F	8.9 +35.6R		9.4 +29.6R		9.7 +25.4R		10 +22.2R		10.2 +19.7R		10.4 +17.8R		10.5 +16.1R		10.6 +14.8R		10.7 +13.6R	
		8"	q_a q_f	849	1367	827	1331	811	1305	798	1285	788	1269	780	1256	774	1245	768	1236	763	1229
			F	11 +35.2R		11.6 +29.3R		12 +25.1R		12.3 +21.9R		12.5 +19.5R		12.7 +17.5R		12.9 +15.9R		13 +14.6R		13.1 +13.4R	
		12"	q_a q_f	676	1089	649	1044	628	1012	613	987	601	967	591	952	583	939	576	928	570	918
			F	14.8 +34.3R		15.6 +28.5R		16.2 +24.3R		16.6 +21.2R		16.9 +18.8R		17.2 +16.9R		17.4 +15.3R		17.6 +14R		17.8 +12.9R	
		18"	q_a q_f	554	892	509	819	507	817	478	770	455	733	460	740	442	712	428	689	433	698
			F	19.1 +33.1R		20.9 +27R		20.7 +23.2R		21.9 +20R		23 +17.5R		22.5 +15.9R		23.4 +14.3R		24.1 +12.9R		23.6 +12R	
		24"	q_a q_f	466	749	433	697	409	658	391	629	377	606	365	588	356	573	348	560	341	550
			F	23.8 +31.3R		25.4 +25.5R		26.6 +21.4R		27.6 +18.4R		28.4 +16.1R		29 +14.3R		29.6 +12.9R		30 +11.7R		30.4 +10.6R	
	20 ga	4"	q_a q_f	710	1136	710	1136	710	1136	710	1136	710	1136	710	1136	710	1136	710	1136	710	1136
			F	7.1 +53.4R		7.7 +44.5R		8.1 +38.2R		8.4 +33.4R		8.7 +29.7R		8.9 +26.7R		9.1 +24.3R		9.2 +22.2R		9.3 +20.5R	
		6"	q_a q_f	682	1097	667	1073	656	1056	647	1042	641	1032	635	1023	631	1016	627	1010	624	1005
			F	9.7 +53.1R		10.4 +44.2R		10.8 +37.9R		11.2 +33.1R		11.5 +29.4R		11.7 +26.5R		11.9 +24.1R		12.1 +22.1R		12.2 +20.4R	
		8"	q_a q_f	583	938	565	909	551	888	541	871	533	858	527	848	521	839	517	832	513	826
			F	12.1 +52.6R		12.9 +43.8R		13.4 +37.5R		13.9 +32.8R		14.2 +29.1R		14.4 +26.2R		14.7 +23.8R		14.8 +21.8R		15 +20.1R	
		12"	q_a q_f	463	746	442	711	426	686	414	666	404	651	397	639	390	628	385	620	381	613
			F	16.5 +51.6R		17.5 +42.8R		18.3 +36.6R		18.8 +32R		19.3 +28.3R		19.6 +25.5R		19.9 +23.1R		20.2 +21.2R		20.4 +19.5R	
		18"	q_a q_f	382	614	348	560	345	555	324	521	307	495	309	497	297	478	286	461	289	466
			F	21.4 +50.1R		23.6 +41.2R		23.5 +35.3R		25 +30.6R		26.3 +26.9R		25.8 +24.3R		26.8 +21.9R		27.7 +19.9R		27.2 +18.5R	
		24"	q_a q_f	323	520	298	480	280	451	266	429	256	412	247	398	240	386	234	377	229	369
			F	27 +48.1R		28.9 +39.4R		30.4 +33.3R		31.6 +28.8R		32.5 +25.3R		33.3 +22.5R		34 +20.3R		34.5 +18.4R		35 +16.9R	

4.5DF-24 24/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

5.3 6D-12
Deep Deck





Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20	3.35	0.0359	50	65	0.975	5.518	3.16	1.747	2.379
18	4.44	0.0478	50	65	1.298	7.314	3.16	2.315	2.374
16	5.54	0.0598	50	65	1.622	9.107	3.16	2.883	2.370
14	6.93	0.0750	50	65	2.032	11.355	3.16	3.595	2.364

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.797	1.253	2.63	1.373	3.48	4.857	5.410	5.077	5.446
18	1.173	2.011	2.87	2.191	3.23	6.861	7.290	7.012	7.298
16	1.522	2.760	2.98	2.857	3.17	8.986	9.107	9.026	9.107
14	1.994	3.563	3.11	3.595	3.16	11.355	11.355	11.355	11.355

Reactions and supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	434	537	682	866	665	821	1043	1325
	Interior	782	935	1152	1428	1163	1391	1714	2124
18	End	766	935	1175	1514	1172	1431	1798	2316
	Interior	1371	1619	1970	2467	2039	2408	2931	3669
16	End	1188	1437	1788	2286	1817	2198	2736	3497
	Interior	2120	2480	2989	3710	3154	3689	4447	5518
14	End	1844	2209	2725	3454	2822	3380	4169	5284
	Interior	3290	3812	4550	5594	4894	5670	6768	8321
Constants		h = 5.5"		r = 0.25"		θ = 90°			

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20	Single Span	f_b/Ω	250	174	128	98	77	63	52	40	28
		Φf_b	376	261	192	147	116	94	78	60	42
		L/360	222	128	81	54	38	28	21	14	8
		L/240	333	193	121	81	57	42	31	21	12
		L/180	444	257	162	108	76	55	42	28	16
		L/120	666	385	243	163	114	83	63	43	25
	Double Span	f_b/Ω	274	190	140	107	85	-	-	-	-
		Φf_b	412	286	210	161	127	-	-	-	-
		L/360	573	332	209	140	98	-	-	-	-
		L/240	860	498	313	210	147	-	-	-	-
		L/180	1147	664	418	280	197	-	-	-	-
		L/120	1720	995	627	420	295	-	-	-	-
	Triple Span	f_b/Ω	343	238	-	-	-	-	-	-	-
		Φf_b	515	358	-	-	-	-	-	-	-
		L/360	449	260	-	-	-	-	-	-	-
		L/240	674	390	-	-	-	-	-	-	-
		L/180	898	520	-	-	-	-	-	-	-
		L/120	1347	780	-	-	-	-	-	-	-
18	Single Span	f_b/Ω	401	279	205	157	124	100	83	64	45
		Φf_b	603	419	308	236	186	151	125	97	67
		L/360	306	177	112	75	53	38	29	20	11
		L/240	460	266	168	112	79	57	43	29	17
		L/180	613	355	223	150	105	77	58	39	23
		L/120	919	532	335	224	158	115	86	59	34
	Double Span	f_b/Ω	437	304	223	171	135	-	-	-	-
		Φf_b	657	456	335	257	203	-	-	-	-
		L/360	768	445	280	188	132	-	-	-	-
		L/240	1152	667	420	281	198	-	-	-	-
		L/180	1537	889	560	375	263	-	-	-	-
		L/120	2305	1334	840	563	395	-	-	-	-
	Triple Span	f_b/Ω	547	380	-	-	-	-	-	-	-
		Φf_b	822	571	-	-	-	-	-	-	-
		L/360	602	348	-	-	-	-	-	-	-
		L/240	903	522	-	-	-	-	-	-	-
		L/180	1204	697	-	-	-	-	-	-	-
		L/120	1806	1045	-	-	-	-	-	-	-
16	Single Span	f_b/Ω	551	383	281	215	170	138	114	88	61
		Φf_b	828	575	422	323	256	207	171	132	92
		L/360	394	228	144	96	68	49	37	25	15
		L/240	592	342	216	144	101	74	56	38	22
		L/180	789	457	288	193	135	99	74	50	29
		L/120	1183	685	431	289	203	148	111	76	44
	Double Span	f_b/Ω	570	396	291	223	176	-	-	-	-
		Φf_b	857	595	437	335	264	-	-	-	-
		L/360	959	555	349	234	164	-	-	-	-
		L/240	1438	832	524	351	247	-	-	-	-
		L/180	1917	1110	699	468	329	-	-	-	-
		L/120	2876	1664	1048	702	493	-	-	-	-
	Triple Span	f_b/Ω	713	495	-	-	-	-	-	-	-
		Φf_b	1071	744	-	-	-	-	-	-	-
		L/360	751	435	-	-	-	-	-	-	-
		L/240	1127	652	-	-	-	-	-	-	-
		L/180	1502	869	-	-	-	-	-	-	-
		L/120	2253	1304	-	-	-	-	-	-	-
14	Single Span	f_b/Ω	711	494	363	278	219	178	147	114	79
		Φf_b	1069	742	545	418	330	267	221	171	119
		L/360	496	287	181	121	85	62	47	32	18
		L/240	744	431	271	182	128	93	70	48	28
		L/180	993	574	362	242	170	124	93	64	37
		L/120	1489	862	543	363	255	186	140	95	55
	Double Span	f_b/Ω	717	498	366	280	221	-	-	-	-
		Φf_b	1078	749	550	421	333	-	-	-	-
		L/360	1195	692	436	292	205	-	-	-	-
		L/240	1793	1038	653	438	307	-	-	-	-
		L/180	2391	1384	871	584	410	-	-	-	-
		L/120	3586	2075	1307	876	615	-	-	-	-
	Triple Span	f_b/Ω	897	623	-	-	-	-	-	-	-
		Φf_b	1348	936	-	-	-	-	-	-	-
		L/360	936	542	-	-	-	-	-	-	-
		L/240	1405	813	-	-	-	-	-	-	-
		L/180	1873	1084	-	-	-	-	-	-	-
		L/120	2809	1626	-	-	-	-	-	-	-

5.3 **6D-12**
Deep Deck

Allowable Wind Uplift Loads

6D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	78	69
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	136	107	85	69
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	78	69
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	136	107	85	69
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	78	71
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	136	119	106	86
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

6D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	67
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	275	191	140	107	85	69
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	107	85	69
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	429	275	191	140	107	85	69
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	85	69
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	67
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	275	191	140	107	85	69
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	107	85	69
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	429	275	191	140	107	85	69
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	85	69
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	67
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	282	235	175	134	106	86
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	86
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	477	343	238	175	134	106	86
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

Allowable Wind Uplift Loads

6D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	161	135	110
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	161	135	110
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	161	144	129
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

6D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	268	224	171	135	110
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	646	438	304	224	171	135	110
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	268	224	171	135	110
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	646	438	304	224	171	135	110
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	268	230	201	169	137
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	646	517	380	279	214	169	137
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

5.3 **6D-12**
Deep Deck

Allowable Wind Uplift Loads

6D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	176	143
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	176	143
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

6D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	176	143
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	571	397	291	223	176	143
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	176	143
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	571	397	291	223	176	143
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	496	364	279	220	179
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

Allowable Wind Uplift Loads

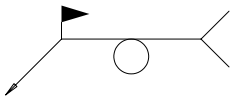
6D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

6D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	499	367	281	222	180
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	499	367	281	222	180
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	458	351	277	225
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

5.3 6D-12

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

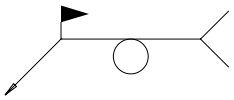
Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	1.5 +31.8R		1.8 +26.5R		2 +22.7R		2.2 +19.9R		2.3 +17.7R		2.5 +15.9R		2.5 +14.5R		2.6 +13.3R		2.7 +12.2R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	2.1 +31.8R		2.5 +26.5R		2.7 +22.7R		2.9 +19.9R		3 +17.7R		3.1 +15.9R		3.2 +14.5R		3.3 +13.3R		3.3 +12.2R	
		8"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	2.8 +31.8R		3.1 +26.5R		3.3 +22.7R		3.5 +19.9R		3.6 +17.7R		3.8 +15.9R		3.8 +14.4R		3.9 +13.2R		4 +12.2R	
		12"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	4 +31.7R		4.4 +26.4R		4.6 +22.6R		4.8 +19.8R		4.9 +17.6R		5 +15.9R		5.1 +14.4R		5.2 +13.2R		5.3 +12.2R	
		18"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	5.6 +31.6R		6.2 +26.3R		6.1 +22.6R		6.5 +19.7R		6.8 +17.5R		6.7 +15.8R		6.9 +14.3R		7.1 +13.1R		7 +12.1R	
		24"	q_a q_f	1842	3039	1803	2975	1775	2929	1754	2895	1738	2868	1725	2846	1714	2828	1705	2813	1698	2801
			F	7.5 +31.3R		8 +26.1R		8.3 +22.4R		8.5 +19.6R		8.6 +17.4R		8.8 +15.6R		8.9 +14.2R		9 +13R		9.1 +12R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	0.7 +56.1R		1.3 +46.7R		1.7 +40.1R		2 +35.1R		2.2 +31.2R		2.4 +28R		2.6 +25.5R		2.7 +23.4R		2.8 +21.6R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	1.4 +56.1R		2 +46.7R		2.4 +40.1R		2.7 +35R		3 +31.2R		3.1 +28R		3.3 +25.5R		3.4 +23.4R		3.5 +21.6R	
		8"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	2.2 +56R		2.7 +46.7R		3.1 +40R		3.4 +35R		3.7 +31.1R		3.9 +28R		4 +25.5R		4.2 +23.3R		4.3 +21.6R	
		12"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.5 +56R		4.1 +46.6R		4.6 +40R		4.9 +35R		5.1 +31.1R		5.3 +28R		5.5 +25.4R		5.6 +23.3R		5.7 +21.5R	
		18"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.3 +55.8R		6.2 +46.5R		6.2 +39.9R		6.8 +34.9R		7.2 +31R		7.1 +27.9R		7.5 +25.3R		7.7 +23.2R		7.6 +21.4R	
		24"	q_a q_f	1378	2205	1362	2205	1339	2205	1321	2180	1308	2158	1297	2139	1288	2125	1280	2112	1274	2102
			F	7.5 +55.5R		8.2 +46.3R		8.6 +39.6R		9 +34.7R		9.3 +30.8R		9.5 +27.7R		9.7 +25.2R		9.8 +23.1R		10 +21.3R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	-1 +98.2R		0 +81.8R		0.7 +70.2R		1.3 +61.4R		1.7 +54.6R		2 +49.1R		2.3 +44.6R		2.5 +40.9R		2.7 +37.8R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	-0.2 +98.2R		0.8 +81.8R		1.5 +70.1R		2.1 +61.4R		2.5 +54.5R		2.8 +49.1R		3.1 +44.6R		3.3 +40.9R		3.5 +37.8R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	0.6 +98.1R		1.6 +81.8R		2.3 +70.1R		2.9 +61.3R		3.3 +54.5R		3.6 +49.1R		3.9 +44.6R		4.1 +40.9R		4.3 +37.7R	
		12"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	2.2 +98.1R		3.2 +81.7R		3.9 +70R		4.5 +61.3R		4.9 +54.5R		5.2 +49R		5.5 +44.6R		5.7 +40.9R		5.9 +37.7R	
		18"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	4.1 +97.9R		5.5 +81.5R		5.8 +69.9R		6.6 +61.2R		7.2 +54.3R		7.3 +48.9R		7.7 +44.5R		8.1 +40.8R		8.1 +37.6R	
		24"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	6.6 +97.6R		7.7 +81.3R		8.5 +69.7R		9.1 +61R		9.6 +54.2R		9.9 +48.8R		10.2 +44.3R		10.5 +40.6R		10.7 +37.5R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-5.8 +200.9R		-3.8 +167.4R		-2.3 +143.5R		-1.2 +125.6R		-0.4 +111.6R		0.3 +100.5R		0.8 +91.3R		1.3 +83.7R		1.6 +77.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-4.8 +200.9R		-2.8 +167.4R		-1.4 +143.5R		-0.3 +125.6R		0.5 +111.6R		1.2 +100.4R		1.7 +91.3R		2.2 +83.7R		2.6 +77.3R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-3.9 +200.9R		-1.9 +167.4R		-0.5 +143.5R		0.6 +125.5R		1.5 +111.6R		2.1 +100.4R		2.7 +91.3R		3.1 +83.7R		3.5 +77.2R	
		12"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.1 +200.7R		-0.1 +167.3R		1.4 +143.4R		2.5 +125.5R		3.3 +111.5R		4 +100.4R		4.5 +91.2R		5 +83.6R		5.4 +77.2R	
		18"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	0.1 +200.6R		2.6 +167.1R		3.5 +143.2R		4.9 +125.3R		6 +111.4R		6.3 +100.3R		7.1 +91.1R		7.8 +83.5R		7.9 +77.1R	
		24"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	3 +200.2R		5.1 +166.8R		6.7 +143R		7.8 +125.1R		8.7 +111.2R		9.4 +100.1R		10 +91R		10.5 +83.4R		10.9 +77R	

6D-12 12/2 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC STEEL DECK®



6D-12 5.3

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
		Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373
			F	1.5 +31.8R	1.8 +26.5R	2 +22.7R	2.2 +19.9R	2.3 +17.7R	2.4 +15.9R	2.5 +14.5R	2.6 +13.3R	2.7 +12.2R
		6"	q_a q_f	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373
			F	2.1 +31.8R	2.4 +26.5R	2.7 +22.7R	2.8 +19.9R	3 +17.7R	3.1 +15.9R	3.2 +14.4R	3.3 +13.2R	3.3 +12.2R
		8"	q_a q_f	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373
			F	2.7 +31.7R	3 +26.4R	3.3 +22.7R	3.5 +19.8R	3.6 +17.6R	3.7 +15.9R	3.8 +14.4R	3.9 +13.2R	4 +12.2R
		12"	q_a q_f	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373
			F	3.9 +31.6R	4.2 +26.3R	4.5 +22.6R	4.7 +19.7R	4.8 +17.5R	5 +15.8R	5.1 +14.3R	5.1 +13.2R	5.2 +12.1R
		18"	q_a q_f	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373
			F	5.3 +31.4R	5.9 +26.1R	5.9 +22.4R	6.3 +19.6R	6.6 +17.4R	6.5 +15.7R	6.8 +14.2R	7 +13R	6.9 +12R
		24"	q_a q_f	2108 3373	2072 3373	2014 3324	1971 3252	1938 3197	1911 3153	1889 3116	1870 3086	1854 3059
			F	7 +31R	7.5 +25.8R	7.9 +22.1R	8.1 +19.3R	8.3 +17.1R	8.5 +15.4R	8.6 +14R	8.8 +12.8R	8.8 +11.8R
	16 ga	4"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	0.7 +56.1R	1.3 +46.7R	1.7 +40.1R	2 +35R	2.2 +31.2R	2.4 +28R	2.6 +25.5R	2.7 +23.4R	2.8 +21.6R
		6"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	1.4 +56R	2 +46.7R	2.4 +40R	2.7 +35R	2.9 +31.1R	3.1 +28R	3.3 +25.5R	3.4 +23.3R	3.5 +21.5R
		8"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	2.1 +56R	2.7 +46.6R	3.1 +40R	3.4 +35R	3.6 +31.1R	3.8 +28R	4 +25.4R	4.1 +23.3R	4.2 +21.5R
		12"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	3.4 +55.8R	4 +46.5R	4.4 +39.9R	4.8 +34.9R	5 +31R	5.2 +27.9R	5.4 +25.4R	5.5 +23.2R	5.7 +21.5R
		18"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	5 +55.6R	5.9 +46.3R	6 +39.7R	6.6 +34.7R	7 +30.8R	7 +27.7R	7.3 +25.2R	7.6 +23.1R	7.5 +21.3R
		24"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	6.9 +55.2R	7.7 +45.9R	8.2 +39.3R	8.6 +34.4R	8.9 +30.6R	9.2 +27.5R	9.4 +25R	9.6 +22.9R	9.7 +21.1R
	18 ga	4"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	-1 +98.2R	0 +81.8R	0.7 +70.1R	1.2 +61.4R	1.6 +54.5R	2 +49.1R	2.2 +44.6R	2.5 +40.9R	2.7 +37.8R
		6"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	-0.2 +98.1R	0.8 +81.8R	1.5 +70.1R	2 +61.3R	2.4 +54.5R	2.8 +49.1R	3.1 +44.6R	3.3 +40.9R	3.5 +37.7R
		8"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	0.6 +98.1R	1.6 +81.7R	2.3 +70.1R	2.8 +61.3R	3.2 +54.5R	3.6 +49R	3.9 +44.6R	4.1 +40.9R	4.3 +37.7R
		12"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	2 +97.9R	3 +81.6R	3.8 +69.9R	4.3 +61.2R	4.8 +54.4R	5.1 +48.9R	5.4 +44.5R	5.7 +40.8R	5.9 +37.6R
		18"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	3.8 +97.6R	5.2 +81.3R	5.5 +69.7R	6.4 +61R	7 +54.2R	7.1 +48.8R	7.5 +44.3R	7.9 +40.6R	7.9 +37.5R
		24"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	6 +97.2R	7.1 +80.9R	8 +69.3R	8.6 +60.6R	9.2 +53.9R	9.6 +48.5R	9.9 +44.1R	10.2 +40.4R	10.4 +37.3R
	20 ga	4"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-5.8 +200.9R	-3.8 +167.4R	-2.3 +143.5R	-1.3 +125.6R	-0.4 +111.6R	0.2 +100.4R	0.8 +91.3R	1.2 +83.7R	1.6 +77.3R
		6"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-4.9 +200.8R	-2.9 +167.4R	-1.4 +143.5R	-0.3 +125.5R	0.5 +111.6R	1.2 +100.4R	1.7 +91.3R	2.2 +83.7R	2.6 +77.2R
		8"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-4 +200.8R	-2 +167.3R	-0.5 +143.4R	0.6 +125.5R	1.4 +111.5R	2.1 +100.4R	2.6 +91.3R	3.1 +83.6R	3.5 +77.2R
		12"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-2.3 +200.6R	-0.3 +167.1R	1.2 +143.3R	2.3 +125.3R	3.2 +111.4R	3.9 +100.3R	4.4 +91.2R	4.9 +83.6R	5.3 +77.1R
		18"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-0.3 +200.3R	2.2 +166.8R	3.2 +143R	4.6 +125.1R	5.8 +111.2R	6.1 +100.1R	6.9 +91R	7.6 +83.4R	7.7 +77R
		24"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	2.2 +199.8R	4.5 +166.4R	6.1 +142.6R	7.3 +124.7R	8.2 +110.8R	9 +99.7R	9.6 +90.7R	10.1 +83.1R	10.6 +76.7R

6D-12 12/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

5.3 **6D-12**

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1979	3186	1975	3179	1972	3175	1970	3171	1968	3168	1966	3166	1935	3115	1774	2856	1637	2636
			F	8.6 +75.2R		9.4 +62.7R		10 +53.7R		10.4 +47R		10.7 +41.8R		11 +37.6R		11.2 +34.2R		11.4 +31.3R		11.5 +28.9R	
		6"	q_a q_f	1659	2672	1652	2659	1646	2650	1642	2643	1639	2638	1636	2634	1634	2630	1632	2627	1630	2625
			F	12.5 +75R		13.3 +62.5R		13.9 +53.5R		14.4 +46.8R		14.7 +41.6R		15 +37.5R		15.3 +34.1R		15.5 +31.2R		15.6 +28.8R	
		8"	q_a q_f	1405	2262	1394	2245	1387	2233	1381	2223	1376	2216	1373	2210	1370	2205	1367	2201	1365	2198
			F	16.3 +74.6R		17.2 +62.1R		17.8 +53.2R		18.3 +46.6R		18.7 +41.4R		19 +37.3R		19.3 +33.9R		19.5 +31R		19.7 +28.6R	
		12"	q_a q_f	1062	1710	1048	1687	1038	1671	1030	1659	1024	1649	1020	1642	1016	1635	1013	1630	1010	1626
			F	23.5 +73.7R		24.6 +61.3R		25.4 +52.5R		26 +45.9R		26.4 +40.8R		26.8 +36.7R		27.1 +33.3R		27.4 +30.6R		27.6 +28.2R	
		18"	q_a q_f	810	1304	764	1229	795	1281	762	1227	736	1186	762	1226	740	1192	723	1164	743	1197
			F	32.1 +72.1R		35 +59.7R		34 +51.4R		35.9 +44.7R		37.5 +39.5R		36.5 +35.7R		37.7 +32.4R		38.8 +29.6R		37.9 +27.4R	
		24"	q_a q_f	620	998	605	974	594	957	585	942	578	930	572	921	567	913	563	907	560	902
			F	42.7 +69.8R		44.6 +57.8R		46.1 +49.2R		47.2 +42.9R		48 +38R		48.8 +34.1R		49.3 +30.9R		49.8 +28.3R		50.3 +26R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1306	2102
			F	7.4 +132.7R		8.8 +110.6R		9.7 +94.8R		10.5 +82.9R		11.1 +73.7R		11.5 +66.3R		11.9 +60.3R		12.2 +55.3R		12.5 +51R	
		6"	q_a q_f	1244	2003	1237	1991	1232	1983	1228	1977	1225	1972	1222	1968	1221	1965	1219	1962	1217	1960
			F	11.8 +132.4R		13.2 +110.3R		14.2 +94.5R		15 +82.7R		15.6 +73.5R		16 +66.2R		16.4 +60.1R		16.8 +55.1R		17 +50.9R	
		8"	q_a q_f	1041	1675	1031	1660	1025	1650	1020	1642	1016	1635	1013	1630	1010	1626	1008	1622	1006	1620
			F	16 +132R		17.5 +109.9R		18.6 +94.2R		19.4 +82.4R		20 +73.3R		20.5 +65.9R		20.9 +59.9R		21.3 +54.9R		21.6 +50.7R	
		12"	q_a q_f	778	1253	766	1234	758	1220	752	1210	747	1202	743	1196	739	1190	737	1186	734	1182
			F	24 +130.9R		25.8 +109R		27 +93.4R		27.9 +81.7R		28.7 +72.6R		29.2 +65.3R		29.7 +59.4R		30.1 +54.4R		30.4 +50.2R	
		18"	q_a q_f	591	952	556	895	578	931	553	891	534	860	552	888	536	863	523	841	537	865
			F	33.7 +129.2R		37.4 +107.2R		36.6 +92.1R		39.1 +80.3R		41.1 +71.2R		40 +64.2R		41.6 +58.3R		42.9 +53.3R		42 +49.3R	
		24"	q_a q_f	449	723	437	704	429	690	422	680	418	672	414	666	410	660	407	655	404	651
			F	45.5 +126.6R		48.2 +105R		50.2 +89.7R		51.7 +78.3R		52.9 +69.5R		53.8 +62.4R		54.6 +56.6R		55.3 +51.8R		55.8 +47.8R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	4.1 +232.5R		6.4 +193.7R		8.1 +166R		9.4 +145.3R		10.4 +129.1R		11.2 +116.2R		11.8 +105.7R		12.4 +96.8R		12.8 +89.4R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	8.9 +232.1R		11.4 +193.4R		13.1 +165.8R		14.4 +145R		15.4 +128.9R		16.3 +116R		16.9 +105.5R		17.5 +96.7R		18 +89.2R	
		8"	q_a q_f	770	1240	762	1228	757	1218	752	1211	749	1206	746	1201	744	1198	742	1195	740	1192
			F	13.7 +231.7R		16.2 +193R		18 +165.4R		19.4 +144.7R		20.4 +128.6R		21.3 +115.8R		21.9 +105.2R		22.5 +96.5R		23 +89R	
		12"	q_a q_f	571	920	561	904	554	893	549	884	545	877	542	872	539	868	537	864	535	861
			F	22.7 +230.5R		25.4 +192R		27.4 +164.5R		28.9 +143.9R		30.1 +127.9R		31 +115.1R		31.8 +104.6R		32.4 +95.9R		32.9 +88.5R	
		18"	q_a q_f	433	698	406	654	422	679	403	649	388	625	401	646	389	626	379	610	390	627
			F	33.5 +228.6R		38.5 +190R		38.2 +163.1R		41.4 +142.4R		44 +126.3R		43.1 +113.9R		45.1 +103.4R		46.7 +94.6R		45.8 +87.5R	
		24"	q_a q_f	327	526	317	511	311	500	306	492	302	486	299	481	296	477	294	473	292	470
			F	46.7 +225.6R		50.6 +187.5R		53.4 +160.4R		55.5 +140.1R		57.2 +124.4R		58.5 +111.8R		59.6 +101.5R		60.5 +93R		61.3 +85.8R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-6.4 +475.8R		-1.5 +396.5R		1.9 +339.8R		4.5 +297.4R		6.5 +264.3R		8.1 +237.9R		9.4 +216.3R		10.5 +198.2R		11.4 +183R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.7 +475.4R		4.2 +396.1R		7.6 +339.5R		10.3 +297.1R		12.3 +264.1R		13.9 +237.7R		15.3 +216.1R		16.4 +198.1R		17.3 +182.8R	
		8"	q_a q_f	521	834	516	830	511	823	508	817	505	813	502	809	501	806	499	804	498	802
			F	4.7 +474.9R		9.7 +395.7R		13.3 +339.1R		15.9 +296.7R		18 +263.8R		19.7 +237.4R		21.1 +215.8R		22.2 +197.8R		23.1 +182.6R	
		12"	q_a q_f	384	619	377	606	371	597	367	591	364	585	361	581	359	578	357	575	356	572
			F	15.1 +473.5R		20.4 +394.5R		24.2 +338.1R		27 +295.8R		29.2 +262.9R		30.9 +236.6R		32.4 +215R		33.6 +197.1R		34.6 +181.9R	
		18"	q_a q_f	289	465	270	435	282	454	268	432	258	416	266	429	258	416	251	405	258	416
			F	27.6 +471.3R		35.4 +392.2R		36.6 +336.4R		41.4 +294R		45.2 +261.1R		44.9 +235.2R		47.7 +213.6R		50.1 +195.7R		49.5 +180.7R	
		24"	q_a q_f	218	352	211	340	206	332	202	326	200	321	197	317	195	314	194	312	192	310
			F	42.9 +467.9R		49.4 +389.4R		54.1 +333.4R		57.6 +291.4R		60.4 +258.8R		62.7 +232.8R		64.5 +211.5R		66.1 +193.8R		67.4 +178.8R	

6D-12 12/2 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

6D-12 5.3

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	1997	3215	1831	2948	1690	2721
			F	8.3 +75R		9.2 +62.5R		9.8 +53.6R		10.2 +46.9R		10.6 +41.7R		10.9 +37.5R		11.1 +34.1R		11.3 +31.2R		11.4 +28.8R	
		6"	q_a q_f	2108	3373	2097	3373	2076	3343	2061	3319	2049	3299	2040	3284	1997	3215	1831	2948	1690	2721
			F	11.9 +74.6R		12.9 +62.1R		13.5 +53.2R		14 +46.5R		14.4 +41.4R		14.7 +37.2R		15 +33.8R		15.2 +31R		15.4 +28.6R	
		8"	q_a q_f	1709	2752	1678	2701	1655	2665	1638	2638	1625	2616	1614	2599	1606	2585	1598	2573	1592	2563
			F	15.3 +74R		16.4 +61.6R		17.1 +52.7R		17.7 +46.1R		18.2 +41R		18.5 +36.9R		18.8 +33.5R		19.1 +30.7R		19.3 +28.3R	
		12"	q_a q_f	1249	2010	1214	1955	1189	1915	1171	1885	1156	1861	1145	1843	1135	1827	1127	1815	1120	1804
			F	21.5 +72.6R		22.9 +60.3R		23.9 +51.6R		24.6 +45R		25.2 +40R		25.7 +35.9R		26.1 +32.6R		26.4 +29.9R		26.7 +27.5R	
		18"	q_a q_f	947	1524	878	1413	904	1455	857	1380	821	1322	845	1361	817	1315	793	1277	812	1307
			F	28.6 +70.7R		31.6 +58.1R		31.3 +49.9R		33.3 +43.2R		35 +38.1R		34.4 +34.4R		35.7 +31R		36.9 +28.2R		36.2 +26.2R	
		24"	q_a q_f	734	1182	700	1128	676	1089	658	1060	644	1037	633	1019	624	1004	616	992	609	981
			F	36.5 +67.9R		39.1 +55.8R		41.1 +47.2R		42.6 +40.8R		43.9 +35.9R		44.9 +32R		45.8 +28.9R		46.5 +26.3R		47.1 +24.1R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1347	2169
			F	7.1 +132.5R		8.5 +110.4R		9.5 +94.6R		10.3 +82.8R		10.9 +73.6R		11.4 +66.2R		11.8 +60.2R		12.1 +55.2R		12.4 +50.9R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1347	2169
			F	11.1 +131.9R		12.7 +109.9R		13.8 +94.2R		14.6 +82.4R		15.2 +73.2R		15.7 +65.9R		16.1 +59.9R		16.5 +54.9R		16.8 +50.7R	
		8"	q_a q_f	1249	2010	1223	1969	1204	1939	1190	1916	1179	1898	1170	1884	1163	1873	1157	1863	1152	1855
			F	14.9 +131.3R		16.6 +109.3R		17.8 +93.7R		18.7 +81.9R		19.4 +72.8R		20 +65.5R		20.4 +59.5R		20.8 +54.5R		21.1 +50.3R	
		12"	q_a q_f	913	1469	885	1424	865	1392	850	1368	838	1349	828	1334	821	1321	814	1311	809	1302
			F	21.9 +129.8R		23.9 +107.9R		25.4 +92.4R		26.5 +80.7R		27.3 +71.7R		28 +64.4R		28.6 +58.5R		29.1 +53.6R		29.5 +49.5R	
		18"	q_a q_f	691	1113	639	1029	656	1056	621	1000	594	957	611	983	589	949	572	921	586	944
			F	29.7 +127.6R		33.6 +105.4R		33.6 +90.5R		36.2 +78.7R		38.3 +69.5R		37.7 +62.7R		39.3 +56.8R		40.7 +51.8R		40 +48R	
		24"	q_a q_f	540	870	513	826	494	795	479	772	468	754	459	739	452	727	446	718	441	709
			F	38.7 +124.5R		42.1 +102.8R		44.6 +87.4R		46.6 +76R		48.2 +67.1R		49.5 +60.1R		50.6 +54.4R		51.5 +49.6R		52.3 +45.7R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	3.8 +232.2R		6.2 +193.5R		7.9 +165.8R		9.2 +145.1R		10.2 +129R		11 +116.1R		11.7 +105.5R		12.2 +96.7R		12.7 +89.3R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	8.3 +231.6R		10.8 +193R		12.6 +165.4R		14 +144.7R		15 +128.6R		15.9 +115.7R		16.6 +105.2R		17.2 +96.4R		17.7 +89R	
		8"	q_a q_f	902	1444	894	1439	878	1414	867	1396	858	1381	851	1370	845	1360	840	1352	836	1346
			F	12.5 +230.9R		15.2 +192.3R		17.1 +164.8R		18.6 +144.1R		19.7 +128.1R		20.6 +115.3R		21.4 +104.8R		22 +96R		22.5 +88.6R	
		12"	q_a q_f	670	1079	648	1042	631	1016	619	997	610	981	602	969	596	959	591	951	586	944
			F	20.3 +229.2R		23.4 +190.7R		25.6 +163.3R		27.3 +142.8R		28.6 +126.8R		29.7 +114.1R		30.5 +103.7R		31.3 +95R		31.9 +87.7R	
		18"	q_a q_f	508	818	468	754	479	771	453	729	432	696	443	713	427	688	414	667	424	683
			F	29.1 +226.7R		34.2 +188R		34.8 +161.3R		38.1 +140.5R		40.8 +124.5R		40.5 +112.2R		42.5 +101.7R		44.3 +93R		43.7 +86R	
		24"	q_a q_f	400	644	378	609	363	584	351	565	342	551	335	539	329	530	324	522	320	515
			F	39 +223.3R		43.7 +185R		47.1 +157.8R		49.8 +137.5R		51.9 +121.8R		53.7 +109.2R		55.1 +99R		56.4 +90.5R		57.4 +83.4R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-6.7 +475.5R		-1.8 +396.2R		1.6 +339.6R		4.2 +297.2R		6.3 +264.1R		7.9 +237.7R		9.2 +216.1R		10.3 +198.1R		11.3 +182.9R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-1.5 +474.8R		3.5 +395.6R		7.1 +339.1R		9.8 +296.7R		11.8 +263.7R		13.5 +237.3R		14.9 +215.7R		16 +197.8R		17 +182.5R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	3.4 +474R		8.6 +394.9R		12.3 +338.4R		15.1 +296.1R		17.2 +263.1R		19 +236.8R		20.4 +215.2R		21.6 +197.3R		22.6 +182.1R	
		12"	q_a q_f	449	723	433	697	421	678	413	664	406	653	401	645	396	637	392	631	389	625
			F	12.4 +472R		18 +393.1R		22 +336.7R		25.1 +294.5R		27.5 +261.7R		29.4 +235.4R		31 +214R		32.3 +196.1R		33.4 +181R	
		18"	q_a q_f	343	553	316	508	321	516	303	487	289	465	295	475	284	457	275	443	281	452
			F	22.5 +469.2R		30.5 +389.9R		32.7 +334.3R		37.6 +291.9R		41.6 +259R		41.9 +233.3R		44.8 +211.7R		47.3 +193.8R		47 +179R	
		24"	q_a q_f	273	440	257	414	245	395	237	381	230	370	225	362	220	354	216	348	213	343
			F	34 +465.3R		41.4 +386.5R		46.9 +330.4R		51.1 +288.4R		54.4 +255.8R		57.1 +229.8R		59.4 +208.6R		61.3 +191R		62.9 +176.1R	

6D-12 12/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

5.3 **6D-12**

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2078	3345
			F	8.9 +78.2R		9.8 +65.2R		10.3 +55.9R		10.8 +48.9R		11.1 +43.5R		11.4 +39.1R		11.6 +35.6R		11.8 +32.6R		12 +30.1R	
		6"	q_a q_f	1839	2960	1826	2939	1817	2925	1810	2913	1804	2905	1800	2898	1796	2892	1793	2887	1791	2883
			F	13 +77.9R		13.8 +64.9R		14.5 +55.7R		15 +48.7R		15.3 +43.3R		15.6 +38.9R		15.9 +35.4R		16.1 +32.5R		16.2 +30R	
		8"	q_a q_f	1520	2447	1504	2422	1492	2403	1484	2389	1477	2378	1471	2369	1467	2362	1463	2356	1460	2350
			F	16.9 +77.5R		17.8 +64.6R		18.5 +55.4R		19 +48.4R		19.4 +43R		19.8 +38.7R		20 +35.2R		20.2 +32.3R		20.4 +29.8R	
		12"	q_a q_f	1126	1813	1107	1782	1092	1759	1082	1742	1074	1728	1067	1718	1062	1709	1057	1702	1053	1696
			F	24.3 +76.5R		25.5 +63.7R		26.3 +54.6R		26.9 +47.7R		27.4 +42.4R		27.8 +38.1R		28.2 +34.6R		28.4 +31.7R		28.7 +29.3R	
		18"	q_a q_f	854	1375	801	1289	831	1338	794	1278	765	1231	790	1271	766	1233	746	1202	767	1235
			F	33.2 +74.9R		36.2 +62R		35.2 +53.3R		37.2 +46.4R		38.9 +41.1R		37.8 +37.1R		39.1 +33.6R		40.3 +30.7R		39.3 +28.4R	
		24"	q_a q_f	644	1037	625	1006	612	985	602	969	594	956	588	946	582	938	578	931	575	925
			F	44.1 +72.4R		46.2 +59.9R		47.7 +51.1R		48.9 +44.5R		49.8 +39.4R		50.5 +35.3R		51.2 +32R		51.7 +29.3R		52.1 +27R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	7.7 +138R		9.1 +115R		10.1 +98.6R		10.9 +86.2R		11.5 +76.7R		12 +69R		12.4 +62.7R		12.7 +57.5R		13 +53.1R	
		6"	q_a q_f	1372	2205	1360	2190	1352	2177	1346	2167	1341	2159	1337	2152	1333	2147	1331	2142	1328	2139
			F	12.2 +137.7R		13.7 +114.7R		14.8 +98.3R		15.6 +86R		16.2 +76.4R		16.7 +68.8R		17.1 +62.5R		17.4 +57.3R		17.7 +52.9R	
		8"	q_a q_f	1123	1808	1109	1785	1099	1769	1091	1756	1085	1747	1080	1739	1076	1733	1073	1727	1070	1723
			F	16.6 +137.2R		18.1 +114.3R		19.3 +98R		20.1 +85.7R		20.8 +76.2R		21.3 +68.6R		21.7 +62.3R		22.1 +57.1R		22.4 +52.7R	
		12"	q_a q_f	826	1330	809	1303	797	1284	789	1270	782	1258	776	1249	771	1242	768	1236	764	1231
			F	24.9 +136.1R		26.7 +113.3R		28 +97.1R		29 +84.9R		29.7 +75.4R		30.3 +67.9R		30.8 +61.7R		31.3 +56.5R		31.6 +52.2R	
		18"	q_a q_f	621	999	580	934	606	975	577	929	555	894	573	922	555	894	540	870	555	893
			F	34.9 +134.3R		38.7 +111.4R		38 +95.7R		40.5 +83.5R		42.6 +74R		41.5 +66.7R		43.2 +60.5R		44.6 +55.3R		43.5 +51.2R	
		24"	q_a q_f	469	756	454	731	443	714	435	701	429	691	424	682	420	676	416	670	413	666
			F	47 +131.5R		49.9 +109.1R		51.9 +93.2R		53.5 +81.3R		54.8 +72.1R		55.8 +64.8R		56.6 +58.8R		57.3 +53.8R		57.9 +49.6R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	4.2 +241.7R		6.7 +201.4R		8.4 +172.7R		9.8 +151.1R		10.8 +134.3R		11.6 +120.9R		12.3 +109.9R		12.9 +100.7R		13.3 +93R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	9.3 +241.4R		11.8 +201.1R		13.6 +172.4R		15 +150.8R		16 +134.1R		16.9 +120.7R		17.6 +109.7R		18.2 +100.5R		18.7 +92.8R	
		8"	q_a q_f	829	1334	817	1315	808	1301	801	1290	796	1282	792	1275	789	1270	786	1265	784	1261
			F	14.2 +240.9R		16.8 +200.7R		18.7 +172R		20.1 +150.5R		21.2 +133.8R		22.1 +120.4R		22.8 +109.4R		23.4 +100.3R		23.9 +92.6R	
		12"	q_a q_f	607	977	593	955	583	939	576	927	570	918	565	910	561	904	558	899	556	894
			F	23.5 +239.6R		26.4 +199.6R		28.4 +171R		30 +149.6R		31.2 +132.9R		32.2 +119.6R		33 +108.7R		33.6 +99.7R		34.2 +92R	
		18"	q_a q_f	452	728	422	679	439	707	418	673	401	646	415	669	402	648	391	630	403	648
			F	34.7 +237.6R		39.8 +197.4R		39.6 +169.5R		42.9 +148R		45.6 +131.3R		44.7 +118.3R		46.7 +107.4R		48.5 +98.3R		47.6 +90.9R	
		24"	q_a q_f	344	554	332	534	323	520	316	510	311	501	307	495	304	489	301	485	299	481
			F	48.2 +234.5R		52.3 +194.9R		55.2 +166.7R		57.4 +145.6R		59.2 +129.2R		60.6 +116.1R		61.8 +105.5R		62.8 +96.6R		63.6 +89.1R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-6.6 +494.8R		-1.6 +412.3R		2 +353.4R		4.6 +309.3R		6.7 +274.9R		8.4 +247.4R		9.8 +224.9R		10.9 +206.2R		11.9 +190.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.8 +494.4R		4.3 +412R		7.9 +353.1R		10.7 +309R		12.8 +274.6R		14.5 +247.2R		15.9 +224.7R		17 +206R		18 +190.1R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	4.9 +493.8R		10.1 +411.5R		13.8 +352.7R		16.5 +308.6R		18.7 +274.3R		20.4 +246.8R		21.9 +224.4R		23.1 +205.7R		24.1 +189.9R	
		12"	q_a q_f	408	657	398	641	390	629	385	619	380	612	376	606	373	601	371	597	369	594
			F	15.6 +492.4R		21.1 +410.2R		25 +351.5R		28 +307.5R		30.3 +273.3R		32.1 +246R		33.6 +223.6R		34.9 +204.9R		35.9 +189.2R	
		18"	q_a q_f	302	487	281	453	291	469	277	446	266	428	274	442	265	427	258	415	265	427
			F	28.5 +490.1R		36.6 +407.7R		37.9 +349.8R		42.8 +305.7R		46.9 +271.4R		46.6 +244.5R		49.5 +222.1R		52 +203.4R		51.3 +187.9R	
		24"	q_a q_f	232	374	223	359	216	348	211	340	207	333	204	328	201	324	199	321	198	318
			F	44.2 +486.4R		51 +404.8R		55.9 +346.5R		59.7 +302.9R		62.6 +269R		64.9 +242R		66.9 +219.8R		68.5 +201.4R		69.9 +185.8R	

6D-12 12/2 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

6D-12 5.3

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	8.7 +78R		9.5 +65R		10.2 +55.7R		10.6 +48.7R		11 +43.3R		11.3 +39R		11.5 +35.4R		11.7 +32.5R		11.9 +30R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2107	3373
			F	12.4 +77.5R		13.4 +64.6R		14.1 +55.3R		14.6 +48.4R		15 +43R		15.3 +38.7R		15.6 +35.2R		15.8 +32.2R		16 +29.7R	
		8"	q_a q_f	1803	2904	1761	2835	1731	2786	1708	2749	1690	2720	1675	2697	1664	2678	1654	2663	1645	2649
			F	15.9 +76.9R		17 +64R		17.8 +54.8R		18.4 +47.9R		18.8 +42.6R		19.2 +38.3R		19.5 +34.8R		19.8 +31.9R		20 +29.4R	
		12"	q_a q_f	1320	2126	1276	2055	1244	2003	1220	1963	1201	1933	1185	1908	1173	1888	1163	1872	1154	1858
			F	22.3 +75.5R		23.7 +62.7R		24.7 +53.6R		25.5 +46.8R		26.2 +41.5R		26.7 +37.3R		27.1 +33.9R		27.4 +31R		27.7 +28.6R	
		18"	q_a q_f	1001	1612	923	1486	943	1518	892	1435	852	1371	873	1405	842	1355	816	1313	835	1344
			F	29.4 +73.4R		32.6 +60.4R		32.3 +51.8R		34.4 +44.9R		36.2 +39.5R		35.6 +35.7R		37 +32.2R		38.2 +29.3R		37.5 +27.2R	
		24"	q_a q_f	789	1270	746	1201	715	1152	692	1115	674	1086	660	1063	648	1044	639	1028	630	1015
			F	37.5 +70.6R		40.3 +57.9R		42.4 +48.9R		44 +42.3R		45.3 +37.2R		46.4 +33.2R		47.3 +29.9R		48.1 +27.2R		48.8 +25R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	7.4 +137.7R		8.9 +114.8R		9.9 +98.4R		10.7 +86.1R		11.3 +76.5R		11.8 +68.8R		12.2 +62.6R		12.6 +57.4R		12.8 +53R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	11.5 +137.2R		13.1 +114.3R		14.3 +97.9R		15.1 +85.7R		15.8 +76.1R		16.3 +68.5R		16.8 +62.3R		17.1 +57.1R		17.4 +52.7R	
		8"	q_a q_f	1322	2128	1287	2072	1261	2031	1242	2000	1228	1976	1216	1957	1206	1941	1198	1928	1191	1917
			F	15.5 +136.5R		17.2 +113.7R		18.4 +97.4R		19.4 +85.2R		20.1 +75.7R		20.7 +68.1R		21.2 +61.9R		21.6 +56.7R		21.9 +52.3R	
		12"	q_a q_f	965	1554	931	1498	906	1458	887	1428	873	1405	861	1386	851	1370	842	1356	835	1345
			F	22.6 +134.9R		24.7 +112.2R		26.2 +96R		27.4 +83.9R		28.3 +74.5R		29 +67R		29.7 +60.8R		30.2 +55.7R		30.6 +51.4R	
		18"	q_a q_f	738	1189	678	1092	690	1110	651	1047	620	999	634	1021	611	983	591	952	604	973
			F	30.6 +132.6R		34.7 +109.6R		34.7 +94R		37.4 +81.7R		39.6 +72.2R		39 +65.2R		40.7 +58.9R		42.2 +53.8R		41.5 +49.8R	
		24"	q_a q_f	587	945	552	889	527	849	509	819	494	796	483	777	473	762	465	749	459	738
			F	39.7 +129.4R		43.3 +106.8R		46 +90.8R		48.1 +78.9R		49.8 +69.7R		51.2 +62.4R		52.3 +56.4R		53.3 +51.5R		54.2 +47.3R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	3.9 +241.5R		6.4 +201.2R		8.2 +172.5R		9.6 +150.9R		10.6 +134.1R		11.5 +120.7R		12.1 +109.7R		12.7 +100.6R		13.2 +92.8R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	8.5 +240.8R		11.2 +200.7R		13.1 +172R		14.5 +150.4R		15.6 +133.7R		16.5 +120.3R		17.2 +109.4R		17.8 +100.3R		18.4 +92.5R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	894	1440	885	1424	877	1411	870	1401	864	1391
			F	12.9 +240.1R		15.7 +200R		17.7 +171.3R		19.3 +149.9R		20.5 +133.2R		21.4 +119.8R		22.2 +108.9R		22.8 +99.8R		23.4 +92.1R	
		12"	q_a q_f	710	1143	681	1097	661	1065	646	1041	635	1022	625	1007	617	994	611	984	606	975
			F	20.9 +238.3R		24.1 +198.3R		26.5 +169.8R		28.2 +148.4R		29.6 +131.8R		30.7 +118.6R		31.6 +107.8R		32.4 +98.7R		33.1 +91.1R	
		18"	q_a q_f	547	881	501	807	507	816	477	768	454	731	463	745	445	717	431	694	439	707
			F	29.9 +235.7R		35.3 +195.4R		36 +167.6R		39.4 +146.1R		42.2 +129.3R		41.9 +116.6R		44 +105.7R		45.9 +96.6R		45.2 +89.3R	
		24"	q_a q_f	439	707	411	662	391	630	376	605	364	586	355	571	347	559	341	549	335	540
			F	40.1 +232.2R		44.9 +192.3R		48.6 +164R		51.4 +142.8R		53.6 +126.5R		55.5 +113.4R		57 +102.8R		58.3 +94R		59.4 +86.6R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-7 +494.5R		-1.9 +412.1R		1.7 +353.2R		4.4 +309R		6.5 +274.7R		8.2 +247.2R		9.6 +224.7R		10.7 +206R		11.7 +190.2R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-1.6 +493.8R		3.6 +411.4R		7.3 +352.6R		10.1 +308.5R		12.3 +274.2R		14 +246.8R		15.5 +224.3R		16.6 +205.6R		17.6 +189.8R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	3.4 +492.9R		8.8 +410.6R		12.7 +351.9R		15.6 +307.9R		17.9 +273.6R		19.7 +246.2R		21.2 +223.8R		22.4 +205.1R		23.4 +189.4R	
		12"	q_a q_f	480	773	459	739	444	714	432	696	423	682	416	670	410	661	405	653	401	646
			F	12.6 +490.8R		18.5 +408.7R		22.8 +350.1R		25.9 +306.2R		28.4 +272.1R		30.4 +244.8R		32.1 +222.5R		33.4 +203.9R		34.6 +188.1R	
		18"	q_a q_f	375	603	342	550	343	552	322	519	306	493	311	500	298	480	288	464	293	472
			F	23 +487.8R		31.4 +405.3R		33.7 +347.6R		38.8 +303.4R		43 +269.2R		43.3 +242.5R		46.3 +220R		49 +201.4R		48.7 +186.1R	
		24"	q_a q_f	304	490	283	456	268	431	256	413	247	398	240	387	234	377	229	369	225	363
			F	34.7 +483.8R		42.5 +401.8R		48.2 +343.4R		52.6 +299.7R		56.1 +265.9R		59 +238.8R		61.3 +216.8R		63.3 +198.4R		65 +182.9R	

6D-12 12/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

5.3 **6D-12**

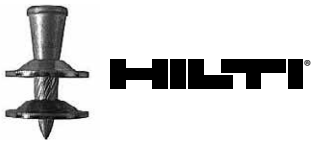
Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	14.6 +130.1R		16 +108.4R		17 +92.9R		17.8 +81.3R		18.4 +72.3R		18.9 +65R		19.3 +59.1R		19.6 +54.2R		19.9 +50R	
		6"	q_a q_f	1890	3043	1875	3019	1865	3002	1857	2989	1850	2979	1845	2971	1841	2964	1838	2959	1835	2954
			F	21 +129.4R		22.5 +107.8R		23.7 +92.4R		24.5 +80.8R		25.2 +71.8R		25.7 +64.6R		26.1 +58.7R		26.5 +53.8R		26.8 +49.7R	
		8"	q_a q_f	1553	2501	1535	2471	1522	2450	1512	2434	1504	2422	1498	2412	1493	2404	1489	2397	1485	2391
			F	27 +128.5R		28.8 +107R		30 +91.6R		31 +80.1R		31.7 +71.2R		32.3 +64.1R		32.8 +58.2R		33.2 +53.3R		33.6 +49.2R	
		12"	q_a q_f	1145	1844	1124	1809	1108	1784	1097	1766	1088	1751	1080	1739	1074	1730	1069	1722	1065	1715
			F	38.2 +126.3R		40.4 +104.9R		42.1 +89.8R		43.3 +78.4R		44.3 +69.6R		45.1 +62.6R		45.7 +56.8R		46.3 +52.1R		46.7 +48R	
		18"	q_a q_f	865	1393	809	1303	842	1356	804	1294	773	1245	798	1285	774	1246	754	1213	774	1246
			F	51 +123R		56.2 +101.3R		55.4 +87.1R		58.9 +75.5R		61.8 +66.6R		60.5 +60.2R		62.8 +54.3R		64.8 +49.5R		63.4 +45.9R	
		24"	q_a q_f	652	1050	632	1018	618	995	607	977	599	964	592	953	586	944	582	937	578	930
			F	65.8 +118.3R		70.1 +97.3R		73.3 +82.5R		75.9 +71.5R		77.9 +63R		79.5 +56.3R		80.9 +50.9R		82.1 +46.4R		83.1 +42.6R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	12.5 +229.7R		14.9 +191.4R		16.6 +164R		17.9 +143.5R		19 +127.6R		19.8 +114.8R		20.4 +104.4R		21 +95.7R		21.5 +88.3R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1376	2205	1370	2205	1366	2199	1362	2193	1359	2188	1356	2184
			F	19.6 +228.9R		22.2 +190.7R		24.1 +163.4R		25.4 +143R		26.5 +127.1R		27.4 +114.3R		28.1 +103.9R		28.7 +95.3R		29.2 +87.9R	
		8"	q_a q_f	1145	1843	1129	1818	1118	1800	1109	1786	1103	1775	1097	1767	1093	1760	1089	1754	1086	1749
			F	26.4 +227.8R		29.2 +189.8R		31.2 +162.6R		32.7 +142.2R		33.9 +126.4R		34.8 +113.7R		35.6 +103.3R		36.3 +94.7R		36.8 +87.4R	
		12"	q_a q_f	840	1352	822	1323	809	1302	799	1286	791	1274	785	1264	780	1256	776	1249	772	1243
			F	38.9 +225.4R		42.2 +187.5R		44.7 +160.5R		46.5 +140.3R		48 +124.6R		49.1 +112.1R		50.1 +101.8R		50.9 +93.3R		51.5 +86.1R	
		18"	q_a q_f	628	1011	586	944	611	983	582	936	559	900	579	932	560	902	545	878	560	902
			F	53.2 +221.7R		59.9 +183.4R		59.6 +157.5R		63.9 +137R		67.6 +121.2R		66.4 +109.3R		69.2 +99R		71.6 +90.4R		70.3 +83.7R	
		24"	q_a q_f	476	767	460	741	448	722	440	708	433	697	427	688	423	681	419	675	416	670
			F	69.9 +216.4R		75.5 +178.9R		79.7 +152.3R		83 +132.5R		85.6 +117.2R		87.7 +105R		89.5 +95.1R		91 +86.9R		92.3 +80R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	6.6 +402.6R		10.8 +335.5R		13.8 +287.5R		16 +251.6R		17.8 +223.6R		19.2 +201.3R		20.3 +183R		21.3 +167.7R		22.1 +154.8R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	14.6 +401.7R		19 +334.7R		22.1 +286.8R		24.4 +250.9R		26.3 +223R		27.7 +200.7R		28.9 +182.5R		29.9 +167.3R		30.8 +154.4R	
		8"	q_a q_f	844	1359	830	1337	821	1322	814	1310	808	1301	803	1293	800	1287	796	1282	794	1278
			F	22.2 +400.5R		26.8 +333.6R		30.1 +285.9R		32.6 +250.1R		34.5 +222.3R		36 +200R		37.3 +181.8R		38.4 +166.6R		39.3 +153.8R	
		12"	q_a q_f	617	993	602	969	591	952	583	939	577	928	572	920	567	913	564	908	561	903
			F	36.2 +397.7R		41.4 +331.1R		45.2 +283.6R		48 +248R		50.2 +220.3R		52 +198.2R		53.5 +180.1R		54.7 +165R		55.7 +152.3R	
		18"	q_a q_f	458	737	427	687	443	713	421	678	405	651	418	673	405	652	394	634	405	652
			F	52.3 +393.6R		61.1 +326.5R		61.9 +280.2R		67.5 +244.3R		72.2 +216.5R		71.3 +195.1R		74.8 +176.9R		77.9 +161.8R		76.7 +149.6R	
		24"	q_a q_f	350	563	337	542	327	527	320	515	314	506	310	499	306	493	303	489	301	484
			F	70.8 +387.7R		78.6 +321.5R		84.3 +274.4R		88.8 +239.2R		92.3 +212R		95.2 +190.3R		97.5 +172.6R		99.5 +157.9R		101.3 +145.5R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-11.5 +824.3R		-3.1 +686.9R		2.9 +588.8R		7.5 +515.2R		11 +457.9R		13.8 +412.1R		16.1 +374.7R		18 +343.4R		19.6 +317R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.3 +823.3R		6.4 +686R		12.5 +588R		17.1 +514.4R		20.7 +457.2R		23.6 +411.5R		26 +374.1R		27.9 +342.9R		29.6 +316.5R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	6.5 +821.9R		15.4 +684.8R		21.7 +586.9R		26.5 +513.5R		30.2 +456.4R		33.2 +410.7R		35.6 +373.3R		37.7 +342.2R		39.4 +315.9R	
		12"	q_a q_f	412	664	402	648	395	636	389	627	384	619	380	613	377	607	375	603	372	599
			F	22.6 +818.7R		32.2 +681.9R		39.1 +584.2R		44.3 +511R		48.4 +454.1R		51.6 +408.6R		54.3 +371.3R		56.5 +340.3R		58.4 +314.1R	
		18"	q_a q_f	307	494	285	459	295	474	280	450	268	432	277	445	267	431	260	418	267	430
			F	41.2 +814R		55 +676.6R		58.4 +580.3R		66.8 +506.8R		73.7 +449.7R		73.9 +405.1R		78.9 +367.7R		83.3 +336.6R		82.6 +311R	
		24"	q_a q_f	236	381	226	364	219	353	214	344	210	337	206	332	203	328	201	324	199	321
			F	62.6 +807.2R		75.2 +670.8R		84.3 +573.6R		91.4 +500.9R		96.9 +444.5R		101.4 +399.5R		105.2 +362.7R		108.3 +332.1R		111 +306.2R	

6D-12 12/2 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®



6D-12 5.3

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	13.9 +129.7R		15.4 +108R		16.5 +92.5R		17.3 +80.9R		18 +71.9R		18.5 +64.7R		18.9 +58.8R		19.3 +53.9R		19.6 +49.8R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	19.5 +128.5R		21.2 +107R		22.5 +91.6R		23.5 +80.1R		24.3 +71.1R		24.9 +64R		25.4 +58.2R		25.8 +53.3R		26.1 +49.2R	
		8"	q_a q_f	1834	2952	1787	2878	1754	2824	1729	2784	1709	2752	1694	2727	1681	2706	1670	2689	1661	2674
			F	24.5 +127.3R		26.6 +105.8R		28.1 +90.5R		29.3 +79.1R		30.2 +70.2R		30.9 +63.1R		31.5 +57.3R		32 +52.5R		32.4 +48.4R	
		12"	q_a q_f	1340	2157	1294	2083	1261	2030	1236	1990	1215	1957	1199	1930	1185	1909	1174	1890	1165	1875
			F	33.3 +124.6R		36.1 +103.1R		38.2 +88R		39.8 +76.6R		41 +67.8R		42.1 +60.9R		43 +55.2R		43.7 +50.4R		44.3 +46.5R	
		18"	q_a q_f	1021	1644	940	1513	957	1541	904	1455	863	1389	883	1421	851	1369	824	1327	842	1356
			F	42.5 +121.1R		47.8 +99R		48.5 +84.7R		52.2 +72.9R		55.3 +63.9R		54.9 +57.6R		57.3 +51.7R		59.4 +46.8R		58.8 +43.3R	
		24"	q_a q_f	809	1302	762	1228	729	1174	705	1135	685	1104	670	1079	657	1058	647	1042	638	1027
			F	52.2 +116.8R		57.4 +95.1R		61.4 +79.8R		64.7 +68.5R		67.5 +59.7R		69.7 +52.9R		71.7 +47.3R		73.4 +42.8R		74.8 +39R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	11.7 +229.2R		14.2 +190.9R		16 +163.6R		17.4 +143.1R		18.5 +127.2R		19.3 +114.5R		20.1 +104.1R		20.6 +95.4R		21.1 +88R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	17.9 +227.9R		20.8 +189.8R		22.8 +162.6R		24.3 +142.2R		25.5 +126.3R		26.5 +113.6R		27.3 +103.3R		27.9 +94.7R		28.5 +87.4R	
		8"	q_a q_f	1345	2165	1306	2103	1279	2059	1258	2025	1242	1999	1229	1978	1218	1961	1209	1947	1202	1935
			F	23.6 +226.5R		26.8 +188.4R		29.1 +161.3R		30.8 +141R		32.2 +125.2R		33.3 +112.6R		34.2 +102.3R		34.9 +93.7R		35.6 +86.5R	
		12"	q_a q_f	981	1580	944	1520	917	1477	897	1444	881	1419	869	1399	859	1383	850	1369	843	1357
			F	33.4 +223.4R		37.4 +185.5R		40.3 +158.5R		42.5 +138.3R		44.3 +122.6R		45.8 +110.1R		47 +99.9R		48 +91.5R		48.9 +84.3R	
		18"	q_a q_f	754	1215	692	1114	701	1129	661	1064	629	1013	642	1034	618	995	598	963	610	982
			F	43.7 +219.5R		50.5 +180.9R		51.9 +154.8R		56.4 +134.2R		60.3 +118.2R		60.1 +106.4R		63.1 +96R		65.6 +87.4R		65 +80.8R	
		24"	q_a q_f	603	971	566	911	539	868	519	835	503	810	491	790	480	774	472	760	465	748
			F	54.5 +214.8R		61.2 +176.5R		66.4 +149.3R		70.5 +129.1R		73.9 +113.5R		76.7 +101.2R		79.2 +91.2R		81.2 +82.9R		83 +75.9R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	5.8 +402R		10.1 +334.9R		13.1 +287R		15.5 +251.1R		17.3 +223.2R		18.7 +200.9R		19.9 +182.6R		20.9 +167.4R		21.7 +154.5R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	12.8 +400.6R		17.4 +333.7R		20.7 +285.9R		23.2 +250.1R		25.1 +222.2R		26.7 +199.9R		28 +181.7R		29 +166.6R		29.9 +153.7R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	894	1440	886	1426	878	1414	872	1404
			F	19.1 +399R		24.1 +332.2R		27.7 +284.5R		30.4 +248.8R		32.5 +221R		34.3 +198.8R		35.7 +180.7R		36.8 +165.5R		37.8 +152.8R	
		12"	q_a q_f	723	1163	692	1115	671	1080	654	1054	642	1033	632	1017	623	1004	617	993	611	983
			F	30.1 +395.6R		36 +328.9R		40.3 +281.3R		43.6 +245.7R		46.2 +218.1R		48.3 +196R		50 +178R		51.5 +163R		52.7 +150.3R	
		18"	q_a q_f	560	902	512	824	516	831	485	782	462	743	469	756	451	727	436	702	444	715
			F	41.6 +391.2R		50.7 +323.7R		53.3 +277.2R		59.1 +241.1R		64 +213.1R		64.3 +191.9R		68 +173.6R		71.2 +158.4R		70.8 +146.4R	
		24"	q_a q_f	452	728	422	679	400	645	384	618	371	598	361	582	353	568	346	557	340	548
			F	53.7 +385.9R		62.6 +318.8R		69.4 +271.1R		74.8 +235.5R		79.2 +207.9R		82.9 +186R		86 +168.2R		88.7 +153.4R		91 +140.9R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-12.5 +823.6R		-3.9 +686.3R		2.2 +588.2R		6.8 +514.6R		10.4 +457.4R		13.2 +411.7R		15.6 +374.2R		17.5 +343R		19.2 +316.6R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-4.4 +822R		4.5 +684.8R		10.9 +586.9R		15.7 +513.4R		19.4 +456.3R		22.4 +410.6R		24.9 +373.2R		26.9 +342.1R		28.7 +315.8R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.9 +820.2R		12.3 +683.1R		19 +585.2R		24 +511.9R		28 +454.9R		31.2 +409.3R		33.8 +372R		35.9 +340.9R		37.8 +314.6R	
		12"	q_a q_f	490	789	467	752	451	726	438	706	429	690	421	678	415	668	410	659	405	652
			F	15.6 +816.3R		26 +679.3R		33.5 +581.6R		39.2 +508.4R		43.7 +451.5R		47.3 +406.1R		50.3 +368.9R		52.8 +338R		54.9 +311.8R	
		18"	q_a q_f	385	619	350	563	350	564	328	529	311	501	316	508	303	488	292	471	297	478
			F	28.9 +811.2R		42.9 +673.3R		48.5 +576.8R		57.1 +503.1R		64.3 +445.8R		65.9 +401.3R		71.1 +363.9R		75.6 +332.7R		75.8 +307.3R	
		24"	q_a q_f	314	506	291	469	275	442	262	423	253	407	245	395	239	385	234	376	229	369
			F	42.8 +805.1R		56.7 +667.7R		67.1 +569.8R		75.3 +496.6R		81.9 +439.8R		87.3 +394.5R		91.8 +357.6R		95.7 +326.9R		99.1 +301R	

