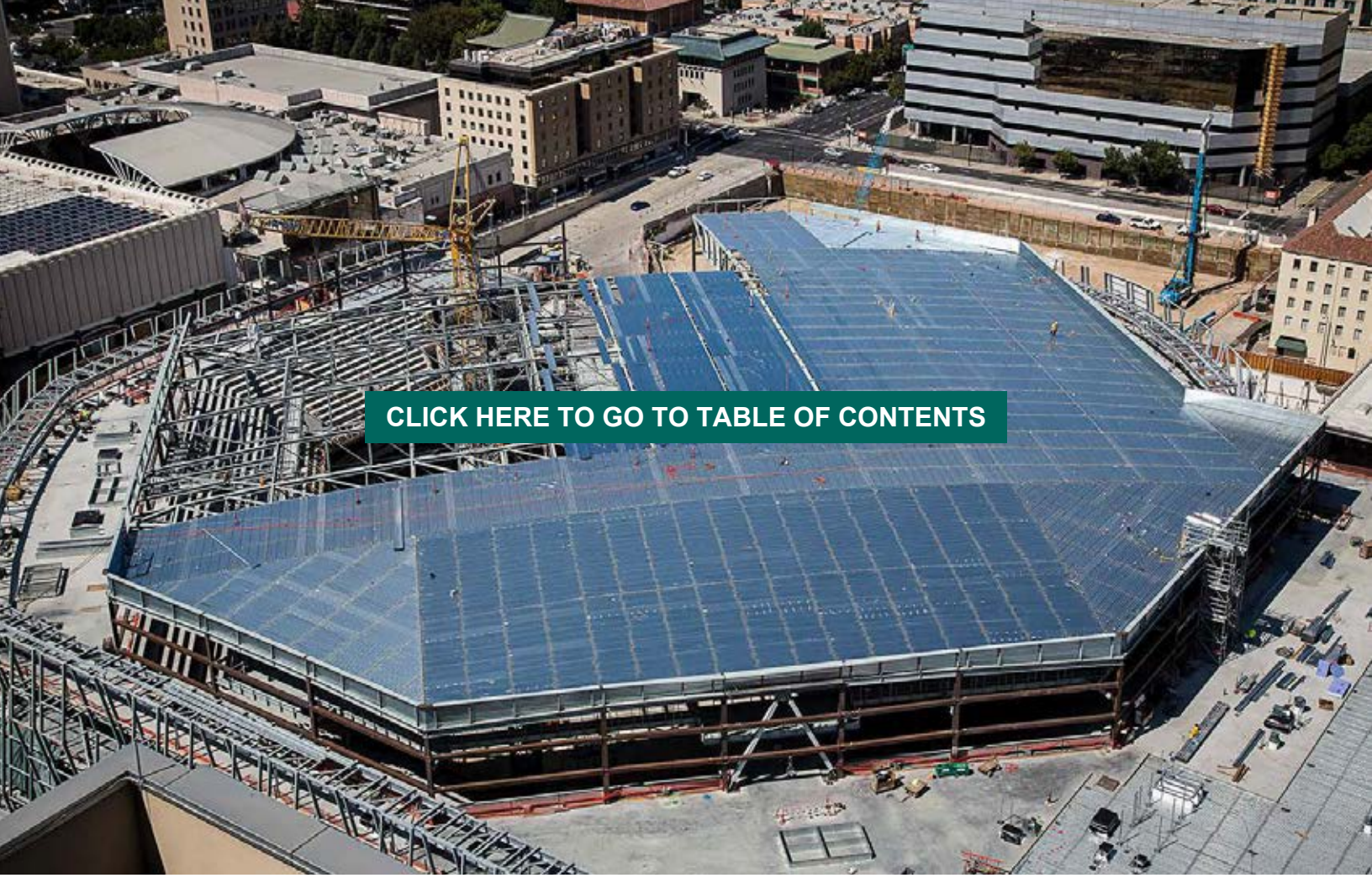

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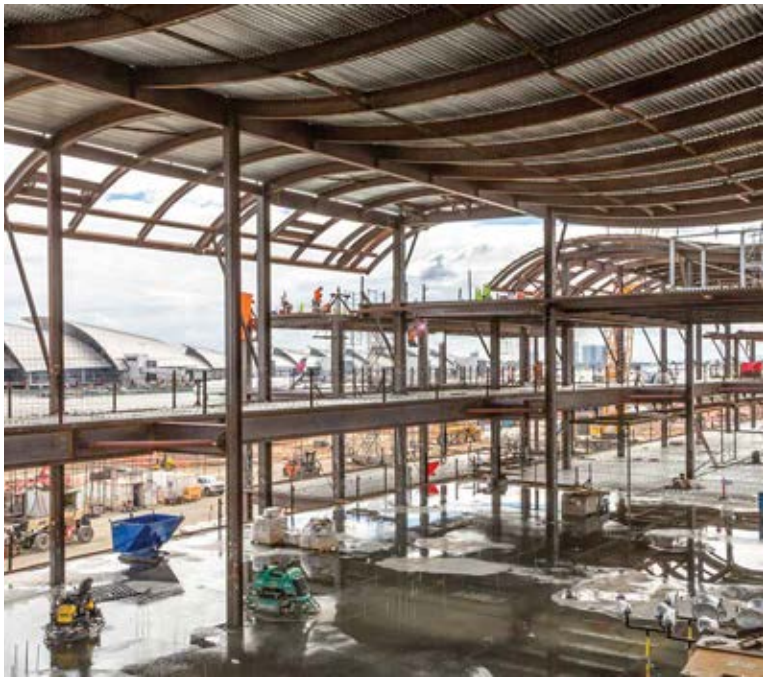
ROOF DECK CATALOG

Version 2.2



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.

roof deck

ASC STEEL DECK

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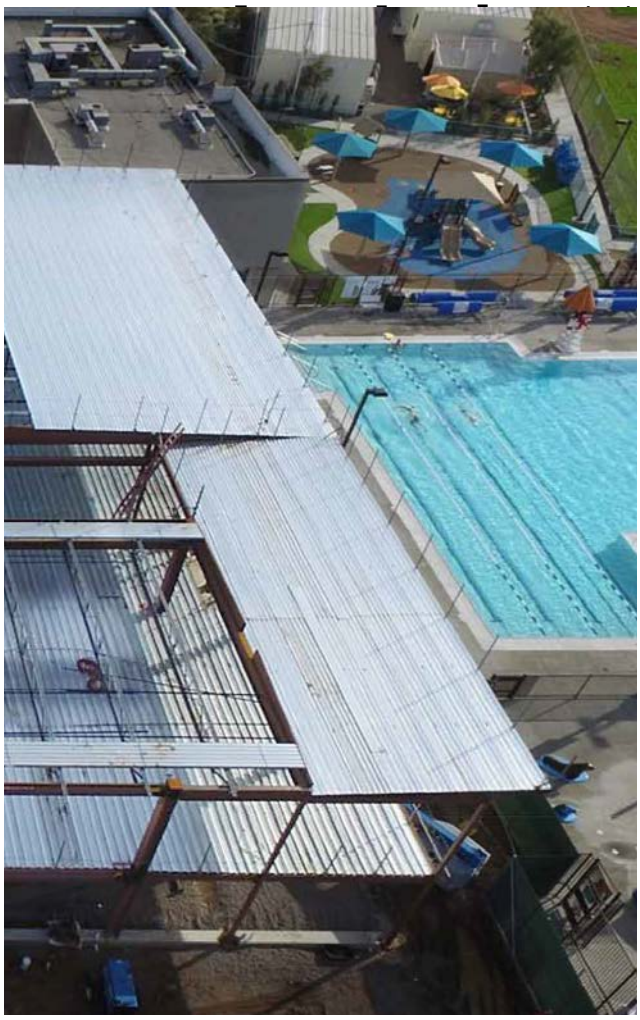

Our Company

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 has been 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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PNEUTEK is a registered trademark of Pneutek, 17 Friars Drive Hudson, NH

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1.1 **Panel Features and Benefits**

ASC STEEL DECK

DGB-36/B-36

1½ ” depth, 36” coverage, 5’ to 12’ Optimal Span(s)

●●●●● Excellent Diaphragm Shear

Web and Total Perforated Acustadek® Options

- DeltaGrip 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

- DeltaGrip 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
- DeltaGrip 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
- DeltaGrip 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

- DeltaGrip 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

- DeltaGrip 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)

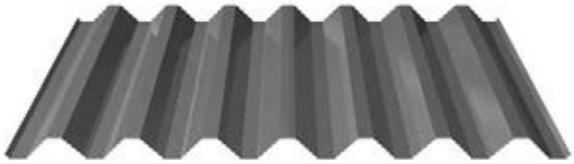
3” depth, 36” coverage, 14’ to 22’ Optimal Span(s)

●●●○○ 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 gage, 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.

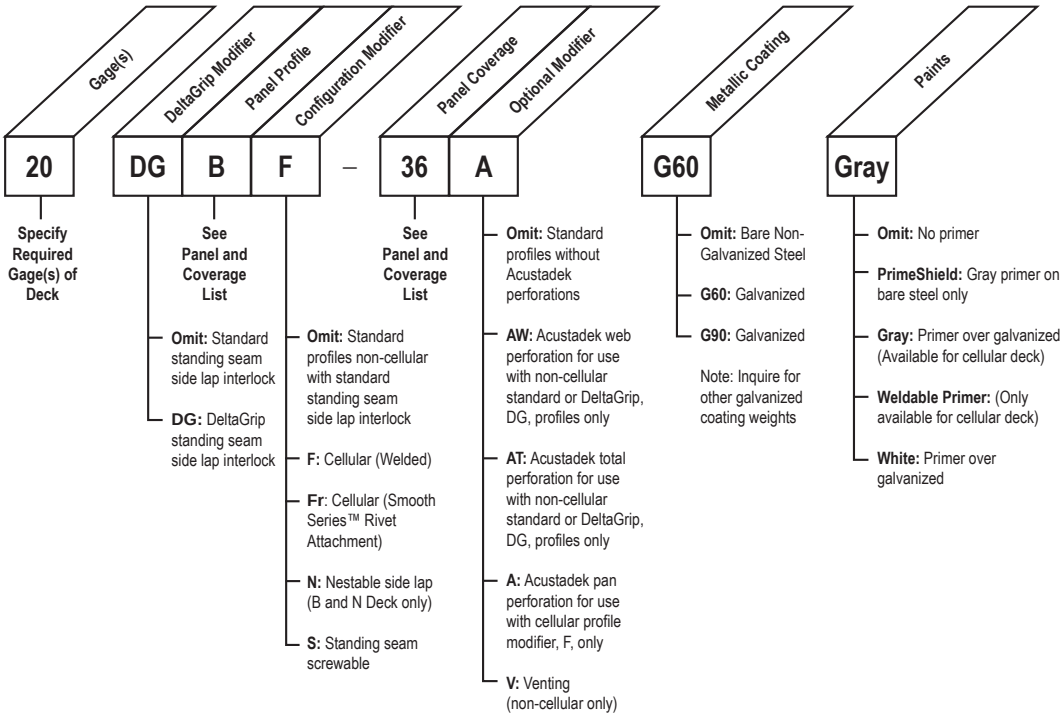
Prime Shield®

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

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**



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-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 gage or out of different gages. The following shows how to correctly specify the desired beam and pan gage combination.

Specify Cellular Deck Gage "xx/yy"

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

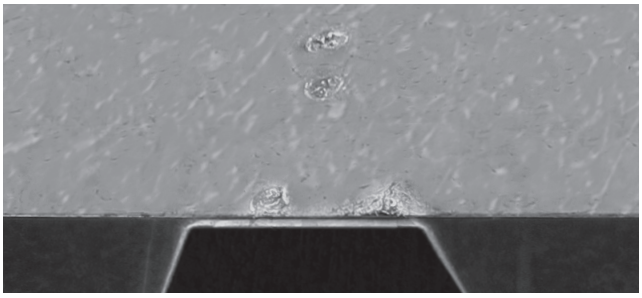


Figure 1.2.4: WELDED ATTACHMENT
(Pictured from bottomside)

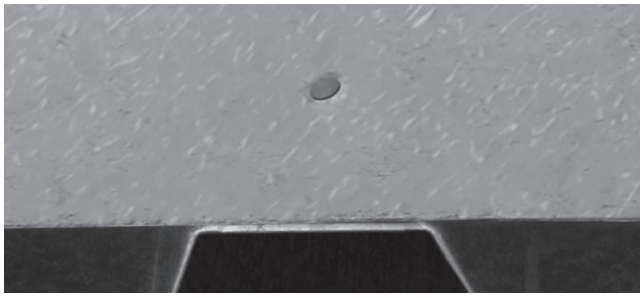


Figure 1.2.5: SMOOTH SERIES™ RIVET ATTACHMENT
(Pictured from bottomside)

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*)

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

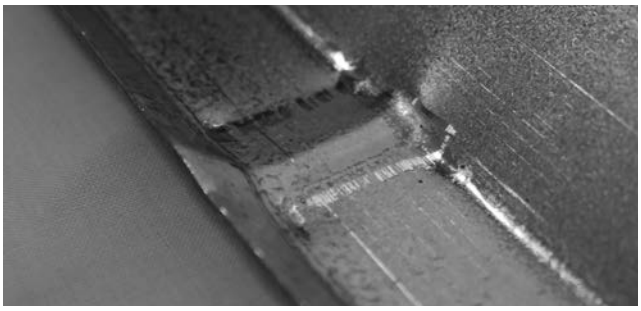


Figure 1.2.5: **CP32 WITH VENTING**
(Pictured from topside)

Die Set Ends (Swage)

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*)

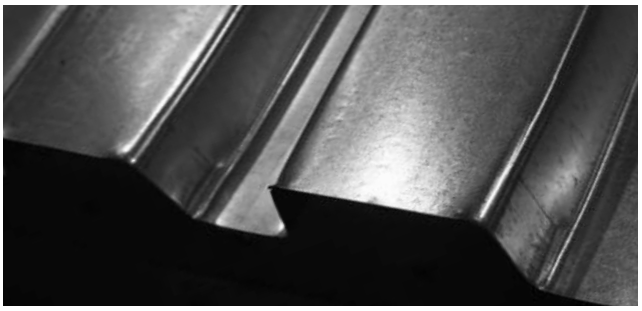


Figure 1.2.6: **B-36 WITH DIE-SET (Swage)**

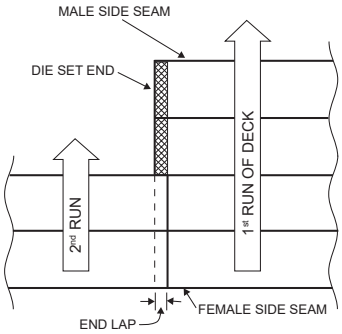


Figure 1.3.7: **DECK LAYOUT**

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.

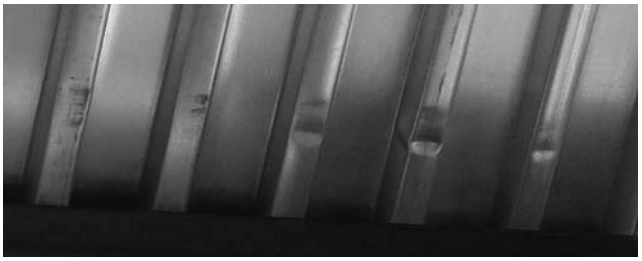


Figure 1.2.7: **UNDERSIDE HANDLING MARKS**

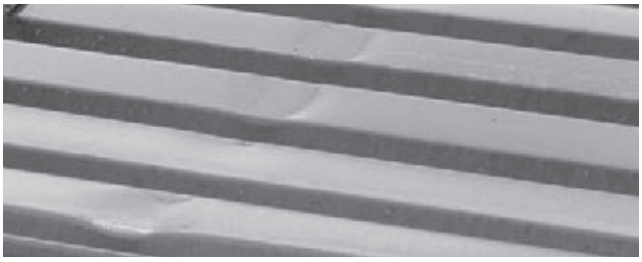


Figure 1.2.8: **TOPSIDE HANDLING MARKS**

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), and Underwriters Laboratory (UL).

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	Gage	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**.

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1.4 Fire Ratings

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

UL Design Number	ANSI/UL 263	Support Type
	Fire Resistance Ratings Restrained and Unrestrained Assemblies (hrs)	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 gage 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.

Fire Ratings 1.4

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

UL Design Number	Panel Type (gages)					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	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.

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1.4 **Fire Ratings**

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

UL Design Number	ANSI/UL 263	Support Type
	Fire Resistance Ratings Restrained and Unrestrained Assemblies (hrs)	**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.

Fire Ratings 1.4

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

UL Design Number	Panel Type (gages)					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	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 gage 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 gage 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 gage 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 gage.

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 Gage 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

Weight of Panel Section Per SQFT

Gross Section Properties are Identified by the Subscript, g

Panel Gage

Base Metal Thickness (without Coating)

Effective Section Properties are Identified by the Subscript, e

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	
								$I_e = (2I_e+I_e)/3$	
	A_{ne}+ in²/ft	S_e+ in³/ft	y_b in	S_{y-} 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

Effective Net Area of Section

Positive and Negative Effective Moment of Inertia for Non-Uniform Load Conditions

Effective Section Properties at Service Load Conditions

Hybrid Moment of Inertia for Uniform Load Condition Only

Figure 1.5.2: **SAMPLE OF B-36 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, gage (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.

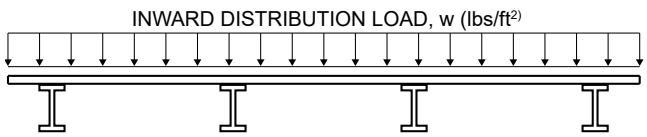


Figure 1.6.1: **INWARD DISTRIBUTED LOAD**

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

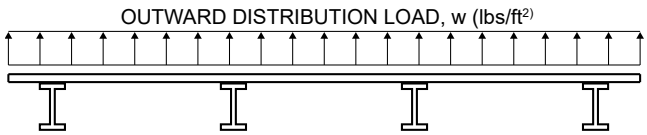


Figure 1.6.2: **OUTWARD DISTRIBUTED LOAD**

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.

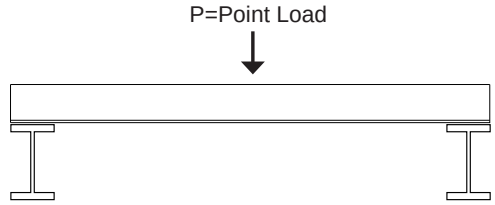


Figure 1.6.3: **POINT LOAD**

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.

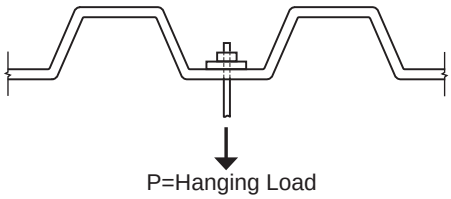


Figure 1.7.4: **HANGING LOAD**

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.

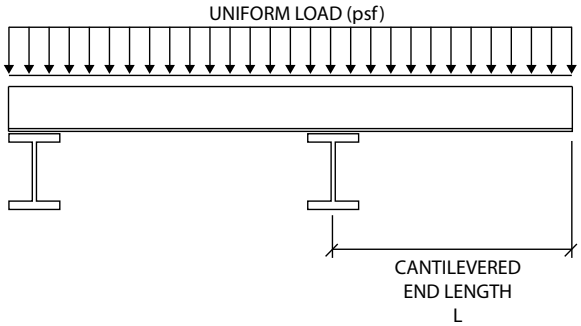


Figure 1.6.5: **CANTILEVER END CONDITIONS**

Out of Plane Vertical Loads 1.6

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).*

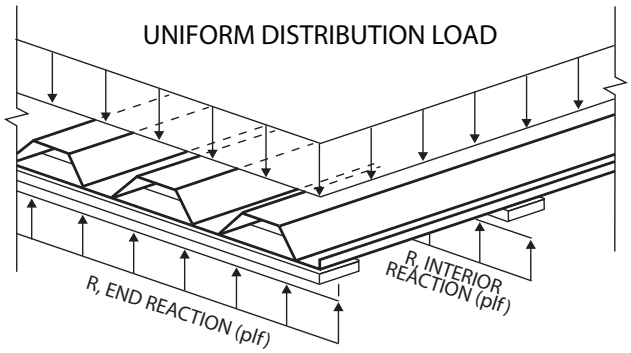


Figure 1.7.1: **UNIFORM DISTRIBUTED OUT-OF-PLANE LOAD**

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.

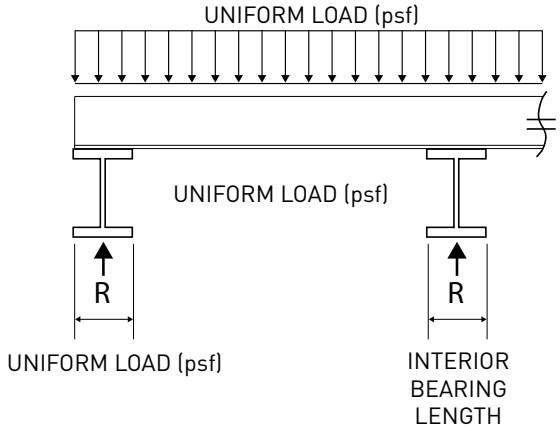


Figure 1.7.2: **SUPPORT REACTIONS**

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

Support Condition: Deck Panel End on Supports or Deck Panel Continuous Over Supports

ASD Design Basis

Panel Gage

Bearing Length of Deck Panel Web on Support

LRFD Design Basis

Reactions at Supports (plf) Based on Web Crippling

		Bearing Length of Webs							
		Allowable				Factored			
Gage	Condition	1"	1.5"	2"	3"	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°			

Geometric Constants Describing Deck Panel Geometry

Allowable Reaction of Deck Panel on Interior Support with 2″ of bearing

Allowable Reaction of Deck Panel End on Support with 1.5 Bearing

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 gage
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 gage 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 gage 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 gage 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 gage 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)

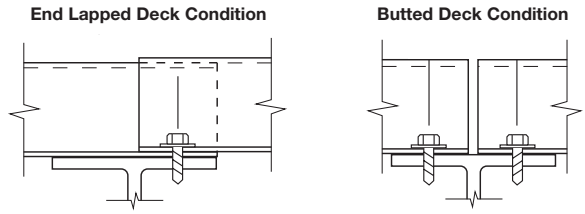


Figure 1.8.2: **END LAP AND BUTTED DECK**

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

How to Read Diaphragm Shear Table

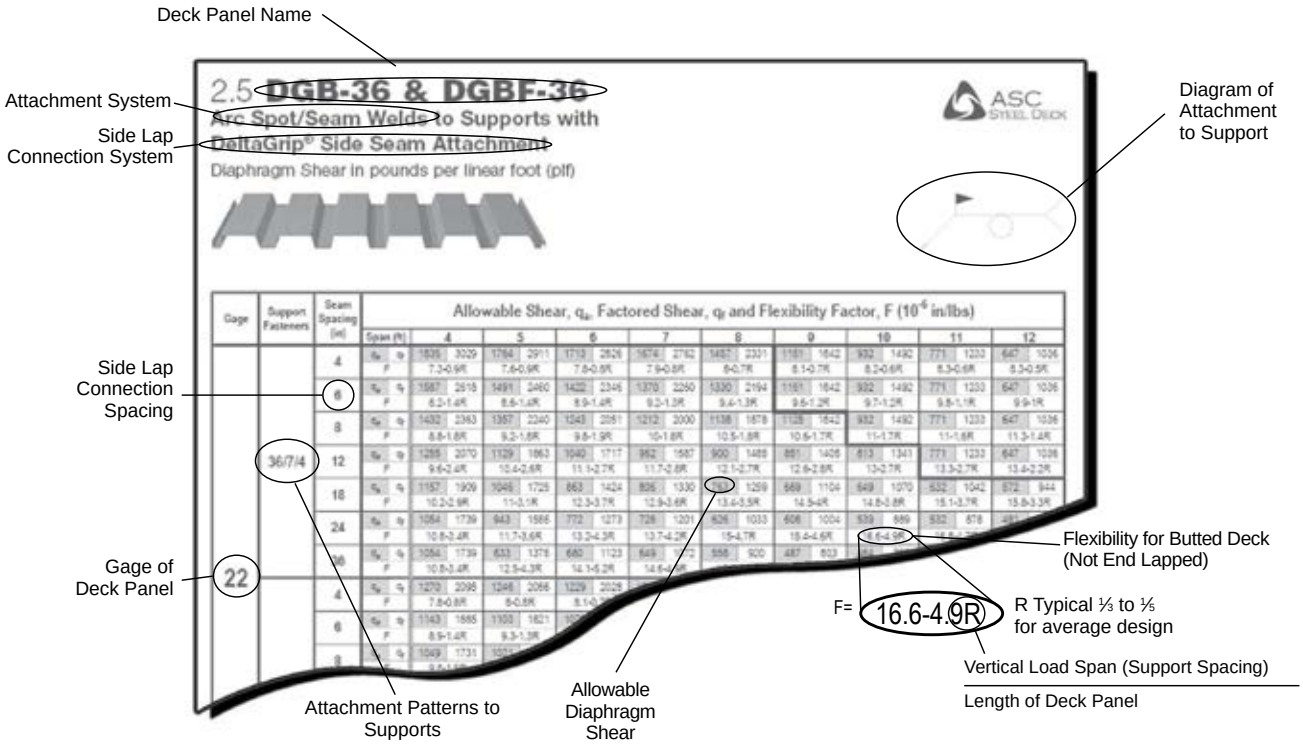


Figure 1.8.3: **SAMPLE OF DIAGRAM SHEAR AND FLEXIBILITY TABLE**

of the catalog for more information.

Side Seam/Side Lap Fasteners

All standard steel deck panels have a standing seam interlock which is suitable for button punch, top seam welds, and our revolutionary DeltaGrip® 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 DeltaGrip 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 DeltaGrip 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

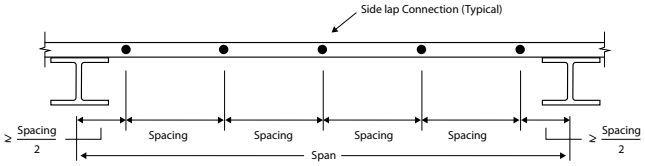


Figure 1.8.4: **SIDE LAP FASTENER SPACING**

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 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)*

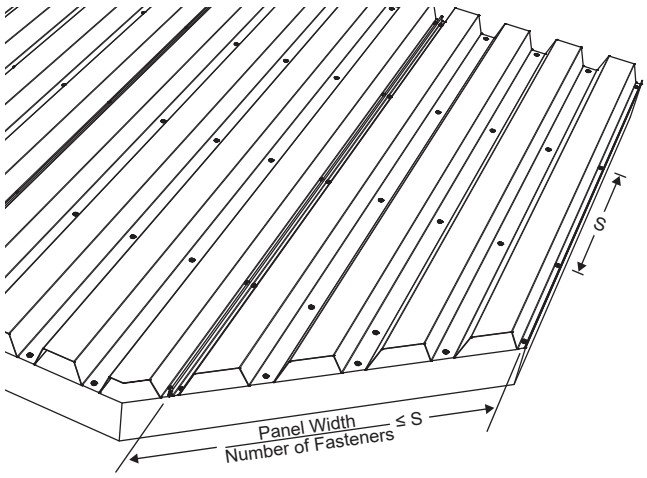


Figure 1.9.1: **SKEW DIAPHRAGM**

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 gage and attachment pattern can be reduced as the shear demand in the diaphragm diminishes (*see Figure 1.9.2*).

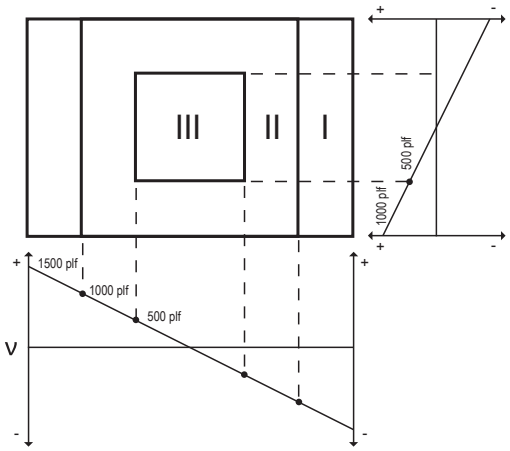


Figure 1.9.2: **DIAPHRAGM SHEAR ZONING**

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.

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

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 gage, 36/7/4 attachment pattern, DeltaGrip® 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**

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.

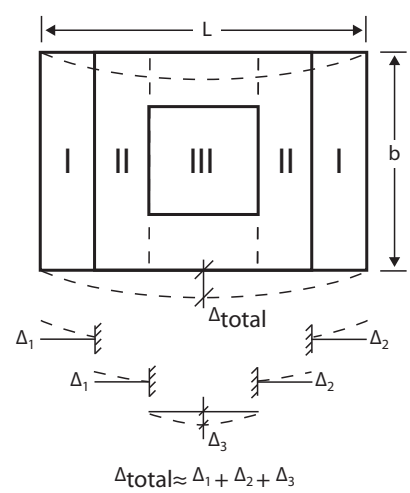


Figure 1.9.4: **DIAPHRAGM DEFLECTION CONCEPT**

In Plane Diaphragm Flexibility 1.9

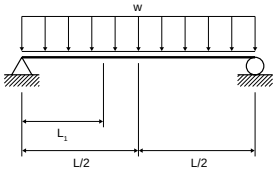
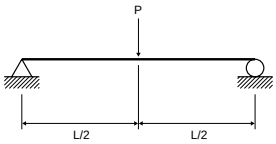
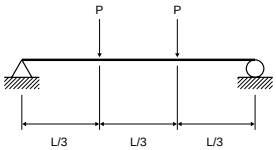
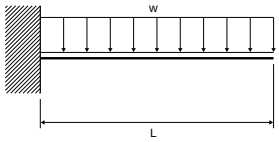
Diaphragm Deflecton Equations

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**

ASC STEEL DECK

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 gage is reasonable. Welders with light gage welding experience can weld steel deck to thinner gage supports. Self-drilling screws are suitable for use with supporting members from 0.0385 inches gage 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.

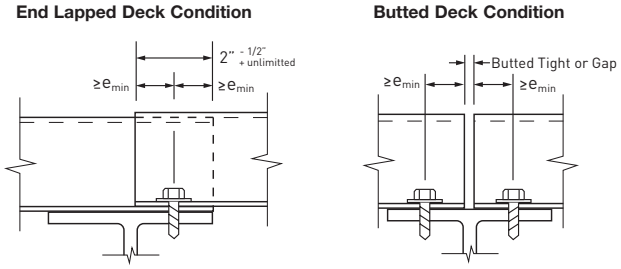
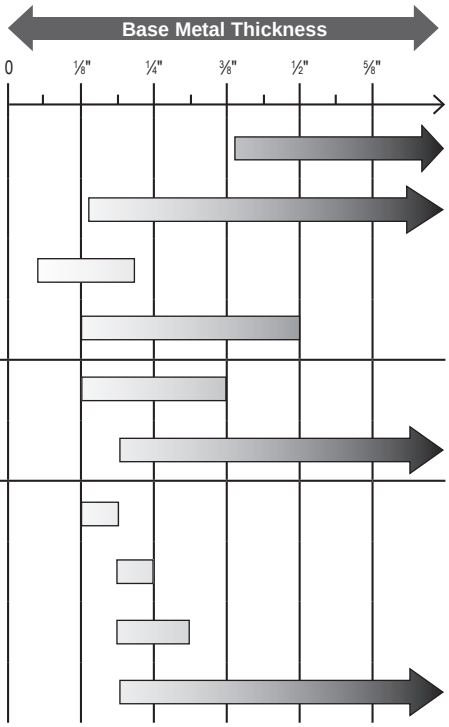


Figure 1.10.2: **END LAP AND BUTTED DECK**

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 gage 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

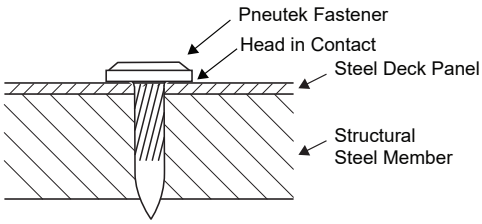


Figure 1.10.3: **PNEUTEK K64062**

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

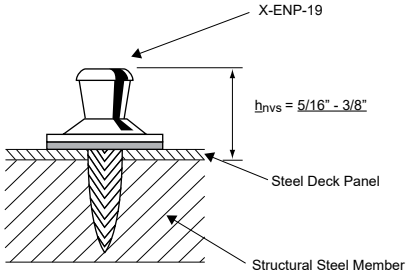


Figure 1.10.4: **HILTI X-ENP-19**

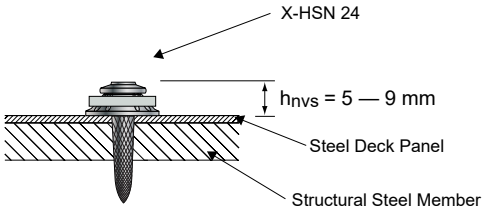


Figure 1.10.5: **HILTI X-HSN-24**

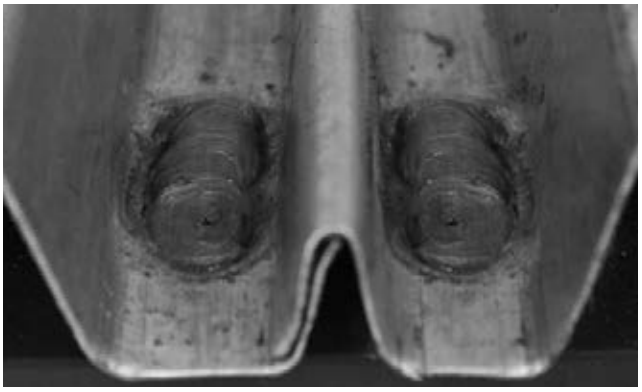
1.10 **Support Fastening**

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.



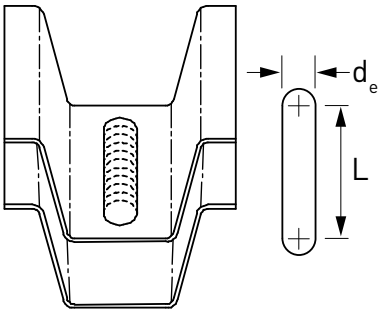


Figure 1.10.7: **ARC SEAM WELD**
(weld to support)

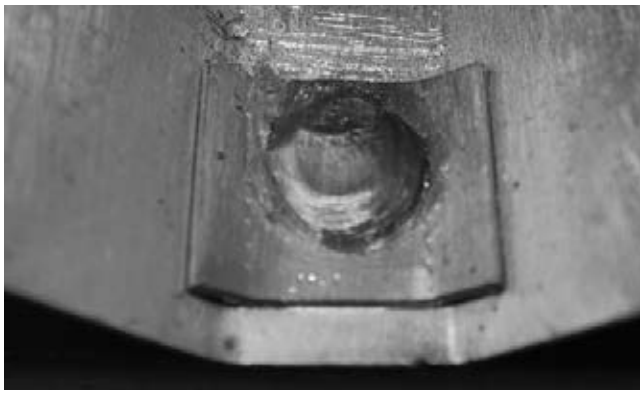
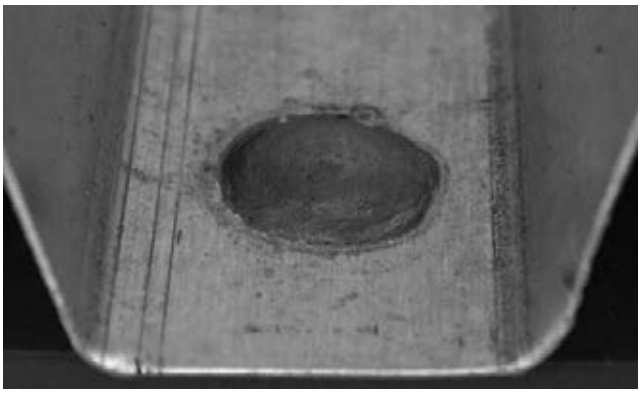


Figure 1.10.6: **WELD WASHER**



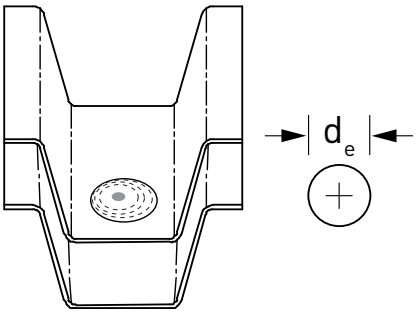


Figure 1.10.8: **ARC SPOT WELD**
(weld to support)

Self-Drilling Screws

Self-drilling screws are an excellent option for attaching deck to thin-gage 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.

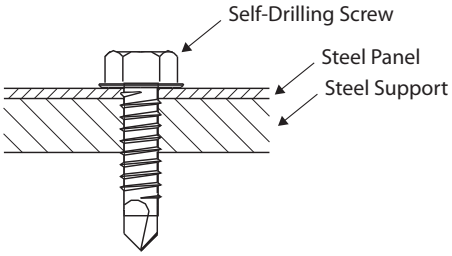
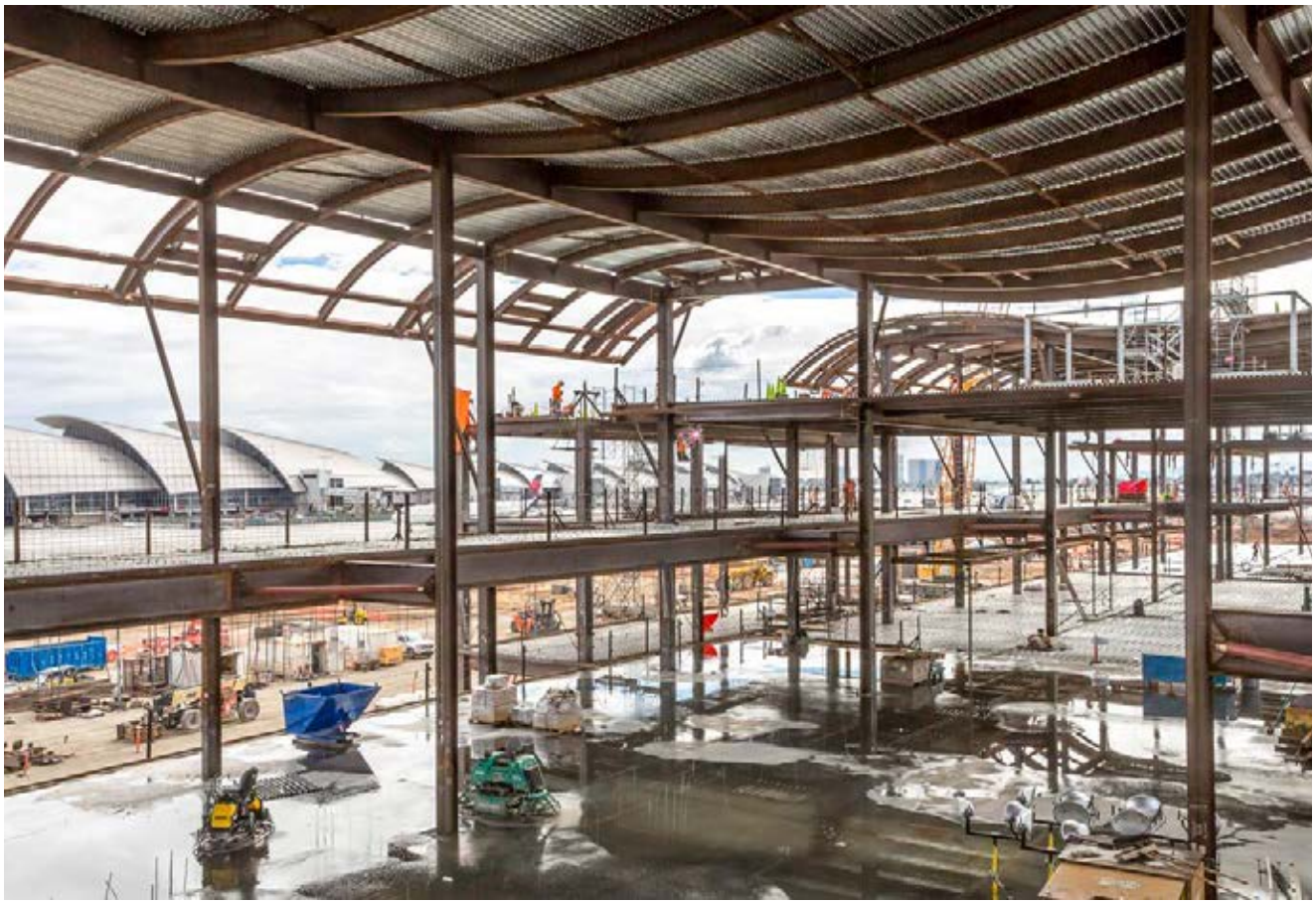


Figure 1.10.9: **#12-24R1-1/4 SCREW**



1.10 **Support Fastening**

ASC STEEL DECK

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® 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)*.

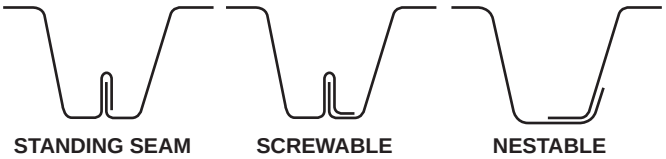


Figure 1.11.1: **SIDE SEAM CONFIGURATIONS**

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 disengaged 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 side lap connection.

Figure 1.11.4: **TOP SEAM WELD**

DeltaGrip®

The 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 punches three triangular tabs though the standing seam interlock side seam. This interlock creates the equivalent strength of a time consuming top seam weld with the rapid action of a pneumatically powered DeltaGrip tool. High-quality DeltaGrip connections can be installed with low-skill labor compared to the skilled welders required to make top seam welds.

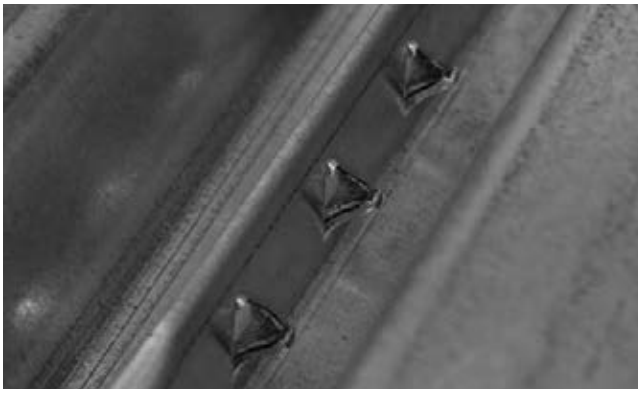


Figure 1.11.5: DELTAGRIP PUNCH

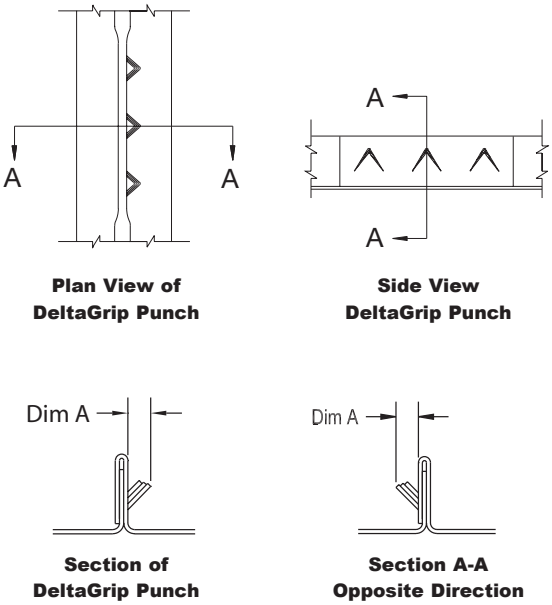


Figure 1.11.7: DELTAGRIP PUNCH VIEWS

DeltaGrip Inspection

The DeltaGrip system can be visually inspected from the top side of the steel deck by observing that all three layers of the side lap are engaged 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 gage to provide a rapid jobsite check of the punch-out distances *(Figure 1.11.8).*

Schedule Minimum Offset	
Gage	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: DELTAGRIP PUNCH OUT DISTANCES

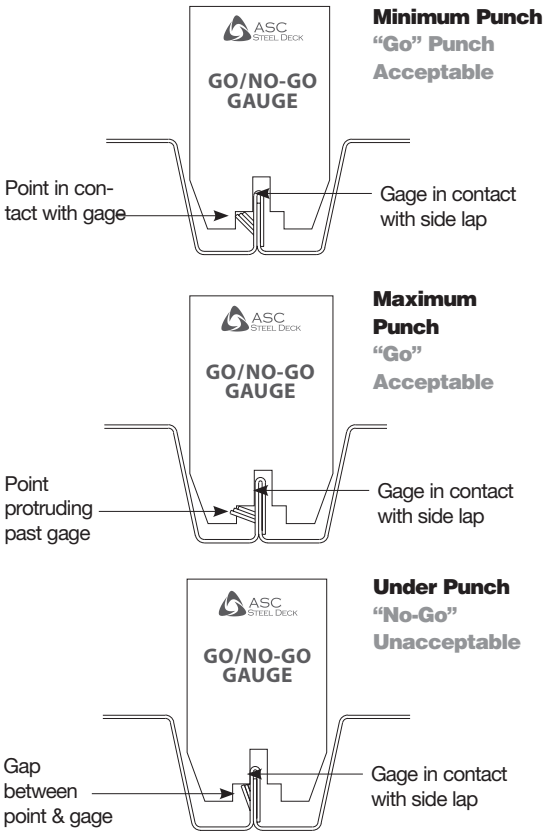


Figure 1.11.8: DELTAGRIP GO/NO-GO GAUGE

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

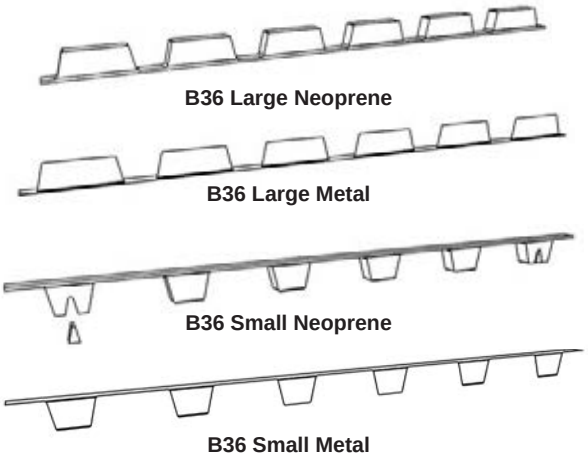


Figure 1.12.1

N32 Deck Neoprene and Metal Closures

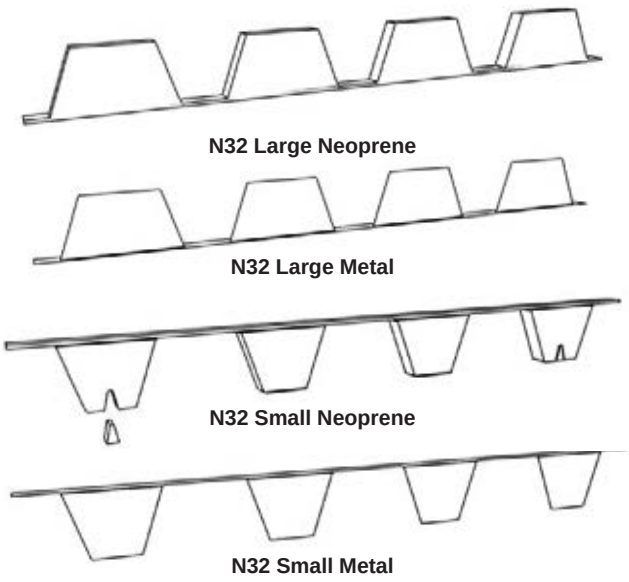


Figure 1.12.2

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 gage galvanized sheet steel.