6D-12 12/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

5.3 6D-12

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2019	3251
			F	3.8 +32.7R		4.1 +27.2R		4.4 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		5 +13.6R		5 +12.6R	
		6"	q_a q_f	1818	2927	1806	2908	1797	2894	1791	2883	1786	2875	1782	2868	1778	2863	1775	2858	1773	2854
			F	5.6 +32.6R		5.9 +27.2R		6.1 +23.3R		6.3 +20.4R		6.5 +18.1R		6.6 +16.3R		6.7 +14.8R		6.8 +13.6R		6.8 +12.5R	
		8"	q_a q_f	1507	2427	1492	2402	1481	2384	1472	2370	1466	2360	1461	2352	1456	2345	1453	2339	1450	2334
			F	7.3 +32.5R		7.7 +27.1R		7.9 +23.2R		8.1 +20.3R		8.2 +18.1R		8.4 +16.3R		8.5 +14.8R		8.5 +13.5R		8.6 +12.5R	
		12"	q_a q_f	1119	1801	1100	1771	1086	1749	1076	1732	1068	1720	1062	1709	1056	1701	1052	1694	1048	1688
			F	10.7 +32.3R		11.1 +26.9R		11.4 +23.1R		11.6 +20.2R		11.8 +17.9R		11.9 +16.1R		12 +14.7R		12.1 +13.4R		12.2 +12.4R	
		18"	q_a q_f	849	1366	796	1282	827	1331	790	1272	761	1226	786	1266	763	1228	744	1197	764	1230
			F	15 +31.9R		16.1 +26.5R		15.5 +22.8R		16.3 +19.9R		16.9 +17.7R		16.4 +15.9R		16.9 +14.5R		17.3 +13.2R		16.9 +12.2R	
		24"	q_a q_f	641	1031	622	1002	609	981	600	965	592	953	586	943	581	935	577	929	573	923
			F	20.4 +31.3R		21 +26R		21.4 +22.3R		21.7 +19.5R		22 +17.3R		22.2 +15.6R		22.4 +14.1R		22.5 +12.9R		22.6 +11.9R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.3 +57.6R		3.9 +48R		4.3 +41.1R		4.6 +36R		4.8 +32R		5 +28.8R		5.2 +26.2R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1368	2202	1356	2183	1348	2170	1342	2160	1337	2152	1333	2146	1330	2141	1327	2136	1325	2133
			F	5.3 +57.5R		5.8 +47.9R		6.3 +41.1R		6.6 +35.9R		6.8 +31.9R		7 +28.7R		7.2 +26.1R		7.3 +24R		7.4 +22.1R	
		8"	q_a q_f	1120	1803	1106	1781	1096	1765	1088	1752	1083	1743	1078	1735	1074	1729	1071	1724	1068	1719
			F	7.2 +57.4R		7.8 +47.8R		8.2 +41R		8.6 +35.9R		8.8 +31.9R		9 +28.7R		9.2 +26.1R		9.3 +23.9R		9.5 +22.1R	
		12"	q_a q_f	824	1327	808	1300	796	1282	787	1267	780	1256	775	1247	770	1240	767	1234	763	1229
			F	11 +57.2R		11.7 +47.6R		12.1 +40.8R		12.5 +35.7R		12.8 +31.7R		13 +28.6R		13.2 +26R		13.3 +23.8R		13.4 +22R	
		18"	q_a q_f	620	998	580	933	605	974	577	928	555	893	572	921	554	893	540	869	554	892
			F	15.8 +56.7R		17.3 +47.2R		16.7 +40.5R		17.7 +35.4R		18.6 +31.4R		18 +28.3R		18.6 +25.7R		19.2 +23.6R		18.7 +21.8R	
		24"	q_a q_f	469	754	454	730	443	713	435	700	428	690	423	682	419	675	416	670	413	665
			F	21.9 +56R		22.7 +46.6R		23.4 +39.9R		23.8 +34.9R		24.2 +31R		24.5 +27.9R		24.8 +25.4R		25 +23.2R		25.1 +21.5R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.8R		2.9 +84R		3.6 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.2 +45.8R		5.4 +42R		5.6 +38.8R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	4 +100.7R		5.1 +83.9R		5.8 +71.9R		6.4 +63R		6.8 +56R		7.1 +50.4R		7.4 +45.8R		7.7 +42R		7.8 +38.7R	
		8"	q_a q_f	830	1336	818	1316	809	1302	802	1291	797	1283	793	1276	789	1271	787	1266	784	1263
			F	6.2 +100.6R		7.3 +83.9R		8 +71.9R		8.6 +62.9R		9 +55.9R		9.4 +50.3R		9.7 +45.7R		9.9 +41.9R		10.1 +38.7R	
		12"	q_a q_f	607	978	594	956	584	940	576	928	570	918	566	911	562	905	559	899	556	895
			F	10.5 +100.4R		11.6 +83.6R		12.4 +71.7R		13 +62.7R		13.4 +55.7R		13.8 +50.2R		14.1 +45.6R		14.3 +41.8R		14.5 +38.6R	
		18"	q_a q_f	453	729	422	680	439	707	418	673	402	647	416	669	402	648	391	630	403	649
			F	15.8 +99.9R		17.9 +83.1R		17.5 +71.3R		18.8 +62.4R		19.9 +55.4R		19.4 +49.9R		20.2 +45.3R		20.9 +41.5R		20.4 +38.4R	
		24"	q_a q_f	344	555	332	535	323	521	317	510	312	502	307	495	304	490	301	485	299	481
			F	22.6 +99.1R		24 +82.5R		24.9 +70.7R		25.7 +61.8R		26.2 +54.9R		26.7 +49.4R		27.1 +44.9R		27.4 +41.2R		27.6 +38R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.3R		-0.6 +171.9R		0.9 +147.3R		2 +128.9R		2.9 +114.6R		3.5 +103.1R		4.1 +93.8R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.1 +206.2R		2 +171.8R		3.5 +147.3R		4.6 +128.9R		5.4 +114.5R		6.1 +103.1R		6.7 +93.7R		7.2 +85.9R		7.6 +79.3R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.4 +206.1R		4.5 +171.7R		6 +147.2R		7.1 +128.8R		8 +114.5R		8.7 +103R		9.3 +93.7R		9.8 +85.9R		10.2 +79.2R	
		12"	q_a q_f	409	659	400	643	392	631	386	621	381	614	377	608	374	603	372	599	370	595
			F	7.3 +205.8R		9.5 +171.5R		11 +147R		12.2 +128.6R		13.1 +114.3R		13.8 +102.9R		14.4 +93.5R		14.9 +85.7R		15.3 +79.1R	
		18"	q_a q_f	303	489	282	454	292	470	278	447	266	429	275	443	266	428	258	416	266	428
			F	13.5 +205.2R		16.8 +170.9R		16.9 +146.6R		19 +128.2R		20.6 +113.9R		20.3 +102.6R		21.5 +93.2R		22.5 +85.4R		22.1 +78.9R	
		24"	q_a q_f	233	375	224	360	217	349	212	341	208	334	205	329	202	325	200	322	198	319
			F	21.3 +204.3R		23.8 +170.2R		25.5 +145.8R		26.9 +127.6R		27.9 +113.4R		28.7 +102R		29.4 +92.7R		29.9 +85R		30.4 +78.4R	

6D-12 12/2 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

PNEUTEK®

6D-12 5.3

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2084	3355
			F	3.7 +32.6R		4.1 +27.2R		4.3 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		4.9 +13.6R		5 +12.5R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2105	3373	2084	3355
			F	5.4 +32.5R		5.8 +27.1R		6.1 +23.2R		6.3 +20.3R		6.4 +18.1R		6.5 +16.2R		6.6 +14.8R		6.7 +13.5R		6.8 +12.5R	
		8"	q_a q_f	1792	2885	1751	2819	1722	2772	1699	2736	1682	2708	1668	2686	1657	2668	1647	2652	1639	2639
			F	7.1 +32.4R		7.5 +27R		7.8 +23.1R		8 +20.2R		8.1 +18R		8.3 +16.2R		8.4 +14.7R		8.5 +13.5R		8.5 +12.4R	
		12"	q_a q_f	1312	2112	1268	2042	1237	1992	1213	1954	1195	1924	1180	1900	1168	1881	1158	1865	1150	1851
			F	10.3 +32R		10.7 +26.6R		11.1 +22.8R		11.3 +20R		11.5 +17.7R		11.7 +16R		11.8 +14.5R		11.9 +13.3R		12 +12.3R	
		18"	q_a q_f	994	1601	917	1476	938	1510	887	1428	848	1364	869	1399	838	1350	813	1309	832	1339
			F	14.1 +31.4R		15.4 +26R		14.9 +22.4R		15.7 +19.5R		16.4 +17.2R		15.9 +15.6R		16.5 +14.1R		16.9 +12.9R		16.5 +11.9R	
		24"	q_a q_f	782	1258	740	1191	710	1143	688	1107	670	1079	656	1057	645	1039	636	1023	628	1010
			F	18.9 +30.4R		19.7 +25.2R		20.3 +21.5R		20.7 +18.8R		21.1 +16.6R		21.4 +14.9R		21.6 +13.5R		21.8 +12.4R		22 +11.4R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.2 +57.5R		3.8 +47.9R		4.2 +41.1R		4.6 +35.9R		4.8 +31.9R		5 +28.8R		5.2 +26.1R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.1 +57.4R		5.7 +47.8R		6.2 +41R		6.5 +35.9R		6.8 +31.9R		7 +28.7R		7.1 +26.1R		7.3 +23.9R		7.4 +22.1R	
		8"	q_a q_f	1319	2124	1284	2068	1259	2027	1240	1997	1226	1973	1214	1954	1204	1939	1196	1926	1189	1915
			F	7 +57.2R		7.6 +47.7R		8.1 +40.9R		8.4 +35.8R		8.7 +31.8R		8.9 +28.6R		9.1 +26R		9.2 +23.8R		9.4 +22R	
		12"	q_a q_f	963	1551	929	1495	904	1456	886	1426	871	1403	860	1384	850	1368	841	1354	834	1343
			F	10.6 +56.8R		11.3 +47.3R		11.8 +40.5R		12.2 +35.5R		12.5 +31.5R		12.7 +28.4R		12.9 +25.8R		13.1 +23.6R		13.2 +21.8R	
		18"	q_a q_f	736	1185	677	1089	688	1108	649	1045	619	997	633	1019	610	982	591	951	603	971
			F	14.9 +56.1R		16.5 +46.6R		16.1 +40R		17.1 +34.9R		18 +31R		17.5 +27.9R		18.2 +25.3R		18.7 +23.2R		18.3 +21.5R	
		24"	q_a q_f	585	942	551	886	526	847	507	817	493	794	482	775	472	760	464	748	458	737
			F	20.2 +55.1R		21.3 +45.7R		22.1 +39.1R		22.7 +34.1R		23.2 +30.3R		23.6 +27.2R		23.9 +24.7R		24.2 +22.6R		24.4 +20.9R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.7R		2.8 +84R		3.5 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.1 +45.8R		5.4 +42R		5.6 +38.7R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	3.9 +100.6R		5 +83.8R		5.7 +71.9R		6.3 +62.9R		6.7 +55.9R		7.1 +50.3R		7.4 +45.7R		7.6 +41.9R		7.8 +38.7R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	895	1441	885	1425	877	1412	870	1401	865	1392
			F	6 +100.4R		7.1 +83.7R		7.9 +71.7R		8.4 +62.8R		8.9 +55.8R		9.2 +50.2R		9.5 +45.6R		9.8 +41.8R		10 +38.6R	
		12"	q_a q_f	710	1144	682	1098	662	1066	647	1041	635	1022	626	1007	618	995	611	984	606	976
			F	10 +100R		11.2 +83.3R		12 +71.4R		12.6 +62.4R		13.1 +55.5R		13.5 +49.9R		13.8 +45.4R		14.1 +41.6R		14.3 +38.4R	
		18"	q_a q_f	548	883	502	808	507	817	478	769	455	732	463	746	446	718	431	694	440	708
			F	14.8 +99.2R		16.9 +82.5R		16.8 +70.8R		18.1 +61.8R		19.2 +54.9R		18.8 +49.5R		19.7 +44.9R		20.4 +41.1R		20 +38R	
		24"	q_a q_f	440	709	412	663	392	630	376	606	365	587	355	572	347	559	341	549	336	540
			F	20.8 +98R		22.4 +81.5R		23.5 +69.7R		24.4 +60.9R		25.1 +54.1R		25.7 +48.7R		26.1 +44.2R		26.5 +40.5R		26.8 +37.3R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.2R		-0.6 +171.8R		0.8 +147.3R		2 +128.9R		2.8 +114.6R		3.5 +103.1R		4.1 +93.7R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.3 +206R		1.8 +171.7R		3.3 +147.2R		4.5 +128.8R		5.4 +114.5R		6.1 +103R		6.6 +93.6R		7.1 +85.8R		7.5 +79.2R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.1 +205.8R		4.3 +171.5R		5.8 +147R		7 +128.6R		7.9 +114.3R		8.6 +102.9R		9.2 +93.5R		9.7 +85.7R		10.1 +79.1R	
		12"	q_a q_f	483	777	461	742	445	717	434	698	425	684	417	672	411	662	406	654	402	648
			F	6.7 +205.3R		9 +171.1R		10.6 +146.6R		11.8 +128.3R		12.7 +114R		13.5 +102.6R		14.1 +93.3R		14.6 +85.5R		15.1 +78.9R	
		18"	q_a q_f	377	607	344	553	345	555	324	521	307	495	312	502	299	482	289	466	294	473
			F	12.3 +204.4R		15.7 +170.1R		16.1 +145.9R		18.2 +127.6R		19.8 +113.3R		19.6 +102R		20.9 +92.7R		21.9 +84.9R		21.6 +78.4R	
		24"	q_a q_f	307	494	285	459	269	434	258	415	249	400	241	389	235	379	230	371	226	364
			F	19.2 +203R		21.9 +169R		23.9 +144.7R		25.4 +126.5R		26.6 +112.4R		27.5 +101.1R		28.3 +91.9R		28.9 +84.2R		29.5 +77.7R	

6D-12 12/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #10 SD HWH Screw

5.3 **6D-12**

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2108 3373	2028 3264	1872 3013
			F	3.8 +32.7R	4.1 +27.2R	4.4 +23.3R	4.5 +20.4R	4.7 +18.1R	4.8 +16.3R	4.9 +14.8R	5 +13.6R	5 +12.6R
		6"	q_a q_f	1763 2838	1752 2821	1745 2809	1739 2800	1735 2793	1731 2787	1728 2782	1726 2778	1724 2775
			F	5.6 +32.6R	5.9 +27.2R	6.1 +23.3R	6.3 +20.4R	6.5 +18.1R	6.6 +16.3R	6.7 +14.8R	6.8 +13.6R	6.8 +12.5R
		8"	q_a q_f	1471 2369	1458 2347	1448 2332	1441 2320	1435 2311	1431 2303	1427 2297	1424 2292	1421 2288
			F	7.3 +32.5R	7.7 +27.1R	7.9 +23.2R	8.1 +20.3R	8.2 +18.1R	8.4 +16.3R	8.5 +14.8R	8.5 +13.5R	8.6 +12.5R
		12"	q_a q_f	1098 1769	1082 1741	1069 1722	1060 1707	1053 1695	1047 1686	1042 1678	1039 1672	1035 1667
			F	10.7 +32.3R	11.1 +26.9R	11.4 +23.1R	11.6 +20.2R	11.8 +17.9R	11.9 +16.1R	12 +14.7R	12.1 +13.4R	12.2 +12.4R
		18"	q_a q_f	835 1344	784 1263	815 1313	780 1256	752 1211	777 1252	755 1216	736 1185	757 1219
			F	15 +31.9R	16.1 +26.5R	15.5 +22.8R	16.3 +19.9R	16.9 +17.7R	16.4 +15.9R	16.9 +14.5R	17.3 +13.2R	16.9 +12.2R
		24"	q_a q_f	633 1019	616 991	604 972	595 957	588 946	582 937	577 930	573 923	569 917
			F	20.4 +31.3R	21 +26R	21.4 +22.3R	21.7 +19.5R	22 +17.3R	22.2 +15.6R	22.4 +14.1R	22.5 +12.9R	22.6 +11.9R
	16 ga	4"	q_a q_f	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205	1378 2205
			F	3.3 +57.6R	3.9 +48R	4.3 +41.1R	4.6 +36R	4.8 +32R	5 +28.8R	5.2 +26.2R	5.3 +24R	5.4 +22.1R
		6"	q_a q_f	1351 2176	1341 2158	1333 2146	1327 2136	1322 2129	1319 2123	1316 2118	1313 2114	1311 2111
			F	5.3 +57.5R	5.8 +47.9R	6.3 +41.1R	6.6 +35.9R	6.8 +31.9R	7 +28.7R	7.2 +26.1R	7.3 +24R	7.4 +22.1R
		8"	q_a q_f	1109 1786	1096 1765	1087 1750	1080 1738	1074 1729	1070 1722	1066 1716	1063 1711	1060 1707
			F	7.2 +57.4R	7.8 +47.8R	8.2 +41R	8.6 +35.9R	8.8 +31.9R	9 +28.7R	9.2 +26.1R	9.3 +23.9R	9.5 +22.1R
		12"	q_a q_f	818 1317	802 1291	791 1273	782 1260	776 1249	771 1241	766 1234	763 1228	760 1223
			F	11 +57.2R	11.7 +47.6R	12.1 +40.8R	12.5 +35.7R	12.8 +31.7R	13 +28.6R	13.2 +26R	13.3 +23.8R	13.4 +22R
		18"	q_a q_f	617 993	577 929	601 968	573 923	552 888	569 916	552 888	537 865	552 889
			F	15.8 +56.7R	17.3 +47.2R	16.7 +40.5R	17.7 +35.4R	18.6 +31.4R	18 +28.3R	18.6 +25.7R	19.2 +23.6R	18.7 +21.8R
		24"	q_a q_f	466 750	451 726	441 709	433 697	427 687	422 679	418 673	415 668	412 663
			F	21.9 +56R	22.7 +46.6R	23.4 +39.9R	23.8 +34.9R	24.2 +31R	24.5 +27.9R	24.8 +25.4R	25 +23.2R	25.1 +21.5R
	18 ga	4"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	1.8 +100.8R	2.9 +84R	3.6 +72R	4.1 +63R	4.5 +56R	4.9 +50.4R	5.2 +45.8R	5.4 +42R	5.6 +38.8R
		6"	q_a q_f	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444	902 1444
			F	4 +100.7R	5.1 +83.9R	5.8 +71.9R	6.4 +63R	6.8 +56R	7.1 +50.4R	7.4 +45.8R	7.7 +42R	7.8 +38.7R
		8"	q_a q_f	832 1340	820 1320	811 1305	804 1295	799 1286	795 1279	791 1274	788 1269	786 1265
			F	6.2 +100.6R	7.3 +83.9R	8 +71.9R	8.6 +62.9R	9 +55.9R	9.4 +50.3R	9.7 +45.7R	9.9 +41.9R	10.1 +38.7R
		12"	q_a q_f	609 981	595 958	585 942	577 929	571 920	567 912	563 906	560 901	557 896
			F	10.5 +100.4R	11.6 +83.6R	12.4 +71.7R	13 +62.7R	13.4 +55.7R	13.8 +50.2R	14.1 +45.6R	14.3 +41.8R	14.5 +38.6R
		18"	q_a q_f	453 730	423 681	440 708	419 674	402 647	416 670	403 648	392 631	403 649
			F	15.8 +99.9R	17.9 +83.1R	17.5 +71.3R	18.8 +62.4R	19.9 +55.4R	19.4 +49.9R	20.2 +45.3R	20.9 +41.5R	20.4 +38.4R
		24"	q_a q_f	345 556	333 536	324 522	317 511	312 502	308 496	304 490	302 486	299 482
			F	22.6 +99.1R	24 +82.5R	24.9 +70.7R	25.7 +61.8R	26.2 +54.9R	26.7 +49.4R	27.1 +44.9R	27.4 +41.2R	27.6 +38R
	20 ga	4"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-2.7 +206.3R	-0.6 +171.9R	0.9 +147.3R	2 +128.9R	2.9 +114.6R	3.5 +103.1R	4.1 +93.8R	4.6 +85.9R	5 +79.3R
		6"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	-0.1 +206.2R	2 +171.8R	3.5 +147.3R	4.6 +128.9R	5.4 +114.5R	6.1 +103.1R	6.7 +93.7R	7.2 +85.9R	7.6 +79.3R
		8"	q_a q_f	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834	521 834
			F	2.4 +206.1R	4.5 +171.7R	6 +147.2R	7.1 +128.8R	8 +114.5R	8.7 +103R	9.3 +93.7R	9.8 +85.9R	10.2 +79.2R
		12"	q_a q_f	413 665	403 649	396 637	390 628	385 620	381 614	378 609	375 604	373 600
			F	7.3 +205.8R	9.5 +171.5R	11 +147R	12.2 +128.6R	13.1 +114.3R	13.8 +102.9R	14.4 +93.5R	14.9 +85.7R	15.3 +79.1R
		18"	q_a q_f	308 495	286 460	295 475	280 451	269 433	277 446	268 431	260 419	267 430
			F	13.5 +205.2R	16.8 +170.9R	16.9 +146.6R	19 +128.2R	20.6 +113.9R	20.3 +102.6R	21.5 +93.2R	22.5 +85.4R	22.1 +78.9R
		24"	q_a q_f	237 382	227 366	220 354	214 345	210 338	207 333	204 328	202 324	200 321
			F	21.3 +204.3R	23.8 +170.2R	25.5 +145.8R	26.9 +127.6R	27.9 +113.4R	28.7 +102R	29.4 +92.7R	29.9 +85R	30.4 +78.4R

6D-12 12/2 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

PNEUTEK®

6D-12 5.3

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2093	3369	1932	3110
			F	3.7 +32.6R		4.1 +27.2R		4.3 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		4.9 +13.6R		5 +12.5R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2106	3373	2095	3373	2085	3357	2077	3345	1932	3110
			F	5.4 +32.5R		5.8 +27.1R		6.1 +23.2R		6.3 +20.3R		6.4 +18.1R		6.5 +16.2R		6.6 +14.8R		6.7 +13.5R		6.8 +12.5R	
		8"	q_a q_f	1762	2837	1725	2777	1698	2733	1678	2701	1662	2675	1649	2655	1639	2638	1630	2624	1623	2613
			F	7.1 +32.4R		7.5 +27R		7.8 +23.1R		8 +20.2R		8.1 +18R		8.3 +16.2R		8.4 +14.7R		8.5 +13.5R		8.5 +12.4R	
		12"	q_a q_f	1288	2074	1248	2009	1219	1963	1198	1928	1181	1901	1167	1879	1156	1861	1147	1846	1139	1834
			F	10.3 +32R		10.7 +26.6R		11.1 +22.8R		11.3 +20R		11.5 +17.7R		11.7 +16R		11.8 +14.5R		11.9 +13.3R		12 +12.3R	
		18"	q_a q_f	976	1571	902	1452	925	1489	876	1410	837	1348	860	1384	830	1336	805	1296	825	1328
			F	14.1 +31.4R		15.4 +26R		14.9 +22.4R		15.7 +19.5R		16.4 +17.2R		15.9 +15.6R		16.5 +14.1R		16.9 +12.9R		16.5 +11.9R	
		24"	q_a q_f	763	1229	725	1167	697	1122	676	1089	660	1063	647	1042	637	1025	628	1011	621	999
			F	18.9 +30.4R		19.7 +25.2R		20.3 +21.5R		20.7 +18.8R		21.1 +16.6R		21.4 +14.9R		21.6 +13.5R		21.8 +12.4R		22 +11.4R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.2 +57.5R		3.8 +47.9R		4.2 +41.1R		4.6 +35.9R		4.8 +31.9R		5 +28.8R		5.2 +26.1R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.1 +57.4R		5.7 +47.8R		6.2 +41R		6.5 +35.9R		6.8 +31.9R		7 +28.7R		7.1 +26.1R		7.3 +23.9R		7.4 +22.1R	
		8"	q_a q_f	1309	2107	1276	2054	1251	2015	1233	1986	1219	1963	1208	1945	1199	1930	1191	1917	1184	1907
			F	7 +57.2R		7.6 +47.7R		8.1 +40.9R		8.4 +35.8R		8.7 +31.8R		8.9 +28.6R		9.1 +26R		9.2 +23.8R		9.4 +22R	
		12"	q_a q_f	956	1540	923	1486	899	1448	881	1419	867	1396	855	1377	845	1361	837	1348	830	1337
			F	10.6 +56.8R		11.3 +47.3R		11.8 +40.5R		12.2 +35.5R		12.5 +31.5R		12.7 +28.4R		12.9 +25.8R		13.1 +23.6R		13.2 +21.8R	
		18"	q_a q_f	729	1174	671	1080	683	1100	645	1039	615	991	630	1014	607	977	588	946	601	967
			F	14.9 +56.1R		16.5 +46.6R		16.1 +40R		17.1 +34.9R		18 +31R		17.5 +27.9R		18.2 +25.3R		18.7 +23.2R		18.3 +21.5R	
		24"	q_a q_f	578	931	545	877	521	839	503	810	489	788	478	770	469	755	462	743	455	733
			F	20.2 +55.1R		21.3 +45.7R		22.1 +39.1R		22.7 +34.1R		23.2 +30.3R		23.6 +27.2R		23.9 +24.7R		24.2 +22.6R		24.4 +20.9R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.7R		2.8 +84R		3.5 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.1 +45.8R		5.4 +42R		5.6 +38.7R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	3.9 +100.6R		5 +83.8R		5.7 +71.9R		6.3 +62.9R		6.7 +55.9R		7.1 +50.3R		7.4 +45.7R		7.6 +41.9R		7.8 +38.7R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	897	1444	887	1428	879	1415	872	1404	866	1394
			F	6 +100.4R		7.1 +83.7R		7.9 +71.7R		8.4 +62.8R		8.9 +55.8R		9.2 +50.2R		9.5 +45.6R		9.8 +41.8R		10 +38.6R	
		12"	q_a q_f	712	1147	684	1101	663	1068	648	1043	636	1024	627	1009	619	996	612	986	607	977
			F	10 +100R		11.2 +83.3R		12 +71.4R		12.6 +62.4R		13.1 +55.5R		13.5 +49.9R		13.8 +45.4R		14.1 +41.6R		14.3 +38.4R	
		18"	q_a q_f	550	886	504	811	509	819	479	771	456	734	464	748	447	719	432	696	440	709
			F	14.8 +99.2R		16.9 +82.5R		16.8 +70.8R		18.1 +61.8R		19.2 +54.9R		18.8 +49.5R		19.7 +44.9R		20.4 +41.1R		20 +38R	
		24"	q_a q_f	442	712	413	666	393	633	378	608	366	589	356	574	348	561	342	550	336	542
			F	20.8 +98R		22.4 +81.5R		23.5 +69.7R		24.4 +60.9R		25.1 +54.1R		25.7 +48.7R		26.1 +44.2R		26.5 +40.5R		26.8 +37.3R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.2R		-0.6 +171.8R		0.8 +147.3R		2 +128.9R		2.8 +114.6R		3.5 +103.1R		4.1 +93.7R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.3 +206R		1.8 +171.7R		3.3 +147.2R		4.5 +128.8R		5.4 +114.5R		6.1 +103R		6.6 +93.6R		7.1 +85.8R		7.5 +79.2R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.1 +205.8R		4.3 +171.5R		5.8 +147R		7 +128.6R		7.9 +114.3R		8.6 +102.9R		9.2 +93.5R		9.7 +85.7R		10.1 +79.1R	
		12"	q_a q_f	492	793	469	755	452	728	440	708	430	692	422	680	416	669	410	661	406	654
			F	6.7 +205.3R		9 +171.1R		10.6 +146.6R		11.8 +128.3R		12.7 +114R		13.5 +102.6R		14.1 +93.3R		14.6 +85.5R		15.1 +78.9R	
		18"	q_a q_f	387	623	352	566	352	566	330	531	313	503	317	510	304	489	293	472	298	479
			F	12.3 +204.4R		15.7 +170.1R		16.1 +145.9R		18.2 +127.6R		19.8 +113.3R		19.6 +102R		20.9 +92.7R		21.9 +84.9R		21.6 +78.4R	
		24"	q_a q_f	316	509	293	472	276	445	264	425	254	409	246	396	240	386	234	378	230	370
			F	19.2 +203R		21.9 +169R		23.9 +144.7R		25.4 +126.5R		26.6 +112.4R		27.5 +101.1R		28.3 +91.9R		28.9 +84.2R		29.5 +77.7R	

6D-12 12/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #10 SD HWH Screw

5.3 6D-12

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	3.8 +32.7R		4.1 +27.2R		4.4 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		5 +13.6R		5 +12.6R	
		6"	q_a q_f	1974	3179	1956	3149	1942	3127	1932	3111	1924	3098	1918	3088	1913	3080	1908	3073	1905	3067
			F	5.6 +32.6R		5.9 +27.2R		6.1 +23.3R		6.3 +20.4R		6.5 +18.1R		6.6 +16.3R		6.7 +14.8R		6.8 +13.6R		6.8 +12.5R	
		8"	q_a q_f	1608	2589	1586	2553	1570	2527	1558	2508	1548	2493	1541	2481	1535	2471	1530	2463	1525	2456
			F	7.3 +32.5R		7.7 +27.1R		7.9 +23.2R		8.1 +20.3R		8.2 +18.1R		8.4 +16.3R		8.5 +14.8R		8.5 +13.5R		8.6 +12.5R	
		12"	q_a q_f	1179	1898	1154	1857	1135	1828	1122	1806	1111	1789	1102	1775	1095	1764	1089	1754	1084	1746
			F	10.7 +32.3R		11.1 +26.9R		11.4 +23.1R		11.6 +20.2R		11.8 +17.9R		11.9 +16.1R		12 +14.7R		12.1 +13.4R		12.2 +12.4R	
		18"	q_a q_f	882	1419	823	1325	857	1381	817	1315	785	1264	813	1309	787	1267	766	1233	786	1266
			F	15 +31.9R		16.1 +26.5R		15.5 +22.8R		16.3 +19.9R		16.9 +17.7R		16.4 +15.9R		16.9 +14.5R		17.3 +13.2R		16.9 +12.2R	
		24"	q_a q_f	669	1077	646	1040	630	1014	617	994	608	979	600	966	594	956	589	948	584	941
			F	20.4 +31.3R		21 +26R		21.4 +22.3R		21.7 +19.5R		22 +17.3R		22.2 +15.6R		22.4 +14.1R		22.5 +12.9R		22.6 +11.9R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.3 +57.6R		3.9 +48R		4.3 +41.1R		4.6 +36R		4.8 +32R		5 +28.8R		5.2 +26.2R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.3 +57.5R		5.8 +47.9R		6.3 +41.1R		6.6 +35.9R		6.8 +31.9R		7 +28.7R		7.2 +26.1R		7.3 +24R		7.4 +22.1R	
		8"	q_a q_f	1189	1914	1169	1883	1155	1860	1145	1843	1136	1830	1130	1819	1124	1810	1120	1803	1116	1797
			F	7.2 +57.4R		7.8 +47.8R		8.2 +41R		8.6 +35.9R		8.8 +31.9R		9 +28.7R		9.2 +26.1R		9.3 +23.9R		9.5 +22.1R	
		12"	q_a q_f	869	1399	847	1364	831	1338	820	1319	810	1305	803	1293	797	1283	792	1275	788	1268
			F	11 +57.2R		11.7 +47.6R		12.1 +40.8R		12.5 +35.7R		12.8 +31.7R		13 +28.6R		13.2 +26R		13.3 +23.8R		13.4 +22R	
		18"	q_a q_f	644	1037	600	966	622	1002	592	953	568	914	587	945	568	914	552	889	568	914
			F	15.8 +56.7R		17.3 +47.2R		16.7 +40.5R		17.7 +35.4R		18.6 +31.4R		18 +28.3R		18.6 +25.7R		19.2 +23.6R		18.7 +21.8R	
		24"	q_a q_f	493	793	474	763	460	741	450	724	442	711	435	701	430	693	426	686	422	680
			F	21.9 +56R		22.7 +46.6R		23.4 +39.9R		23.8 +34.9R		24.2 +31R		24.5 +27.9R		24.8 +25.4R		25 +23.2R		25.1 +21.5R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.8R		2.9 +84R		3.6 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.2 +45.8R		5.4 +42R		5.6 +38.8R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	4 +100.7R		5.1 +83.9R		5.8 +71.9R		6.4 +63R		6.8 +56R		7.1 +50.4R		7.4 +45.8R		7.7 +42R		7.8 +38.7R	
		8"	q_a q_f	876	1411	860	1384	848	1365	838	1350	831	1339	826	1330	821	1322	817	1316	814	1311
			F	6.2 +100.6R		7.3 +83.9R		8 +71.9R		8.6 +62.9R		9 +55.9R		9.4 +50.3R		9.7 +45.7R		9.9 +41.9R		10.1 +38.7R	
		12"	q_a q_f	634	1021	618	996	607	978	599	964	591	952	585	942	580	934	576	927	572	921
			F	10.5 +100.4R		11.6 +83.6R		12.4 +71.7R		13 +62.7R		13.4 +55.7R		13.8 +50.2R		14.1 +45.6R		14.3 +41.8R		14.5 +38.6R	
		18"	q_a q_f	472	760	438	706	453	729	430	692	412	664	425	685	411	662	399	643	410	660
			F	15.8 +99.9R		17.9 +83.1R		17.5 +71.3R		18.8 +62.4R		19.9 +55.4R		19.4 +49.9R		20.2 +45.3R		20.9 +41.5R		20.4 +38.4R	
		24"	q_a q_f	364	586	348	561	337	543	329	529	322	519	317	510	313	504	309	498	306	493
			F	22.6 +99.1R		24 +82.5R		24.9 +70.7R		25.7 +61.8R		26.2 +54.9R		26.7 +49.4R		27.1 +44.9R		27.4 +41.2R		27.6 +38R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.3R		-0.6 +171.9R		0.9 +147.3R		2 +128.9R		2.9 +114.6R		3.5 +103.1R		4.1 +93.8R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.1 +206.2R		2 +171.8R		3.5 +147.3R		4.6 +128.9R		5.4 +114.5R		6.1 +103.1R		6.7 +93.7R		7.2 +85.9R		7.6 +79.3R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.4 +206.1R		4.5 +171.7R		6 +147.2R		7.1 +128.8R		8 +114.5R		8.7 +103R		9.3 +93.7R		9.8 +85.9R		10.2 +79.2R	
		12"	q_a q_f	421	677	409	659	401	646	395	636	390	628	386	622	383	617	381	613	378	609
			F	7.3 +205.8R		9.5 +171.5R		11 +147R		12.2 +128.6R		13.1 +114.3R		13.8 +102.9R		14.4 +93.5R		14.9 +85.7R		15.3 +79.1R	
		18"	q_a q_f	315	507	292	470	300	484	285	459	273	439	281	452	271	437	263	424	270	435
			F	13.5 +205.2R		16.8 +170.9R		16.9 +146.6R		19 +128.2R		20.6 +113.9R		20.3 +102.6R		21.5 +93.2R		22.5 +85.4R		22.1 +78.9R	
		24"	q_a q_f	245	394	233	376	225	362	219	352	214	345	210	339	207	334	205	329	202	326
			F	21.3 +204.3R		23.8 +170.2R		25.5 +145.8R		26.9 +127.6R		27.9 +113.4R		28.7 +102R		29.4 +92.7R		29.9 +85R		30.4 +78.4R	

6D-12 12/2 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

PNEUTEK®

6D-12 5.3

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	3.7 +32.6R		4.1 +27.2R		4.3 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		4.9 +13.6R		5 +12.5R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	5.4 +32.5R		5.8 +27.1R		6.1 +23.2R		6.3 +20.3R		6.4 +18.1R		6.5 +16.2R		6.6 +14.8R		6.7 +13.5R		6.8 +12.5R	
		8"	q_a q_f	1888	3040	1834	2953	1796	2891	1767	2844	1744	2808	1726	2778	1711	2754	1698	2734	1688	2718
			F	7.1 +32.4R		7.5 +27R		7.8 +23.1R		8 +20.2R		8.1 +18R		8.3 +16.2R		8.4 +14.7R		8.5 +13.5R		8.5 +12.4R	
		12"	q_a q_f	1378	2219	1326	2134	1288	2074	1260	2028	1238	1993	1220	1965	1206	1942	1194	1923	1184	1906
			F	10.3 +32R		10.7 +26.6R		11.1 +22.8R		11.3 +20R		11.5 +17.7R		11.7 +16R		11.8 +14.5R		11.9 +13.3R		12 +12.3R	
		18"	q_a q_f	1059	1706	971	1564	984	1585	928	1494	884	1423	902	1452	868	1397	840	1352	857	1380
			F	14.1 +31.4R		15.4 +26R		14.9 +22.4R		15.7 +19.5R		16.4 +17.2R		15.9 +15.6R		16.5 +14.1R		16.9 +12.9R		16.5 +11.9R	
		24"	q_a q_f	847	1363	794	1279	757	1218	729	1173	707	1138	689	1109	675	1086	663	1067	653	1051
			F	18.9 +30.4R		19.7 +25.2R		20.3 +21.5R		20.7 +18.8R		21.1 +16.6R		21.4 +14.9R		21.6 +13.5R		21.8 +12.4R		22 +11.4R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.2 +57.5R		3.8 +47.9R		4.2 +41.1R		4.6 +35.9R		4.8 +31.9R		5 +28.8R		5.2 +26.1R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.1 +57.4R		5.7 +47.8R		6.2 +41R		6.5 +35.9R		6.8 +31.9R		7 +28.7R		7.1 +26.1R		7.3 +23.9R		7.4 +22.1R	
		8"	q_a q_f	1378	2205	1349	2171	1316	2119	1291	2079	1272	2048	1257	2023	1244	2003	1234	1986	1225	1972
			F	7 +57.2R		7.6 +47.7R		8.1 +40.9R		8.4 +35.8R		8.7 +31.8R		8.9 +28.6R		9.1 +26R		9.2 +23.8R		9.4 +22R	
		12"	q_a q_f	1018	1640	975	1570	944	1519	920	1482	902	1452	888	1429	876	1410	866	1394	857	1380
			F	10.6 +56.8R		11.3 +47.3R		11.8 +40.5R		12.2 +35.5R		12.5 +31.5R		12.7 +28.4R		12.9 +25.8R		13.1 +23.6R		13.2 +21.8R	
		18"	q_a q_f	792	1274	723	1163	727	1171	684	1101	650	1046	661	1064	635	1022	614	988	625	1005
			F	14.9 +56.1R		16.5 +46.6R		16.1 +40R		17.1 +34.9R		18 +31R		17.5 +27.9R		18.2 +25.3R		18.7 +23.2R		18.3 +21.5R	
		24"	q_a q_f	640	1031	597	960	565	910	542	873	524	843	509	820	497	801	487	785	479	771
			F	20.2 +55.1R		21.3 +45.7R		22.1 +39.1R		22.7 +34.1R		23.2 +30.3R		23.6 +27.2R		23.9 +24.7R		24.2 +22.6R		24.4 +20.9R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.7R		2.8 +84R		3.5 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.1 +45.8R		5.4 +42R		5.6 +38.7R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	3.9 +100.6R		5 +83.8R		5.7 +71.9R		6.3 +62.9R		6.7 +55.9R		7.1 +50.3R		7.4 +45.7R		7.6 +41.9R		7.8 +38.7R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	897	1444	890	1433
			F	6 +100.4R		7.1 +83.7R		7.9 +71.7R		8.4 +62.8R		8.9 +55.8R		9.2 +50.2R		9.5 +45.6R		9.8 +41.8R		10 +38.6R	
		12"	q_a q_f	754	1215	719	1157	693	1116	674	1086	659	1062	648	1043	638	1027	630	1014	623	1003
			F	10 +100R		11.2 +83.3R		12 +71.4R		12.6 +62.4R		13.1 +55.5R		13.5 +49.9R		13.8 +45.4R		14.1 +41.6R		14.3 +38.4R	
		18"	q_a q_f	592	954	539	867	539	868	505	814	479	772	485	781	466	750	450	724	457	735
			F	14.8 +99.2R		16.9 +82.5R		16.8 +70.8R		18.1 +61.8R		19.2 +54.9R		18.8 +49.5R		19.7 +44.9R		20.4 +41.1R		20 +38R	
		24"	q_a q_f	484	779	448	722	423	681	404	650	389	626	377	607	368	592	359	579	353	568
			F	20.8 +98R		22.4 +81.5R		23.5 +69.7R		24.4 +60.9R		25.1 +54.1R		25.7 +48.7R		26.1 +44.2R		26.5 +40.5R		26.8 +37.3R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.2R		-0.6 +171.8R		0.8 +147.3R		2 +128.9R		2.8 +114.6R		3.5 +103.1R		4.1 +93.7R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.3 +206R		1.8 +171.7R		3.3 +147.2R		4.5 +128.8R		5.4 +114.5R		6.1 +103R		6.6 +93.6R		7.1 +85.8R		7.5 +79.2R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.1 +205.8R		4.3 +171.5R		5.8 +147R		7 +128.6R		7.9 +114.3R		8.6 +102.9R		9.2 +93.5R		9.7 +85.7R		10.1 +79.1R	
		12"	q_a q_f	509	820	483	778	464	748	450	725	439	707	431	693	423	682	418	672	412	664
			F	6.7 +205.3R		9 +171.1R		10.6 +146.6R		11.8 +128.3R		12.7 +114R		13.5 +102.6R		14.1 +93.3R		14.6 +85.5R		15.1 +78.9R	
		18"	q_a q_f	404	650	366	589	364	586	340	548	322	519	325	523	312	502	300	483	304	490
			F	12.3 +204.4R		15.7 +170.1R		16.1 +145.9R		18.2 +127.6R		19.8 +113.3R		19.6 +102R		20.9 +92.7R		21.9 +84.9R		21.6 +78.4R	
		24"	q_a q_f	333	537	307	495	288	464	274	442	263	424	255	410	248	399	242	389	237	381
			F	19.2 +203R		21.9 +169R		23.9 +144.7R		25.4 +126.5R		26.6 +112.4R		27.5 +101.1R		28.3 +91.9R		28.9 +84.2R		29.5 +77.7R	

6D-12 12/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #10 SD HWH Screw

5.3 **6D-12**

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	3.8 +32.7R		4.1 +27.2R		4.4 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		5 +13.6R		5 +12.6R	
		6"	q_a q_f	2091	3366	2065	3325	2047	3295	2033	3273	2022	3256	2013	3242	2006	3230	2000	3221	1995	3212
			F	5.6 +32.6R		5.9 +27.2R		6.1 +23.3R		6.3 +20.4R		6.5 +18.1R		6.6 +16.3R		6.7 +14.8R		6.8 +13.6R		6.8 +12.5R	
		8"	q_a q_f	1686	2714	1657	2667	1636	2634	1620	2608	1608	2589	1598	2573	1590	2560	1583	2549	1577	2540
			F	7.3 +32.5R		7.7 +27.1R		7.9 +23.2R		8.1 +20.3R		8.2 +18.1R		8.4 +16.3R		8.5 +14.8R		8.5 +13.5R		8.6 +12.5R	
		12"	q_a q_f	1230	1980	1199	1931	1176	1894	1159	1866	1145	1844	1134	1826	1126	1812	1118	1800	1112	1790
			F	10.7 +32.3R		11.1 +26.9R		11.4 +23.1R		11.6 +20.2R		11.8 +17.9R		11.9 +16.1R		12 +14.7R		12.1 +13.4R		12.2 +12.4R	
		18"	q_a q_f	911	1467	848	1365	878	1414	835	1344	801	1290	827	1332	801	1289	778	1253	800	1288
			F	15 +31.9R		16.1 +26.5R		15.5 +22.8R		16.3 +19.9R		16.9 +17.7R		16.4 +15.9R		16.9 +14.5R		17.3 +13.2R		16.9 +12.2R	
		24"	q_a q_f	699	1125	671	1080	651	1048	636	1024	624	1005	615	990	607	978	601	968	596	959
			F	20.4 +31.3R		21 +26R		21.4 +22.3R		21.7 +19.5R		22 +17.3R		22.2 +15.6R		22.4 +14.1R		22.5 +12.9R		22.6 +11.9R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.3 +57.6R		3.9 +48R		4.3 +41.1R		4.6 +36R		4.8 +32R		5 +28.8R		5.2 +26.2R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.3 +57.5R		5.8 +47.9R		6.3 +41.1R		6.6 +35.9R		6.8 +31.9R		7 +28.7R		7.2 +26.1R		7.3 +24R		7.4 +22.1R	
		8"	q_a q_f	1218	1962	1196	1925	1180	1899	1167	1880	1158	1864	1150	1852	1144	1842	1139	1834	1134	1826
			F	7.2 +57.4R		7.8 +47.8R		8.2 +41R		8.6 +35.9R		8.8 +31.9R		9 +28.7R		9.2 +26.1R		9.3 +23.9R		9.5 +22.1R	
		12"	q_a q_f	884	1423	862	1389	847	1364	834	1343	824	1326	815	1313	809	1302	803	1293	798	1285
			F	11 +57.2R		11.7 +47.6R		12.1 +40.8R		12.5 +35.7R		12.8 +31.7R		13 +28.6R		13.2 +26R		13.3 +23.8R		13.4 +22R	
		18"	q_a q_f	657	1057	610	983	631	1016	600	965	575	926	593	955	574	924	557	897	573	922
			F	15.8 +56.7R		17.3 +47.2R		16.7 +40.5R		17.7 +35.4R		18.6 +31.4R		18 +28.3R		18.6 +25.7R		19.2 +23.6R		18.7 +21.8R	
		24"	q_a q_f	505	814	484	780	469	755	458	737	449	723	442	711	436	702	431	694	427	688
			F	21.9 +56R		22.7 +46.6R		23.4 +39.9R		23.8 +34.9R		24.2 +31R		24.5 +27.9R		24.8 +25.4R		25 +23.2R		25.1 +21.5R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.8R		2.9 +84R		3.6 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.2 +45.8R		5.4 +42R		5.6 +38.8R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	4 +100.7R		5.1 +83.9R		5.8 +71.9R		6.4 +63R		6.8 +56R		7.1 +50.4R		7.4 +45.8R		7.7 +42R		7.8 +38.7R	
		8"	q_a q_f	885	1425	867	1397	855	1376	845	1361	838	1349	832	1339	827	1331	823	1325	819	1319
			F	6.2 +100.6R		7.3 +83.9R		8 +71.9R		8.6 +62.9R		9 +55.9R		9.4 +50.3R		9.7 +45.7R		9.9 +41.9R		10.1 +38.7R	
		12"	q_a q_f	638	1028	622	1002	610	983	602	969	595	958	589	948	584	940	579	932	575	926
			F	10.5 +100.4R		11.6 +83.6R		12.4 +71.7R		13 +62.7R		13.4 +55.7R		13.8 +50.2R		14.1 +45.6R		14.3 +41.8R		14.5 +38.6R	
		18"	q_a q_f	476	767	442	711	456	734	433	697	415	668	427	688	413	665	401	646	412	663
			F	15.8 +99.9R		17.9 +83.1R		17.5 +71.3R		18.8 +62.4R		19.9 +55.4R		19.4 +49.9R		20.2 +45.3R		20.9 +41.5R		20.4 +38.4R	
		24"	q_a q_f	368	592	352	566	340	548	331	534	325	523	319	514	315	507	311	501	308	496
			F	22.6 +99.1R		24 +82.5R		24.9 +70.7R		25.7 +61.8R		26.2 +54.9R		26.7 +49.4R		27.1 +44.9R		27.4 +41.2R		27.6 +38R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.3R		-0.6 +171.9R		0.9 +147.3R		2 +128.9R		2.9 +114.6R		3.5 +103.1R		4.1 +93.8R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.1 +206.2R		2 +171.8R		3.5 +147.3R		4.6 +128.9R		5.4 +114.5R		6.1 +103.1R		6.7 +93.7R		7.2 +85.9R		7.6 +79.3R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.4 +206.1R		4.5 +171.7R		6 +147.2R		7.1 +128.8R		8 +114.5R		8.7 +103R		9.3 +93.7R		9.8 +85.9R		10.2 +79.2R	
		12"	q_a q_f	422	680	411	661	402	648	396	637	391	630	387	623	384	618	381	614	379	610
			F	7.3 +205.8R		9.5 +171.5R		11 +147R		12.2 +128.6R		13.1 +114.3R		13.8 +102.9R		14.4 +93.5R		14.9 +85.7R		15.3 +79.1R	
		18"	q_a q_f	317	510	293	472	302	486	286	460	274	441	282	453	272	438	264	425	271	436
			F	13.5 +205.2R		16.8 +170.9R		16.9 +146.6R		19 +128.2R		20.6 +113.9R		20.3 +102.6R		21.5 +93.2R		22.5 +85.4R		22.1 +78.9R	
		24"	q_a q_f	246	397	235	378	226	364	220	354	215	346	211	340	208	335	205	331	203	327
			F	21.3 +204.3R		23.8 +170.2R		25.5 +145.8R		26.9 +127.6R		27.9 +113.4R		28.7 +102R		29.4 +92.7R		29.9 +85R		30.4 +78.4R	

6D-12 12/2 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

6D-12 5.3

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

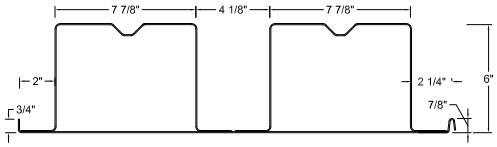
PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	3.7 +32.6R		4.1 +27.2R		4.3 +23.3R		4.5 +20.4R		4.7 +18.1R		4.8 +16.3R		4.9 +14.8R		4.9 +13.6R		5 +12.5R	
		6"	q_a q_f	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373	2108	3373
			F	5.4 +32.5R		5.8 +27.1R		6.1 +23.2R		6.3 +20.3R		6.4 +18.1R		6.5 +16.2R		6.6 +14.8R		6.7 +13.5R		6.8 +12.5R	
		8"	q_a q_f	1977	3183	1910	3076	1862	2999	1826	2940	1798	2895	1776	2859	1757	2829	1742	2804	1729	2783
			F	7.1 +32.4R		7.5 +27R		7.8 +23.1R		8 +20.2R		8.1 +18R		8.3 +16.2R		8.4 +14.7R		8.5 +13.5R		8.5 +12.4R	
		12"	q_a q_f	1445	2327	1382	2225	1336	2151	1302	2096	1275	2053	1254	2019	1237	1991	1222	1968	1210	1948
			F	10.3 +32R		10.7 +26.6R		11.1 +22.8R		11.3 +20R		11.5 +17.7R		11.7 +16R		11.8 +14.5R		11.9 +13.3R		12 +12.3R	
		18"	q_a q_f	1127	1814	1027	1654	1032	1662	970	1561	921	1483	935	1506	899	1447	868	1397	883	1422
			F	14.1 +31.4R		15.4 +26R		14.9 +22.4R		15.7 +19.5R		16.4 +17.2R		15.9 +15.6R		16.5 +14.1R		16.9 +12.9R		16.5 +11.9R	
		24"	q_a q_f	914	1472	850	1369	805	1296	771	1241	744	1198	723	1164	705	1136	691	1112	679	1093
			F	18.9 +30.4R		19.7 +25.2R		20.3 +21.5R		20.7 +18.8R		21.1 +16.6R		21.4 +14.9R		21.6 +13.5R		21.8 +12.4R		22 +11.4R	
	16 ga	4"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	3.2 +57.5R		3.8 +47.9R		4.2 +41.1R		4.6 +35.9R		4.8 +31.9R		5 +28.8R		5.2 +26.1R		5.3 +24R		5.4 +22.1R	
		6"	q_a q_f	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205	1378	2205
			F	5.1 +57.4R		5.7 +47.8R		6.2 +41R		6.5 +35.9R		6.8 +31.9R		7 +28.7R		7.1 +26.1R		7.3 +23.9R		7.4 +22.1R	
		8"	q_a q_f	1378	2205	1377	2205	1343	2162	1316	2118	1294	2084	1277	2056	1263	2033	1251	2014	1241	1998
			F	7 +57.2R		7.6 +47.7R		8.1 +40.9R		8.4 +35.8R		8.7 +31.8R		8.9 +28.6R		9.1 +26R		9.2 +23.8R		9.4 +22R	
		12"	q_a q_f	1048	1687	999	1608	964	1553	938	1511	918	1478	902	1452	889	1431	878	1413	868	1398
			F	10.6 +56.8R		11.3 +47.3R		11.8 +40.5R		12.2 +35.5R		12.5 +31.5R		12.7 +28.4R		12.9 +25.8R		13.1 +23.6R		13.2 +21.8R	
		18"	q_a q_f	821	1321	747	1202	748	1205	702	1130	666	1072	675	1087	648	1043	626	1007	636	1023
			F	14.9 +56.1R		16.5 +46.6R		16.1 +40R		17.1 +34.9R		18 +31R		17.5 +27.9R		18.2 +25.3R		18.7 +23.2R		18.3 +21.5R	
		24"	q_a q_f	669	1077	621	999	586	944	560	902	540	869	524	843	511	822	500	804	490	789
			F	20.2 +55.1R		21.3 +45.7R		22.1 +39.1R		22.7 +34.1R		23.2 +30.3R		23.6 +27.2R		23.9 +24.7R		24.2 +22.6R		24.4 +20.9R	
	18 ga	4"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	1.8 +100.7R		2.8 +84R		3.5 +72R		4.1 +63R		4.5 +56R		4.9 +50.4R		5.1 +45.8R		5.4 +42R		5.6 +38.7R	
		6"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444
			F	3.9 +100.6R		5 +83.8R		5.7 +71.9R		6.3 +62.9R		6.7 +55.9R		7.1 +50.3R		7.4 +45.7R		7.6 +41.9R		7.8 +38.7R	
		8"	q_a q_f	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	902	1444	895	1441
			F	6 +100.4R		7.1 +83.7R		7.9 +71.7R		8.4 +62.8R		8.9 +55.8R		9.2 +50.2R		9.5 +45.6R		9.8 +41.8R		10 +38.6R	
		12"	q_a q_f	764	1230	727	1170	700	1128	680	1095	665	1070	652	1050	642	1034	634	1020	627	1009
			F	10 +100R		11.2 +83.3R		12 +71.4R		12.6 +62.4R		13.1 +55.5R		13.5 +49.9R		13.8 +45.4R		14.1 +41.6R		14.3 +38.4R	
		18"	q_a q_f	602	969	547	880	546	879	511	823	485	780	490	789	470	757	454	730	460	741
			F	14.8 +99.2R		16.9 +82.5R		16.8 +70.8R		18.1 +61.8R		19.2 +54.9R		18.8 +49.5R		19.7 +44.9R		20.4 +41.1R		20 +38R	
		24"	q_a q_f	494	795	457	735	430	692	410	660	395	635	382	615	372	599	363	585	356	574
			F	20.8 +98R		22.4 +81.5R		23.5 +69.7R		24.4 +60.9R		25.1 +54.1R		25.7 +48.7R		26.1 +44.2R		26.5 +40.5R		26.8 +37.3R	
	20 ga	4"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-2.7 +206.2R		-0.6 +171.8R		0.8 +147.3R		2 +128.9R		2.8 +114.6R		3.5 +103.1R		4.1 +93.7R		4.6 +85.9R		5 +79.3R	
		6"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	-0.3 +206R		1.8 +171.7R		3.3 +147.2R		4.5 +128.8R		5.4 +114.5R		6.1 +103R		6.6 +93.6R		7.1 +85.8R		7.5 +79.2R	
		8"	q_a q_f	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834	521	834
			F	2.1 +205.8R		4.3 +171.5R		5.8 +147R		7 +128.6R		7.9 +114.3R		8.6 +102.9R		9.2 +93.5R		9.7 +85.7R		10.1 +79.1R	
		12"	q_a q_f	513	826	486	783	467	752	453	729	441	711	433	696	425	685	419	675	414	666
			F	6.7 +205.3R		9 +171.1R		10.6 +146.6R		11.8 +128.3R		12.7 +114R		13.5 +102.6R		14.1 +93.3R		14.6 +85.5R		15.1 +78.9R	
		18"	q_a q_f	408	656	369	594	367	590	343	552	324	522	327	526	313	504	302	486	306	492
			F	12.3 +204.4R		15.7 +170.1R		16.1 +145.9R		18.2 +127.6R		19.8 +113.3R		19.6 +102R		20.9 +92.7R		21.9 +84.9R		21.6 +78.4R	
		24"	q_a q_f	337	543	310	500	291	469	277	446	266	427	257	413	249	401	243	391	238	383
			F	19.2 +203R		21.9 +169R		23.9 +144.7R		25.4 +126.5R		26.6 +112.4R		27.5 +101.1R		28.3 +91.9R		28.9 +84.2R		29.5 +77.7R	

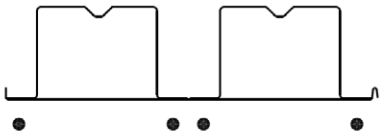
6D-12 12/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

5.4 6DF-24
Deep Deck



24/4 PATTERN



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	4.52	0.035/0.035	50	65	1.319	8.445	2.34	2.263	2.531
20/18	5.06	0.035/0.047	50	65	1.471	9.180	2.11	2.311	2.498
20/16	5.59	0.035/0.059	50	65	1.615	9.755	1.94	2.345	2.457
18/20	5.50	0.047/0.035	50	65	1.600	10.365	2.56	2.945	2.545
18/18	6.04	0.047/0.047	50	65	1.742	11.205	2.37	3.007	2.536
18/16	6.57	0.047/0.059	50	65	1.897	11.990	2.19	3.060	2.514
16/20	6.48	0.059/0.035	50	65	1.883	12.185	2.73	3.615	2.544
16/18	7.02	0.059/0.047	50	65	2.026	13.150	2.55	3.694	2.548
16/16	7.55	0.059/0.059	50	65	2.180	14.065	2.38	3.762	2.540

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	1.028	1.272	1.62	1.237	3.69	7.035	5.974	7.505	6.797
20/18	1.160	1.272	1.40	1.622	3.36	7.440	6.890	8.020	7.653
20/16	1.326	1.299	1.28	2.065	3.06	7.685	7.740	8.375	8.412
18/20	1.385	2.113	2.14	1.677	3.64	9.720	7.415	9.935	8.398
18/18	1.496	2.106	1.91	2.046	3.41	10.530	8.330	10.755	9.288
18/16	1.624	2.101	1.72	2.436	3.21	11.235	9.445	11.487	10.293
16/20	1.778	3.091	2.53	2.150	3.60	11.950	8.945	12.028	10.025
16/18	1.910	3.137	2.35	2.446	3.47	12.900	9.960	12.983	11.023
16/16	2.027	3.116	2.14	2.835	3.30	13.840	11.150	13.915	12.122

Reactions and supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	434	537	682	866	665	821	1043	1325
	Interior	782	935	1152	1428	1163	1391	1714	2124
18	End	766	935	1175	1514	1172	1431	1798	2316
	Interior	1371	1619	1970	2467	2039	2408	2931	3669
16	End	1188	1437	1788	2286	1817	2198	2736	3497
	Interior	2120	2480	2989	3710	3154	3689	4447	5518
14	End	1844	2209	2725	3454	2822	3380	4169	5284
	Interior	3290	3812	4550	5594	4894	5670	6768	8321
Constants		h = 5.5"		r = 0.25"		θ = 90°			

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20/20	Single Span	f_b/Ω	254	176	130	99	78	63	52	41	28
		Φf_b	382	265	195	149	118	95	79	61	42
		L/360	328	190	120	80	56	41	31	21	12
		L/240	492	285	179	120	84	61	46	31	18
		L/180	656	380	239	160	112	82	62	42	24
		L/120	984	569	359	240	169	123	92	63	36
	Double Span	f_b/Ω	247	172	126	96	76	-	-	-	-
		Φf_b	371	258	189	145	115	-	-	-	-
		L/360	716	414	261	175	123	-	-	-	-
		L/240	1073	621	391	262	184	-	-	-	-
		L/180	1431	828	522	349	245	-	-	-	-
		L/120	2147	1242	782	524	368	-	-	-	-
	Triple Span	f_b/Ω	309	214	-	-	-	-	-	-	-
		Φf_b	464	322	-	-	-	-	-	-	-
		L/360	561	324	-	-	-	-	-	-	-
		L/240	841	487	-	-	-	-	-	-	-
		L/180	1121	649	-	-	-	-	-	-	-
		L/120	1682	973	-	-	-	-	-	-	-
20/18	Single Span	f_b/Ω	254	176	130	99	78	63	52	41	28
		Φf_b	382	265	195	149	118	95	79	61	42
		L/360	351	203	128	86	60	44	33	22	13
		L/240	526	304	192	128	90	66	49	34	19
		L/180	701	406	255	171	120	88	66	45	26
		L/120	1052	609	383	257	180	131	99	67	39
	Double Span	f_b/Ω	324	225	165	126	100	-	-	-	-
		Φf_b	487	338	248	190	150	-	-	-	-
		L/360	806	466	294	197	138	-	-	-	-
		L/240	1209	699	440	295	207	-	-	-	-
		L/180	1611	933	587	393	276	-	-	-	-
		L/120	2417	1399	881	590	414	-	-	-	-
	Triple Span	f_b/Ω	397	275	-	-	-	-	-	-	-
		Φf_b	596	414	-	-	-	-	-	-	-
		L/360	631	365	-	-	-	-	-	-	-
		L/240	947	548	-	-	-	-	-	-	-
		L/180	1262	731	-	-	-	-	-	-	-
		L/120	1894	1096	-	-	-	-	-	-	-
20/16	Single Span	f_b/Ω	259	180	132	101	80	65	54	41	29
		Φf_b	390	271	199	152	120	97	80	62	43
		L/360	366	212	133	89	63	46	34	23	14
		L/240	549	318	200	134	94	69	52	35	20
		L/180	732	424	267	179	126	92	69	47	27
		L/120	1098	635	400	268	188	137	103	70	41
	Double Span	f_b/Ω	412	286	210	161	127	-	-	-	-
		Φf_b	620	430	316	242	191	-	-	-	-
		L/360	886	512	323	216	152	-	-	-	-
		L/240	1328	769	484	324	228	-	-	-	-
		L/180	1771	1025	645	432	304	-	-	-	-
		L/120	2657	1537	968	649	456	-	-	-	-
	Triple Span	f_b/Ω	405	281	-	-	-	-	-	-	-
		Φf_b	609	423	-	-	-	-	-	-	-
		L/360	694	401	-	-	-	-	-	-	-
		L/240	1041	602	-	-	-	-	-	-	-
		L/180	1387	803	-	-	-	-	-	-	-
		L/120	2081	1204	-	-	-	-	-	-	-

5.4 6DF-24
Deep Deck

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
18/20	Single Span	f_b/Ω	422	293	215	165	130	105	87	67	47
		Φf_b	634	440	323	248	196	158	131	101	70
		L/360	434	251	158	106	74	54	41	28	16
		L/240	651	377	237	159	112	81	61	42	24
		L/180	868	503	316	212	149	109	82	56	32
		L/120	1303	754	475	318	223	163	122	83	48
	Double Span	f_b/Ω	335	232	171	131	103	-	-	-	-
		Φf_b	503	349	257	197	155	-	-	-	-
		L/360	884	512	322	216	152	-	-	-	-
		L/240	1326	767	483	324	227	-	-	-	-
		L/180	1768	1023	644	432	303	-	-	-	-
		L/120	2652	1535	967	648	455	-	-	-	-
	Triple Span	f_b/Ω	418	291	-	-	-	-	-	-	-
		Φf_b	629	437	-	-	-	-	-	-	-
		L/360	693	401	-	-	-	-	-	-	-
		L/240	1039	601	-	-	-	-	-	-	-
		L/180	1385	802	-	-	-	-	-	-	-
		L/120	2078	1202	-	-	-	-	-	-	-
18/18	Single Span	f_b/Ω	420	292	214	164	130	105	87	67	47
		Φf_b	632	439	322	247	195	158	131	101	70
		L/360	470	272	171	115	81	59	44	30	17
		L/240	705	408	257	172	121	88	66	45	26
		L/180	940	544	343	230	161	118	88	60	35
		L/120	1410	816	514	344	242	176	132	90	52
	Double Span	f_b/Ω	408	284	208	160	126	-	-	-	-
		Φf_b	614	426	313	240	189	-	-	-	-
		L/360	978	566	356	239	168	-	-	-	-
		L/240	1467	849	535	358	252	-	-	-	-
		L/180	1956	1132	713	477	335	-	-	-	-
		L/120	2934	1698	1069	716	503	-	-	-	-
	Triple Span	f_b/Ω	510	354	-	-	-	-	-	-	-
		Φf_b	767	533	-	-	-	-	-	-	-
		L/360	766	443	-	-	-	-	-	-	-
		L/240	1149	665	-	-	-	-	-	-	-
		L/180	1532	887	-	-	-	-	-	-	-
		L/120	2298	1330	-	-	-	-	-	-	-
18/16	Single Span	f_b/Ω	419	291	214	164	129	105	87	67	47
		Φf_b	630	438	322	246	195	158	130	101	70
		L/360	502	291	183	123	86	63	47	32	19
		L/240	753	436	274	184	129	94	71	48	28
		L/180	1004	581	366	245	172	126	94	64	37
		L/120	1506	872	549	368	258	188	141	96	56
	Double Span	f_b/Ω	486	338	248	190	150	-	-	-	-
		Φf_b	731	508	373	285	226	-	-	-	-
		L/360	1084	627	395	265	186	-	-	-	-
		L/240	1625	941	592	397	279	-	-	-	-
		L/180	2167	1254	790	529	372	-	-	-	-
		L/120	3251	1881	1185	794	557	-	-	-	-
	Triple Span	f_b/Ω	608	422	-	-	-	-	-	-	-
		Φf_b	914	634	-	-	-	-	-	-	-
		L/360	849	491	-	-	-	-	-	-	-
		L/240	1273	737	-	-	-	-	-	-	-
		L/180	1698	983	-	-	-	-	-	-	-
		L/120	2547	1474	-	-	-	-	-	-	-