2W Neoprene and Metal Closures

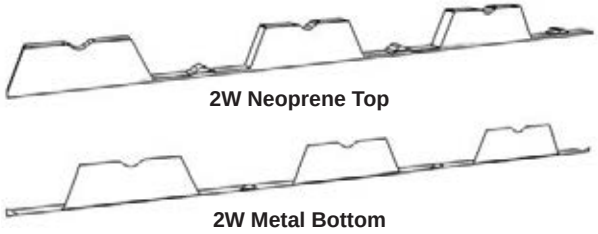


Figure 1.12.3

3W Neoprene And Metal Closures

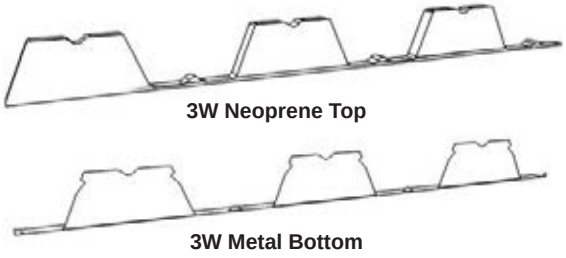


Figure 1.12.4

Weld Washers

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

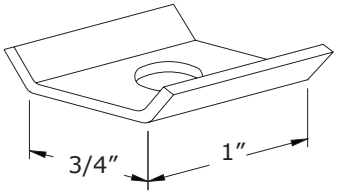


Figure 1.12.5

Anchor Washers

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

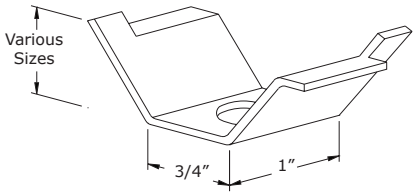


Figure 1.12.6

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 gages. *(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 GAGE	
Gage	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

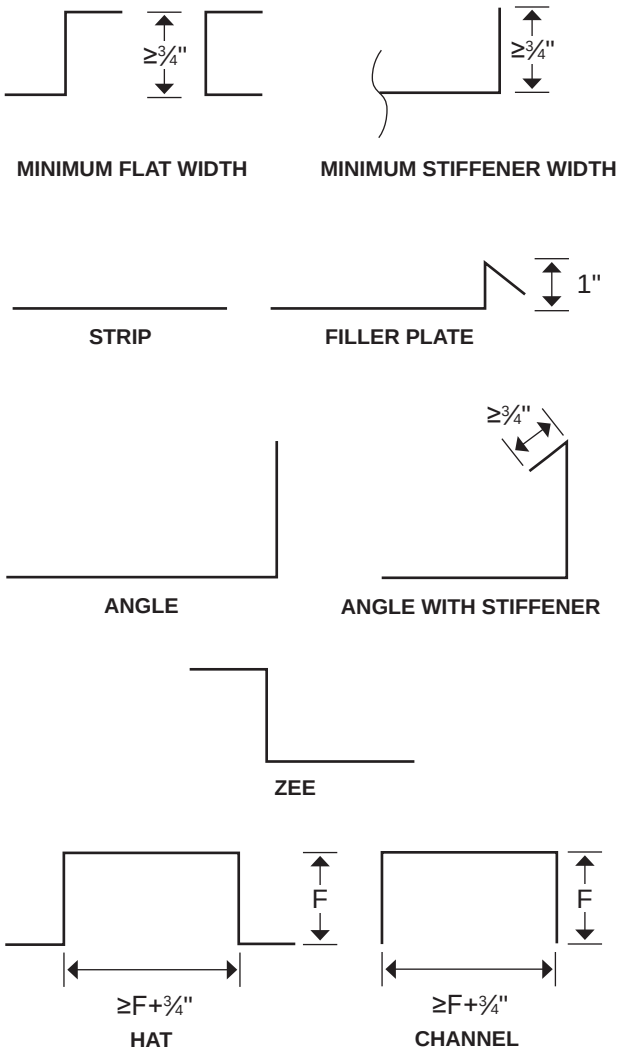


Figure 1.12.8

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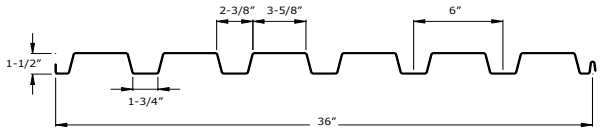
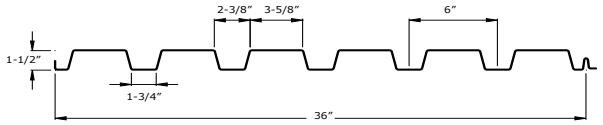
2.1 DGB-36, B-36, BS-36 & BN-36

ASC STEEL DECK

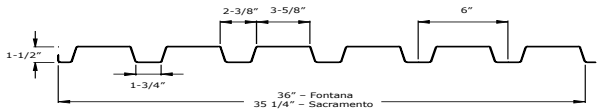
DGB-36 & B-36



BS-36 Screwable Sidelap

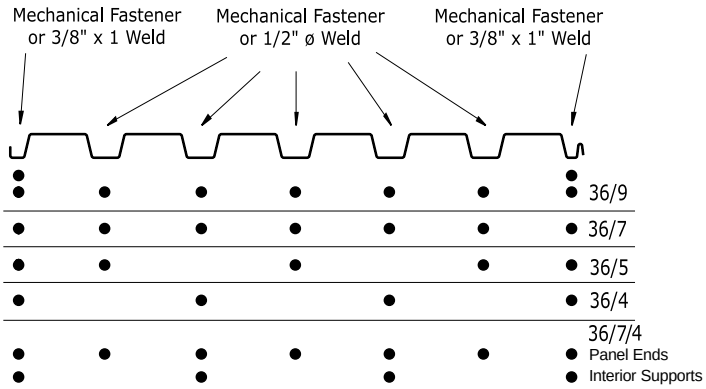


BN-36 Nestable



B-35 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	1.75	0.0299	50	65	0.514	0.200	0.94	0.213	0.625
21	1.93	0.0330	50	65	0.566	0.220	0.94	0.233	0.624
20	2.09	0.0359	50	65	0.615	0.240	0.94	0.053	0.623
19	2.43	0.0420	50	65	0.717	0.277	0.95	0.293	0.621
18	2.76	0.0478	50	65	0.814	0.313	0.95	0.330	0.619
16	3.44	0.0598	50	65	1.012	0.383	0.95	0.404	0.615

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
								Uniform Load Only	
	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	$I_d = (2I_e+I_g)/3$	
	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	0.179	0.175	0.74	0.187	0.98	0.157	0.197	0.171	0.198
21	0.207	0.202	0.77	0.213	0.97	0.197	0.220	0.204	0.220
20	0.235	0.228	0.77	0.236	0.96	0.197	0.237	0.211	0.238
19	0.296	0.271	0.81	0.287	0.95	0.263	0.277	0.268	0.277
18	0.351	0.311	0.84	0.329	0.94	0.287	0.313	0.296	0.313
16	0.330	0.392	0.89	0.404	0.95	0.377	0.383	0.379	0.383

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs							
		ASD, R/Ω				LRFD, ϕR			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

Constants h = 1.32" r = 0.125" θ = 78.3°

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

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	$f_b \cdot \Omega$	218	140	97	71	55	43	35	29	24
		Φf_b	328	210	146	107	82	65	52	43	36
		L/360	117	60	35	22	15	10	7	6	4
		L/240	175	90	52	33	22	15	11	8	6
		L/180	234	120	69	44	29	21	15	11	9
		L/120	351	179	104	65	44	31	22	17	13
	Double Span	f_b / Ω	234	149	104	76	58	46	37	31	26
		Φf_b	351	225	156	115	88	69	56	46	39
		L/360	281	144	83	53	35	25	18	14	10
		L/240	422	216	125	79	53	37	27	20	16
		L/180	563	288	167	105	70	49	36	27	21
		L/120	844	432	250	158	106	74	54	41	31
	Triple 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	220	113	65	41	28	19	14	11	8
		L/240	331	169	98	62	41	29	21	16	12
		L/180	441	226	131	82	55	39	28	21	16
		L/120	661	339	196	123	83	58	42	32	24
20	Single Span	f_b / Ω	285	182	127	93	71	56	46	38	32
		Φf_b	428	274	190	140	107	85	69	57	48
		L/360	144	74	43	27	18	13	9	7	5
		L/240	216	111	64	40	27	19	14	10	8
		L/180	288	148	85	54	36	25	18	14	11
		L/120	432	221	128	81	54	38	28	21	16
	Double Span	f_b / Ω	295	189	131	96	74	58	47	39	33
		Φf_b	443	284	197	145	111	88	71	59	49
		L/360	347	178	103	65	43	30	22	17	13
		L/240	521	267	154	97	65	46	33	25	19
		L/180	695	356	206	130	87	61	44	33	26
		L/120	1042	533	309	194	130	91	67	50	39
	Triple Span	f_b / Ω	369	236	164	120	92	73	59	49	41
		Φf_b	554	355	246	181	138	109	89	73	62
		L/360	272	139	81	51	34	24	17	13	10
		L/240	408	209	121	76	51	36	26	20	15
		L/180	544	279	161	102	68	48	35	26	20
		L/120	816	418	242	152	102	72	52	39	30
18	Single Span	f_b / Ω	388	248	172	127	97	77	62	51	43
		Φf_b	583	373	259	190	146	115	93	77	65
		L/360	202	103	60	38	25	18	13	10	7
		L/240	303	155	90	56	38	27	19	15	11
		L/180	404	207	120	75	50	35	26	19	15
		L/120	605	310	179	113	76	53	39	29	22
	Double Span	f_b / Ω	411	263	183	134	103	81	66	54	46
		Φf_b	618	395	274	202	154	122	99	82	69
		L/360	486	249	144	91	61	43	31	23	18
		L/240	729	373	216	136	91	64	47	35	27
		L/180	972	498	288	181	122	85	62	47	36
		L/120	1459	747	432	272	182	128	93	70	54
	Triple Span	f_b / Ω	514	329	228	168	128	101	82	68	57
		Φf_b	772	494	343	252	193	152	124	102	86
		L/360	381	195	113	71	48	33	24	18	14
		L/240	571	293	169	107	71	50	37	27	21
		L/180	762	390	226	142	95	67	49	37	28
		L/120	1143	585	339	213	143	100	73	55	42
16	Single Span	f_b / Ω	489	313	217	160	122	97	78	65	54
		Φf_b	734	470	326	240	184	145	118	97	82
		L/360	259	132	77	48	32	23	17	12	10
		L/240	388	199	115	72	49	34	25	19	14
		L/180	517	265	153	97	65	45	33	25	19
		L/120	776	397	230	145	97	68	50	37	29
	Double Span	f_b / Ω	504	323	224	165	126	100	81	67	56
		Φf_b	758	485	337	248	190	150	121	100	84
		L/360	623	319	185	116	78	55	40	30	23
		L/240	935	479	277	174	117	82	60	45	35
		L/180	1246	638	369	233	156	109	80	60	46
		L/120	1870	957	554	349	234	164	120	90	69
	Triple Span	f_b / Ω	631	404	280	206	158	125	101	83	70
		Φf_b	948	607	421	309	237	187	152	125	105
		L/360	488	250	145	91	61	43	31	23	18
		L/240	732	375	217	137	92	64	47	35	27
		L/180	976	500	289	182	122	86	62	47	36
		L/120	1465	750	434	273	183	129	94	70	54

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2.2 DGB-36

Allowable Wind Uplift Loads

ASC STEEL DECK

DGB-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
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	150	104	76	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	76	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		234	150	104	76	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	150	104	76	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	76	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		234	150	104	76	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	130	95	73	58	47	39	32
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	58	47	39	32
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		262	187	130	95	73	58	47	39	32
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	47	39	32

DGB-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
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	188	131	96	74	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		295	189	131	96	74	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	188	131	96	74	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		295	189	131	96	74	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	120	92	73	59	49	41
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	49	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		318	236	164	120	92	73	59	49	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.

ASC STEEL DECK

DGB-36 2.2
Allowable Wind Uplift Loads

DGB-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	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	805		268	215	179	134	103	81	66	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		411	263	183	134	103	81	66	54	46
	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	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	805		268	215	179	134	103	81	66	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		145	116	97	83	73	64	58	53	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		411	263	183	134	103	81	66	54	46
	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	129	102	82	68	57
	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	329	228	168	129	102	82	68	57
	Simpson XL Screws	≥ 1/8"	385		128	103	86	73	64	57	51	47	43

DGB-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	281	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.

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2.2 DGB-36

Allowable Wind Uplift Loads

ASC STEEL DECK

DGB-36 — Support Fastener Pattern: 36 / 7

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
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	104	76	58	46	37	31	26
	Hilti X-ENP-19 L15	≥ 1/4"	660		234	150	104	76	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		234	150	104	76	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		234	150	104	76	58	46	37	31	26
	Simpson XL Screws	≥ 1/8"	385		225	150	104	76	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	104	76	58	46	37	31	26
	Hilti X-ENP-19 L15	≥ 1/4"	660		234	150	104	76	58	46	37	31	26
	Hilti X-HSN 24	1/8" - 3/8"	435		234	150	104	76	58	46	37	31	26
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		234	150	104	76	58	46	37	31	26
	Simpson XL Screws	≥ 1/8"	385		225	150	104	76	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	73	58	47	39	32
	Hilti X-ENP-19 L15	≥ 1/4"	660		292	187	130	95	73	58	47	39	32
	Hilti X-HSN 24	1/8" - 3/8"	435		254	187	130	95	73	58	47	39	32
	1/2" Eff. Arc Spot Weld	≥ 1/8"	787		292	187	130	95	73	58	47	39	32
	Simpson XL Screws	≥ 1/8"	385		225	180	130	95	73	58	47	39	32

DGB-36 — Support Fastener Pattern: 36 / 7

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
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	131	96	74	58	47	39	33
	Hilti X-ENP-19 L15	≥ 1/4"	705		295	189	131	96	74	58	47	39	33
	Hilti X-HSN 24	1/8" - 3/8"	435		254	189	131	96	74	58	47	39	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		295	189	131	96	74	58	47	39	33
	Simpson XL Screws	≥ 1/8"	385		225	180	131	96	74	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	131	96	74	58	47	39	33
	Hilti X-ENP-19 L15	≥ 1/4"	705		295	189	131	96	74	58	47	39	33
	Hilti X-HSN 24	1/8" - 3/8"	435		254	189	131	96	74	58	47	39	33
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		295	189	131	96	74	58	47	39	33
	Simpson XL Screws	≥ 1/8"	385		225	180	131	96	74	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	92	73	59	49	41
	Hilti X-ENP-19 L15	≥ 1/4"	705		369	236	164	120	92	73	59	49	41
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	164	120	92	73	59	49	41
	1/2" Eff. Arc Spot Weld	≥ 1/8"	953		369	236	164	120	92	73	59	49	41
	Simpson XL Screws	≥ 1/8"	385		225	180	150	120	92	73	59	49	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.

ASC STEEL DECK

DGB-36 2.2
Allowable Wind Uplift Loads

DGB-36 Support Fastener Pattern: 36 / 7

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	96	77	64	55	48	43	39	35	32
	#12-24 ITW Buildex TEKS	≥ 3/16"	448		261	209	174	134	103	81	66	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	805		411	263	183	134	103	81	66	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	134	103	81	66	54	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		411	263	183	134	103	81	66	54	46
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	103	81	66	54	46
	#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	134	103	81	66	54	46
	Hilti X-ENP-19 L15	≥ 1/4"	805		411	263	183	134	103	81	66	54	46
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	134	103	81	66	54	46
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		411	263	183	134	103	81	66	54	46
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	103	81	66	54	46
	#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	129	102	82	68	57
	Hilti X-ENP-19 L15	≥ 1/4"	805		470	329	228	168	129	102	82	68	57
	Hilti X-HSN 24	1/8" - 3/8"	435		254	203	169	145	127	102	82	68	57
	1/2" Eff. Arc Spot Weld	≥ 1/8"	1292		514	329	228	168	129	102	82	68	57
	Simpson XL Screws	≥ 1/8"	385		225	180	150	128	112	100	82	68	57

DGB-36 Support Fastener Pattern: 36 / 7

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	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	281	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	281	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.

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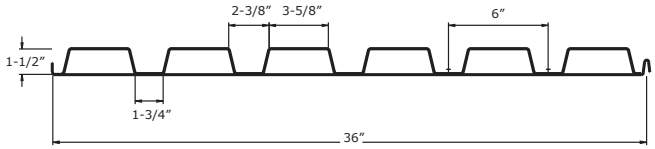
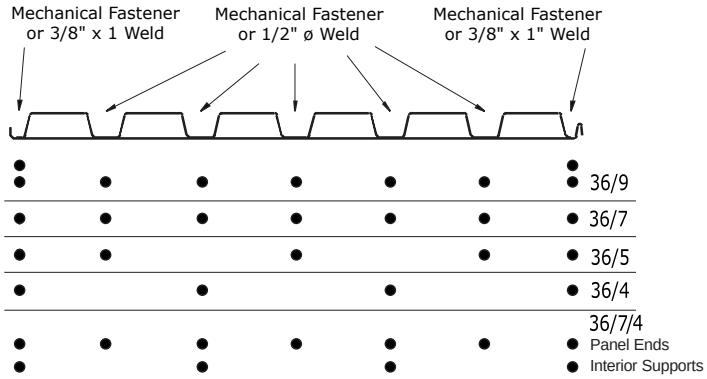
2.3 DGBF-36 & BF-36

ASC STEEL DECK

BF-36



Attachment Patterns



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

Panel Properties

Gage	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	3.69	0.0359 / 0.036	50	65	1.040	0.460	0.58	0.462	0.665
20/18	4.16	0.0359 / 0.047	50	65	1.179	0.499	0.52	0.471	0.651
20/16	4.68	0.0359 / 0.059	50	65	1.330	0.535	0.48	0.479	0.634
18/20	4.35	0.0478 / 0.036	50	65	1.231	0.564	0.65	0.601	0.677
18/18	4.83	0.0478 / 0.047	50	65	1.370	0.614	0.59	0.613	0.670
18/16	5.35	0.0478 / 0.059	50	65	1.521	0.661	0.55	0.624	0.659
16/20	5.03	0.0598 / 0.036	50	65	1.423	0.661	0.70	0.736	0.682
16/18	5.51	0.0598 / 0.047	50	65	1.562	0.721	0.65	0.752	0.679
16/16	6.03	0.0598 / 0.059	50	65	1.713	0.777	0.60	0.767	0.674

Gage	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
20/20	0.643	0.272	0.43	0.438	0.73	0.354	0.389	0.389	0.413
20/18	0.744	0.278	0.39	0.452	0.66	0.381	0.445	0.420	0.463
20/16	0.861	0.284	0.35	0.465	0.58	0.404	0.505	0.448	0.515
18/20	0.876	0.409	0.53	0.569	0.77	0.489	0.486	0.514	0.512
18/18	0.977	0.419	0.48	0.587	0.71	0.529	0.547	0.558	0.569
18/16	1.094	0.427	0.44	0.604	0.65	0.566	0.617	0.598	0.631
16/20	1.105	0.564	0.61	0.698	0.81	0.619	0.582	0.633	0.609
16/18	1.206	0.577	0.56	0.719	0.75	0.673	0.646	0.689	0.671
16/16	1.323	0.588	0.52	0.739	0.70	0.724	0.723	0.742	0.741

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

Constants h = 1.32" r = 0.125" θ = 78.3°

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	340	151	85	54	38	28	21	17	14
		Φf_b	510	227	128	82	57	42	32	25	20
		L/360	266	79	33	17	10	6	4	3	2
		L/240	399	118	50	26	15	9	6	4	3
		L/180	532	158	66	34	20	12	8	6	4
		L/120	798	236	100	51	30	19	12	9	6
	Double Span	f_b/Ω	547	243	137	87	61	45	34	27	22
		Φf_b	822	365	205	131	91	67	51	41	33
		L/360	640	190	80	41	24	15	10	7	5
		L/240	961	285	120	61	36	22	15	11	8
		L/180	1281	380	160	82	47	30	20	14	10
		L/120	1921	569	240	123	71	45	30	21	15
	Triple Span	f_b/Ω	531	236	133	85	59	43	33	26	21
		Φf_b	797	354	199	128	89	65	50	39	32
		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
20/18	Single Span	f_b/Ω	347	154	87	56	39	28	22	17	14
		Φf_b	522	232	130	83	58	43	33	26	21
		L/360	287	85	36	18	11	7	4	3	2
		L/240	430	128	54	28	16	10	7	5	3
		L/180	574	170	72	37	21	13	9	6	5
		L/120	861	255	108	55	32	20	13	9	7
	Double Span	f_b/Ω	563	250	141	90	63	46	35	28	23
		Φf_b	847	376	212	135	94	69	53	42	34
		L/360	691	205	86	44	26	16	11	8	6
		L/240	1037	307	130	66	38	24	16	11	8
		L/180	1383	410	173	88	51	32	22	15	11
		L/120	2074	615	259	133	77	48	32	23	17
	Triple Span	f_b/Ω	542	241	136	87	60	44	34	27	22
		Φf_b	815	362	204	130	91	67	51	40	33
		L/360	542	160	68	35	20	13	8	6	4
		L/240	812	241	102	52	30	19	13	9	6
		L/180	1083	321	135	69	40	25	17	12	9
		L/120	1625	481	203	104	60	38	25	18	13
20/16	Single Span	f_b/Ω	354	157	88	57	39	29	22	17	14
		Φf_b	532	236	133	85	59	43	33	26	21
		L/360	306	91	38	20	11	7	5	3	2
		L/240	459	136	57	29	17	11	7	5	4
		L/180	612	181	76	39	23	14	10	7	5
		L/120	918	272	115	59	34	21	14	10	7
	Double Span	f_b/Ω	580	258	145	93	64	47	36	29	23
		Φf_b	872	388	218	140	97	71	55	43	35
		L/360	737	218	92	47	27	17	12	8	6
		L/240	1105	327	138	71	41	26	17	12	9
		L/180	1474	437	184	94	55	34	23	16	12
		L/120	2210	655	276	141	82	52	35	24	18
	Triple Span	f_b/Ω	553	246	138	88	61	45	35	27	22
		Φf_b	831	369	208	133	92	68	52	41	33
		L/360	577	171	72	37	21	13	9	6	5
		L/240	866	257	108	55	32	20	14	10	7
		L/180	1154	342	144	74	43	27	18	13	9
		L/120	1732	513	216	111	64	40	27	19	14