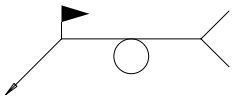
Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
16/20	Single Span	f_b/Ω	617	428	315	241	190	154	127	99	69
		Φf_b	927	644	473	362	286	232	192	148	103
		L/360	526	304	192	128	90	66	49	34	19
		L/240	789	456	287	193	135	99	74	50	29
		L/180	1051	608	383	257	180	131	99	67	39
		L/120	1577	913	575	385	270	197	148	101	58
	Double Span	f_b/Ω	429	298	219	168	132	-	-	-	-
		Φf_b	645	448	329	252	199	-	-	-	-
		L/360	1055	611	385	258	181	-	-	-	-
		L/240	1583	916	577	386	271	-	-	-	-
		L/180	2111	1222	769	515	362	-	-	-	-
		L/120	3166	1832	1154	773	543	-	-	-	-
	Triple Span	f_b/Ω	536	373	-	-	-	-	-	-	-
		Φf_b	806	560	-	-	-	-	-	-	-
		L/360	827	478	-	-	-	-	-	-	-
		L/240	1240	718	-	-	-	-	-	-	-
		L/180	1654	957	-	-	-	-	-	-	-
		L/120	2480	1435	-	-	-	-	-	-	-
16/18	Single Span	f_b/Ω	626	435	319	245	193	157	129	100	70
		Φf_b	941	654	480	368	290	235	194	151	105
		L/360	567	328	207	139	97	71	53	36	21
		L/240	851	493	310	208	146	106	80	54	32
		L/180	1135	657	414	277	195	142	107	73	42
		L/120	1702	985	620	416	292	213	160	109	63
	Double Span	f_b/Ω	488	339	249	191	151	-	-	-	-
		Φf_b	734	509	374	287	226	-	-	-	-
		L/360	1160	672	423	283	199	-	-	-	-
		L/240	1741	1007	634	425	298	-	-	-	-
		L/180	2321	1343	846	567	398	-	-	-	-
		L/120	3481	2015	1269	850	597	-	-	-	-
	Triple Span	f_b/Ω	610	424	-	-	-	-	-	-	-
		Φf_b	917	637	-	-	-	-	-	-	-
		L/360	909	526	-	-	-	-	-	-	-
		L/240	1364	789	-	-	-	-	-	-	-
		L/180	1818	1052	-	-	-	-	-	-	-
		L/120	2727	1578	-	-	-	-	-	-	-
16/16	Single Span	f_b/Ω	622	432	317	243	192	155	129	100	69
		Φf_b	935	649	477	365	289	234	193	150	104
		L/360	608	352	222	148	104	76	57	39	23
		L/240	912	528	332	223	156	114	86	58	34
		L/180	1216	704	443	297	209	152	114	78	45
		L/120	1824	1056	665	445	313	228	171	117	68
	Double Span	f_b/Ω	566	393	289	221	175	-	-	-	-
		Φf_b	851	591	434	332	263	-	-	-	-
		L/360	1276	738	465	312	219	-	-	-	-
		L/240	1914	1108	698	467	328	-	-	-	-
		L/180	2552	1477	930	623	438	-	-	-	-
		L/120	3828	2215	1395	935	656	-	-	-	-
	Triple Span	f_b/Ω	707	491	-	-	-	-	-	-	-
		Φf_b	1063	738	-	-	-	-	-	-	-
		L/360	1000	579	-	-	-	-	-	-	-
		L/240	1500	868	-	-	-	-	-	-	-
		L/180	1999	1157	-	-	-	-	-	-	-
		L/120	2999	1736	-	-	-	-	-	-	-

5.4 6DF-24

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)										
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	
24/4	16 ga	4"	q_a q_f	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	
			F	1.3 +18.1R	1.5 +15.1R	1.6 +13R	1.7 +11.3R	1.8 +10.1R	1.9 +9.1R	1.9 +8.2R	1.9 +7.6R	2 +7R	
		6"	q_a q_f	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	
			F	1.6 +18.1R	1.8 +15.1R	2 +12.9R	2.1 +11.3R	2.1 +10.1R	2.2 +9.1R	2.3 +8.2R	2.3 +7.5R	2.3 +7R	
		8"	q_a q_f	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	
			F	2 +18.1R	2.2 +15.1R	2.3 +12.9R	2.4 +11.3R	2.5 +10R	2.6 +9R	2.6 +8.2R	2.7 +7.5R	2.7 +7R	
		12"	q_a q_f	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	
			F	2.6 +18R	2.8 +15R	3 +12.9R	3.1 +11.2R	3.2 +10R	3.3 +9R	3.3 +8.2R	3.4 +7.5R	3.4 +6.9R	
		18"	q_a q_f	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	
			F	3.4 +17.9R	3.8 +14.9R	3.8 +12.8R	4 +11.1R	4.2 +9.9R	4.1 +8.9R	4.3 +8.1R	4.4 +7.4R	4.3 +6.8R	
		24"	q_a q_f	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	1351 2162	
			F	4.4 +17.7R	4.6 +14.7R	4.9 +12.6R	5 +11R	5.1 +9.8R	5.2 +8.8R	5.3 +8R	5.4 +7.3R	5.4 +6.7R	
	18 ga	4"	q_a q_f	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	
			F	1.2 +25.5R	1.4 +21.3R	1.6 +18.2R	1.8 +16R	1.9 +14.2R	2 +12.8R	2 +11.6R	2.1 +10.6R	2.1 +9.8R	
		6"	q_a q_f	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	
			F	1.6 +25.5R	1.8 +21.3R	2 +18.2R	2.2 +15.9R	2.3 +14.2R	2.4 +12.8R	2.4 +11.6R	2.5 +10.6R	2.5 +9.8R	
		8"	q_a q_f	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	
			F	2 +25.5R	2.2 +21.2R	2.4 +18.2R	2.6 +15.9R	2.7 +14.1R	2.8 +12.7R	2.8 +11.6R	2.9 +10.6R	2.9 +9.8R	
		12"	q_a q_f	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	
			F	2.7 +25.4R	3 +21.1R	3.2 +18.1R	3.3 +15.9R	3.4 +14.1R	3.5 +12.7R	3.6 +11.5R	3.7 +10.6R	3.7 +9.8R	
		18"	q_a q_f	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	
			F	3.5 +25.2R	4 +21R	4 +18R	4.3 +15.7R	4.6 +14R	4.5 +12.6R	4.7 +11.4R	4.8 +10.5R	4.8 +9.7R	
		24"	q_a q_f	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	879 1406	
			F	4.6 +25R	5 +20.8R	5.3 +17.8R	5.5 +15.6R	5.6 +13.8R	5.7 +12.4R	5.9 +11.3R	5.9 +10.4R	6 +9.5R	
	20 ga	4"	q_a q_f	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	
			F	0.9 +37.9R	1.3 +31.6R	1.6 +27.1R	1.8 +23.7R	1.9 +21.1R	2 +19R	2.2 +17.2R	2.2 +15.8R	2.3 +14.6R	
		6"	q_a q_f	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	
			F	1.3 +37.9R	1.7 +31.6R	2 +27.1R	2.2 +23.7R	2.4 +21.1R	2.5 +18.9R	2.6 +17.2R	2.7 +15.8R	2.8 +14.6R	
		8"	q_a q_f	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	
			F	1.8 +37.9R	2.2 +31.6R	2.5 +27R	2.7 +23.7R	2.8 +21R	3 +18.9R	3.1 +17.2R	3.2 +15.8R	3.3 +14.6R	
		12"	q_a q_f	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	
			F	2.6 +37.8R	3 +31.5R	3.3 +27R	3.6 +23.6R	3.7 +21R	3.9 +18.9R	4 +17.2R	4.1 +15.7R	4.2 +14.5R	
		18"	q_a q_f	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	
			F	3.6 +37.6R	4.3 +31.3R	4.3 +26.8R	4.7 +23.5R	5 +20.8R	5 +18.8R	5.2 +17R	5.4 +15.6R	5.4 +14.4R	
		24"	q_a q_f	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	499 798	
			F	4.9 +37.3R	5.4 +31.1R	5.8 +26.6R	6 +23.3R	6.3 +20.7R	6.4 +18.6R	6.6 +16.9R	6.7 +15.5R	6.8 +14.3R	
6DF-24 24/4			Support Attachment: 0.5" Effective Dia. Arc Spot Weld					Side Seam Attachment: Top Seam Side-Lap Weld					

ASC Steel Deck®

6DF-24 5.4

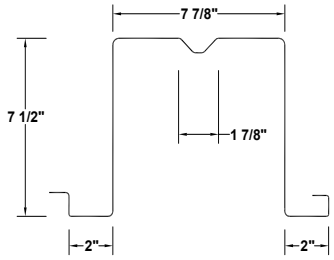
No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

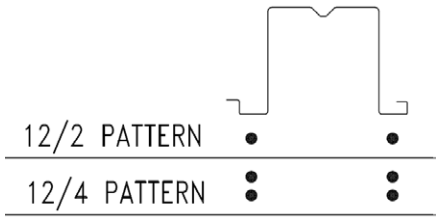
Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
24/4	16 ga	4"	q_a q_f	1351	2162	1351	2162	1351	2162	1351	2162	1351	2162	1351	2162	1351	2162	1351	2162	1338	2154
			F	5.8 +42.8R		6.3 +35.6R		6.6 +30.5R		6.9 +26.7R		7.1 +23.7R		7.2 +21.4R		7.4 +19.4R		7.5 +17.8R		7.6 +16.4R	
		6"	q_a q_f	1307	2104	1287	2073	1273	2050	1262	2032	1254	2018	1246	2007	1241	1997	1236	1990	1232	1983
			F	7.8 +42.5R		8.3 +35.4R		8.7 +30.3R		9 +26.5R		9.2 +23.6R		9.4 +21.2R		9.5 +19.3R		9.7 +17.7R		9.8 +16.3R	
		8"	q_a q_f	1133	1824	1107	1783	1088	1752	1074	1729	1063	1711	1053	1696	1046	1684	1039	1673	1034	1664
			F	9.7 +42.1R		10.3 +35.1R		10.7 +30R		11 +26.3R		11.3 +23.3R		11.5 +21R		11.7 +19.1R		11.8 +17.5R		11.9 +16.1R	
		12"	q_a q_f	906	1458	873	1405	848	1366	830	1336	815	1313	804	1294	794	1278	786	1265	779	1254
			F	13 +41.4R		13.8 +34.3R		14.4 +29.3R		14.9 +25.6R		15.2 +22.7R		15.5 +20.4R		15.7 +18.5R		15.9 +17R		16.1 +15.6R	
		18"	q_a q_f	740	1192	683	1099	684	1102	647	1041	617	994	625	1006	602	970	584	939	592	953
			F	16.8 +40.2R		18.6 +33.1R		18.5 +28.4R		19.6 +24.6R		20.6 +21.6R		20.3 +19.5R		21 +17.6R		21.7 +16R		21.3 +14.8R	
		24"	q_a q_f	619	996	578	931	549	883	526	848	509	819	495	797	483	778	473	762	465	749
			F	21.1 +38.7R		22.6 +31.7R		23.8 +26.8R		24.7 +23.2R		25.4 +20.4R		26 +18.1R		26.5 +16.3R		27 +14.9R		27.4 +13.6R	
	18 ga	4"	q_a q_f	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406
			F	5.8 +60.3R		6.5 +50.2R		7 +43R		7.3 +37.6R		7.6 +33.5R		7.8 +30.1R		8 +27.4R		8.2 +25.1R		8.3 +23.2R	
		6"	q_a q_f	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406	879	1406
			F	8.1 +59.9R		8.8 +49.9R		9.3 +42.8R		9.7 +37.4R		10 +33.3R		10.3 +29.9R		10.5 +27.2R		10.6 +24.9R		10.8 +23R	
		8"	q_a q_f	849	1367	827	1331	811	1305	798	1285	788	1269	780	1256	774	1245	768	1236	763	1229
			F	10.2 +59.6R		11 +49.6R		11.6 +42.5R		12 +37.1R		12.3 +33R		12.6 +29.7R		12.8 +27R		13 +24.7R		13.2 +22.8R	
		12"	q_a q_f	676	1089	649	1044	628	1012	613	987	601	967	591	952	583	939	576	928	570	918
			F	14 +58.7R		15 +48.7R		15.7 +41.7R		16.3 +36.4R		16.7 +32.3R		17.1 +29R		17.4 +26.4R		17.6 +24.2R		17.9 +22.3R	
		18"	q_a q_f	554	892	509	819	507	817	478	770	455	733	460	740	442	712	428	689	433	698
			F	18.2 +57.4R		20.3 +47.3R		20.3 +40.6R		21.6 +35.2R		22.8 +31.1R		22.4 +28R		23.3 +25.3R		24.1 +23.1R		23.7 +21.4R	
		24"	q_a q_f	466	749	433	697	409	658	391	629	377	606	365	588	356	573	348	560	341	550
			F	23 +55.7R		24.8 +45.8R		26.2 +38.8R		27.3 +33.6R		28.2 +29.7R		28.9 +26.5R		29.5 +23.9R		30 +21.8R		30.5 +20R	
	20 ga	4"	q_a q_f	499	798	499	798	499	798	499	798	499	798	499	798	499	798	499	798	499	798
			F	5.6 +89.6R		6.6 +74.7R		7.3 +64R		7.8 +56R		8.2 +49.8R		8.5 +44.8R		8.8 +40.7R		9 +37.3R		9.2 +34.4R	
		6"	q_a q_f	499	798	499	798	499	798	499	798	499	798	499	798	499	798	499	798	499	798
			F	8.2 +89.2R		9.3 +74.3R		10 +63.7R		10.6 +55.7R		11 +49.5R		11.4 +44.6R		11.6 +40.5R		11.9 +37.1R		12.1 +34.3R	
		8"	q_a q_f	499	798	499	798	499	798	499	798	499	798	499	798	499	798	499	798	499	798
			F	10.7 +88.8R		11.8 +73.9R		12.6 +63.3R		13.2 +55.4R		13.7 +49.2R		14.1 +44.3R		14.4 +40.2R		14.7 +36.9R		14.9 +34R	
		12"	q_a q_f	463	746	442	711	426	686	414	666	404	651	397	639	390	628	385	620	381	613
			F	15.1 +87.7R		16.5 +73R		17.4 +62.4R		18.2 +54.5R		18.8 +48.4R		19.3 +43.5R		19.7 +39.5R		20 +36.2R		20.3 +33.4R	
		18"	q_a q_f	382	614	348	560	345	555	324	521	307	495	309	497	297	478	286	461	289	466
			F	20 +86.3R		22.6 +71.3R		22.7 +61.2R		24.4 +53.2R		25.8 +47R		25.5 +42.4R		26.5 +38.3R		27.5 +35R		27.1 +32.4R	
		24"	q_a q_f	323	520	298	480	280	451	266	429	256	412	247	398	240	386	234	377	229	369
			F	25.5 +84.3R		27.8 +69.6R		29.6 +59.1R		31 +51.3R		32.1 +45.3R		33 +40.6R		33.7 +36.7R		34.4 +33.5R		34.9 +30.8R	

6DF-24 24/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

5.5 7.5D-12
Deep Deck





Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20	3.71	0.0359	50	65	1.083	9.317	3.92	2.379	2.933
18	4.93	0.0478	50	65	1.441	12.359	3.92	3.156	2.929
16	6.15	0.0598	50	65	1.801	15.400	3.92	3.933	2.924
14	7.70	0.0750	50	65	2.242	18.630	3.87	4.819	2.883

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.835	1.582	3.14	1.752	4.44	8.350	9.085	8.672	9.162
18	1.286	2.662	3.53	2.824	4.11	11.658	12.331	11.892	12.340
16	1.701	3.736	3.71	3.894	3.93	15.189	15.404	15.259	15.403
14	2.201	4.772	3.80	4.819	3.87	18.628	18.628	18.629	18.629

Reactions and supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	410	506	642	816	627	774	983	1249
	Interior	777	929	1144	1418	1156	1382	1702	2110
18	End	730	892	1120	1442	1117	1364	1713	2207
	Interior	1363	1610	1959	2453	2027	2394	2914	3648
16	End	1140	1379	1716	2193	1744	2109	2626	3356
	Interior	2109	2467	2974	3691	3137	3670	4424	5490
14	End	1780	2132	2630	3333	2723	3262	4023	5100
	Interior	3275	3795	4529	5569	4872	5645	6738	8283
Constants		h = 7"		r = 0.25"		θ = 90°			

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20	Single Span	f_b/Ω	316	219	161	123	97	79	65	51	35
		Φf_b	475	330	242	185	146	119	98	76	53
		L/360	379	219	138	93	65	47	36	24	14
		L/240	569	329	207	139	97	71	53	36	21
		L/180	758	439	276	185	130	95	71	49	28
		L/120	1137	658	414	278	195	142	107	73	42
	Double Span	f_b/Ω	350	243	178	137	108	-	-	-	-
		Φf_b	526	365	268	205	162	-	-	-	-
		L/360	965	558	352	235	165	-	-	-	-
		L/240	1447	837	527	353	248	-	-	-	-
		L/180	1929	1116	703	471	331	-	-	-	-
		L/120	2894	1675	1055	706	496	-	-	-	-
	Triple Span	f_b/Ω	437	304	-	-	-	-	-	-	-
		Φf_b	657	456	-	-	-	-	-	-	-
		L/360	756	437	-	-	-	-	-	-	-
		L/240	1133	656	-	-	-	-	-	-	-
		L/180	1511	875	-	-	-	-	-	-	-
		L/120	2267	1312	-	-	-	-	-	-	-
18	Single Span	f_b/Ω	531	369	271	208	164	133	110	85	59
		Φf_b	799	555	407	312	246	200	165	128	89
		L/360	520	301	189	127	89	65	49	33	19
		L/240	780	451	284	190	134	97	73	50	29
		L/180	1039	602	379	254	178	130	98	67	38
		L/120	1559	902	568	381	267	195	146	100	58
	Double Span	f_b/Ω	564	391	288	220	174	-	-	-	-
		Φf_b	847	588	432	331	261	-	-	-	-
		L/360	1299	752	473	317	223	-	-	-	-
		L/240	1949	1128	710	476	334	-	-	-	-
		L/180	2598	1504	947	634	446	-	-	-	-
		L/120	3897	2255	1420	952	668	-	-	-	-
	Triple Span	f_b/Ω	704	489	-	-	-	-	-	-	-
		Φf_b	1059	735	-	-	-	-	-	-	-
		L/360	1018	589	-	-	-	-	-	-	-
		L/240	1527	883	-	-	-	-	-	-	-
		L/180	2035	1178	-	-	-	-	-	-	-
		L/120	3053	1767	-	-	-	-	-	-	-
16	Single Span	f_b/Ω	746	518	380	291	230	186	154	119	83
		Φf_b	1121	778	572	438	346	280	232	179	125
		L/360	667	386	243	163	114	83	63	43	25
		L/240	1000	579	365	244	172	125	94	64	37
		L/180	1334	772	486	326	229	167	125	85	49
		L/120	2001	1158	729	488	343	250	188	128	74
	Double Span	f_b/Ω	777	540	397	304	240	-	-	-	-
		Φf_b	1168	811	596	456	361	-	-	-	-
		L/360	1622	938	591	396	278	-	-	-	-
		L/240	2432	1408	886	594	417	-	-	-	-
		L/180	3243	1877	1182	792	556	-	-	-	-
		L/120	4865	2815	1773	1188	834	-	-	-	-
	Triple Span	f_b/Ω	972	675	-	-	-	-	-	-	-
		Φf_b	1460	1014	-	-	-	-	-	-	-
		L/360	1270	735	-	-	-	-	-	-	-
		L/240	1905	1103	-	-	-	-	-	-	-
		L/180	2541	1470	-	-	-	-	-	-	-
		L/120	3811	2205	-	-	-	-	-	-	-
14	Single Span	f_b/Ω	952	661	486	372	294	238	197	152	106
		Φf_b	1432	994	730	559	442	358	296	229	159
		L/360	814	471	297	199	140	102	76	52	30
		L/240	1221	707	445	298	209	153	115	78	45
		L/180	1628	942	593	398	279	204	153	104	60
		L/120	2442	1413	890	596	419	305	229	156	90
	Double Span	f_b/Ω	962	668	491	376	297	-	-	-	-
		Φf_b	1446	1004	738	565	446	-	-	-	-
		L/360	1961	1135	715	479	336	-	-	-	-
		L/240	2942	1702	1072	718	504	-	-	-	-
		L/180	3922	2270	1429	958	673	-	-	-	-
		L/120	5883	3405	2144	1436	1009	-	-	-	-
	Triple Span	f_b/Ω	1202	835	-	-	-	-	-	-	-
		Φf_b	1807	1255	-	-	-	-	-	-	-
		L/360	1536	889	-	-	-	-	-	-	-
		L/240	2305	1334	-	-	-	-	-	-	-
		L/180	3073	1778	-	-	-	-	-	-	-
		L/120	4609	2667	-	-	-	-	-	-	-

5.5 7.5D-12
Deep Deck

Allowable Wind Uplift Loads

7.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	78	71
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	136	119	106	88
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	78	71
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	136	119	106	88
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		168	112	84	67	56	48	42	37	34
	Hilti X-ENP-19 L15	≥ 1/4"	705		353	235	176	141	118	101	88	78	71
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		477	318	238	191	159	136	119	106	95
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

7.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
20	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	67
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	282	235	179	137	108	88
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	477	350	243	179	137	108	88
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	67
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	282	235	179	137	108	88
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	477	350	243	179	137	108	88
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	336		336	224	168	134	112	96	84	75	67
	Hilti X-ENP-19 L15	≥ 1/4"	705		705	470	353	282	235	201	171	135	109
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		953	635	477	381	304	223	171	135	109
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

Allowable Wind Uplift Loads

7.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	161	144	129
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	161	144	129
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		224	149	112	90	75	64	56	50	45
	Hilti X-ENP-19 L15	≥ 1/4"	805		403	268	201	161	134	115	101	89	81
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		646	431	323	258	215	185	161	144	129
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

7.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	4	6	8	10	12	14	16	18	20
18	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	268	230	201	174	141
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	646	517	392	288	221	174	141
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	268	230	201	174	141
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	646	517	392	288	221	174	141
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		448	299	224	179	149	128	112	100	90
	Hilti X-ENP-19 L15	≥ 1/4"	805		805	537	403	322	268	230	201	179	161
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		1292	861	646	517	431	360	276	218	176
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

5.5 7.5D-12
Deep Deck

Allowable Wind Uplift Loads

7.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	83	55	41	33	28	24	21	18	17
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

7.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
16	#12-14 ITW Buildex TEKS	16ga	165	Single Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	397	304	240	195
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Double Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	397	304	240	195
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	165	Triple Span	165	110	83	66	55	47	41	37	33
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	464	380	300	243
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

Allowable Wind Uplift Loads

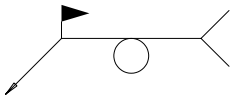
7.5D-12					Support Fastener Pattern: 12 / 2								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		258	172	129	103	86	74	64	57	52
	Hilti X-ENP-19 L15	≥ 1/4"	880		440	293	220	176	147	126	110	98	88
	Hilti X-HSN 24	1/8" - 3/8"	435		218	145	109	87	73	62	54	48	44
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		811	541	406	324	270	232	203	180	162
	Simpson XL Screws	≥ 1/8"	385		193	128	96	77	64	55	48	43	39

7.5D-12					Support Fastener Pattern: 12 / 4								
Allowable Wind Uplift Load (psf)													
					Span (ft.-in.)								
Gauge	**Fastener**	**Support Thickness**	**Fastener Capacity [lbs]**	**Span**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**
14	#12-14 ITW Buildex TEKS	16ga	0	Single Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	464	376	297	241
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	0	Double Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	464	376	297	241
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77
	#12-14 ITW Buildex TEKS	16ga	0	Triple Span	0	0	0	0	0	0	0	0	0
	#12-24 ITW Buildex TEKS	≥ 3/16"	515		515	343	258	206	172	147	129	114	103
	Hilti X-ENP-19 L15	≥ 1/4"	880		880	587	440	352	293	251	220	196	176
	Hilti X-HSN 24	1/8" - 3/8"	435		435	290	218	174	145	124	109	97	87
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1622		1622	1082	811	649	541	464	406	361	301
	Simpson XL Screws	≥ 1/8"	385		385	257	193	154	128	110	96	86	77

5.5 **7.5D-12**

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	0.8 +47.8R		1.3 +39.8R		1.6 +34.1R		1.9 +29.8R		2.1 +26.5R		2.3 +23.9R		2.4 +21.7R		2.5 +19.9R		2.6 +18.4R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	1.5 +47.7R		2 +39.8R		2.3 +34.1R		2.6 +29.8R		2.8 +26.5R		2.9 +23.9R		3 +21.7R		3.2 +19.9R		3.3 +18.4R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	2.1 +47.7R		2.6 +39.8R		2.9 +34.1R		3.2 +29.8R		3.4 +26.5R		3.6 +23.9R		3.7 +21.7R		3.8 +19.9R		3.9 +18.3R	
		12"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.3 +47.6R		3.8 +39.7R		4.2 +34R		4.5 +29.8R		4.7 +26.5R		4.8 +23.8R		5 +21.6R		5.1 +19.8R		5.2 +18.3R	
		18"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.9 +47.5R		5.7 +39.6R		5.7 +33.9R		6.2 +29.7R		6.6 +26.4R		6.5 +23.7R		6.8 +21.6R		7 +19.8R		6.9 +18.3R	
		24"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	6.9 +47.3R		7.4 +39.4R		7.9 +33.7R		8.2 +29.5R		8.4 +26.2R		8.6 +23.6R		8.8 +21.5R		8.9 +19.7R		9 +18.1R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	-0.6 +84.1R		0.3 +70.1R		0.9 +60.1R		1.3 +52.6R		1.7 +46.7R		1.9 +42.1R		2.2 +38.2R		2.4 +35.1R		2.5 +32.4R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	0.1 +84.1R		1 +70.1R		1.6 +60.1R		2 +52.6R		2.4 +46.7R		2.7 +42.1R		2.9 +38.2R		3.1 +35R		3.3 +32.4R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	0.8 +84.1R		1.7 +70.1R		2.3 +60.1R		2.8 +52.6R		3.1 +46.7R		3.4 +42R		3.6 +38.2R		3.8 +35R		4 +32.3R	
		12"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	2.2 +84R		3.1 +70R		3.7 +60R		4.2 +52.5R		4.5 +46.7R		4.8 +42R		5.1 +38.2R		5.3 +35R		5.4 +32.3R	
		18"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	4 +83.8R		5.1 +69.8R		5.4 +59.9R		6.1 +52.4R		6.7 +46.6R		6.7 +41.9R		7.1 +38.1R		7.4 +34.9R		7.3 +32.2R	
		24"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	6.2 +83.6R		7.1 +69.6R		7.8 +59.7R		8.3 +52.2R		8.7 +46.4R		9 +41.8R		9.3 +38R		9.5 +34.8R		9.7 +32.1R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-3.4 +147.3R		-2 +122.8R		-0.9 +105.2R		-0.1 +92.1R		0.5 +81.8R		1 +73.7R		1.4 +67R		1.7 +61.4R		2 +56.7R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-2.6 +147.3R		-1.2 +122.7R		-0.1 +105.2R		0.7 +92R		1.3 +81.8R		1.8 +73.6R		2.2 +66.9R		2.5 +61.4R		2.8 +56.6R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-1.9 +147.2R		-0.4 +122.7R		0.7 +105.2R		1.5 +92R		2.1 +81.8R		2.6 +73.6R		3 +66.9R		3.3 +61.3R		3.6 +56.6R	
		12"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.3 +147.1R		1.2 +122.6R		2.3 +105.1R		3.1 +92R		3.7 +81.7R		4.2 +73.6R		4.6 +66.9R		5 +61.3R		5.2 +56.6R	
		18"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.6 +147R		3.5 +122.4R		4.1 +105R		5.2 +91.8R		6.1 +81.6R		6.2 +73.5R		6.8 +66.8R		7.4 +61.2R		7.4 +56.5R	
		24"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	4.1 +146.7R		5.7 +122.2R		6.9 +104.7R		7.7 +91.6R		8.4 +81.5R		8.9 +73.3R		9.3 +66.6R		9.7 +61.1R		10 +56.4R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-11.2 +301.4R		-8.2 +251.1R		-6 +215.3R		-4.4 +188.3R		-3.2 +167.4R		-2.1 +150.7R		-1.3 +137R		-0.6 +125.6R		-0.1 +115.9R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-10.2 +301.3R		-7.2 +251.1R		-5.1 +215.2R		-3.5 +188.3R		-2.2 +167.4R		-1.2 +150.7R		-0.4 +137R		0.3 +125.6R		0.9 +115.9R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-9.3 +301.3R		-6.3 +251.1R		-4.2 +215.2R		-2.5 +188.3R		-1.3 +167.4R		-0.3 +150.6R		0.6 +136.9R		1.2 +125.5R		1.8 +115.9R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-7.5 +301.2R		-4.5 +251R		-2.3 +215.1R		-0.7 +188.2R		0.6 +167.3R		1.6 +150.6R		2.4 +136.9R		3.1 +125.5R		3.7 +115.8R	
		18"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.3 +301R		-1.8 +250.8R		-0.2 +215R		1.8 +188.1R		3.3 +167.2R		3.9 +150.5R		5 +136.8R		5.9 +125.4R		6.2 +115.7R	
		24"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-2.4 +300.6R		0.7 +250.5R		3 +214.7R		4.6 +187.9R		6 +167R		7 +150.3R		7.9 +136.6R		8.6 +125.2R		9.2 +115.6R	

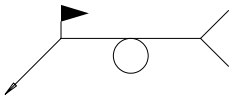
7.5D-12 12/2 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC Steel Deck®

7.5D-12 5.5

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	0.8 +47.7R	1.3 +39.8R	1.6 +34.1R	1.9 +29.8R	2.1 +26.5R	2.3 +23.9R	2.4 +21.7R	2.5 +19.9R	2.6 +18.4R
		6"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	1.4 +47.7R	1.9 +39.8R	2.3 +34.1R	2.5 +29.8R	2.7 +26.5R	2.9 +23.8R	3 +21.7R	3.1 +19.9R	3.2 +18.3R
		8"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	2 +47.7R	2.5 +39.7R	2.9 +34R	3.2 +29.8R	3.4 +26.5R	3.5 +23.8R	3.7 +21.7R	3.8 +19.9R	3.9 +18.3R
		12"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	3.2 +47.5R	3.7 +39.6R	4.1 +33.9R	4.4 +29.7R	4.6 +26.4R	4.8 +23.7R	4.9 +21.6R	5 +19.8R	5.1 +18.3R
		18"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	4.6 +47.3R	5.4 +39.4R	5.5 +33.8R	6 +29.5R	6.4 +26.2R	6.3 +23.6R	6.6 +21.4R	6.9 +19.6R	6.8 +18.1R
		24"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	6.3 +47R	7 +39.1R	7.5 +33.5R	7.8 +29.3R	8.1 +26R	8.3 +23.4R	8.5 +21.2R	8.6 +19.5R	8.8 +18R
	16 ga	4"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	-0.6 +84.1R	0.2 +70.1R	0.8 +60.1R	1.3 +52.6R	1.6 +46.7R	1.9 +42.1R	2.2 +38.2R	2.3 +35R	2.5 +32.4R
		6"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	0.1 +84.1R	0.9 +70.1R	1.5 +60.1R	2 +52.5R	2.4 +46.7R	2.6 +42R	2.9 +38.2R	3.1 +35R	3.2 +32.3R
		8"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	0.8 +84R	1.6 +70R	2.2 +60R	2.7 +52.5R	3.1 +46.7R	3.4 +42R	3.6 +38.2R	3.8 +35R	4 +32.3R
		12"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	2.1 +83.9R	3 +69.9R	3.6 +59.9R	4.1 +52.4R	4.4 +46.6R	4.7 +41.9R	5 +38.1R	5.2 +34.9R	5.4 +32.2R
		18"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	3.6 +83.6R	4.8 +69.6R	5.2 +59.7R	5.9 +52.2R	6.4 +46.4R	6.5 +41.8R	6.9 +38R	7.2 +34.8R	7.2 +32.1R
		24"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	5.6 +83.2R	6.6 +69.3R	7.4 +59.4R	7.9 +51.9R	8.4 +46.1R	8.7 +41.5R	9 +37.7R	9.2 +34.6R	9.4 +31.9R
	18 ga	4"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	-3.5 +147.3R	-2 +122.7R	-0.9 +105.2R	-0.1 +92.1R	0.5 +81.8R	1 +73.6R	1.4 +66.9R	1.7 +61.4R	2 +56.6R
		6"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	-2.7 +147.2R	-1.2 +122.7R	-0.1 +105.2R	0.6 +92R	1.3 +81.8R	1.8 +73.6R	2.2 +66.9R	2.5 +61.3R	2.8 +56.6R
		8"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	-1.9 +147.2R	-0.4 +122.6R	0.6 +105.1R	1.4 +92R	2.1 +81.8R	2.6 +73.6R	3 +66.9R	3.3 +61.3R	3.6 +56.6R
		12"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	-0.5 +147R	1.1 +122.5R	2.1 +105R	3 +91.9R	3.6 +81.7R	4.1 +73.5R	4.5 +66.8R	4.9 +61.2R	5.2 +56.5R
		18"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	1.3 +146.7R	3.2 +122.2R	3.9 +104.8R	5 +91.7R	5.8 +81.4R	6.1 +73.3R	6.7 +66.6R	7.2 +61.1R	7.2 +56.4R
		24"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	3.5 +146.3R	5.1 +121.9R	6.4 +104.4R	7.3 +91.3R	8 +81.2R	8.5 +73R	9 +66.4R	9.4 +60.8R	9.7 +56.1R
	20 ga	4"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-11.2 +301.3R	-8.2 +251.1R	-6 +215.2R	-4.4 +188.3R	-3.2 +167.4R	-2.2 +150.7R	-1.3 +137R	-0.7 +125.6R	-0.1 +115.9R
		6"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-10.3 +301.3R	-7.3 +251.1R	-5.1 +215.2R	-3.5 +188.3R	-2.2 +167.4R	-1.2 +150.6R	-0.4 +136.9R	0.3 +125.5R	0.9 +115.9R
		8"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-9.4 +301.2R	-6.4 +251R	-4.2 +215.1R	-2.6 +188.2R	-1.3 +167.3R	-0.3 +150.6R	0.5 +136.9R	1.2 +125.5R	1.8 +115.8R
		12"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-7.7 +301R	-4.7 +250.8R	-2.5 +215R	-0.8 +188.1R	0.5 +167.2R	1.5 +150.5R	2.3 +136.8R	3 +125.4R	3.6 +115.8R
		18"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-5.7 +300.7R	-2.2 +250.5R	-0.5 +214.8R	1.5 +187.9R	3 +167R	3.7 +150.3R	4.8 +136.6R	5.7 +125.2R	6 +115.6R
		24"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-3.2 +300.2R	0.1 +250.1R	2.4 +214.3R	4.1 +187.5R	5.5 +166.6R	6.6 +150R	7.5 +136.3R	8.2 +124.9R	8.9 +115.3R

7.5D-12 12/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

5.5 **7.5D-12**

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	7 +113R		8.2 +94.1R		9 +80.7R		9.7 +70.6R		10.1 +62.7R		10.5 +56.5R		10.9 +51.3R		11.1 +47.1R		11.3 +43.4R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	10.9 +112.7R		12.1 +93.9R		13 +80.5R		13.7 +70.4R		14.2 +62.6R		14.6 +56.3R		14.9 +51.2R		15.2 +46.9R		15.4 +43.3R	
		8"	q_a q_f	1405	2262	1394	2245	1387	2233	1381	2223	1376	2216	1373	2210	1370	2205	1367	2201	1365	2198
			F	14.7 +112.3R		16 +93.6R		16.9 +80.2R		17.6 +70.2R		18.1 +62.4R		18.6 +56.1R		18.9 +51R		19.2 +46.8R		19.5 +43.2R	
		12"	q_a q_f	1062	1710	1048	1687	1038	1671	1030	1659	1024	1649	1020	1642	1016	1635	1013	1630	1010	1626
			F	21.9 +111.4R		23.4 +92.7R		24.4 +79.5R		25.2 +69.5R		25.9 +61.7R		26.4 +55.6R		26.8 +50.5R		27.1 +46.3R		27.4 +42.7R	
		18"	q_a q_f	810	1304	764	1229	795	1281	762	1227	736	1186	762	1226	740	1192	723	1164	743	1197
			F	30.5 +109.9R		33.8 +91.1R		33 +78.3R		35.2 +68.3R		36.9 +60.5R		36 +54.6R		37.4 +49.5R		38.6 +45.3R		37.7 +41.9R	
		24"	q_a q_f	620	998	605	974	594	957	585	942	578	930	572	921	567	913	563	907	560	902
			F	41.1 +107.5R		43.4 +89.2R		45.1 +76.2R		46.4 +66.5R		47.5 +59R		48.3 +53R		49 +48.1R		49.6 +44R		50.1 +40.6R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	4.3 +199.1R		6.3 +165.9R		7.8 +142.2R		8.8 +124.5R		9.7 +110.6R		10.4 +99.6R		10.9 +90.5R		11.4 +83R		11.8 +76.6R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	8.6 +198.8R		10.7 +165.7R		12.2 +142R		13.3 +124.2R		14.2 +110.4R		14.9 +99.4R		15.5 +90.4R		16 +82.8R		16.4 +76.5R	
		8"	q_a q_f	1041	1675	1031	1660	1025	1650	1020	1642	1016	1635	1013	1630	1010	1626	1008	1622	1006	1620
			F	12.9 +198.4R		15 +165.3R		16.6 +141.7R		17.7 +124R		18.6 +110.2R		19.4 +99.2R		20 +90.1R		20.5 +82.6R		20.9 +76.3R	
		12"	q_a q_f	778	1253	766	1234	758	1220	752	1210	747	1202	743	1196	739	1190	737	1186	734	1182
			F	20.9 +197.4R		23.3 +164.4R		25 +140.9R		26.3 +123.2R		27.3 +109.5R		28.1 +98.5R		28.8 +89.6R		29.3 +82.1R		29.8 +75.8R	
		18"	q_a q_f	591	952	556	895	578	931	553	891	534	860	552	888	536	863	523	841	537	865
			F	30.6 +195.7R		35 +162.6R		34.6 +139.6R		37.4 +121.9R		39.7 +108.1R		38.9 +97.5R		40.6 +88.5R		42.1 +81R		41.3 +74.8R	
		24"	q_a q_f	449	723	437	704	429	690	422	680	418	672	414	666	410	660	407	655	404	651
			F	42.4 +193R		45.8 +160.4R		48.2 +137.2R		50.1 +119.8R		51.5 +106.4R		52.7 +95.6R		53.6 +86.8R		54.5 +79.5R		55.2 +73.4R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-1.8 +348.8R		1.7 +290.6R		4.2 +249.1R		6.1 +218R		7.6 +193.8R		8.8 +174.4R		9.7 +158.5R		10.5 +145.3R		11.2 +134.1R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3 +348.4R		6.6 +290.3R		9.2 +248.9R		11.1 +217.7R		12.6 +193.6R		13.8 +174.2R		14.8 +158.4R		15.6 +145.2R		16.3 +134R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	7.8 +348R		11.5 +290R		14.1 +248.5R		16.1 +217.4R		17.6 +193.3R		18.8 +173.9R		19.8 +158.1R		20.7 +144.9R		21.4 +133.8R	
		12"	q_a q_f	571	920	561	904	554	893	549	884	545	877	542	872	539	868	537	864	535	861
			F	16.8 +346.8R		20.7 +288.9R		23.5 +247.6R		25.6 +216.6R		27.3 +192.5R		28.6 +173.2R		29.7 +157.5R		30.6 +144.3R		31.3 +133.2R	
		18"	q_a q_f	433	698	406	654	422	679	403	649	388	625	401	646	389	626	379	610	390	627
			F	27.6 +344.9R		33.7 +286.9R		34.3 +246.2R		38.1 +215.1R		41.2 +191R		40.7 +172R		43 +156.2R		44.9 +143.1R		44.2 +132.2R	
		24"	q_a q_f	327	526	317	511	311	500	306	492	302	486	299	481	296	477	294	473	292	470
			F	40.8 +341.9R		45.8 +284.5R		49.5 +243.5R		52.2 +212.8R		54.4 +189R		56.1 +170R		57.5 +154.4R		58.7 +141.5R		59.7 +130.5R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-19.2 +713.8R		-12 +594.8R		-6.9 +509.8R		-3 +446.1R		0 +396.5R		2.4 +356.9R		4.3 +324.4R		6 +297.4R		7.4 +274.5R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-13.5 +713.4R		-6.3 +594.5R		-1.1 +509.5R		2.8 +445.8R		5.8 +396.3R		8.2 +356.7R		10.2 +324.2R		11.9 +297.2R		13.3 +274.3R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.1 +712.8R		-0.7 +594R		4.5 +509.1R		8.5 +445.5R		11.5 +396R		14 +356.4R		16 +324R		17.7 +297R		19.1 +274.1R	
		12"	q_a q_f	384	619	377	606	371	597	367	591	364	585	361	581	359	578	357	575	356	572
			F	2.3 +711.5R		10 +592.8R		15.4 +508R		19.5 +444.5R		22.7 +395.1R		25.2 +355.5R		27.3 +323.2R		29.1 +296.3R		30.6 +273.5R	
		18"	q_a q_f	289	465	270	435	282	454	268	432	258	416	266	429	258	416	251	405	258	416
			F	14.8 +709.3R		25 +590.5R		27.8 +506.4R		33.9 +442.8R		38.7 +393.3R		39.2 +354.2R		42.7 +321.8R		45.6 +294.8R		45.4 +272.3R	
		24"	q_a q_f	218	352	211	340	206	332	202	326	200	321	197	317	195	314	194	312	192	310
			F	30.1 +705.9R		38.9 +587.7R		45.3 +503.3R		50.2 +440.1R		53.9 +391R		57 +351.8R		59.5 +319.7R		61.6 +293R		63.3 +270.3R	

7.5D-12 12/2 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK®

7.5D-12 5.5

No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	6.8 +112.8R		8 +94R		8.8 +80.5R		9.5 +70.5R		10 +62.6R		10.4 +56.4R		10.7 +51.2R		11 +47R		11.2 +43.3R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	10.4 +112.3R		11.7 +93.5R		12.6 +80.2R		13.3 +70.1R		13.9 +62.3R		14.3 +56.1R		14.7 +51R		15 +46.7R		15.2 +43.1R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1625	2604	1614	2599	1606	2585	1598	2573	1592	2563
			F	13.8 +111.7R		15.2 +93R		16.2 +79.7R		17 +69.7R		17.6 +61.9R		18.1 +55.7R		18.5 +50.6R		18.8 +46.4R		19.1 +42.8R	
		12"	q_a q_f	1249	2010	1214	1955	1189	1915	1171	1885	1156	1861	1145	1843	1135	1827	1127	1815	1120	1804
			F	20 +110.3R		21.7 +91.8R		23 +78.5R		23.9 +68.6R		24.7 +60.9R		25.3 +54.8R		25.8 +49.8R		26.2 +45.6R		26.5 +42R	
		18"	q_a q_f	947	1524	878	1413	904	1455	857	1380	821	1322	845	1361	817	1315	793	1277	812	1307
			F	27 +108.4R		30.4 +89.6R		30.3 +76.9R		32.6 +66.8R		34.4 +59R		33.9 +53.3R		35.3 +48.2R		36.6 +44R		36 +40.7R	
		24"	q_a q_f	734	1182	700	1128	676	1089	658	1060	644	1037	633	1019	624	1004	616	992	609	981
			F	34.9 +105.7R		37.9 +87.2R		40.2 +74.1R		41.9 +64.4R		43.3 +56.9R		44.5 +50.9R		45.4 +46R		46.2 +42R		46.9 +38.6R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	4 +198.9R		6.1 +165.7R		7.6 +142.1R		8.7 +124.3R		9.5 +110.5R		10.2 +99.4R		10.8 +90.4R		11.3 +82.9R		11.7 +76.5R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	8 +198.4R		10.2 +165.3R		11.8 +141.6R		12.9 +123.9R		13.9 +110.1R		14.6 +99.1R		15.2 +90.1R		15.7 +82.6R		16.1 +76.2R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	11.8 +197.7R		14.1 +164.7R		15.8 +141.1R		17.1 +123.4R		18 +109.7R		18.8 +98.7R		19.5 +89.7R		20 +82.2R		20.4 +75.9R	
		12"	q_a q_f	913	1469	885	1424	865	1392	850	1368	838	1349	828	1334	821	1321	814	1311	809	1302
			F	18.8 +196.2R		21.4 +163.3R		23.4 +139.8R		24.8 +122.2R		26 +108.6R		26.9 +97.7R		27.6 +88.7R		28.3 +81.3R		28.8 +75R	
		18"	q_a q_f	691	1113	639	1029	656	1056	621	1000	594	957	611	983	589	949	572	921	586	944
			F	26.6 +194R		31.1 +160.8R		31.6 +138R		34.5 +120.2R		36.9 +106.5R		36.6 +96R		38.4 +87R		39.9 +79.5R		39.4 +73.5R	
		24"	q_a q_f	540	870	513	826	494	795	479	772	468	754	459	739	452	727	446	718	441	709
			F	35.5 +191R		39.6 +158.2R		42.6 +134.9R		45 +117.5R		46.8 +104R		48.4 +93.3R		49.7 +84.6R		50.7 +77.3R		51.7 +71.2R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-2.1 +348.5R		1.4 +290.4R		4 +248.9R		5.9 +217.8R		7.4 +193.6R		8.6 +174.2R		9.6 +158.4R		10.4 +145.2R		11.1 +134R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	2.4 +347.9R		6.1 +289.9R		8.7 +248.5R		10.7 +217.4R		12.2 +193.2R		13.5 +173.9R		14.5 +158.1R		15.3 +144.9R		16.1 +133.7R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	6.6 +347.2R		10.5 +289.3R		13.2 +247.9R		15.3 +216.9R		16.9 +192.7R		18.2 +173.4R		19.3 +157.6R		20.2 +144.5R		20.9 +133.4R	
		12"	q_a q_f	670	1079	648	1042	631	1016	619	997	610	981	602	969	596	959	591	951	586	944
			F	14.4 +345.5R		18.6 +287.7R		21.7 +246.4R		24 +215.5R		25.8 +191.5R		27.2 +172.3R		28.4 +156.5R		29.4 +143.5R		30.3 +132.4R	
		18"	q_a q_f	508	818	468	754	479	771	453	729	432	696	443	713	427	688	414	667	424	683
			F	23.2 +343R		29.5 +284.9R		30.9 +244.3R		34.8 +213.3R		38 +189.1R		38.1 +170.4R		40.4 +154.6R		42.4 +141.4R		42.1 +130.7R	
		24"	q_a q_f	400	644	378	609	363	584	351	565	342	551	335	539	329	530	324	522	320	515
			F	33.1 +339.6R		38.9 +282R		43.2 +240.9R		46.5 +210.2R		49.1 +186.4R		51.3 +167.4R		53 +151.9R		54.5 +139R		55.8 +128.1R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-19.5 +713.5R		-12.3 +594.5R		-7.1 +509.6R		-3.2 +445.9R		-0.2 +396.3R		2.2 +356.7R		4.2 +324.3R		5.8 +297.2R		7.2 +274.4R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-14.3 +712.8R		-6.9 +593.9R		-1.7 +509.1R		2.3 +445.4R		5.4 +395.9R		7.8 +356.3R		9.8 +323.9R		11.5 +296.9R		12.9 +274.1R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-9.4 +712R		-1.9 +593.2R		3.5 +508.4R		7.6 +444.8R		10.7 +395.3R		13.3 +355.8R		15.3 +323.4R		17.1 +296.4R		18.5 +273.6R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	392	629	389	625
			F	-0.5 +710R		7.5 +591.4R		13.3 +506.7R		17.6 +443.2R		21 +393.9R		23.7 +354.4R		25.9 +322.1R		27.7 +295.3R		29.3 +272.5R	
		18"	q_a q_f	343	553	316	508	321	516	303	487	289	465	295	475	284	457	275	443	281	452
			F	9.7 +707.1R		20.1 +588.2R		24 +504.3R		30.1 +440.6R		35.1 +391.2R		36.2 +352.2R		39.7 +319.9R		42.8 +292.9R		42.9 +270.5R	
		24"	q_a q_f	273	440	257	414	245	395	237	381	230	370	225	362	220	354	216	348	213	343
			F	21.2 +703.2R		31 +584.8R		38.1 +500.3R		43.6 +437.1R		47.9 +388R		51.4 +348.8R		54.3 +316.8R		56.7 +290.1R		58.8 +267.6R	

7.5D-12 12/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

5.5 **7.5D-12**

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	7.3 +117.5R		8.5 +97.9R		9.4 +83.9R		10 +73.4R		10.5 +65.3R		10.9 +58.7R		11.3 +53.4R		11.6 +48.9R		11.8 +45.2R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	11.3 +117.2R		12.6 +97.6R		13.5 +83.7R		14.2 +73.2R		14.7 +65.1R		15.2 +58.6R		15.5 +53.2R		15.8 +48.8R		16 +45R	
		8"	q_a q_f	1520	2447	1504	2422	1492	2403	1484	2389	1477	2378	1471	2369	1467	2362	1463	2356	1460	2350
			F	15.2 +116.8R		16.6 +97.3R		17.5 +83.4R		18.3 +72.9R		18.8 +64.8R		19.3 +58.3R		19.7 +53R		20 +48.6R		20.2 +44.9R	
		12"	q_a q_f	1126	1813	1107	1782	1092	1759	1082	1742	1074	1728	1067	1718	1062	1709	1057	1702	1053	1696
			F	22.7 +115.8R		24.2 +96.4R		25.3 +82.6R		26.2 +72.2R		26.8 +64.2R		27.4 +57.7R		27.8 +52.5R		28.1 +48.1R		28.5 +44.4R	
		18"	q_a q_f	854	1375	801	1289	831	1338	794	1278	765	1231	790	1271	766	1233	746	1202	767	1235
			F	31.6 +114.2R		35 +94.7R		34.2 +81.4R		36.5 +70.9R		38.3 +62.9R		37.4 +56.7R		38.8 +51.4R		40 +47R		39.1 +43.5R	
		24"	q_a q_f	644	1037	625	1006	612	985	602	969	594	956	588	946	582	938	578	931	575	925
			F	42.4 +111.7R		44.9 +92.6R		46.7 +79.1R		48.1 +69R		49.2 +61.2R		50.1 +55R		50.8 +49.9R		51.4 +45.6R		51.9 +42.1R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	4.4 +207.1R		6.5 +172.6R		8.1 +147.9R		9.2 +129.4R		10.1 +115R		10.8 +103.5R		11.4 +94.1R		11.8 +86.3R		12.3 +79.6R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	8.9 +206.8R		11.1 +172.3R		12.7 +147.7R		13.9 +129.2R		14.8 +114.8R		15.5 +103.4R		16.1 +94R		16.6 +86.1R		17 +79.5R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	13.3 +206.3R		15.6 +171.9R		17.2 +147.3R		18.4 +128.9R		19.4 +114.6R		20.1 +103.1R		20.7 +93.7R		21.3 +85.9R		21.7 +79.3R	
		12"	q_a q_f	826	1330	809	1303	797	1284	789	1270	782	1258	776	1249	771	1242	768	1236	764	1231
			F	21.7 +205.2R		24.2 +170.9R		25.9 +146.4R		27.3 +128.1R		28.3 +113.8R		29.2 +102.4R		29.9 +93.1R		30.4 +85.3R		30.9 +78.8R	
		18"	q_a q_f	621	999	580	934	606	975	577	929	555	894	573	922	555	894	540	870	555	893
			F	31.6 +203.4R		36.2 +169R		35.9 +145.1R		38.8 +126.7R		41.2 +112.4R		40.4 +101.3R		42.2 +91.9R		43.7 +84.1R		42.8 +77.8R	
		24"	q_a q_f	469	756	454	731	443	714	435	701	429	691	424	682	420	676	416	670	413	666
			F	43.8 +200.6R		47.3 +166.7R		49.9 +142.6R		51.8 +124.5R		53.4 +110.5R		54.6 +99.3R		55.6 +90.2R		56.5 +82.6R		57.2 +76.2R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-1.9 +362.7R		1.8 +302.3R		4.4 +259.1R		6.4 +226.7R		7.9 +201.5R		9.1 +181.4R		10.1 +164.9R		11 +151.1R		11.7 +139.5R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.1 +362.3R		6.9 +301.9R		9.6 +258.8R		11.6 +226.4R		13.1 +201.3R		14.4 +181.1R		15.4 +164.7R		16.3 +151R		17 +139.3R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	8 +361.9R		11.9 +301.5R		14.6 +258.4R		16.7 +226.1R		18.3 +201R		19.6 +180.9R		20.6 +164.4R		21.5 +150.7R		22.2 +139.1R	
		12"	q_a q_f	607	977	593	955	583	939	576	927	570	918	565	910	561	904	558	899	556	894
			F	17.4 +360.6R		21.5 +300.4R		24.4 +257.4R		26.6 +225.2R		28.3 +200.2R		29.7 +180.1R		30.8 +163.7R		31.7 +150.1R		32.5 +138.5R	
		18"	q_a q_f	452	728	422	679	439	707	418	673	401	646	415	669	402	648	391	630	403	648
			F	28.5 +358.6R		34.9 +298.3R		35.5 +255.9R		39.5 +223.6R		42.7 +198.5R		42.2 +178.8R		44.6 +162.4R		46.6 +148.7R		45.9 +137.4R	
		24"	q_a q_f	344	554	332	534	323	520	316	510	311	501	307	495	304	489	301	485	299	481
			F	42.1 +355.5R		47.3 +295.7R		51.1 +253.1R		54 +221.2R		56.3 +196.4R		58.1 +176.6R		59.6 +160.5R		60.9 +147R		61.9 +135.6R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-20 +742.3R		-12.5 +618.6R		-7.1 +530.2R		-3.1 +463.9R		0 +412.4R		2.5 +371.1R		4.5 +337.4R		6.2 +309.3R		7.6 +285.5R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-14.1 +741.9R		-6.6 +618.2R		-1.2 +529.9R		2.9 +463.6R		6 +412.1R		8.5 +370.9R		10.6 +337.2R		12.3 +309.1R		13.8 +285.3R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.5 +741.3R		-0.8 +617.7R		4.7 +529.4R		8.8 +463.2R		12 +411.8R		14.5 +370.6R		16.6 +336.9R		18.4 +308.8R		19.8 +285R	
		12"	q_a q_f	393	629	393	629	390	629	385	619	380	612	376	606	373	601	371	597	369	594
			F	2.3 +739.9R		10.2 +616.4R		15.9 +528.3R		20.2 +462.2R		23.5 +410.8R		26.2 +369.7R		28.4 +336.1R		30.2 +308.1R		31.7 +284.4R	
		18"	q_a q_f	302	487	281	453	291	469	277	446	266	428	274	442	265	427	258	415	265	427
			F	15.2 +737.5R		25.8 +614R		28.8 +526.5R		35.1 +460.3R		40.1 +408.9R		40.6 +368.2R		44.2 +334.6R		47.3 +306.5R		47.1 +283.1R	
		24"	q_a q_f	232	374	223	359	216	348	211	340	207	333	204	328	201	324	199	321	198	318
			F	30.8 +733.9R		40.1 +611R		46.8 +523.3R		51.9 +457.6R		55.8 +406.5R		59 +365.7R		61.6 +332.3R		63.8 +304.5R		65.7 +281R	

7.5D-12 12/2 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

7.5D-12 5.5

Hilti X-HSN-24 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	7 +117.3R		8.3 +97.7R		9.2 +83.7R		9.9 +73.3R		10.4 +65.1R		10.8 +58.6R		11.2 +53.3R		11.4 +48.8R		11.7 +45.1R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	10.7 +116.8R		12.1 +97.3R		13.1 +83.3R		13.8 +72.9R		14.4 +64.8R		14.8 +58.3R		15.2 +53R		15.5 +48.6R		15.8 +44.8R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	14.2 +116.1R		15.7 +96.7R		16.8 +82.8R		17.6 +72.4R		18.2 +64.4R		18.8 +57.9R		19.2 +52.6R		19.5 +48.2R		19.8 +44.5R	
		12"	q_a q_f	1320	2126	1276	2055	1244	2003	1220	1963	1201	1933	1185	1908	1173	1888	1163	1872	1154	1858
			F	20.6 +114.7R		22.4 +95.4R		23.8 +81.6R		24.8 +71.3R		25.6 +63.3R		26.2 +56.9R		26.7 +51.7R		27.2 +47.4R		27.5 +43.7R	
		18"	q_a q_f	1001	1612	923	1486	943	1518	892	1435	852	1371	873	1405	842	1355	816	1313	835	1344
			F	27.8 +112.6R		31.3 +93R		31.4 +79.9R		33.7 +69.4R		35.6 +61.3R		35.1 +55.3R		36.6 +50R		37.9 +45.6R		37.3 +42.2R	
		24"	q_a q_f	789	1270	746	1201	715	1152	692	1115	674	1086	660	1063	648	1044	639	1028	630	1015
			F	35.9 +109.8R		39 +90.6R		41.4 +77R		43.2 +66.8R		44.7 +59R		45.9 +52.8R		47 +47.8R		47.8 +43.6R		48.6 +40.1R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	4.1 +206.9R		6.3 +172.4R		7.8 +147.7R		9 +129.3R		9.9 +114.9R		10.6 +103.4R		11.2 +94R		11.7 +86.2R		12.1 +79.5R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	8.3 +206.3R		10.6 +171.9R		12.2 +147.3R		13.4 +128.9R		14.4 +114.5R		15.1 +103.1R		15.8 +93.7R		16.3 +85.9R		16.7 +79.3R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	12.2 +205.6R		14.6 +171.3R		16.4 +146.7R		17.7 +128.3R		18.7 +114.1R		19.5 +102.6R		20.2 +93.3R		20.8 +85.5R		21.2 +78.9R	
		12"	q_a q_f	965	1554	931	1498	906	1458	887	1428	873	1405	861	1386	851	1370	842	1356	835	1345
			F	19.4 +204R		22.1 +169.8R		24.2 +145.3R		25.7 +127.1R		26.9 +112.9R		27.9 +101.5R		28.7 +92.2R		29.3 +84.5R		29.9 +78R	
		18"	q_a q_f	738	1189	678	1092	690	1110	651	1047	620	999	634	1021	611	983	591	952	604	973
			F	27.4 +201.7R		32.1 +167.2R		32.7 +143.4R		35.7 +124.9R		38.2 +110.6R		37.8 +99.7R		39.7 +90.4R		41.3 +82.6R		40.8 +76.4R	
		24"	q_a q_f	587	945	552	889	527	849	509	819	494	796	483	777	473	762	465	749	459	738
			F	36.5 +198.5R		40.7 +164.4R		43.9 +140.2R		46.4 +122.1R		48.4 +108.1R		50 +96.9R		51.3 +87.8R		52.5 +80.3R		53.5 +73.9R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-2.3 +362.5R		1.5 +302R		4.1 +258.9R		6.1 +226.5R		7.7 +201.3R		8.9 +181.2R		10 +164.7R		10.8 +151R		11.5 +139.4R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	2.4 +361.8R		6.3 +301.5R		9 +258.4R		11.1 +226.1R		12.7 +200.9R		14 +180.8R		15.1 +164.4R		15.9 +150.7R		16.7 +139.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	6.8 +361.1R		10.8 +300.8R		13.7 +257.7R		15.9 +225.5R		17.5 +200.4R		18.9 +180.3R		20 +163.9R		20.9 +150.2R		21.7 +138.7R	
		12"	q_a q_f	688	1101	681	1097	661	1065	646	1041	635	1022	625	1007	617	994	611	984	606	975
			F	14.8 +359.3R		19.2 +299.1R		22.4 +256.2R		24.8 +224R		26.7 +199.1R		28.2 +179.1R		29.5 +162.7R		30.5 +149.1R		31.4 +137.6R	
		18"	q_a q_f	547	881	501	807	507	816	477	768	454	731	463	745	445	717	431	694	439	707
			F	23.8 +356.7R		30.3 +296.2R		31.9 +254R		36 +221.7R		39.3 +196.6R		39.4 +177.1R		41.8 +160.6R		44 +147R		43.6 +135.8R	
		24"	q_a q_f	439	707	411	662	391	630	376	605	364	586	355	571	347	559	341	549	335	540
			F	33.9 +353.1R		40 +293.1R		44.5 +250.4R		48 +218.5R		50.7 +193.7R		53 +173.9R		54.8 +157.8R		56.4 +144.4R		57.7 +133.1R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-20.3 +742R		-12.8 +618.3R		-7.4 +530R		-3.4 +463.7R		-0.2 +412.2R		2.3 +371R		4.3 +337.2R		6 +309.1R		7.5 +285.3R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-15 +741.3R		-7.3 +617.7R		-1.8 +529.4R		2.3 +463.2R		5.5 +411.7R		8.1 +370.5R		10.2 +336.8R		11.9 +308.8R		13.4 +285R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-9.9 +740.4R		-2 +616.9R		3.6 +528.7R		7.8 +462.5R		11.1 +411.1R		13.7 +370R		15.9 +336.3R		17.7 +308.3R		19.2 +284.5R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-0.7 +738.3R		7.7 +614.9R		13.7 +526.9R		18.2 +460.9R		21.7 +409.6R		24.5 +368.5R		26.8 +335R		28.8 +307R		30.4 +283.3R	
		18"	q_a q_f	375	603	342	550	343	552	322	519	306	493	311	500	298	480	288	464	293	472
			F	9.7 +735.3R		20.5 +611.6R		24.6 +524.4R		31 +458.1R		36.2 +406.7R		37.4 +366.2R		41.1 +332.5R		44.3 +304.5R		44.5 +281.3R	
		24"	q_a q_f	304	490	283	456	268	431	256	413	247	398	240	387	234	377	229	369	225	363
			F	21.4 +731.2R		31.6 +608R		39.1 +520.2R		44.9 +454.4R		49.4 +403.4R		53.1 +362.6R		56.1 +329.3R		58.6 +301.5R		60.8 +278.1R	

7.5D-12 12/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #10 SD HWH Screw

5.5 7.5D-12

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	11.8 +195.5R		13.9 +162.9R		15.4 +139.6R		16.5 +122.2R		17.4 +108.6R		18.1 +97.7R		18.7 +88.8R		19.1 +81.4R		19.5 +75.2R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	18.2 +194.8R		20.4 +162.3R		22 +139.1R		23.2 +121.7R		24.2 +108.1R		24.9 +97.3R		25.5 +88.5R		26 +81.1R		26.5 +74.8R	
		8"	q_a q_f	1553	2501	1535	2471	1522	2450	1512	2434	1504	2422	1498	2412	1493	2404	1489	2397	1485	2391
			F	24.3 +193.9R		26.7 +161.5R		28.4 +138.3R		29.7 +121R		30.7 +107.5R		31.5 +96.7R		32.2 +87.9R		32.8 +80.6R		33.2 +74.4R	
		12"	q_a q_f	1145	1844	1124	1809	1108	1784	1097	1766	1088	1751	1080	1739	1074	1730	1069	1722	1065	1715
			F	35.4 +191.7R		38.3 +159.4R		40.4 +136.5R		42 +119.3R		43.3 +105.9R		44.3 +95.3R		45.1 +86.6R		45.8 +79.3R		46.4 +73.2R	
		18"	q_a q_f	865	1393	809	1303	842	1356	804	1294	773	1245	798	1285	774	1246	754	1213	774	1246
			F	48.3 +188.4R		54.1 +155.8R		53.8 +133.8R		57.6 +116.4R		60.8 +102.9R		59.7 +92.8R		62.2 +84R		64.3 +76.7R		63.1 +71R	
		24"	q_a q_f	652	1050	632	1018	618	995	607	977	599	964	592	953	586	944	582	937	578	930
			F	63.1 +183.7R		68 +151.8R		71.7 +129.2R		74.6 +112.3R		76.9 +99.3R		78.7 +89R		80.3 +80.6R		81.6 +73.6R		82.7 +67.7R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	7 +344.9R		10.6 +287.4R		13.2 +246.3R		15.1 +215.5R		16.6 +191.6R		17.8 +172.4R		18.8 +156.7R		19.6 +143.7R		20.3 +132.6R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	14.2 +344.1R		17.9 +286.7R		20.6 +245.7R		22.6 +214.9R		24.2 +191R		25.4 +171.9R		26.5 +156.3R		27.3 +143.3R		28 +132.2R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	20.9 +343R		24.9 +285.7R		27.7 +244.9R		29.9 +214.2R		31.5 +190.4R		32.9 +171.3R		34 +155.7R		34.9 +142.7R		35.6 +131.7R	
		12"	q_a q_f	840	1352	822	1323	809	1302	799	1286	791	1274	785	1264	780	1256	776	1249	772	1243
			F	33.5 +340.5R		38 +283.5R		41.2 +242.8R		43.7 +212.3R		45.6 +188.6R		47.1 +169.6R		48.4 +154.2R		49.5 +141.3R		50.4 +130.4R	
		18"	q_a q_f	628	1011	586	944	611	983	582	936	559	900	579	932	560	902	545	878	560	902
			F	47.8 +336.8R		55.6 +279.4R		56.1 +239.7R		61.1 +209R		65.2 +185.2R		64.4 +166.9R		67.5 +151.4R		70.2 +138.4R		69.1 +128R	
		24"	q_a q_f	476	767	460	741	448	722	440	708	433	697	427	688	423	681	419	675	416	670
			F	64.4 +331.6R		71.2 +274.9R		76.3 +234.6R		80.1 +204.5R		83.2 +181.2R		85.7 +162.6R		87.8 +147.5R		89.6 +134.9R		91.1 +124.3R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-3.6 +604.2R		2.6 +503.5R		7 +431.6R		10.4 +377.6R		12.9 +335.6R		15 +302.1R		16.7 +274.6R		18.1 +251.7R		19.3 +232.4R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	4.4 +603.3R		10.8 +502.7R		15.3 +430.8R		18.7 +377R		21.4 +335.1R		23.5 +301.5R		25.3 +274.1R		26.7 +251.3R		28 +231.9R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	12 +602.2R		18.6 +501.7R		23.3 +429.9R		26.9 +376.1R		29.6 +334.3R		31.8 +300.8R		33.7 +273.5R		35.2 +250.7R		36.5 +231.4R	
		12"	q_a q_f	617	993	602	969	591	952	583	939	577	928	572	920	567	913	564	908	561	903
			F	26 +599.4R		33.2 +499.1R		38.4 +427.6R		42.3 +374R		45.4 +332.3R		47.8 +299R		49.8 +271.7R		51.5 +249R		52.9 +229.8R	
		18"	q_a q_f	458	737	427	687	443	713	421	678	405	651	418	673	405	652	394	634	405	652
			F	42.1 +595.2R		52.9 +494.6R		55.1 +424.2R		61.8 +370.3R		67.3 +328.5R		67.1 +296R		71.2 +268.6R		74.7 +245.8R		73.9 +227.2R	
		24"	q_a q_f	350	563	337	542	327	527	320	515	314	506	310	499	306	493	303	489	301	484
			F	60.6 +589.4R		70.4 +489.5R		77.6 +418.4R		83.1 +365.3R		87.4 +324R		91 +291.1R		93.9 +264.2R		96.4 +241.9R		98.5 +223R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-33.7 +1236.8R		-21.2 +1030.7R		-12.2 +883.4R		-5.5 +773R		-0.3 +687.1R		3.9 +618.4R		7.3 +562.1R		10.1 +515.3R		12.6 +475.7R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-24.5 +1235.7R		-11.7 +1029.7R		-2.6 +882.6R		4.2 +772.2R		9.5 +686.4R		13.7 +617.7R		17.2 +561.6R		20.1 +514.8R		22.6 +475.2R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-15.7 +1234.4R		-2.7 +1028.5R		6.6 +881.5R		13.5 +771.3R		19 +685.5R		23.3 +616.9R		26.9 +560.8R		29.9 +514.1R		32.4 +474.5R	
		12"	q_a q_f	393	629	393	629	393	629	389	627	384	619	380	613	377	607	375	603	372	599
			F	0.4 +1231.2R		14.1 +1025.6R		24 +878.8R		31.4 +768.8R		37.1 +683.2R		41.8 +614.8R		45.5 +558.8R		48.7 +512.2R		51.4 +472.7R	
		18"	q_a q_f	307	494	285	459	295	474	280	450	268	432	277	445	267	431	260	418	267	430
			F	19 +1226.4R		36.9 +1020.3R		43.2 +874.9R		53.9 +764.6R		62.4 +678.8R		64 +611.3R		70.2 +555.2R		75.4 +508.5R		75.5 +469.7R	
		24"	q_a q_f	236	381	226	364	219	353	214	344	210	337	206	332	203	328	201	324	199	321
			F	40.4 +1219.7R		57 +1014.5R		69.2 +868.2R		78.4 +758.7R		85.7 +673.7R		91.6 +605.7R		96.4 +550.2R		100.5 +504R		103.9 +464.9R	