2.3 DGBF-36 & BF-36

ASC STEEL DECK

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	511	227	128	82	57	42	32	25	20
		Φf_b	768	341	192	123	85	63	48	38	31
		L/360	351	104	44	22	13	8	5	4	3
		L/240	526	156	66	34	19	12	8	6	4
		L/180	702	208	88	45	26	16	11	8	6
		L/120	1053	312	132	67	39	25	16	12	8
	Double Span	f_b/Ω	710	316	178	114	79	58	44	35	28
		Φf_b	1068	474	267	171	119	87	67	53	43
		L/360	845	250	106	54	31	20	13	9	7
		L/240	1268	376	159	81	47	30	20	14	10
		L/180	1691	501	211	108	63	39	26	19	14
		L/120	2536	751	317	162	94	59	40	28	20
	Triple Span	f_b/Ω	798	355	199	128	89	65	50	39	32
		Φf_b	1199	533	300	192	133	98	75	59	48
		L/360	662	196	83	42	25	15	10	7	5
		L/240	993	294	124	64	37	23	16	11	8
		L/180	1325	392	166	85	49	31	21	15	11
		L/120	1987	589	248	127	74	46	31	22	16
18/18	Single Span	f_b/Ω	522	232	131	84	58	43	33	26	21
		Φf_b	785	349	196	126	87	64	49	39	31
		L/360	381	113	48	24	14	9	6	4	3
		L/240	571	169	71	37	21	13	9	6	5
		L/180	762	226	95	49	28	18	12	8	6
		L/120	1142	339	143	73	42	27	18	13	9
	Double Span	f_b/Ω	732	325	183	117	81	60	46	36	29
		Φf_b	1100	489	275	176	122	90	69	54	44
		L/360	917	272	115	59	34	21	14	10	7
		L/240	1376	408	172	88	51	32	22	15	11
		L/180	1835	544	229	117	68	43	29	20	15
		L/120	2752	815	344	176	102	64	43	30	22
	Triple Span	f_b/Ω	816	363	204	131	91	67	51	40	33
		Φf_b	1226	545	307	196	136	100	77	61	49
		L/360	719	213	90	46	27	17	11	8	6
		L/240	1078	319	135	69	40	25	17	12	9
		L/180	1437	426	180	92	53	34	22	16	11
		L/120	2156	639	269	138	80	50	34	24	17
18/16	Single Span	f_b/Ω	532	237	133	85	59	43	33	26	21
		Φf_b	800	356	200	128	89	65	50	40	32
		L/360	408	121	51	26	15	10	6	4	3
		L/240	612	181	77	39	23	14	10	7	5
		L/180	817	242	102	52	30	19	13	9	7
		L/120	1225	363	153	78	45	29	19	13	10
	Double Span	f_b/Ω	753	335	188	121	84	61	47	37	30
		Φf_b	1132	503	283	181	126	92	71	56	45
		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	832	370	208	133	92	68	52	41	33
		Φf_b	1250	556	313	200	139	102	78	62	50
		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

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	703	313	176	113	78	57	44	35	28
		Φf_b	1057	470	264	169	117	86	66	52	42
		L/360	433	128	54	28	16	10	7	5	3
		L/240	649	192	81	42	24	15	10	7	5
		L/180	865	256	108	55	32	20	14	9	7
		L/120	1298	384	162	83	48	30	20	14	10
	Double Span	f_b/Ω	871	387	218	139	97	71	54	43	35
		Φf_b	1309	582	327	209	145	107	82	65	52
		L/360	1042	309	130	67	39	24	16	11	8
		L/240	1563	463	195	100	58	36	24	17	13
		L/180	2084	617	260	133	77	49	33	23	17
		L/120	3126	926	391	200	116	73	49	34	25
	Triple Span	f_b/Ω	1088	484	272	174	121	89	68	54	44
		Φf_b	1636	727	409	262	182	134	102	81	65
		L/360	816	242	102	52	30	19	13	9	7
		L/240	1224	363	153	78	45	29	19	13	10
		L/180	1632	484	204	104	60	38	26	18	13
		L/120	2449	726	306	157	91	57	38	27	20
16/18	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	471	139	59	30	17	11	7	5	4
		L/240	706	209	88	45	26	16	11	8	6
		L/180	941	279	118	60	35	22	15	10	8
		L/120	1412	418	177	90	52	33	22	15	11
	Double Span	f_b/Ω	897	399	224	144	100	73	56	44	36
		Φf_b	1349	599	337	216	150	110	84	67	54
		L/360	1134	336	142	73	42	26	18	12	9
		L/240	1701	504	213	109	63	40	27	19	14
		L/180	2268	672	283	145	84	53	35	25	18
		L/120	3401	1008	425	218	126	79	53	37	27
	Triple Span	f_b/Ω	1122	498	280	179	125	92	70	55	45
		Φf_b	1686	749	421	270	187	138	105	83	67
		L/360	888	263	111	57	33	21	14	10	7
		L/240	1332	395	167	85	49	31	21	15	11
		L/180	1776	526	222	114	66	41	28	19	14
		L/120	2665	790	333	171	99	62	42	29	21
16/16	Single Span	f_b/Ω	734	326	183	117	82	60	46	36	29
		Φf_b	1103	490	276	176	123	90	69	54	44
		L/360	507	150	63	32	19	12	8	6	4
		L/240	760	225	95	49	28	18	12	8	6
		L/180	1013	300	127	65	38	24	16	11	8
		L/120	1520	450	190	97	56	35	24	17	12
	Double Span	f_b/Ω	922	410	231	148	102	75	58	46	37
		Φf_b	1386	616	347	222	154	113	87	68	55
		L/360	1220	362	153	78	45	28	19	13	10
		L/240	1830	542	229	117	68	43	29	20	15
		L/180	2440	723	305	156	90	57	38	27	20
		L/120	3660	1085	458	234	136	85	57	40	29
	Triple Span	f_b/Ω	1147	510	287	183	127	94	72	57	46
		Φf_b	1723	766	431	276	191	141	108	85	69
		L/360	956	283	119	61	35	22	15	10	8
		L/240	1434	425	179	92	53	33	22	16	11
		L/180	1912	566	239	122	71	45	30	21	15
		L/120	2868	850	358	184	106	67	45	31	23

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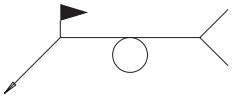
2.4 DGB-36 & DGBF-36

Arc Spot/Seam Welds to Supports with DeltaGrip® 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	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.2	-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	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.6	-0.2R	3.7	-0.2R	3.7	-0.2R	3.7	-0.2R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R	3.8	-0.1R
		8"	q_a	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4	-0.3R	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R
		12"	q_a	2206	3641	2137	3526	2087	3444	2050	3382	2021	3335	1998	3297	1980	3266	1763	2821	1482	2371
			q_f																		
			F	4.7	-0.6R	4.9	-0.5R	5	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.4R	5.4	-0.3R
		18"	q_a	1968	3641	1935	3193	1709	2821	1722	2842	1732	2857	1588	2620	1610	2657	1628	2686	1482	2371
			q_f																		
			F	5.5	-0.9R	5.8	-0.9R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.7R	6.6	-0.7R	6.7	-0.7R	6.7	-0.6R
		24"	q_a	1664	2746	1691	2791	1473	2430	1523	2513	1369	2259	1422	2346	1304	2151	1355	2235	1259	2078
			q_f																		
			F	6.1	-1.2R	6.6	-1.2R	6.9	-1.2R	7.1	-1.1R	7.4	-1.1R	7.5	-1.1R	7.7	-1R	7.8	-1R	7.9	-1R
	18 ga	4"	q_a	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1900	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		6"	q_a	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1900	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.4R	5	-0.4R	5	-0.3R	5.1	-0.3R	5.1	-0.3R	5.2	-0.2R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R
		8"	q_a	1863	3074	1864	3075	1788	2950	1800	2970	1746	2881	1761	2906	1550	2481	1281	2050	1077	1723
			q_f																		
			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
		12"	q_a	1597	2635	1531	2527	1485	2450	1450	2392	1423	2347	1401	2312	1384	2283	1281	2050	1077	1723
			q_f																		
			F	6.3	-0.9R	6.6	-0.9R	6.8	-0.9R	7	-0.8R	7.1	-0.8R	7.3	-0.7R	7.4	-0.7R	7.4	-0.7R	7.5	-0.6R
		18"	q_a	1419	2635	1380	2277	1206	1990	1207	1992	1208	1993	1100	1815	1112	1834	1121	1850	1044	1723
			q_f																		
			F	7.3	-1.4R	7.8	-1.4R	8.1	-1.4R	8.5	-1.4R	8.7	-1.3R	8.9	-1.3R	9.1	-1.2R	9.3	-1.2R	9.4	-1.2R
		24"	q_a	1203	1985	1205	1988	1041	1717	1066	1760	953	1573	984	1624	899	1483	930	1534	861	1421
			q_f																		
			F	8	-1.7R	8.6	-1.8R	9.2	-1.9R	9.6	-1.9R	10	-1.8R	10.3	-1.8R	10.6	-1.8R	10.8	-1.8R	11	-1.7R
	20 ga	4"	q_a	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1025	1640	847	1355	712	1139
			q_f																		
			F	6.1	-0.5R	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.2R
		6"	q_a	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1025	1640	847	1355	712	1139
			q_f																		
			F	7	-0.8R	7.3	-0.7R	7.5	-0.7R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.9	-0.5R	7.9	-0.5R	8	-0.5R
		8"	q_a	1082	1785	1081	1784	1035	1708	1042	1719	1009	1665	1018	1679	993	1638	847	1355	712	1139
			q_f																		
			F	7.8	-1.1R	8.1	-1.1R	8.4	-1R	8.6	-1R	8.8	-0.9R	8.9	-0.9R	9	-0.8R	9.1	-0.8R	9.2	-0.8R
		12"	q_a	925	1527	885	1460	857	1413	835	1378	819	1351	806	1329	795	1312	786	1297	712	1139
			q_f																		
			F	8.9	-1.6R	9.5	-1.7R	9.9	-1.6R	10.3	-1.6R	10.6	-1.6R	10.9	-1.5R	11.1	-1.5R	11.3	-1.4R	11.5	-1.4R
		18"	q_a	821	1527	797	1315	695	1147	695	1146	694	1145	631	1042	638	1052	643	1060	598	987
			q_f																		
			F	10	-2.2R	10.9	-2.4R	11.6	-2.4R	12.2	-2.5R	12.8	-2.5R	13.2	-2.5R	13.6	-2.4R	13.9	-2.4R	14.2	-2.4R
		24"	q_a	697	1151	696	1149	600	990	614	1013	548	904	565	932	515	850	533	879	493	814
			q_f																		
			F	10.8	-2.7R	11.9	-2.9R	12.9	-3.1R	13.7	-3.2R	14.4	-3.2R	15	-3.3R	15.5	-3.3R	16	-3.3R	16.5	-3.3R
	22 ga	4"	q_a	805	1329	805	1329	805	1329	805	1329	805	1329	805	1329	779	1247	644	1031	541	866
			q_f																		
			F	7.7	-0.7R	7.9	-0.7R	8.1	-0.6R	8.2	-0.6R	8.3	-0.5R	8.4	-0.5R	8.5	-0.5R	8.5	-0.5R	8.6	-0.4R
		6"	q_a	805	1329	805	1329	805	1329	805	1329	805	1329	803	1324	779	1247	644	1031	541	866
			q_f																		
			F	8.8	-1.2R	9.2	-1.1R	9.5	-1.1R	9.8	-1R	9.9	-1R	10.1	-1R	10.2	-0.9R	10.3	-0.9R	10.4	-0.8R
		8"	q_a	767	1266	766	1264	732	1209	737	1216	713	1177	719	1186	701	1157	644	1031	541	866
			q_f																		
			F	9.7	-1.6R	10.3	-1.6R	10.7	-1.6R	11	-1.5R	11.3	-1.5R	11.6	-1.4R	11.8	-1.4R	11.9	-1.3R	12.1	-1.3R
		12"	q_a	655	1081	626	1032	605	997	589	972	577	952	567	936	559	923	553	912	541	866
			q_f																		
			F	11	-2.2R	11.8	-2.3R	12.5	-2.4R	13.1	-2.4R	13.6	-2.4R	14	-2.3R	14.3	-2.3R	14.6	-2.2R	14.9	-2.2R
		18"	q_a	582	1081	563	929	490	809	489	807	489	806	444	733	448	739	451	744	420	692
			q_f																		
			F	12.2	-2.9R	13.4	-3.2R	14.4	-3.3R	15.3	-3.4R	16	-3.5R	16.7	-3.6R	17.3	-3.6R	17.8	-3.6R	18.3	-3.5R
		24"	q_a	494	815	492	812	424	699	433	714	386	637	397	655	362	598	374	617	346	571
			q_f																		
			F	12.9	-3.4R	14.4	-3.8R	15.7	-4.1R	16.8	-4.3R	17.8	-4.4R	18.7	-4.6R	19.5	-4.7R	20.2	-4.7R	20.9	-4.7R

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

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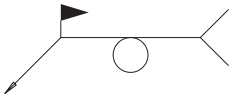
ASC STEEL DECK

DGB-36 & DGBF-36 2.4

Arc Spot/Seam Welds to Supports with DeltaGrip® 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	4518	7454	4471	7378	4439	7325	4354	6967	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.2	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.3	-0.1R	3.3	-0.1R
		6"	q_a	3890	6418	3808	6283	3751	6189	3709	6120	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.6	-0.4R	3.7	-0.3R	3.7	-0.3R	3.7	-0.3R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R
		8"	q_a	3413	5631	3417	5638	3229	5329	3260	5379	3132	5167	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4	-0.5R	4.1	-0.5R	4.2	-0.5R	4.2	-0.4R	4.2	-0.4R	4.3	-0.4R	4.3	-0.3R	4.3	-0.3R	4.3	-0.3R
		12"	q_a	2786	4596	2645	4365	2548	4205	2477	4087	2423	3998	2380	3927	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.6	-0.9R	4.8	-0.8R	5	-0.8R	5.1	-0.8R	5.1	-0.7R	5.2	-0.7R	5.3	-0.7R	5.3	-0.6R	5.3	-0.6R
		18"	q_a	2408	4596	2333	3850	1997	3295	2000	3300	2002	3304	1804	2976	1826	3013	1763	2821	1482	2371
			q_f																		
			F	5.4	-1.3R	5.7	-1.3R	5.9	-1.3R	6.1	-1.3R	6.3	-1.2R	6.4	-1.2R	6.5	-1.2R	6.6	-1.1R	6.7	-1.1R
		24"	q_a	1986	3277	1993	3288	1693	2793	1741	2872	1540	2542	1596	2633	1447	2388	1501	2477	1384	2284
			q_f																		
			F	5.9	-1.7R	6.4	-1.8R	6.7	-1.8R	7	-1.8R	7.2	-1.8R	7.4	-1.7R	7.6	-1.7R	7.7	-1.7R	7.8	-1.6R
	18 ga	4"	q_a	3306	5455	3256	5373	3222	5316	3164	5062	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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
		6"	q_a	2785	4596	2706	4465	2651	4374	2610	4307	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.8	-0.6R	4.9	-0.6R	5	-0.6R	5.1	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.2	-0.4R	5.2	-0.4R
		8"	q_a	2420	3994	2405	3969	2253	3718	2267	3740	2165	3572	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.3	-0.9R	5.5	-0.9R	5.6	-0.8R	5.7	-0.8R	5.8	-0.7R	5.9	-0.7R	5.9	-0.7R	6	-0.6R	6	-0.6R
		12"	q_a	1969	3249	1849	3051	1766	2914	1706	2814	1660	2738	1623	2678	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.1	-1.4R	6.5	-1.4R	6.7	-1.4R	6.9	-1.3R	7	-1.3R	7.2	-1.2R	7.3	-1.2R	7.4	-1.1R	7.4	-1.1R
		18"	q_a	1710	3249	1635	2697	1391	2296	1381	2279	1373	2266	1233	2035	1242	2049	1249	2050	1077	1723
			q_f																		
			F	7	-2R	7.5	-2R	7.9	-2.1R	8.3	-2.1R	8.5	-2.1R	8.8	-2R	9	-2R	9.1	-2R	9.3	-1.9R
		24"	q_a	1427	2355	1406	2319	1190	1963	1208	1994	1063	1754	1094	1805	981	1619	1016	1676	931	1536
			q_f																		
			F	7.6	-2.4R	8.3	-2.6R	8.8	-2.7R	9.3	-2.7R	9.7	-2.8R	10	-2.8R	10.3	-2.8R	10.6	-2.7R	10.8	-2.7R
	20 ga	4"	q_a	1918	3164	1887	3113	1865	3077	1849	3050	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.1	-0.8R	6.2	-0.7R	6.3	-0.7R	6.4	-0.6R	6.4	-0.6R	6.5	-0.5R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R
		6"	q_a	1609	2655	1560	2574	1526	2519	1502	2478	1482	2446	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.9	-1.2R	7.2	-1.2R	7.4	-1.1R	7.5	-1.1R	7.6	-1R	7.7	-1R	7.8	-0.9R	7.9	-0.9R	7.9	-0.9R
		8"	q_a	1396	2303	1385	2285	1295	2136	1301	2147	1241	2048	1252	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.6	-1.6R	8	-1.6R	8.3	-1.6R	8.5	-1.6R	8.7	-1.5R	8.8	-1.5R	9	-1.4R	9.1	-1.4R	9.2	-1.3R
		12"	q_a	1136	1874	1064	1756	1014	1674	978	1614	950	1568	929	1532	911	1503	847	1355	712	1139
			q_f																		
			F	8.6	-2.3R	9.2	-2.4R	9.7	-2.5R	10.1	-2.5R	10.4	-2.4R	10.7	-2.4R	10.9	-2.4R	11.1	-2.3R	11.3	-2.3R
		18"	q_a	987	1874	941	1553	800	1321	793	1308	787	1299	706	1165	710	1172	714	1178	658	1086
			q_f																		
			F	9.6	-3R	10.5	-3.3R	11.2	-3.5R	11.8	-3.6R	12.3	-3.6R	12.8	-3.7R	13.2	-3.7R	13.6	-3.7R	13.9	-3.7R
		24"	q_a	827	1364	811	1338	686	1132	695	1146	606	1000	622	1027	560	924	580	957	531	877
			q_f																		
			F	10.2	-3.5R	11.3	-3.9R	12.2	-4.2R	13	-4.4R	13.8	-4.6R	14.4	-4.7R	15	-4.8R	15.5	-4.9R	15.9	-4.9R
	22 ga	4"	q_a	1359	2242	1335	2204	1319	2176	1307	2157	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.6	-1.2R	7.9	-1.1R	8	-1.1R	8.2	-1R	8.3	-0.9R	8.4	-0.9R	8.4	-0.8R	8.5	-0.8R	8.5	-0.8R
		6"	q_a	1136	1875	1101	1816	1076	1775	1057	1744	1043	1721	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	8.7	-1.8R	9.1	-1.8R	9.4	-1.7R	9.6	-1.7R	9.8	-1.6R	10	-1.6R	10.1	-1.5R	10.2	-1.5R	10.3	-1.4R
		8"	q_a	985	1625	976	1610	911	1503	915	1509	872	1438	879	1450	779	1247	644	1031	541	866
			q_f																		
			F	9.4	-2.3R	10	-2.3R	10.5	-2.4R	10.8	-2.4R	11.1	-2.3R	11.4	-2.3R	11.6	-2.2R	11.8	-2.2R	11.9	-2.1R
		12"	q_a	802	1323	750	1237	713	1177	687	1134	667	1101	651	1075	638	1054	628	1031	541	866
			q_f																		
			F	10.5	-3R	11.4	-3.3R	12.1	-3.4R	12.7	-3.5R	13.2	-3.5R	13.6	-3.6R	14	-3.5R	14.3	-3.5R	14.6	-3.5R
		18"	q_a	698	1323	664	1095	564	930	558	920	553	912	496	818	498	822	500	825	461	761
			q_f																		
			F	11.5	-3.8R	12.7	-4.2R	13.7	-4.6R	14.6	-4.8R	15.4	-5R	16.1	-5.1R	16.7	-5.2R	17.2	-5.3R	17.7	-5.3R
		24"	q_a	586	966	573	945	482	795	487	804	424	699	436	720	393	648	406	670	372	614
			q_f																		
			F	12.1	-4.3R	13.5	-4.9R	14.8	-5.4R	15.9	-5.8R	16.9	-6.1R	17.8	-6.3R	18.6	-6.5R	19.4	-6.7R	20	-6.8R

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

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2.5 DGB-36 & DGBF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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 +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	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		8"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		12"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R	
		18"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R	
		24"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R	
	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	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	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			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	
		8"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R	
		12"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R	
		18"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f																		
			F	11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R	
		24"	q_a	785	1264	788	1268	756	1216	787	1268	739	1190	768	1236	729	1174	755	1215	722	1163
			q_f																		
			F	14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R	
	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	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		6"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R	
		8"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R	
		12"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R	
		18"	q_a	592	953	592	953	568	914	577	929	584	940	551	888	560	902	567	913	543	874
			q_f																		
			F	18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 +0R		18.9 +0R		18.9 +0R		18.9 +0R		18.9 +0R		18.9 +0R	
		24"	q_a	531	855	554	892	501	807	524	844	484	780	505	814	474	763	493	793	466	751
			q_f																		
			F	24 -0.2R		24 -0.1R		24 -0.1R		24.1 -0.1R		24.1 -0.1R		24.1 -0.1R		24.1 -0.1R		24.1 -0.1R		24.1 -0.1R	
	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	9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R	
		6"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R	
		8"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	14 +0R		14 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R	
		12"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f																		
			F	19 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R		19 +0R		19 +0R		19 +0R		19 +0R		19 +0R	
		18"	q_a	480	793	480	773	438	705	445	716	450	724	421	677	428	689	433	698	412	663
			q_f																		
			F	26.3 -0.2R		26.3 -0.2R		26.4 -0.1R		26.4 -0.1R		26.4 -0.1R		26.4 -0.1R		26.4 -0.1R		26.4 -0.1R		26.4 -0.1R	
		24"	q_a	411	662	428	688	382	615	399	643	366	589	382	615	355	572	370	596	348	561
			q_f																		
			F	33.6 -0.4R		33.7 -0.3R		33.7 -0.3R		33.7 -0.2R		33.8 -0.2R		33.8 -0.2R		33.8 -0.2R		33.8 -0.1R		33.8 -0.1R	

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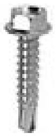
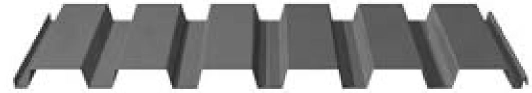
No. 12 Self-Drilling Screws to Supports with DeltaGrip® Side Seam Attachment

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	1763	2821	1482	2371
			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	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			F	3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		8"	q_a q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		12"	q_a q_f	1876	3020	1859	2993	1847	2974	1839	2960	1832	2950	1827	2941	1823	2935	1763	2821	1482	2371
			F	5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R	
		18"	q_a q_f	1704	3020	1721	2771	1575	2536	1611	2593	1636	2633	1538	2476	1568	2524	1591	2562	1482	2371
			F	7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R	
		24"	q_a q_f	1434	2308	1522	2451	1363	2194	1443	2323	1325	2134	1395	2246	1302	2096	1363	2194	1286	2070
			F	9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R	
	18 ga	4"	q_a q_f	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481	1281	2050	1077	1723
			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	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481	1281	2050	1077	1723
			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	
		8"	q_a q_f	1573	2533	1576	2537	1557	2507	1571	2529	1548	2493	1561	2513	1543	2481	1281	2050	1077	1723
			F	6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R	
		12"	q_a q_f	1394	2245	1375	2214	1362	2192	1352	2177	1344	2164	1338	2155	1333	2147	1281	2050	1077	1723
			F	8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R	
		18"	q_a q_f	1244	2245	1253	2017	1127	1815	1153	1856	1172	1886	1089	1753	1112	1790	1130	1820	1069	1721
			F	11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R	
		24"	q_a q_f	1028	1654	1089	1753	961	1546	1018	1639	925	1489	976	1571	903	1453	948	1526	888	1429
			F	14.2 -0.1R		14.2 -0.1R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R	
	20 ga	4"	q_a q_f	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640	847	1355	712	1139
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		6"	q_a q_f	1182	1903	1175	1891	1170	1883	1166	1877	1163	1873	1161	1869	1025	1640	847	1355	712	1139
			F	8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R	
		8"	q_a q_f	1091	1756	1102	1774	1070	1723	1082	1742	1059	1705	1070	1723	1025	1640	847	1355	712	1139
			F	10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R	
		12"	q_a q_f	935	1505	914	1472	900	1448	889	1431	881	1418	874	1407	869	1399	847	1355	712	1139
			F	13.8 -0.1R		13.8 -0.1R		13.8 -0.1R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R	
		18"	q_a q_f	819	1505	819	1318	722	1162	737	1186	748	1204	686	1104	701	1128	712	1147	667	1074
			F	18.9 -0.2R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R	
		24"	q_a q_f	667	1075	701	1128	608	979	643	1035	577	929	608	979	558	898	586	943	545	877
			F	24 -0.3R		24 -0.2R		24 -0.2R		24 -0.2R		24.1 -0.2R		24.1 -0.1R		24.1 -0.1R		24.1 -0.1R		24.1 -0.1R	
	22 ga	4"	q_a q_f	986	1587	986	1587	986	1587	986	1587	986	1587	962	1539	779	1247	644	1031	541	866
			F	9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R	
		6"	q_a q_f	938	1510	930	1497	924	1487	919	1480	916	1475	913	1471	779	1247	644	1031	541	866
			F	11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R	
		8"	q_a q_f	852	1372	861	1385	830	1336	840	1352	818	1317	827	1332	779	1247	644	1031	541	866
			F	14 -0.1R		14 -0.1R		14.1 -0.1R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R	
		12"	q_a q_f	717	1154	696	1121	681	1097	671	1080	663	1067	656	1056	651	1048	644	1031	541	866
			F	19 -0.2R		19 -0.2R		19 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R	
		18"	q_a q_f	623	1154	618	995	540	869	549	884	556	895	506	815	517	832	525	845	489	788
			F	26.3 -0.4R		26.3 -0.3R		26.4 -0.3R		26.4 -0.2R		26.4 -0.2R		26.4 -0.2R		26.4 -0.2R		26.4 -0.2R		26.4 -0.1R	
		24"	q_a q_f	507	816	527	848	454	730	477	767	426	685	447	720	409	658	428	690	397	639
			F	33.6 -0.7R		33.7 -0.6R		33.7 -0.5R		33.7 -0.4R		33.8 -0.4R		33.8 -0.3R		33.8 -0.3R		33.8 -0.3R		33.8 -0.3R	

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

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2.5 DGB-36 & DGBF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			q_f																		
			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	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			q_f																		
			F	3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R		3.9 +0R	
		8"	q_a	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		12"	q_a	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			q_f																		
			F	5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R	
		18"	q_a	1971	3174	1971	3174	1873	3015	1899	3057	1918	3088	1786	2875	1814	2921	1763	2821	1482	2371
			q_f																		
			F	7.6 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R	
		24"	q_a	1776	2859	1835	2954	1628	2621	1698	2734	1547	2491	1614	2599	1496	2408	1558	2508	1461	2352
			q_f																		
			F	9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R		9.5 +0R	
	18 ga	4"	q_a	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481	1281	2050	1077	1723
			q_f																		
			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	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481	1281	2050	1077	1723
			q_f																		
			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	
		8"	q_a	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R	
		12"	q_a	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1565	2520	1550	2481	1281	2050	1077	1723
			q_f																		
			F	8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R	
		18"	q_a	1526	2537	1509	2429	1344	2163	1357	2185	1367	2200	1260	2028	1279	2059	1281	2050	1077	1723
			q_f																		
			F	11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R	
		24"	q_a	1295	2086	1325	2133	1161	1869	1204	1939	1087	1751	1132	1822	1041	1677	1083	1743	1010	1626
			q_f																		
			F	14.2 -0.1R		14.2 -0.1R		14.2 -0.1R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R		14.2 +0R	
	20 ga	4"	q_a	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640	847	1355	712	1139
			q_f																		
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		6"	q_a	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640	847	1355	712	1139
			q_f																		
			F	8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R	
		8"	q_a	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640	847	1355	712	1139
			q_f																		
			F	10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R		10.3 +0R	
		12"	q_a	1147	1847	1102	1774	1070	1722	1046	1684	1027	1654	1012	1630	1000	1610	847	1355	712	1139
			q_f																		
			F	13.7 -0.1R		13.7 -0.1R		13.7 -0.1R		13.7 +0R		13.7 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R	
		18"	q_a	1021	1847	995	1603	873	1405	874	1407	875	1409	798	1285	807	1299	814	1311	712	1139
			q_f																		
			F	18.8 -0.2R		18.8 -0.2R		18.8 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R	
		24"	q_a	868	1397	871	1402	754	1214	773	1245	692	1114	715	1151	653	1052	676	1089	627	1010
			q_f																		
			F	23.8 -0.3R		23.9 -0.3R		23.9 -0.2R		23.9 -0.2R		24 -0.2R		24 -0.2R		24 -0.1R		24 -0.1R		24 -0.1R	
	22 ga	4"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R	
		6"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	11.5 -0.1R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R	
		8"	q_a	986	1587	986	1587	986	1587	986	1587	959	1544	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	14 -0.1R		14 -0.1R		14 -0.1R		14 -0.1R		14 +0R		14 +0R		14 +0R		14 +0R		14 +0R	
		12"	q_a	888	1429	845	1360	814	1311	791	1274	773	1245	759	1223	748	1204	644	1031	541	866
			q_f																		
			F	18.8 -0.2R		18.9 -0.2R		18.9 -0.1R		18.9 -0.1R		18.9 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R		19 -0.1R	
		18"	q_a	790	1429	761	1226	662	1066	658	1060	656	1055	595	958	599	965	603	970	541	866
			q_f																		
			F	26 -0.5R		26.1 -0.4R		26.2 -0.3R		26.2 -0.3R		26.3 -0.2R		26.3 -0.2R		26.3 -0.2R		26.3 -0.2R		26.3 -0.2R	
		24"	q_a	674	1086	667	1074	574	924	583	939	520	837	533	859	486	782	500	806	463	745
			q_f																		
			F	33.1 -0.8R		33.3 -0.6R		33.4 -0.5R		33.5 -0.5R		33.5 -0.4R		33.6 -0.4R		33.6 -0.3R		33.7 -0.3R		33.7 -0.3R	

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

ASC STEEL DECK

DGB-36 & DGBF-36 2.6

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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"	
36/4	16 ga	4"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.2	-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	+0R	3.3	+0R
		6"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.6	-0.2R	3.7	-0.2R	3.7	-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
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	4.1	-0.3R	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.2R
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	4.8	-0.5R	4.9	-0.5R	5.1	-0.5R	5.1	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.4R	5.4	-0.3R	5.4	-0.3R
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	5.6	-0.9R	5.9	-0.9R	6.1	-0.8R	6.3	-0.8R	6.4	-0.7R	6.6	-0.7R	6.6	-0.7R	6.7	-0.6R	6.8	-0.6R
		24"	q_a	1253	2018	1271	2047	1204	1939	1256	2022	1177	1895	1223	1970	1160	1867	1201	1934	1148	1848
			q_f																		
			F	6.3	-1.2R	6.7	-1.2R	7	-1.2R	7.3	-1.1R	7.5	-1.1R	7.7	-1.1R	7.8	-1R	7.9	-1R	8	-0.9R
	18 ga	4"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			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
		6"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	4.9	-0.4R	5	-0.3R	5.1	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R
		8"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	5.5	-0.6R	5.6	-0.5R	5.7	-0.5R	5.8	-0.4R	5.9	-0.4R	6	-0.4R	6	-0.4R	6	-0.3R	6.1	-0.3R
		12"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	6.4	-0.9R	6.7	-0.9R	6.9	-0.8R	7.1	-0.8R	7.2	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.6R	7.6	-0.6R
		18"	q_a	1029	1657	1029	1657	995	1602	1011	1628	1023	1647	967	1557	982	1582	994	1601	952	1533
			q_f																		
			F	7.4	-1.4R	7.9	-1.4R	8.3	-1.4R	8.6	-1.3R	8.9	-1.3R	9.1	-1.3R	9.3	-1.2R	9.4	-1.2R	9.5	-1.1R
		24"	q_a	931	1499	971	1563	879	1415	919	1480	850	1369	887	1429	832	1340	866	1394	820	1320
			q_f																		
			F	8.2	-1.8R	8.9	-1.8R	9.4	-1.9R	9.9	-1.9R	10.2	-1.8R	10.5	-1.8R	10.8	-1.8R	11	-1.7R	11.2	-1.7R
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	712	1139
			q_f																		
			F	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.4	-0.3R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	712	1139
			q_f																		
			F	7.1	-0.8R	7.4	-0.7R	7.5	-0.7R	7.7	-0.6R	7.8	-0.6R	7.8	-0.5R	7.9	-0.5R	8	-0.5R	8	-0.5R
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	712	1139
			q_f																		
			F	7.9	-1.1R	8.3	-1R	8.5	-1R	8.7	-0.9R	8.9	-0.9R	9	-0.9R	9.1	-0.8R	9.2	-0.8R	9.3	-0.7R
		12"	q_a	783	1260	783	1260	783	1260	780	1256	774	1247	770	1239	766	1233	763	1228	712	1139
			q_f																		
			F	9.1	-1.6R	9.7	-1.7R	10.2	-1.6R	10.5	-1.6R	10.8	-1.5R	11.1	-1.5R	11.3	-1.4R	11.5	-1.4R	11.6	-1.3R
		18"	q_a	737	1260	735	1183	665	1071	675	1087	682	1098	635	1023	646	1040	654	1054	620	998
			q_f																		
			F	10.4	-2.3R	11.2	-2.4R	12	-2.5R	12.6	-2.5R	13.1	-2.5R	13.5	-2.4R	13.9	-2.4R	14.2	-2.4R	14.5	-2.3R
		24"	q_a	628	1011	651	1048	578	930	603	972	550	886	575	925	533	858	555	894	521	838
			q_f																		
			F	11.2	-2.8R	12.3	-3R	13.3	-3.1R	14.1	-3.2R	14.8	-3.3R	15.4	-3.3R	16	-3.3R	16.4	-3.3R	16.9	-3.3R
	22 ga	4"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	644	1031	541	866
			q_f																		
			F	7.8	-0.7R	8	-0.7R	8.2	-0.6R	8.3	-0.6R	8.4	-0.5R	8.4	-0.5R	8.5	-0.5R	8.6	-0.4R	8.6	-0.4R
		6"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	644	1031	541	866
			q_f																		
			F	9	-1.2R	9.4	-1.1R	9.6	-1.1R	9.9	-1R	10	-1R	10.2	-0.9R	10.3	-0.9R	10.4	-0.8R	10.5	-0.8R
		8"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	644	1031	541	866
			q_f																		
			F	9.9	-1.6R	10.5	-1.6R	10.9	-1.5R	11.2	-1.5R	11.5	-1.4R	11.7	-1.4R	11.9	-1.3R	12.1	-1.3R	12.2	-1.2R
		12"	q_a	640	1030	624	1005	613	987	605	974	599	964	594	956	590	949	586	944	541	866
			q_f																		
			F	11.3	-2.3R	12.1	-2.4R	12.8	-2.4R	13.4	-2.4R	13.9	-2.3R	14.3	-2.3R	14.6	-2.3R	14.9	-2.2R	15.2	-2.1R
		18"	q_a	574	1030	570	917	509	819	515	829	519	836	480	772	487	784	493	794	464	747
			q_f																		
			F	12.6	-3R	13.8	-3.2R	14.9	-3.4R	15.7	-3.5R	16.5	-3.5R	17.2	-3.6R	17.7	-3.6R	18.3	-3.5R	18.7	-3.5R
		24"	q_a	487	783	500	805	439	707	457	736	413	666	431	694	397	639	414	666	386	621
			q_f																		
			F	13.5	-3.5R	15	-3.9R	16.3	-4.2R	17.4	-4.4R	18.4	-4.5R	19.3	-4.6R	20.1	-4.7R	20.8	-4.7R	21.5	-4.8R

B-36 36/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip

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2.6 DGB-36 & DGBF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.2	-0.2R	3.2	-0.2R	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	-0.1R
		6"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.6	-0.4R	3.7	-0.3R	3.7	-0.3R	3.7	-0.3R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R
		8"	q_a	2520	4057	2542	4093	2492	4012	2515	4049	2477	3988	2497	4021	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4	-0.5R	4.1	-0.5R	4.2	-0.4R	4.2	-0.4R	4.3	-0.4R	4.3	-0.4R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R
		12"	q_a	2225	3583	2193	3531	2170	3494	2154	3467	2141	3447	2131	3430	2122	3414	1763	2821	1482	2371
			q_f																		
			F	4.7	-0.9R	4.9	-0.8R	5	-0.8R	5.1	-0.7R	5.2	-0.7R	5.2	-0.7R	5.3	-0.6R	5.3	-0.6R	5.4	-0.6R
		18"	q_a	1981	3583	1994	3210	1790	2881	1830	2947	1860	2995	1726	2779	1763	2838	1763	2821	1482	2371
			q_f																		
			F	5.5	-1.3R	5.8	-1.3R	6	-1.3R	6.2	-1.3R	6.4	-1.2R	6.5	-1.2R	6.6	-1.1R	6.7	-1.1R	6.7	-1.1R
		24"	q_a	1633	2629	1729	2784	1522	2451	1614	2598	1464	2357	1545	2487	1427	2298	1499	2413	1403	2258
			q_f																		
			F	6.1	-1.7R	6.5	-1.8R	6.9	-1.8R	7.1	-1.8R	7.3	-1.7R	7.5	-1.7R	7.7	-1.7R	7.8	-1.6R	7.9	-1.6R
	18 ga	4"	q_a	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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
		6"	q_a	2058	3314	2053	3305	2044	3291	2038	3282	2033	3274	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.6R	5	-0.6R	5.1	-0.5R	5.1	-0.5R	5.2	-0.5R	5.2	-0.4R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R
		8"	q_a	1908	3072	1928	3105	1874	3017	1895	3050	1855	2987	1874	3018	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.4	-0.9R	5.6	-0.8R	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
		12"	q_a	1639	2639	1604	2582	1579	2542	1561	2513	1547	2491	1536	2473	1527	2458	1281	2050	1077	1723
			q_f																		
			F	6.3	-1.4R	6.6	-1.4R	6.8	-1.3R	7	-1.3R	7.1	-1.2R	7.3	-1.2R	7.4	-1.2R	7.4	-1.1R	7.5	-1.1R
		18"	q_a	1437	2639	1438	2315	1270	2044	1296	2087	1315	2118	1208	1945	1234	1986	1254	2020	1077	1723
			q_f																		
			F	7.2	-2R	7.7	-2.1R	8.1	-2.1R	8.4	-2.1R	8.7	-2.1R	8.9	-2R	9.1	-2R	9.3	-1.9R	9.4	-1.9R
		24"	q_a	1172	1887	1232	1983	1070	1723	1131	1821	1016	1636	1072	1725	983	1583	1032	1662	961	1547
			q_f																		
			F	7.9	-2.5R	8.5	-2.6R	9.1	-2.7R	9.5	-2.8R	9.9	-2.8R	10.3	-2.8R	10.6	-2.8R	10.8	-2.7R	11	-2.7R
	20 ga	4"	q_a	1565	2520	1565	2520	1565	2520	1565	2520	1565	2520	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.1	-0.7R	6.3	-0.7R	6.3	-0.6R	6.4	-0.6R	6.5	-0.5R	6.5	-0.5R	6.6	-0.5R	6.6	-0.4R	6.6	-0.4R
		6"	q_a	1446	2328	1430	2303	1419	2285	1411	2272	1405	2262	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7	-1.2R	7.3	-1.2R	7.5	-1.1R	7.6	-1.1R	7.7	-1R	7.8	-1R	7.9	-0.9R	7.9	-0.9R	8	-0.8R
		8"	q_a	1303	2098	1315	2117	1263	2033	1278	2057	1241	1998	1256	2022	1025	1640	847	1355	712	1139
			q_f																		
			F	7.7	-1.6R	8.1	-1.6R	8.4	-1.6R	8.6	-1.5R	8.8	-1.5R	8.9	-1.4R	9.1	-1.4R	9.2	-1.3R	9.2	-1.3R
		12"	q_a	1087	1750	1051	1692	1026	1652	1008	1622	994	1600	983	1582	974	1567	847	1355	712	1139
			q_f																		
			F	8.8	-2.3R	9.4	-2.4R	9.9	-2.5R	10.3	-2.5R	10.6	-2.4R	10.9	-2.4R	11.1	-2.3R	11.3	-2.3R	11.5	-2.2R
		18"	q_a	941	1750	931	1499	808	1302	820	1321	829	1335	753	1213	768	1236	779	1254	712	1139
			q_f																		
			F	9.9	-3.1R	10.8	-3.4R	11.5	-3.5R	12.1	-3.6R	12.7	-3.7R	13.1	-3.7R	13.5	-3.7R	13.9	-3.7R	14.2	-3.6R
		24"	q_a	766	1234	792	1275	680	1094	712	1146	634	1021	665	1071	606	976	634	1021	587	945
			q_f																		
			F	10.6	-3.6R	11.7	-4R	12.7	-4.3R	13.5	-4.5R	14.2	-4.7R	14.8	-4.8R	15.4	-4.9R	15.9	-4.9R	16.4	-4.9R
	22 ga	4"	q_a	1290	2076	1281	2062	1274	2052	1270	2044	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.7	-1.1R	7.9	-1.1R	8.1	-1R	8.2	-1R	8.3	-0.9R	8.4	-0.9R	8.5	-0.8R	8.5	-0.8R	8.6	-0.7R
		6"	q_a	1135	1827	1117	1799	1105	1779	1096	1765	1089	1754	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	8.8	-1.8R	9.2	-1.8R	9.5	-1.7R	9.7	-1.7R	9.9	-1.6R	10.1	-1.5R	10.2	-1.5R	10.3	-1.4R	10.4	-1.4R
		8"	q_a	1008	1622	1014	1632	966	1555	977	1572	943	1519	955	1537	779	1247	644	1031	541	866
			q_f																		
			F	9.6	-2.3R	10.2	-2.4R	10.7	-2.4R	11	-2.3R	11.3	-2.3R	11.5	-2.2R	11.8	-2.2R	11.9	-2.1R	12.1	-2.1R
		12"	q_a	829	1335	795	1280	771	1242	754	1213	740	1192	730	1175	721	1161	644	1031	541	866
			q_f																		
			F	10.8	-3.1R	11.7	-3.3R	12.4	-3.5R	13	-3.5R	13.5	-3.6R	13.9	-3.5R	14.3	-3.5R	14.6	-3.5R	14.9	-3.4R
		18"	q_a	716	1335	702	1129	604	973	610	981	613	988	555	893	564	907	571	919	529	852
			q_f																		
			F	11.9	-4R	13.2	-4.4R	14.2	-4.7R	15.1	-4.9R	15.9	-5.1R	16.5	-5.2R	17.1	-5.3R	17.7	-5.3R	18.2	-5.3R
		24"	q_a	586	943	597	961	510	820	529	852	470	756	490	788	445	717	464	747	429	690
			q_f																		
			F	12.7	-4.5R	14.1	-5.1R	15.4	-5.6R	16.5	-6R	17.5	-6.3R	18.4	-6.5R	19.3	-6.7R	20	-6.8R	20.7	-6.9R