7.5D-12 12/2 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

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7.5D-12 5.5

Hilti X-ENP-19 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	11.1 +195R		13.3 +162.5R		14.9 +139.2R		16.1 +121.8R		17 +108.3R		17.7 +97.4R		18.3 +88.6R		18.8 +81.2R		19.2 +74.9R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	16.7 +193.9R		19.2 +161.5R		20.9 +138.3R		22.2 +121R		23.3 +107.5R		24.1 +96.7R		24.8 +87.9R		25.3 +80.5R		25.8 +74.3R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	21.8 +192.7R		24.5 +160.3R		26.5 +137.2R		28 +119.9R		29.2 +106.5R		30.1 +95.8R		30.9 +87R		31.6 +79.7R		32.1 +73.5R	
		12"	q_a q_f	1340	2157	1294	2083	1261	2030	1236	1990	1215	1957	1199	1930	1185	1909	1174	1890	1165	1875
			F	30.6 +189.9R		34 +157.6R		36.5 +134.7R		38.5 +117.5R		40.1 +104.2R		41.3 +93.5R		42.4 +84.9R		43.2 +77.7R		44 +71.6R	
		18"	q_a q_f	1021	1644	940	1513	957	1541	904	1455	863	1389	883	1421	851	1369	824	1327	842	1356
			F	39.8 +186.5R		45.8 +153.5R		46.9 +131.4R		50.9 +113.8R		54.3 +100.2R		54.1 +90.3R		56.7 +81.4R		59 +74R		58.4 +68.5R	
		24"	q_a q_f	809	1302	762	1228	729	1174	705	1135	685	1104	670	1079	657	1058	647	1042	638	1027
			F	49.4 +182.2R		55.3 +149.6R		59.8 +126.5R		63.5 +109.3R		66.5 +96.1R		69 +85.6R		71.1 +77R		72.9 +70R		74.5 +64.1R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	6.2 +344.3R		9.9 +286.9R		12.6 +245.9R		14.6 +215.1R		16.1 +191.2R		17.4 +172.1R		18.4 +156.4R		19.2 +143.4R		20 +132.3R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	12.5 +343.1R		16.5 +285.8R		19.3 +244.8R		21.5 +214.2R		23.2 +190.3R		24.5 +171.2R		25.6 +155.6R		26.5 +142.6R		27.3 +131.7R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	18.2 +341.7R		22.5 +284.4R		25.6 +243.6R		28 +213R		29.8 +189.2R		31.3 +170.2R		32.5 +154.7R		33.5 +141.7R		34.4 +130.8R	
		12"	q_a q_f	981	1580	944	1520	917	1477	897	1444	881	1419	869	1399	859	1383	850	1369	843	1357
			F	28 +338.6R		33.1 +281.5R		36.9 +240.7R		39.7 +210.3R		42 +186.6R		43.8 +167.7R		45.3 +152.3R		46.6 +139.5R		47.7 +128.6R	
		18"	q_a q_f	754	1215	692	1114	701	1129	661	1064	629	1013	642	1034	618	995	598	963	610	982
			F	38.3 +334.7R		46.3 +276.9R		48.5 +237.1R		53.6 +206.1R		57.9 +182.2R		58.2 +164R		61.4 +148.4R		64.2 +135.4R		63.8 +125.1R	
		24"	q_a q_f	603	971	566	911	539	868	519	835	503	810	491	790	480	774	472	760	465	748
			F	49.1 +330R		56.9 +272.5R		62.9 +231.6R		67.7 +201.1R		71.6 +177.5R		74.8 +158.8R		77.5 +143.5R		79.8 +130.9R		81.9 +120.2R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-4.5 +603.6R		1.9 +503R		6.4 +431.1R		9.8 +377.2R		12.4 +335.2R		14.5 +301.7R		16.3 +274.3R		17.7 +251.4R		18.9 +232R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	2.5 +602.2R		9.2 +501.7R		13.9 +429.9R		17.5 +376.1R		20.3 +334.2R		22.5 +300.8R		24.3 +273.4R		25.9 +250.6R		27.2 +231.3R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	8.9 +600.6R		15.9 +500.2R		20.9 +428.5R		24.7 +374.8R		27.7 +333R		30.1 +299.6R		32 +272.3R		33.7 +249.6R		35.1 +230.3R	
		12"	q_a q_f	688	1101	688	1101	671	1080	654	1054	642	1033	632	1017	623	1004	617	993	611	983
			F	19.9 +597.2R		27.8 +496.9R		33.5 +425.3R		37.9 +371.7R		41.3 +330.1R		44.1 +296.8R		46.4 +269.6R		48.3 +247R		49.9 +227.9R	
		18"	q_a q_f	560	902	512	824	516	831	485	782	462	743	469	756	451	727	436	702	444	715
			F	31.4 +592.9R		42.5 +491.7R		46.5 +421.2R		53.4 +367.1R		59.1 +325.1R		60.1 +292.7R		64.4 +265.3R		68 +242.4R		68 +224R	
		24"	q_a q_f	452	728	422	679	400	645	384	618	371	598	361	582	353	568	346	557	340	548
			F	43.5 +587.6R		54.4 +486.8R		62.7 +415.1R		69.1 +361.5R		74.4 +319.9R		78.7 +286.8R		82.4 +259.8R		85.5 +237.4R		88.2 +218.5R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-34.7 +1236.1R		-22 +1030R		-13 +882.8R		-6.2 +772.4R		-0.9 +686.6R		3.3 +617.9R		6.8 +561.7R		9.7 +514.9R		12.1 +475.3R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-26.6 +1234.5R		-13.6 +1028.6R		-4.3 +881.5R		2.7 +771.2R		8.2 +685.4R		12.5 +616.8R		16.1 +560.7R		19.1 +514R		21.6 +474.4R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-19.3 +1232.7R		-5.9 +1026.8R		3.8 +879.9R		11.1 +769.7R		16.7 +684R		21.3 +615.5R		25 +559.5R		28.1 +512.8R		30.7 +473.3R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-6.6 +1228.7R		7.9 +1023R		18.3 +876.2R		26.2 +766.2R		32.5 +680.7R		37.4 +612.3R		41.6 +556.4R		45 +509.9R		47.9 +470.5R	
		18"	q_a q_f	385	619	350	563	350	564	328	529	311	501	316	508	303	488	292	471	297	478
			F	6.7 +1223.7R		24.8 +1017.1R		33.3 +871.4R		44.2 +760.9R		53 +674.9R		56 +607.5R		62.3 +551.4R		67.8 +504.6R		68.8 +466R	
		24"	q_a q_f	314	506	291	469	275	442	262	423	253	407	245	395	239	385	234	376	229	369
			F	20.6 +1217.6R		38.6 +1011.4R		52 +864.4R		62.3 +754.4R		70.6 +669R		77.4 +600.8R		83.1 +545.1R		87.9 +498.8R		92 +459.6R	

7.5D-12 12/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: #10 SD HWH Screw

5.5 7.5D-12

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		4 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.9 +48.9R		5.4 +40.8R		5.7 +35R		6 +30.6R		6.2 +27.2R		6.4 +24.5R		6.5 +22.2R		6.6 +20.4R		6.7 +18.8R	
		8"	q_a q_f	1507	2427	1492	2402	1481	2384	1472	2370	1466	2360	1461	2352	1456	2345	1453	2339	1450	2334
			F	6.6 +48.9R		7.1 +40.7R		7.5 +34.9R		7.8 +30.5R		8 +27.1R		8.2 +24.4R		8.3 +22.2R		8.4 +20.4R		8.5 +18.8R	
		12"	q_a q_f	1119	1801	1100	1771	1086	1749	1076	1732	1068	1720	1062	1709	1056	1701	1052	1694	1048	1688
			F	10 +48.7R		10.6 +40.5R		11 +34.7R		11.3 +30.4R		11.5 +27R		11.7 +24.3R		11.9 +22.1R		12 +20.3R		12.1 +18.7R	
		18"	q_a q_f	849	1366	796	1282	827	1331	790	1272	761	1226	786	1266	763	1228	744	1197	764	1230
			F	14.3 +48.3R		15.6 +40.2R		15.1 +34.5R		16 +30.1R		16.7 +26.7R		16.2 +24.1R		16.7 +21.9R		17.2 +20R		16.8 +18.5R	
		24"	q_a q_f	641	1031	622	1002	609	981	600	965	592	953	586	943	581	935	577	929	573	923
			F	19.7 +47.6R		20.5 +39.6R		21 +34R		21.4 +29.7R		21.7 +26.4R		22 +23.7R		22.2 +21.6R		22.4 +19.8R		22.5 +18.2R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.4R		2.8 +72R		3.4 +61.7R		3.9 +54R		4.2 +48R		4.5 +43.2R		4.8 +39.3R		5 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.9 +86.3R		4.8 +71.9R		5.4 +61.6R		5.9 +53.9R		6.2 +47.9R		6.5 +43.1R		6.8 +39.2R		7 +36R		7.2 +33.2R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.8 +86.2R		6.7 +71.8R		7.4 +61.6R		7.9 +53.9R		8.2 +47.9R		8.5 +43.1R		8.8 +39.2R		9 +35.9R		9.2 +33.2R	
		12"	q_a q_f	824	1327	808	1300	796	1282	787	1267	780	1256	775	1247	770	1240	767	1234	763	1229
			F	9.7 +86R		10.6 +71.6R		11.3 +61.4R		11.8 +53.7R		12.2 +47.7R		12.5 +43R		12.7 +39.1R		13 +35.8R		13.1 +33R	
		18"	q_a q_f	620	998	580	933	605	974	577	928	555	893	572	921	554	893	540	869	554	892
			F	14.4 +85.5R		16.2 +71.2R		15.8 +61.1R		17 +53.4R		18 +47.4R		17.5 +42.7R		18.2 +38.8R		18.8 +35.6R		18.4 +32.9R	
		24"	q_a q_f	469	754	454	730	443	713	435	700	428	690	423	682	419	675	416	670	413	665
			F	20.5 +84.8R		21.7 +70.6R		22.5 +60.5R		23.1 +52.9R		23.6 +47R		24 +42.3R		24.3 +38.5R		24.6 +35.2R		24.8 +32.5R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.7 +151.2R		0.8 +126R		1.9 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.3 +68.7R		4.6 +63R		4.9 +58.2R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.5 +151.1R		3 +125.9R		4.1 +108R		4.9 +94.5R		5.6 +84R		6.1 +75.6R		6.5 +68.7R		6.9 +63R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.7 +151R		5.2 +125.9R		6.3 +107.9R		7.2 +94.4R		7.8 +83.9R		8.3 +75.5R		8.7 +68.6R		9.1 +62.9R		9.4 +58.1R	
		12"	q_a q_f	607	978	594	956	584	940	576	928	570	918	566	911	562	905	559	899	556	895
			F	7.9 +150.8R		9.5 +125.6R		10.7 +107.7R		11.5 +94.2R		12.2 +83.7R		12.7 +75.4R		13.2 +68.5R		13.5 +62.8R		13.8 +58R	
		18"	q_a q_f	453	729	422	680	439	707	418	673	402	647	416	669	402	648	391	630	403	649
			F	13.3 +150.3R		15.8 +125.1R		15.8 +107.3R		17.4 +93.9R		18.7 +83.4R		18.3 +75.1R		19.3 +68.2R		20.1 +62.5R		19.7 +57.8R	
		24"	q_a q_f	344	555	332	535	323	521	317	510	312	502	307	495	304	490	301	485	299	481
			F	20.1 +149.5R		21.9 +124.5R		23.3 +106.7R		24.2 +93.3R		25 +82.9R		25.6 +74.6R		26.1 +67.8R		26.6 +62.2R		26.9 +57.4R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.2 +309.4R		-5.1 +257.8R		-2.9 +221R		-1.2 +193.4R		0 +171.9R		1.1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.7 +309.3R		-2.6 +257.7R		-0.3 +220.9R		1.3 +193.3R		2.6 +171.8R		3.7 +154.6R		4.5 +140.6R		5.2 +128.9R		5.8 +119R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.2 +309.2R		0 +257.6R		2.2 +220.8R		3.9 +193.2R		5.2 +171.8R		6.2 +154.6R		7.1 +140.5R		7.8 +128.8R		8.4 +118.9R	
		12"	q_a q_f	393	629	393	629	392	629	386	621	381	614	377	608	374	603	372	599	370	595
			F	1.8 +308.9R		5 +257.4R		7.2 +220.6R		9 +193R		10.3 +171.6R		11.3 +154.4R		12.2 +140.4R		12.9 +128.7R		13.6 +118.8R	
		18"	q_a q_f	303	489	282	454	292	470	278	447	266	429	275	443	266	428	258	416	266	428
			F	7.9 +308.3R		12.2 +256.8R		13.1 +220.2R		15.7 +192.6R		17.8 +171.2R		17.8 +154.1R		19.3 +140.1R		20.5 +128.4R		20.3 +118.5R	
		24"	q_a q_f	233	375	224	360	217	349	212	341	208	334	205	329	202	325	200	322	198	319
			F	15.8 +307.4R		19.3 +256.1R		21.7 +219.5R		23.6 +192R		25.1 +170.6R		26.2 +153.6R		27.2 +139.6R		28 +128R		28.7 +118.1R	

7.5D-12 12/2 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

7.5D-12 5.5

Pneutek SDK61 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	
12/4	14 ga	4"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	3.1 +49R	3.6 +40.8R	3.9 +35R	4.2 +30.6R	4.4 +27.2R	4.6 +24.5R	4.7 +22.3R	4.8 +20.4R	4.9 +18.8R
		6"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	4.8 +48.9R	5.3 +40.7R	5.7 +34.9R	5.9 +30.5R	6.2 +27.1R	6.3 +24.4R	6.5 +22.2R	6.6 +20.3R	6.7 +18.8R
		8"	q_a q_f	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604	1627 2604
			F	6.4 +48.7R	7 +40.6R	7.4 +34.8R	7.7 +30.4R	7.9 +27R	8.1 +24.3R	8.2 +22.1R	8.4 +20.3R	8.5 +18.7R
		12"	q_a q_f	1312 2112	1268 2042	1237 1992	1213 1954	1195 1924	1180 1900	1168 1881	1158 1865	1150 1851
			F	9.6 +48.3R	10.2 +40.3R	10.7 +34.5R	11 +30.2R	11.3 +26.8R	11.5 +24.1R	11.7 +21.9R	11.8 +20.1R	11.9 +18.6R
		18"	q_a q_f	994 1601	917 1476	938 1510	887 1428	848 1364	869 1399	838 1350	813 1309	832 1339
			F	13.5 +47.7R	14.9 +39.6R	14.5 +34R	15.4 +29.7R	16.2 +26.3R	15.7 +23.8R	16.3 +21.5R	16.8 +19.7R	16.4 +18.2R
		24"	q_a q_f	782 1258	740 1191	710 1143	688 1107	670 1079	656 1057	645 1039	636 1023	628 1010
			F	18.2 +46.8R	19.2 +38.8R	19.9 +33.2R	20.4 +29R	20.8 +25.7R	21.2 +23.1R	21.5 +21R	21.7 +19.2R	21.9 +17.7R
	16 ga	4"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	1.9 +86.3R	2.7 +71.9R	3.4 +61.6R	3.8 +53.9R	4.2 +47.9R	4.5 +43.2R	4.7 +39.2R	4.9 +36R	5.1 +33.2R
		6"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	3.8 +86.2R	4.7 +71.8R	5.3 +61.6R	5.8 +53.9R	6.2 +47.9R	6.5 +43.1R	6.7 +39.2R	6.9 +35.9R	7.1 +33.1R
		8"	q_a q_f	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693	1058 1693
			F	5.6 +86R	6.6 +71.7R	7.2 +61.4R	7.7 +53.8R	8.1 +47.8R	8.4 +43R	8.7 +39.1R	8.9 +35.8R	9.1 +33.1R
		12"	q_a q_f	963 1551	929 1495	904 1456	886 1426	871 1403	860 1384	850 1368	841 1354	834 1343
			F	9.2 +85.6R	10.2 +71.3R	10.9 +61.1R	11.5 +53.5R	11.9 +47.5R	12.2 +42.8R	12.5 +38.9R	12.8 +35.6R	13 +32.9R
		18"	q_a q_f	736 1185	677 1089	688 1108	649 1045	619 997	633 1019	610 982	591 951	603 971
			F	13.5 +84.9R	15.4 +70.6R	15.2 +60.6R	16.4 +52.9R	17.4 +47R	17 +42.3R	17.7 +38.4R	18.4 +35.2R	18 +32.5R
		24"	q_a q_f	585 942	551 886	526 847	507 817	493 794	482 775	472 760	464 748	458 737
			F	18.8 +83.9R	20.2 +69.7R	21.3 +59.7R	22 +52.1R	22.6 +46.3R	23.1 +41.6R	23.5 +37.8R	23.8 +34.6R	24.1 +31.9R
	18 ga	4"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	-0.8 +151.2R	0.8 +126R	1.8 +108R	2.7 +94.5R	3.3 +84R	3.8 +75.6R	4.2 +68.7R	4.6 +63R	4.9 +58.1R
		6"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	1.4 +151R	2.9 +125.8R	4 +107.9R	4.9 +94.4R	5.5 +83.9R	6 +75.5R	6.4 +68.6R	6.8 +62.9R	7.1 +58.1R
		8"	q_a q_f	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101	688 1101
			F	3.4 +150.8R	5 +125.7R	6.2 +107.7R	7 +94.3R	7.7 +83.8R	8.2 +75.4R	8.6 +68.5R	9 +62.8R	9.3 +58R
		12"	q_a q_f	688 1101	682 1098	662 1066	647 1041	635 1022	626 1007	618 995	611 984	606 976
			F	7.4 +150.4R	9.1 +125.3R	10.3 +107.4R	11.2 +93.9R	11.9 +83.5R	12.5 +75.1R	12.9 +68.3R	13.3 +62.6R	13.6 +57.8R
		18"	q_a q_f	548 883	502 808	507 817	478 769	455 732	463 746	446 718	431 694	440 708
			F	12.3 +149.6R	14.9 +124.5R	15.1 +106.8R	16.7 +93.3R	18 +82.9R	17.8 +74.7R	18.8 +67.8R	19.6 +62.1R	19.3 +57.4R
		24"	q_a q_f	440 709	412 663	392 630	376 606	365 587	355 572	347 559	341 549	336 540
			F	18.2 +148.4R	20.3 +123.5R	21.8 +105.7R	23 +92.4R	23.9 +82.1R	24.6 +73.9R	25.2 +67.1R	25.7 +61.5R	26.1 +56.7R
	20 ga	4"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-8.3 +309.3R	-5.2 +257.8R	-3 +220.9R	-1.3 +193.3R	0 +171.8R	1 +154.7R	1.9 +140.6R	2.6 +128.9R	3.2 +119R
		6"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-5.8 +309.2R	-2.7 +257.6R	-0.4 +220.8R	1.2 +193.2R	2.5 +171.7R	3.6 +154.6R	4.4 +140.5R	5.2 +128.8R	5.8 +118.9R
		8"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	-3.4 +309R	-0.2 +257.5R	2 +220.7R	3.7 +193.1R	5 +171.6R	6.1 +154.5R	7 +140.4R	7.7 +128.7R	8.3 +118.8R
		12"	q_a q_f	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629	393 629
			F	1.2 +308.4R	4.5 +257R	6.8 +220.3R	8.6 +192.7R	9.9 +171.3R	11 +154.1R	11.9 +140.1R	12.7 +128.4R	13.3 +118.6R
		18"	q_a q_f	377 607	344 553	345 555	324 521	307 495	312 502	299 482	289 466	294 473
			F	6.8 +307.5R	11.1 +256.1R	12.3 +219.6R	14.9 +192R	17 +170.6R	17.2 +153.6R	18.7 +139.6R	19.9 +127.9R	19.8 +118.1R
		24"	q_a q_f	307 494	285 459	269 434	258 415	249 400	241 389	235 379	230 371	226 364
			F	13.6 +306.2R	17.4 +254.9R	20.1 +218.4R	22.2 +191R	23.8 +169.7R	25 +152.7R	26.1 +138.8R	27 +127.2R	27.7 +117.4R

7.5D-12 12/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: #10 SD HWH Screw

5.5 7.5D-12

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		4 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.9 +48.9R		5.4 +40.8R		5.7 +35R		6 +30.6R		6.2 +27.2R		6.4 +24.5R		6.5 +22.2R		6.6 +20.4R		6.7 +18.8R	
		8"	q_a q_f	1471	2369	1458	2347	1448	2332	1441	2320	1435	2311	1431	2303	1427	2297	1424	2292	1421	2288
			F	6.6 +48.9R		7.1 +40.7R		7.5 +34.9R		7.8 +30.5R		8 +27.1R		8.2 +24.4R		8.3 +22.2R		8.4 +20.4R		8.5 +18.8R	
		12"	q_a q_f	1098	1769	1082	1741	1069	1722	1060	1707	1053	1695	1047	1686	1042	1678	1039	1672	1035	1667
			F	10 +48.7R		10.6 +40.5R		11 +34.7R		11.3 +30.4R		11.5 +27R		11.7 +24.3R		11.9 +22.1R		12 +20.3R		12.1 +18.7R	
		18"	q_a q_f	835	1344	784	1263	815	1313	780	1256	752	1211	777	1252	755	1216	736	1185	757	1219
			F	14.3 +48.3R		15.6 +40.2R		15.1 +34.5R		16 +30.1R		16.7 +26.7R		16.2 +24.1R		16.7 +21.9R		17.2 +20R		16.8 +18.5R	
		24"	q_a q_f	633	1019	616	991	604	972	595	957	588	946	582	937	577	930	573	923	569	917
			F	19.7 +47.6R		20.5 +39.6R		21 +34R		21.4 +29.7R		21.7 +26.4R		22 +23.7R		22.2 +21.6R		22.4 +19.8R		22.5 +18.2R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.4R		2.8 +72R		3.4 +61.7R		3.9 +54R		4.2 +48R		4.5 +43.2R		4.8 +39.3R		5 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.9 +86.3R		4.8 +71.9R		5.4 +61.6R		5.9 +53.9R		6.2 +47.9R		6.5 +43.1R		6.8 +39.2R		7 +36R		7.2 +33.2R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.8 +86.2R		6.7 +71.8R		7.4 +61.6R		7.9 +53.9R		8.2 +47.9R		8.5 +43.1R		8.8 +39.2R		9 +35.9R		9.2 +33.2R	
		12"	q_a q_f	818	1317	802	1291	791	1273	782	1260	776	1249	771	1241	766	1234	763	1228	760	1223
			F	9.7 +86R		10.6 +71.6R		11.3 +61.4R		11.8 +53.7R		12.2 +47.7R		12.5 +43R		12.7 +39.1R		13 +35.8R		13.1 +33R	
		18"	q_a q_f	617	993	577	929	601	968	573	923	552	888	569	916	552	888	537	865	552	889
			F	14.4 +85.5R		16.2 +71.2R		15.8 +61.1R		17 +53.4R		18 +47.4R		17.5 +42.7R		18.2 +38.8R		18.8 +35.6R		18.4 +32.9R	
		24"	q_a q_f	466	750	451	726	441	709	433	697	427	687	422	679	418	673	415	668	412	663
			F	20.5 +84.8R		21.7 +70.6R		22.5 +60.5R		23.1 +52.9R		23.6 +47R		24 +42.3R		24.3 +38.5R		24.6 +35.2R		24.8 +32.5R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.7 +151.2R		0.8 +126R		1.9 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.3 +68.7R		4.6 +63R		4.9 +58.2R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.5 +151.1R		3 +125.9R		4.1 +108R		4.9 +94.5R		5.6 +84R		6.1 +75.6R		6.5 +68.7R		6.9 +63R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.7 +151R		5.2 +125.9R		6.3 +107.9R		7.2 +94.4R		7.8 +83.9R		8.3 +75.5R		8.7 +68.6R		9.1 +62.9R		9.4 +58.1R	
		12"	q_a q_f	609	981	595	958	585	942	577	929	571	920	567	912	563	906	560	901	557	896
			F	7.9 +150.8R		9.5 +125.6R		10.7 +107.7R		11.5 +94.2R		12.2 +83.7R		12.7 +75.4R		13.2 +68.5R		13.5 +62.8R		13.8 +58R	
		18"	q_a q_f	453	730	423	681	440	708	419	674	402	647	416	670	403	648	392	631	403	649
			F	13.3 +150.3R		15.8 +125.1R		15.8 +107.3R		17.4 +93.9R		18.7 +83.4R		18.3 +75.1R		19.3 +68.2R		20.1 +62.5R		19.7 +57.8R	
		24"	q_a q_f	345	556	333	536	324	522	317	511	312	502	308	496	304	490	302	486	299	482
			F	20.1 +149.5R		21.9 +124.5R		23.3 +106.7R		24.2 +93.3R		25 +82.9R		25.6 +74.6R		26.1 +67.8R		26.6 +62.2R		26.9 +57.4R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.2 +309.4R		-5.1 +257.8R		-2.9 +221R		-1.2 +193.4R		0 +171.9R		1.1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.7 +309.3R		-2.6 +257.7R		-0.3 +220.9R		1.3 +193.3R		2.6 +171.8R		3.7 +154.6R		4.5 +140.6R		5.2 +128.9R		5.8 +119R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.2 +309.2R		0 +257.6R		2.2 +220.8R		3.9 +193.2R		5.2 +171.8R		6.2 +154.6R		7.1 +140.5R		7.8 +128.8R		8.4 +118.9R	
		12"	q_a q_f	393	629	393	629	393	629	390	628	385	620	381	614	378	609	375	604	373	600
			F	1.8 +308.9R		5 +257.4R		7.2 +220.6R		9 +193R		10.3 +171.6R		11.3 +154.4R		12.2 +140.4R		12.9 +128.7R		13.6 +118.8R	
		18"	q_a q_f	308	495	286	460	295	475	280	451	269	433	277	446	268	431	260	419	267	430
			F	7.9 +308.3R		12.2 +256.8R		13.1 +220.2R		15.7 +192.6R		17.8 +171.2R		17.8 +154.1R		19.3 +140.1R		20.5 +128.4R		20.3 +118.5R	
		24"	q_a q_f	237	382	227	366	220	354	214	345	210	338	207	333	204	328	202	324	200	321
			F	15.8 +307.4R		19.3 +256.1R		21.7 +219.5R		23.6 +192R		25.1 +170.6R		26.2 +153.6R		27.2 +139.6R		28 +128R		28.7 +118.1R	

7.5D-12 12/2 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

7.5D-12 5.5

Pneutek SDK63 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK®

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		3.9 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.8 +48.9R		5.3 +40.7R		5.7 +34.9R		5.9 +30.5R		6.2 +27.1R		6.3 +24.4R		6.5 +22.2R		6.6 +20.3R		6.7 +18.8R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1623	2604
			F	6.4 +48.7R		7 +40.6R		7.4 +34.8R		7.7 +30.4R		7.9 +27R		8.1 +24.3R		8.2 +22.1R		8.4 +20.3R		8.5 +18.7R	
		12"	q_a q_f	1288	2074	1248	2009	1219	1963	1198	1928	1181	1901	1167	1879	1156	1861	1147	1846	1139	1834
			F	9.6 +48.3R		10.2 +40.3R		10.7 +34.5R		11 +30.2R		11.3 +26.8R		11.5 +24.1R		11.7 +21.9R		11.8 +20.1R		11.9 +18.6R	
		18"	q_a q_f	976	1571	902	1452	925	1489	876	1410	837	1348	860	1384	830	1336	805	1296	825	1328
			F	13.5 +47.7R		14.9 +39.6R		14.5 +34R		15.4 +29.7R		16.2 +26.3R		15.7 +23.8R		16.3 +21.5R		16.8 +19.7R		16.4 +18.2R	
		24"	q_a q_f	763	1229	725	1167	697	1122	676	1089	660	1063	647	1042	637	1025	628	1011	621	999
			F	18.2 +46.8R		19.2 +38.8R		19.9 +33.2R		20.4 +29R		20.8 +25.7R		21.2 +23.1R		21.5 +21R		21.7 +19.2R		21.9 +17.7R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.3R		2.7 +71.9R		3.4 +61.6R		3.8 +53.9R		4.2 +47.9R		4.5 +43.2R		4.7 +39.2R		4.9 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.8 +86.2R		4.7 +71.8R		5.3 +61.6R		5.8 +53.9R		6.2 +47.9R		6.5 +43.1R		6.7 +39.2R		6.9 +35.9R		7.1 +33.1R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.6 +86R		6.6 +71.7R		7.2 +61.4R		7.7 +53.8R		8.1 +47.8R		8.4 +43R		8.7 +39.1R		8.9 +35.8R		9.1 +33.1R	
		12"	q_a q_f	956	1540	923	1486	899	1448	881	1419	867	1396	855	1377	845	1361	837	1348	830	1337
			F	9.2 +85.6R		10.2 +71.3R		10.9 +61.1R		11.5 +53.5R		11.9 +47.5R		12.2 +42.8R		12.5 +38.9R		12.8 +35.6R		13 +32.9R	
		18"	q_a q_f	729	1174	671	1080	683	1100	645	1039	615	991	630	1014	607	977	588	946	601	967
			F	13.5 +84.9R		15.4 +70.6R		15.2 +60.6R		16.4 +52.9R		17.4 +47R		17 +42.3R		17.7 +38.4R		18.4 +35.2R		18 +32.5R	
		24"	q_a q_f	578	931	545	877	521	839	503	810	489	788	478	770	469	755	462	743	455	733
			F	18.8 +83.9R		20.2 +69.7R		21.3 +59.7R		22 +52.1R		22.6 +46.3R		23.1 +41.6R		23.5 +37.8R		23.8 +34.6R		24.1 +31.9R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.8 +151.2R		0.8 +126R		1.8 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.2 +68.7R		4.6 +63R		4.9 +58.1R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.4 +151R		2.9 +125.8R		4 +107.9R		4.9 +94.4R		5.5 +83.9R		6 +75.5R		6.4 +68.6R		6.8 +62.9R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.4 +150.8R		5 +125.7R		6.2 +107.7R		7 +94.3R		7.7 +83.8R		8.2 +75.4R		8.6 +68.5R		9 +62.8R		9.3 +58R	
		12"	q_a q_f	688	1101	684	1101	663	1068	648	1043	636	1024	627	1009	619	996	612	986	607	977
			F	7.4 +150.4R		9.1 +125.3R		10.3 +107.4R		11.2 +93.9R		11.9 +83.5R		12.5 +75.1R		12.9 +68.3R		13.3 +62.6R		13.6 +57.8R	
		18"	q_a q_f	550	886	504	811	509	819	479	771	456	734	464	748	447	719	432	696	440	709
			F	12.3 +149.6R		14.9 +124.5R		15.1 +106.8R		16.7 +93.3R		18 +82.9R		17.8 +74.7R		18.8 +67.8R		19.6 +62.1R		19.3 +57.4R	
		24"	q_a q_f	442	712	413	666	393	633	378	608	366	589	356	574	348	561	342	550	336	542
			F	18.2 +148.4R		20.3 +123.5R		21.8 +105.7R		23 +92.4R		23.9 +82.1R		24.6 +73.9R		25.2 +67.1R		25.7 +61.5R		26.1 +56.7R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.3 +309.3R		-5.2 +257.8R		-3 +220.9R		-1.3 +193.3R		0 +171.8R		1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.8 +309.2R		-2.7 +257.6R		-0.4 +220.8R		1.2 +193.2R		2.5 +171.7R		3.6 +154.6R		4.4 +140.5R		5.2 +128.8R		5.8 +118.9R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.4 +309R		-0.2 +257.5R		2 +220.7R		3.7 +193.1R		5 +171.6R		6.1 +154.5R		7 +140.4R		7.7 +128.7R		8.3 +118.8R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	1.2 +308.4R		4.5 +257R		6.8 +220.3R		8.6 +192.7R		9.9 +171.3R		11 +154.1R		11.9 +140.1R		12.7 +128.4R		13.3 +118.6R	
		18"	q_a q_f	387	623	352	566	352	566	330	531	313	503	317	510	304	489	293	472	298	479
			F	6.8 +307.5R		11.1 +256.1R		12.3 +219.6R		14.9 +192R		17 +170.6R		17.2 +153.6R		18.7 +139.6R		19.9 +127.9R		19.8 +118.1R	
		24"	q_a q_f	316	509	293	472	276	445	264	425	254	409	246	396	240	386	234	378	230	370
			F	13.6 +306.2R		17.4 +254.9R		20.1 +218.4R		22.2 +191R		23.8 +169.7R		25 +152.7R		26.1 +138.8R		27 +127.2R		27.7 +117.4R	

7.5D-12 12/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

5.5 7.5D-12

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		4 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.9 +48.9R		5.4 +40.8R		5.7 +35R		6 +30.6R		6.2 +27.2R		6.4 +24.5R		6.5 +22.2R		6.6 +20.4R		6.7 +18.8R	
		8"	q_a q_f	1608	2589	1586	2553	1570	2527	1558	2508	1548	2493	1541	2481	1535	2471	1530	2463	1525	2456
			F	6.6 +48.9R		7.1 +40.7R		7.5 +34.9R		7.8 +30.5R		8 +27.1R		8.2 +24.4R		8.3 +22.2R		8.4 +20.4R		8.5 +18.8R	
		12"	q_a q_f	1179	1898	1154	1857	1135	1828	1122	1806	1111	1789	1102	1775	1095	1764	1089	1754	1084	1746
			F	10 +48.7R		10.6 +40.5R		11 +34.7R		11.3 +30.4R		11.5 +27R		11.7 +24.3R		11.9 +22.1R		12 +20.3R		12.1 +18.7R	
		18"	q_a q_f	882	1419	823	1325	857	1381	817	1315	785	1264	813	1309	787	1267	766	1233	786	1266
			F	14.3 +48.3R		15.6 +40.2R		15.1 +34.5R		16 +30.1R		16.7 +26.7R		16.2 +24.1R		16.7 +21.9R		17.2 +20R		16.8 +18.5R	
		24"	q_a q_f	669	1077	646	1040	630	1014	617	994	608	979	600	966	594	956	589	948	584	941
			F	19.7 +47.6R		20.5 +39.6R		21 +34R		21.4 +29.7R		21.7 +26.4R		22 +23.7R		22.2 +21.6R		22.4 +19.8R		22.5 +18.2R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.4R		2.8 +72R		3.4 +61.7R		3.9 +54R		4.2 +48R		4.5 +43.2R		4.8 +39.3R		5 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.9 +86.3R		4.8 +71.9R		5.4 +61.6R		5.9 +53.9R		6.2 +47.9R		6.5 +43.1R		6.8 +39.2R		7 +36R		7.2 +33.2R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.8 +86.2R		6.7 +71.8R		7.4 +61.6R		7.9 +53.9R		8.2 +47.9R		8.5 +43.1R		8.8 +39.2R		9 +35.9R		9.2 +33.2R	
		12"	q_a q_f	869	1399	847	1364	831	1338	820	1319	810	1305	803	1293	797	1283	792	1275	788	1268
			F	9.7 +86R		10.6 +71.6R		11.3 +61.4R		11.8 +53.7R		12.2 +47.7R		12.5 +43R		12.7 +39.1R		13 +35.8R		13.1 +33R	
		18"	q_a q_f	644	1037	600	966	622	1002	592	953	568	914	587	945	568	914	552	889	568	914
			F	14.4 +85.5R		16.2 +71.2R		15.8 +61.1R		17 +53.4R		18 +47.4R		17.5 +42.7R		18.2 +38.8R		18.8 +35.6R		18.4 +32.9R	
		24"	q_a q_f	493	793	474	763	460	741	450	724	442	711	435	701	430	693	426	686	422	680
			F	20.5 +84.8R		21.7 +70.6R		22.5 +60.5R		23.1 +52.9R		23.6 +47R		24 +42.3R		24.3 +38.5R		24.6 +35.2R		24.8 +32.5R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.7 +151.2R		0.8 +126R		1.9 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.3 +68.7R		4.6 +63R		4.9 +58.2R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.5 +151.1R		3 +125.9R		4.1 +108R		4.9 +94.5R		5.6 +84R		6.1 +75.6R		6.5 +68.7R		6.9 +63R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.7 +151R		5.2 +125.9R		6.3 +107.9R		7.2 +94.4R		7.8 +83.9R		8.3 +75.5R		8.7 +68.6R		9.1 +62.9R		9.4 +58.1R	
		12"	q_a q_f	634	1021	618	996	607	978	599	964	591	952	585	942	580	934	576	927	572	921
			F	7.9 +150.8R		9.5 +125.6R		10.7 +107.7R		11.5 +94.2R		12.2 +83.7R		12.7 +75.4R		13.2 +68.5R		13.5 +62.8R		13.8 +58R	
		18"	q_a q_f	472	760	438	706	453	729	430	692	412	664	425	685	411	662	399	643	410	660
			F	13.3 +150.3R		15.8 +125.1R		15.8 +107.3R		17.4 +93.9R		18.7 +83.4R		18.3 +75.1R		19.3 +68.2R		20.1 +62.5R		19.7 +57.8R	
		24"	q_a q_f	364	586	348	561	337	543	329	529	322	519	317	510	313	504	309	498	306	493
			F	20.1 +149.5R		21.9 +124.5R		23.3 +106.7R		24.2 +93.3R		25 +82.9R		25.6 +74.6R		26.1 +67.8R		26.6 +62.2R		26.9 +57.4R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.2 +309.4R		-5.1 +257.8R		-2.9 +221R		-1.2 +193.4R		0 +171.9R		1.1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.7 +309.3R		-2.6 +257.7R		-0.3 +220.9R		1.3 +193.3R		2.6 +171.8R		3.7 +154.6R		4.5 +140.6R		5.2 +128.9R		5.8 +119R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.2 +309.2R		0 +257.6R		2.2 +220.8R		3.9 +193.2R		5.2 +171.8R		6.2 +154.6R		7.1 +140.5R		7.8 +128.8R		8.4 +118.9R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	390	628	386	622	383	617	381	613	378	609
			F	1.8 +308.9R		5 +257.4R		7.2 +220.6R		9 +193R		10.3 +171.6R		11.3 +154.4R		12.2 +140.4R		12.9 +128.7R		13.6 +118.8R	
		18"	q_a q_f	315	507	292	470	300	484	285	459	273	439	281	452	271	437	263	424	270	435
			F	7.9 +308.3R		12.2 +256.8R		13.1 +220.2R		15.7 +192.6R		17.8 +171.2R		17.8 +154.1R		19.3 +140.1R		20.5 +128.4R		20.3 +118.5R	
		24"	q_a q_f	245	394	233	376	225	362	219	352	214	345	210	339	207	334	205	329	202	326
			F	15.8 +307.4R		19.3 +256.1R		21.7 +219.5R		23.6 +192R		25.1 +170.6R		26.2 +153.6R		27.2 +139.6R		28 +128R		28.7 +118.1R	

7.5D-12 12/2 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

PNEUTEK®

7.5D-12 5.5

Pneutek K64 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		3.9 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.8 +48.9R		5.3 +40.7R		5.7 +34.9R		5.9 +30.5R		6.2 +27.1R		6.3 +24.4R		6.5 +22.2R		6.6 +20.3R		6.7 +18.8R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	6.4 +48.7R		7 +40.6R		7.4 +34.8R		7.7 +30.4R		7.9 +27R		8.1 +24.3R		8.2 +22.1R		8.4 +20.3R		8.5 +18.7R	
		12"	q_a q_f	1378	2219	1326	2134	1288	2074	1260	2028	1238	1993	1220	1965	1206	1942	1194	1923	1184	1906
			F	9.6 +48.3R		10.2 +40.3R		10.7 +34.5R		11 +30.2R		11.3 +26.8R		11.5 +24.1R		11.7 +21.9R		11.8 +20.1R		11.9 +18.6R	
		18"	q_a q_f	1059	1706	971	1564	984	1585	928	1494	884	1423	902	1452	868	1397	840	1352	857	1380
			F	13.5 +47.7R		14.9 +39.6R		14.5 +34R		15.4 +29.7R		16.2 +26.3R		15.7 +23.8R		16.3 +21.5R		16.8 +19.7R		16.4 +18.2R	
		24"	q_a q_f	847	1363	794	1279	757	1218	729	1173	707	1138	689	1109	675	1086	663	1067	653	1051
			F	18.2 +46.8R		19.2 +38.8R		19.9 +33.2R		20.4 +29R		20.8 +25.7R		21.2 +23.1R		21.5 +21R		21.7 +19.2R		21.9 +17.7R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.3R		2.7 +71.9R		3.4 +61.6R		3.8 +53.9R		4.2 +47.9R		4.5 +43.2R		4.7 +39.2R		4.9 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.8 +86.2R		4.7 +71.8R		5.3 +61.6R		5.8 +53.9R		6.2 +47.9R		6.5 +43.1R		6.7 +39.2R		6.9 +35.9R		7.1 +33.1R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.6 +86R		6.6 +71.7R		7.2 +61.4R		7.7 +53.8R		8.1 +47.8R		8.4 +43R		8.7 +39.1R		8.9 +35.8R		9.1 +33.1R	
		12"	q_a q_f	1018	1640	975	1570	944	1519	920	1482	902	1452	888	1429	876	1410	866	1394	857	1380
			F	9.2 +85.6R		10.2 +71.3R		10.9 +61.1R		11.5 +53.5R		11.9 +47.5R		12.2 +42.8R		12.5 +38.9R		12.8 +35.6R		13 +32.9R	
		18"	q_a q_f	792	1274	723	1163	727	1171	684	1101	650	1046	661	1064	635	1022	614	988	625	1005
			F	13.5 +84.9R		15.4 +70.6R		15.2 +60.6R		16.4 +52.9R		17.4 +47R		17 +42.3R		17.7 +38.4R		18.4 +35.2R		18 +32.5R	
		24"	q_a q_f	640	1031	597	960	565	910	542	873	524	843	509	820	497	801	487	785	479	771
			F	18.8 +83.9R		20.2 +69.7R		21.3 +59.7R		22 +52.1R		22.6 +46.3R		23.1 +41.6R		23.5 +37.8R		23.8 +34.6R		24.1 +31.9R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.8 +151.2R		0.8 +126R		1.8 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.2 +68.7R		4.6 +63R		4.9 +58.1R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.4 +151R		2.9 +125.8R		4 +107.9R		4.9 +94.4R		5.5 +83.9R		6 +75.5R		6.4 +68.6R		6.8 +62.9R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.4 +150.8R		5 +125.7R		6.2 +107.7R		7 +94.3R		7.7 +83.8R		8.2 +75.4R		8.6 +68.5R		9 +62.8R		9.3 +58R	
		12"	q_a q_f	688	1101	688	1101	688	1101	674	1086	659	1062	648	1043	638	1027	630	1014	623	1003
			F	7.4 +150.4R		9.1 +125.3R		10.3 +107.4R		11.2 +93.9R		11.9 +83.5R		12.5 +75.1R		12.9 +68.3R		13.3 +62.6R		13.6 +57.8R	
		18"	q_a q_f	592	954	539	867	539	868	505	814	479	772	485	781	466	750	450	724	457	735
			F	12.3 +149.6R		14.9 +124.5R		15.1 +106.8R		16.7 +93.3R		18 +82.9R		17.8 +74.7R		18.8 +67.8R		19.6 +62.1R		19.3 +57.4R	
		24"	q_a q_f	484	779	448	722	423	681	404	650	389	626	377	607	368	592	359	579	353	568
			F	18.2 +148.4R		20.3 +123.5R		21.8 +105.7R		23 +92.4R		23.9 +82.1R		24.6 +73.9R		25.2 +67.1R		25.7 +61.5R		26.1 +56.7R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.3 +309.3R		-5.2 +257.8R		-3 +220.9R		-1.3 +193.3R		0 +171.8R		1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.8 +309.2R		-2.7 +257.6R		-0.4 +220.8R		1.2 +193.2R		2.5 +171.7R		3.6 +154.6R		4.4 +140.5R		5.2 +128.8R		5.8 +118.9R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.4 +309R		-0.2 +257.5R		2 +220.7R		3.7 +193.1R		5 +171.6R		6.1 +154.5R		7 +140.4R		7.7 +128.7R		8.3 +118.8R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	1.2 +308.4R		4.5 +257R		6.8 +220.3R		8.6 +192.7R		9.9 +171.3R		11 +154.1R		11.9 +140.1R		12.7 +128.4R		13.3 +118.6R	
		18"	q_a q_f	393	629	366	589	364	586	340	548	322	519	325	523	312	502	300	483	304	490
			F	6.8 +307.5R		11.1 +256.1R		12.3 +219.6R		14.9 +192R		17 +170.6R		17.2 +153.6R		18.7 +139.6R		19.9 +127.9R		19.8 +118.1R	
		24"	q_a q_f	333	537	307	495	288	464	274	442	263	424	255	410	248	399	242	389	237	381
			F	13.6 +306.2R		17.4 +254.9R		20.1 +218.4R		22.2 +191R		23.8 +169.7R		25 +152.7R		26.1 +138.8R		27 +127.2R		27.7 +117.4R	

7.5D-12 12/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: #10 SD HWH Screw

DEEP DECK PANELS

5.5 7.5D-12

Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/2	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		4 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.9 +48.9R		5.4 +40.8R		5.7 +35R		6 +30.6R		6.2 +27.2R		6.4 +24.5R		6.5 +22.2R		6.6 +20.4R		6.7 +18.8R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1620	2604	1608	2589	1598	2573	1590	2560	1583	2549	1577	2540
			F	6.6 +48.9R		7.1 +40.7R		7.5 +34.9R		7.8 +30.5R		8 +27.1R		8.2 +24.4R		8.3 +22.2R		8.4 +20.4R		8.5 +18.8R	
		12"	q_a q_f	1230	1980	1199	1931	1176	1894	1159	1866	1145	1844	1134	1826	1126	1812	1118	1800	1112	1790
			F	10 +48.7R		10.6 +40.5R		11 +34.7R		11.3 +30.4R		11.5 +27R		11.7 +24.3R		11.9 +22.1R		12 +20.3R		12.1 +18.7R	
		18"	q_a q_f	911	1467	848	1365	878	1414	835	1344	801	1290	827	1332	801	1289	778	1253	800	1288
			F	14.3 +48.3R		15.6 +40.2R		15.1 +34.5R		16 +30.1R		16.7 +26.7R		16.2 +24.1R		16.7 +21.9R		17.2 +20R		16.8 +18.5R	
		24"	q_a q_f	699	1125	671	1080	651	1048	636	1024	624	1005	615	990	607	978	601	968	596	959
			F	19.7 +47.6R		20.5 +39.6R		21 +34R		21.4 +29.7R		21.7 +26.4R		22 +23.7R		22.2 +21.6R		22.4 +19.8R		22.5 +18.2R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.4R		2.8 +72R		3.4 +61.7R		3.9 +54R		4.2 +48R		4.5 +43.2R		4.8 +39.3R		5 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.9 +86.3R		4.8 +71.9R		5.4 +61.6R		5.9 +53.9R		6.2 +47.9R		6.5 +43.1R		6.8 +39.2R		7 +36R		7.2 +33.2R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.8 +86.2R		6.7 +71.8R		7.4 +61.6R		7.9 +53.9R		8.2 +47.9R		8.5 +43.1R		8.8 +39.2R		9 +35.9R		9.2 +33.2R	
		12"	q_a q_f	884	1423	862	1389	847	1364	834	1343	824	1326	815	1313	809	1302	803	1293	798	1285
			F	9.7 +86R		10.6 +71.6R		11.3 +61.4R		11.8 +53.7R		12.2 +47.7R		12.5 +43R		12.7 +39.1R		13 +35.8R		13.1 +33R	
		18"	q_a q_f	657	1057	610	983	631	1016	600	965	575	926	593	955	574	924	557	897	573	922
			F	14.4 +85.5R		16.2 +71.2R		15.8 +61.1R		17 +53.4R		18 +47.4R		17.5 +42.7R		18.2 +38.8R		18.8 +35.6R		18.4 +32.9R	
		24"	q_a q_f	505	814	484	780	469	755	458	737	449	723	442	711	436	702	431	694	427	688
			F	20.5 +84.8R		21.7 +70.6R		22.5 +60.5R		23.1 +52.9R		23.6 +47R		24 +42.3R		24.3 +38.5R		24.6 +35.2R		24.8 +32.5R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.7 +151.2R		0.8 +126R		1.9 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.3 +68.7R		4.6 +63R		4.9 +58.2R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.5 +151.1R		3 +125.9R		4.1 +108R		4.9 +94.5R		5.6 +84R		6.1 +75.6R		6.5 +68.7R		6.9 +63R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.7 +151R		5.2 +125.9R		6.3 +107.9R		7.2 +94.4R		7.8 +83.9R		8.3 +75.5R		8.7 +68.6R		9.1 +62.9R		9.4 +58.1R	
		12"	q_a q_f	638	1028	622	1002	610	983	602	969	595	958	589	948	584	940	579	932	575	926
			F	7.9 +150.8R		9.5 +125.6R		10.7 +107.7R		11.5 +94.2R		12.2 +83.7R		12.7 +75.4R		13.2 +68.5R		13.5 +62.8R		13.8 +58R	
		18"	q_a q_f	476	767	442	711	456	734	433	697	415	668	427	688	413	665	401	646	412	663
			F	13.3 +150.3R		15.8 +125.1R		15.8 +107.3R		17.4 +93.9R		18.7 +83.4R		18.3 +75.1R		19.3 +68.2R		20.1 +62.5R		19.7 +57.8R	
		24"	q_a q_f	368	592	352	566	340	548	331	534	325	523	319	514	315	507	311	501	308	496
			F	20.1 +149.5R		21.9 +124.5R		23.3 +106.7R		24.2 +93.3R		25 +82.9R		25.6 +74.6R		26.1 +67.8R		26.6 +62.2R		26.9 +57.4R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.2 +309.4R		-5.1 +257.8R		-2.9 +221R		-1.2 +193.4R		0 +171.9R		1.1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.7 +309.3R		-2.6 +257.7R		-0.3 +220.9R		1.3 +193.3R		2.6 +171.8R		3.7 +154.6R		4.5 +140.6R		5.2 +128.9R		5.8 +119R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.2 +309.2R		0 +257.6R		2.2 +220.8R		3.9 +193.2R		5.2 +171.8R		6.2 +154.6R		7.1 +140.5R		7.8 +128.8R		8.4 +118.9R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	391	629	387	623	384	618	381	614	379	610
			F	1.8 +308.9R		5 +257.4R		7.2 +220.6R		9 +193R		10.3 +171.6R		11.3 +154.4R		12.2 +140.4R		12.9 +128.7R		13.6 +118.8R	
		18"	q_a q_f	317	510	293	472	302	486	286	460	274	441	282	453	272	438	264	425	271	436
			F	7.9 +308.3R		12.2 +256.8R		13.1 +220.2R		15.7 +192.6R		17.8 +171.2R		17.8 +154.1R		19.3 +140.1R		20.5 +128.4R		20.3 +118.5R	
		24"	q_a q_f	246	397	235	378	226	364	220	354	215	346	211	340	208	335	205	331	203	327
			F	15.8 +307.4R		19.3 +256.1R		21.7 +219.5R		23.6 +192R		25.1 +170.6R		26.2 +153.6R		27.2 +139.6R		28 +128R		28.7 +118.1R	

7.5D-12 12/2 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

PNEUTEK®

7.5D-12 5.5

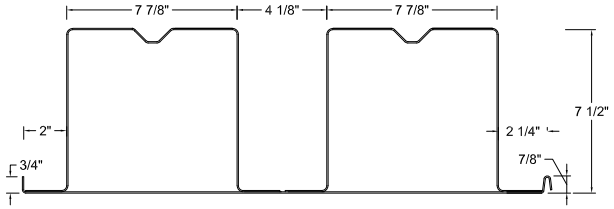
Pneutek K66 Fasteners to Supports with No. 10 Screws Side Seam Attachment

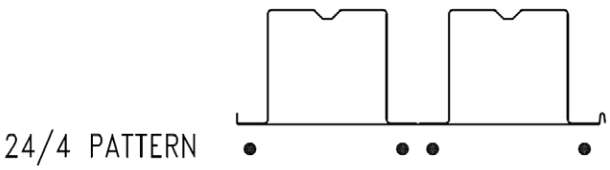
Diaphragm Shear in pounds per linear foot (plf)

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
12/4	14 ga	4"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	3.1 +49R		3.6 +40.8R		3.9 +35R		4.2 +30.6R		4.4 +27.2R		4.6 +24.5R		4.7 +22.3R		4.8 +20.4R		4.9 +18.8R	
		6"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	4.8 +48.9R		5.3 +40.7R		5.7 +34.9R		5.9 +30.5R		6.2 +27.1R		6.3 +24.4R		6.5 +22.2R		6.6 +20.3R		6.7 +18.8R	
		8"	q_a q_f	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604	1627	2604
			F	6.4 +48.7R		7 +40.6R		7.4 +34.8R		7.7 +30.4R		7.9 +27R		8.1 +24.3R		8.2 +22.1R		8.4 +20.3R		8.5 +18.7R	
		12"	q_a q_f	1445	2327	1382	2225	1336	2151	1302	2096	1275	2053	1254	2019	1237	1991	1222	1968	1210	1948
			F	9.6 +48.3R		10.2 +40.3R		10.7 +34.5R		11 +30.2R		11.3 +26.8R		11.5 +24.1R		11.7 +21.9R		11.8 +20.1R		11.9 +18.6R	
		18"	q_a q_f	1127	1814	1027	1654	1032	1662	970	1561	921	1483	935	1506	899	1447	868	1397	883	1422
			F	13.5 +47.7R		14.9 +39.6R		14.5 +34R		15.4 +29.7R		16.2 +26.3R		15.7 +23.8R		16.3 +21.5R		16.8 +19.7R		16.4 +18.2R	
		24"	q_a q_f	914	1472	850	1369	805	1296	771	1241	744	1198	723	1164	705	1136	691	1112	679	1093
			F	18.2 +46.8R		19.2 +38.8R		19.9 +33.2R		20.4 +29R		20.8 +25.7R		21.2 +23.1R		21.5 +21R		21.7 +19.2R		21.9 +17.7R	
	16 ga	4"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	1.9 +86.3R		2.7 +71.9R		3.4 +61.6R		3.8 +53.9R		4.2 +47.9R		4.5 +43.2R		4.7 +39.2R		4.9 +36R		5.1 +33.2R	
		6"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	3.8 +86.2R		4.7 +71.8R		5.3 +61.6R		5.8 +53.9R		6.2 +47.9R		6.5 +43.1R		6.7 +39.2R		6.9 +35.9R		7.1 +33.1R	
		8"	q_a q_f	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693	1058	1693
			F	5.6 +86R		6.6 +71.7R		7.2 +61.4R		7.7 +53.8R		8.1 +47.8R		8.4 +43R		8.7 +39.1R		8.9 +35.8R		9.1 +33.1R	
		12"	q_a q_f	1048	1687	999	1608	964	1553	938	1511	918	1478	902	1452	889	1431	878	1413	868	1398
			F	9.2 +85.6R		10.2 +71.3R		10.9 +61.1R		11.5 +53.5R		11.9 +47.5R		12.2 +42.8R		12.5 +38.9R		12.8 +35.6R		13 +32.9R	
		18"	q_a q_f	821	1321	747	1202	748	1205	702	1130	666	1072	675	1087	648	1043	626	1007	636	1023
			F	13.5 +84.9R		15.4 +70.6R		15.2 +60.6R		16.4 +52.9R		17.4 +47R		17 +42.3R		17.7 +38.4R		18.4 +35.2R		18 +32.5R	
		24"	q_a q_f	669	1077	621	999	586	944	560	902	540	869	524	843	511	822	500	804	490	789
			F	18.8 +83.9R		20.2 +69.7R		21.3 +59.7R		22 +52.1R		22.6 +46.3R		23.1 +41.6R		23.5 +37.8R		23.8 +34.6R		24.1 +31.9R	
	18 ga	4"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	-0.8 +151.2R		0.8 +126R		1.8 +108R		2.7 +94.5R		3.3 +84R		3.8 +75.6R		4.2 +68.7R		4.6 +63R		4.9 +58.1R	
		6"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	1.4 +151R		2.9 +125.8R		4 +107.9R		4.9 +94.4R		5.5 +83.9R		6 +75.5R		6.4 +68.6R		6.8 +62.9R		7.1 +58.1R	
		8"	q_a q_f	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101	688	1101
			F	3.4 +150.8R		5 +125.7R		6.2 +107.7R		7 +94.3R		7.7 +83.8R		8.2 +75.4R		8.6 +68.5R		9 +62.8R		9.3 +58R	
		12"	q_a q_f	688	1101	688	1101	688	1101	680	1095	665	1070	652	1050	642	1034	634	1020	627	1009
			F	7.4 +150.4R		9.1 +125.3R		10.3 +107.4R		11.2 +93.9R		11.9 +83.5R		12.5 +75.1R		12.9 +68.3R		13.3 +62.6R		13.6 +57.8R	
		18"	q_a q_f	602	969	547	880	546	879	511	823	485	780	490	789	470	757	454	730	460	741
			F	12.3 +149.6R		14.9 +124.5R		15.1 +106.8R		16.7 +93.3R		18 +82.9R		17.8 +74.7R		18.8 +67.8R		19.6 +62.1R		19.3 +57.4R	
		24"	q_a q_f	494	795	457	735	430	692	410	660	395	635	382	615	372	599	363	585	356	574
			F	18.2 +148.4R		20.3 +123.5R		21.8 +105.7R		23 +92.4R		23.9 +82.1R		24.6 +73.9R		25.2 +67.1R		25.7 +61.5R		26.1 +56.7R	
	20 ga	4"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-8.3 +309.3R		-5.2 +257.8R		-3 +220.9R		-1.3 +193.3R		0 +171.8R		1 +154.7R		1.9 +140.6R		2.6 +128.9R		3.2 +119R	
		6"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-5.8 +309.2R		-2.7 +257.6R		-0.4 +220.8R		1.2 +193.2R		2.5 +171.7R		3.6 +154.6R		4.4 +140.5R		5.2 +128.8R		5.8 +118.9R	
		8"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	-3.4 +309R		-0.2 +257.5R		2 +220.7R		3.7 +193.1R		5 +171.6R		6.1 +154.5R		7 +140.4R		7.7 +128.7R		8.3 +118.8R	
		12"	q_a q_f	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629	393	629
			F	1.2 +308.4R		4.5 +257R		6.8 +220.3R		8.6 +192.7R		9.9 +171.3R		11 +154.1R		11.9 +140.1R		12.7 +128.4R		13.3 +118.6R	
		18"	q_a q_f	393	629	369	594	367	590	343	552	324	522	327	526	313	504	302	486	306	492
			F	6.8 +307.5R		11.1 +256.1R		12.3 +219.6R		14.9 +192R		17 +170.6R		17.2 +153.6R		18.7 +139.6R		19.9 +127.9R		19.8 +118.1R	
		24"	q_a q_f	337	543	310	500	291	469	277	446	266	427	257	413	249	401	243	391	238	383
			F	13.6 +306.2R		17.4 +254.9R		20.1 +218.4R		22.2 +191R		23.8 +169.7R		25 +152.7R		26.1 +138.8R		27 +127.2R		27.7 +117.4R	

7.5D-12 12/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: #10 SD HWH Screw

5.6 **7.5DF-24**
Deep Deck





Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	4.88	0.035/0.035	50	65	1.427	13.840	2.98	3.015	3.115
20/18	5.42	0.035/0.047	50	65	1.579	15.045	2.71	3.086	3.087
20/16	5.95	0.035/0.059	50	65	1.723	16.000	2.50	3.138	3.047
18/20	5.98	0.047/0.035	50	65	1.744	16.985	3.25	3.916	3.121
18/18	6.52	0.047/0.047	50	65	1.886	18.350	3.02	4.007	3.120
18/16	7.05	0.047/0.059	50	65	2.040	19.630	2.80	4.084	3.102
16/20	7.08	0.059/0.035	50	65	2.063	19.990	3.43	4.802	3.113
16/18	7.62	0.059/0.047	50	65	2.205	21.535	3.23	4.914	3.125
16/16	8.15	0.059/0.059	50	65	2.359	23.015	3.03	5.013	3.123

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	1.058	1.613	1.99	1.535	4.73	11.205	9.995	12.083	11.277
20/18	1.187	1.615	1.72	1.982	4.35	11.845	11.455	12.912	12.652
20/16	1.351	1.640	1.57	2.486	3.99	12.250	12.840	13.500	13.893
18/20	1.440	2.675	2.61	2.087	4.66	16.130	12.470	16.415	13.975
18/18	1.547	2.671	2.35	2.516	4.39	17.090	13.905	17.510	15.387
18/16	1.671	2.668	2.11	3.078	4.08	17.905	15.540	18.480	16.903
16/20	1.902	3.999	3.14	2.787	4.53	19.690	14.990	19.790	16.657
16/18	1.994	3.972	2.88	3.234	4.32	21.285	16.450	21.368	18.145
16/16	2.106	3.953	2.63	3.734	4.11	22.815	18.235	22.882	19.828

Reactions and supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	410	506	642	816	627	774	983	1249
	Interior	777	929	1144	1418	1156	1382	1702	2110
18	End	730	892	1120	1442	1117	1364	1713	2207
	Interior	1363	1610	1959	2453	2027	2394	2914	3648
16	End	1140	1379	1716	2193	1744	2109	2626	3356
	Interior	2109	2467	2974	3691	3137	3670	4424	5490
14	End	1780	2132	2630	3333	2723	3262	4023	5100
	Interior	3275	3795	4529	5569	4872	5645	6738	8283
Constants		h = 7"		r = 0.25"		θ = 90°			

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20/20	Single Span	f_b/Ω	322	224	164	126	99	81	67	52	36
		Φf_b	484	336	247	189	149	121	100	77	54
		L/360	528	306	192	129	91	66	50	34	20
		L/240	792	458	289	193	136	99	74	51	29
		L/180	1056	611	385	258	181	132	99	68	39
		L/120	1584	917	577	387	272	198	149	101	59
	Double Span	f_b/Ω	306	213	156	120	95	-	-	-	-
		Φf_b	460	320	235	180	142	-	-	-	-
		L/360	1187	687	433	290	204	-	-	-	-
		L/240	1781	1031	649	435	305	-	-	-	-
		L/180	2374	1374	865	580	407	-	-	-	-
		L/120	3561	2061	1298	870	611	-	-	-	-
	Triple Span	f_b/Ω	383	266	-	-	-	-	-	-	-
		Φf_b	575	400	-	-	-	-	-	-	-
		L/360	930	538	-	-	-	-	-	-	-
		L/240	1395	807	-	-	-	-	-	-	-
		L/180	1860	1076	-	-	-	-	-	-	-
		L/120	2790	1615	-	-	-	-	-	-	-
20/18	Single Span	f_b/Ω	322	224	164	126	99	81	67	52	36
		Φf_b	484	336	247	189	149	121	100	77	54
		L/360	564	327	206	138	97	71	53	36	21
		L/240	846	490	308	207	145	106	79	54	31
		L/180	1129	653	411	276	194	141	106	72	42
		L/120	1693	980	617	413	290	212	159	108	63
	Double Span	f_b/Ω	396	275	202	154	122	-	-	-	-
		Φf_b	594	413	303	232	183	-	-	-	-
		L/360	1332	771	485	325	228	-	-	-	-
		L/240	1998	1156	728	488	343	-	-	-	-
		L/180	2664	1542	971	650	457	-	-	-	-
		L/120	3996	2312	1456	976	685	-	-	-	-
	Triple Span	f_b/Ω	494	343	-	-	-	-	-	-	-
		Φf_b	743	516	-	-	-	-	-	-	-
		L/360	1043	604	-	-	-	-	-	-	-
		L/240	1565	906	-	-	-	-	-	-	-
		L/180	2087	1208	-	-	-	-	-	-	-
		L/120	3130	1811	-	-	-	-	-	-	-
20/16	Single Span	f_b/Ω	327	227	167	128	101	82	68	52	36
		Φf_b	492	342	251	192	152	123	102	79	55
		L/360	590	341	215	144	101	74	55	38	22
		L/240	885	512	323	216	152	111	83	57	33
		L/180	1180	683	430	288	202	148	111	76	44
		L/120	1770	1024	645	432	303	221	166	113	66
	Double Span	f_b/Ω	496	345	253	194	153	-	-	-	-
		Φf_b	746	518	381	291	230	-	-	-	-
		L/360	1463	846	533	357	251	-	-	-	-
		L/240	2194	1270	800	536	376	-	-	-	-
		L/180	2925	1693	1066	714	502	-	-	-	-
		L/120	4388	2539	1599	1071	752	-	-	-	-
	Triple Span	f_b/Ω	511	355	-	-	-	-	-	-	-
		Φf_b	769	534	-	-	-	-	-	-	-
		L/360	1146	663	-	-	-	-	-	-	-
		L/240	1719	995	-	-	-	-	-	-	-
		L/180	2292	1326	-	-	-	-	-	-	-
		L/120	3437	1989	-	-	-	-	-	-	-