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

ASC Steel Deck

DGB-36 & DGBF-36 2.6

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3	-0.2R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R
		6"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.4	-0.3R	3.5	-0.3R	3.5	-0.2R	3.6	-0.2R	3.6	-0.2R	3.6	-0.2R	3.7	-0.2R	3.7	-0.2R	3.7	-0.2R
		8"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.7	-0.4R	3.8	-0.4R	3.9	-0.4R	4	-0.3R	4	-0.3R	4.1	-0.3R	4.1	-0.3R	4.1	-0.3R	4.2	-0.3R
		12"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2514	4047	2489	4007	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.1	-0.6R	4.3	-0.6R	4.4	-0.6R	4.6	-0.6R	4.7	-0.6R	4.8	-0.5R	4.9	-0.5R	4.9	-0.5R	5	-0.5R
		18"	q_a	2433	4093	2402	3867	2135	3437	2155	3469	2169	3492	1997	3216	2026	3262	1763	2821	1482	2371
			q_f																		
			F	4.5	-0.8R	4.8	-0.9R	5.1	-0.9R	5.3	-0.9R	5.5	-0.9R	5.6	-0.9R	5.8	-0.9R	5.9	-0.9R	6	-0.8R
		24"	q_a	2064	3324	2107	3393	1844	2969	1911	3077	1724	2775	1793	2886	1648	2654	1714	2759	1482	2371
			q_f																		
			F	4.8	-1R	5.2	-1.1R	5.5	-1.1R	5.8	-1.2R	6.1	-1.2R	6.3	-1.2R	6.5	-1.2R	6.7	-1.2R	6.8	-1.2R
	18 ga	4"	q_a	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4	-0.3R	4.1	-0.3R	4.1	-0.3R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R
		6"	q_a	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.4	-0.5R	4.6	-0.5R	4.7	-0.4R	4.8	-0.4R	4.8	-0.4R	4.9	-0.4R	5	-0.4R	5	-0.3R	5	-0.3R
		8"	q_a	2058	3314	2058	3314	2058	3314	2058	3314	2058	3314	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.7	-0.6R	5	-0.6R	5.1	-0.6R	5.3	-0.6R	5.4	-0.6R	5.5	-0.6R	5.5	-0.5R	5.6	-0.5R	5.7	-0.5R
		12"	q_a	2010	3236	1933	3112	1878	3023	1837	2957	1805	2906	1780	2865	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.2	-0.9R	5.6	-0.9R	5.8	-0.9R	6	-0.9R	6.2	-0.9R	6.4	-0.9R	6.5	-0.9R	6.7	-0.9R	6.8	-0.9R
		18"	q_a	1790	3236	1747	2812	1532	2467	1536	2473	1538	2477	1405	2261	1420	2287	1281	2050	1077	1723
			q_f																		
			F	5.7	-1.1R	6.1	-1.2R	6.5	-1.3R	6.9	-1.3R	7.2	-1.4R	7.4	-1.4R	7.7	-1.4R	7.9	-1.4R	8.1	-1.4R
		24"	q_a	1521	2448	1528	2460	1324	2131	1359	2188	1217	1959	1258	2025	1150	1852	1191	1917	1077	1723
			q_f																		
			F	6	-1.3R	6.5	-1.5R	7	-1.6R	7.5	-1.7R	7.9	-1.7R	8.2	-1.8R	8.5	-1.8R	8.8	-1.8R	9.1	-1.9R
	20 ga	4"	q_a	1565	2520	1565	2520	1565	2520	1565	2520	1565	2520	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	5.6	-0.5R	5.8	-0.5R	5.9	-0.5R	6	-0.5R	6.1	-0.5R	6.2	-0.4R	6.2	-0.4R	6.3	-0.4R	6.3	-0.4R
		6"	q_a	1565	2520	1565	2520	1565	2520	1565	2520	1565	2520	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.1	-0.8R	6.4	-0.8R	6.7	-0.8R	6.8	-0.8R	7	-0.8R	7.1	-0.8R	7.2	-0.8R	7.3	-0.7R	7.4	-0.7R
		8"	q_a	1565	2520	1565	2520	1502	2417	1507	2426	1451	2336	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.5	-1R	6.9	-1.1R	7.2	-1.1R	7.5	-1.1R	7.7	-1.1R	7.9	-1.1R	8.1	-1.1R	8.2	-1.1R	8.4	-1R
		12"	q_a	1355	2182	1282	2065	1231	1982	1192	1919	1162	1872	1139	1833	1025	1640	847	1355	712	1139
			q_f																		
			F	7	-1.3R	7.6	-1.4R	8.1	-1.5R	8.5	-1.6R	8.8	-1.6R	9.1	-1.6R	9.4	-1.6R	9.6	-1.7R	9.9	-1.6R
		18"	q_a	1206	2182	1156	1861	1001	1612	991	1596	984	1584	891	1435	896	1442	847	1355	712	1139
			q_f																		
			F	7.5	-1.6R	8.2	-1.8R	8.8	-2R	9.4	-2.1R	9.9	-2.2R	10.4	-2.3R	10.8	-2.3R	11.1	-2.4R	11.5	-2.4R
		24"	q_a	1034	1665	1014	1633	870	1401	879	1416	782	1260	800	1288	728	1172	747	1203	691	1112
			q_f																		
			F	7.8	-1.8R	8.6	-2R	9.3	-2.3R	10	-2.5R	10.6	-2.6R	11.2	-2.8R	11.7	-2.9R	12.2	-3R	12.7	-3R
	22 ga	4"	q_a	1312	2112	1312	2112	1312	2112	1312	2112	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	6.9	-0.8R	7.2	-0.8R	7.4	-0.8R	7.5	-0.8R	7.7	-0.7R	7.8	-0.7R	7.9	-0.7R	8	-0.7R	8.1	-0.6R
		6"	q_a	1312	2112	1312	2112	1312	2112	1294	2083	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.5	-1.1R	7.9	-1.2R	8.3	-1.2R	8.5	-1.2R	8.8	-1.2R	9	-1.2R	9.2	-1.2R	9.3	-1.1R	9.5	-1.1R
		8"	q_a	1240	1996	1222	1968	1150	1851	1149	1850	1100	1771	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.9	-1.3R	8.4	-1.4R	8.9	-1.5R	9.3	-1.6R	9.6	-1.6R	9.9	-1.6R	10.2	-1.6R	10.4	-1.6R	10.6	-1.6R
		12"	q_a	1052	1693	984	1584	936	1507	901	1450	873	1406	852	1371	779	1247	644	1031	541	866
			q_f																		
			F	8.4	-1.6R	9.1	-1.8R	9.8	-2R	10.3	-2.1R	10.8	-2.2R	11.3	-2.3R	11.7	-2.3R	12	-2.3R	12.4	-2.4R
		18"	q_a	939	1693	888	1430	764	1231	750	1208	740	1191	668	1075	667	1074	644	1031	541	866
			q_f																		
			F	8.9	-1.9R	9.7	-2.2R	10.6	-2.5R	11.3	-2.7R	12	-2.9R	12.6	-3R	13.2	-3.1R	13.7	-3.2R	14.2	-3.3R
		24"	q_a	812	1308	784	1262	670	1078	669	1077	591	951	601	968	542	873	557	896	510	822
			q_f																		
			F	9.1	-2.1R	10.1	-2.5R	11	-2.8R	11.9	-3.1R	12.7	-3.3R	13.4	-3.5R	14.1	-3.7R	14.8	-3.9R	15.4	-4R

B-36 36/9 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip

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2.6 DGB-36 & DGBF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.1	-0.1R	3.1	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R
		6"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.5	-0.3R	3.6	-0.2R	3.6	-0.2R	3.7	-0.2R	3.7	-0.2R	3.7	-0.2R	3.7	-0.2R	3.7	-0.1R	3.8	-0.1R
		8"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.8	-0.4R	3.9	-0.4R	4	-0.3R	4.1	-0.3R	4.1	-0.3R	4.2	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R
		12"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	4.4	-0.6R	4.5	-0.6R	4.7	-0.6R	4.8	-0.5R	4.9	-0.5R	5	-0.5R	5.1	-0.5R	5.1	-0.4R	5.2	-0.4R
		18"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1361	2191
			q_f																				
			F	4.9	-0.9R	5.2	-0.9R	5.5	-0.9R	5.7	-0.9R	5.9	-0.9R	6	-0.8R	6.1	-0.8R	6.2	-0.8R	6.3	-0.8R
		24"	q_a	1315	2117	1369	2204	1257	2024	1313	2114	1225	1973	1275	2053	1205	1940	1250	2012	1191	1918
			q_f																				
			F	5.3	-1.1R	5.8	-1.1R	6.1	-1.2R	6.4	-1.2R	6.6	-1.2R	6.8	-1.2R	7	-1.2R	7.2	-1.1R	7.3	-1.1R
	18 ga	4"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1077	1723
			q_f																				
			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
		6"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1077	1723
			q_f																				
			F	4.6	-0.4R	4.8	-0.4R	4.9	-0.4R	4.9	-0.4R	5	-0.3R	5	-0.3R	5.1	-0.3R	5.1	-0.3R	5.1	-0.3R
		8"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1077	1723
			q_f																				
			F	5	-0.6R	5.2	-0.6R	5.4	-0.6R	5.5	-0.5R	5.6	-0.5R	5.7	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R
		12"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1077	1723
			q_f																				
			F	5.7	-0.9R	6	-0.9R	6.3	-0.9R	6.5	-0.9R	6.6	-0.9R	6.8	-0.9R	6.9	-0.8R	7	-0.8R	7.1	-0.8R
		18"	q_a	1108	1784	1108	1784	1040	1674	1057	1701	1069	1721	1007	1621	1023	1648	1036	1668	990	1593
			q_f																				
			F	6.3	-1.3R	6.8	-1.3R	7.2	-1.4R	7.6	-1.4R	7.8	-1.4R	8.1	-1.4R	8.3	-1.4R	8.5	-1.4R	8.7	-1.3R
		24"	q_a	974	1568	1015	1634	914	1472	956	1540	881	1419	920	1481	860	1385	896	1442	846	1362
			q_f																				
			F	6.7	-1.5R	7.4	-1.6R	7.9	-1.7R	8.4	-1.8R	8.8	-1.8R	9.1	-1.9R	9.4	-1.9R	9.7	-1.9R	9.9	-1.9R
	20 ga	4"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1355	712	1139
			q_f																				
			F	5.8	-0.5R	6	-0.5R	6.1	-0.5R	6.2	-0.4R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R	6.4	-0.3R	6.5	-0.3R
		6"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1355	712	1139
			q_f																				
			F	6.5	-0.8R	6.8	-0.8R	7	-0.8R	7.2	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.7R	7.6	-0.6R	7.7	-0.6R
		8"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1355	712	1139
			q_f																				
			F	7	-1.1R	7.4	-1.1R	7.7	-1.1R	8	-1.1R	8.2	-1.1R	8.4	-1R	8.5	-1R	8.7	-1R	8.8	-0.9R
		12"	q_a	843	1357	837	1348	825	1329	816	1314	809	1303	803	1294	799	1286	795	1280	712	1139
			q_f																				
			F	7.8	-1.5R	8.4	-1.6R	8.8	-1.6R	9.3	-1.6R	9.6	-1.7R	9.9	-1.6R	10.2	-1.6R	10.4	-1.6R	10.6	-1.6R
		18"	q_a	772	1357	768	1237	691	1113	701	1129	708	1140	657	1058	668	1076	677	1090	639	1029
			q_f																				
			F	8.5	-1.9R	9.3	-2.1R	10	-2.2R	10.6	-2.3R	11.1	-2.4R	11.5	-2.4R	12	-2.5R	12.3	-2.5R	12.7	-2.5R
		24"	q_a	656	1056	678	1091	599	964	625	1006	568	914	593	954	548	883	571	920	535	861
			q_f																				
			F	8.9	-2.1R	9.9	-2.4R	10.7	-2.6R	11.5	-2.8R	12.1	-3R	12.7	-3.1R	13.3	-3.1R	13.8	-3.2R	14.3	-3.2R
	22 ga	4"	q_a	706	1137	706	1137	706	1137	706	1137	706	1137	706	1137	706	1137	644	1031	541	866
			q_f																				
			F	7.3	-0.8R	7.5	-0.8R	7.7	-0.7R	7.9	-0.7R	8	-0.7R	8.1	-0.6R	8.2	-0.6R	8.2	-0.6R	8.3	-0.6R
		6"	q_a	706	1137	706	1137	706	1137	706	1137	706	1137	706	1137	706	1137	644	1031	541	866
			q_f																				
			F	8.1	-1.2R	8.5	-1.2R	8.8	-1.2R	9.1	-1.2R	9.3	-1.1R	9.5	-1.1R	9.6	-1.1R	9.8	-1R	9.9	-1R
		8"	q_a	706	1137	706	1137	706	1137	706	1137	706	1137	706	1137	706	1137	644	1031	541	866
			q_f																				
			F	8.6	-1.5R	9.2	-1.5R	9.7	-1.6R	10	-1.6R	10.4	-1.6R	10.6	-1.6R	10.9	-1.5R	11.1	-1.5R	11.3	-1.5R
		12"	q_a	671	1080	653	1051	640	1030	630	1015	623	1003	617	993	612	985	608	979	541	866
			q_f																				
			F	9.4	-1.9R	10.2	-2.1R	10.9	-2.2R	11.5	-2.3R	12	-2.3R	12.4	-2.4R	12.8	-2.4R	13.2	-2.4R	13.5	-2.4R
		18"	q_a	601	1080	594	956	528	850	533	859	537	865	495	797	502	809	508	819	477	768
			q_f																				
			F	10.1	-2.3R	11.1	-2.6R	12	-2.9R	12.9	-3.1R	13.6	-3.2R	14.3	-3.3R	14.9	-3.4R	15.4	-3.5R	15.9	-3.5R
		24"	q_a	508	818	520	837	455	733	473	761	426	686	444	715	408	657	425	684	396	637
			q_f																				
			F	10.5	-2.6R	11.7	-3R	12.8	-3.3R	13.8	-3.6R	14.7	-3.8R	15.5	-4R	16.3	-4.2R	17	-4.3R	17.6	-4.4R

B-36 36/4 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.6

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.1	-0.2R	3.1	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.2R	3.2	-0.1R	3.2	-0.1R	3.2	-0.1R
		6"	q_a	2738	4408	2738	4408	2738	4408	2738	4408	2738	4408	2634	4215	2134	3414	1763	2821	1482	2371
			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
		8"	q_a	2662	4286	2689	4329	2628	4231	2654	4272	2609	4201	2632	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.8	-0.6R	3.9	-0.6R	4	-0.5R	4.1	-0.5R	4.1	-0.5R	4.1	-0.5R	4.2	-0.4R	4.2	-0.4R	4.2	-0.4R
		12"	q_a	2331	3752	2292	3690	2265	3646	2245	3614	2230	3590	2218	3570	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.3	-0.9R	4.5	-0.9R	4.6	-0.9R	4.7	-0.9R	4.9	-0.8R	4.9	-0.8R	5	-0.8R	5.1	-0.8R	5.1	-0.7R
		18"	q_a	2063	3752	2074	3339	1851	2981	1893	3048	1923	3096	1779	2864	1817	2925	1763	2821	1482	2371
			q_f																		
			F	4.8	-1.2R	5.1	-1.3R	5.3	-1.3R	5.6	-1.3R	5.7	-1.3R	5.9	-1.3R	6	-1.3R	6.1	-1.3R	6.2	-1.3R
		24"	q_a	1694	2727	1791	2883	1570	2527	1663	2677	1503	2421	1587	2554	1463	2355	1536	2473	1435	2310
			q_f																		
			F	5.1	-1.5R	5.5	-1.6R	5.9	-1.7R	6.2	-1.7R	6.4	-1.8R	6.7	-1.8R	6.9	-1.8R	7	-1.8R	7.2	-1.8R
	18 ga	4"	q_a	2216	3568	2216	3568	2216	3568	2216	3568	2216	3568	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.1	-0.4R	4.1	-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
		6"	q_a	2184	3516	2169	3492	2159	3475	2151	3463	2145	3454	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.6	-0.7R	4.7	-0.7R	4.8	-0.6R	4.9	-0.6R	5	-0.6R	5	-0.6R	5.1	-0.5R	5.1	-0.5R	5.1	-0.5R
		8"	q_a	2006	3229	2027	3263	1964	3162	1987	3198	1942	3126	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.9R	5.1	-0.9R	5.3	-0.9R	5.4	-0.9R	5.5	-0.9R	5.6	-0.8R	5.7	-0.8R	5.8	-0.8R	5.8	-0.7R
		12"	q_a	1709	2752	1668	2685	1639	2639	1618	2605	1601	2578	1589	2558	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.5	-1.3R	5.8	-1.4R	6.1	-1.4R	6.3	-1.4R	6.5	-1.4R	6.7	-1.4R	6.8	-1.3R	6.9	-1.3R	7	-1.3R
		18"	q_a	1492	2752	1490	2398	1309	2108	1335	2150	1354	2180	1240	1996	1266	2038	1281	2050	1077	1723
			q_f																		
			F	6.1	-1.7R	6.5	-1.8R	7	-1.9R	7.3	-2R	7.6	-2.1R	7.9	-2.1R	8.1	-2.1R	8.3	-2.1R	8.5	-2.1R
		24"	q_a	1215	1957	1273	2049	1102	1774	1163	1872	1042	1678	1098	1768	1005	1619	1055	1699	980	1578
			q_f																		
			F	6.4	-2R	7	-2.2R	7.5	-2.4R	8	-2.5R	8.4	-2.6R	8.8	-2.7R	9.1	-2.7R	9.4	-2.7R	9.6	-2.8R
	20 ga	4"	q_a	1685	2714	1685	2714	1685	2714	1683	2710	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	5.7	-0.8R	5.9	-0.8R	6.1	-0.8R	6.2	-0.7R	6.2	-0.7R	6.3	-0.7R	6.3	-0.6R	6.4	-0.6R	6.4	-0.6R
		6"	q_a	1520	2447	1501	2416	1487	2395	1478	2379	1470	2367	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.4	-1.2R	6.7	-1.2R	6.9	-1.2R	7.1	-1.2R	7.2	-1.2R	7.4	-1.1R	7.5	-1.1R	7.5	-1.1R	7.6	-1R
		8"	q_a	1361	2192	1372	2209	1314	2115	1329	2140	1288	2074	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.8	-1.5R	7.2	-1.6R	7.6	-1.6R	7.8	-1.6R	8.1	-1.6R	8.2	-1.6R	8.4	-1.6R	8.5	-1.6R	8.7	-1.5R
		12"	q_a	1129	1817	1088	1751	1059	1706	1039	1672	1023	1646	1010	1626	1000	1610	847	1355	712	1139
			q_f																		
			F	7.5	-2R	8.1	-2.2R	8.5	-2.3R	9	-2.4R	9.3	-2.4R	9.6	-2.4R	9.9	-2.5R	10.1	-2.5R	10.4	-2.5R
		18"	q_a	976	1817	962	1548	833	1340	843	1357	850	1369	771	1242	785	1264	796	1282	712	1139
			q_f																		
			F	8	-2.4R	8.8	-2.7R	9.5	-3R	10.1	-3.2R	10.6	-3.3R	11.1	-3.4R	11.5	-3.5R	11.9	-3.6R	12.3	-3.6R
		24"	q_a	796	1281	818	1317	700	1128	731	1177	650	1047	681	1096	620	998	648	1043	599	964
			q_f																		
			F	8.4	-2.7R	9.3	-3.1R	10.1	-3.4R	10.8	-3.7R	11.5	-4R	12.1	-4.2R	12.7	-4.3R	13.2	-4.5R	13.6	-4.6R
	22 ga	4"	q_a	1362	2192	1351	2175	1343	2162	1337	2153	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.1	-1.2R	7.4	-1.2R	7.6	-1.2R	7.8	-1.1R	7.9	-1.1R	8	-1.1R	8.1	-1R	8.2	-1R	8.3	-1R
		6"	q_a	1188	1912	1167	1879	1152	1855	1142	1838	1133	1825	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.8	-1.7R	8.3	-1.7R	8.6	-1.8R	8.9	-1.8R	9.1	-1.8R	9.3	-1.7R	9.5	-1.7R	9.7	-1.7R	9.8	-1.7R
		8"	q_a	1049	1689	1054	1697	1001	1611	1011	1628	975	1570	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	8.3	-2R	8.9	-2.2R	9.4	-2.3R	9.8	-2.3R	10.1	-2.4R	10.4	-2.4R	10.7	-2.4R	10.9	-2.3R	11.1	-2.3R
		12"	q_a	860	1385	822	1323	795	1280	775	1248	760	1224	748	1205	739	1189	644	1031	541	866
			q_f																		
			F	9	-2.5R	9.8	-2.8R	10.4	-3R	11	-3.2R	11.5	-3.3R	12	-3.4R	12.4	-3.5R	12.8	-3.5R	13.1	-3.5R
		18"	q_a	743	1385	725	1167	622	1002	626	1008	629	1013	568	914	576	927	583	938	540	866
			q_f																		
			F	9.5	-2.9R	10.5	-3.4R	11.4	-3.8R	12.2	-4.1R	12.9	-4.3R	13.6	-4.5R	14.2	-4.7R	14.7	-4.8R	15.2	-5R
		24"	q_a	609	981	617	994	526	847	544	876	482	776	502	807	455	733	474	763	437	704
			q_f																		
			F	9.9	-3.2R	11	-3.8R	12	-4.2R	13	-4.6R	13.8	-5R	14.6	-5.3R	15.4	-5.6R	16.1	-5.8R	16.7	-6R