5.6 **7.5DF-24**
Deep Deck

Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
18/20	Single Span	f_b/Ω	534	371	272	209	165	133	110	85	59
		Φf_b	802	557	409	313	248	201	166	128	89
		L/360	717	415	261	175	123	90	67	46	27
		L/240	1076	623	392	263	185	135	101	69	40
		L/180	1435	830	523	350	246	179	135	92	53
		L/120	2152	1245	784	525	369	269	202	138	80
	Double Span	f_b/Ω	417	289	213	163	129	-	-	-	-
		Φf_b	626	435	319	245	193	-	-	-	-
		L/360	1471	851	536	359	252	-	-	-	-
		L/240	2207	1277	804	539	378	-	-	-	-
		L/180	2942	1703	1072	718	505	-	-	-	-
		L/120	4414	2554	1608	1078	757	-	-	-	-
	Triple Span	f_b/Ω	521	362	-	-	-	-	-	-	-
		Φf_b	783	543	-	-	-	-	-	-	-
		L/360	1153	667	-	-	-	-	-	-	-
		L/240	1729	1000	-	-	-	-	-	-	-
		L/180	2305	1334	-	-	-	-	-	-	-
		L/120	3458	2001	-	-	-	-	-	-	-
18/18	Single Span	f_b/Ω	533	370	272	208	165	133	110	85	59
		Φf_b	801	556	409	313	247	200	166	128	89
		L/360	765	443	279	187	131	96	72	49	28
		L/240	1148	664	418	280	197	143	108	73	43
		L/180	1531	886	558	374	262	191	144	98	57
		L/120	2296	1329	837	560	394	287	216	147	85
	Double Span	f_b/Ω	502	349	256	196	155	-	-	-	-
		Φf_b	755	524	385	295	233	-	-	-	-
		L/360	1620	937	590	395	278	-	-	-	-
		L/240	2430	1406	885	593	417	-	-	-	-
		L/180	3240	1875	1181	791	556	-	-	-	-
		L/120	4860	2812	1771	1186	833	-	-	-	-
	Triple Span	f_b/Ω	628	436	-	-	-	-	-	-	-
		Φf_b	943	655	-	-	-	-	-	-	-
		L/360	1269	734	-	-	-	-	-	-	-
		L/240	1903	1102	-	-	-	-	-	-	-
		L/180	2538	1469	-	-	-	-	-	-	-
		L/120	3807	2203	-	-	-	-	-	-	-
18/16	Single Span	f_b/Ω	533	370	272	208	164	133	110	85	59
		Φf_b	800	556	408	313	247	200	165	128	89
		L/360	808	467	294	197	138	101	76	52	30
		L/240	1211	701	441	296	208	151	114	78	45
		L/180	1615	935	589	394	277	202	152	103	60
		L/120	2423	1402	883	592	415	303	228	155	90
	Double Span	f_b/Ω	614	427	313	240	190	-	-	-	-
		Φf_b	923	641	471	361	285	-	-	-	-
		L/360	1780	1030	649	434	305	-	-	-	-
		L/240	2669	1545	973	652	458	-	-	-	-
		L/180	3559	2060	1297	869	610	-	-	-	-
		L/120	5339	3089	1946	1303	915	-	-	-	-
	Triple Span	f_b/Ω	768	533	-	-	-	-	-	-	-
		Φf_b	1154	802	-	-	-	-	-	-	-
		L/360	1394	807	-	-	-	-	-	-	-
		L/240	2091	1210	-	-	-	-	-	-	-
		L/180	2788	1613	-	-	-	-	-	-	-
		L/120	4182	2420	-	-	-	-	-	-	-

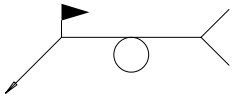
Inward Allowable (fb/Ω) and Factored (Φfb) Distributed Load (lbs/ft2)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
16/20	Single Span	f_b/Ω	798	554	407	312	246	200	165	128	89
		Φf_b	1200	833	612	469	370	300	248	192	133
		L/360	865	501	315	211	148	108	81	55	32
		L/240	1297	751	473	317	222	162	122	83	48
		L/180	1730	1001	630	422	297	216	162	111	64
		L/120	2595	1502	946	633	445	324	244	166	96
	Double Span	f_b/Ω	556	386	284	217	172	-	-	-	-
		Φf_b	836	581	427	327	258	-	-	-	-
		L/360	1754	1015	639	428	301	-	-	-	-
		L/240	2630	1522	959	642	451	-	-	-	-
		L/180	3507	2030	1278	856	601	-	-	-	-
		L/120	5261	3044	1917	1284	902	-	-	-	-
	Triple Span	f_b/Ω	695	483	-	-	-	-	-	-	-
		Φf_b	1045	726	-	-	-	-	-	-	-
		L/360	1374	795	-	-	-	-	-	-	-
		L/240	2061	1192	-	-	-	-	-	-	-
		L/180	2747	1590	-	-	-	-	-	-	-
		L/120	4121	2385	-	-	-	-	-	-	-
16/18	Single Span	f_b/Ω	793	550	404	310	245	198	164	127	88
		Φf_b	1191	827	608	465	368	298	246	191	132
		L/360	934	540	340	228	160	117	88	60	35
		L/240	1401	811	511	342	240	175	132	90	52
		L/180	1868	1081	681	456	320	233	175	120	69
		L/120	2802	1621	1021	684	480	350	263	179	104
	Double Span	f_b/Ω	646	448	329	252	199	-	-	-	-
		Φf_b	970	674	495	379	299	-	-	-	-
		L/360	1910	1105	696	466	328	-	-	-	-
		L/240	2865	1658	1044	700	491	-	-	-	-
		L/180	3820	2211	1392	933	655	-	-	-	-
		L/120	5731	3316	2088	1399	983	-	-	-	-
	Triple Span	f_b/Ω	807	560	-	-	-	-	-	-	-
		Φf_b	1213	842	-	-	-	-	-	-	-
		L/360	1496	866	-	-	-	-	-	-	-
		L/240	2245	1299	-	-	-	-	-	-	-
		L/180	2993	1732	-	-	-	-	-	-	-
		L/120	4489	2598	-	-	-	-	-	-	-
16/16	Single Span	f_b/Ω	789	548	403	308	244	197	163	126	88
		Φf_b	1186	824	605	463	366	296	245	190	132
		L/360	1000	579	364	244	171	125	94	64	37
		L/240	1500	868	547	366	257	188	141	96	56
		L/180	2000	1157	729	488	343	250	188	128	74
		L/120	3000	1736	1093	732	514	375	282	192	111
	Double Span	f_b/Ω	745	518	380	291	230	-	-	-	-
		Φf_b	1120	778	571	438	346	-	-	-	-
		L/360	2087	1208	761	510	358	-	-	-	-
		L/240	3131	1812	1141	764	537	-	-	-	-
		L/180	4175	2416	1521	1019	716	-	-	-	-
		L/120	6262	3624	2282	1529	1074	-	-	-	-
	Triple Span	f_b/Ω	932	647	-	-	-	-	-	-	-
		Φf_b	1400	972	-	-	-	-	-	-	-
		L/360	1635	946	-	-	-	-	-	-	-
		L/240	2453	1420	-	-	-	-	-	-	-
		L/180	3271	1893	-	-	-	-	-	-	-
		L/120	4906	2839	-	-	-	-	-	-	-

5.6 **7.5DF-24**

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)



Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
24/4	16 ga	4"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	1 +27.2R		1.3 +22.7R		1.5 +19.5R		1.6 +17R		1.7 +15.1R		1.8 +13.6R		1.9 +12.4R		1.9 +11.3R		2 +10.5R	
		6"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	1.3 +27.2R		1.6 +22.7R		1.8 +19.4R		2 +17R		2.1 +15.1R		2.2 +13.6R		2.2 +12.4R		2.3 +11.3R		2.4 +10.5R	
		8"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	1.7 +27.2R		2 +22.7R		2.2 +19.4R		2.3 +17R		2.4 +15.1R		2.5 +13.6R		2.6 +12.4R		2.7 +11.3R		2.7 +10.5R	
		12"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	2.3 +27.1R		2.6 +22.6R		2.8 +19.4R		3 +16.9R		3.1 +15R		3.2 +13.5R		3.3 +12.3R		3.4 +11.3R		3.4 +10.4R	
		18"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	3.1 +27R		3.5 +22.4R		3.6 +19.3R		3.9 +16.8R		4.1 +14.9R		4.1 +13.5R		4.2 +12.2R		4.4 +11.2R		4.3 +10.3R	
		24"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	4 +26.8R		4.4 +22.3R		4.7 +19.1R		4.9 +16.7R		5.1 +14.8R		5.2 +13.3R		5.3 +12.1R		5.4 +11.1R		5.5 +10.2R	
	18 ga	4"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	0.7 +38.3R		1.1 +31.9R		1.3 +27.4R		1.5 +24R		1.7 +21.3R		1.8 +19.2R		1.9 +17.4R		2 +16R		2.1 +14.7R	
		6"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	1.1 +38.3R		1.5 +31.9R		1.7 +27.4R		1.9 +23.9R		2.1 +21.3R		2.2 +19.1R		2.4 +17.4R		2.4 +16R		2.5 +14.7R	
		8"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	1.4 +38.3R		1.8 +31.9R		2.1 +27.3R		2.3 +23.9R		2.5 +21.3R		2.6 +19.1R		2.8 +17.4R		2.8 +15.9R		2.9 +14.7R	
		12"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	2.2 +38.2R		2.6 +31.8R		2.9 +27.3R		3.1 +23.9R		3.3 +21.2R		3.4 +19.1R		3.5 +17.3R		3.6 +15.9R		3.7 +14.7R	
		18"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	3 +38R		3.6 +31.7R		3.8 +27.2R		4.1 +23.7R		4.4 +21.1R		4.4 +19R		4.6 +17.2R		4.8 +15.8R		4.7 +14.6R	
		24"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	4.1 +37.8R		4.6 +31.5R		5 +26.9R		5.2 +23.6R		5.5 +20.9R		5.6 +18.8R		5.8 +17.1R		5.9 +15.7R		6 +14.5R	
	20 ga	4"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	0.1 +56.9R		0.6 +47.4R		1 +40.7R		1.4 +35.6R		1.6 +31.6R		1.8 +28.5R		1.9 +25.9R		2.1 +23.7R		2.2 +21.9R	
		6"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	0.5 +56.9R		1.1 +47.4R		1.5 +40.6R		1.8 +35.6R		2.1 +31.6R		2.3 +28.4R		2.4 +25.9R		2.5 +23.7R		2.7 +21.9R	
		8"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	1 +56.9R		1.5 +47.4R		2 +40.6R		2.3 +35.5R		2.5 +31.6R		2.7 +28.4R		2.9 +25.8R		3 +23.7R		3.1 +21.9R	
		12"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	1.8 +56.8R		2.4 +47.3R		2.8 +40.5R		3.2 +35.5R		3.4 +31.5R		3.6 +28.4R		3.8 +25.8R		3.9 +23.6R		4 +21.8R	
		18"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	2.8 +56.6R		3.6 +47.1R		3.8 +40.4R		4.3 +35.3R		4.7 +31.4R		4.7 +28.3R		5 +25.7R		5.3 +23.5R		5.2 +21.7R	
		24"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	4 +56.3R		4.8 +46.9R		5.3 +40.2R		5.6 +35.1R		5.9 +31.2R		6.2 +28.1R		6.4 +25.5R		6.5 +23.4R		6.7 +21.6R	

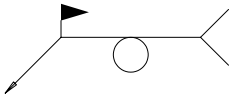
7.5DF-24 24/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

ASC STEEL DECK®

7.5DF-24 5.6

Arc Spot/Seam Welds to Supports with Top Seam Weld Side Seam Attachment

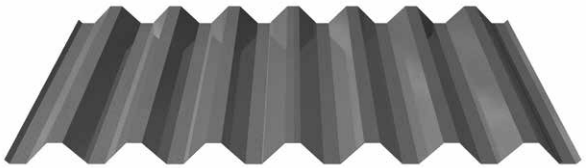
Diaphragm Shear in pounds per linear foot (plf)

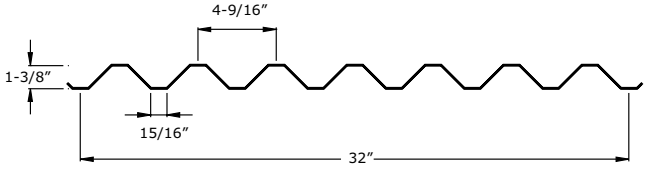


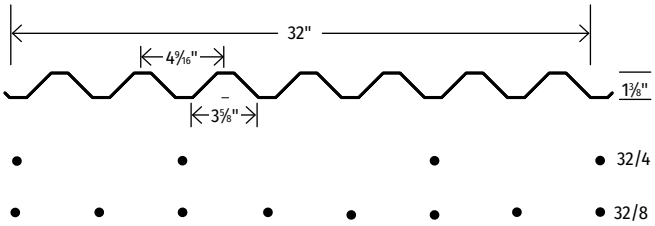
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																	
			Span →	10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"		22' - 0"		24' - 0"		26' - 0"	
24/4	16 ga	4"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	5 +64.3R		5.7 +53.6R		6.2 +45.9R		6.6 +40.2R		6.9 +35.7R		7.1 +32.1R		7.3 +29.2R		7.5 +26.8R		7.6 +24.7R	
		6"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659
			F	7 +64R		7.8 +53.3R		8.3 +45.7R		8.7 +40R		9 +35.5R		9.3 +32R		9.5 +29.1R		9.7 +26.6R		9.8 +24.6R	
		8"	q_a q_f	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1037	1659	1034	1659
			F	8.9 +63.7R		9.7 +53R		10.3 +45.4R		10.8 +39.7R		11.1 +35.3R		11.4 +31.8R		11.6 +28.9R		11.8 +26.4R		12 +24.4R	
		12"	q_a q_f	906	1458	873	1405	848	1366	830	1336	815	1313	804	1294	794	1278	786	1265	779	1254
			F	12.3 +62.9R		13.3 +52.3R		14 +44.7R		14.6 +39.1R		15 +34.7R		15.4 +31.2R		15.7 +28.3R		15.9 +25.9R		16.1 +23.9R	
		18"	q_a q_f	740	1192	683	1099	684	1102	647	1041	617	994	625	1006	602	970	584	939	592	953
			F	16.1 +61.8R		18 +51R		18.1 +43.8R		19.4 +38R		20.4 +33.6R		20.2 +30.3R		21 +27.4R		21.7 +25R		21.4 +23.1R	
		24"	q_a q_f	619	996	578	931	549	883	526	848	509	819	495	797	483	778	473	762	465	749
			F	20.3 +60.2R		22.1 +49.7R		23.4 +42.2R		24.4 +36.6R		25.2 +32.3R		25.9 +28.9R		26.5 +26.1R		27 +23.8R		27.4 +21.9R	
	18 ga	4"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	4.7 +90.6R		5.6 +75.5R		6.3 +64.7R		6.8 +56.6R		7.2 +50.3R		7.5 +45.3R		7.8 +41.2R		8 +37.7R		8.2 +34.8R	
		6"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	6.9 +90.3R		7.9 +75.2R		8.7 +64.4R		9.2 +56.4R		9.6 +50.1R		10 +45.1R		10.3 +41R		10.5 +37.6R		10.7 +34.7R	
		8"	q_a q_f	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071	670	1071
			F	9 +89.9R		10.1 +74.8R		10.9 +64.1R		11.5 +56.1R		12 +49.8R		12.3 +44.8R		12.6 +40.7R		12.9 +37.3R		13.1 +34.5R	
		12"	q_a q_f	670	1071	649	1044	628	1012	613	987	601	967	591	952	583	939	576	928	570	918
			F	12.8 +89R		14.1 +74R		15.1 +63.3R		15.8 +55.4R		16.4 +49.2R		16.8 +44.2R		17.2 +40.2R		17.5 +36.8R		17.8 +33.9R	
		18"	q_a q_f	554	892	509	819	507	817	478	770	455	733	460	740	442	712	428	689	433	698
			F	17 +87.7R		19.4 +72.6R		19.6 +62.3R		21.1 +54.2R		22.4 +47.9R		22.2 +43.2R		23.1 +39.1R		24 +35.7R		23.6 +33R	
		24"	q_a q_f	466	749	433	697	409	658	391	629	377	606	365	588	356	573	348	560	341	550
			F	21.8 +86R		23.9 +71.1R		25.5 +60.5R		26.8 +52.6R		27.8 +46.5R		28.6 +41.6R		29.3 +37.7R		29.9 +34.4R		30.4 +31.7R	
	20 ga	4"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	3.7 +134.6R		5.1 +112.2R		6.1 +96.1R		6.9 +84.1R		7.4 +74.8R		7.9 +67.3R		8.3 +61.2R		8.6 +56.1R		8.9 +51.8R	
		6"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	6.3 +134.2R		7.8 +111.8R		8.8 +95.8R		9.6 +83.9R		10.2 +74.5R		10.7 +67.1R		11.1 +61R		11.5 +55.9R		11.8 +51.6R	
		8"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	8.7 +133.8R		10.3 +111.4R		11.4 +95.5R		12.3 +83.5R		12.9 +74.2R		13.5 +66.8R		13.9 +60.7R		14.3 +55.6R		14.6 +51.3R	
		12"	q_a q_f	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601	376	601
			F	13.1 +132.8R		14.9 +110.5R		16.3 +94.6R		17.3 +82.7R		18 +73.4R		18.7 +66R		19.2 +60R		19.6 +55R		20 +50.7R	
		18"	q_a q_f	376	601	348	560	345	555	324	521	307	495	309	497	297	478	286	461	289	466
			F	18 +131.3R		21.1 +108.8R		21.5 +93.3R		23.4 +81.3R		25 +72R		24.8 +64.9R		26 +58.8R		27.1 +53.7R		26.8 +49.7R	
		24"	q_a q_f	323	520	298	480	280	451	266	429	256	412	247	398	240	386	234	377	229	369
			F	23.6 +129.3R		26.3 +107.1R		28.4 +91.3R		30 +79.5R		31.3 +70.4R		32.3 +63.1R		33.2 +57.2R		34 +52.3R		34.6 +48.1R	

7.5DF-24 24/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

6.1 C1.4/CP-32







CP-32, combined with lightweight insulating concrete (without a polystyrene insulation board) provides an economical insulated roof assembly which offers a 2-hour fire rating.

Please refer to the lightweight insulating concrete manufacturer's technical data for information on U-Factors & specifications.

Panel Properties

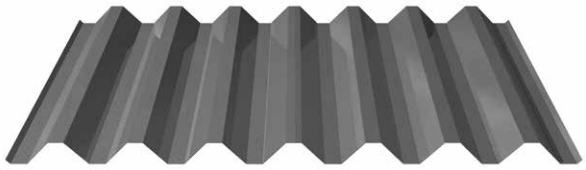
Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_g in³/ft	r in
26	1.08	0.0195	80	82	0.304	0.081	0.72	0.111	0.515
24	1.39	0.0254	80	82	0.396	0.105	0.73	0.145	0.515
22	1.70	0.0314	80	82	0.490	0.131	0.73	0.178	0.515
20	2.01	0.0374	80	82	0.584	0.154	0.73	0.211	0.515
18	2.57	0.0480	40	55	0.749	0.199	0.74	0.269	0.515

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in²/ft	S_e+ in³/ft	y_b in	S_e- in³/ft	y_b in	I_e+ in⁴/ft	I_e- in⁴/ft	I+ in⁴/ft	I- in⁴/ft
26	0.292	0.107	0.69	0.102	0.75	0.080	0.080	0.080	0.080
24	0.389	0.143	0.71	0.141	0.73	0.105	0.105	0.105	0.105
22	0.486	0.178	0.72	0.178	0.74	0.131	0.131	0.131	0.131
20	0.583	0.211	0.73	0.211	0.73	0.154	0.154	0.154	0.154
18	0.749	0.269	0.74	0.269	0.74	0.199	0.199	0.199	0.199

Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
26	End	383	484	628	634	586	741	961	970
	Interior	622	764	964	972	926	1136	1434	1446
24	End	630	789	1015	1134	964	1208	1553	1735
	Interior	1031	1251	1563	1727	1533	1861	2324	2569
22	End	937	1164	1486	1671	1434	1781	2273	2556
	Interior	1542	1854	2296	2551	2293	2758	3416	3794
20	End	1299	1602	2031	2278	1987	2451	3107	3485
	Interior	2147	2563	3151	3490	3193	3812	4687	5191
18	End	1377	1682	2112	2359	2107	2573	3231	3609
	Interior	2294	2709	3297	3635	3413	4030	4904	5406
Constants		h = 1.8207"		r = 0.125"		θ = 45.564°			

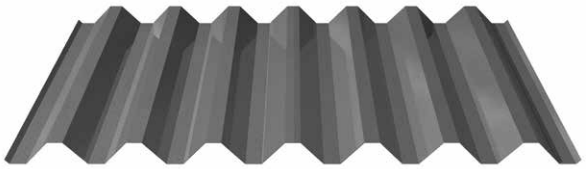
C1.4/CP-32 6.1



Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

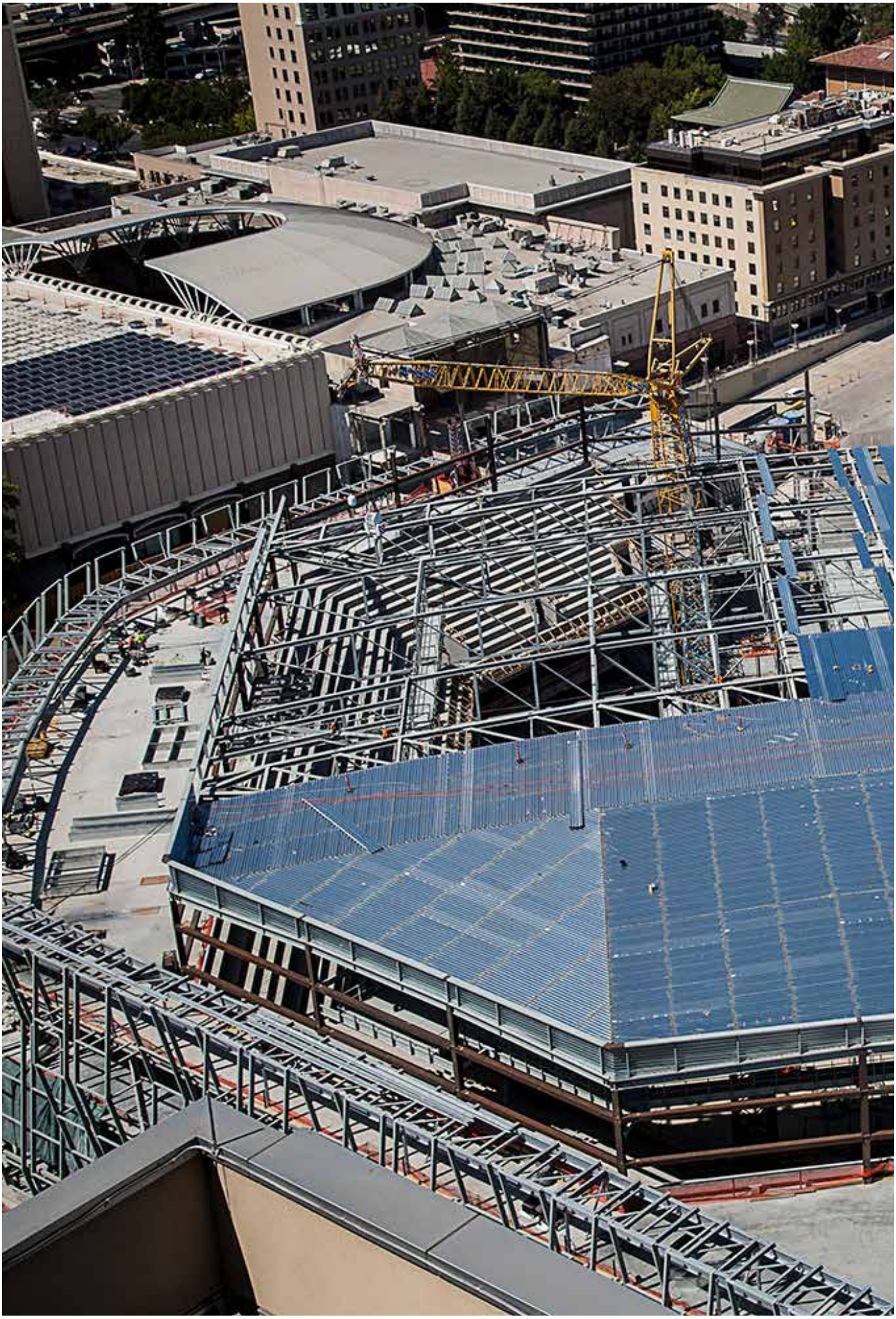
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	285	210	160	127	103	85	71	52	40
		Φf_b	429	315	241	191	154	128	107	79	60
		L/360	129	81	55	38	28	21	16	10	7
		L/240	194	122	82	57	42	31	24	15	10
		L/180	259	163	109	77	56	42	32	20	14
		L/120	388	244	164	115	84	63	48	31	20
	Double Span	f_b/Ω	270	199	152	120	97	80	68	50	38
		Φf_b	406	299	229	181	146	121	102	75	57
		L/360	313	197	132	93	68	51	39	25	17
		L/240	470	296	198	139	102	76	59	37	25
		L/180	627	395	264	186	135	102	78	49	33
		L/120	940	592	397	279	203	153	118	74	50
	Triple Span	f_b/Ω	338	248	190	150	122	101	84	62	48
		Φf_b	508	373	286	226	183	151	127	93	71
		L/360	246	155	104	73	53	40	31	19	13
		L/240	368	232	155	109	80	60	46	29	19
		L/180	491	309	207	145	106	80	61	39	26
		L/120	737	464	311	218	159	120	92	58	39
24	Single Span	f_b/Ω	381	280	214	169	137	113	95	70	54
		Φf_b	573	421	322	255	206	170	143	105	81
		L/360	170	107	72	50	37	28	21	13	9
		L/240	255	161	108	76	55	41	32	20	13
		L/180	340	214	143	101	73	55	42	27	18
		L/120	510	321	215	151	110	83	64	40	27
	Double Span	f_b/Ω	375	275	211	167	135	112	94	69	53
		Φf_b	564	414	317	250	203	168	141	104	79
		L/360	409	258	173	121	88	66	51	32	22
		L/240	614	387	259	182	133	100	77	48	32
		L/180	819	516	345	243	177	133	102	64	43
		L/120	1228	773	518	364	265	199	154	97	65
	Triple Span	f_b/Ω	469	344	264	208	169	139	117	86	66
		Φf_b	704	518	396	313	254	210	176	129	99
		L/360	321	202	135	95	69	52	40	25	17
		L/240	481	303	203	143	104	78	60	38	25
		L/180	641	404	271	190	139	104	80	50	34
		L/120	962	606	406	285	208	156	120	76	51
22	Single Span	f_b/Ω	473	347	266	210	170	141	118	87	66
		Φf_b	710	522	400	316	256	211	178	130	100
		L/360	212	134	90	63	46	34	27	17	11
		L/240	319	201	134	94	69	52	40	25	17
		L/180	425	268	179	126	92	69	53	33	22
		L/120	637	401	269	189	138	103	80	50	34
	Double Span	f_b/Ω	474	348	267	211	171	141	118	87	67
		Φf_b	712	523	401	317	256	212	178	131	100
		L/360	512	322	216	152	111	83	64	40	27
		L/240	768	483	324	227	166	125	96	60	40
		L/180	1024	645	432	303	221	166	128	81	54
		L/120	1535	967	648	455	332	249	192	121	81
	Triple Span	f_b/Ω	592	435	333	263	213	176	148	109	83
		Φf_b	890	654	501	396	321	265	223	164	125
		L/360	401	252	169	119	87	65	50	32	21
		L/240	601	379	254	178	130	98	75	47	32
		L/180	802	505	338	238	173	130	100	63	42
		L/120	1203	757	507	356	260	195	150	95	63

6.1 C1.4/CP-32



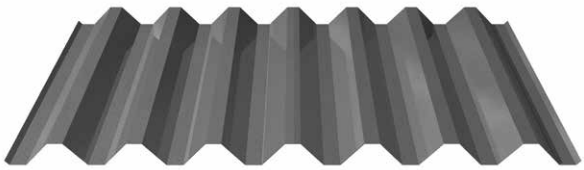
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
20	Single Span	f_b/Ω	562	413	316	250	202	167	141	103	79
		Φf_b	845	621	475	376	304	251	211	155	119
		L/360	249	157	105	74	54	40	31	20	13
		L/240	373	235	157	111	81	61	47	29	20
		L/180	498	313	210	147	108	81	62	39	26
		L/120	747	470	315	221	161	121	93	59	39
	Double Span	f_b/Ω	562	413	316	250	202	167	141	103	79
		Φf_b	845	621	475	376	304	251	211	155	119
		L/360	599	378	253	178	129	97	75	47	32
		L/240	899	566	379	266	194	146	112	71	47
		L/180	1199	755	506	355	259	195	150	94	63
		L/120	1798	1133	759	533	388	292	225	142	95
	Triple Span	f_b/Ω	703	516	395	312	253	209	176	129	99
		Φf_b	1056	776	594	470	380	314	264	194	149
		L/360	470	296	198	139	101	76	59	37	25
		L/240	704	444	297	209	152	114	88	55	37
		L/180	939	591	396	278	203	152	117	74	50
		L/120	1409	887	594	417	304	229	176	111	74
18	Single Span	f_b/Ω	478	351	269	212	172	142	119	88	67
		Φf_b	718	528	404	319	258	214	180	132	101
		L/360	322	203	136	95	69	52	40	25	17
		L/240	483	304	204	143	104	78	60	38	25
		L/180	643	405	271	191	139	104	80	51	34
		L/120	965	608	407	286	208	157	121	76	51
	Double Span	f_b/Ω	478	351	269	212	172	142	119	88	67
		Φf_b	718	528	404	319	258	214	180	132	101
		L/360	775	488	327	230	167	126	97	61	41
		L/240	1162	732	490	344	251	189	145	92	61
		L/180	1550	976	654	459	335	252	194	122	82
		L/120	2325	1464	981	689	502	377	291	183	123
	Triple Span	f_b/Ω	597	439	336	265	215	178	149	110	84
		Φf_b	898	659	505	399	323	267	224	165	126
		L/360	607	382	256	180	131	99	76	48	32
		L/240	911	573	384	270	197	148	114	72	48
		L/180	1214	765	512	360	262	197	152	96	64
		L/120	1821	1147	768	540	393	296	228	143	96



6.2 **C1.4/CP-32**

No. 12 Self-Drilling Screws to Support with No. 12 Self-Drilling Side Lap Screws



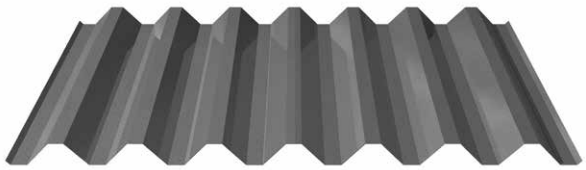
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"
32/4	20 ga	4"	q_a q_f	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	778 1245
			F	0.3 +70.1R	1.8 +46.7R	2.6 +35R	3 +28R	3.3 +23.3R	3.5 +20R	3.7 +17.5R	3.8 +15.5R	4 +14R
		6"	q_a q_f	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	816 1314	778 1245
			F	0.8 +70R	2.4 +46.5R	3.2 +34.9R	3.8 +27.9R	4.1 +23.2R	4.3 +19.9R	4.5 +17.4R	4.7 +15.4R	4.8 +13.9R
		8"	q_a q_f	818 1317	818 1317	785 1264	780 1257	741 1193	744 1198	717 1154	722 1162	701 1129
			F	1.2 +69.8R	2.7 +46.4R	3.9 +34.7R	4.3 +27.7R	4.8 +23R	5 +19.8R	5.3 +17.2R	5.4 +15.3R	5.6 +13.8R
		12"	q_a q_f	806 1298	718 1156	665 1071	630 1014	605 974	586 944	572 921	561 903	551 888
			F	1.8 +69.5R	3.8 +46R	4.9 +34.3R	5.6 +27.3R	6.1 +22.7R	6.4 +19.4R	6.7 +16.9R	6.9 +15R	7.1 +13.5R
		18"	q_a q_f	806 1298	627 1009	590 949	566 911	490 788	486 782	483 777	437 704	440 708
			F	1.8 +69.5R	4.8 +45.6R	5.8 +34R	6.3 +27.1R	7.6 +22.1R	7.8 +19R	7.9 +16.6R	8.8 +14.5R	8.8 +13R
		24"	q_a q_f	694 1117	627 1009	503 810	495 797	424 683	430 692	382 615	392 630	356 573
			F	2.9 +68.9R	4.8 +45.6R	7 +33.4R	7.4 +26.6R	8.9 +21.6R	8.9 +18.6R	10 +15.8R	9.8 +14.1R	10.8 +12.4R
	22 ga	4"	q_a q_f	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	606 970
			F	-1.4 +108.7R	1 +72.4R	2.1 +54.3R	2.8 +43.4R	3.3 +36.2R	3.6 +31R	3.9 +27.1R	4.1 +24.1R	4.2 +21.7R
		6"	q_a q_f	687 1106	687 1106	687 1106	687 1106	680 1095	671 1080	664 1069	658 1059	606 970
			F	-0.8 +108.5R	1.6 +72.2R	2.9 +54.1R	3.6 +43.3R	4.1 +36R	4.5 +30.9R	4.8 +27R	5 +24R	5.1 +21.6R
		8"	q_a q_f	687 1106	687 1106	637 1025	631 1016	596 960	598 963	574 925	578 931	561 902
			F	-0.3 +108.3R	2 +72.1R	3.6 +53.9R	4.2 +43.1R	4.9 +35.9R	5.2 +30.7R	5.6 +26.9R	5.7 +23.9R	6 +21.5R
		12"	q_a q_f	663 1067	585 942	538 866	507 816	485 781	469 755	456 735	446 719	438 705
			F	0.4 +108R	3.2 +71.7R	4.7 +53.5R	5.6 +42.7R	6.3 +35.5R	6.8 +30.3R	7.1 +26.5R	7.4 +23.5R	7.6 +21.1R
		18"	q_a q_f	663 1067	512 824	478 769	456 734	393 633	389 626	385 620	348 560	349 562
			F	0.4 +108R	4.2 +71.2R	5.6 +53.2R	6.5 +42.4R	8 +34.9R	8.3 +29.9R	8.5 +26.1R	9.5 +22.9R	9.5 +20.7R
		24"	q_a q_f	573 923	512 824	409 659	400 644	342 550	345 555	306 493	312 502	283 456
			F	1.6 +107.4R	4.2 +71.2R	7 +52.5R	7.6 +41.9R	9.4 +34.3R	9.4 +29.5R	10.8 +25.3R	10.6 +22.6R	11.7 +20R
	24 ga	4"	q_a q_f	556 895	556 895	556 895	556 895	556 895	556 895	556 895	540 864	437 700
			F	-4.9 +184.9R	-1.1 +123.2R	0.9 +92.4R	2 +73.9R	2.8 +61.6R	3.4 +52.8R	3.8 +46.2R	4.1 +41R	4.4 +36.9R
		6"	q_a q_f	556 895	556 895	553 890	537 864	525 846	517 832	510 822	505 813	437 700
			F	-4.3 +184.7R	-0.3 +123R	1.7 +92.2R	2.9 +73.7R	3.8 +61.4R	4.3 +52.6R	4.8 +46R	5.1 +40.9R	5.4 +36.8R
		8"	q_a q_f	556 895	543 875	493 794	487 784	458 737	458 737	438 706	441 710	426 686
			F	-3.7 +184.5R	0.1 +122.9R	2.5 +92R	3.6 +73.6R	4.6 +61.2R	5.1 +52.5R	5.7 +45.9R	5.9 +40.8R	6.4 +36.7R
		12"	q_a q_f	523 843	457 735	416 670	390 628	371 598	357 575	347 558	338 545	331 534
			F	-3 +184.1R	1.4 +122.4R	3.7 +91.5R	5.2 +73.1R	6.2 +60.8R	6.9 +52R	7.4 +45.5R	7.8 +40.4R	8.2 +36.3R
		18"	q_a q_f	523 843	401 645	370 596	351 565	302 486	297 478	293 471	264 425	264 425
			F	-3 +184.1R	2.6 +121.8R	4.8 +91.1R	6.1 +72.7R	8.1 +60.1R	8.5 +51.5R	8.9 +45R	10.1 +39.7R	10.2 +35.8R
		24"	q_a q_f	455 733	401 645	319 514	309 497	263 424	264 425	232 374	237 382	213 344
			F	-1.6 +183.4R	2.6 +121.8R	6.3 +90.4R	7.4 +72.2R	9.6 +59.5R	9.8 +51R	11.4 +44.2R	11.3 +39.3R	12.6 +35R
	26 ga	4"	q_a q_f	427 687	427 687	427 687	427 687	427 687	427 687	427 687	363 581	294 471
			F	-13.7 +358.3R	-6.4 +238.8R	-2.7 +179.1R	-0.5 +143.2R	1 +119.4R	2 +102.3R	2.8 +89.5R	3.4 +79.6R	3.9 +71.6R
		6"	q_a q_f	427 687	424 683	403 649	389 627	379 611	372 599	366 590	362 581	294 471
			F	-13 +358R	-5.5 +238.6R	-1.7 +178.9R	0.5 +143R	2.1 +119.2R	3.1 +102.1R	4 +89.4R	4.6 +79.4R	5.1 +71.5R
		8"	q_a q_f	427 687	399 642	358 577	352 566	329 529	328 528	312 503	313 505	294 471
			F	-12.4 +357.8R	-5 +238.4R	-0.9 +178.6R	1.2 +142.9R	3 +119R	4 +102R	5 +89.2R	5.5 +79.3R	6.2 +71.3R
		12"	q_a q_f	390 628	335 540	303 487	281 453	266 428	255 410	246 396	239 385	234 376
			F	-11.5 +357.4R	-3.5 +237.8R	0.6 +178.1R	3.1 +142.3R	4.8 +118.5R	6 +101.5R	7 +88.7R	7.7 +78.8R	8.3 +70.9R
		18"	q_a q_f	390 628	296 477	270 435	254 409	217 350	212 342	208 336	188 302	187 301
			F	-11.5 +357.4R	-2.2 +237.2R	1.7 +177.6R	4.1 +141.9R	7 +117.7R	7.9 +100.9R	8.7 +88.2R	10.3 +78.1R	10.6 +70.3R
		24"	q_a q_f	342 551	296 477	235 378	224 361	190 306	188 303	164 265	167 269	150 242
			F	-10 +356.6R	-2.2 +237.2R	3.5 +176.8R	5.6 +141.3R	8.7 +117R	9.4 +100.3R	11.6 +87.2R	11.7 +77.6R	13.4 +69.4R

C 1.4-32 32/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

ASC Steel Deck®

C1.4/CP-32 6.2

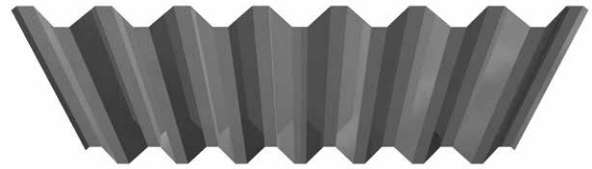
No. 12 Self-Drilling Screws to Support with No. 12 Self-Drilling Side Lap Screws

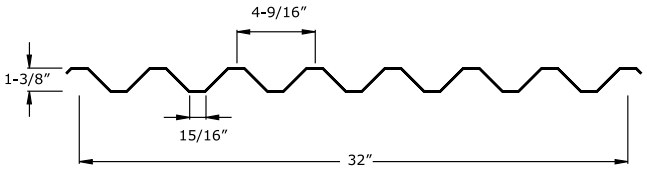


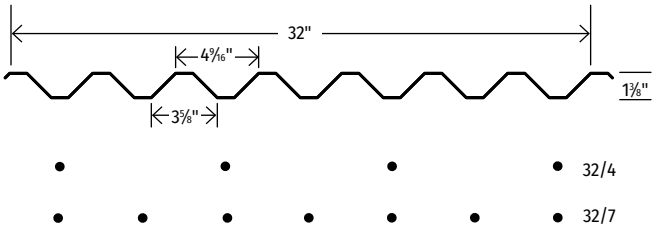
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	2' - 0"		3' - 0"		4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"	
32/8	20 ga	4"	q_a q_f	1672	2691	1561	2513	1498	2411	1456	2345	1428	2299	1407	2265	1216	1946	961	1538	778	1245
			F	4.2 +1R		4.4 +0.6R		4.5 +0.4R		4.6 +0.3R		4.6 +0.2R		4.7 +0.2R		4.7 +0.2R		4.7 +0.1R		4.7 +0.1R	
		6"	q_a q_f	1470	2366	1318	2122	1231	1982	1176	1893	1137	1830	1109	1785	1087	1750	961	1538	778	1245
			F	4.6 +0.8R		4.9 +0.4R		5.1 +0.2R		5.2 +0.1R		5.3 +0.1R		5.4 +0R		5.4 +0R		5.5 +0R		5.5 +0R	
		8"	q_a q_f	1342	2161	1219	1962	1066	1716	1039	1672	958	1542	953	1534	901	1450	903	1455	778	1245
			F	4.9 +0.7R		5.1 +0.3R		5.6 +0R		5.6 +0R		5.9 -0.1R		5.9 -0.1R		6.1 -0.2R		6.1 -0.1R		6.2 -0.2R	
		12"	q_a q_f	1194	1922	991	1595	877	1412	805	1296	756	1217	720	1159	692	1114	671	1080	653	1052
			F	5.3 +0.4R		5.9 -0.1R		6.3 -0.3R		6.7 -0.4R		6.9 -0.5R		7.1 -0.5R		7.3 -0.5R		7.4 -0.5R		7.5 -0.5R	
		18"	q_a q_f	1194	1922	861	1386	774	1246	720	1159	609	981	593	954	580	934	517	833	514	828
			F	5.3 +0.4R		6.5 -0.4R		6.9 -0.6R		7.2 -0.7R		8.1 -1R		8.2 -0.9R		8.2 -0.9R		8.9 -1.1R		8.9 -1R	
		24"	q_a q_f	1023	1646	861	1386	666	1072	632	1017	532	856	525	846	458	737	461	742	414	666
			F	5.9 +0.1R		6.5 -0.4R		7.7 -1R		7.9 -1R		8.9 -1.4R		8.9 -1.3R		9.8 -1.5R		9.7 -1.4R		10.4 -1.6R	
	22 ga	4"	q_a q_f	1366	2199	1265	2037	1207	1944	1170	1884	1144	1842	1125	1811	947	1516	749	1198	606	970
			F	4.9 +1.6R		5.1 +1R		5.2 +0.7R		5.3 +0.6R		5.3 +0.5R		5.4 +0.4R		5.4 +0.3R		5.4 +0.3R		5.4 +0.2R	
		6"	q_a q_f	1200	1932	1066	1716	989	1593	940	1514	906	1459	881	1419	862	1388	749	1198	606	970
			F	5.3 +1.5R		5.6 +0.8R		5.8 +0.5R		6 +0.4R		6.1 +0.3R		6.1 +0.2R		6.2 +0.2R		6.3 +0.1R		6.3 +0.1R	
		8"	q_a q_f	1097	1767	986	1588	857	1379	831	1337	763	1229	757	1219	714	1150	715	1151	606	970
			F	5.6 +1.3R		5.9 +0.7R		6.4 +0.3R		6.4 +0.2R		6.7 +0.1R		6.7 +0.1R		6.9 +0R		6.9 +0R		7.1 -0.1R	
		12"	q_a q_f	980	1577	805	1296	708	1140	646	1041	604	973	573	923	550	886	532	856	517	832
			F	6 +1.1R		6.7 +0.3R		7.2 +0R		7.6 -0.2R		7.8 -0.3R		8 -0.4R		8.2 -0.4R		8.4 -0.4R		8.5 -0.4R	
		18"	q_a q_f	980	1577	704	1133	627	1010	580	934	490	789	475	764	462	744	409	659	407	655
			F	6 +1.1R		7.4 +0R		7.8 -0.3R		8.1 -0.5R		9.1 -0.9R		9.2 -0.8R		9.3 -0.8R		10 -1R		10 -1R	
		24"	q_a q_f	846	1361	704	1133	543	875	512	824	428	688	420	676	366	588	366	590	329	530
			F	6.7 +0.7R		7.4 +0R		8.7 -0.8R		8.9 -0.9R		10 -1.3R		10 -1.2R		11 -1.5R		10.8 -1.4R		11.7 -1.6R	
	24 ga	4"	q_a q_f	1068	1720	980	1577	929	1495	896	1442	873	1405	856	1378	684	1094	540	864	437	700
			F	5.8 +3R		6 +1.9R		6.2 +1.4R		6.3 +1.1R		6.3 +0.9R		6.4 +0.7R		6.4 +0.6R		6.4 +0.6R		6.5 +0.5R	
		6"	q_a q_f	939	1511	824	1327	759	1222	717	1154	688	1108	667	1074	651	1048	540	864	437	700
			F	6.2 +2.8R		6.6 +1.7R		6.9 +1.2R		7 +0.9R		7.2 +0.7R		7.3 +0.6R		7.3 +0.5R		7.4 +0.4R		7.4 +0.3R	
		8"	q_a q_f	860	1385	763	1229	658	1060	634	1020	580	934	573	923	539	868	538	864	437	700
			F	6.6 +2.6R		6.9 +1.6R		7.5 +0.9R		7.6 +0.7R		7.9 +0.5R		7.9 +0.4R		8.1 +0.3R		8.1 +0.2R		8.3 +0.2R	
		12"	q_a q_f	772	1242	627	1010	547	880	496	799	461	743	436	702	417	671	402	647	390	627
			F	7.1 +2.3R		7.9 +1.1R		8.4 +0.5R		8.8 +0.2R		9.1 +0R		9.4 -0.1R		9.6 -0.2R		9.7 -0.2R		9.9 -0.3R	
		18"	q_a q_f	772	1242	552	889	487	785	447	720	376	605	360	580	349	562	310	499	307	494
			F	7.1 +2.3R		8.6 +0.7R		9.1 +0.2R		9.5 -0.1R		10.5 -0.6R		10.6 -0.6R		10.7 -0.6R		11.6 -0.9R		11.5 -0.8R	
		24"	q_a q_f	672	1083	552	889	426	685	397	639	329	529	320	516	279	449	278	448	251	404
			F	7.8 +1.9R		8.6 +0.7R		10.1 -0.3R		10.3 -0.5R		11.6 -1.1R		11.6 -1R		12.6 -1.4R		12.5 -1.3R		13.4 -1.6R	
	26 ga	4"	q_a q_f	786	1266	711	1145	668	1076	640	1031	621	1000	601	961	460	736	363	581	294	471
			F	7.1 +6R		7.5 +3.9R		7.7 +2.9R		7.8 +2.3R		7.9 +1.9R		7.9 +1.6R		8 +1.4R		8 +1.2R		8.1 +1.1R	
		6"	q_a q_f	692	1114	598	963	545	878	512	824	488	786	471	758	458	736	363	581	294	471
			F	7.7 +5.8R		8.2 +3.7R		8.5 +2.7R		8.7 +2.1R		8.8 +1.7R		8.9 +1.4R		9 +1.2R		9.1 +1R		9.1 +0.9R	
		8"	q_a q_f	636	1024	555	894	474	764	453	729	412	664	405	652	380	611	363	581	294	471
			F	8.1 +5.6R		8.5 +3.5R		9.2 +2.4R		9.3 +1.9R		9.7 +1.4R		9.7 +1.2R		10 +1R		9.9 +0.9R		10.1 +0.7R	
		12"	q_a q_f	574	925	460	741	397	640	358	576	331	532	310	500	295	475	283	456	274	441
			F	8.6 +5.3R		9.6 +3R		10.2 +1.9R		10.7 +1.3R		11.1 +0.9R		11.3 +0.6R		11.6 +0.5R		11.8 +0.3R		11.9 +0.2R	
		18"	q_a q_f	574	925	409	659	357	574	324	522	269	433	256	413	247	398	220	354	217	349
			F	8.6 +5.3R		10.4 +2.6R		11 +1.6R		11.4 +1R		12.7 +0.2R		12.8 +0.1R		12.9 +0R		13.9 -0.4R		13.8 -0.4R	
		24"	q_a q_f	506	815	409	659	315	507	287	463	238	383	229	369	200	322	199	320	179	288
			F	9.5 +4.8R		10.4 +2.6R		12.1 +1R		12.4 +0.5R		13.9 -0.4R		13.9 -0.4R		15.1 -1R		14.9 -0.9R		15.9 -1.3R	

C 1.4-32 32/8 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

6.3 **Inverted C1.4/CP-32**







CP-32, combined with lightweight insulating concrete (without a polystyrene insulation board) provides an economical insulated roof assembly which offers a 2-hour fire rating.

Please refer to the lightweight insulating concrete manufacturer's technical data for information on U-Factors & specifications.

Panel Properties

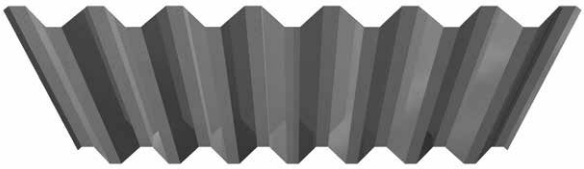
Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
26	1.08	0.0195	80	82	0.304	0.081	0.67	0.111	0.515
24	1.39	0.0254	80	82	0.396	0.105	0.68	0.145	0.515
22	1.70	0.0314	80	82	0.490	0.131	0.68	0.178	0.515
20	2.01	0.0374	80	82	0.584	0.154	0.68	0.211	0.515
18	2.57	0.0480	40	55	0.749	0.199	0.69	0.269	0.515

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
26	0.295	0.102	0.65	0.107	0.70	0.080	0.080	0.080	0.080
24	0.393	0.141	0.67	0.143	0.68	0.105	0.105	0.105	0.105
22	0.490	0.178	0.69	0.178	0.68	0.131	0.131	0.131	0.131
20	0.584	0.211	0.68	0.211	0.68	0.154	0.154	0.154	0.154
18	0.749	0.269	0.69	0.269	0.69	0.199	0.199	0.199	0.199

Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
26	End	383	484	628	634	586	741	961	970
	Interior	622	764	964	972	926	1136	1434	1446
24	End	630	789	1015	1134	964	1208	1553	1735
	Interior	1031	1251	1563	1727	1533	1861	2324	2569
22	End	937	1164	1486	1671	1434	1781	2273	2556
	Interior	1542	1854	2296	2551	2293	2758	3416	3794
20	End	1299	1602	2031	2278	1987	2451	3107	3485
	Interior	2147	2563	3151	3490	3193	3812	4687	5191
18	End	1377	1682	2112	2359	2107	2573	3231	3609
	Interior	2294	2709	3297	3635	3413	4030	4904	5406
Constants		h = 1.8207"		r = 0.125"		θ = 45.564°			

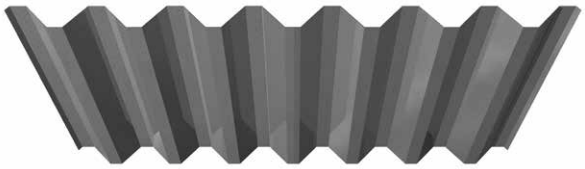
Inverted C1.4/CP-32 6.3



Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	270	199	152	120	97	80	68	50	38
		Φf_b	406	299	229	181	146	121	102	75	57
		L/360	130	82	55	39	28	21	16	10	7
		L/240	195	123	82	58	42	32	24	15	10
		L/180	260	164	110	77	56	42	33	20	14
		L/120	390	246	165	116	84	63	49	31	21
	Double Span	f_b/Ω	285	210	160	127	103	85	71	52	40
		Φf_b	429	315	241	191	154	128	107	79	60
		L/360	311	196	131	92	67	51	39	25	16
		L/240	467	294	197	138	101	76	58	37	25
		L/180	623	392	263	185	135	101	78	49	33
		L/120	934	588	394	277	202	152	117	74	49
	Triple Span	f_b/Ω	357	262	201	158	128	106	89	65	50
		Φf_b	536	394	301	238	193	159	134	98	75
		L/360	244	154	103	72	53	40	30	19	13
		L/240	366	230	154	108	79	59	46	29	19
		L/180	488	307	206	145	105	79	61	38	26
		L/120	732	461	309	217	158	119	91	58	39
24	Single Span	f_b/Ω	375	275	211	167	135	112	94	69	53
		Φf_b	564	414	317	250	203	168	141	104	79
		L/360	170	107	72	50	37	28	21	13	9
		L/240	255	161	108	76	55	41	32	20	13
		L/180	340	214	143	101	73	55	42	27	18
		L/120	510	321	215	151	110	83	64	40	27
	Double Span	f_b/Ω	381	280	214	169	137	113	95	70	54
		Φf_b	573	421	322	255	206	170	143	105	81
		L/360	409	258	173	121	88	66	51	32	22
		L/240	614	387	259	182	133	100	77	48	32
		L/180	819	516	345	243	177	133	102	64	43
		L/120	1228	773	518	364	265	199	154	97	65
	Triple Span	f_b/Ω	477	350	268	212	172	142	119	88	67
		Φf_b	716	526	403	318	258	213	179	132	101
		L/360	321	202	135	95	69	52	40	25	17
		L/240	481	303	203	143	104	78	60	38	25
		L/180	641	404	271	190	139	104	80	50	34
		L/120	962	606	406	285	208	156	120	76	51
22	Single Span	f_b/Ω	474	348	267	211	171	141	118	87	67
		Φf_b	712	523	401	317	256	212	178	131	100
		L/360	212	134	90	63	46	34	27	17	11
		L/240	319	201	134	94	69	52	40	25	17
		L/180	425	268	179	126	92	69	53	33	22
		L/120	637	401	269	189	138	103	80	50	34
	Double Span	f_b/Ω	473	347	266	210	170	141	118	87	66
		Φf_b	710	522	400	316	256	211	178	130	100
		L/360	512	322	216	152	111	83	64	40	27
		L/240	768	483	324	227	166	125	96	60	40
		L/180	1024	645	432	303	221	166	128	81	54
		L/120	1535	967	648	455	332	249	192	121	81
	Triple Span	f_b/Ω	591	434	332	263	213	176	148	109	83
		Φf_b	888	652	500	395	320	264	222	163	125
		L/360	401	252	169	119	87	65	50	32	21
		L/240	601	379	254	178	130	98	75	47	32
		L/180	802	505	338	238	173	130	100	63	42
		L/120	1203	757	507	356	260	195	150	95	63

6.3 **Inverted C1.4/CP-32**



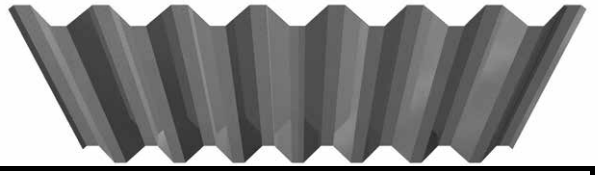
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
20	Single Span	f_b/Ω	562	413	316	250	202	167	141	103	79
		Φf_b	845	621	475	376	304	251	211	155	119
		L/360	249	157	105	74	54	40	31	20	13
		L/240	373	235	157	111	81	61	47	29	20
		L/180	498	313	210	147	108	81	62	39	26
		L/120	747	470	315	221	161	121	93	59	39
	Double Span	f_b/Ω	562	413	316	250	202	167	141	103	79
		Φf_b	845	621	475	376	304	251	211	155	119
		L/360	599	378	253	178	129	97	75	47	32
		L/240	899	566	379	266	194	146	112	71	47
		L/180	1199	755	506	355	259	195	150	94	63
		L/120	1798	1133	759	533	388	292	225	142	95
	Triple Span	f_b/Ω	703	516	395	312	253	209	176	129	99
		Φf_b	1056	776	594	469	380	314	264	194	149
		L/360	470	296	198	139	101	76	59	37	25
		L/240	704	444	297	209	152	114	88	55	37
		L/180	939	591	396	278	203	152	117	74	50
		L/120	1409	887	594	417	304	229	176	111	74
18	Single Span	f_b/Ω	478	351	269	212	172	142	119	88	67
		Φf_b	718	528	404	319	258	214	180	132	101
		L/360	322	203	136	95	69	52	40	25	17
		L/240	483	304	204	143	104	78	60	38	25
		L/180	643	405	271	191	139	104	80	51	34
		L/120	965	608	407	286	208	157	121	76	51
	Double Span	f_b/Ω	478	351	269	212	172	142	119	88	67
		Φf_b	718	528	404	319	258	214	180	132	101
		L/360	775	488	327	230	167	126	97	61	41
		L/240	1162	732	490	344	251	189	145	92	61
		L/180	1550	976	654	459	335	252	194	122	82
		L/120	2325	1464	981	689	502	377	291	183	123
	Triple Span	f_b/Ω	597	439	336	265	215	178	149	110	84
		Φf_b	898	659	505	399	323	267	224	165	126
		L/360	607	382	256	180	131	99	76	48	32
		L/240	911	573	384	270	197	148	114	72	48
		L/180	1214	765	512	360	262	197	152	96	64
		L/120	1821	1147	768	540	393	296	228	143	96

ASC Steel Deck®

Inverted C1.4/CP-32 6.4

No. 12 Self-Drilling Screws to Support with No. 10 Self-Drilling Side Lap Screws

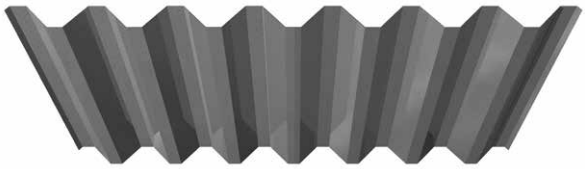


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →		2' - 0"		3' - 0"		4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"	
32/4	20 ga	4"	q_a	q_f	985	1586	961	1548	948	1526	939	1513	933	1503	929	1496	926	1490	923	1486	778	1245
			F		3.9 +108.7R		6.4 +72.4R		7.6 +54.3R		8.3 +43.4R		8.8 +36.2R		9.2 +31R		9.4 +27.1R		9.6 +24.1R		9.8 +21.7R	
		6"	q_a	q_f	887	1428	845	1360	821	1321	805	1296	794	1279	786	1266	780	1256	775	1248	771	1242
			F		5.3 +108.3R		7.9 +72R		9.3 +53.9R		10.1 +43.1R		10.7 +35.9R		11.1 +30.7R		11.4 +26.9R		11.6 +23.9R		11.8 +21.5R	
		8"	q_a	q_f	812	1307	788	1268	722	1162	724	1166	686	1105	693	1116	667	1074	675	1087	655	1055
			F		6.4 +107.9R		8.8 +71.8R		10.8 +53.6R		11.4 +42.8R		12.4 +35.6R		12.6 +30.5R		13.2 +26.6R		13.2 +23.7R		13.7 +21.3R	
		12"	q_a	q_f	709	1142	633	1019	589	949	562	904	542	873	528	851	518	833	509	820	502	809
			F		8.2 +107.1R		11.6 +70.8R		13.5 +52.7R		14.7 +41.9R		15.6 +34.8R		16.2 +29.7R		16.7 +25.9R		17 +23R		17.3 +20.6R	
		18"	q_a	q_f	709	1142	531	854	508	819	495	797	424	683	426	686	428	688	385	621	391	629
			F		8.2 +107.1R		14.3 +69.6R		15.8 +51.9R		16.7 +41.3R		19.6 +33.6R		19.7 +28.8R		19.8 +25.2R		21.8 +21.8R		21.6 +19.7R	
		24"	q_a	q_f	573	922	531	854	417	672	421	678	358	577	370	596	326	525	340	548	305	491
			F		11.4 +105.5R		14.3 +69.6R		19.4 +50.4R		19.5 +40.3R		23 +32.3R		22.4 +27.9R		25.2 +23.5R		24.3 +21.1R		26.6 +18.3R	
	22 ga	4"	q_a	q_f	810	1305	788	1268	775	1247	766	1234	761	1225	756	1218	753	1212	749	1198	606	970
			F		2 +168.6R		5.6 +112.3R		7.5 +84.2R		8.6 +67.3R		9.3 +56.1R		9.8 +48.1R		10.2 +42.1R		10.5 +37.4R		10.8 +33.7R	
		6"	q_a	q_f	726	1168	686	1105	664	1069	650	1046	639	1030	632	1018	626	1008	622	1001	606	970
			F		3.5 +168.2R		7.3 +111.9R		9.3 +83.8R		10.5 +67R		11.3 +55.8R		11.9 +47.8R		12.4 +41.8R		12.7 +37.2R		13 +33.4R	
		8"	q_a	q_f	662	1066	638	1027	581	935	581	936	549	884	554	892	532	856	538	866	521	839
			F		4.7 +167.7R		8.3 +111.6R		11 +83.4R		11.9 +66.7R		13.2 +55.5R		13.5 +47.6R		14.4 +41.5R		14.5 +36.9R		15.1 +33.2R	
		12"	q_a	q_f	579	932	511	823	473	762	449	722	432	695	420	675	410	660	403	648	397	639
			F		6.6 +166.9R		11.4 +110.5R		14 +82.5R		15.6 +65.8R		16.7 +54.6R		17.5 +46.7R		18.1 +40.8R		18.6 +36.2R		19 +32.5R	
		18"	q_a	q_f	579	932	430	692	408	658	395	637	338	544	338	545	339	545	305	491	308	497
			F		6.6 +166.9R		14.3 +109.3R		16.4 +81.6R		17.7 +65.1R		21.1 +53.3R		21.3 +45.6R		21.5 +39.9R		23.8 +34.9R		23.6 +31.5R	
		24"	q_a	q_f	470	757	430	692	337	542	337	543	286	460	294	474	256	412	266	429	239	385
			F		10.1 +165.1R		14.3 +109.3R		20.3 +79.9R		20.8 +63.9R		24.8 +51.9R		24.3 +44.7R		27.4 +38.1R		26.6 +34.1R		29.1 +30R	
	24 ga	4"	q_a	q_f	639	1028	617	993	605	973	597	961	591	952	587	945	584	940	540	864	437	700
			F		-2.7 +286.8R		3.3 +191.1R		6.3 +143.3R		8.2 +114.6R		9.4 +95.5R		10.2 +81.9R		10.9 +71.6R		11.4 +63.7R		11.8 +57.3R	
		6"	q_a	q_f	568	914	533	857	512	825	499	804	490	789	483	778	478	770	474	764	437	700
			F		-1.1 +286.3R		5.2 +190.7R		8.4 +142.9R		10.3 +114.3R		11.6 +95.2R		12.6 +81.6R		13.3 +71.3R		13.8 +63.4R		14.2 +57.1R	
		8"	q_a	q_f	517	833	494	795	446	718	445	716	418	673	421	678	403	649	407	656	394	634
			F		0.3 +285.8R		6.3 +190.4R		10.3 +142.4R		11.9 +113.9R		13.8 +94.8R		14.4 +81.3R		15.5 +71R		15.8 +63.1R		16.6 +56.8R	
		12"	q_a	q_f	452	728	395	635	362	583	342	550	327	527	317	511	309	498	303	488	298	480
			F		2.4 +284.9R		9.7 +189.2R		13.6 +141.4R		16 +112.9R		17.6 +93.9R		18.8 +80.3R		19.7 +70.2R		20.4 +62.3R		21 +56R	
		18"	q_a	q_f	452	728	333	536	313	505	301	485	257	414	256	412	255	411	228	367	232	373
			F		2.4 +284.9R		13 +187.8R		16.3 +140.4R		18.3 +112.1R		22.5 +92.3R		23 +79.1R		23.4 +69.2R		26.1 +60.9R		26.1 +54.9R	
		24"	q_a	q_f	370	596	333	536	260	419	258	416	215	346	220	354	191	308	199	320	179	288
			F		6.3 +282.9R		13 +187.8R		20.6 +138.5R		21.7 +110.8R		26.6 +90.8R		26.3 +78.1R		30 +67.2R		29.2 +60R		32.2 +53.2R	
	26 ga	4"	q_a	q_f	473	762	453	730	442	711	435	700	429	691	426	685	423	681	363	581	294	471
			F		-15.2 +556R		-3.7 +370.5R		2 +277.9R		5.5 +222.3R		7.8 +185.2R		9.4 +158.7R		10.6 +138.9R		11.6 +123.5R		12.4 +111.1R	
		6"	q_a	q_f	418	673	387	623	370	595	358	577	350	564	345	555	340	548	337	542	294	471
			F		-13.3 +555.4R		-1.5 +370R		4.4 +277.4R		8 +221.8R		10.3 +184.8R		12.1 +158.4R		13.3 +138.6R		14.3 +123.2R		15.1 +110.8R	
		8"	q_a	q_f	380	612	358	576	320	515	318	511	297	478	298	480	284	458	287	462	277	445
			F		-11.7 +554.8R		-0.4 +369.7R		6.5 +276.9R		9.7 +221.5R		12.8 +184.4R		14.1 +158.1R		15.9 +138.2R		16.6 +122.9R		17.8 +110.5R	
		12"	q_a	q_f	333	536	286	461	260	419	243	392	232	374	224	360	217	350	212	342	208	335
			F		-9.3 +553.7R		3.6 +368.3R		10.3 +275.7R		14.4 +220.2R		17.1 +183.3R		19.1 +157R		20.7 +137.3R		21.8 +121.9R		22.8 +109.7R	
		18"	q_a	q_f	333	536	243	391	226	364	215	347	181	291	179	288	178	287	158	255	160	258
			F		-9.3 +553.7R		7.3 +366.7R		13.4 +274.5R		17.1 +219.4R		22.7 +181.6R		24 +155.6R		25 +136.2R		28.4 +120.3R		28.7 +108.4R	
		24"	q_a	q_f	275	443	243	391	188	302	183	295	151	243	153	247	134	215	139	223	125	201
			F		-4.8 +551.5R		7.3 +366.7R		18.3 +272.4R		21 +217.9R		27.4 +179.9R		27.8 +154.4R		32.4 +133.9R		32 +119.3R		35.6 +106.5R	