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

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2.6 DGB-36 & DGBF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	4408	2738	4408	2738	4408	2738	4408	2738	4408	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	2.9	-0.2R	3	-0.2R	3	-0.2R	3.1	-0.2R	3.1	-0.2R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R
		6"	q_a	2738	4408	2738	4408	2738	4408	2738	4408	2738	4408	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.2	-0.3R	3.3	-0.3R	3.3	-0.3R	3.4	-0.3R	3.4	-0.3R	3.5	-0.3R	3.5	-0.2R	3.6	-0.2R	3.6	-0.2R
		8"	q_a	2738	4408	2738	4408	2738	4408	2738	4408	2738	4408	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.3	-0.4R	3.5	-0.4R	3.6	-0.4R	3.7	-0.4R	3.8	-0.4R	3.8	-0.4R	3.9	-0.4R	3.9	-0.4R	4	-0.3R
		12"	q_a	2738	4408	2738	4408	2694	4338	2647	4262	2611	4204	2582	4157	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.6	-0.5R	3.8	-0.6R	4	-0.6R	4.1	-0.6R	4.2	-0.6R	4.4	-0.6R	4.4	-0.6R	4.5	-0.6R	4.6	-0.6R
		18"	q_a	2544	4408	2503	4029	2215	3566	2231	3592	2243	3611	2059	3316	2088	3361	1763	2821	1482	2371
			q_f																		
			F	3.8	-0.7R	4.1	-0.7R	4.4	-0.8R	4.6	-0.8R	4.8	-0.9R	4.9	-0.9R	5.1	-0.9R	5.2	-0.9R	5.3	-0.9R
		24"	q_a	2158	3474	2192	3530	1912	3078	1976	3182	1778	2863	1846	2972	1694	2728	1760	2821	1482	2371
			q_f																		
			F	4	-0.7R	4.3	-0.9R	4.6	-0.9R	4.9	-1R	5.1	-1R	5.3	-1.1R	5.5	-1.1R	5.7	-1.1R	5.9	-1.2R
	18 ga	4"	q_a	2216	3568	2216	3568	2216	3568	2216	3568	2216	3568	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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
		6"	q_a	2216	3568	2216	3568	2216	3568	2216	3568	2216	3568	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4	-0.5R	4.2	-0.5R	4.3	-0.5R	4.4	-0.5R	4.5	-0.5R	4.6	-0.4R	4.7	-0.4R	4.7	-0.4R	4.8	-0.4R
		8"	q_a	2216	3568	2216	3568	2216	3568	2216	3568	2216	3568	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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
		12"	q_a	2102	3384	2014	3242	1951	3141	1904	3065	1868	3007	1839	2960	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.5	-0.7R	4.8	-0.8R	5.1	-0.8R	5.3	-0.9R	5.5	-0.9R	5.7	-0.9R	5.8	-0.9R	6	-0.9R	6.1	-0.9R
		18"	q_a	1871	3384	1817	2926	1589	2558	1588	2557	1588	2556	1446	2328	1460	2351	1281	2050	1077	1723
			q_f																		
			F	4.7	-0.9R	5.1	-1R	5.5	-1.1R	5.8	-1.1R	6.1	-1.2R	6.3	-1.3R	6.5	-1.3R	6.8	-1.3R	6.9	-1.4R
		24"	q_a	1591	2562	1590	2560	1374	2212	1405	2262	1256	2022	1295	2085	1183	1904	1222	1968	1077	1723
			q_f																		
			F	4.9	-0.9R	5.3	-1.1R	5.7	-1.2R	6.1	-1.3R	6.4	-1.4R	6.7	-1.5R	7	-1.6R	7.3	-1.6R	7.5	-1.7R
	20 ga	4"	q_a	1685	2714	1685	2714	1685	2714	1685	2714	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	5.1	-0.5R	5.3	-0.5R	5.5	-0.6R	5.6	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.5R	6	-0.5R	6	-0.5R
		6"	q_a	1685	2714	1685	2714	1685	2714	1685	2714	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	5.5	-0.7R	5.8	-0.8R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.8R	6.7	-0.8R	6.8	-0.8R	6.9	-0.8R
		8"	q_a	1667	2684	1651	2658	1562	2515	1565	2520	1504	2421	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	5.7	-0.8R	6	-0.9R	6.3	-1R	6.6	-1R	6.8	-1.1R	7	-1.1R	7.2	-1.1R	7.4	-1.1R	7.5	-1.1R
		12"	q_a	1416	2280	1334	2148	1276	2055	1233	1985	1200	1931	1173	1889	1025	1640	847	1355	712	1139
			q_f																		
			F	5.9	-1R	6.4	-1.1R	6.8	-1.2R	7.2	-1.3R	7.5	-1.4R	7.8	-1.5R	8.1	-1.5R	8.3	-1.6R	8.5	-1.6R
		18"	q_a	1261	2280	1203	1937	1039	1673	1026	1651	1015	1635	918	1478	921	1482	847	1355	712	1139
			q_f																		
			F	6.1	-1.1R	6.7	-1.3R	7.2	-1.5R	7.6	-1.6R	8.1	-1.8R	8.5	-1.9R	8.8	-2R	9.2	-2.1R	9.5	-2.1R
		24"	q_a	1085	1747	1058	1703	906	1458	911	1467	810	1304	825	1328	750	1208	768	1237	709	1139
			q_f																		
			F	6.3	-1.2R	6.9	-1.4R	7.4	-1.6R	7.9	-1.8R	8.4	-2R	8.9	-2.1R	9.3	-2.3R	9.7	-2.4R	10.1	-2.5R
	22 ga	4"	q_a	1412	2274	1412	2274	1412	2274	1412	2274	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	6.2	-0.7R	6.5	-0.8R	6.7	-0.8R	6.9	-0.8R	7.1	-0.8R	7.3	-0.8R	7.4	-0.8R	7.5	-0.8R	7.6	-0.8R
		6"	q_a	1412	2274	1404	2260	1370	2206	1345	2166	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	6.6	-0.9R	7	-1R	7.3	-1.1R	7.6	-1.1R	7.8	-1.1R	8.1	-1.2R	8.3	-1.2R	8.4	-1.2R	8.6	-1.2R
		8"	q_a	1296	2087	1273	2050	1194	1922	1191	1917	1137	1831	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	6.8	-1R	7.2	-1.2R	7.6	-1.3R	8	-1.4R	8.3	-1.4R	8.6	-1.5R	8.9	-1.5R	9.1	-1.5R	9.4	-1.6R
		12"	q_a	1099	1770	1024	1649	971	1563	931	1499	901	1450	877	1412	779	1247	644	1031	541	866
			q_f																		
			F	7	-1.2R	7.6	-1.4R	8.1	-1.6R	8.6	-1.7R	9	-1.8R	9.4	-1.9R	9.8	-2R	10.1	-2.1R	10.4	-2.1R
		18"	q_a	983	1770	925	1490	795	1279	777	1251	764	1230	689	1109	687	1105	644	1031	541	866
			q_f																		
			F	7.2	-1.3R	7.9	-1.6R	8.5	-1.8R	9	-2R	9.6	-2.2R	10.1	-2.3R	10.6	-2.5R	11	-2.6R	11.4	-2.7R
		24"	q_a	854	1375	819	1318	698	1124	694	1118	609	980	618	996	557	896	570	918	523	841
			q_f																		
			F	7.3	-1.4R	8	-1.7R	8.7	-1.9R	9.3	-2.2R	9.9	-2.4R	10.5	-2.6R	11	-2.8R	11.6	-2.9R	12.1	-3.1R

B-36 36/9 Support Attachment: Hilti X-ENP-19 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.7

Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			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	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	3.8	-0.1R	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	+0R	3.9	+0R
		8"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R
		12"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	5.3	-0.4R	5.4	-0.3R	5.5	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.2R
		18"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	6.6	-0.7R	6.8	-0.6R	6.9	-0.5R	7	-0.5R	7.1	-0.5R	7.1	-0.4R	7.2	-0.4R	7.2	-0.4R	7.3	-0.3R
		24"	q_a	1245	2005	1259	2027	1197	1928	1248	2010	1171	1885	1217	1959	1154	1858	1195	1924	1142	1839
			q_f																		
			F	7.8	-1R	8	-0.9R	8.3	-0.9R	8.4	-0.8R	8.5	-0.7R	8.6	-0.7R	8.7	-0.6R	8.8	-0.6R	8.8	-0.6R
	18 ga	4"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	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	+0R	4.5	+0R	4.5	+0R
		6"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R
		8"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	6	-0.4R	6.1	-0.3R	6.1	-0.3R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R
		12"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	7.4	-0.7R	7.6	-0.6R	7.7	-0.5R	7.8	-0.5R	7.9	-0.4R	7.9	-0.4R	8	-0.4R	8	-0.4R	8	-0.3R
		18"	q_a	1034	1664	1034	1664	998	1606	1014	1633	1026	1651	970	1561	985	1586	997	1605	955	1537
			q_f																		
			F	9.2	-1.2R	9.5	-1.1R	9.8	-1R	10	-1R	10.1	-0.9R	10.2	-0.8R	10.3	-0.8R	10.4	-0.7R	10.5	-0.7R
		24"	q_a	933	1503	973	1567	881	1419	922	1484	852	1372	889	1432	834	1343	868	1397	822	1323
			q_f																		
			F	10.7	-1.8R	11.2	-1.7R	11.6	-1.6R	11.9	-1.5R	12.2	-1.4R	12.4	-1.3R	12.5	-1.2R	12.7	-1.2R	12.8	-1.1R
	20 ga	4"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	712	1139
			q_f																		
			F	6.6	-0.3R	6.6	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.1R	6.8	-0.1R	6.8	-0.1R	6.8	-0.1R
		6"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	712	1139
			q_f																		
			F	7.9	-0.5R	8	-0.5R	8.1	-0.4R	8.2	-0.4R	8.2	-0.3R	8.3	-0.3R	8.3	-0.3R	8.3	-0.3R	8.4	-0.2R
		8"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	712	1139
			q_f																		
			F	9.1	-0.8R	9.3	-0.7R	9.5	-0.7R	9.6	-0.6R	9.7	-0.5R	9.7	-0.5R	9.8	-0.5R	9.8	-0.4R	9.9	-0.4R
		12"	q_a	797	1283	797	1283	797	1283	789	1270	783	1260	778	1252	774	1246	771	1241	712	1139
			q_f																		
			F	11.2	-1.5R	11.6	-1.3R	11.9	-1.2R	12.1	-1.1R	12.3	-1.1R	12.5	-1R	12.6	-0.9R	12.7	-0.9R	12.8	-0.8R
		18"	q_a	745	1283	743	1196	671	1081	681	1097	688	1108	641	1032	651	1049	660	1063	625	1005
			q_f																		
			F	13.7	-2.4R	14.5	-2.3R	15.1	-2.2R	15.5	-2.1R	15.9	-2R	16.2	-1.9R	16.4	-1.8R	16.6	-1.7R	16.8	-1.6R
		24"	q_a	635	1022	657	1058	583	938	609	980	554	893	579	932	536	864	559	900	524	844
			q_f																		
			F	15.7	-3.3R	16.9	-3.3R	17.7	-3.2R	18.4	-3.1R	18.9	-2.9R	19.4	-2.8R	19.8	-2.7R	20.1	-2.6R	20.4	-2.5R
	22 ga	4"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	644	1031	541	866
			q_f																		
			F	8.5	-0.5R	8.6	-0.4R	8.7	-0.4R	8.7	-0.3R	8.8	-0.3R	8.8	-0.3R	8.8	-0.2R	8.9	-0.2R	8.9	-0.2R
		6"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	644	1031	541	866
			q_f																		
			F	10.3	-0.9R	10.5	-0.8R	10.7	-0.7R	10.8	-0.6R	10.9	-0.6R	10.9	-0.5R	11	-0.5R	11.1	-0.5R	11.1	-0.4R
		8"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	644	1031	541	866
			q_f																		
			F	11.8	-1.3R	12.2	-1.2R	12.5	-1.1R	12.7	-1R	12.8	-0.9R	13	-0.9R	13.1	-0.8R	13.1	-0.8R	13.2	-0.7R
		12"	q_a	650	1047	634	1020	622	1002	614	988	607	977	601	968	597	961	593	955	541	866
			q_f																		
			F	14.5	-2.3R	15.2	-2.1R	15.7	-2R	16.1	-1.9R	16.4	-1.8R	16.6	-1.7R	16.8	-1.6R	17	-1.5R	17.2	-1.4R
		18"	q_a	583	1047	578	930	515	829	521	839	525	846	485	780	492	793	498	802	469	754
			q_f																		
			F	17.5	-3.6R	18.7	-3.5R	19.6	-3.4R	20.4	-3.3R	21	-3.2R	21.4	-3R	21.8	-2.9R	22.2	-2.8R	22.5	-2.7R
		24"	q_a	494	795	507	816	444	716	462	744	418	672	435	701	401	645	417	672	389	627
			q_f																		
			F	19.8	-4.7R	21.5	-4.8R	22.8	-4.7R	23.9	-4.7R	24.8	-4.6R	25.5	-4.4R	26.2	-4.3R	26.7	-4.2R	27.2	-4R

B-36 36/4 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.7

Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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	+0R	3.3	+0R	3.3	+0R
		6"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.7	-0.2R	3.7	-0.2R	3.7	-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
		8"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R
		12"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2501	4026	2476	3987	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.8	-0.5R	5	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.3R	5.4	-0.3R	5.4	-0.3R
		18"	q_a	2419	4054	2389	3846	2125	3421	2145	3453	2160	3477	1989	3203	2018	3250	1763	2821	1482	2371
			q_f																		
			F	5.7	-0.9R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.7R	6.6	-0.7R	6.7	-0.6R	6.8	-0.6R	6.8	-0.6R
		24"	q_a	2053	3305	2096	3375	1836	2955	1903	3064	1717	2764	1786	2875	1643	2644	1708	2749	1482	2371
			q_f																		
			F	6.4	-1.2R	6.8	-1.2R	7.1	-1.2R	7.4	-1.1R	7.6	-1.1R	7.8	-1R	7.9	-1R	8	-1R	8.1	-0.9R
	18 ga	4"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.3	-0.2R	4.3	-0.2R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		6"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.4R	5	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.2R
		8"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481	1281	2050	1077	1723
			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
		12"	q_a	2016	3245	1938	3120	1882	3031	1841	2964	1809	2912	1783	2871	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.5	-0.9R	6.8	-0.9R	7	-0.8R	7.1	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.7R	7.5	-0.6R	7.6	-0.6R
		18"	q_a	1795	3245	1751	2819	1536	2473	1539	2478	1541	2482	1407	2265	1423	2291	1281	2050	1077	1723
			q_f																		
			F	7.6	-1.4R	8.1	-1.4R	8.4	-1.4R	8.7	-1.3R	9	-1.3R	9.2	-1.2R	9.4	-1.2R	9.5	-1.1R	9.6	-1.1R
		24"	q_a	1525	2455	1531	2466	1327	2136	1362	2192	1219	1963	1260	2028	1152	1855	1193	1920	1077	1723
			q_f																		
			F	8.4	-1.8R	9.1	-1.9R	9.6	-1.9R	10	-1.8R	10.4	-1.8R	10.7	-1.8R	11	-1.7R	11.2	-1.7R	11.4	-1.6R
	20 ga	4"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1594	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R
		6"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1594	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.2	-0.8R	7.4	-0.7R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.5R	8.1	-0.4R
		8"	q_a	1594	2566	1594	2566	1516	2441	1521	2449	1464	2357	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	8	-1.1R	8.4	-1R	8.6	-1R	8.8	-0.9R	9	-0.9R	9.1	-0.8R	9.2	-0.8R	9.3	-0.7R	9.4	-0.7R
		12"	q_a	1370	2206	1295	2085	1242	1999	1202	1935	1171	1886	1147	1847	1025	1640	847	1355	712	1139
			q_f																		
			F	9.3	-1.6R	9.9	-1.6R	10.3	-1.6R	10.7	-1.6R	10.9	-1.5R	11.2	-1.5R	11.4	-1.4R	11.6	-1.4R	11.7	-1.3R
		18"	q_a	1219	2206	1167	1879	1010	1626	1000	1609	992	1597	898	1446	902	1452	847	1355	712	1139
			q_f																		
			F	10.6	-2.3R	11.5	-2.4R	12.2	-2.5R	12.8	-2.5R	13.3	-2.5R	13.7	-2.4R	14.1	-2.4R	14.4	-2.3R	14.7	-2.3R
		24"	q_a	1046	1684	1025	1650	879	1415	887	1428	789	1270	806	1297	733	1180	752	1211	695	1119
			q_f																		
			F	11.5	-2.8R	12.7	-3R	13.6	-3.2R	14.4	-3.3R	15.1	-3.3R	15.7	-3.3R	16.3	-3.3R	16.7	-3.3R	17.2	-3.2R
	22 ga	4"	q_a	1344	2165	1344	2165	1344	2165	1344	2165	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.9	-0.7R	8.1	-0.6R	8.2	-0.6R	8.3	-0.5R	8.4	-0.5R	8.5	-0.5R	8.5	-0.4R	8.6	-0.4R	8.6	-0.4R
		6"	q_a	1344	2165	1344	2165	1334	2148	1311	2111	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	9.1	-1.2R	9.5	-1.1R	9.7	-1.1R	10	-1R	10.1	-0.9R	10.3	-0.9R	10.4	-0.8R	10.5	-0.8R	10.6	-0.8R
		8"	q_a	1258	2026	1239	1995	1164	1875	1163	1873	1113	1791	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.1	-1.6R	10.6	-1.6R	11	-1.5R	11.3	-1.5R	11.6	-1.4R	11.8	-1.3R	12	-1.3R	12.2	-1.2R	12.3	-1.2R
		12"	q_a	1067	1718	997	1605	948	1526	911	1466	882	1421	860	1384	779	1247	644	1031	541	866
			q_f																		
			F	11.5	-2.3R	12.4	-2.4R	13	-2.4R	13.6	-2.4R	14.1	-2.3R	14.5	-2.3R	14.8	-2.2R	15.1	-2.2R	15.3	-2.1R
		18"	q_a	953	1718	900	1450	774	1247	759	1222	748	1204	674	1086	674	1084	644	1031	541	866
			q_f																		
			F	12.9	-3.1R	14.2	-3.3R	15.2	-3.4R	16.1	-3.5R	16.8	-3.6R	17.5	-3.6R	18.1	-3.6R	18.6	-3.5R	19	-3.5R
		24"	q_a	826	1330	795	1280	679	1093	677	1090	597	960	607	978	547	880	561	903	514	828
			q_f																		
			F	13.9	-3.6R	15.4	-4R	16.7	-4.3R	17.9	-4.5R	18.9	-4.6R	19.8	-4.7R	20.6	-4.7R	21.3	-4.8R	22	-4.8R

B-36 36/9 Support Attachment: Pneutek SDK61 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.7

Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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	+0R	3.3	+0R	3.3	+0R
		6"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.7	-0.2R	3.7	-0.2R	3.7	-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
		8"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R
		12"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2501	4026	2476	3987	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.8	-0.5R	5	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.3R	5.4	-0.3R	5.4	-0.3R
		18"	q_a	2419	4054	2389	3846	2125	3421	2145	3453	2160	3477	1989	3203	2018	3250	1763	2821	1482	2371
			q_f																		
			F	5.7	-0.9R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.7R	6.6	-0.7R	6.7	-0.6R	6.8	-0.6R	6.8	-0.6R
		24"	q_a	2053	3305	2096	3375	1836	2955	1903	3064	1717	2764	1786	2875	1643	2644	1708	2749	1482	2371
			q_f																		
			F	6.4	-1.2R	6.8	-1.2R	7.1	-1.2R	7.4	-1.1R	7.6	-1.1R	7.8	-1R	7.9	-1R	8	-1R	8.1	-0.9R
	18 ga	4"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.3	-0.2R	4.3	-0.2R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		6"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.4R	5	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.2R
		8"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481	1281	2050	1077	1723
			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
		12"	q_a	2016	3245	1938	3120	1882	3031	1841	2964	1809	2912	1783	2871	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.5	-0.9R	6.8	-0.9R	7	-0.8R	7.1	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.7R	7.5	-0.6R	7.6	-0.6R
		18"	q_a	1795	3245	1751	2819	1536	2473	1539	2478	1541	2482	1407	2265	1423	2291	1281	2050	1077	1723
			q_f																		
			F	7.6	-1.4R	8.1	-1.4R	8.4	-1.4R	8.7	-1.3R	9	-1.3R	9.2	-1.2R	9.4	-1.2R	9.5	-1.1R	9.6	-1.1R
		24"	q_a	1525	2455	1531	2466	1327	2136	1362	2192	1219	1963	1260	2028	1152	1855	1193	1920	1077	1723
			q_f																		
			F	8.4	-1.8R	9.1	-1.9R	9.6	-1.9R	10	-1.8R	10.4	-1.8R	10.7	-1.8R	11	-1.7R	11.2	-1.7R	11.4	-1.6R
	20 ga	4"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1594	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R
		6"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1594	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.2	-0.8R	7.4	-0.7R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.5R	8.1	-0.4R
		8"	q_a	1594	2566	1594	2566	1516	2441	1521	2449	1464	2357	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	8	-1.1R	8.4	-1R	8.6	-1R	8.8	-0.9R	9	-0.9R	9.1	-0.8R	9.2	-0.8R	9.3	-0.7R	9.4	-0.7R
		12"	q_a	1370	2206	1295	2085	1242	1999	1202	1935	1171	1886	1147	1847	1025	1640	847	1355	712	1139
			q_f																		
			F	9.3	-1.6R	9.9	-1.6R	10.3	-1.6R	10.7	-1.6R	10.9	-1.5R	11.2	-1.5R	11.4	-1.4R	11.6	-1.4R	11.7	-1.3R
		18"	q_a	1219	2206	1167	1879	1010	1626	1000	1609	992	1597	898	1446	902	1452	847	1355	712	1139
			q_f																		
			F	10.6	-2.3R	11.5	-2.4R	12.2	-2.5R	12.8	-2.5R	13.3	-2.5R	13.7	-2.4R	14.1	-2.4R	14.4	-2.3R	14.7	-2.3R
		24"	q_a	1046	1684	1025	1650	879	1415	887	1428	789	1270	806	1297	733	1180	752	1211	695	1119
			q_f																		
			F	11.5	-2.8R	12.7	-3R	13.6	-3.2R	14.4	-3.3R	15.1	-3.3R	15.7	-3.3R	16.3	-3.3R	16.7	-3.3R	17.2	-3.2R
	22 ga	4"	q_a	1344	2165	1344	2165	1344	2165	1344	2165	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.9	-0.7R	8.1	-0.6R	8.2	-0.6R	8.3	-0.5R	8.4	-0.5R	8.5	-0.5R	8.5	-0.4R	8.6	-0.4R	8.6	-0.4R
		6"	q_a	1344	2165	1344	2165	1334	2148	1311	2111	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	9.1	-1.2R	9.5	-1.1R	9.7	-1.1R	10	-1R	10.1	-0.9R	10.3	-0.9R	10.4	-0.8R	10.5	-0.8R	10.6	-0.8R
		8"	q_a	1258	2026	1239	1995	1164	1875	1163	1873	1113	1791	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.1	-1.6R	10.6	-1.6R	11	-1.5R	11.3	-1.5R	11.6	-1.4R	11.8	-1.3R	12	-1.3R	12.2	-1.2R	12.3	-1.2R
		12"	q_a	1067	1718	997	1605	948	1526	911	1466	882	1421	860	1384	779	1247	644	1031	541	866
			q_f																		
			F	11.5	-2.3R	12.4	-2.4R	13	-2.4R	13.6	-2.4R	14.1	-2.3R	14.5	-2.3R	14.8	-2.2R	15.1	-2.2R	15.3	-2.1R
		18"	q_a	953	1718	900	1450	774	1247	759	1222	748	1204	674	1086	674	1084	644	1031	541	866
			q_f																		
			F	12.9	-3.1R	14.2	-3.3R	15.2	-3.4R	16.1	-3.5R	16.8	-3.6R	17.5	-3.6R	18.1	-3.6R	18.6	-3.5R	19	-3.5R
		24"	q_a	826	1330	795	1280	679	1093	677	1090	597	960	607	978	547	880	561	903	514	828
			q_f																		
			F	13.9	-3.6R	15.4	-4R	16.7	-4.3R	17.9	-4.5R	18.9	-4.6R	19.8	-4.7R	20.6	-4.7R	21.3	-4.8R	22	-4.8R