Reverse C 1.4-32 32/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

6.4 Inverted C1.4/CP-32

No. 12 Self-Drilling Screws to Support with No. 10 Self-Drilling Side Lap Screws

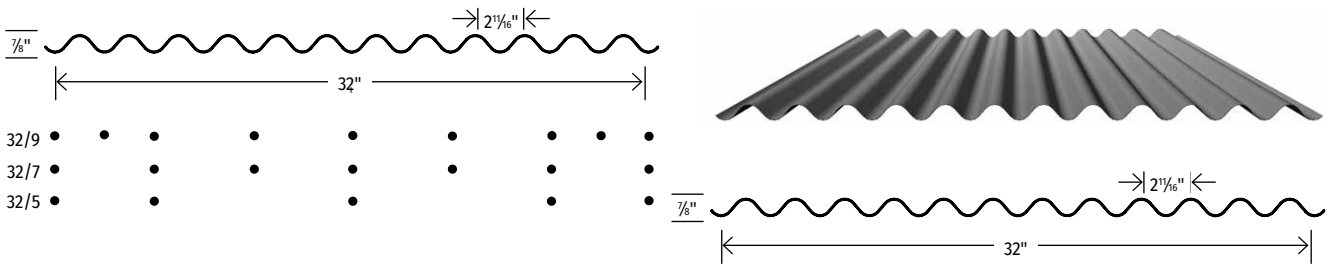


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	2' - 0"		3' - 0"		4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"	
32/7	20 ga	4"	q_a q_f	1431	2304	1354	2180	1311	2112	1284	2068	1266	2038	1252	2016	1216	1946	961	1538	778	1245
			F	10 +2.3R		10.4 +1.4R		10.6 +1R		10.7 +0.8R		10.8 +0.6R		10.9 +0.5R		10.9 +0.4R		10.9 +0.4R		11 +0.3R	
		6"	q_a q_f	1227	1975	1119	1801	1059	1706	1022	1645	996	1603	977	1573	963	1550	951	1532	778	1245
			F	11.1 +1.9R		11.7 +1R		12.1 +0.6R		12.3 +0.4R		12.5 +0.3R		12.6 +0.2R		12.7 +0.2R		12.8 +0.1R		12.9 +0.1R	
		8"	q_a q_f	1096	1764	1022	1645	900	1450	892	1436	827	1332	832	1339	789	1271	797	1283	766	1233
			F	11.9 +1.5R		12.4 +0.7R		13.4 +0.2R		13.4 +0.1R		14.1 -0.1R		14 -0.1R		14.4 -0.2R		14.3 -0.2R		14.7 -0.2R	
		12"	q_a q_f	942	1517	797	1283	718	1156	669	1077	636	1023	611	984	593	955	579	931	567	913
			F	13.2 +0.9R		14.6 -0.2R		15.6 -0.6R		16.2 -0.8R		16.8 -0.9R		17.2 -1R		17.5 -1R		17.7 -1R		17.9 -1R	
		18"	q_a q_f	942	1517	669	1077	619	996	588	946	496	799	491	790	486	783	431	693	433	697
			F	13.2 +0.9R		16.5 -1.1R		17.3 -1.4R		17.8 -1.5R		20 -2.2R		20.1 -2R		20.1 -1.8R		21.8 -2.2R		21.6 -2R	
		24"	q_a q_f	766	1233	669	1077	514	828	503	810	417	672	423	681	368	593	378	609	339	545
			F	15.2 -0.3R		16.5 -1.1R		19.8 -2.6R		19.9 -2.4R		22.6 -3.3R		22.2 -2.8R		24.4 -3.5R		23.9 -3R		25.8 -3.4R	
	22 ga	4"	q_a q_f	1164	1874	1093	1760	1054	1697	1030	1658	1012	1630	1000	1610	947	1516	749	1198	606	970
			F	11.5 +3.8R		11.9 +2.4R		12.2 +1.8R		12.3 +1.4R		12.4 +1.1R		12.5 +0.9R		12.6 +0.8R		12.6 +0.7R		12.6 +0.6R	
		6"	q_a q_f	995	1602	900	1448	847	1364	814	1310	791	1273	774	1247	762	1226	749	1198	606	970
			F	12.7 +3.4R		13.4 +2R		13.8 +1.3R		14.1 +1R		14.3 +0.8R		14.4 +0.6R		14.6 +0.5R		14.7 +0.4R		14.7 +0.4R	
		8"	q_a q_f	889	1432	821	1322	719	1158	709	1142	656	1056	658	1059	623	1003	628	1011	603	970
			F	13.6 +3R		14.2 +1.7R		15.3 +0.9R		15.3 +0.6R		16 +0.3R		15.9 +0.3R		16.4 +0.1R		16.3 +0.1R		16.7 +0R	
		12"	q_a q_f	768	1236	643	1035	576	927	534	859	505	813	484	780	469	754	456	735	446	719
			F	15 +2.3R		16.6 +0.7R		17.6 +0R		18.4 -0.4R		18.9 -0.6R		19.4 -0.7R		19.7 -0.7R		20 -0.8R		20.2 -0.8R	
		18"	q_a q_f	768	1236	543	874	498	801	470	757	393	633	387	623	382	615	338	545	340	548
			F	15 +2.3R		18.6 -0.3R		19.5 -0.9R		20.1 -1.1R		22.5 -1.9R		22.6 -1.8R		22.6 -1.7R		24.4 -2.1R		24.3 -1.9R	
		24"	q_a q_f	630	1014	543	874	415	669	402	647	333	536	335	539	291	469	298	480	268	431
			F	17.2 +1R		18.6 -0.3R		22.2 -2.2R		22.4 -2.1R		25.3 -3.2R		24.9 -2.7R		27.3 -3.5R		26.7 -3R		28.8 -3.5R	
	24 ga	4"	q_a q_f	905	1456	842	1356	807	1300	785	1264	770	1240	759	1222	684	1094	540	864	437	700
			F	13.6 +6.9R		14.2 +4.5R		14.5 +3.3R		14.6 +2.6R		14.8 +2.1R		14.9 +1.8R		14.9 +1.6R		15 +1.4R		15 +1.2R	
		6"	q_a q_f	772	1243	690	1111	645	1039	617	993	597	962	583	939	573	922	540	864	437	700
			F	14.9 +6.4R		15.8 +4R		16.3 +2.8R		16.6 +2.1R		16.9 +1.7R		17 +1.4R		17.2 +1.2R		17.3 +1.1R		17.4 +0.9R	
		8"	q_a q_f	691	1113	630	1015	548	883	538	865	495	797	495	797	467	753	470	757	437	700
			F	16 +6R		16.6 +3.7R		17.9 +2.3R		18 +1.8R		18.7 +1.3R		18.7 +1.1R		19.2 +0.8R		19.1 +0.7R		19.5 +0.6R	
		12"	q_a q_f	600	966	496	799	441	709	406	654	382	616	365	588	352	566	342	550	334	538
			F	17.5 +5.2R		19.3 +2.5R		20.5 +1.3R		21.4 +0.6R		22 +0.2R		22.5 +0R		22.9 -0.2R		23.2 -0.3R		23.5 -0.3R	
		18"	q_a q_f	600	966	422	680	383	617	359	578	297	478	291	468	286	460	254	408	255	410
			F	17.5 +5.2R		21.6 +1.4R		22.6 +0.4R		23.3 -0.1R		26 -1.3R		26 -1.2R		26.1 -1.2R		28.1 -1.8R		27.9 -1.6R	
		24"	q_a q_f	498	801	422	680	320	515	306	493	253	408	253	407	220	354	224	361	202	325
			F	20 +3.8R		21.6 +1.4R		25.6 -1.1R		25.8 -1.3R		29.1 -2.6R		28.7 -2.3R		31.4 -3.2R		30.7 -2.7R		33 -3.4R	
	26 ga	4"	q_a q_f	660	1062	607	977	577	929	559	899	546	879	536	864	460	736	363	581	294	471
			F	16.8 +14R		17.5 +9.2R		17.9 +6.8R		18.2 +5.4R		18.4 +4.5R		18.5 +3.8R		18.6 +3.3R		18.7 +2.9R		18.7 +2.6R	
		6"	q_a q_f	563	906	496	799	459	740	437	703	421	677	409	659	401	645	363	581	294	471
			F	18.3 +13.4R		19.4 +8.6R		20 +6.3R		20.4 +4.9R		20.7 +4R		21 +3.4R		21.1 +2.9R		21.2 +2.6R		21.4 +2.3R	
		8"	q_a q_f	506	814	454	730	391	630	381	613	349	562	347	559	327	526	328	528	294	471
			F	19.5 +12.9R		20.4 +8.3R		21.9 +5.7R		22 +4.5R		22.9 +3.5R		22.8 +3R		23.5 +2.4R		23.3 +2.2R		23.8 +1.9R	
		12"	q_a q_f	442	711	360	580	317	510	290	466	269	434	255	410	245	394	237	382	231	372
			F	21.2 +12.1R		23.4 +7R		24.9 +4.5R		25.9 +3.2R		26.6 +2.3R		27.2 +1.7R		27.7 +1.3R		28 +1.1R		28.3 +0.8R	
		18"	q_a q_f	442	711	310	499	276	445	254	409	210	338	204	328	200	322	178	286	178	286
			F	21.2 +12.1R		26 +5.7R		27.2 +3.5R		28 +2.3R		31.1 +0.6R		31.2 +0.3R		31.3 +0.2R		33.6 -0.7R		33.4 -0.6R	
		24"	q_a q_f	372	598	310	499	232	373	219	352	180	290	178	287	156	251	158	255	142	229
			F	24 +10.5R		26 +5.7R		30.7 +1.8R		31 +1R		34.7 -1R		34.2 -0.8R		37.3 -2.1R		36.5 -1.7R		39.2 -2.6R	

Reverse C 1.4-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

C0.9-32 6.5



Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
26	1.08	0.0195	80	82	0.300	0.029	0.46	0.062	0.308
24	1.39	0.0254	80	82	0.391	0.037	0.46	0.081	0.308
22	1.70	0.0314	80	82	0.483	0.045	0.46	0.099	0.308
20	2.01	0.0374	80	82	0.575	0.056	0.47	0.117	0.308

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
26	0.300	0.062	0.46	0.062	0.46	0.029	0.029	0.029	0.029
24	0.391	0.081	0.46	0.081	0.46	0.037	0.037	0.037	0.037
22	0.483	0.099	0.45	0.099	0.45	0.045	0.045	0.045	0.045
20	0.575	0.117	0.48	0.117	0.48	0.056	0.056	0.056	0.056

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		Allowable (R_n/Ω)				Factored (ΦR_n)			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
26	End	377	431	460	460	577	660	703	703
	Interior	473	532	562	562	724	814	860	860
24	End	699	795	844	844	1069	1216	1292	1292
	Interior	950	1060	1117	1117	1453	1622	1710	1710
22	End	1117	1264	1341	1341	1710	1935	2052	2052
	Interior	1585	1760	1850	1850	2425	2692	2831	2831
20	End	1627	1833	1940	1940	2489	2804	2968	2968
	Interior	2370	2619	2749	2749	3626	4007	4206	4206

Web Crippling Constraints h=0.6 " r=0.63" θ=48.8º

6.5 C0.9-32

ASC STEEL DECK®

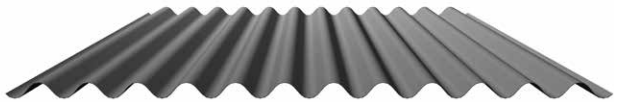
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	166	122	93	74	60	49	41	30	23
		Φf_b	249	183	140	111	90	74	62	46	35
		L/360	46	29	19	14	10	7	6	4	2
		L/240	69	44	29	21	15	11	9	5	4
		L/180	92	58	39	27	20	15	12	7	5
		L/120	138	87	58	41	30	22	17	11	7
	Double Span	f_b/Ω	166	122	93	74	60	49	41	30	23
		Φf_b	249	183	140	111	90	74	62	46	35
		L/360	111	70	47	33	24	18	14	9	6
		L/240	167	105	70	49	36	27	21	13	9
		L/180	222	140	94	66	48	36	28	17	12
		L/120	333	210	141	99	72	54	42	26	18
	Triple Span	f_b/Ω	207	152	116	92	75	62	52	38	29
		Φf_b	311	229	175	138	112	93	78	57	44
		L/360	87	55	37	26	19	14	11	7	5
		L/240	131	82	55	39	28	21	16	10	7
		L/180	174	110	73	52	38	28	22	14	9
		L/120	261	164	110	77	56	42	33	21	14
24	Single Span	f_b/Ω	214	157	121	95	77	64	54	39	30
		Φf_b	322	237	181	143	116	96	81	59	45
		L/360	60	38	25	18	13	10	8	5	3
		L/240	90	57	38	27	19	15	11	7	5
		L/180	120	76	51	36	26	20	15	9	6
		L/120	180	114	76	53	39	29	23	14	10
	Double Span	f_b/Ω	214	157	121	95	77	64	54	39	30
		Φf_b	322	237	181	143	116	96	81	59	45
		L/360	145	91	61	43	31	23	18	11	8
		L/240	217	137	92	64	47	35	27	17	11
		L/180	290	182	122	86	63	47	36	23	15
		L/120	434	273	183	129	94	70	54	34	23
	Triple Span	f_b/Ω	268	197	151	119	96	80	67	49	38
		Φf_b	403	296	227	179	145	120	101	74	57
		L/360	113	71	48	34	24	18	14	9	6
		L/240	170	107	72	50	37	28	21	13	9
		L/180	227	143	96	67	49	37	28	18	12
		L/120	340	214	144	101	73	55	43	27	18
22	Single Span	f_b/Ω	263	193	148	117	95	78	66	48	37
		Φf_b	396	291	223	176	143	118	99	73	56
		L/360	73	46	31	22	16	12	9	6	4
		L/240	109	69	46	32	24	18	14	9	6
		L/180	146	92	61	43	31	24	18	11	8
		L/120	219	138	92	65	47	35	27	17	12
	Double Span	f_b/Ω	263	193	148	117	95	78	66	48	37
		Φf_b	396	291	223	176	143	118	99	73	56
		L/360	175	110	74	52	38	28	22	14	9
		L/240	263	166	111	78	57	43	33	21	14
		L/180	351	221	148	104	76	57	44	28	19
		L/120	526	331	222	156	114	85	66	41	28
	Triple Span	f_b/Ω	329	242	185	146	119	98	82	60	46
		Φf_b	495	364	278	220	178	147	124	91	70
		L/360	137	87	58	41	30	22	17	11	7
		L/240	206	130	87	61	45	33	26	16	11
		L/180	275	173	116	81	59	45	34	22	14
		L/120	412	260	174	122	89	67	52	32	22
20	Single Span	f_b/Ω	312	229	175	139	112	93	78	57	44
		Φf_b	469	344	264	208	169	139	117	86	66
		L/360	91	57	38	27	20	15	11	7	5
		L/240	137	86	58	40	30	22	17	11	7
		L/180	182	115	77	54	39	30	23	14	10
		L/120	273	172	115	81	59	44	34	22	14
	Double Span	f_b/Ω	312	229	175	139	112	93	78	57	44
		Φf_b	469	344	264	208	169	139	117	86	66
		L/360	219	138	93	65	47	36	27	17	12
		L/240	329	207	139	97	71	53	41	26	17
		L/180	439	276	185	130	95	71	55	35	23
		L/120	658	414	278	195	142	107	82	52	35
	Triple Span	f_b/Ω	390	286	219	173	140	116	97	72	55
		Φf_b	586	430	330	260	211	174	146	108	82
		L/360	172	108	72	51	37	28	21	14	9
		L/240	258	162	109	76	56	42	32	20	14
		L/180	344	216	145	102	74	56	43	27	18
		L/120	515	325	217	153	111	84	64	41	27

ASC Steel Deck®

C0.9-32 6.6

No. 12 Self-Drilling Screws to Support with No. 10 Self-Drilling Side Lap Screws

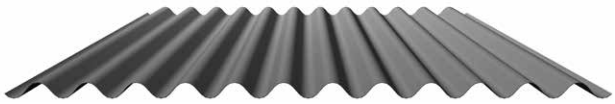


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	12"		18"		2' - 0"		2' - 6"		3' - 0"		3' - 6"		4' - 0"		4' - 6"		5' - 0"	
32/5	20 ga	4"	q_a q_f	1166	1878	1166	1878	1166	1878	1166	1878	1145	1843	1146	1845	1118	1799	1122	1806	1100	1771
			F	4.2 -0.3R		4.3 -0.3R		4.5 -0.3R		4.5 -0.2R		4.7 -0.2R		4.6 -0.2R		4.7 -0.2R		4.7 -0.2R		4.8 -0.2R	
		6"	q_a q_f	1166	1878	1135	1827	1075	1731	1033	1662	1001	1611	976	1572	957	1541	941	1515	928	1494
			F	4.5 -0.5R		4.8 -0.5R		5 -0.4R		5.2 -0.4R		5.3 -0.4R		5.3 -0.4R		5.4 -0.3R		5.5 -0.3R		5.5 -0.3R	
		8"	q_a q_f	1166	1878	1135	1827	993	1599	959	1544	935	1506	917	1476	842	1356	837	1348	833	1341
			F	4.5 -0.5R		4.8 -0.5R		5.4 -0.6R		5.5 -0.6R		5.6 -0.5R		5.6 -0.5R		6 -0.5R		6 -0.5R		6 -0.4R	
		12"	q_a q_f	1125	1811	1043	1680	888	1430	870	1401	768	1237	772	1243	699	1125	710	1143	654	1052
			F	5.1 -0.7R		5.3 -0.7R		6.1 -0.9R		6 -0.8R		6.6 -0.9R		6.5 -0.8R		7 -0.9R		6.9 -0.8R		7.3 -0.8R	
		18"	q_a q_f	1125	1811	917	1476	888	1430	763	1229	665	1070	684	1102	615	990	557	897	584	940
			F	5.1 -0.7R		6.1 -1.1R		6.1 -0.9R		6.8 -1.1R		7.6 -1.4R		7.2 -1.1R		7.8 -1.2R		8.5 -1.4R		8 -1.1R	
		24"	q_a q_f	1125	1811	917	1476	756	1217	763	1229	665	1070	586	944	523	842	557	897	508	819
			F	5.1 -0.7R		6.1 -1.1R		7.1 -1.5R		6.8 -1.1R		7.6 -1.4R		8.3 -1.6R		9.1 -1.8R		8.5 -1.4R		9.1 -1.5R	
	22 ga	4"	q_a q_f	979	1577	979	1577	979	1577	972	1564	936	1507	936	1507	910	1466	913	1470	894	1439
			F	4.9 -0.3R		5 -0.3R		5.2 -0.3R		5.2 -0.2R		5.4 -0.2R		5.4 -0.2R		5.5 -0.2R		5.4 -0.2R		5.5 -0.2R	
		6"	q_a q_f	979	1577	936	1507	882	1419	843	1357	814	1310	791	1274	774	1246	759	1223	748	1204
			F	5.3 -0.5R		5.6 -0.5R		5.8 -0.5R		5.9 -0.5R		6.1 -0.4R		6.1 -0.4R		6.2 -0.4R		6.3 -0.4R		6.3 -0.3R	
		8"	q_a q_f	979	1577	936	1507	814	1310	782	1259	759	1222	742	1195	679	1094	674	1085	669	1077
			F	5.3 -0.5R		5.6 -0.5R		6.2 -0.7R		6.3 -0.6R		6.4 -0.6R		6.5 -0.5R		6.9 -0.6R		6.9 -0.5R		6.9 -0.5R	
		12"	q_a q_f	936	1507	860	1385	729	1174	710	1143	624	1005	624	1005	564	908	571	919	525	845
			F	5.8 -0.8R		6.1 -0.7R		6.9 -1R		6.9 -0.8R		7.6 -1R		7.4 -0.9R		8 -1R		7.8 -0.8R		8.3 -0.9R	
		18"	q_a q_f	936	1507	759	1222	729	1174	624	1005	542	873	555	893	497	801	450	725	469	756
			F	5.8 -0.8R		6.9 -1.2R		6.9 -1R		7.7 -1.2R		8.6 -1.5R		8.2 -1.2R		8.9 -1.3R		9.5 -1.5R		9.1 -1.2R	
		24"	q_a q_f	936	1507	759	1222	624	1005	624	1005	542	873	477	769	425	685	450	725	410	661
			F	5.8 -0.8R		6.9 -1.2R		8 -1.6R		7.7 -1.2R		8.6 -1.5R		9.4 -1.7R		10.2 -2R		9.5 -1.5R		10.2 -1.7R	
	24 ga	4"	q_a q_f	792	1275	792	1275	772	1243	763	1229	732	1178	730	1176	708	1140	710	1143	692	1115
			F	5.9 -0.4R		6 -0.3R		6.3 -0.3R		6.3 -0.3R		6.4 -0.3R		6.4 -0.2R		6.5 -0.2R		6.5 -0.2R		6.6 -0.2R	
		6"	q_a q_f	792	1275	740	1192	692	1115	658	1059	632	1018	613	986	597	961	584	941	574	924
			F	6.3 -0.6R		6.7 -0.6R		6.9 -0.5R		7.1 -0.5R		7.2 -0.5R		7.3 -0.5R		7.4 -0.4R		7.4 -0.4R		7.5 -0.4R	
		8"	q_a q_f	792	1275	740	1192	639	1029	610	982	590	949	574	924	523	842	517	833	512	825
			F	6.3 -0.6R		6.7 -0.6R		7.4 -0.7R		7.5 -0.7R		7.6 -0.6R		7.6 -0.6R		8.1 -0.6R		8.1 -0.6R		8.1 -0.5R	
		12"	q_a q_f	749	1206	681	1097	574	924	554	893	486	782	483	778	435	700	439	706	402	648
			F	6.9 -0.9R		7.2 -0.8R		8.1 -1.1R		8.1 -0.9R		8.8 -1.1R		8.7 -0.9R		9.3 -1.1R		9.1 -0.9R		9.6 -1R	
		18"	q_a q_f	749	1206	604	973	574	924	490	788	424	683	430	693	385	620	348	560	361	581
			F	6.9 -0.9R		8.2 -1.3R		8.1 -1.1R		9.1 -1.4R		10 -1.7R		9.6 -1.3R		10.3 -1.5R		11 -1.7R		10.5 -1.4R	
		24"	q_a q_f	749	1206	604	973	495	798	490	788	424	683	373	600	332	534	348	560	317	510
			F	6.9 -0.9R		8.2 -1.3R		9.4 -1.8R		9.1 -1.4R		10 -1.7R		10.9 -1.9R		11.8 -2.2R		11 -1.7R		11.8 -1.9R	
	26 ga	4"	q_a q_f	608	979	608	979	573	922	563	907	537	864	535	861	516	830	516	831	502	808
			F	7.5 -0.4R		7.6 -0.4R		7.9 -0.4R		7.9 -0.3R		8.1 -0.3R		8 -0.3R		8.2 -0.3R		8.1 -0.2R		8.2 -0.2R	
		6"	q_a q_f	608	979	553	890	512	825	483	778	461	743	445	716	432	695	421	678	412	664
			F	7.9 -0.6R		8.3 -0.6R		8.6 -0.6R		8.8 -0.6R		8.9 -0.5R		9 -0.5R		9.1 -0.5R		9.2 -0.5R		9.2 -0.4R	
		8"	q_a q_f	608	979	553	890	473	762	448	721	430	692	416	670	378	608	372	599	367	591
			F	7.9 -0.6R		8.3 -0.6R		9.2 -0.9R		9.3 -0.8R		9.4 -0.7R		9.4 -0.6R		9.9 -0.7R		9.9 -0.7R		9.9 -0.6R	
		12"	q_a q_f	568	914	510	821	427	687	408	657	356	573	351	566	315	508	316	509	289	466
			F	8.6 -1R		9 -0.9R		10 -1.3R		10 -1.1R		10.8 -1.3R		10.7 -1.1R		11.4 -1.2R		11.1 -1.1R		11.7 -1.2R	
		18"	q_a q_f	568	914	456	733	427	687	363	584	313	504	314	506	281	452	253	408	261	419
			F	8.6 -1R		10 -1.5R		10 -1.3R		11 -1.6R		12.1 -1.9R		11.7 -1.5R		12.5 -1.7R		13.3 -1.9R		12.7 -1.5R	
		24"	q_a q_f	568	914	456	733	372	599	363	584	313	504	275	442	244	393	253	408	230	371
			F	8.6 -1R		10 -1.5R		11.4 -2R		11 -1.6R		12.1 -1.9R		13.1 -2.2R		14.2 -2.5R		13.3 -1.9R		14.2 -2.1R	

C 0.9-32 32/5 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

6.6 C0.9-32

No. 12 Self-Drilling Screws to Support with No. 10 Self-Drilling Side Lap Screws



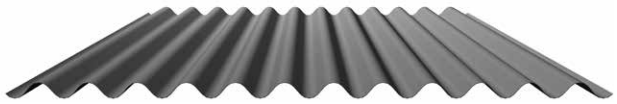
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	12"		18"		2' - 0"		2' - 6"		3' - 0"		3' - 6"		4' - 0"		4' - 6"		5' - 0"	
32/7	20 ga	4"	q_a q_f	1693	2725	1617	2603	1503	2421	1482	2386	1411	2272	1408	2267	1358	2187	1361	2192	1324	2131
			F	4.1	-0.3R	4.2	-0.3R	4.4	-0.3R	4.4	-0.2R	4.6	-0.3R	4.6	-0.2R	4.7	-0.2R	4.6	-0.2R	4.7	-0.2R
		6"	q_a q_f	1595	2568	1436	2311	1329	2139	1254	2019	1199	1931	1157	1863	1124	1810	1098	1768	1076	1733
			F	4.3	-0.4R	4.6	-0.5R	4.8	-0.5R	5	-0.5R	5.1	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.4R	5.4	-0.4R
		8"	q_a q_f	1595	2568	1436	2311	1216	1958	1155	1859	1111	1789	1078	1736	976	1571	963	1551	953	1535
			F	4.3	-0.4R	4.6	-0.5R	5.2	-0.6R	5.3	-0.6R	5.4	-0.5R	5.5	-0.5R	5.8	-0.6R	5.8	-0.5R	5.8	-0.5R
		12"	q_a q_f	1459	2348	1308	2107	1084	1744	1042	1677	905	1457	898	1446	804	1295	810	1305	741	1192
			F	4.7	-0.6R	5	-0.6R	5.6	-0.9R	5.7	-0.8R	6.2	-0.9R	6.2	-0.8R	6.6	-0.9R	6.6	-0.8R	6.9	-0.9R
		18"	q_a q_f	1459	2348	1149	1850	1084	1744	914	1472	787	1266	797	1283	710	1143	639	1029	662	1066
			F	4.7	-0.6R	5.5	-1R	5.6	-0.9R	6.3	-1.1R	6.9	-1.3R	6.8	-1.1R	7.3	-1.2R	7.8	-1.4R	7.5	-1.2R
		24"	q_a q_f	1459	2348	1149	1850	928	1495	914	1472	787	1266	688	1107	610	982	639	1029	581	935
			F	4.7	-0.6R	5.5	-1R	6.3	-1.3R	6.3	-1.1R	6.9	-1.3R	7.6	-1.5R	8.2	-1.7R	7.8	-1.4R	8.4	-1.5R
	22 ga	4"	q_a q_f	1403	2259	1331	2143	1230	1980	1208	1945	1146	1845	1141	1836	1097	1766	1098	1768	1065	1715
			F	4.8	-0.3R	4.9	-0.3R	5.1	-0.3R	5.1	-0.3R	5.3	-0.3R	5.3	-0.2R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R
		6"	q_a q_f	1323	2130	1181	1901	1086	1748	1019	1641	971	1563	934	1503	904	1456	881	1419	862	1388
			F	5	-0.5R	5.4	-0.5R	5.6	-0.5R	5.7	-0.5R	5.9	-0.5R	6	-0.5R	6.1	-0.4R	6.1	-0.4R	6.2	-0.4R
		8"	q_a q_f	1323	2130	1181	1901	995	1602	939	1512	899	1448	870	1400	785	1264	773	1244	763	1228
			F	5	-0.5R	5.4	-0.5R	5.9	-0.7R	6.1	-0.6R	6.2	-0.6R	6.3	-0.6R	6.6	-0.6R	6.6	-0.6R	6.7	-0.5R
		12"	q_a q_f	1213	1953	1078	1736	889	1432	849	1367	736	1184	726	1169	649	1045	652	1049	595	957
			F	5.4	-0.7R	5.7	-0.7R	6.4	-0.9R	6.5	-0.8R	7.1	-1R	7.1	-0.9R	7.6	-1R	7.5	-0.9R	7.9	-1R
		18"	q_a q_f	1213	1953	952	1533	889	1432	749	1205	643	1035	647	1041	575	926	518	833	533	859
			F	5.4	-0.7R	6.3	-1R	6.4	-0.9R	7.2	-1.2R	7.9	-1.4R	7.7	-1.2R	8.3	-1.3R	8.8	-1.5R	8.5	-1.3R
		24"	q_a q_f	1213	1953	952	1533	768	1236	749	1205	643	1035	562	904	498	801	518	833	470	757
			F	5.4	-0.7R	6.3	-1R	7.2	-1.4R	7.2	-1.2R	7.9	-1.4R	8.6	-1.6R	9.3	-1.9R	8.8	-1.5R	9.4	-1.7R
	24 ga	4"	q_a q_f	1117	1799	1051	1692	964	1551	942	1516	889	1431	882	1420	845	1361	845	1360	797	1276
			F	5.8	-0.4R	5.9	-0.3R	6.1	-0.4R	6.2	-0.3R	6.3	-0.3R	6.3	-0.3R	6.4	-0.3R	6.4	-0.2R	6.5	-0.2R
		6"	q_a q_f	1054	1697	932	1500	850	1369	793	1277	751	1209	719	1158	694	1118	674	1086	658	1059
			F	6	-0.5R	6.4	-0.6R	6.7	-0.6R	6.8	-0.5R	7	-0.5R	7.1	-0.5R	7.2	-0.5R	7.3	-0.5R	7.3	-0.4R
		8"	q_a q_f	1054	1697	932	1500	780	1256	731	1177	696	1121	670	1079	603	971	592	953	582	938
			F	6	-0.5R	6.4	-0.6R	7.1	-0.7R	7.2	-0.7R	7.3	-0.7R	7.4	-0.6R	7.8	-0.7R	7.8	-0.6R	7.9	-0.6R
		12"	q_a q_f	971	1563	853	1374	701	1128	663	1068	573	923	562	905	502	808	501	806	456	735
			F	6.5	-0.8R	6.8	-0.8R	7.6	-1R	7.7	-0.9R	8.3	-1.1R	8.3	-1R	8.8	-1.1R	8.7	-1R	9.2	-1.1R
		18"	q_a q_f	971	1563	759	1221	701	1128	588	947	504	812	503	809	447	719	402	647	411	662
			F	6.5	-0.8R	7.5	-1.2R	7.6	-1R	8.4	-1.3R	9.2	-1.6R	9	-1.3R	9.6	-1.5R	10.3	-1.7R	9.9	-1.4R
		24"	q_a q_f	971	1563	759	1221	610	983	588	947	504	812	440	708	390	627	402	647	364	587
			F	6.5	-0.8R	7.5	-1.2R	8.5	-1.6R	8.4	-1.3R	9.2	-1.6R	10	-1.8R	10.8	-2.1R	10.3	-1.7R	10.9	-1.9R
	26 ga	4"	q_a q_f	841	1355	782	1259	710	1143	689	1110	646	1041	639	1029	609	981	607	978	536	858
			F	7.3	-0.4R	7.4	-0.4R	7.7	-0.4R	7.8	-0.3R	7.9	-0.3R	7.9	-0.3R	8.1	-0.3R	8	-0.3R	8.1	-0.3R
		6"	q_a q_f	795	1280	694	1118	627	1009	580	934	546	879	520	837	500	804	483	778	470	756
			F	7.6	-0.6R	8	-0.6R	8.3	-0.6R	8.5	-0.6R	8.7	-0.6R	8.8	-0.6R	8.9	-0.5R	9	-0.5R	9.1	-0.5R
		8"	q_a q_f	795	1280	694	1118	577	929	536	863	507	816	485	781	435	701	425	684	416	671
			F	7.6	-0.6R	8	-0.6R	8.8	-0.9R	8.9	-0.8R	9.1	-0.7R	9.2	-0.7R	9.6	-0.8R	9.7	-0.7R	9.7	-0.7R
		12"	q_a q_f	736	1185	638	1028	521	840	488	786	421	677	409	659	364	587	361	582	329	530
			F	8.1	-0.9R	8.5	-0.9R	9.4	-1.2R	9.5	-1.1R	10.2	-1.3R	10.2	-1.1R	10.8	-1.3R	10.7	-1.1R	11.2	-1.2R
		18"	q_a q_f	736	1185	572	922	521	840	436	703	373	601	368	593	327	526	294	473	298	480
			F	8.1	-0.9R	9.3	-1.3R	9.4	-1.2R	10.3	-1.5R	11.2	-1.8R	11	-1.5R	11.7	-1.7R	12.5	-1.9R	12.1	-1.6R
		24"	q_a q_f	736	1185	572	922	459	740	436	703	373	601	325	524	288	464	294	473	266	428
			F	8.1	-0.9R	9.3	-1.3R	10.4	-1.8R	10.3	-1.5R	11.2	-1.8R	12.1	-2.1R	13	-2.4R	12.5	-1.9R	13.2	-2.1R

C 0.9-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC Steel Deck®

C0.9-32 6.6

No. 12 Self-Drilling Screws to Support with No. 10 Self-Drilling Side Lap Screws

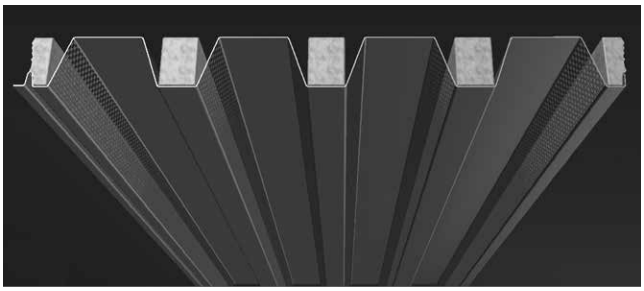


Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	12"		18"		2' - 0"		2' - 6"		3' - 0"		3' - 6"		4' - 0"		4' - 6"		5' - 0"	
32/9	20 ga	4"	q_a / q_f	1750	2817	1750	2817	1750	2817	1750	2817	1683	2710	1663	2678	1590	2561	1584	2551	1455	2328
			F	3.9 -0.3R		4.1 -0.3R		4.3 -0.3R		4.3 -0.3R		4.4 -0.3R		4.4 -0.3R		4.5 -0.3R		4.5 -0.2R		4.6 -0.2R	
		6"	q_a / q_f	1750	2817	1750	2817	1645	2648	1527	2458	1440	2318	1373	2210	1320	2125	1278	2057	1243	2001
			F	4.1 -0.4R		4.4 -0.4R		4.6 -0.5R		4.7 -0.5R		4.9 -0.5R		5 -0.5R		5.1 -0.4R		5.1 -0.4R		5.2 -0.4R	
		8"	q_a / q_f	1750	2817	1750	2817	1525	2456	1420	2286	1344	2163	1286	2071	1159	1865	1131	1820	1108	1783
			F	4.1 -0.4R		4.4 -0.4R		4.8 -0.6R		5 -0.6R		5.1 -0.6R		5.2 -0.5R		5.5 -0.6R		5.5 -0.6R		5.6 -0.6R	
		12"	q_a / q_f	1750	2817	1679	2703	1390	2238	1302	2096	1128	1817	1096	1764	979	1576	969	1560	884	1423
			F	4.3 -0.5R		4.6 -0.6R		5.1 -0.8R		5.3 -0.7R		5.7 -0.9R		5.8 -0.8R		6.1 -0.9R		6.1 -0.8R		6.5 -0.9R	
		18"	q_a / q_f	1750	2817	1523	2452	1390	2238	1173	1888	1008	1624	992	1597	883	1421	794	1278	804	1294
			F	4.3 -0.5R		4.9 -0.8R		5.1 -0.8R		5.7 -0.9R		6.2 -1.1R		6.2 -1R		6.6 -1.2R		7.1 -1.3R		6.9 -1.1R	
		24"	q_a / q_f	1750	2817	1523	2452	1237	1991	1173	1888	1008	1624	882	1420	782	1259	794	1278	721	1161
			F	4.3 -0.5R		4.9 -0.8R		5.6 -1R		5.7 -0.9R		6.2 -1.1R		6.7 -1.3R		7.2 -1.5R		7.1 -1.3R		7.5 -1.4R	
	22 ga	4"	q_a / q_f	1469	2365	1469	2365	1469	2365	1458	2348	1367	2200	1346	2168	1284	2067	1276	2054	1080	1728
			F	4.6 -0.3R		4.7 -0.3R		5 -0.3R		5 -0.3R		5.1 -0.3R		5.2 -0.3R		5.3 -0.3R		5.3 -0.3R		5.3 -0.3R	
		6"	q_a / q_f	1469	2365	1469	2365	1349	2171	1245	2005	1169	1882	1111	1788	1065	1714	1028	1654	997	1605
			F	4.8 -0.4R		5.1 -0.5R		5.3 -0.5R		5.5 -0.5R		5.6 -0.5R		5.7 -0.5R		5.8 -0.5R		5.9 -0.5R		6 -0.5R	
		8"	q_a / q_f	1469	2365	1469	2365	1253	2018	1160	1868	1093	1759	1042	1677	936	1508	911	1466	890	1433
			F	4.8 -0.4R		5.1 -0.5R		5.6 -0.6R		5.7 -0.6R		5.9 -0.6R		6 -0.6R		6.3 -0.7R		6.3 -0.6R		6.4 -0.6R	
		12"	q_a / q_f	1469	2365	1389	2237	1146	1846	1067	1718	923	1485	891	1435	795	1280	784	1262	714	1150
			F	5 -0.6R		5.3 -0.6R		5.9 -0.8R		6.1 -0.8R		6.5 -0.9R		6.6 -0.9R		7 -1R		7 -0.9R		7.4 -1R	
		18"	q_a / q_f	1469	2365	1267	2039	1146	1846	965	1554	829	1335	810	1304	720	1159	647	1042	652	1049
			F	5 -0.6R		5.7 -0.8R		5.9 -0.8R		6.5 -1R		7.1 -1.2R		7 -1.1R		7.5 -1.3R		8 -1.4R		7.9 -1.3R	
		24"	q_a / q_f	1469	2365	1267	2039	1027	1654	965	1554	829	1335	724	1166	642	1034	647	1042	588	946
			F	5 -0.6R		5.7 -0.8R		6.4 -1.1R		6.5 -1R		7.1 -1.2R		7.6 -1.4R		8.2 -1.7R		8 -1.4R		8.5 -1.6R	
	24 ga	4"	q_a / q_f	1188	1913	1188	1913	1184	1907	1138	1833	1061	1708	1041	1677	989	1592	980	1575	797	1276
			F	5.6 -0.4R		5.7 -0.3R		6 -0.4R		6 -0.3R		6.2 -0.3R		6.2 -0.3R		6.3 -0.3R		6.3 -0.3R		6.4 -0.3R	
		6"	q_a / q_f	1188	1913	1184	1907	1061	1708	974	1567	909	1463	859	1384	821	1321	789	1271	764	1230
			F	5.7 -0.5R		6.1 -0.5R		6.4 -0.6R		6.5 -0.6R		6.7 -0.6R		6.8 -0.5R		6.9 -0.5R		7 -0.5R		7.1 -0.5R	
		8"	q_a / q_f	1188	1913	1184	1907	989	1592	909	1463	851	1370	807	1300	724	1166	701	1129	683	1100
			F	5.7 -0.5R		6.1 -0.5R		6.6 -0.7R		6.8 -0.7R		7 -0.7R		7.1 -0.7R		7.5 -0.7R		7.5 -0.7R		7.6 -0.7R	
		12"	q_a / q_f	1188	1913	1105	1779	909	1463	839	1351	724	1166	695	1119	619	997	607	977	552	889
			F	6 -0.6R		6.4 -0.7R		7 -0.9R		7.2 -0.9R		7.7 -1.1R		7.8 -1R		8.2 -1.1R		8.2 -1R		8.6 -1.1R	
		18"	q_a / q_f	1188	1913	1014	1632	909	1463	764	1229	655	1055	635	1022	564	908	506	815	506	815
			F	6 -0.6R		6.8 -0.9R		7 -0.9R		7.7 -1.1R		8.3 -1.4R		8.3 -1.2R		8.8 -1.4R		9.3 -1.6R		9.2 -1.4R	
		24"	q_a / q_f	1188	1913	1014	1632	821	1321	764	1229	655	1055	572	921	506	815	506	815	459	740
			F	6 -0.6R		6.8 -0.9R		7.6 -1.3R		7.7 -1.1R		8.3 -1.4R		8.9 -1.6R		9.6 -1.8R		9.3 -1.6R		9.9 -1.8R	
	26 ga	4"	q_a / q_f	912	1469	912	1469	876	1411	836	1345	774	1246	755	1216	714	1150	662	1059	536	858
			F	7.1 -0.4R		7.2 -0.4R		7.5 -0.4R		7.6 -0.4R		7.8 -0.4R		7.8 -0.4R		7.9 -0.4R		7.9 -0.3R		8 -0.3R	
		6"	q_a / q_f	912	1469	888	1429	788	1268	717	1155	665	1071	625	1007	594	957	569	916	536	858
			F	7.3 -0.5R		7.7 -0.6R		8 -0.6R		8.2 -0.6R		8.4 -0.6R		8.5 -0.6R		8.6 -0.6R		8.7 -0.6R		8.8 -0.6R	
		8"	q_a / q_f	912	1469	888	1429	737	1187	672	1081	624	1005	589	948	527	848	508	817	492	793
			F	7.3 -0.5R		7.7 -0.6R		8.3 -0.8R		8.5 -0.8R		8.7 -0.8R		8.8 -0.7R		9.2 -0.9R		9.3 -0.8R		9.3 -0.8R	
		12"	q_a / q_f	912	1469	832	1339	681	1097	623	1003	536	864	511	822	454	732	443	713	402	648
			F	7.6 -0.7R		8 -0.8R		8.7 -1R		8.9 -1R		9.5 -1.2R		9.6 -1.1R		10.1 -1.3R		10.1 -1.2R		10.6 -1.3R	
		18"	q_a / q_f	912	1469	769	1238	681	1097	571	920	489	788	470	756	417	671	374	602	371	597
			F	7.6 -0.7R		8.5 -1.1R		8.7 -1R		9.5 -1.3R		10.2 -1.6R		10.1 -1.4R		10.8 -1.6R		11.4 -1.8R		11.2 -1.6R	
		24"	q_a / q_f	912	1469	769	1238	621	1000	571	920	489	788	427	687	378	608	374	602	339	546
			F	7.6 -0.7R		8.5 -1.1R		9.3 -1.4R		9.5 -1.3R		10.2 -1.6R		10.9 -1.8R		11.6 -2.1R		11.4 -1.8R		12 -2R	

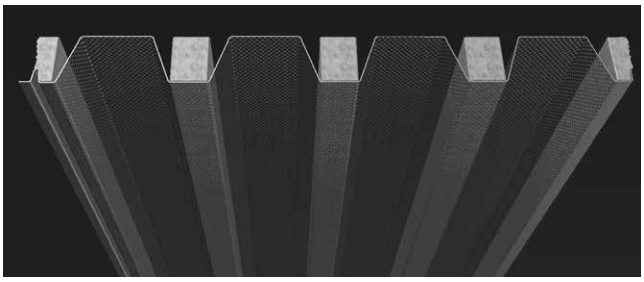
C 0.9-32 32/9 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

Acustadek®
Acustadek provides the extraordinary beauty of exposed steel, while providing the same noise reduction performance of common Mineral Fiber, Fiberglass, and Bio Acoustic ceiling tile systems. It is an excellent option for reducing noise inside buildings, increasing the comfort for the occupants. Acustadek is a dual-purpose panel which helps lower costs by providing an interior finish while contributing to the structural performance of the building. This is accomplished by perforating the structural steel deck and adding fiberglass batt acoustic media in the webs or in the cells of cellular deck, turning the profile into Acustadek. Our new Smooth Series™ rivets offer a clean attachment solution for the Acustadek cellular deck system.

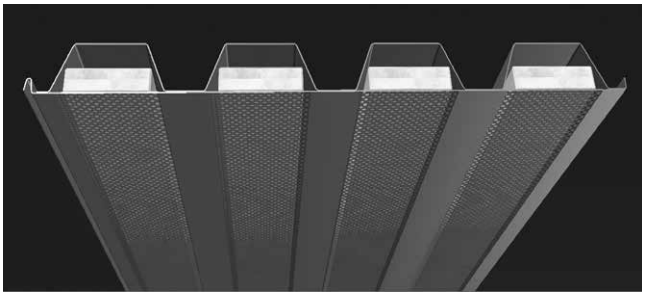
Web-Perforated Acustadek
Web-perforated Acustadek has 0.127" diameter holes spaced 0.375" on center in the webs of the flutes of the deck. Fiberglass batts supplied by ASC Steel Deck are field installed typically by the roofing contractor in the low flutes of the deck before the roof system is applied. Web-perforated roof decks are a component of many common roof systems. Ridged insulation boards, engineered wood panels (Plywood and OSB), fiber reinforced gypsum board, and glass matt covered gypsum board are all suitable cover boards for web-perforated steel decks.



Total Perforation Acustadek
Total perforation Acustadeck has 0.127" diameter holes spaced 0.375" on center over the entire width of the profile, except the lower interlock flutes. Fiberglass batts supplied by ASC Steel Deck are field installed by the roofing contractor in the low flutes of the deck before the roof system is applied. Total-perforated roof decks are a component of many common roof systems. Ridged insulation boards, engineered wood panels (Plywood and OSB), fiber reinforced gypsum board and glass matt covered gypsum board are all suitable cover boards for total-perforated steel decks.



Cellular Acustadek
Cellular Acustadek has 0.157" diameter holes spaced 0.433" inches on center in the sections of the pan below the top flutes of the steel deck. Fiberglass batts are factory inserted in the cells of the deck before shipping to the project locations. Any roof system utilizing structural or insulating concrete fill, rigid insulation board, or other roof substrate material suitable for installation on a steel roof deck may be applied to the cellular Acustadek.



Fiberglass Batts
Fiberglass batts are used to absorb sound in the Acustadek assemblies. ASC Steel deck supplies the fiberglass batts that a cut to size for the specified profile. The standard batts are unfaced. Optional batts encapsulated with 0.75 mil clear pvc plastic can be specified.

Acoustical Performance
All Acustadeks have been tested for the sound absorption characteristics of the assemblies. This is commonly presented as a Noise Reduction Coefficient (NRC). The NRC is the average of the 250, 500, 1000, and 2000 hertz sound absorption coefficients. Acustadeks have between a 0.6 and 1.0 NRC, which can meet LEED v4 EQ Credit Acoustic Performance Option 2.

Acustadek should be a portion of a holistic approach to reducing the noise level in a building. Simply specifying an NRC rating for a single material may not get the level of sound control you require. In general, steel decks tend to have better sound absorption coefficients in the higher audible range. Other materials such as fabric wall treatments and carpet tend to have better sound absorption coefficients in the lower audible frequency ranges. The use of Acustadek in combination with other materials may create the best overall quiet environment. An experienced acoustic designer is key to developing the best overall performance using ASC Steel Deck Acustadek products.

The sound absorption coefficient varies across the spectrum of audible sound. In buildings with equipment that creates a specific frequency, the sound absorption coefficient for that frequency range should determine the type of deck rather than the overall NRC rating. For example, if a machine emits a sound in the 2000 Hz range, a total perforation deck such as DGB-36AT with an absorption coefficient of 0.95 would be a better choice than a web-perforated Acustadek such as DGB-36AW, which only has a 0.53 coefficient for the 2000 Hz range. Some sound absorption coefficients may be greater than 1.0 because of the measurement methods. When designing for a specific frequency, use 1.0 for any absorption coefficients greater than 1.0.

The type of cover board on non-cellular Acustadek has an impact on the sound absorption coefficients and NRC rating of the assembly. The acoustical testing is based on an assembly comprising the Acustadek profile, the fiberglass batts, and the cover board on top of the steel deck that supports the roof system. Historically, fiberglass board was used as the cover board on top of the steel deck. These assemblies have higher acoustical performance than modern assemblies using poly-iso insulation board on top of the deck. The Acustadek tables in this section provide information for both fiberglass and poly-iso deck cover board assemblies.

The NRC should not be confused with the Sound Transmission Coefficient (STC). STCs measure the blocking of sound through an assembly as it relates to the decibel drop in the intensity of the sound. Acustadek may not be a good choice if a high STC is required. As an example, consider a room with noisy equipment. The Acustadek may be a good solution to reduce the noise level in the room for the occupants, but may not be a good material to block the noise from escaping the room. The holes in the perforated Acustadek may in fact let more sound escape the room than a conventional deck.

Detailing and Installation of Acustadek

Acustadek provides an exposed finish in the building. Steel deck is a structural element in the building and is subject to incidental dents in the handling and steel erection process. To minimize the potential damage, use 20 gauge or heavier. 22 gauge may be an economical option when minor dents can be tolerated; dark paint finishes or high roof structures can mask these types of minor blemishes.

Acustadek can be specified with a galvanized finish or factory prime painted over galvanized steel. Most Acustadeks will receive finish paint to meet the aesthetic requirements of the building. The galvanized steel can be field painted following the paint manufacturer's preparation and application recommendations. As an option, factory-applied primer can be specified, which may reduce the surface preparation of the deck.

Attaching the Acustadek to the structure and connection of the side laps of the deck can impact the appearance of the installed product. Side lap top seam welds will leave burn marks in the galvanized finish and an occasional burn through should be expected. This may be unsightly if the galvanized finish is intended to be left exposed. The burns can be easily cleaned up prior to prime painting the deck after installation. A better solution is to use the DeltaGrip® DG4™ side lap connection. This mechanical interlock connection provides high strength similar to a weld without any thermal damage to the deck or galvanized coating and is not visible from the underside of the deck. Arc spot and arc seam welds may also leave visible burn marks on the deck near the support or on the underside of the supporting steel. A good alternative to welding the deck to supports is to attach the deck with self-drilling screws or power-actuated fasteners (PAF), such as the high shear nails manufactured by Hilti, Inc. or fasteners manufactured by Pneutek Inc. that are intended for decking applications.

Structural Performance of Acustadek

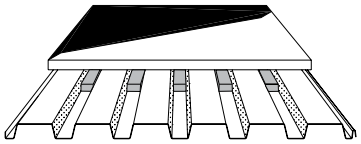
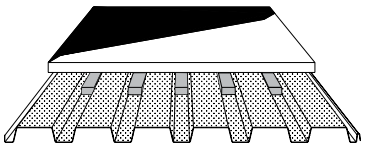
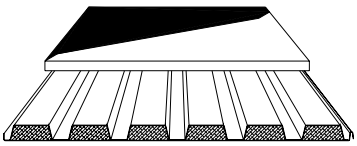
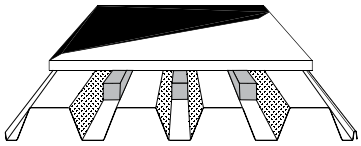
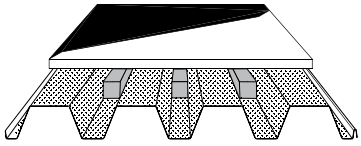
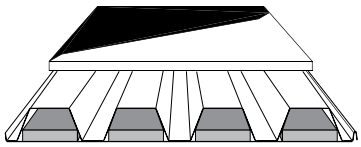
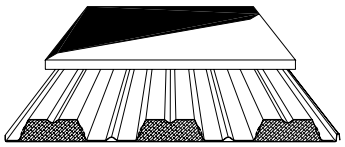
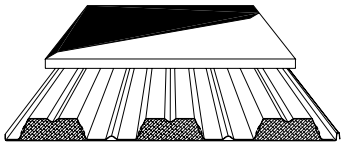
The perforation of the webs, top and bottom flutes and pans of the Acustadeks has a small impact on the structural performance of the deck profiles. Section properties are reduced from the non-Acustadek version of the profiles leading to reduced vertical load capacity. The reactions at supports are unaffected by the perforation in the Acustadek. The diaphragm shear and flexibility of cellular and web-perforated Acustadek is the same as the non-Acustadek version of the profile. Total perforation Acustadek flexibility is the same as the nonacoustical version of the profile, but the diaphragm shear capacity is 85% of the non-Acustadek profile. (See Figure 7.1.1)

Figure 7.1.1: **ACUSTADEK STRUCTURAL PROPERTIES SUMMARY**

Section Properties	Use Acustadek section properties
Reactions at Supports (based on Web Crippling)	Use non Acustadek reactions for the profile
Diaphragm Shear	Web perforated and cellular pan perforated use shear for non-Acustadek profile Total perforated Acustadek use 85% of the diaphragm shear for the profile
Diaphragm Flexibility	Use diaphragm flexibility of the non-perforated profile

7.2 **Acustadek®**

Sound Absorption Data

Acustadek® Profile (Perforation Type)	Cover Board[2,3,4]	Batt[5]	Absorption Coefficient[1] 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	Noise Reduction Coefficient[1]
 DGB-36AW & B-36AW	Poly-Iso	Unfaced	0.08	0.18	0.61	1.05	0.53	0.30	0.60
	Fiberglass	Unfaced	0.23	0.67	1.21	0.82	0.46	0.24	0.80
 DGB-36AT & B-36AT	Poly-Iso	Unfaced	0.08	0.21	0.51	0.83	0.82	0.70	0.60
	Fiberglass	Unfaced	0.23	0.48	0.92	0.97	0.95	0.76	0.85
 DGBF-36A & BF-36A	Poly-Iso	Unfaced	0.20	0.45	0.77	1.09	0.84	0.56	0.80
	Poly-Iso	Encap-sulated	0.16	0.37	0.70	1.01	0.64	0.49	0.70
 DGN-32AW & N-32AW	Poly-Iso	Unfaced	0.18	0.36	0.83	0.96	0.58	0.46	0.70
	Fiberglass	Unfaced	0.67	1.11	1.15	1.00	0.49	0.38	0.95
 DGN-32AT & N-32AT	Poly-Iso	Unfaced	0.17	0.35	0.75	0.91	0.8	0.81	0.70
	Fiberglass	Unfaced	0.59	0.96	1.04	1.02	1.00	0.87	1.00
 DGNF-32A & NF-32A	Poly-Iso	Unfaced	0.52	0.58	1.07	1.02	0.82	0.59	0.85
	Poly-Iso	Encap-sulated	0.57	0.74	1.13	0.91	0.76	0.55	0.9
 DG2WHF-36A & 2WHF-36A	Poly-Iso	Unfaced	0.75	0.55	0.89	0.92	0.7	0.55	0.75
	Poly-Iso	Encap-sulated	0.48	0.6	0.95	0.8	0.59	0.45	0.75
 DG3WxHF-36A & 3WxHF-36A	Poly-Iso	Unfaced	0.55	0.52	1.02	0.88	0.7	0.48	0.80
	Poly-Iso	Encap-sulated	0.51	0.59	1.02	0.73	0.58	0.38	0.75

Sound Absorption Data

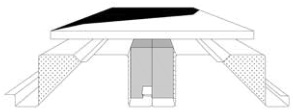
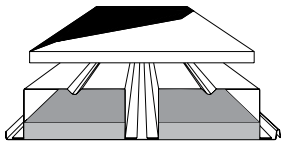
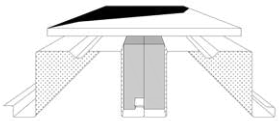
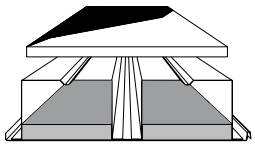
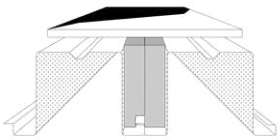
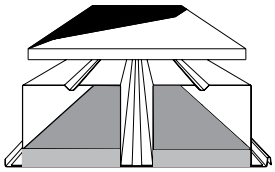
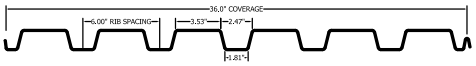
Acustadek® Profile (Perforation Type)	Cover Board[2,3,4]	Batt[5]	Absorption Coefficient[1] 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	Noise Reduction Coefficient[1]
 4.5D-12AW	Foil Faced Poly-Iso	Unfaced	0.22	0.49	0.96	0.78	0.53	0.45	0.70
	Poly-Iso	Encapsu-lated	0.18	0.38	0.83	0.62	0.45	0.29	0.55
 4.5DF-24A	Poly-Iso	Unfaced	0.40	0.75	0.83	0.68	0.70	0.54	0.75
	Poly-Iso	Encapsu-lated	0.58	0.91	0.93	0.68	0.59	0.46	0.80
 6D-12AW	Foil Faced Poly-Iso	Unfaced	0.27	0.59	0.79	0.69	0.61	0.55	0.65
	Poly-Iso	Encapsu-lated	INQUIRE						
 6DF-24A	Poly-Iso	Unfaced	0.40	0.89	0.85	0.72	0.70	0.53	0.80
	Poly-Iso	Encapsu-lated	0.53	0.88	0.82	0.70	0.63	0.52	0.75
 7.5D-12AW	Poly-Iso	Unfaced	0.35	0.68	0.72	0.81	0.68	0.58	0.70
	Poly-Iso	Encapsu-lated	INQUIRE						
 7.5DF-24A	Poly-Iso	Unfaced	0.78	0.99	0.86	0.79	0.72	0.52	0.85
	Poly-Iso	Encapsu-lated	0.84	0.93	0.79	0.75	0.65	0.93	0.80

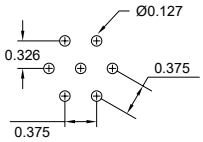
Table Notes:

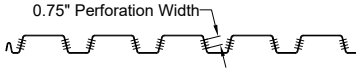
1. Noise reduction coefficient testing was conducted in accordance with ASTM C423 and ASTM E795.
2. Test conducted with 2" thick 3 pcf fiberglass cover board.
3. Test conducted with 2" thick felt faced Poly-Iso (polyisocyanurate) cover board.
4. Test conducted with 2" thick foil faced Poly-Iso (polyisocyanurate) cover board.
5. Unfaced or encapsulated fiberglass batts wrapped with clear plastic film.

7.3 DGB-36AW & B-36AW

Web Perforated Acustadek®







Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.70	0.0299	50	65	0.458	0.184	0.93	0.199	0.635
20	2.04	0.0359	50	65	0.550	0.220	0.93	0.236	0.633
18	2.69	0.0478	50	65	0.732	0.294	0.94	0.314	0.634
16	3.35	0.0598	50	65	0.915	0.368	0.94	0.391	0.634

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.354	0.161	0.78	0.171	1.00	0.161	0.184	0.169	0.184
20	0.443	0.207	0.82	0.217	0.98	0.203	0.220	0.209	0.220
18	0.658	0.290	0.91	0.301	0.98	0.287	0.294	0.290	0.294
16	0.890	0.372	0.96	0.375	0.98	0.368	0.368	0.368	0.368

Reactions at Supports (plf) Based on Web Crippling

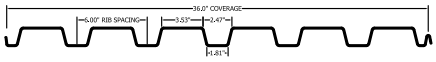
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	748	847	931	1071	1144	1296	1424	1639
	Interior	1182	1314	1425	1611	1758	1954	2119	2396
20	End	1051	1185	1298	1488	1608	1813	1986	2277
	Interior	1677	1855	2005	2257	2494	2759	2983	3357
18	End	1787	2002	2182	2485	2735	3063	3339	3803
	Interior	2893	3177	3417	3819	4303	4726	5083	5681
16	End	2707	3015	3274	3709	4142	4613	5009	5675
	Interior	4430	4838	5182	5760	6589	7197	7709	8567
Constants		h = 1.23"		r = 0.156"		θ = 76.6°			

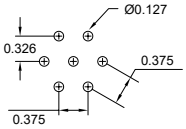
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

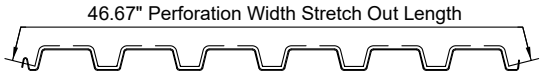
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
22	Single Span	f_b/Ω	201	129	89	66	50	40	32	27	22
		Φf_b	302	193	134	99	76	60	48	40	34
		L/360	115	59	34	22	14	10	7	6	4
		L/240	173	89	51	32	22	15	11	8	6
		L/180	231	118	68	43	29	20	15	11	9
		L/120	346	177	102	65	43	30	22	17	13
	Double Span	f_b/Ω	213	136	95	69	53	42	34	28	24
		Φf_b	320	205	142	104	80	63	51	42	36
		L/360	303	155	90	57	38	27	19	15	11
		L/240	455	233	135	85	57	40	29	22	17
		L/180	607	311	180	113	76	53	39	29	22
		L/120	910	466	270	170	114	80	58	44	34
	Triple Span	f_b/Ω	266	170	118	87	67	53	43	35	30
		Φf_b	400	256	178	131	100	79	64	53	44
		L/360	238	122	70	44	30	21	15	11	9
		L/240	356	183	106	67	45	31	23	17	13
		L/180	475	243	141	89	59	42	30	23	18
		L/120	713	365	211	133	89	63	46	34	26
20	Single Span	f_b/Ω	259	166	115	85	65	51	41	34	29
		Φf_b	389	249	173	127	97	77	62	51	43
		L/360	143	73	42	27	18	13	9	7	5
		L/240	214	109	63	40	27	19	14	10	8
		L/180	285	146	84	53	36	25	18	14	11
		L/120	428	219	127	80	53	38	27	21	16
	Double Span	f_b/Ω	271	173	120	88	68	53	43	36	30
		Φf_b	407	260	181	133	102	80	65	54	45
		L/360	362	185	107	67	45	32	23	17	13
		L/240	543	278	161	101	68	48	35	26	20
		L/180	723	370	214	135	90	64	46	35	27
		L/120	1085	556	322	202	136	95	69	52	40
	Triple Span	f_b/Ω	338	217	150	111	85	67	54	45	38
		Φf_b	509	326	226	166	127	100	81	67	57
		L/360	283	145	84	53	35	25	18	14	10
		L/240	425	218	126	79	53	37	27	20	16
		L/180	567	290	168	106	71	50	36	27	21
		L/120	850	435	252	159	106	75	54	41	31
18	Single Span	f_b/Ω	362	232	161	118	91	72	58	48	40
		Φf_b	544	348	242	178	136	108	87	72	60
		L/360	198	101	59	37	25	17	13	10	7
		L/240	297	152	88	55	37	26	19	14	11
		L/180	396	203	117	74	49	35	25	19	15
		L/120	594	304	176	111	74	52	38	29	22
	Double Span	f_b/Ω	375	240	167	123	94	74	60	50	42
		Φf_b	564	361	251	184	141	111	90	75	63
		L/360	484	248	143	90	60	42	31	23	18
		L/240	726	372	215	135	91	64	46	35	27
		L/180	968	495	287	181	121	85	62	47	36
		L/120	1452	743	430	271	181	127	93	70	54
	Triple Span	f_b/Ω	469	300	209	153	117	93	75	62	52
		Φf_b	705	451	314	230	176	139	113	93	78
		L/360	379	194	112	71	47	33	24	18	14
		L/240	569	291	168	106	71	50	36	27	21
		L/180	758	388	225	141	95	67	49	36	28
		L/120	1137	582	337	212	142	100	73	55	42
16	Single Span	f_b/Ω	464	297	206	151	116	92	74	61	52
		Φf_b	697	446	310	228	174	138	112	92	77
		L/360	252	129	75	47	31	22	16	12	9
		L/240	377	193	112	70	47	33	24	18	14
		L/180	503	258	149	94	63	44	32	24	19
		L/120	755	386	224	141	94	66	48	36	28
	Double Span	f_b/Ω	468	299	208	153	117	92	75	62	52
		Φf_b	703	450	313	230	176	139	113	93	78
		L/360	606	310	180	113	76	53	39	29	22
		L/240	909	465	269	170	114	80	58	44	34
		L/180	1212	620	359	226	151	106	78	58	45
		L/120	1818	931	539	339	227	160	116	87	67
	Triple Span	f_b/Ω	585	374	260	191	146	116	94	77	65
		Φf_b	879	563	391	287	220	174	141	116	98
		L/360	475	243	141	89	59	42	30	23	18
		L/240	712	365	211	133	89	63	46	34	26
		L/180	949	486	281	177	119	83	61	46	35
		L/120	1424	729	422	266	178	125	91	68	53

7.4 DGB-36AT & B-36AT

Total Perforated Acustadek®







Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.59	0.0299	50	65	0.346	0.168	0.93	0.143	0.696
20	1.90	0.0359	50	65	0.415	0.200	0.93	0.170	0.694
18	2.51	0.0478	50	65	0.553	0.268	0.94	0.228	0.697
16	3.12	0.0598	50	65	0.691	0.337	0.94	0.286	0.698

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.267	0.103	1.17	0.133	1.17	0.147	0.168	0.154	0.168
20	0.334	0.132	1.18	0.165	1.18	0.185	0.200	0.190	0.200
18	0.497	0.205	1.18	0.228	1.18	0.262	0.268	0.264	0.268
16	0.673	0.278	1.18	0.286	1.18	0.337	0.337	0.337	0.337

Reactions at Supports (plf) Based on Web Crippling

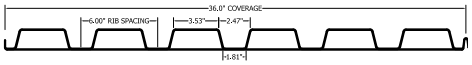
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	740	838	921	1060	1132	1283	1409	1622
	Interior	1180	1312	1423	1609	1756	1951	2116	2393
20	End	1041	1174	1286	1474	1593	1796	1968	2256
	Interior	1675	1853	2003	2254	2491	2756	2979	3353
18	End	1773	1986	2165	2466	2713	3038	3313	3773
	Interior	2890	3174	3413	3815	4299	4721	5078	5675
16	End	2689	2994	3251	3683	4113	4581	4975	5636
	Interior	4425	4833	5177	5754	6583	7189	7701	8559
Constants		h = 1.23"		r = 0.156"		θ = 76.6°			

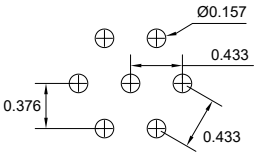
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

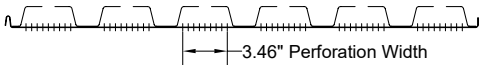
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
22	Single Span	f_b/Ω	128	82	57	42	32	25	21	17	14
		Φf_b	193	123	86	63	48	38	31	25	21
		L/360	105	54	31	20	13	9	7	5	4
		L/240	158	81	47	29	20	14	10	8	6
		L/180	210	108	62	39	26	18	13	10	8
		L/120	315	161	93	59	39	28	20	15	12
	Double Span	f_b/Ω	166	106	74	54	41	33	27	22	18
		Φf_b	249	159	111	81	62	49	40	33	28
		L/360	276	141	82	51	34	24	18	13	10
		L/240	413	212	123	77	52	36	26	20	15
		L/180	551	282	163	103	69	48	35	27	20
		L/120	827	423	245	154	103	73	53	40	31
	Triple Span	f_b/Ω	200	128	89	65	50	40	32	26	22
		Φf_b	301	193	134	98	75	59	48	40	33
		L/360	216	111	64	40	27	19	14	10	8
		L/240	324	166	96	60	40	28	21	16	12
		L/180	432	221	128	81	54	38	28	21	16
		L/120	648	332	192	121	81	57	41	31	24
20	Single Span	f_b/Ω	165	106	73	54	41	33	26	22	18
		Φf_b	248	159	110	81	62	49	40	33	28
		L/360	130	66	38	24	16	11	8	6	5
		L/240	195	100	58	36	24	17	12	9	7
		L/180	260	133	77	48	32	23	17	12	10
		L/120	390	199	115	73	49	34	25	19	14
	Double Span	f_b/Ω	206	132	91	67	51	41	33	27	23
		Φf_b	309	198	137	101	77	61	49	41	34
		L/360	329	168	97	61	41	29	21	16	12
		L/240	493	253	146	92	62	43	32	24	18
		L/180	658	337	195	123	82	58	42	32	24
		L/120	987	505	292	184	123	87	63	47	37
	Triple Span	f_b/Ω	257	165	114	84	64	51	41	34	29
		Φf_b	387	247	172	126	97	76	62	51	43
		L/360	258	132	76	48	32	23	16	12	10
		L/240	386	198	115	72	48	34	25	19	14
		L/180	515	264	153	96	64	45	33	25	19
		L/120	773	396	229	144	97	68	49	37	29
18	Single Span	f_b/Ω	256	164	114	84	64	51	41	34	28
		Φf_b	385	246	171	126	96	76	62	51	43
		L/360	181	92	53	34	23	16	12	9	7
		L/240	271	139	80	51	34	24	17	13	10
		L/180	361	185	107	67	45	32	23	17	13
		L/120	542	277	160	101	68	48	35	26	20
	Double Span	f_b/Ω	284	182	126	93	71	56	45	38	32
		Φf_b	427	273	190	140	107	84	68	57	47
		L/360	441	226	131	82	55	39	28	21	16
		L/240	662	339	196	124	83	58	42	32	25
		L/180	883	452	261	165	110	77	56	42	33
		L/120	1324	678	392	247	165	116	85	64	49
	Triple Span	f_b/Ω	355	227	158	116	89	70	57	47	39
		Φf_b	534	342	237	174	134	106	85	71	59
		L/360	346	177	102	65	43	30	22	17	13
		L/240	519	265	154	97	65	46	33	25	19
		L/180	691	354	205	129	86	61	44	33	26
		L/120	1037	531	307	194	130	91	66	50	38
16	Single Span	f_b/Ω	347	222	154	113	87	69	56	46	39
		Φf_b	521	334	232	170	130	103	83	69	58
		L/360	230	118	68	43	29	20	15	11	9
		L/240	345	177	102	64	43	30	22	17	13
		L/180	460	235	136	86	57	40	29	22	17
		L/120	690	353	204	129	86	61	44	33	26
	Double Span	f_b/Ω	356	228	158	116	89	70	57	47	40
		Φf_b	536	343	238	175	134	106	86	71	60
		L/360	554	284	164	103	69	49	35	27	21
		L/240	831	425	246	155	104	73	53	40	31
		L/180	1108	567	328	207	138	97	71	53	41
		L/120	1662	851	492	310	208	146	106	80	62
	Triple Span	f_b/Ω	445	285	198	145	111	88	71	59	49
		Φf_b	669	428	298	219	167	132	107	89	74
		L/360	434	222	129	81	54	38	28	21	16
		L/240	651	333	193	121	81	57	42	31	24
		L/180	868	444	257	162	108	76	56	42	32
		L/120	1302	667	386	243	163	114	83	63	48

7.5 DGBF-36A & BF-36A

Pan Perforated Cellular Acustadek®







Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.61	0.035/0.035	50	65	0.928	0.423	0.55	0.406	0.675
20/18	4.06	0.035/0.047	50	65	1.035	0.459	0.50	0.416	0.666
20/16	4.55	0.035/0.059	50	65	1.151	0.489	0.46	0.422	0.652
18/20	4.29	0.047/0.035	50	65	1.114	0.513	0.61	0.524	0.679
18/18	4.73	0.047/0.047	50	65	1.221	0.556	0.56	0.532	0.675
18/16	5.22	0.047/0.059	50	65	1.337	0.598	0.52	0.545	0.669
16/20	4.97	0.059/0.035	50	65	1.299	0.594	0.66	0.636	0.676
16/18	5.41	0.059/0.047	50	65	1.406	0.646	0.61	0.649	0.678
16/16	5.90	0.059/0.059	50	65	1.522	0.695	0.57	0.661	0.676

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.820	0.275	0.59	0.294	0.58	0.376	0.364	0.391	0.384
20/18	0.928	0.277	0.53	0.354	0.52	0.405	0.426	0.423	0.437
20/16	1.046	0.281	0.48	0.396	0.47	0.432	0.479	0.451	0.482
18/20	1.006	0.406	0.65	0.388	0.64	0.490	0.432	0.498	0.459
18/18	1.114	0.412	0.60	0.433	0.59	0.532	0.507	0.540	0.523
18/16	1.232	0.415	0.55	0.500	0.54	0.572	0.576	0.581	0.583
16/20	1.208	0.546	0.70	0.479	0.69	0.591	0.500	0.592	0.532
16/18	1.316	0.554	0.65	0.515	0.64	0.640	0.585	0.642	0.605
16/16	1.433	0.561	0.60	0.593	0.60	0.688	0.659	0.691	0.671

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	764	865	951	1094	1168	1324	1455	1674
	Interior	1185	1318	1429	1616	1763	1960	2125	2403
21	End	916	1036	1136	1305	1402	1585	1739	1997
	Interior	1431	1587	1718	1938	2129	2361	2556	2883
20	End	1071	1208	1323	1517	1638	1848	2024	2321
	Interior	1681	1860	2010	2263	2501	2766	2990	3366
19	End	1431	1607	1756	2006	2189	2459	2687	3069
	Interior	2267	2498	2693	3019	3372	3716	4005	4491
18	End	1816	2034	2217	2525	2779	3112	3393	3864
	Interior	2900	3185	3425	3828	4313	4737	5095	5694
16	End	2746	3058	3321	3762	4201	4678	5080	5755
	Interior	4439	4848	5193	5771	6603	7211	7724	8585
Constants		h = 1.23"		r = 0.156"		θ = 76.6°			

DGBF-36A & BF-36A 7.5

Pan Perforated Cellular Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	343	153	86	55	38	28	21	17	14
		Φf_b	516	229	129	83	57	42	32	25	21
		L/360	267	79	33	17	10	6	4	3	2
		L/240	401	119	50	26	15	9	6	4	3
		L/180	535	158	67	34	20	12	8	6	4
		L/120	802	238	100	51	30	19	13	9	6
	Double Span	f_b/Ω	366	163	92	59	41	30	23	18	15
		Φf_b	551	245	138	88	61	45	34	27	22
		L/360	631	187	79	40	23	15	10	7	5
		L/240	946	280	118	61	35	22	15	10	8
		L/180	1262	374	158	81	47	29	20	14	10
		L/120	1893	561	237	121	70	44	30	21	15
	Triple Span	f_b/Ω	458	204	114	73	51	37	29	23	18
		Φf_b	688	306	172	110	76	56	43	34	28
		L/360	494	146	62	32	18	12	8	5	4
		L/240	741	220	93	47	27	17	12	8	6
		L/180	989	293	124	63	37	23	15	11	8
		L/120	1483	439	185	95	55	35	23	16	12
20/18	Single Span	f_b/Ω	345	153	86	55	38	28	22	17	14
		Φf_b	519	231	130	83	58	42	32	26	21
		L/360	289	86	36	18	11	7	5	3	2
		L/240	434	128	54	28	16	10	7	5	3
		L/180	578	171	72	37	21	13	9	6	5
		L/120	867	257	108	55	32	20	14	10	7
	Double Span	f_b/Ω	441	196	110	71	49	36	28	22	18
		Φf_b	663	295	166	106	74	54	41	33	27
		L/360	719	213	90	46	27	17	11	8	6
		L/240	1079	320	135	69	40	25	17	12	9
		L/180	1438	426	180	92	53	34	22	16	12
		L/120	2157	639	270	138	80	50	34	24	17
	Triple Span	f_b/Ω	539	240	135	86	60	44	34	27	22
		Φf_b	811	360	203	130	90	66	51	40	32
		L/360	563	167	70	36	21	13	9	6	5
		L/240	845	250	106	54	31	20	13	9	7
		L/180	1127	334	141	72	42	26	18	12	9
		L/120	1690	501	211	108	63	39	26	19	14
20/16	Single Span	f_b/Ω	350	156	88	56	39	29	22	17	14
		Φf_b	527	234	132	84	59	43	33	26	21
		L/360	308	91	38	20	11	7	5	3	2
		L/240	462	137	58	30	17	11	7	5	4
		L/180	616	182	77	39	23	14	10	7	5
		L/120	924	274	115	59	34	22	14	10	7
	Double Span	f_b/Ω	495	220	124	79	55	40	31	24	20
		Φf_b	743	330	186	119	83	61	46	37	30
		L/360	793	235	99	51	29	19	12	9	6
		L/240	1190	353	149	76	44	28	19	13	10
		L/180	1587	470	198	102	59	37	25	17	13
		L/120	2380	705	297	152	88	56	37	26	19
	Triple Span	f_b/Ω	547	243	137	88	61	45	34	27	22
		Φf_b	823	366	206	132	91	67	51	41	33
		L/360	621	184	78	40	23	14	10	7	5
		L/240	932	276	117	60	35	22	15	10	7
		L/180	1243	368	155	80	46	29	19	14	10
		L/120	1864	552	233	119	69	43	29	20	15

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Pan Perforated Cellular Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	Single Span	f_b/Ω	507	225	127	81	56	41	32	25	20
		Φf_b	761	338	190	122	85	62	48	38	30
		L/360	340	101	42	22	13	8	5	4	3
		L/240	510	151	64	33	19	12	8	6	4
		L/180	680	201	85	44	25	16	11	7	5
		L/120	1020	302	127	65	38	24	16	11	8
	Double Span	f_b/Ω	484	215	121	77	54	39	30	24	19
		Φf_b	727	323	182	116	81	59	45	36	29
		L/360	755	224	94	48	28	18	12	8	6
		L/240	1133	336	142	73	42	26	18	12	9
		L/180	1510	448	189	97	56	35	24	17	12
		L/120	2266	671	283	145	84	53	35	25	18
	Triple Span	f_b/Ω	605	269	151	97	67	49	38	30	24
		Φf_b	909	404	227	145	101	74	57	45	36
		L/360	592	175	74	38	22	14	9	6	5
		L/240	887	263	111	57	33	21	14	10	7
		L/180	1183	351	148	76	44	28	18	13	9
		L/120	1775	526	222	114	66	41	28	19	14
18/18	Single Span	f_b/Ω	514	228	128	82	57	42	32	25	21
		Φf_b	772	343	193	124	86	63	48	38	31
		L/360	369	109	46	24	14	9	6	4	3
		L/240	553	164	69	35	20	13	9	6	4
		L/180	738	219	92	47	27	17	12	8	6
		L/120	1106	328	138	71	41	26	17	12	9
	Double Span	f_b/Ω	540	240	135	86	60	44	34	27	22
		Φf_b	812	361	203	130	90	66	51	40	32
		L/360	861	255	108	55	32	20	13	9	7
		L/240	1291	382	161	83	48	30	20	14	10
		L/180	1721	510	215	110	64	40	27	19	14
		L/120	2582	765	323	165	96	60	40	28	21
	Triple Span	f_b/Ω	675	300	169	108	75	55	42	33	27
		Φf_b	1014	451	254	162	113	83	63	50	41
		L/360	674	200	84	43	25	16	11	7	5
		L/240	1011	300	126	65	37	24	16	11	8
		L/180	1348	399	169	86	50	31	21	15	11
		L/120	2022	599	253	129	75	47	32	22	16
18/16	Single Span	f_b/Ω	517	230	129	83	57	42	32	26	21
		Φf_b	778	346	194	124	86	63	49	38	31
		L/360	396	117	50	25	15	9	6	4	3
		L/240	595	176	74	38	22	14	9	7	5
		L/180	793	235	99	51	29	18	12	9	6
		L/120	1189	352	149	76	44	28	19	13	10
	Double Span	f_b/Ω	624	277	156	100	69	51	39	31	25
		Φf_b	938	417	235	150	104	77	59	46	38
		L/360	959	284	120	61	36	22	15	11	8
		L/240	1439	426	180	92	53	34	22	16	12
		L/180	1919	569	240	123	71	45	30	21	15
		L/120	2878	853	360	184	107	67	45	32	23
	Triple Span	f_b/Ω	780	347	195	125	87	64	49	39	31
		Φf_b	1173	521	293	188	130	96	73	58	47
		L/360	752	223	94	48	28	18	12	8	6
		L/240	1127	334	141	72	42	26	18	12	9
		L/180	1503	445	188	96	56	35	23	16	12
		L/120	2255	668	282	144	84	53	35	25	18

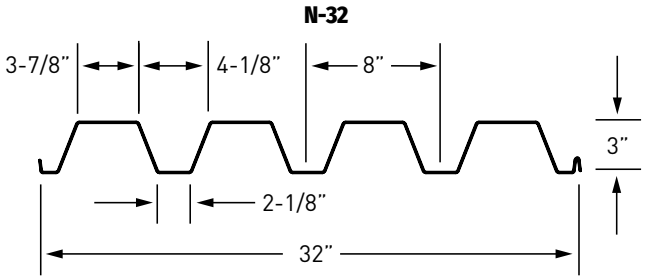
DGBF-36A & BF-36A 7.5
Pan Perforated Cellular Acustadek®

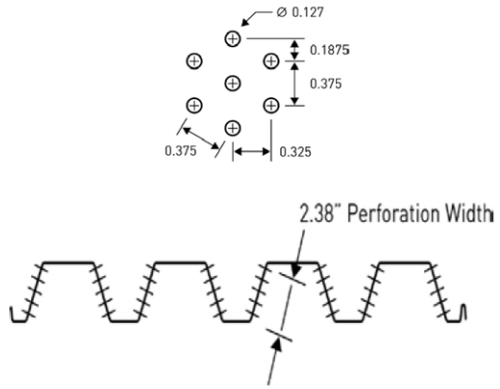
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	681	303	170	109	76	56	43	34	27
		Φf_b	1024	455	256	164	114	84	64	51	41
		L/360	404	120	51	26	15	9	6	4	3
		L/240	607	180	76	39	22	14	9	7	5
		L/180	809	240	101	52	30	19	13	9	6
		L/120	1213	359	152	78	45	28	19	13	10
	Double Span	f_b/Ω	598	266	150	96	66	49	37	30	24
		Φf_b	899	400	225	144	100	73	56	44	36
		L/360	875	259	109	56	32	20	14	10	7
		L/240	1312	389	164	84	49	31	20	14	10
		L/180	1749	518	219	112	65	41	27	19	14
		L/120	2624	777	328	168	97	61	41	29	21
	Triple Span	f_b/Ω	748	332	187	120	83	61	47	37	30
		Φf_b	1124	499	281	180	125	92	70	55	45
		L/360	685	203	86	44	25	16	11	8	5
		L/240	1028	304	128	66	38	24	16	11	8
		L/180	1370	406	171	88	51	32	21	15	11
		L/120	2055	609	257	132	76	48	32	23	16
16/18	Single Span	f_b/Ω	692	307	173	111	77	56	43	34	28
		Φf_b	1040	462	260	166	116	85	65	51	42
		L/360	438	130	55	28	16	10	7	5	4
		L/240	657	195	82	42	24	15	10	7	5
		L/180	877	260	110	56	32	20	14	10	7
		L/120	1315	390	164	84	49	31	21	14	11
	Double Span	f_b/Ω	643	286	161	103	71	52	40	32	26
		Φf_b	967	430	242	155	107	79	60	48	39
		L/360	995	295	124	64	37	23	16	11	8
		L/240	1493	442	187	96	55	35	23	16	12
		L/180	1991	590	249	127	74	46	31	22	16
		L/120	2986	885	373	191	111	70	47	33	24
	Triple Span	f_b/Ω	804	357	201	129	89	66	50	40	32
		Φf_b	1208	537	302	193	134	99	76	60	48
		L/360	780	231	97	50	29	18	12	9	6
		L/240	1170	347	146	75	43	27	18	13	9
		L/180	1559	462	195	100	58	36	24	17	12
		L/120	2339	693	292	150	87	55	37	26	19
16/16	Single Span	f_b/Ω	700	311	175	112	78	57	44	35	28
		Φf_b	1053	468	263	168	117	86	66	52	42
		L/360	472	140	59	30	17	11	7	5	4
		L/240	707	210	88	45	26	17	11	8	6
		L/180	943	280	118	60	35	22	15	10	8
		L/120	1415	419	177	91	52	33	22	16	11
	Double Span	f_b/Ω	740	329	185	118	82	60	46	37	30
		Φf_b	1112	494	278	178	124	91	70	55	44
		L/360	1104	327	138	71	41	26	17	12	9
		L/240	1656	491	207	106	61	39	26	18	13
		L/180	2209	654	276	141	82	52	35	24	18
		L/120	3313	982	414	212	123	77	52	36	27
	Triple Span	f_b/Ω	925	411	231	148	103	76	58	46	37
		Φf_b	1390	618	348	222	154	113	87	69	56
		L/360	865	256	108	55	32	20	14	9	7
		L/240	1298	384	162	83	48	30	20	14	10
		L/180	1730	513	216	111	64	40	27	19	14
		L/120	2595	769	324	166	96	61	41	28	21

7.6 DGN-32AW & N-32AW

Web Perforated Acustadek®





Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.88	0.0299	50	65	0.489	0.771	1.68	0.459	1.255
20	2.24	0.0359	50	65	0.585	0.916	1.68	0.544	1.251
18	2.96	0.0478	50	65	0.775	1.206	1.69	0.714	1.248
16	3.69	0.0598	50	65	0.963	1.488	1.69	0.879	1.243

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.233	0.296	1.45	0.350	1.93	0.625	0.711	0.673	0.731
20	0.320	0.383	1.50	0.442	1.89	0.796	0.878	0.836	0.891
18	0.519	0.577	1.57	0.631	1.84	1.150	1.206	1.168	1.206
16	0.748	0.773	1.64	0.821	1.81	1.470	1.488	1.476	1.488

Reactions at Supports (plf) Based on Web Crippling

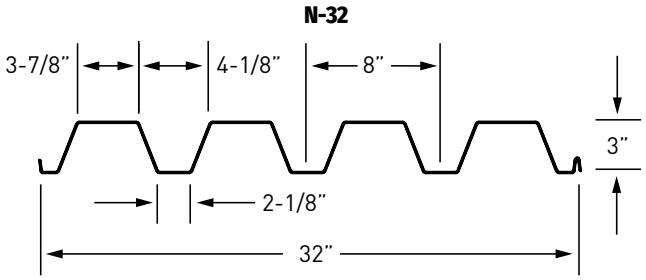
Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	483	547	601	692	739	837	920	1058
	Interior	872	969	1051	1189	1297	1442	1564	1768
20	End	688	776	850	974	1052	1187	1300	1490
	Interior	1235	1366	1477	1662	1837	2032	2197	2473
18	End	1190	1333	1453	1655	1821	2040	2224	2533
	Interior	2126	2335	2511	2807	3162	3473	3735	4175
16	End	1824	2031	2205	2498	2790	3107	3374	3822
	Interior	3250	3550	3803	4226	4835	5281	5656	6287
Constants		h = 2.907"		r = 0.125"		θ = 70.7°			

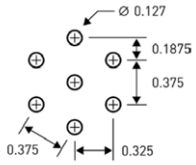
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

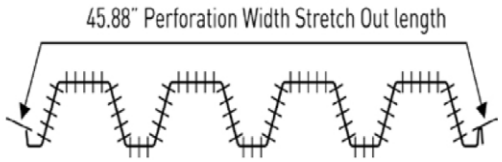
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	369	164	92	59	41	30	23	18	15
		Φf_b	555	247	139	89	62	45	35	27	22
		L/360	460	136	57	29	17	11	7	5	4
		L/240	690	204	86	44	26	16	11	8	6
		L/180	920	272	115	59	34	21	14	10	7
		L/120	1379	409	172	88	51	32	22	15	11
	Double Span	f_b/Ω	436	194	109	70	48	36	27	22	17
		Φf_b	656	291	164	105	73	54	41	32	26
		L/360	1202	356	150	77	45	28	19	13	10
		L/240	1803	534	225	115	67	42	28	20	14
		L/180	2404	712	301	154	89	56	38	26	19
		L/120	3606	1069	451	231	134	84	56	40	29
	Triple Span	f_b/Ω	545	242	136	87	61	45	34	27	22
		Φf_b	819	364	205	131	91	67	51	40	33
		L/360	942	279	118	60	35	22	15	10	8
		L/240	1413	419	177	90	52	33	22	16	11
		L/180	1883	558	235	121	70	44	29	21	15
		L/120	2825	837	353	181	105	66	44	31	23
20	Single Span	f_b/Ω	478	212	119	76	53	39	30	24	19
		Φf_b	718	319	179	115	80	59	45	35	29
		L/360	571	169	71	37	21	13	9	6	5
		L/240	856	254	107	55	32	20	13	9	7
		L/180	1142	338	143	73	42	27	18	13	9
		L/120	1712	507	214	110	63	40	27	19	14
	Double Span	f_b/Ω	551	245	138	88	61	45	34	27	22
		Φf_b	829	368	207	133	92	68	52	41	33
		L/360	1465	434	183	94	54	34	23	16	12
		L/240	2198	651	275	141	81	51	34	24	18
		L/180	2931	868	366	188	109	68	46	32	23
		L/120	4396	1303	550	281	163	103	69	48	35
	Triple Span	f_b/Ω	689	306	172	110	77	56	43	34	28
		Φf_b	1036	460	259	166	115	85	65	51	41
		L/360	1148	340	143	73	43	27	18	13	9
		L/240	1722	510	215	110	64	40	27	19	14
		L/180	2296	680	287	147	85	54	36	25	18
		L/120	3444	1020	430	220	128	80	54	38	28
18	Single Span	f_b/Ω	719	320	180	115	80	59	45	36	29
		Φf_b	1081	481	270	173	120	88	68	53	43
		L/360	798	236	100	51	30	19	12	9	6
		L/240	1197	355	150	77	44	28	19	13	10
		L/180	1596	473	199	102	59	37	25	18	13
		L/120	2394	709	299	153	89	56	37	26	19
	Double Span	f_b/Ω	787	350	197	126	87	64	49	39	31
		Φf_b	1183	526	296	189	131	97	74	58	47
		L/360	1984	588	248	127	73	46	31	22	16
		L/240	2976	882	372	190	110	69	46	33	24
		L/180	3967	1176	496	254	147	93	62	44	32
		L/120	5951	1763	744	381	220	139	93	65	48
	Triple Span	f_b/Ω	984	437	246	157	109	80	61	49	39
		Φf_b	1478	657	370	237	164	121	92	73	59
		L/360	1554	460	194	99	58	36	24	17	12
		L/240	2331	691	291	149	86	54	36	26	19
		L/180	3108	921	389	199	115	72	49	34	25
		L/120	4662	1381	583	298	173	109	73	51	37
16	Single Span	f_b/Ω	965	429	241	154	107	79	60	48	39
		Φf_b	1450	644	362	232	161	118	91	72	58
		L/360	1008	299	126	64	37	24	16	11	8
		L/240	1512	448	189	97	56	35	24	17	12
		L/180	2016	597	252	129	75	47	31	22	16
		L/120	3023	896	378	193	112	71	47	33	24
	Double Span	f_b/Ω	1024	455	256	164	114	84	64	51	41
		Φf_b	1539	684	385	246	171	126	96	76	62
		L/360	2448	725	306	157	91	57	38	27	20
		L/240	3672	1088	459	235	136	86	57	40	29
		L/180	4896	1451	612	313	181	114	77	54	39
		L/120	7345	2176	918	470	272	171	115	81	59
	Triple Span	f_b/Ω	1280	569	320	205	142	105	80	63	51
		Φf_b	1924	855	481	308	214	157	120	95	77
		L/360	1918	568	240	123	71	45	30	21	15
		L/240	2877	852	360	184	107	67	45	32	23
		L/180	3836	1137	479	245	142	89	60	42	31
		L/120	5754	1705	719	368	213	134	90	63	46

7.7 DGN-32AT & N-32AT

Total Perforated Acustadek®







Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_g in³/ft	r in
22	1.34	0.0299	50	65	0.394	0.718	1.61	0.342	1.195
20	1.60	0.0359	50	65	0.471	0.853	1.61	0.404	1.193
18	2.12	0.0478	50	65	0.622	1.123	1.62	0.530	1.189
16	2.63	0.0598	50	65	0.772	1.386	1.62	0.650	1.185

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in²/ft	S_e+ in³/ft	y_b in	S_e- in³/ft	y_b in	I_e+ in⁴/ft	I_e- in⁴/ft	I+ in⁴/ft	I- in⁴/ft
22	0.230	0.246	1.36	0.282	1.61	0.567	0.658	0.618	0.678
20	0.316	0.314	1.40	0.355	1.61	0.669	0.815	0.730	0.828
18	0.513	0.460	1.46	0.491	1.66	1.058	1.123	1.080	1.123
16	0.739	0.627	1.52	0.648	1.63	1.362	1.386	1.370	1.386

Reactions at Supports (plf) Based on Web Crippling

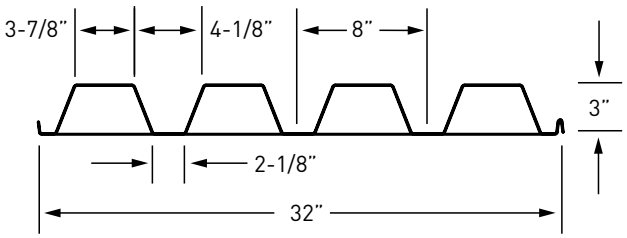
Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	483	547	601	692	739	837	920	1058
	Interior	872	969	1051	1189	1297	1442	1564	1768
20	End	688	776	850	974	1052	1187	1300	1490
	Interior	1235	1366	1477	1662	1837	2032	2197	2473
18	End	1190	1333	1453	1655	1821	2040	2224	2533
	Interior	2126	2335	2511	2807	3162	3473	3735	4175
16	End	1824	2031	2205	2498	2790	3107	3374	3822
	Interior	3250	3550	3803	4226	4835	5281	5656	6287
Constants		h = 2.907"		r = 0.125"		θ = 70.7°			

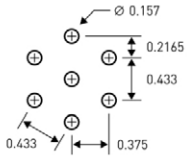
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	311	138	78	50	35	25	19	15	12
		Φf_b	467	207	117	75	52	38	29	23	19
		L/360	436	129	55	28	16	10	7	5	3
		L/240	655	194	82	42	24	15	10	7	5
		L/180	873	259	109	56	32	20	14	10	7
		L/120	1309	388	164	84	48	31	20	14	10
	Double Span	f_b/Ω	385	171	96	62	43	31	24	19	15
		Φf_b	579	257	145	93	64	47	36	29	23
		L/360	1136	336	142	73	42	26	18	12	9
		L/240	1703	505	213	109	63	40	27	19	14
		L/180	2271	673	284	145	84	53	35	25	18
		L/120	3407	1009	426	218	126	79	53	37	27
	Triple Span	f_b/Ω	482	214	120	77	54	39	30	24	19
		Φf_b	724	322	181	116	80	59	45	36	29
		L/360	890	264	111	57	33	21	14	10	7
		L/240	1334	395	167	85	49	31	21	15	11
		L/180	1779	527	222	114	66	41	28	20	14
		L/120	2669	791	334	171	99	62	42	29	21
20	Single Span	f_b/Ω	388	172	97	62	43	32	24	19	16
		Φf_b	583	259	146	93	65	48	36	29	23
		L/360	540	160	68	35	20	13	8	6	4
		L/240	811	240	101	52	30	19	13	9	6
		L/180	1081	320	135	69	40	25	17	12	9
		L/120	1621	480	203	104	60	38	25	18	13
	Double Span	f_b/Ω	476	212	119	76	53	39	30	24	19
		Φf_b	715	318	179	114	79	58	45	35	29
		L/360	1382	410	173	88	51	32	22	15	11
		L/240	2073	614	259	133	77	48	32	23	17
		L/180	2765	819	346	177	102	64	43	30	22
		L/120	4147	1229	518	265	154	97	65	46	33
	Triple Span	f_b/Ω	595	264	149	95	66	49	37	29	24
		Φf_b	894	397	224	143	99	73	56	44	36
		L/360	1083	321	135	69	40	25	17	12	9
		L/240	1624	481	203	104	60	38	25	18	13
		L/180	2166	642	271	139	80	51	34	24	17
		L/120	3249	963	406	208	120	76	51	36	26
18	Single Span	f_b/Ω	548	244	137	88	61	45	34	27	22
		Φf_b	824	366	206	132	92	67	51	41	33
		L/360	753	223	94	48	28	18	12	8	6
		L/240	1130	335	141	72	42	26	18	12	9
		L/180	1506	446	188	96	56	35	24	17	12
		L/120	2260	669	282	145	84	53	35	25	18
	Double Span	f_b/Ω	656	292	164	105	73	54	41	32	26
		Φf_b	986	438	247	158	110	81	62	49	39
		L/360	1869	554	234	120	69	44	29	21	15
		L/240	2804	831	350	179	104	65	44	31	22
		L/180	3739	1108	467	239	138	87	58	41	30
		L/120	5608	1662	701	359	208	131	88	62	45
	Triple Span	f_b/Ω	820	365	205	131	91	67	51	41	33
		Φf_b	1233	548	308	197	137	101	77	61	49
		L/360	1464	434	183	94	54	34	23	16	12
		L/240	2197	651	275	141	81	51	34	24	18
		L/180	2929	868	366	187	108	68	46	32	23
		L/120	4393	1302	549	281	163	102	69	48	35
16	Single Span	f_b/Ω	721	320	180	115	80	59	45	36	29
		Φf_b	1083	481	271	173	120	88	68	53	43
		L/360	950	282	119	61	35	22	15	10	8
		L/240	1426	422	178	91	53	33	22	16	11
		L/180	1901	563	238	122	70	44	30	21	15
		L/120	2851	845	356	182	106	66	45	31	23
	Double Span	f_b/Ω	834	371	209	133	93	68	52	41	33
		Φf_b	1254	557	313	201	139	102	78	62	50
		L/360	2308	684	288	148	85	54	36	25	18
		L/240	3461	1026	433	222	128	81	54	38	28
		L/180	4615	1367	577	295	171	108	72	51	37
		L/120	6923	2051	865	443	256	161	108	76	55
	Triple Span	f_b/Ω	1043	463	261	167	116	85	65	51	42
		Φf_b	1567	696	392	251	174	128	98	77	63
		L/360	1808	536	226	116	67	42	28	20	14
		L/240	2712	803	339	174	100	63	42	30	22
		L/180	3616	1071	452	231	134	84	56	40	29
		L/120	5423	1607	678	347	201	126	85	60	43

7.8 DGNF-32A & NF-32A

Pan Perforated Cellular Acustadek®





Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_g in³/ft	r in
20/20	3.96	0.0359 / 0.036	50	65	1.114	1.740	1.07	0.867	1.250
20/18	4.44	0.0359 / 0.047	50	65	1.254	1.877	0.96	0.884	1.223
20/16	4.96	0.0359 / 0.059	50	65	1.406	1.999	0.87	0.899	1.192
18/20	4.71	0.0478 / 0.036	50	65	1.330	2.143	1.19	1.129	1.269
18/18	5.19	0.0478 / 0.047	50	65	1.470	2.316	1.09	1.153	1.255
18/16	5.71	0.0478 / 0.059	50	65	1.622	2.474	1.00	1.173	1.235
16/20	5.47	0.0598 / 0.036	50	65	1.547	2.522	1.27	1.385	1.277
16/18	5.95	0.0598 / 0.047	50	65	1.687	2.725	1.18	1.415	1.271
16/16	6.47	0.0598 / 0.059	50	65	1.839	2.914	1.10	1.442	1.259

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in²/ft	S_e+ in³/ft	y_b in	S_e- in³/ft	y_b in	I_e+ in⁴/ft	I_e- in⁴/ft	I+ in⁴/ft	I- in⁴/ft
20/20	0.547	0.488	0.76	0.808	1.39	1.381	1.454	1.501	1.549
20/18	0.622	0.490	0.66	0.838	1.24	1.480	1.623	1.612	1.708
20/16	0.729	0.522	0.62	0.863	1.11	1.515	1.816	1.676	1.877
18/20	0.784	0.798	0.99	1.057	1.45	1.835	1.839	1.938	1.940
18/18	0.859	0.816	0.90	1.093	1.33	1.972	2.019	2.087	2.118
18/16	0.966	0.810	0.81	1.123	1.22	2.107	2.234	2.230	2.314
16/20	1.057	1.073	1.13	1.306	1.49	2.316	2.218	2.385	2.319
16/18	1.132	1.098	1.04	1.346	1.39	2.495	2.405	2.572	2.512
16/16	1.238	1.119	0.96	1.380	1.30	2.661	2.636	2.746	2.729

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	483	547	601	692	739	837	920	1058
	Interior	872	969	1051	1189	1297	1442	1564	1768
20	End	688	776	850	974	1052	1187	1300	1490
	Interior	1235	1366	1477	1662	1837	2032	2197	2473
18	End	1190	1333	1453	1655	1821	2040	2224	2533
	Interior	2126	2335	2511	2807	3162	3473	3735	4175
16	End	1824	2031	2205	2498	2790	3107	3374	3822
	Interior	3250	3550	3803	4226	4835	5281	5656	6287
Constants		h = 2.907"		r = 0.125"		θ = 70.7°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	SS	f_b/Ω	597	266	149	96	66	49	37	30	24
		Φf_b	898	399	224	144	100	73	56	44	36
		L/360	995	295	124	64	37	23	16	11	8
		L/240	1492	442	187	95	55	35	23	16	12
		L/180	1989	589	249	127	74	46	31	22	16
		L/120	2984	884	373	191	111	70	47	33	24
	DS	f_b/Ω	996	443	249	159	111	81	62	49	40
		Φf_b	1497	665	374	240	166	122	94	74	60
		L/360	2396	710	300	153	89	56	37	26	19
		L/240	3594	1065	449	230	133	84	56	39	29
		L/180	4792	1420	599	307	177	112	75	53	38
		L/120	7188	2130	899	460	266	168	112	79	58
	TS	f_b/Ω	933	415	233	149	104	76	58	46	37
		Φf_b	1403	624	351	224	156	115	88	69	56
		L/360	1877	556	235	120	70	44	29	21	15
		L/240	2816	834	352	180	104	66	44	31	23
		L/180	3754	1112	469	240	139	88	59	41	30
		L/120	5631	1669	704	360	209	131	88	62	45
20/18	SS	f_b/Ω	601	267	150	96	67	49	38	30	24
		Φf_b	903	401	226	144	100	74	56	45	36
		L/360	1069	317	134	68	40	25	17	12	9
		L/240	1604	475	201	103	59	37	25	18	13
		L/180	2139	634	267	137	79	50	33	23	17
		L/120	3208	951	401	205	119	75	50	35	26
	DS	f_b/Ω	1030	458	257	165	114	84	64	51	41
		Φf_b	1548	688	387	248	172	126	97	76	62
		L/360	2576	763	322	165	95	60	40	28	21
		L/240	3864	1145	483	247	143	90	60	42	31
		L/180	5152	1526	644	330	191	120	80	57	41
		L/120	7728	2290	966	495	286	180	121	85	62
	TS	f_b/Ω	939	417	235	150	104	77	59	46	38
		Φf_b	1411	627	353	226	157	115	88	70	56
		L/360	2018	598	252	129	75	47	32	22	16
		L/240	3027	897	378	194	112	71	47	33	24
		L/180	4036	1196	504	258	149	94	63	44	32
		L/120	6054	1794	757	387	224	141	95	66	48
20/16	SS	f_b/Ω	640	284	160	102	71	52	40	32	26
		Φf_b	961	427	240	154	107	78	60	47	38
		L/360	1113	330	139	71	41	26	17	12	9
		L/240	1670	495	209	107	62	39	26	18	13
		L/180	2227	660	278	143	82	52	35	24	18
		L/120	3340	990	418	214	124	78	52	37	27
	DS	f_b/Ω	1057	470	264	169	117	86	66	52	42
		Φf_b	1589	706	397	254	177	130	99	78	64
		L/360	2682	795	335	172	99	63	42	29	21
		L/240	4023	1192	503	257	149	94	63	44	32
		L/180	5364	1589	671	343	199	125	84	59	43
		L/120	8046	2384	1006	515	298	188	126	88	64
	TS	f_b/Ω	999	444	250	160	111	82	62	49	40
		Φf_b	1502	668	376	240	167	123	94	74	60
		L/360	2101	623	263	134	78	49	33	23	17
		L/240	3152	934	394	202	117	74	49	35	25
		L/180	4202	1245	525	269	156	98	66	46	34
		L/120	6303	1868	788	403	233	147	98	69	50

7.8 DGNF-32A & NF-32A

Pan Perforated Cellular Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	Single Span	f_b/Ω	995	442	249	159	111	81	62	49	40
		Φf_b	1495	665	374	239	166	122	93	74	60
		L/360	1323	392	165	85	49	31	21	15	11
		L/240	1985	588	248	127	74	46	31	22	16
		L/180	2646	784	331	169	98	62	41	29	21
		L/120	3969	1176	496	254	147	93	62	44	32
	Double Span	f_b/Ω	1319	586	330	211	147	108	82	65	53
		Φf_b	1983	881	496	317	220	162	124	98	79
		L/360	3192	946	399	204	118	74	50	35	26
		L/240	4788	1419	598	306	177	112	75	53	38
		L/180	6384	1892	798	409	236	149	100	70	51
		L/120	9576	2837	1197	613	355	223	150	105	77
	Triple Span	f_b/Ω	1555	691	389	249	173	127	97	77	62
		Φf_b	2336	1038	584	374	260	191	146	115	93
		L/360	2501	741	313	160	93	58	39	27	20
		L/240	3751	1111	469	240	139	87	59	41	30
		L/180	5001	1482	625	320	185	117	78	55	40
		L/120	7502	2223	938	480	278	175	117	82	60
18/18	Single Span	f_b/Ω	1018	452	254	163	113	83	64	50	41
		Φf_b	1529	680	382	245	170	125	96	76	61
		L/360	1425	422	178	91	53	33	22	16	11
		L/240	2137	633	267	137	79	50	33	23	17
		L/180	2850	844	356	182	106	66	45	31	23
		L/120	4275	1267	534	274	158	100	67	47	34
	Double Span	f_b/Ω	1363	606	341	218	151	111	85	67	55
		Φf_b	2049	911	512	328	228	167	128	101	82
		L/360	3483	1032	435	223	129	81	54	38	28
		L/240	5225	1548	653	334	194	122	82	57	42
		L/180	6967	2064	871	446	258	162	109	76	56
		L/120	10450	3096	1306	669	387	244	163	115	84
	Triple Span	f_b/Ω	1590	707	397	254	177	130	99	79	64
		Φf_b	2390	1062	597	382	266	195	149	118	96
		L/360	2729	809	341	175	101	64	43	30	22
		L/240	4093	1213	512	262	152	95	64	45	33
		L/180	5458	1617	682	349	202	127	85	60	44
		L/120	8187	2426	1023	524	303	191	128	90	65
18/16	Single Span	f_b/Ω	1011	449	253	162	112	82	63	50	40
		Φf_b	1519	675	380	243	169	124	95	75	61
		L/360	1522	451	190	97	56	36	24	17	12
		L/240	2284	677	285	146	85	53	36	25	18
		L/180	3045	902	381	195	113	71	48	33	24
		L/120	4567	1353	571	292	169	107	71	50	37
	Double Span	f_b/Ω	1401	623	350	224	156	114	88	69	56
		Φf_b	2105	936	526	337	234	172	132	104	84
		L/360	3806	1128	476	244	141	89	59	42	30
		L/240	5709	1692	714	365	211	133	89	63	46
		L/180	7612	2255	952	487	282	178	119	84	61
		L/120	11418	3383	1427	731	423	266	178	125	91
	Triple Span	f_b/Ω	1579	702	395	253	175	129	99	78	63
		Φf_b	2373	1055	593	380	264	194	148	117	95
		L/360	2982	883	373	191	110	70	47	33	24
		L/240	4472	1325	559	286	166	104	70	49	36
		L/180	5963	1767	745	382	221	139	93	65	48
		L/120	8945	2650	1118	572	331	209	140	98	72

DGNF-32A & NF-32A 7.8

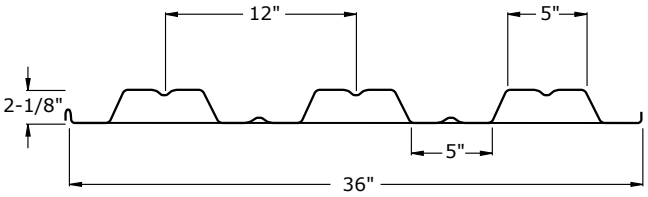
Pan Perforated Cellular Acustadek®

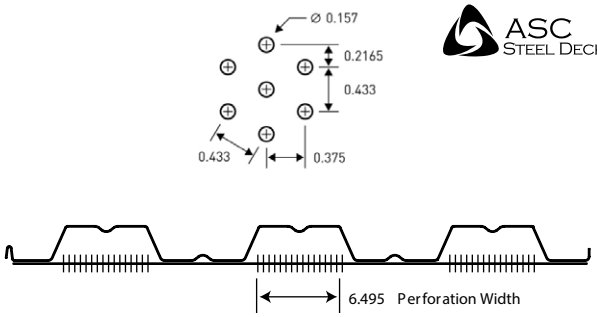
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	SS	f_b/Ω	1306	580	327	209	145	107	82	64	52
		Φf_b	1963	872	491	314	218	160	123	97	79
		L/360	1581	469	198	101	59	37	25	17	13
		L/240	2372	703	296	152	88	55	37	26	19
		L/180	3162	937	395	202	117	74	49	35	25
		L/120	4744	1406	593	304	176	111	74	52	38
	DS	f_b/Ω	1616	718	404	259	180	132	101	80	65
		Φf_b	2429	1080	607	389	270	198	152	120	97
		L/360	3809	1129	476	244	141	89	60	42	30
		L/240	5713	1693	714	366	212	133	89	63	46
		L/180	7618	2257	952	488	282	178	119	84	61
		L/120	11427	3386	1428	731	423	267	179	125	91
	TS	f_b/Ω	2020	898	505	323	224	165	126	100	81
		Φf_b	3037	1350	759	486	337	248	190	150	121
		L/360	2984	884	373	191	111	70	47	33	24
		L/240	4476	1326	559	286	166	104	70	49	36
		L/180	5968	1768	746	382	221	139	93	65	48
		L/120	8952	2652	1119	573	332	209	140	98	72
16/18	SS	f_b/Ω	1336	594	334	214	148	109	84	66	53
		Φf_b	2008	893	502	321	223	164	126	99	80
		L/360	1703	505	213	109	63	40	27	19	14
		L/240	2554	757	319	163	95	60	40	28	20
		L/180	3406	1009	426	218	126	79	53	37	27
		L/120	5108	1514	639	327	189	119	80	56	41
	DS	f_b/Ω	1658	737	415	265	184	135	104	82	66
		Φf_b	2492	1108	623	399	277	203	156	123	100
		L/360	4102	1215	513	263	152	96	64	45	33
		L/240	6153	1823	769	394	228	144	96	68	49
		L/180	8203	2431	1025	525	304	191	128	90	66
		L/120	12305	3646	1538	788	456	287	192	135	98
	TS	f_b/Ω	2073	921	518	332	230	169	130	102	83
		Φf_b	3115	1385	779	498	346	254	195	154	125
		L/360	3213	952	402	206	119	75	50	35	26
		L/240	4820	1428	602	308	179	112	75	53	39
		L/180	6427	1904	803	411	238	150	100	71	51
		L/120	9640	2856	1205	617	357	225	151	106	77
16/16	SS	f_b/Ω	1364	606	341	218	152	111	85	67	55
		Φf_b	2050	911	513	328	228	167	128	101	82
		L/360	1817	538	227	116	67	42	28	20	15
		L/240	2726	808	341	174	101	64	43	30	22
		L/180	3635	1077	454	233	135	85	57	40	29
		L/120	5452	1615	682	349	202	127	85	60	44
	DS	f_b/Ω	1694	753	424	271	188	138	106	84	68
		Φf_b	2547	1132	637	407	283	208	159	126	102
		L/360	4378	1297	547	280	162	102	68	48	35
		L/240	6567	1946	821	420	243	153	103	72	53
		L/180	8755	2594	1094	560	324	204	137	96	70
		L/120	13133	3891	1642	841	486	306	205	144	105
	TS	f_b/Ω	2118	941	530	339	235	173	132	105	85
		Φf_b	3183	1415	796	509	354	260	199	157	127
		L/360	3429	1016	429	219	127	80	54	38	27
		L/240	5144	1524	643	329	191	120	80	56	41
		L/180	6859	2032	857	439	254	160	107	75	55
		L/120	10288	3048	1286	658	381	240	161	113	82

7.9 DG2WHF-36A & 2WHF-36A

Pan Perforated Cellular Acustadek®





Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_g in³/ft	r in
20/20	3.08	0.0359/0.036	50	65	0.906	0.749	0.72	0.537	0.874
20/18	3.45	0.0359/0.047	50	65	1.014	0.799	0.65	0.541	0.845
20/16	3.85	0.0359/0.059	50	65	1.132	0.841	0.60	0.547	0.815
18/20	3.69	0.0474/0.036	50	65	1.085	0.936	0.79	0.698	0.900
18/18	4.06	0.0474/0.047	50	65	1.193	0.998	0.73	0.708	0.879
18/16	4.46	0.0474/0.059	50	65	1.310	1.053	0.68	0.716	0.856
16/20	4.35	0.0598/0.036	50	65	1.279	1.129	0.85	0.864	0.916
16/18	4.72	0.0598/0.047	50	65	1.387	1.202	0.80	0.881	0.901
16/16	5.12	0.0598/0.059	50	65	1.504	1.270	0.75	0.898	0.884

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in²/ft	S_e+ in³/ft	y_b in	S_e- in³/ft	y_b in	I_e+ in⁴/ft	I_e- in⁴/ft	I+ in⁴/ft	I- in⁴/ft
20/20	0.408	0.505	0.70	0.563	0.10	0.728	0.604	0.735	0.652
20/18	0.458	0.511	0.64	0.571	0.90	0.772	0.675	0.781	0.716
20/16	0.525	0.517	0.60	0.570	0.77	0.812	0.752	0.822	0.782
18/20	0.613	0.706	0.80	0.677	1.09	0.935	0.760	0.935	0.818
18/18	0.663	0.719	0.75	0.743	0.98	0.996	0.844	0.997	0.895
18/16	0.730	0.722	0.69	0.744	0.86	1.054	0.931	1.053	0.972
16/20	0.837	0.885	0.86	0.801	1.11	1.128	0.928	1.128	0.995
16/18	0.887	0.897	0.81	0.927	1.03	1.200	1.021	1.200	1.081
16/16	0.954	0.908	0.77	0.936	0.94	1.268	1.120	1.268	1.170

Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	320	398	510	591	489	610	780	905
	Interior	529	639	793	907	787	950	1180	1349
21	End	407	505	643	744	623	773	984	1139
	Interior	676	811	1003	1143	1006	1207	1492	1700
20	End	477	589	748	864	729	901	1144	1322
	Interior	793	948	1168	1329	1180	1411	1737	1977
19	End	639	785	990	1141	978	1200	1515	1745
	Interior	1067	1268	1551	1758	1587	1886	2307	2616
18	End	801	978	1229	1412	1225	1496	1880	2161
	Interior	1342	1585	1930	2182	1996	2358	2870	3245
16	End	1234	1493	1858	2126	1889	2284	2843	3253
	Interior	2082	2435	2935	3301	3097	3623	4367	4911
Constants		h = 1.966"		r = 0.125"		θ = 64°			

DG2WHF-36A & 2WHF-36A 7.9

Pan Perforated Cellular Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	SS	f_b/Ω	630	280	158	101	70	51	39	31	25
		Φf_b	948	421	237	152	105	77	59	47	38
		L/360	502	149	63	32	19	12	8	6	4
		L/240	753	223	94	48	28	18	12	8	6
		L/180	1003	297	125	64	37	23	16	11	8
		L/120	1505	446	188	96	56	35	24	17	12
	DS	f_b/Ω	702	312	175	112	78	57	44	35	28
		Φf_b	1055	469	264	169	117	86	66	52	42
		L/360	1209	358	151	77	45	28	19	13	10
		L/240	1813	537	227	116	67	42	28	20	15
		L/180	2417	716	302	155	90	56	38	27	19
		L/120	3626	1074	453	232	134	85	57	40	29
	TS	f_b/Ω	877	390	219	140	97	72	55	43	35
		Φf_b	1319	586	330	211	147	108	82	65	53
		L/360	947	281	118	61	35	22	15	10	8
		L/240	1420	421	178	91	53	33	22	16	11
		L/180	1894	561	237	121	70	44	30	21	15
		L/120	2840	842	355	182	105	66	44	31	23
20/18	SS	f_b/Ω	637	283	159	102	71	52	40	31	25
		Φf_b	958	426	239	153	106	78	60	47	38
		L/360	533	158	67	34	20	12	8	6	4
		L/240	800	237	100	51	30	19	13	9	6
		L/180	1067	316	133	68	40	25	17	12	9
		L/120	1600	474	200	102	59	37	25	18	13
	DS	f_b/Ω	712	317	178	114	79	58	45	35	28
		Φf_b	1070	476	268	171	119	87	67	53	43
		L/360	1285	381	161	82	48	30	20	14	10
		L/240	1927	571	241	123	71	45	30	21	15
		L/180	2570	761	321	164	95	60	40	28	21
		L/120	3855	1142	482	247	143	90	60	42	31
	TS	f_b/Ω	890	396	223	142	99	73	56	44	36
		Φf_b	1338	595	335	214	149	109	84	66	54
		L/360	1007	298	126	64	37	23	16	11	8
		L/240	1510	447	189	97	56	35	24	17	12
		L/180	2013	597	252	129	75	47	31	22	16
		L/120	3020	895	377	193	112	70	47	33	24
20/16	SS	f_b/Ω	645	287	161	103	72	53	40	32	26
		Φf_b	969	431	242	155	108	79	61	48	39
		L/360	561	166	70	36	21	13	9	6	4
		L/240	842	249	105	54	31	20	13	9	7
		L/180	1123	333	140	72	42	26	18	12	9
		L/120	1684	499	211	108	62	39	26	18	13
	DS	f_b/Ω	711	316	178	114	79	58	44	35	28
		Φf_b	1069	475	267	171	119	87	67	53	43
		L/360	1352	401	169	87	50	32	21	15	11
		L/240	2028	601	254	130	75	47	32	22	16
		L/180	2704	801	338	173	100	63	42	30	22
		L/120	4057	1202	507	260	150	95	63	45	32
	TS	f_b/Ω	889	395	222	142	99	73	56	44	36
		Φf_b	1337	594	334	214	149	109	84	66	53
		L/360	1059	314	132	68	39	25	17	12	8
		L/240	1589	471	199	102	59	37	25	17	13
		L/180	2119	628	265	136	78	49	33	23	17
		L/120	3178	942	397	203	118	74	50	35	25

7.9 DG2WHF-36A & 2WHF-36A

Pan Perforated Cellular Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

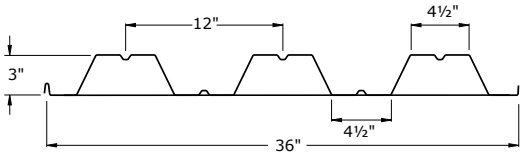
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	SS	f_b/Ω	881	391	220	141	98	72	55	43	35
		Φf_b	1324	588	331	212	147	108	83	65	53
		L/360	638	189	80	41	24	15	10	7	5
		L/240	958	284	120	61	35	22	15	11	8
		L/180	1277	378	160	82	47	30	20	14	10
		L/120	1915	568	239	123	71	45	30	21	15
	DS	f_b/Ω	845	376	211	135	94	69	53	42	34
		Φf_b	1270	564	317	203	141	104	79	63	51
		L/360	1538	456	192	98	57	36	24	17	12
		L/240	2307	684	288	148	85	54	36	25	18
		L/180	3076	911	384	197	114	72	48	34	25
		L/120	4614	1367	577	295	171	108	72	51	37
	TS	f_b/Ω	1056	469	264	169	117	86	66	52	42
		Φf_b	1587	706	397	254	176	130	99	78	63
		L/360	1205	357	151	77	45	28	19	13	10
		L/240	1807	535	226	116	67	42	28	20	14
		L/180	2410	714	301	154	89	56	38	26	19
		L/120	3614	1071	452	231	134	84	56	40	29
18/18	SS	f_b/Ω	896	398	224	143	100	73	56	44	36
		Φf_b	1347	599	337	216	150	110	84	67	54
		L/360	681	202	85	44	25	16	11	7	5
		L/240	1021	303	128	65	38	24	16	11	8
		L/180	1361	403	170	87	50	32	21	15	11
		L/120	2042	605	255	131	76	48	32	22	16
	DS	f_b/Ω	927	412	232	148	103	76	58	46	37
		Φf_b	1393	619	348	223	155	114	87	69	56
		L/360	1640	486	205	105	61	38	26	18	13
		L/240	2459	729	307	157	91	57	38	27	20
		L/180	3279	972	410	210	121	76	51	36	26
		L/120	4919	1457	615	315	182	115	77	54	39
	TS	f_b/Ω	1159	515	290	185	129	95	72	57	46
		Φf_b	1742	774	435	279	194	142	109	86	70
		L/360	1284	381	161	82	48	30	20	14	10
		L/240	1927	571	241	123	71	45	30	21	15
		L/180	2569	761	321	164	95	60	40	28	21
		L/120	3853	1142	482	247	143	90	60	42	31
18/16	SS	f_b/Ω	901	400	225	144	100	74	56	44	36
		Φf_b	1354	602	339	217	150	111	85	67	54
		L/360	719	213	90	46	27	17	11	8	6
		L/240	1079	320	135	69	40	25	17	12	9
		L/180	1439	426	180	92	53	34	22	16	12
		L/120	2158	639	270	138	80	50	34	24	17
	DS	f_b/Ω	928	413	232	149	103	76	58	46	37
		Φf_b	1395	620	349	223	155	114	87	69	56
		L/360	1733	513	217	111	64	40	27	19	14
		L/240	2599	770	325	166	96	61	41	29	21
		L/180	3466	1027	433	222	128	81	54	38	28
		L/120	5198	1540	650	333	193	121	81	57	42
	TS	f_b/Ω	1160	516	290	186	129	95	73	57	46
		Φf_b	1744	775	436	279	194	142	109	86	70
		L/360	1357	402	170	87	50	32	21	15	11
		L/240	2036	603	255	130	75	47	32	22	16
		L/180	2715	804	339	174	101	63	42	30	22
		L/120	4072	1207	509	261	151	95	64	45	33

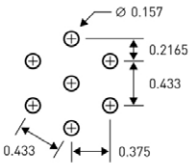
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

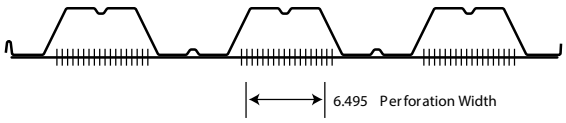
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	SS	f_b/Ω	1104	491	276	177	123	90	69	55	44
		Φf_b	1660	738	415	266	184	136	104	82	66
		L/360	770	228	96	49	29	18	12	8	6
		L/240	1156	342	144	74	43	27	18	13	9
		L/180	1541	457	193	99	57	36	24	17	12
		L/120	2311	685	289	148	86	54	36	25	18
	DS	f_b/Ω	999	444	250	160	111	82	62	49	40
		Φf_b	1502	668	375	240	167	123	94	74	60
		L/360	1856	550	232	119	69	43	29	20	15
		L/240	2784	825	348	178	103	65	43	31	22
		L/180	3712	1100	464	238	137	87	58	41	30
		L/120	5567	1650	696	356	206	130	87	61	45
	TS	f_b/Ω	1249	555	312	200	139	102	78	62	50
		Φf_b	1877	834	469	300	209	153	117	93	75
		L/360	1454	431	182	93	54	34	23	16	12
		L/240	2181	646	273	140	81	51	34	24	17
		L/180	2908	862	363	186	108	68	45	32	23
		L/120	4361	1292	545	279	162	102	68	48	35
16/18	SS	f_b/Ω	1119	497	280	179	124	91	70	55	45
		Φf_b	1682	747	420	269	187	137	105	83	67
		L/360	820	243	102	52	30	19	13	9	7
		L/240	1230	364	154	79	46	29	19	13	10
		L/180	1639	486	205	105	61	38	26	18	13
		L/120	2459	729	307	157	91	57	38	27	20
	DS	f_b/Ω	1156	514	289	185	128	94	72	57	46
		Φf_b	1738	772	434	278	193	142	109	86	70
		L/360	1975	585	247	126	73	46	31	22	16
		L/240	2962	878	370	190	110	69	46	33	24
		L/180	3949	1170	494	253	146	92	62	43	32
		L/120	5924	1755	740	379	219	138	93	65	47
	TS	f_b/Ω	1445	642	361	231	161	118	90	71	58
		Φf_b	2172	965	543	348	241	177	136	107	87
		L/360	1547	458	193	99	57	36	24	17	12
		L/240	2320	688	290	149	86	54	36	25	19
		L/180	3094	917	387	198	115	72	48	34	25
		L/120	4641	1375	580	297	172	108	73	51	37
16/16	SS	f_b/Ω	1133	504	283	181	126	92	71	56	45
		Φf_b	1703	757	426	272	189	139	106	84	68
		L/360	866	257	108	55	32	20	14	10	7
		L/240	1299	385	162	83	48	30	20	14	10
		L/180	1732	513	217	111	64	40	27	19	14
		L/120	2598	770	325	166	96	61	41	29	21
	DS	f_b/Ω	1167	519	292	187	130	95	73	58	47
		Φf_b	1754	780	439	281	195	143	110	87	70
		L/360	2086	618	261	134	77	49	33	23	17
		L/240	3130	927	391	200	116	73	49	34	25
		L/180	4173	1236	522	267	155	97	65	46	33
		L/120	6259	1855	782	401	232	146	98	69	50
	TS	f_b/Ω	1459	648	365	233	162	119	91	72	58
		Φf_b	2193	974	548	351	244	179	137	108	88
		L/360	1634	484	204	105	61	38	26	18	13
		L/240	2452	726	306	157	91	57	38	27	20
		L/180	3269	969	409	209	121	76	51	36	26
		L/120	4903	1453	613	314	182	114	77	54	39

7.10 DG3WxHF-36A & 3WxHF-36A

Pan Perforated Cellular Acustadek®







Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in²/ft	I_g in⁴/ft	y_b in	S_g in³/ft	r in
20/20	3.24	0.0359/0.036	50	65	0.952	1.501	1.01	0.703	1.209
20/18	3.61	0.0359/0.047	50	65	1.060	1.598	0.91	0.712	1.172
20/16	4.01	0.0359/0.059	50	65	1.177	1.682	0.84	0.723	1.133
18/20	3.92	0.0478/0.036	50	65	1.151	1.881	1.11	0.922	1.242
18/18	4.28	0.0478/0.047	50	65	1.259	2.003	1.03	0.937	1.216
18/16	4.68	0.0478/0.059	50	65	1.376	2.114	0.95	0.948	1.186
16/20	4.59	0.0598/0.036	50	65	1.348	2.250	1.18	1.125	1.262
16/18	4.97	0.0598/0.047	50	65	1.460	2.393	1.10	1.147	1.242
16/16	5.37	0.0598/0.059	50	65	1.577	2.525	1.04	1.173	1.220

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in²/ft	S_e+ in³/ft	y_b in	S_e- in³/ft	y_b in	I_e+ in⁴/ft	I_e- in⁴/ft	I+ in⁴/ft	I- in⁴/ft
20/20	0.379	0.677	0.95	0.720	0.11	1.486	1.187	1.491	1.292
20/18	0.418	0.680	0.86	0.739	1.28	1.568	1.336	1.578	1.423
20/16	0.483	0.684	0.81	0.739	1.11	1.633	1.476	1.650	1.545
18/20	0.589	0.940	1.15	0.931	1.52	1.880	1.514	1.881	1.636
18/18	0.628	0.953	1.06	0.964	1.38	2.002	1.686	2.002	1.791
18/16	0.693	0.965	0.99	0.975	1.24	2.112	1.839	2.113	1.931
16/20	0.821	1.173	1.25	1.137	1.55	2.244	1.843	2.246	1.979
16/18	0.864	1.192	1.18	1.177	1.43	2.385	2.027	2.387	2.149
16/16	0.928	1.211	1.12	1.200	1.32	2.516	2.198	2.519	2.307

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs							
		ASD, R/Ω				LRFD, ϕR			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	296	368	471	550	452	564	721	842
	Interior	522	630	783	900	776	937	1164	1338
21	End	379	470	598	697	580	719	915	1066
	Interior	667	801	990	1135	993	1191	1472	1688
20	End	424	524	666	775	649	802	1020	1186
	Interior	746	893	1101	1261	1110	1329	1638	1876
19	End	600	737	930	1078	918	1127	1423	1650
	Interior	1054	1252	1532	1747	1568	1863	2280	2599
18	End	743	908	1141	1320	1137	1389	1746	2020
	Interior	1305	1542	1878	2136	1941	2294	2794	3178
16	End	1143	1383	1723	1983	1749	2116	2636	3034
	Interior	2008	2350	2834	3206	2986	3495	4216	4768
Constants		h = 3.2"		r = 0.125"		θ = 63.5°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	SS	f_b/Ω	844	375	211	135	94	69	53	42	34
		Φf_b	1269	564	317	203	141	104	79	63	51
		L/360	1018	302	127	65	38	24	16	11	8
		L/240	1527	452	191	98	57	36	24	17	12
		L/180	2036	603	255	130	75	47	32	22	16
		L/120	3054	905	382	195	113	71	48	34	24
	DS	f_b/Ω	898	399	224	144	100	73	56	44	36
		Φf_b	1349	600	337	216	150	110	84	67	54
		L/360	2452	727	307	157	91	57	38	27	20
		L/240	3678	1090	460	235	136	86	57	40	29
		L/180	4904	1453	613	314	182	114	77	54	39
		L/120	7357	2180	920	471	272	172	115	81	59
	TS	f_b/Ω	1122	499	281	180	125	92	70	55	45
		Φf_b	1687	750	422	270	187	138	105	83	67
		L/360	1921	569	240	123	71	45	30	21	15
		L/240	2882	854	360	184	107	67	45	32	23
		L/180	3842	1138	480	246	142	90	60	42	31
		L/120	5763	1708	720	369	213	134	90	63	46
20/18	SS	f_b/Ω	849	377	212	136	94	69	53	42	34
		Φf_b	1276	567	319	204	142	104	80	63	51
		L/360	1078	319	135	69	40	25	17	12	9
		L/240	1616	479	202	103	60	38	25	18	13
		L/180	2155	639	269	138	80	50	34	24	17
		L/120	3233	958	404	207	120	75	51	35	26
	DS	f_b/Ω	921	409	230	147	102	75	58	45	37
		Φf_b	1385	615	346	222	154	113	87	68	55
		L/360	2596	769	324	166	96	61	41	28	21
		L/240	3893	1154	487	249	144	91	61	43	31
		L/180	5191	1538	649	332	192	121	81	57	42
		L/120	7787	2307	973	498	288	182	122	85	62
	TS	f_b/Ω	1152	512	288	184	128	94	72	57	46
		Φf_b	1731	769	433	277	192	141	108	85	69
		L/360	2033	602	254	130	75	47	32	22	16
		L/240	3050	904	381	195	113	71	48	33	24
		L/180	4067	1205	508	260	151	95	64	45	33
		L/120	6100	1807	762	390	226	142	95	67	49
20/16	SS	f_b/Ω	853	379	213	136	95	70	53	42	34
		Φf_b	1282	570	320	205	142	105	80	63	51
		L/360	1126	334	141	72	42	26	18	12	9
		L/240	1690	501	211	108	63	39	26	19	14
		L/180	2253	667	282	144	83	53	35	25	18
		L/120	3379	1001	422	216	125	79	53	37	27
	DS	f_b/Ω	922	410	230	147	102	75	58	46	37
		Φf_b	1385	616	346	222	154	113	87	68	55
		L/360	2713	804	339	174	100	63	42	30	22
		L/240	4070	1206	509	260	151	95	64	45	33
		L/180	5427	1608	678	347	201	127	85	60	43
		L/120	8140	2412	1017	521	301	190	127	89	65
	TS	f_b/Ω	1152	512	288	184	128	94	72	57	46
		Φf_b	1732	770	433	277	192	141	108	86	69
		L/360	2126	630	266	136	79	50	33	23	17
		L/240	3188	945	399	204	118	74	50	35	26
		L/180	4251	1260	531	272	157	99	66	47	34
		L/120	6377	1889	797	408	236	149	100	70	51

7.10 DG3WxHF-36A & 3WxHF-36A

Pan Perforated Cellular Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/20	SS	f_b/Ω	1172	521	293	188	130	96	73	58	47
		Φf_b	1762	783	441	282	196	144	110	87	70
		L/360	1284	381	161	82	48	30	20	14	10
		L/240	1926	571	241	123	71	45	30	21	15
		L/180	2569	761	321	164	95	60	40	28	21
		L/120	3853	1142	482	247	143	90	60	42	31
	DS	f_b/Ω	1161	516	290	186	129	95	73	57	46
		Φf_b	1745	776	436	279	194	142	109	86	70
		L/360	3094	917	387	198	115	72	48	34	25
		L/240	4640	1375	580	297	172	108	73	51	37
		L/180	6187	1833	773	396	229	144	97	68	49
		L/120	9281	2750	1160	594	344	216	145	102	74
	TS	f_b/Ω	1451	645	363	232	161	118	91	72	58
		Φf_b	2182	970	545	349	242	178	136	108	87
		L/360	2423	718	303	155	90	57	38	27	19
		L/240	3635	1077	454	233	135	85	57	40	29
		L/180	4847	1436	606	310	180	113	76	53	39
		L/120	7270	2154	909	465	269	170	114	80	58
18/18	SS	f_b/Ω	1189	528	297	190	132	97	74	59	48
		Φf_b	1787	794	447	286	199	146	112	88	71
		L/360	1367	405	171	88	51	32	21	15	11
		L/240	2051	608	256	131	76	48	32	23	16
		L/180	2735	810	342	175	101	64	43	30	22
		L/120	4102	1215	513	263	152	96	64	45	33
	DS	f_b/Ω	1203	535	301	192	134	98	75	59	48
		Φf_b	1808	804	452	289	201	148	113	89	72
		L/360	3294	976	412	211	122	77	51	36	26
		L/240	4941	1464	618	316	183	115	77	54	40
		L/180	6588	1952	823	422	244	154	103	72	53
		L/120	9881	2928	1235	632	366	230	154	108	79
	TS	f_b/Ω	1504	668	376	241	167	123	94	74	60
		Φf_b	2260	1005	565	362	251	185	141	112	90
		L/360	2580	765	323	165	96	60	40	28	21
		L/240	3870	1147	484	248	143	90	60	42	31
		L/180	5161	1529	645	330	191	120	81	57	41
		L/120	7741	2294	968	495	287	181	121	85	62
18/16	SS	f_b/Ω	1203	535	301	193	134	98	75	59	48
		Φf_b	1809	804	452	289	201	148	113	89	72
		L/360	1443	427	180	92	53	34	23	16	12
		L/240	2164	641	271	138	80	50	34	24	17
		L/180	2885	855	361	185	107	67	45	32	23
		L/120	4328	1282	541	277	160	101	68	47	35
	DS	f_b/Ω	1216	540	304	195	135	99	76	60	49
		Φf_b	1828	812	457	292	203	149	114	90	73
		L/360	3475	1030	434	222	129	81	54	38	28
		L/240	5213	1545	652	334	193	122	81	57	42
		L/180	6951	2059	869	445	257	162	109	76	56
		L/120	10426	3089	1303	667	386	243	163	114	83
	TS	f_b/Ω	1520	676	380	243	169	124	95	75	61
		Φf_b	2285	1015	571	366	254	187	143	113	91
		L/360	2722	807	340	174	101	63	43	30	22
		L/240	4084	1210	510	261	151	95	64	45	33
		L/180	5445	1613	681	348	202	127	85	60	44
		L/120	8167	2420	1021	523	302	190	128	90	65

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	SS	f_b/Ω	1463	650	366	234	163	119	91	72	59
		Φf_b	2199	977	550	352	244	179	137	109	88
		L/360	1534	454	192	98	57	36	24	17	12
		L/240	2301	682	288	147	85	54	36	25	18
		L/180	3068	909	383	196	114	72	48	34	25
		L/120	4602	1363	575	294	170	107	72	50	37
	DS	f_b/Ω	1418	630	355	227	158	116	89	70	57
		Φf_b	2132	948	533	341	237	174	133	105	85
		L/360	3695	1095	462	236	137	86	58	41	30
		L/240	5542	1642	693	355	205	129	87	61	44
		L/180	7390	2190	924	473	274	172	115	81	59
		L/120	11084	3284	1386	709	411	259	173	122	89
	TS	f_b/Ω	1773	788	443	284	197	145	111	88	71
		Φf_b	2665	1184	666	426	296	218	167	132	107
		L/360	2894	858	362	185	107	68	45	32	23
		L/240	4342	1286	543	278	161	101	68	48	35
		L/180	5789	1715	724	370	214	135	90	64	46
		L/120	8683	2573	1085	556	322	203	136	95	69
16/18	SS	f_b/Ω	1487	661	372	238	165	121	93	73	59
		Φf_b	2235	993	559	358	248	182	140	110	89
		L/360	1630	483	204	104	60	38	25	18	13
		L/240	2445	725	306	157	91	57	38	27	20
		L/180	3261	966	408	209	121	76	51	36	26
		L/120	4891	1449	611	313	181	114	76	54	39
	DS	f_b/Ω	1468	652	367	235	163	120	92	72	59
		Φf_b	2206	980	551	353	245	180	138	109	88
		L/360	3927	1164	491	251	145	92	61	43	31
		L/240	5891	1745	736	377	218	137	92	65	47
		L/180	7854	2327	982	503	291	183	123	86	63
		L/120	11782	3491	1473	754	436	275	184	129	94
	TS	f_b/Ω	1835	815	459	294	204	150	115	91	73
		Φf_b	2757	1226	689	441	306	225	172	136	110
		L/360	3077	912	385	197	114	72	48	34	25
		L/240	4615	1367	577	295	171	108	72	51	37
		L/180	6153	1823	769	394	228	144	96	68	49
		L/120	9230	2735	1154	591	342	215	144	101	74
16/16	SS	f_b/Ω	1510	671	378	242	168	123	94	75	60
		Φf_b	2270	1009	568	363	252	185	142	112	91
		L/360	1720	510	215	110	64	40	27	19	14
		L/240	2580	764	322	165	96	60	40	28	21
		L/180	3440	1019	430	220	127	80	54	38	28
		L/120	5160	1529	645	330	191	120	81	57	41
	DS	f_b/Ω	1497	665	374	240	166	122	94	74	60
		Φf_b	2250	1000	563	360	250	184	141	111	90
		L/360	4143	1228	518	265	153	97	65	45	33
		L/240	6214	1841	777	398	230	145	97	68	50
		L/180	8286	2455	1036	530	307	193	129	91	66
		L/120	12429	3683	1554	795	460	290	194	136	99
	TS	f_b/Ω	1872	832	468	299	208	153	117	92	75
		Φf_b	2813	1250	703	450	313	230	176	139	113
		L/360	3245	962	406	208	120	76	51	36	26
		L/240	4868	1442	609	312	180	114	76	53	39
		L/180	6491	1923	811	415	240	151	101	71	52
		L/120	9736	2885	1217	623	361	227	152	107	78

7.11 4.5D-12AW
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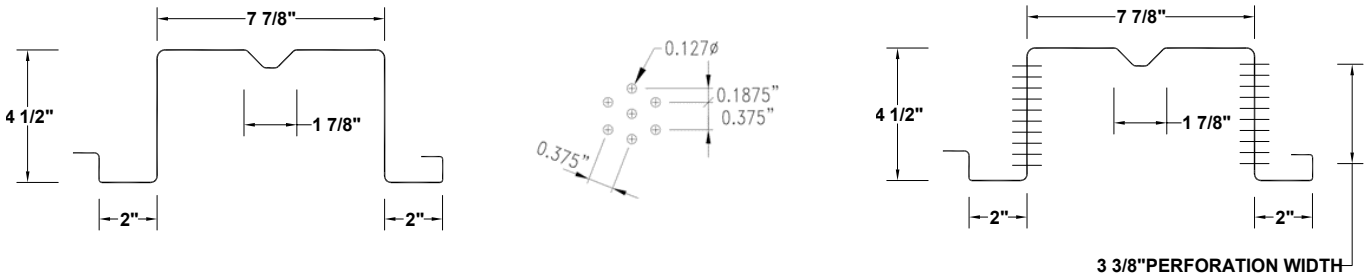


Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20	2.89	0.0359	50	65	0.786	2.738	2.40	1.141	1.867
18	3.83	0.0478	50	65	1.045	3.622	2.40	1.509	1.862
16	4.77	0.0598	50	65	1.306	4.503	2.40	1.876	1.857
14	5.97	0.0750	50	65	1.635	5.602	2.40	2.334	1.851

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.666	0.827	2.11	0.922	2.67	2.360	2.663	2.486	2.688
18	0.932	1.267	2.23	1.378	2.54	3.390	3.611	3.467	3.615
16	1.217	1.756	2.33	1.798	2.49	4.449	4.503	4.467	4.503
14	1.606	2.239	2.44	2.257	2.48	5.602	5.602	5.602	5.602

Reactions at Supports (plf) Based on Web Crippling

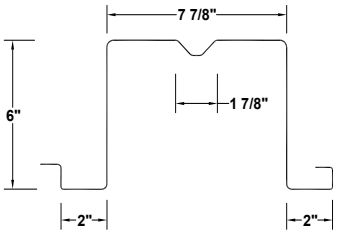
Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	441	545	692	879	675	834	1059	1345
	Interior	783	937	1154	1430	1165	1394	1717	2128
18	End	776	947	1190	1533	1187	1449	1820	2345
	Interior	1373	1621	1973	2471	2042	2412	2935	3675
16	End	1201	1452	1808	2311	1837	2222	2766	3535
	Interior	2123	2484	2994	3715	3158	3694	4453	5526
14	End	1862	2230	2750	3486	2849	3412	4208	5334
	Interior	3294	3817	4556	5601	4900	5677	6777	8331
Constants		h = 4"		r = 0.25"		θ = 90°			

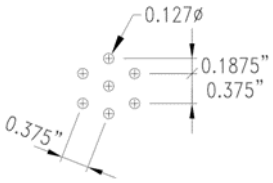
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

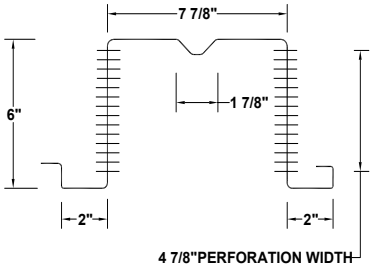
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20	Single Span	f_b/Ω	165	115	84	64	51	41	34	26	18
		Φf_b	248	172	127	97	77	62	51	40	28
		L/360	109	63	40	27	19	14	10	7	4
		L/240	163	94	59	40	28	20	15	10	6
		L/180	217	126	79	53	37	27	20	14	8
		L/120	326	189	119	80	56	41	31	21	12
	Double Span	f_b/Ω	184	128	94	72	57	-	-	-	-
		Φf_b	277	192	141	108	85	-	-	-	-
		L/360	283	164	103	69	49	-	-	-	-
		L/240	424	246	155	104	73	-	-	-	-
		L/180	566	328	206	138	97	-	-	-	-
		L/120	849	491	309	207	146	-	-	-	-
	Triple Span	f_b/Ω	230	160	-	-	-	-	-	-	-
		Φf_b	346	240	-	-	-	-	-	-	-
		L/360	222	128	-	-	-	-	-	-	-
		L/240	333	192	-	-	-	-	-	-	-
		L/180	443	257	-	-	-	-	-	-	-
		L/120	665	385	-	-	-	-	-	-	-
18	Single Span	f_b/Ω	253	176	129	99	78	63	52	40	28
		Φf_b	380	264	194	149	117	95	79	61	42
		L/360	152	88	55	37	26	19	14	10	6
		L/240	227	132	83	55	39	28	21	15	8
		L/180	303	175	110	74	52	38	28	19	11
		L/120	455	263	166	111	78	57	43	29	17
	Double Span	f_b/Ω	275	191	140	107	85	-	-	-	-
		Φf_b	413	287	211	161	128	-	-	-	-
		L/360	381	220	139	93	65	-	-	-	-
		L/240	571	330	208	139	98	-	-	-	-
		L/180	761	440	277	186	130	-	-	-	-
		L/120	1142	661	416	279	196	-	-	-	-
	Triple Span	f_b/Ω	344	239	-	-	-	-	-	-	-
		Φf_b	517	359	-	-	-	-	-	-	-
		L/360	298	173	-	-	-	-	-	-	-
		L/240	447	259	-	-	-	-	-	-	-
		L/180	596	345	-	-	-	-	-	-	-
		L/120	894	518	-	-	-	-	-	-	-
16	Single Span	f_b/Ω	351	243	179	137	108	88	72	56	39
		Φf_b	527	366	269	206	163	132	109	84	59
		L/360	195	113	71	48	33	24	18	12	7
		L/240	293	169	107	71	50	37	27	19	11
		L/180	390	226	142	95	67	49	37	25	14
		L/120	586	339	213	143	100	73	55	37	22
	Double Span	f_b/Ω	359	249	183	140	111	-	-	-	-
		Φf_b	539	374	275	211	166	-	-	-	-
		L/360	474	274	173	116	81	-	-	-	-
		L/240	711	411	259	174	122	-	-	-	-
		L/180	948	549	345	231	163	-	-	-	-
		L/120	1422	823	518	347	244	-	-	-	-
	Triple Span	f_b/Ω	448	311	-	-	-	-	-	-	-
		Φf_b	674	468	-	-	-	-	-	-	-
		L/360	371	215	-	-	-	-	-	-	-
		L/240	557	322	-	-	-	-	-	-	-
		L/180	743	430	-	-	-	-	-	-	-
		L/120	1114	645	-	-	-	-	-	-	-
14	Single Span	f_b/Ω	447	310	228	175	138	112	92	72	50
		Φf_b	672	467	343	262	207	168	139	107	75
		L/360	245	142	89	60	42	31	23	16	9
		L/240	367	213	134	90	63	46	34	24	14
		L/180	490	283	178	120	84	61	46	31	18
		L/120	735	425	268	179	126	92	69	47	27
	Double Span	f_b/Ω	450	313	230	176	139	-	-	-	-
		Φf_b	677	470	345	264	209	-	-	-	-
		L/360	590	341	215	144	101	-	-	-	-
		L/240	885	512	322	216	152	-	-	-	-
		L/180	1180	683	430	288	202	-	-	-	-
		L/120	1769	1024	645	432	303	-	-	-	-
	Triple Span	f_b/Ω	563	391	-	-	-	-	-	-	-
		Φf_b	846	588	-	-	-	-	-	-	-
		L/360	462	267	-	-	-	-	-	-	-
		L/240	693	401	-	-	-	-	-	-	-
		L/180	924	535	-	-	-	-	-	-	-
		L/120	1386	802	-	-	-	-	-	-	-

7.12 6D-12AW

Web Perforated Acustadek®







Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20	3.21	0.0359	50	65	0.857	5.281	3.16	1.672	2.483
18	4.26	0.0478	50	65	1.140	6.999	3.16	2.215	2.478
16	5.31	0.0598	50	65	1.424	8.713	3.16	2.758	2.473
14	6.65	0.0750	50	65	1.784	10.861	3.16	3.438	2.467

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.701	1.107	2.73	1.228	3.70	4.620	5.173	4.841	5.209
18	1.030	1.817	2.99	1.997	3.38	6.546	6.975	6.697	6.983
16	1.337	2.518	3.11	2.614	3.31	8.592	8.713	8.632	8.713
14	1.751	3.259	3.25	3.291	3.30	10.861	10.861	10.861	10.861

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	407	503	639	812	623	770	977	1242
	Interior	776	928	1144	1417	1155	1381	1701	2108
18	End	727	887	1115	1436	1112	1358	1705	2197
	Interior	1362	1609	1958	2451	2026	2393	2912	3646
16	End	1135	1373	1709	2185	1737	2101	2615	3343
	Interior	2108	2466	2973	3689	3136	3669	4422	5487
14	End	1774	2125	2621	3322	2714	3251	4010	5083
	Interior	3274	3793	4528	5566	4870	5642	6735	8280
Constants		h = 5.5"		r = 0.25"		θ = 90°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20	Single Span	f_b/Ω	221	154	113	86	68	55	46	35	25
		Φf_b	332	231	170	130	103	83	69	53	37
		L/360	212	122	77	52	36	26	20	14	8
		L/240	317	184	116	77	54	40	30	20	12
		L/180	423	245	154	103	73	53	40	27	16
		L/120	635	367	231	155	109	79	60	41	24
	Double Span	f_b/Ω	245	170	125	96	76	-	-	-	-
		Φf_b	368	256	188	144	114	-	-	-	-
		L/360	548	317	200	134	94	-	-	-	-
		L/240	823	476	300	201	141	-	-	-	-
		L/180	1097	635	400	268	188	-	-	-	-
		L/120	1645	952	600	402	282	-	-	-	-
	Triple Span	f_b/Ω	306	213	-	-	-	-	-	-	-
		Φf_b	460	320	-	-	-	-	-	-	-
		L/360	430	249	-	-	-	-	-	-	-
		L/240	644	373	-	-	-	-	-	-	-
		L/180	859	497	-	-	-	-	-	-	-
		L/120	1289	746	-	-	-	-	-	-	-
18	Single Span	f_b/Ω	363	252	185	142	112	91	75	58	40
		Φf_b	545	379	278	213	168	136	113	87	61
		L/360	293	169	107	71	50	37	27	19	11
		L/240	439	254	160	107	75	55	41	28	16
		L/180	585	339	213	143	100	73	55	37	22
		L/120	878	508	320	214	151	110	82	56	33
	Double Span	f_b/Ω	399	277	203	156	123	-	-	-	-
		Φf_b	599	416	306	234	185	-	-	-	-
		L/360	735	425	268	179	126	-	-	-	-
		L/240	1103	638	402	269	189	-	-	-	-
		L/180	1470	851	536	359	252	-	-	-	-
		L/120	2205	1276	804	538	378	-	-	-	-
	Triple Span	f_b/Ω	498	346	-	-	-	-	-	-	-
		Φf_b	749	520	-	-	-	-	-	-	-
		L/360	576	333	-	-	-	-	-	-	-
		L/240	864	500	-	-	-	-	-	-	-
		L/180	1152	667	-	-	-	-	-	-	-
		L/120	1728	1000	-	-	-	-	-	-	-
16	Single Span	f_b/Ω	503	349	256	196	155	126	104	80	56
		Φf_b	755	525	385	295	233	189	156	121	84
		L/360	377	218	137	92	65	47	35	24	14
		L/240	566	327	206	138	97	71	53	36	21
		L/180	755	437	275	184	129	94	71	48	28
		L/120	1132	655	412	276	194	141	106	72	42
	Double Span	f_b/Ω	522	362	266	204	161	-	-	-	-
		Φf_b	784	545	400	306	242	-	-	-	-
		L/360	917	531	334	224	157	-	-	-	-
		L/240	1376	796	501	336	236	-	-	-	-
		L/180	1835	1062	669	448	315	-	-	-	-
		L/120	2752	1592	1003	672	472	-	-	-	-
	Triple Span	f_b/Ω	652	453	-	-	-	-	-	-	-
		Φf_b	980	681	-	-	-	-	-	-	-
		L/360	719	416	-	-	-	-	-	-	-
		L/240	1078	624	-	-	-	-	-	-	-
		L/180	1437	832	-	-	-	-	-	-	-
		L/120	2156	1248	-	-	-	-	-	-	-
14	Single Span	f_b/Ω	651	452	332	254	201	163	134	104	72
		Φf_b	978	679	499	382	302	244	202	156	109
		L/360	475	275	173	116	81	59	45	30	18
		L/240	712	412	259	174	122	89	67	46	26
		L/180	949	549	346	232	163	119	89	61	35
		L/120	1424	824	519	348	244	178	134	91	53
	Double Span	f_b/Ω	657	456	335	257	203	-	-	-	-
		Φf_b	987	686	504	386	305	-	-	-	-
		L/360	1143	662	417	279	196	-	-	-	-
		L/240	1715	993	625	419	294	-	-	-	-
		L/180	2287	1323	833	558	392	-	-	-	-
		L/120	3430	1985	1250	837	588	-	-	-	-
	Triple Span	f_b/Ω	821	570	-	-	-	-	-	-	-
		Φf_b	1234	857	-	-	-	-	-	-	-
		L/360	896	518	-	-	-	-	-	-	-
		L/240	1344	778	-	-	-	-	-	-	-
		L/180	1791	1037	-	-	-	-	-	-	-
		L/120	2687	1555	-	-	-	-	-	-	-

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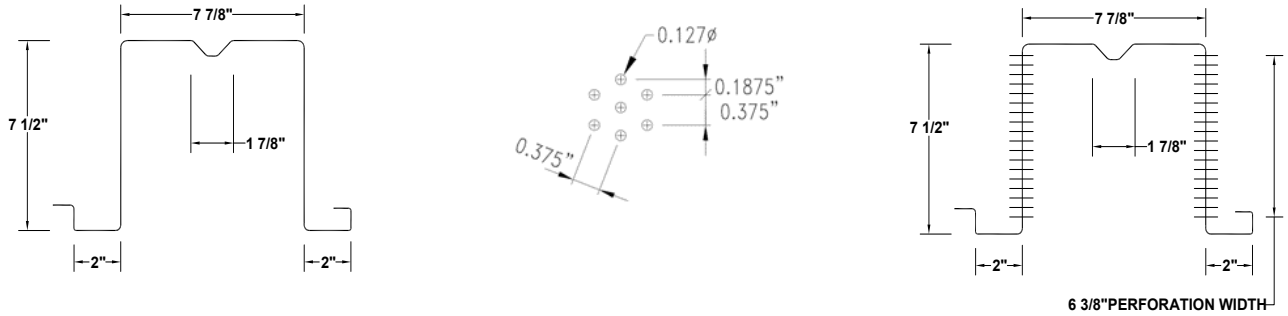

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20	3.53	0.0359	50	65	0.928	8.789	3.92	2.244	3.078
18	4.69	0.0478	50	65	1.234	11.656	3.92	2.976	3.073
16	5.85	0.0598	50	65	1.543	14.521	3.92	3.708	3.068
14	7.32	0.0750	50	65	1.918	17.532	3.87	4.531	3.023

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.715	1.334	3.27	1.504	4.82	7.822	8.557	8.145	8.635
18	1.102	2.332	3.71	2.493	4.37	10.955	11.628	11.189	11.638
16	1.457	3.323	3.91	3.481	4.15	14.310	14.525	14.380	14.524
14	1.883	4.255	4.01	4.301	4.08	17.530	17.530	17.531	17.531

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	378	467	593	753	578	714	907	1152
	Interior	770	921	1134	1406	1146	1370	1687	2092
18	End	684	836	1049	1352	1047	1278	1606	2068
	Interior	1353	1598	1944	2435	2012	2377	2892	3621
16	End	1079	1304	1624	2076	1650	1996	2485	3176
	Interior	2095	2451	2955	3667	3117	3646	4395	5454
14	End	1698	2034	2508	3180	2598	3111	3838	4865
	Interior	3256	3773	4503	5536	4843	5612	6698	8235
Constants		h = 7"		r = 0.25"		θ = 90°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20	Single Span	f_b/Ω	266	185	136	104	82	67	55	43	30
		Φf_b	400	278	204	156	124	100	83	64	44
		L/360	356	206	130	87	61	44	33	23	13
		L/240	534	309	195	130	92	67	50	34	20
		L/180	712	412	259	174	122	89	67	46	26
		L/120	1068	618	389	261	183	133	100	68	40
	Double Span	f_b/Ω	300	208	153	117	93	-	-	-	-
		Φf_b	451	313	230	176	139	-	-	-	-
		L/360	909	526	331	222	156	-	-	-	-
		L/240	1364	789	497	333	234	-	-	-	-
		L/180	1818	1052	663	444	312	-	-	-	-
		L/120	2727	1578	994	666	468	-	-	-	-
	Triple Span	f_b/Ω	375	261	-	-	-	-	-	-	-
		Φf_b	564	392	-	-	-	-	-	-	-
		L/360	712	412	-	-	-	-	-	-	-
		L/240	1068	618	-	-	-	-	-	-	-
		L/180	1424	824	-	-	-	-	-	-	-
		L/120	2136	1236	-	-	-	-	-	-	-
18	Single Span	f_b/Ω	465	323	237	182	144	116	96	74	52
		Φf_b	699	486	357	273	216	175	145	112	78
		L/360	489	283	178	119	84	61	46	31	18
		L/240	734	424	267	179	126	92	69	47	27
		L/180	978	566	356	239	168	122	92	63	36
		L/120	1467	849	535	358	252	183	138	94	54
	Double Span	f_b/Ω	498	346	254	194	154	-	-	-	-
		Φf_b	748	519	382	292	231	-	-	-	-
		L/360	1225	709	446	299	210	-	-	-	-
		L/240	1838	1064	670	449	315	-	-	-	-
		L/180	2450	1418	893	598	420	-	-	-	-
		L/120	3676	2127	1339	897	630	-	-	-	-
	Triple Span	f_b/Ω	622	432	-	-	-	-	-	-	-
		Φf_b	935	649	-	-	-	-	-	-	-
		L/360	960	555	-	-	-	-	-	-	-
		L/240	1440	833	-	-	-	-	-	-	-
		L/180	1920	1111	-	-	-	-	-	-	-
		L/120	2879	1666	-	-	-	-	-	-	-
16	Single Span	f_b/Ω	663	461	338	259	205	166	137	106	74
		Φf_b	997	692	509	389	308	249	206	160	111
		L/360	628	364	229	153	108	79	59	40	23
		L/240	943	546	344	230	162	118	89	60	35
		L/180	1257	727	458	307	216	157	118	80	47
		L/120	1885	1091	687	460	323	236	177	121	70
	Double Span	f_b/Ω	695	482	354	271	214	-	-	-	-
		Φf_b	1044	725	533	408	322	-	-	-	-
		L/360	1529	885	557	373	262	-	-	-	-
		L/240	2293	1327	836	560	393	-	-	-	-
		L/180	3058	1770	1114	747	524	-	-	-	-
		L/120	4587	2655	1672	1120	787	-	-	-	-
	Triple Span	f_b/Ω	868	603	-	-	-	-	-	-	-
		Φf_b	1305	906	-	-	-	-	-	-	-
		L/360	1198	693	-	-	-	-	-	-	-
		L/240	1797	1040	-	-	-	-	-	-	-
		L/180	2396	1386	-	-	-	-	-	-	-
		L/120	3593	2080	-	-	-	-	-	-	-
14	Single Span	f_b/Ω	849	590	433	332	262	212	175	136	94
		Φf_b	1276	886	651	499	394	319	264	204	142
		L/360	766	443	279	187	131	96	72	49	28
		L/240	1149	665	419	281	197	144	108	74	43
		L/180	1532	887	558	374	263	192	144	98	57
		L/120	2298	1330	838	561	394	287	216	147	85
	Double Span	f_b/Ω	859	596	438	335	265	-	-	-	-
		Φf_b	1290	896	658	504	398	-	-	-	-
		L/360	1846	1068	673	451	316	-	-	-	-
		L/240	2768	1602	1009	676	475	-	-	-	-
		L/180	3691	2136	1345	901	633	-	-	-	-
		L/120	5537	3204	2018	1352	949	-	-	-	-
	Triple Span	f_b/Ω	1073	745	-	-	-	-	-	-	-
		Φf_b	1613	1120	-	-	-	-	-	-	-
		L/360	1446	837	-	-	-	-	-	-	-
		L/240	2169	1255	-	-	-	-	-	-	-
		L/180	2892	1673	-	-	-	-	-	-	-
		L/120	4337	2510	-	-	-	-	-	-	-

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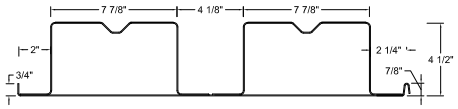

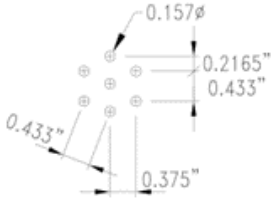

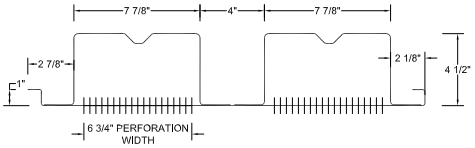

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	4.07	0.035/0.035	50	65	1.107	4.396	1.71	1.471	1.993
20/18	4.57	0.035/0.047	50	65	1.259	4.803	1.54	1.526	1.953
20/16	5.07	0.035/0.059	50	65	1.403	5.117	1.40	1.563	1.910
18/20	4.93	0.047/0.035	50	65	1.316	5.347	1.89	1.872	2.015
18/18	5.43	0.047/0.047	50	65	1.490	5.823	1.72	1.943	1.977
18/16	5.93	0.047/0.059	50	65	1.613	6.274	1.60	2.012	1.972
16/20	5.78	0.059/0.035	50	65	1.528	6.241	2.03	2.254	2.021
16/18	6.28	0.059/0.047	50	65	1.670	6.801	1.88	2.354	2.018
16/16	6.78	0.059/0.059	50	65	1.825	7.326	1.75	2.438	2.004

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.909	0.983	1.83	0.824	1.79	3.736	3.029	3.956	3.485
20/18	1.051	1.007	1.61	0.934	1.59	3.978	3.574	4.253	3.983
20/16	1.207	1.023	1.46	1.057	1.44	4.117	4.077	4.451	4.424
18/20	1.192	1.515	2.04	1.104	2.01	4.927	3.755	5.067	4.286
18/18	1.341	1.540	1.83	1.217	1.80	5.373	4.345	5.523	4.838
18/16	1.444	1.567	1.68	1.327	1.66	5.794	4.950	5.954	5.391
16/20	1.434	1.995	2.20	1.395	2.18	6.121	4.521	6.161	5.094
16/18	1.575	2.079	2.01	1.501	1.99	6.666	5.125	6.711	5.684
16/16	1.728	2.148	1.85	1.630	1.83	7.176	5.815	7.226	6.319

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	463	572	727	923	709	876	1112	1412
	Interior	788	942	1161	1439	1172	1402	1727	2140
18	End	808	986	1238	1595	1235	1508	1895	2441
	Interior	1380	1630	1983	2483	2052	2424	2950	3694
16	End	1243	1503	1871	2392	1902	2300	2863	3660
	Interior	2132	2495	3007	3731	3172	3711	4473	5551
14	End	1918	2298	2834	3592	2935	3515	4336	5496
	Interior	3307	3832	4574	5623	4919	5700	6804	8365
Constants		h = 4"		r = 0.25"		θ = 90°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20/20	Single Span	f_b/Ω	196	136	100	77	61	49	41	31	22
		Φf_b	295	205	150	115	91	74	61	47	33
		L/360	173	100	63	42	30	22	16	11	6
		L/240	259	150	95	63	44	32	24	17	10
		L/180	346	200	126	84	59	43	32	22	13
		L/120	519	300	189	127	89	65	49	33	19
	Double Span	f_b/Ω	164	114	84	64	51	-	-	-	-
		Φf_b	247	172	126	97	76	-	-	-	-
		L/360	367	212	134	90	63	-	-	-	-
		L/240	550	318	201	134	94	-	-	-	-
		L/180	734	425	267	179	126	-	-	-	-
		L/120	1101	637	401	269	189	-	-	-	-
	Triple Span	f_b/Ω	206	143	-	-	-	-	-	-	-
		Φf_b	309	215	-	-	-	-	-	-	-
		L/360	287	166	-	-	-	-	-	-	-
		L/240	431	249	-	-	-	-	-	-	-
		L/180	575	333	-	-	-	-	-	-	-
		L/120	862	499	-	-	-	-	-	-	-
20/18	Single Span	f_b/Ω	201	140	103	79	62	50	42	32	22
		Φf_b	302	210	154	118	93	76	62	48	34
		L/360	186	108	68	45	32	23	17	12	7
		L/240	279	161	102	68	48	35	26	18	10
		L/180	372	215	135	91	64	46	35	24	14
		L/120	558	323	203	136	96	70	52	36	21
	Double Span	f_b/Ω	186	129	95	73	58	-	-	-	-
		Φf_b	280	195	143	109	86	-	-	-	-
		L/360	419	243	153	102	72	-	-	-	-
		L/240	629	364	229	154	108	-	-	-	-
		L/180	839	485	306	205	144	-	-	-	-
		L/120	1258	728	458	307	216	-	-	-	-
	Triple Span	f_b/Ω	233	162	-	-	-	-	-	-	-
		Φf_b	350	243	-	-	-	-	-	-	-
		L/360	329	190	-	-	-	-	-	-	-
		L/240	493	285	-	-	-	-	-	-	-
		L/180	657	380	-	-	-	-	-	-	-
		L/120	986	570	-	-	-	-	-	-	-
20/16	Single Span	f_b/Ω	204	142	104	80	63	51	42	33	23
		Φf_b	307	213	157	120	95	77	63	49	34
		L/360	195	113	71	47	33	24	18	12	7
		L/240	292	169	106	71	50	36	27	19	11
		L/180	389	225	142	95	67	49	37	25	14
		L/120	584	338	213	142	100	73	55	37	22
	Double Span	f_b/Ω	211	146	108	82	65	-	-	-	-
		Φf_b	317	220	162	124	98	-	-	-	-
		L/360	466	270	170	114	80	-	-	-	-
		L/240	699	404	255	171	120	-	-	-	-
		L/180	931	539	339	227	160	-	-	-	-
		L/120	1397	809	509	341	240	-	-	-	-
	Triple Span	f_b/Ω	264	183	-	-	-	-	-	-	-
		Φf_b	396	275	-	-	-	-	-	-	-
		L/360	365	211	-	-	-	-	-	-	-
		L/240	547	317	-	-	-	-	-	-	-
		L/180	730	422	-	-	-	-	-	-	-
		L/120	1095	633	-	-	-	-	-	-	-

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Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
18/20	Single Span	f_b/Ω	302	210	154	118	93	76	62	48	34
		Φf_b	454	316	232	177	140	114	94	73	50
		L/360	221	128	81	54	38	28	21	14	8
		L/240	332	192	121	81	57	42	31	21	12
		L/180	443	256	161	108	76	55	42	28	16
		L/120	664	384	242	162	114	83	62	43	25
	Double Span	f_b/Ω	220	153	112	86	68	-	-	-	-
		Φf_b	331	230	169	129	102	-	-	-	-
		L/360	451	261	164	110	77	-	-	-	-
		L/240	677	392	247	165	116	-	-	-	-
		L/180	902	522	329	220	155	-	-	-	-
		L/120	1354	783	493	330	232	-	-	-	-
	Triple Span	f_b/Ω	275	191	-	-	-	-	-	-	-
		Φf_b	414	287	-	-	-	-	-	-	-
		L/360	353	205	-	-	-	-	-	-	-
		L/240	530	307	-	-	-	-	-	-	-
		L/180	707	409	-	-	-	-	-	-	-
		L/120	1060	614	-	-	-	-	-	-	-
18/18	Single Span	f_b/Ω	307	213	157	120	95	77	63	49	34
		Φf_b	462	321	236	180	143	115	95	74	51
		L/360	241	140	88	59	41	30	23	15	9
		L/240	362	210	132	88	62	45	34	23	13
		L/180	483	279	176	118	83	60	45	31	18
		L/120	724	419	264	177	124	91	68	46	27
	Double Span	f_b/Ω	243	169	124	95	75	-	-	-	-
		Φf_b	365	254	186	143	113	-	-	-	-
		L/360	509	295	186	124	87	-	-	-	-
		L/240	764	442	278	187	131	-	-	-	-
		L/180	1019	589	371	249	175	-	-	-	-
		L/120	1528	884	557	373	262	-	-	-	-
	Triple Span	f_b/Ω	304	211	-	-	-	-	-	-	-
		Φf_b	456	317	-	-	-	-	-	-	-
		L/360	399	231	-	-	-	-	-	-	-
		L/240	598	346	-	-	-	-	-	-	-
		L/180	798	462	-	-	-	-	-	-	-
		L/120	1197	693	-	-	-	-	-	-	-
18/16	Single Span	f_b/Ω	313	217	160	122	97	78	65	50	35
		Φf_b	470	326	240	184	145	118	97	75	52
		L/360	260	151	95	64	45	33	24	17	10
		L/240	390	226	142	95	67	49	37	25	14
		L/180	520	301	190	127	89	65	49	33	19
		L/120	781	452	284	191	134	98	73	50	29
	Double Span	f_b/Ω	265	184	135	103	82	-	-	-	-
		Φf_b	398	276	203	156	123	-	-	-	-
		L/360	568	328	207	139	97	-	-	-	-
		L/240	851	493	310	208	146	-	-	-	-
		L/180	1135	657	414	277	195	-	-	-	-
		L/120	1703	985	621	416	292	-	-	-	-
	Triple Span	f_b/Ω	331	230	-	-	-	-	-	-	-
		Φf_b	498	346	-	-	-	-	-	-	-
		L/360	445	257	-	-	-	-	-	-	-
		L/240	667	386	-	-	-	-	-	-	-
		L/180	889	515	-	-	-	-	-	-	-
		L/120	1334	772	-	-	-	-	-	-	-

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
16/20	Single Span	f_b/Ω	398	277	203	156	123	100	82	64	44
		Φf_b	598	416	305	234	185	150	124	96	66
		L/360	269	156	98	66	46	34	25	17	10
		L/240	404	234	147	99	69	50	38	26	15
		L/180	539	312	196	131	92	67	51	34	20
		L/120	808	467	294	197	139	101	76	52	30
	Double Span	f_b/Ω	278	193	142	109	86	-	-	-	-
		Φf_b	418	291	214	163	129	-	-	-	-
		L/360	536	310	195	131	92	-	-	-	-
		L/240	804	466	293	196	138	-	-	-	-
		L/180	1073	621	391	262	184	-	-	-	-
		L/120	1609	931	586	393	276	-	-	-	-
	Triple Span	f_b/Ω	348	242	-	-	-	-	-	-	-
		Φf_b	523	363	-	-	-	-	-	-	-
		L/360	420	243	-	-	-	-	-	-	-
		L/240	630	365	-	-	-	-	-	-	-
		L/180	840	486	-	-	-	-	-	-	-
		L/120	1260	729	-	-	-	-	-	-	-
16/18	Single Span	f_b/Ω	415	288	212	162	128	104	86	66	46
		Φf_b	624	433	318	244	193	156	129	100	69
		L/360	293	170	107	72	50	37	28	19	11
		L/240	440	255	160	107	75	55	41	28	16
		L/180	587	339	214	143	101	73	55	38	22
		L/120	880	509	321	215	151	110	83	56	33
	Double Span	f_b/Ω	300	208	153	117	92	-	-	-	-
		Φf_b	450	313	230	176	139	-	-	-	-
		L/360	598	346	218	146	103	-	-	-	-
		L/240	898	519	327	219	154	-	-	-	-
		L/180	1197	693	436	292	205	-	-	-	-
		L/120	1795	1039	654	438	308	-	-	-	-
	Triple Span	f_b/Ω	374	260	-	-	-	-	-	-	-
		Φf_b	563	391	-	-	-	-	-	-	-
		L/360	469	271	-	-	-	-	-	-	-
		L/240	703	407	-	-	-	-	-	-	-
		L/180	937	543	-	-	-	-	-	-	-
		L/120	1406	814	-	-	-	-	-	-	-
16/16	Single Span	f_b/Ω	429	298	219	167	132	107	89	69	48
		Φf_b	644	448	329	252	199	161	133	103	72
		L/360	316	183	115	77	54	39	30	20	12
		L/240	474	274	173	116	81	59	44	30	18
		L/180	632	366	230	154	108	79	59	40	23
		L/120	947	548	345	231	162	118	89	61	35
	Double Span	f_b/Ω	325	226	166	127	100	-	-	-	-
		Φf_b	489	340	249	191	151	-	-	-	-
		L/360	665	385	242	162	114	-	-	-	-
		L/240	998	577	364	244	171	-	-	-	-
		L/180	1330	770	485	325	228	-	-	-	-
		L/120	1996	1155	727	487	342	-	-	-	-
	Triple Span	f_b/Ω	407	282	-	-	-	-	-	-	-
		Φf_b	611	424	-	-	-	-	-	-	-
		L/360	521	302	-	-	-	-	-	-	-
		L/240	782	452	-	-	-	-	-	-	-
		L/180	1042	603	-	-	-	-	-	-	-
		L/120	1563	905	-	-	-	-	-	-	-

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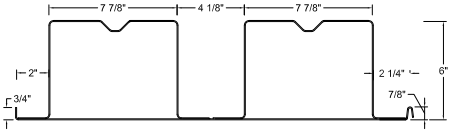

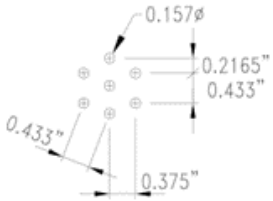

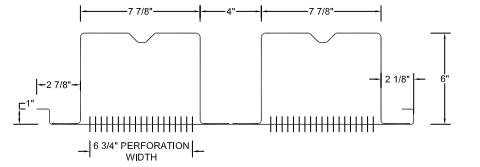

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	4.43	0.035/0.035	50	65	1.214	8.241	2.34	2.111	2.605
20/18	4.93	0.035/0.047	50	65	1.367	9.014	2.11	2.196	2.568
20/16	5.43	0.035/0.059	50	65	1.511	9.616	1.94	2.253	2.523
18/20	5.40	0.047/0.035	50	65	1.460	10.037	2.56	2.688	2.622
18/18	5.91	0.047/0.047	50	65	1.602	10.926	2.37	2.800	2.611
18/16	6.41	0.047/0.059	50	65	1.756	11.752	2.19	2.892	2.587
16/20	6.38	0.059/0.035	50	65	1.707	11.721	2.73	3.235	2.620
16/18	6.88	0.059/0.047	50	65	1.850	12.746	2.55	3.381	2.625
16/16	7.38	0.059/0.059	50	65	2.004	13.712	2.38	3.502	2.616

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.947	1.368	2.50	1.142	2.44	6.831	5.829	7.301	6.633
20/18	1.078	1.385	2.22	1.305	2.18	7.274	6.766	7.854	7.515
20/16	1.240	1.410	2.02	1.458	1.99	7.546	7.630	8.236	8.292
18/20	1.264	2.112	2.76	1.584	2.72	9.392	7.180	9.607	8.132
18/18	1.376	2.156	2.51	1.743	2.48	10.251	8.122	10.476	9.057
18/16	1.504	2.185	2.30	1.886	2.27	10.997	9.257	11.248	10.089
16/20	1.612	2.888	2.95	2.056	2.93	11.486	8.605	11.565	9.644
16/18	1.744	3.000	2.72	2.179	2.70	12.496	9.654	12.579	10.685
16/16	1.863	3.052	2.51	2.330	2.49	13.487	10.870	13.562	11.818

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	434	537	682	866	665	821	1043	1325
	Interior	782	935	1152	1428	1163	1391	1714	2124
18	End	766	935	1175	1514	1172	1431	1798	2316
	Interior	1371	1619	1970	2467	2039	2408	2931	3669
16	End	1188	1437	1788	2286	1817	2198	2736	3497
	Interior	2120	2480	2989	3710	3154	3689	4447	5518
14	End	1844	2209	2725	3454	2822	3380	4169	5284
	Interior	3290	3812	4550	5594	4894	5670	6768	8321
Constants		h = 5.5"		r = 0.25"		θ = 90°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)							
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20/20	Single Span	f_b/Ω	273	190	139	107	84	68	56	44	30
		Φf_b	410	285	209	160	127	103	85	66	46
		L/360	319	185	116	78	55	40	30	20	12
		L/240	479	277	174	117	82	60	45	31	18
		L/180	638	369	233	156	109	80	60	41	24
		L/120	957	554	349	234	164	120	90	61	35
	Double Span	f_b/Ω	228	158	116	89	70	-	-	-	-
		Φf_b	343	238	175	134	106	-	-	-	-
		L/360	698	404	254	170	120	-	-	-	-
		L/240	1047	606	382	256	180	-	-	-	-
		L/180	1397	808	509	341	239	-	-	-	-
		L/120	2095	1212	763	511	359	-	-	-	-
	Triple Span	f_b/Ω	285	198	-	-	-	-	-	-	-
		Φf_b	428	298	-	-	-	-	-	-	-
		L/360	547	317	-	-	-	-	-	-	-
		L/240	821	475	-	-	-	-	-	-	-
		L/180	1094	633	-	-	-	-	-	-	-
		L/120	1641	950	-	-	-	-	-	-	-
20/18	Single Span	f_b/Ω	276	192	141	108	85	69	57	44	31
		Φf_b	416	289	212	162	128	104	86	66	46
		L/360	343	199	125	84	59	43	32	22	13
		L/240	515	298	188	126	88	64	48	33	19
		L/180	687	397	250	168	118	86	64	44	25
		L/120	1030	596	375	251	177	129	97	66	38
	Double Span	f_b/Ω	260	181	133	102	80	-	-	-	-
		Φf_b	391	272	200	153	121	-	-	-	-
		L/360	791	458	288	193	136	-	-	-	-
		L/240	1187	687	432	290	203	-	-	-	-
		L/180	1582	916	577	386	271	-	-	-	-
		L/120	2373	1374	865	579	407	-	-	-	-
	Triple Span	f_b/Ω	326	226	-	-	-	-	-	-	-
		Φf_b	489	340	-	-	-	-	-	-	-
		L/360	620	359	-	-	-	-	-	-	-
		L/240	930	538	-	-	-	-	-	-	-
		L/180	1240	717	-	-	-	-	-	-	-
		L/120	1859	1076	-	-	-	-	-	-	-
20/16	Single Span	f_b/Ω	281	195	144	110	87	70	58	45	31
		Φf_b	423	294	216	165	131	106	87	68	47
		L/360	360	208	131	88	62	45	34	23	13
		L/240	540	312	197	132	93	67	51	35	20
		L/180	720	417	262	176	123	90	68	46	27
		L/120	1080	625	394	264	185	135	101	69	40
	Double Span	f_b/Ω	291	202	148	114	90	-	-	-	-
		Φf_b	437	304	223	171	135	-	-	-	-
		L/360	873	505	318	213	150	-	-	-	-
		L/240	1309	758	477	320	225	-	-	-	-
		L/180	1746	1010	636	426	299	-	-	-	-
		L/120	2619	1515	954	639	449	-	-	-	-
	Triple Span	f_b/Ω	364	253	-	-	-	-	-	-	-
		Φf_b	547	380	-	-	-	-	-	-	-
		L/360	684	396	-	-	-	-	-	-	-
		L/240	1026	594	-	-	-	-	-	-	-
		L/180	1368	791	-	-	-	-	-	-	-
		L/120	2051	1187	-	-	-	-	-	-	-

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Web Perforated Acustadek®

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
18/20	Single Span	f_b/Ω	422	293	215	165	130	105	87	67	47
		Φf_b	634	440	323	248	196	158	131	101	70
		L/360	420	243	153	103	72	52	39	27	16
		L/240	630	364	230	154	108	79	59	40	23
		L/180	840	486	306	205	144	105	79	54	31
		L/120	1260	729	459	308	216	157	118	81	47
	Double Span	f_b/Ω	316	220	161	124	98	-	-	-	-
		Φf_b	475	330	242	186	147	-	-	-	-
		L/360	856	495	312	209	147	-	-	-	-
		L/240	1284	743	468	314	220	-	-	-	-
		L/180	1712	991	624	418	294	-	-	-	-
		L/120	2568	1486	936	627	440	-	-	-	-
	Triple Span	f_b/Ω	395	274	-	-	-	-	-	-	-
		Φf_b	594	412	-	-	-	-	-	-	-
		L/360	671	388	-	-	-	-	-	-	-
		L/240	1006	582	-	-	-	-	-	-	-
		L/180	1341	776	-	-	-	-	-	-	-
		L/120	2012	1164	-	-	-	-	-	-	-
18/18	Single Span	f_b/Ω	430	299	220	168	133	108	89	69	48
		Φf_b	647	449	330	253	200	162	134	103	72
		L/360	458	265	167	112	79	57	43	29	17
		L/240	687	397	250	168	118	86	64	44	25
		L/180	916	530	334	224	157	114	86	59	34
		L/120	1373	795	501	335	236	172	129	88	51
	Double Span	f_b/Ω	348	242	177	136	107	-	-	-	-
		Φf_b	523	363	267	204	161	-	-	-	-
		L/360	953	552	347	233	163	-	-	-	-
		L/240	1430	828	521	349	245	-	-	-	-
		L/180	1907	1104	695	466	327	-	-	-	-
		L/120	2860	1655	1042	698	490	-	-	-	-
	Triple Span	f_b/Ω	435	302	-	-	-	-	-	-	-
		Φf_b	654	454	-	-	-	-	-	-	-
		L/360	747	432	-	-	-	-	-	-	-
		L/240	1120	648	-	-	-	-	-	-	-
		L/180	1494	864	-	-	-	-	-	-	-
		L/120	2241	1297	-	-	-	-	-	-	-
18/16	Single Span	f_b/Ω	436	303	223	170	135	109	90	70	48
		Φf_b	656	455	335	256	202	164	135	105	73
		L/360	492	284	179	120	84	61	46	31	18
		L/240	737	427	269	180	126	92	69	47	27
		L/180	983	569	358	240	169	123	92	63	36
		L/120	1475	853	537	360	253	184	139	94	55
	Double Span	f_b/Ω	377	261	192	147	116	-	-	-	-
		Φf_b	566	393	289	221	175	-	-	-	-
		L/360	1062	615	387	259	182	-	-	-	-
		L/240	1593	922	581	389	273	-	-	-	-
		L/180	2124	1229	774	519	364	-	-	-	-
		L/120	3186	1844	1161	778	546	-	-	-	-
	Triple Span	f_b/Ω	471	327	-	-	-	-	-	-	-
		Φf_b	707	491	-	-	-	-	-	-	-
		L/360	832	482	-	-	-	-	-	-	-
		L/240	1248	722	-	-	-	-	-	-	-
		L/180	1664	963	-	-	-	-	-	-	-
		L/120	2496	1445	-	-	-	-	-	-	-

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
16/20	Single Span	f_b/Ω	576	400	294	225	178	144	119	92	64
		Φf_b	866	602	442	338	267	217	179	139	96
		L/360	505	292	184	123	87	63	47	32	19
		L/240	758	439	276	185	130	95	71	49	28
		L/180	1011	585	368	247	173	126	95	65	37
		L/120	1516	877	553	370	260	190	142	97	56
	Double Span	f_b/Ω	410	285	209	160	127	-	-	-	-
		Φf_b	617	428	315	241	190	-	-	-	-
		L/360	1015	588	370	248	174	-	-	-	-
		L/240	1523	881	555	372	261	-	-	-	-
		L/180	2030	1175	740	496	348	-	-	-	-
		L/120	3046	1763	1110	744	522	-	-	-	-
	Triple Span	f_b/Ω	513	356	-	-	-	-	-	-	-
		Φf_b	771	536	-	-	-	-	-	-	-
		L/360	795	460	-	-	-	-	-	-	-
		L/240	1193	690	-	-	-	-	-	-	-
		L/180	1591	921	-	-	-	-	-	-	-
		L/120	2386	1381	-	-	-	-	-	-	-
16/18	Single Span	f_b/Ω	599	416	306	234	185	150	124	96	67
		Φf_b	900	625	459	352	278	225	186	144	100
		L/360	550	318	200	134	94	69	52	35	20
		L/240	825	477	301	201	141	103	77	53	31
		L/180	1100	636	401	268	189	137	103	70	41
		L/120	1649	954	601	403	283	206	155	106	61
	Double Span	f_b/Ω	435	302	222	170	134	-	-	-	-
		Φf_b	654	454	333	255	202	-	-	-	-
		L/360	1125	651	410	275	193	-	-	-	-
		L/240	1687	976	615	412	289	-	-	-	-
		L/180	2250	1302	820	549	386	-	-	-	-
		L/120	3374	1953	1230	824	579	-	-	-	-
	Triple Span	f_b/Ω	544	378	-	-	-	-	-	-	-
		Φf_b	817	567	-	-	-	-	-	-	-
		L/360	881	510	-	-	-	-	-	-	-
		L/240	1322	765	-	-	-	-	-	-	-
		L/180	1762	1020	-	-	-	-	-	-	-
		L/120	2644	1530	-	-	-	-	-	-	-
16/16	Single Span	f_b/Ω	609	423	311	238	188	152	126	97	68
		Φf_b	916	636	467	358	283	229	189	147	102
		L/360	593	343	216	145	102	74	56	38	22
		L/240	889	515	324	217	152	111	83	57	33
		L/180	1185	686	432	289	203	148	111	76	44
		L/120	1778	1029	648	434	305	222	167	114	66
	Double Span	f_b/Ω	465	323	237	182	144	-	-	-	-
		Φf_b	699	485	357	273	216	-	-	-	-
		L/360	1244	720	453	304	213	-	-	-	-
		L/240	1866	1080	680	456	320	-	-	-	-
		L/180	2488	1440	907	607	427	-	-	-	-
		L/120	3732	2160	1360	911	640	-	-	-	-
	Triple Span	f_b/Ω	581	404	-	-	-	-	-	-	-
		Φf_b	874	607	-	-	-	-	-	-	-
		L/360	975	564	-	-	-	-	-	-	-
		L/240	1462	846	-	-	-	-	-	-	-
		L/180	1949	1128	-	-	-	-	-	-	-
		L/120	2924	1692	-	-	-	-	-	-	-

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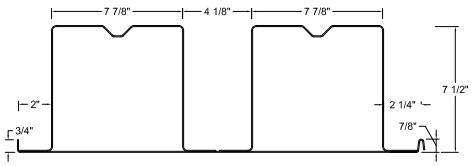

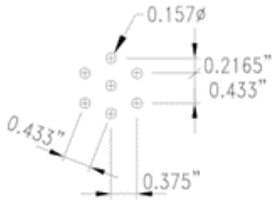

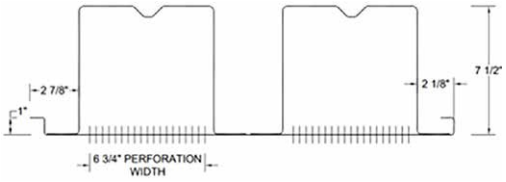

Panel Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	4.78	0.035/0.035	50	65	1.322	13.507	2.98	2.815	3.196
20/18	5.28	0.035/0.047	50	65	1.475	14.771	2.71	2.931	3.165
20/16	5.79	0.035/0.059	50	65	1.619	15.768	2.50	3.012	3.121
18/20	5.88	0.047/0.035	50	65	1.603	16.457	3.25	3.580	3.204
18/18	6.38	0.047/0.047	50	65	1.745	17.895	3.02	3.733	3.202
18/16	6.89	0.047/0.059	50	65	1.900	19.238	2.80	3.860	3.182
16/20	6.98	0.059/0.035	50	65	1.887	19.251	3.43	4.312	3.194
16/18	7.48	0.059/0.047	50	65	2.029	20.883	3.23	4.504	3.208
16/16	7.99	0.059/0.059	50	65	2.183	22.442	3.03	4.668	3.206

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.981	1.763	3.20	1.476	3.12	10.872	9.755	11.751	11.006
20/18	1.108	1.786	2.86	1.677	2.80	11.571	11.246	12.638	12.421
20/16	1.269	1.811	2.61	1.868	2.56	12.018	12.654	13.268	13.692
18/20	1.324	2.730	3.50	2.049	3.44	15.602	12.082	15.887	13.540
18/18	1.432	2.786	3.20	2.245	3.16	16.635	13.560	17.055	15.005
18/16	1.556	2.824	2.94	2.470	2.90	17.513	15.230	18.088	16.566
16/20	1.740	3.788	3.72	2.721	3.68	18.951	14.436	19.051	16.041
16/18	1.835	3.878	3.44	2.919	3.41	20.633	15.952	20.717	17.596
16/16	1.949	3.948	3.20	3.114	3.17	22.242	17.781	22.308	19.334

Reactions at Supports (plf) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	410	506	642	816	627	774	983	1249
	Interior	777	929	1144	1418	1156	1382	1702	2110
18	End	730	892	1120	1442	1117	1364	1713	2207
	Interior	1363	1610	1959	2453	2027	2394	2914	3648
16	End	1140	1379	1716	2193	1744	2109	2626	3356
	Interior	2109	2467	2974	3691	3137	3670	4424	5490
14	End	1780	2132	2630	3333	2723	3262	4023	5100
	Interior	3275	3795	4529	5569	4872	5645	6738	8283
Constants		h = 7"		r = 0.25"		θ = 90°			

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
20/20	Single Span	f_b/Ω	352	244	180	137	109	88	73	56	39
		Φf_b	529	367	270	207	163	132	109	85	59
		L/360	514	297	187	125	88	64	48	33	19
		L/240	770	446	281	188	132	96	72	49	29
		L/180	1027	594	374	251	176	128	96	66	38
		L/120	1541	892	561	376	264	193	145	99	57
	Double Span	f_b/Ω	295	205	150	115	91	-	-	-	-
		Φf_b	443	307	226	173	137	-	-	-	-
		L/360	1159	670	422	283	199	-	-	-	-
		L/240	1738	1006	633	424	298	-	-	-	-
		L/180	2317	1341	844	566	397	-	-	-	-
		L/120	3476	2011	1267	849	596	-	-	-	-
	Triple Span	f_b/Ω	368	256	-	-	-	-	-	-	-
		Φf_b	553	384	-	-	-	-	-	-	-
		L/360	908	525	-	-	-	-	-	-	-
		L/240	1361	788	-	-	-	-	-	-	-
		L/180	1815	1051	-	-	-	-	-	-	-
		L/120	2723	1576	-	-	-	-	-	-	-
20/18	Single Span	f_b/Ω	357	248	182	139	110	89	74	57	40
		Φf_b	536	372	273	209	165	134	111	86	60
		L/360	552	320	201	135	95	69	52	35	20
		L/240	828	479	302	202	142	104	78	53	31
		L/180	1105	639	403	270	189	138	104	71	41
		L/120	1657	959	604	405	284	207	156	106	61
	Double Span	f_b/Ω	335	232	171	131	103	-	-	-	-
		Φf_b	503	349	257	197	155	-	-	-	-
		L/360	1308	757	477	319	224	-	-	-	-
		L/240	1961	1135	715	479	336	-	-	-	-
		L/180	2615	1513	953	639	448	-	-	-	-
		L/120	3923	2270	1430	958	673	-	-	-	-
	Triple Span	f_b/Ω	418	291	-	-	-	-	-	-	-
		Φf_b	629	437	-	-	-	-	-	-	-
		L/360	1024	593	-	-	-	-	-	-	-
		L/240	1537	889	-	-	-	-	-	-	-
		L/180	2049	1186	-	-	-	-	-	-	-
		L/120	3073	1778	-	-	-	-	-	-	-
20/16	Single Span	f_b/Ω	361	251	184	141	112	90	75	58	40
		Φf_b	543	377	277	212	168	136	112	87	60
		L/360	580	336	211	142	99	72	54	37	21
		L/240	870	503	317	212	149	109	82	56	32
		L/180	1160	671	423	283	199	145	109	74	43
		L/120	1740	1007	634	425	298	217	163	111	64
	Double Span	f_b/Ω	373	259	190	146	115	-	-	-	-
		Φf_b	560	389	286	219	173	-	-	-	-
		L/360	1441	834	525	352	247	-	-	-	-
		L/240	2162	1251	788	528	371	-	-	-	-
		L/180	2883	1668	1051	704	494	-	-	-	-
		L/120	4324	2502	1576	1056	741	-	-	-	-
	Triple Span	f_b/Ω	466	324	-	-	-	-	-	-	-
		Φf_b	700	486	-	-	-	-	-	-	-
		L/360	1129	653	-	-	-	-	-	-	-
		L/240	1694	980	-	-	-	-	-	-	-
		L/180	2258	1307	-	-	-	-	-	-	-
		L/120	3388	1960	-	-	-	-	-	-	-

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Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
18/20	Single Span	f_b/Ω	545	378	278	213	168	136	113	87	61
		Φf_b	819	569	418	320	253	205	169	131	91
		L/360	694	402	253	170	119	87	65	44	26
		L/240	1041	603	380	254	179	130	98	67	39
		L/180	1389	804	506	339	238	174	130	89	51
		L/120	2083	1205	759	509	357	260	196	133	77
	Double Span	f_b/Ω	409	284	209	160	126	-	-	-	-
		Φf_b	615	427	314	240	190	-	-	-	-
		L/360	1425	825	519	348	244	-	-	-	-
		L/240	2138	1237	779	522	367	-	-	-	-
		L/180	2851	1650	1039	696	489	-	-	-	-
		L/120	4276	2475	1558	1044	733	-	-	-	-
	Triple Span	f_b/Ω	511	355	-	-	-	-	-	-	-
		Φf_b	768	534	-	-	-	-	-	-	-
		L/360	1117	646	-	-	-	-	-	-	-
		L/240	1675	969	-	-	-	-	-	-	-
		L/180	2233	1292	-	-	-	-	-	-	-
		L/120	3350	1939	-	-	-	-	-	-	-
18/18	Single Span	f_b/Ω	556	386	284	217	172	139	115	89	62
		Φf_b	836	580	426	326	258	209	173	134	93
		L/360	745	431	272	182	128	93	70	48	28
		L/240	1118	647	407	273	192	140	105	72	41
		L/180	1491	863	543	364	256	186	140	95	55
		L/120	2236	1294	815	546	383	280	210	143	83
	Double Span	f_b/Ω	448	311	229	175	138	-	-	-	-
		Φf_b	673	468	344	263	208	-	-	-	-
		L/360	1580	914	576	386	271	-	-	-	-
		L/240	2370	1371	864	578	406	-	-	-	-
		L/180	3159	1828	1151	771	542	-	-	-	-
		L/120	4739	2743	1727	1157	813	-	-	-	-
	Triple Span	f_b/Ω	560	389	-	-	-	-	-	-	-
		Φf_b	842	585	-	-	-	-	-	-	-
		L/360	1238	716	-	-	-	-	-	-	-
		L/240	1856	1074	-	-	-	-	-	-	-
		L/180	2475	1432	-	-	-	-	-	-	-
		L/120	3713	2148	-	-	-	-	-	-	-
18/16	Single Span	f_b/Ω	564	391	288	220	174	141	116	90	63
		Φf_b	847	588	432	331	262	212	175	136	94
		L/360	791	457	288	193	136	99	74	51	29
		L/240	1186	686	432	289	203	148	111	76	44
		L/180	1581	915	576	386	271	198	148	101	59
		L/120	2372	1372	864	579	407	296	223	152	88
	Double Span	f_b/Ω	493	342	251	193	152	-	-	-	-
		Φf_b	741	514	378	289	229	-	-	-	-
		L/360	1744	1009	636	426	299	-	-	-	-
		L/240	2616	1514	953	639	449	-	-	-	-
		L/180	3488	2019	1271	852	598	-	-	-	-
		L/120	5232	3028	1907	1277	897	-	-	-	-
	Triple Span	f_b/Ω	616	428	-	-	-	-	-	-	-
		Φf_b	926	643	-	-	-	-	-	-	-
		L/360	1366	791	-	-	-	-	-	-	-
		L/240	2049	1186	-	-	-	-	-	-	-
		L/180	2732	1581	-	-	-	-	-	-	-
		L/120	4099	2372	-	-	-	-	-	-	-

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	25' - 0"	30' - 0"
16/20	Single Span	f_b/Ω	756	525	386	295	233	189	156	121	84
		Φf_b	1137	789	580	444	351	284	235	182	126
		L/360	833	482	303	203	143	104	78	53	31
		L/240	1249	723	455	305	214	156	117	80	46
		L/180	1665	964	607	407	286	208	156	107	62
		L/120	2498	1445	910	610	428	312	235	160	93
	Double Span	f_b/Ω	543	377	277	212	168	-	-	-	-
		Φf_b	816	567	417	319	252	-	-	-	-
		L/360	1689	977	615	412	290	-	-	-	-
		L/240	2533	1466	923	618	434	-	-	-	-
		L/180	3377	1955	1231	825	579	-	-	-	-
		L/120	5066	2932	1846	1237	869	-	-	-	-
	Triple Span	f_b/Ω	679	471	-	-	-	-	-	-	-
		Φf_b	1020	709	-	-	-	-	-	-	-
		L/360	1323	766	-	-	-	-	-	-	-
		L/240	1984	1148	-	-	-	-	-	-	-
		L/180	2646	1531	-	-	-	-	-	-	-
		L/120	3969	2297	-	-	-	-	-	-	-
16/18	Single Span	f_b/Ω	774	538	395	302	239	194	160	124	86
		Φf_b	1163	808	594	454	359	291	240	186	129
		L/360	905	524	330	221	155	113	85	58	34
		L/240	1358	786	495	332	233	170	128	87	50
		L/180	1811	1048	660	442	310	226	170	116	67
		L/120	2716	1572	990	663	466	340	255	174	101
	Double Span	f_b/Ω	583	405	297	228	180	-	-	-	-
		Φf_b	876	608	447	342	270	-	-	-	-
		L/360	1852	1072	675	452	318	-	-	-	-
		L/240	2779	1608	1013	678	476	-	-	-	-
		L/180	3705	2144	1350	905	635	-	-	-	-
		L/120	5557	3216	2025	1357	953	-	-	-	-
	Triple Span	f_b/Ω	728	506	-	-	-	-	-	-	-
		Φf_b	1095	760	-	-	-	-	-	-	-
		L/360	1451	840	-	-	-	-	-	-	-
		L/240	2177	1260	-	-	-	-	-	-	-
		L/180	2902	1680	-	-	-	-	-	-	-
		L/120	4354	2519	-	-	-	-	-	-	-
16/16	Single Span	f_b/Ω	788	547	402	308	243	197	163	126	88
		Φf_b	1184	822	604	463	366	296	245	189	132
		L/360	975	564	355	238	167	122	92	62	36
		L/240	1462	846	533	357	251	183	137	94	54
		L/180	1950	1128	711	476	334	244	183	125	72
		L/120	2925	1693	1066	714	502	366	275	187	108
	Double Span	f_b/Ω	622	432	317	243	192	-	-	-	-
		Φf_b	934	649	477	365	288	-	-	-	-
		L/360	2035	1178	742	497	349	-	-	-	-
		L/240	3053	1767	1113	745	524	-	-	-	-
		L/180	4071	2356	1484	994	698	-	-	-	-
		L/120	6106	3534	2225	1491	1047	-	-	-	-
	Triple Span	f_b/Ω	777	540	-	-	-	-	-	-	-
		Φf_b	1168	811	-	-	-	-	-	-	-
		L/360	1595	923	-	-	-	-	-	-	-
		L/240	2392	1384	-	-	-	-	-	-	-
		L/180	3189	1846	-	-	-	-	-	-	-
		L/120	4784	2768	-	-	-	-	-	-	-

Metric Conversion Chart

Metric Conversions

	Multiply	By	To Obtain
Spans, length & thickness	Inches	25.4	Millimeters
	Feet	304.8	Millimeters
	Inches	0.0254	Metres
	Feet	0.3048	Metres
Vertical Load & Superimposed Load	psf	0.0479	kPa
	psi	6.8948	kPa
Area	Square feet	0.0929	Square Metre
	Square	9.2903	Square Metre
Diaphragm Shear	plf	0.0146	KN/m
Section Properties	in^3/ft	53,763	mm^3/m
	in^4/ft	1,365,588	mm^4/m
	in^3/ft	53.763	cm^3/m
	in^4/ft	136.559	cm^4/m
Weight	Pounds	0.00445	kN
	psf	4.8824	kg/m^2
Volume	pcf	16.018	kg/m^3

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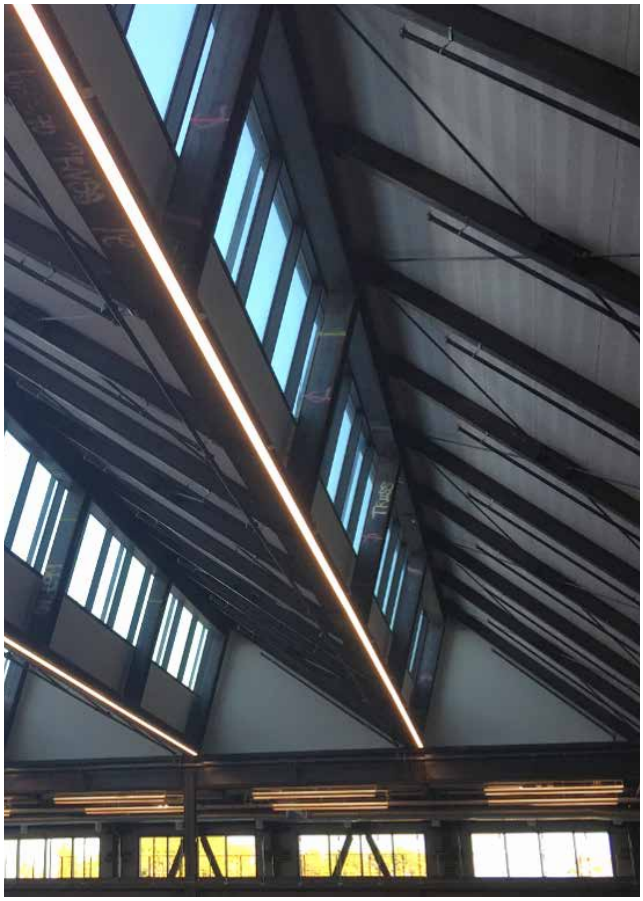

General Benefits of Steel

The many benefits of ASC Steel Deck profiles combine to make one of the most versatile and cost efficient building materials available today. The structural strength of steel deck, relative to its light weight and shear strength, make it the clear building material of choice when compared to wood frame construction. The versatility, recyclable content, structural performance, and ease of installation make steel deck the ideal building material for architects, building owners, and engineers.

Aesthetic Value of Steel Deck

ASC Steel Deck products offer the beauty of exposed steel as an added benefit to the structural performance required of building designs. Our new Smooth Series™ cellular deck offers a blemish free beam-to-pan rivet attachment, providing a clean surface ideal for an exposed steel design. When noise reduction is a necessity, ASC Steel Deck's Acustadek® panels offer acoustical noise reduction capabilities with aesthetic features which complement its use on exposed applications. Acustadek® is generally preferred in high noise areas such as airports, schools, gymnasiums, and concert halls. Acustadek® can contribute to LEED v4 EQ Credit Acoustic Performance Option 2.

Offering a Full Line of Steel Deck Products

ASC Steel Deck is the only steel deck manufacturer on the West Coast which offers a full line of light-gauge structural and deep deck products. From the typical 1½"to 3" roof and composite floor deck, to concrete form deck, to long spanning deep deck profiles, ASC Steel Deck's extensive product offer meets the needs of the most complex conditions and demands for structural performance and design. Most of our roof deck products are offered in a variety of acoustical and perforated options.

ASC Steel Deck®

Manufacturing Facilities

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