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Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			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	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	3.8	-0.1R	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	+0R	3.9	+0R
		8"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R
		12"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	5.3	-0.4R	5.4	-0.3R	5.5	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.2R
		18"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	6.6	-0.7R	6.8	-0.6R	6.9	-0.5R	7	-0.5R	7.1	-0.5R	7.1	-0.4R	7.2	-0.4R	7.2	-0.4R	7.3	-0.3R
		24"	q_a	1217	1959	1217	1959	1173	1889	1217	1959	1149	1849	1193	1920	1133	1824	1172	1887	1122	1807
			q_f																		
			F	7.8	-1R	8	-0.9R	8.3	-0.9R	8.4	-0.8R	8.5	-0.7R	8.6	-0.7R	8.7	-0.6R	8.8	-0.6R	8.8	-0.6R
	18 ga	4"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	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	+0R	4.5	+0R	4.5	+0R
		6"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R
		8"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	6	-0.4R	6.1	-0.3R	6.1	-0.3R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R
		12"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	7.4	-0.7R	7.6	-0.6R	7.7	-0.5R	7.8	-0.5R	7.9	-0.4R	7.9	-0.4R	8	-0.4R	8	-0.4R	8	-0.3R
		18"	q_a	1046	1684	1046	1684	1005	1618	1021	1644	1033	1663	976	1571	992	1596	1004	1616	961	1547
			q_f																		
			F	9.2	-1.2R	9.5	-1.1R	9.8	-1R	10	-1R	10.1	-0.9R	10.2	-0.8R	10.3	-0.8R	10.4	-0.7R	10.5	-0.7R
		24"	q_a	940	1514	980	1579	887	1428	928	1493	857	1380	895	1440	839	1350	872	1404	826	1330
			q_f																		
			F	10.7	-1.8R	11.2	-1.7R	11.6	-1.6R	11.9	-1.5R	12.2	-1.4R	12.4	-1.3R	12.5	-1.2R	12.7	-1.2R	12.8	-1.1R
	20 ga	4"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	847	1355	712	1139
			q_f																		
			F	6.6	-0.3R	6.6	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.1R	6.8	-0.1R	6.8	-0.1R	6.8	-0.1R
		6"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	847	1355	712	1139
			q_f																		
			F	7.9	-0.5R	8	-0.5R	8.1	-0.4R	8.2	-0.4R	8.2	-0.3R	8.3	-0.3R	8.3	-0.3R	8.3	-0.3R	8.4	-0.2R
		8"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	847	1355	712	1139
			q_f																		
			F	9.1	-0.8R	9.3	-0.7R	9.5	-0.7R	9.6	-0.6R	9.7	-0.5R	9.7	-0.5R	9.8	-0.5R	9.8	-0.4R	9.9	-0.4R
		12"	q_a	856	1377	846	1361	833	1341	823	1326	816	1314	810	1305	806	1297	802	1291	712	1139
			q_f																		
			F	11.2	-1.5R	11.6	-1.3R	11.9	-1.2R	12.1	-1.1R	12.3	-1.1R	12.5	-1R	12.6	-0.9R	12.7	-0.9R	12.8	-0.8R
		18"	q_a	779	1377	775	1248	697	1122	706	1137	713	1149	662	1066	673	1083	681	1097	643	1036
			q_f																		
			F	13.7	-2.4R	14.5	-2.3R	15.1	-2.2R	15.5	-2.1R	15.9	-2R	16.2	-1.9R	16.4	-1.8R	16.6	-1.7R	16.8	-1.6R
		24"	q_a	662	1065	683	1100	603	971	629	1013	571	920	596	960	551	888	574	925	538	866
			q_f																		
			F	15.7	-3.3R	16.9	-3.3R	17.7	-3.2R	18.4	-3.1R	18.9	-2.9R	19.4	-2.8R	19.8	-2.7R	20.1	-2.6R	20.4	-2.5R
	22 ga	4"	q_a	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	644	1031	541	866
			q_f																		
			F	8.5	-0.5R	8.6	-0.4R	8.7	-0.4R	8.7	-0.3R	8.8	-0.3R	8.8	-0.3R	8.8	-0.2R	8.9	-0.2R	8.9	-0.2R
		6"	q_a	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	644	1031	541	866
			q_f																		
			F	10.3	-0.9R	10.5	-0.8R	10.7	-0.7R	10.8	-0.6R	10.9	-0.6R	10.9	-0.5R	11	-0.5R	11.1	-0.5R	11.1	-0.4R
		8"	q_a	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	748	1204	644	1031	541	866
			q_f																		
			F	11.8	-1.3R	12.2	-1.2R	12.5	-1.1R	12.7	-1R	12.8	-0.9R	13	-0.9R	13.1	-0.8R	13.1	-0.8R	13.2	-0.7R
		12"	q_a	696	1120	675	1087	661	1064	650	1046	642	1033	635	1022	629	1013	625	1006	541	866
			q_f																		
			F	14.5	-2.3R	15.2	-2.1R	15.7	-2R	16.1	-1.9R	16.4	-1.8R	16.6	-1.7R	16.8	-1.6R	17	-1.5R	17.2	-1.4R
		18"	q_a	622	1120	613	987	543	874	548	882	551	888	507	816	514	828	520	837	487	785
			q_f																		
			F	17.5	-3.6R	18.7	-3.5R	19.6	-3.4R	20.4	-3.3R	21	-3.2R	21.4	-3R	21.8	-2.9R	22.2	-2.8R	22.5	-2.7R
		24"	q_a	526	846	536	863	468	753	485	781	437	703	454	731	417	671	433	698	403	650
			q_f																		
			F	19.8	-4.7R	21.5	-4.8R	22.8	-4.7R	23.9	-4.7R	24.8	-4.6R	25.5	-4.4R	26.2	-4.3R	26.7	-4.2R	27.2	-4R

B-36 36/4 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip

ASC Steel Deck

DGB-36 & DGBF-36 2.7

Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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 +0R		3.3 +0R		3.3 +0R	
		6"	q_a	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.8 -0.2R		3.8 -0.2R		3.8 -0.2R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R	
		8"	q_a	2434	3919	2434	3919	2413	3885	2434	3919	2400	3864	2419	3895	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.3 -0.3R		4.4 -0.3R		4.4 -0.3R		4.4 -0.2R		4.4 -0.2R		4.4 -0.2R		4.5 -0.2R		4.5 -0.2R		4.5 -0.1R	
		12"	q_a	2164	3484	2135	3437	2115	3405	2100	3380	2088	3362	2079	3347	2072	3335	1763	2821	1482	2371
			q_f																		
			F	5.3 -0.6R		5.4 -0.6R		5.4 -0.5R		5.5 -0.5R		5.5 -0.4R		5.6 -0.4R		5.6 -0.4R		5.6 -0.3R		5.6 -0.3R	
		18"	q_a	1933	3484	1947	3134	1753	2822	1793	2887	1822	2934	1695	2729	1731	2786	1759	2821	1482	2371
			q_f																		
			F	6.5 -1.2R		6.7 -1.1R		6.9 -1R		7 -0.9R		7.1 -0.8R		7.1 -0.8R		7.2 -0.7R		7.2 -0.7R		7.3 -0.6R	
		24"	q_a	1598	2573	1694	2727	1495	2407	1585	2552	1440	2319	1520	2447	1406	2264	1476	2377	1383	2227
			q_f																		
			F	7.6 -1.7R		7.9 -1.6R		8.2 -1.5R		8.3 -1.4R		8.5 -1.3R		8.6 -1.2R		8.7 -1.1R		8.7 -1.1R		8.8 -1R	
	18 ga	4"	q_a	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.4 -0.2R		4.4 -0.2R		4.4 -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	
		6"	q_a	2091	3366	2078	3346	2069	3332	2063	3321	2058	3313	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.2 -0.4R		5.3 -0.4R		5.3 -0.3R		5.3 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R	
		8"	q_a	1930	3107	1950	3139	1894	3049	1915	3083	1875	3018	1894	3049	1550	2481	1281	2050	1077	1723
			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	
		12"	q_a	1655	2664	1618	2605	1592	2564	1574	2533	1559	2510	1548	2492	1538	2477	1281	2050	1077	1723
			q_f																		
			F	7.3 -1.2R		7.5 -1.1R		7.7 -1R		7.8 -0.9R		7.8 -0.8R		7.9 -0.8R		7.9 -0.7R		8 -0.7R		8 -0.6R	
		18"	q_a	1449	2664	1449	2333	1278	2058	1305	2100	1324	2132	1215	1956	1241	1998	1262	2031	1077	1723
			q_f																		
			F	9 -2R		9.4 -1.9R		9.7 -1.8R		9.9 -1.6R		10.1 -1.5R		10.2 -1.5R		10.3 -1.4R		10.4 -1.3R		10.5 -1.2R	
		24"	q_a	1182	1902	1241	1997	1077	1734	1138	1832	1022	1646	1077	1735	988	1591	1037	1670	965	1554
			q_f																		
			F	10.4 -2.8R		11 -2.7R		11.5 -2.6R		11.8 -2.5R		12.1 -2.3R		12.3 -2.2R		12.4 -2.1R		12.6 -2R		12.7 -1.9R	
	20 ga	4"	q_a	1711	2755	1711	2755	1707	2748	1702	2741	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.5 -0.5R		6.6 -0.4R		6.7 -0.4R		6.7 -0.3R		6.7 -0.3R		6.7 -0.3R		6.7 -0.2R		6.8 -0.2R		6.8 -0.2R	
		6"	q_a	1535	2471	1515	2439	1501	2417	1491	2401	1483	2388	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.8 -0.9R		8 -0.8R		8.1 -0.7R		8.2 -0.7R		8.2 -0.6R		8.3 -0.6R		8.3 -0.5R		8.3 -0.5R		8.3 -0.4R	
		8"	q_a	1373	2211	1384	2228	1324	2132	1340	2157	1298	2090	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	9 -1.4R		9.2 -1.3R		9.4 -1.2R		9.5 -1.1R		9.6 -1R		9.7 -0.9R		9.8 -0.8R		9.8 -0.8R		9.9 -0.7R	
		12"	q_a	1137	1831	1095	1764	1066	1717	1045	1682	1028	1656	1016	1635	1005	1618	847	1355	712	1139
			q_f																		
			F	11 -2.4R		11.5 -2.2R		11.8 -2.1R		12 -2R		12.2 -1.8R		12.4 -1.7R		12.5 -1.6R		12.6 -1.6R		12.7 -1.5R	
		18"	q_a	983	1831	968	1559	837	1348	847	1364	855	1376	775	1248	789	1270	800	1287	712	1139
			q_f																		
			F	13.4 -3.7R		14.2 -3.6R		14.8 -3.5R		15.3 -3.4R		15.7 -3.3R		16 -3.1R		16.2 -3R		16.5 -2.9R		16.6 -2.8R	
		24"	q_a	802	1291	823	1326	705	1135	735	1184	654	1053	684	1101	623	1002	650	1047	601	968
			q_f																		
			F	15.2 -4.8R		16.4 -4.9R		17.3 -4.9R		18 -4.8R		18.6 -4.7R		19.1 -4.6R		19.5 -4.5R		19.8 -4.3R		20.1 -4.2R	
	22 ga	4"	q_a	1419	2284	1406	2263	1397	2249	1390	2238	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	8.4 -0.8R		8.6 -0.7R		8.7 -0.7R		8.7 -0.6R		8.8 -0.5R		8.8 -0.5R		8.8 -0.4R		8.9 -0.4R		8.9 -0.4R	
		6"	q_a	1229	1979	1205	1941	1189	1914	1177	1895	1167	1880	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.2 -1.5R		10.4 -1.4R		10.6 -1.2R		10.7 -1.1R		10.8 -1.1R		10.9 -1R		11 -0.9R		11 -0.8R		11.1 -0.8R	
		8"	q_a	1082	1742	1085	1747	1028	1655	1038	1671	999	1608	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	11.7 -2.2R		12.1 -2.1R		12.4 -1.9R		12.6 -1.8R		12.8 -1.7R		12.9 -1.6R		13 -1.5R		13.1 -1.4R		13.2 -1.3R	
		12"	q_a	885	1424	843	1356	813	1309	792	1275	775	1249	763	1228	752	1211	644	1031	541	866
			q_f																		
			F	14.1 -3.5R		14.9 -3.4R		15.4 -3.3R		15.9 -3.2R		16.2 -3R		16.5 -2.9R		16.7 -2.7R		16.9 -2.6R		17.1 -2.5R	
		18"	q_a	764	1424	743	1196	637	1026	639	1029	641	1032	578	931	586	943	592	953	541	866
			q_f																		
			F	16.9 -5.2R		18.2 -5.3R		19.1 -5.3R		19.9 -5.2R		20.6 -5.1R		21.1 -5R		21.5 -4.8R		21.9 -4.7R		22.2 -4.5R	
		24"	q_a	629	1012	634	1020	539	868	556	895	492	793	511	823	464	747	482	776	444	716
			q_f																		
			F	18.9 -6.6R		20.7 -6.9R		22.1 -7.1R		23.2 -7.1R		24.1 -7.1R		24.9 -7R		25.6 -6.9R		26.2 -6.7R		26.7 -6.6R	

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Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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	+0R	3.3	+0R	3.3	+0R
		6"	q_a	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.7	-0.2R	3.7	-0.2R	3.7	-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
		8"	q_a	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R
		12"	q_a	2434	3919	2434	3919	2434	3919	2434	3919	2434	3919	2434	3918	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.8	-0.5R	5	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.3R	5.4	-0.3R	5.4	-0.3R
		18"	q_a	2370	3919	2344	3773	2089	3363	2110	3398	2126	3423	1961	3157	1990	3204	1763	2821	1482	2371
			q_f																		
			F	5.7	-0.9R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.7R	6.6	-0.7R	6.7	-0.6R	6.8	-0.6R	6.8	-0.6R
		24"	q_a	2012	3239	2059	3314	1805	2907	1874	3017	1693	2725	1762	2836	1622	2611	1687	2716	1482	2371
			q_f																		
			F	6.4	-1.2R	6.8	-1.2R	7.1	-1.2R	7.4	-1.1R	7.6	-1.1R	7.8	-1R	7.9	-1R	8	-1R	8.1	-0.9R
	18 ga	4"	q_a	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.3	-0.2R	4.3	-0.2R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		6"	q_a	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.4R	5	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.2R
		8"	q_a	2092	3368	2092	3368	2092	3368	2092	3368	2092	3368	1914	3062	1550	2481	1281	2050	1077	1723
			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
		12"	q_a	2030	3268	1950	3140	1894	3049	1851	2981	1819	2928	1793	2886	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.5	-0.9R	6.8	-0.9R	7	-0.8R	7.1	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.7R	7.5	-0.6R	7.6	-0.6R
		18"	q_a	1808	3268	1762	2837	1545	2487	1547	2491	1549	2494	1414	2276	1429	2301	1281	2050	1077	1723
			q_f																		
			F	7.6	-1.4R	8.1	-1.4R	8.4	-1.4R	8.7	-1.3R	9	-1.3R	9.2	-1.2R	9.4	-1.2R	9.5	-1.1R	9.6	-1.1R
		24"	q_a	1536	2473	1541	2481	1334	2148	1369	2204	1225	1973	1266	2038	1157	1863	1197	1928	1077	1723
			q_f																		
			F	8.4	-1.8R	9.1	-1.9R	9.6	-1.9R	10	-1.8R	10.4	-1.8R	10.7	-1.8R	11	-1.7R	11.2	-1.7R	11.4	-1.6R
	20 ga	4"	q_a	1711	2755	1711	2755	1711	2755	1711	2755	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R
		6"	q_a	1711	2755	1711	2755	1711	2755	1711	2755	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.2	-0.8R	7.4	-0.7R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.5R	8.1	-0.4R
		8"	q_a	1682	2709	1665	2681	1574	2535	1577	2539	1515	2439	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	8	-1.1R	8.4	-1R	8.6	-1R	8.8	-0.9R	9	-0.9R	9.1	-0.8R	9.2	-0.8R	9.3	-0.7R	9.4	-0.7R
		12"	q_a	1429	2300	1345	2165	1286	2070	1241	1999	1207	1944	1180	1900	1025	1640	847	1355	712	1139
			q_f																		
			F	9.3	-1.6R	9.9	-1.6R	10.3	-1.6R	10.7	-1.6R	10.9	-1.5R	11.2	-1.5R	11.4	-1.4R	11.6	-1.4R	11.7	-1.3R
		18"	q_a	1273	2300	1213	1952	1047	1685	1033	1663	1022	1645	924	1487	926	1491	847	1355	712	1139
			q_f																		
			F	10.6	-2.3R	11.5	-2.4R	12.2	-2.5R	12.8	-2.5R	13.3	-2.5R	13.7	-2.4R	14.1	-2.4R	14.4	-2.3R	14.7	-2.3R
		24"	q_a	1096	1764	1067	1717	913	1470	918	1478	815	1313	830	1337	755	1215	773	1244	712	1139
			q_f																		
			F	11.5	-2.8R	12.7	-3R	13.6	-3.2R	14.4	-3.3R	15.1	-3.3R	15.7	-3.3R	16.3	-3.3R	16.7	-3.3R	17.2	-3.2R
	22 ga	4"	q_a	1496	2408	1496	2408	1496	2408	1496	2408	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.9	-0.7R	8.1	-0.6R	8.2	-0.6R	8.3	-0.5R	8.4	-0.5R	8.5	-0.5R	8.5	-0.4R	8.6	-0.4R	8.6	-0.4R
		6"	q_a	1496	2408	1451	2336	1413	2276	1385	2231	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	9.1	-1.2R	9.5	-1.1R	9.7	-1.1R	10	-1R	10.1	-0.9R	10.3	-0.9R	10.4	-0.8R	10.5	-0.8R	10.6	-0.8R
		8"	q_a	1341	2159	1313	2115	1228	1977	1223	1970	1166	1877	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.1	-1.6R	10.6	-1.6R	11	-1.5R	11.3	-1.5R	11.6	-1.4R	11.8	-1.3R	12	-1.3R	12.2	-1.2R	12.3	-1.2R
		12"	q_a	1138	1832	1056	1700	999	1608	956	1539	923	1486	897	1444	779	1247	644	1031	541	866
			q_f																		
			F	11.5	-2.3R	12.4	-2.4R	13	-2.4R	13.6	-2.4R	14.1	-2.3R	14.5	-2.3R	14.8	-2.2R	15.1	-2.2R	15.3	-2.1R
		18"	q_a	1019	1832	956	1538	819	1319	799	1286	784	1262	706	1136	702	1131	644	1031	541	866
			q_f																		
			F	12.9	-3.1R	14.2	-3.3R	15.2	-3.4R	16.1	-3.5R	16.8	-3.6R	17.5	-3.6R	18.1	-3.6R	18.6	-3.5R	19	-3.5R
		24"	q_a	889	1431	847	1364	722	1162	715	1151	624	1005	632	1017	569	915	581	935	533	857
			q_f																		
			F	13.9	-3.6R	15.4	-4R	16.7	-4.3R	17.9	-4.5R	18.9	-4.6R	19.8	-4.7R	20.6	-4.7R	21.3	-4.8R	22	-4.8R

B-36 36/9 Support Attachment: Pneutek SDK63 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.7

Pneutek K64 Fasteners to Supports with DeltaGrip® 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	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1482	2371
			q_f																		
			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	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1482	2371
			q_f																		
			F	3.8 -0.1R		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 +0R		3.9 +0R	
		8"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1482	2371
			q_f																		
			F	4.3 -0.2R		4.4 -0.2R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.5 -0.1R		4.5 -0.1R		4.5 -0.1R	
		12"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1482	2371
			q_f																		
			F	5.3 -0.4R		5.4 -0.3R		5.5 -0.3R		5.5 -0.2R		5.5 -0.2R		5.6 -0.2R		5.6 -0.2R		5.6 -0.2R		5.6 -0.2R	
		18"	q_a	1595	2568	1595	2568	1548	2493	1573	2533	1591	2562	1506	2424	1529	2462	1548	2492	1482	2371
			q_f																		
			F	6.6 -0.7R		6.8 -0.6R		6.9 -0.5R		7 -0.5R		7.1 -0.5R		7.1 -0.4R		7.2 -0.4R		7.2 -0.4R		7.3 -0.3R	
		24"	q_a	1448	2331	1511	2432	1369	2204	1431	2305	1325	2133	1382	2225	1297	2088	1349	2171	1278	2058
			q_f																		
			F	7.8 -1R		8 -0.9R		8.3 -0.9R		8.4 -0.8R		8.5 -0.7R		8.6 -0.7R		8.7 -0.6R		8.8 -0.6R		8.8 -0.6R	
	18 ga	4"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281	2050	1077	1723
			q_f																		
			F	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 +0R		4.5 +0R		4.5 +0R	
		6"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281	2050	1077	1723
			q_f																		
			F	5.2 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.4 -0.1R	
		8"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281	2050	1077	1723
			q_f																		
			F	6 -0.4R		6.1 -0.3R		6.1 -0.3R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R	
		12"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281	2050	1077	1723
			q_f																		
			F	7.4 -0.7R		7.6 -0.6R		7.7 -0.5R		7.8 -0.5R		7.9 -0.4R		7.9 -0.4R		8 -0.4R		8 -0.4R		8 -0.3R	
		18"	q_a	1254	2096	1253	2018	1139	1834	1157	1862	1170	1883	1093	1760	1111	1789	1126	1812	1068	1720
			q_f																		
			F	9.2 -1.2R		9.5 -1.1R		9.8 -1R		10 -1R		10.1 -0.9R		10.2 -0.8R		10.3 -0.8R		10.4 -0.7R		10.5 -0.7R	
		24"	q_a	1073	1727	1114	1793	992	1598	1038	1670	948	1527	991	1595	921	1482	959	1545	902	1452
			q_f																		
			F	10.7 -1.8R		11.2 -1.7R		11.6 -1.6R		11.9 -1.5R		12.2 -1.4R		12.4 -1.3R		12.5 -1.2R		12.7 -1.2R		12.8 -1.1R	
	20 ga	4"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1355	712	1139
			q_f																		
			F	6.6 -0.3R		6.6 -0.2R		6.7 -0.2R		6.7 -0.2R		6.7 -0.2R		6.7 -0.1R		6.8 -0.1R		6.8 -0.1R		6.8 -0.1R	
		6"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1355	712	1139
			q_f																		
			F	7.9 -0.5R		8 -0.5R		8.1 -0.4R		8.2 -0.4R		8.2 -0.3R		8.3 -0.3R		8.3 -0.3R		8.3 -0.3R		8.4 -0.2R	
		8"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1355	712	1139
			q_f																		
			F	9.1 -0.8R		9.3 -0.7R		9.5 -0.7R		9.6 -0.6R		9.7 -0.5R		9.7 -0.5R		9.8 -0.5R		9.8 -0.4R		9.9 -0.4R	
		12"	q_a	931	1498	908	1462	891	1435	879	1416	870	1400	862	1388	856	1378	847	1355	712	1139
			q_f																		
			F	11.2 -1.5R		11.6 -1.3R		11.9 -1.2R		12.1 -1.1R		12.3 -1.1R		12.5 -1R		12.6 -0.9R		12.7 -0.9R		12.8 -0.8R	
		18"	q_a	835	1498	828	1333	739	1189	747	1203	754	1213	696	1120	707	1138	715	1152	673	1083
			q_f																		
			F	13.7 -2.4R		14.5 -2.3R		15.1 -2.2R		15.5 -2.1R		15.9 -2R		16.2 -1.9R		16.4 -1.8R		16.6 -1.7R		16.8 -1.6R	
		24"	q_a	707	1139	726	1169	638	1026	663	1068	599	965	625	1006	576	927	599	965	559	900
			q_f																		
			F	15.7 -3.3R		16.9 -3.3R		17.7 -3.2R		18.4 -3.1R		18.9 -2.9R		19.4 -2.8R		19.8 -2.7R		20.1 -2.6R		20.4 -2.5R	
	22 ga	4"	q_a	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	644	1031	541	866
			q_f																		
			F	8.5 -0.5R		8.6 -0.4R		8.7 -0.4R		8.7 -0.3R		8.8 -0.3R		8.8 -0.3R		8.8 -0.2R		8.9 -0.2R		8.9 -0.2R	
		6"	q_a	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	644	1031	541	866
			q_f																		
			F	10.3 -0.9R		10.5 -0.8R		10.7 -0.7R		10.8 -0.6R		10.9 -0.6R		10.9 -0.5R		11 -0.5R		11.1 -0.5R		11.1 -0.4R	
		8"	q_a	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	644	1031	541	866
			q_f																		
			F	11.8 -1.3R		12.2 -1.2R		12.5 -1.1R		12.7 -1R		12.8 -0.9R		13 -0.9R		13.1 -0.8R		13.1 -0.8R		13.2 -0.7R	
		12"	q_a	697	1123	677	1090	662	1066	651	1048	643	1035	636	1024	630	1015	626	1008	541	866
			q_f																		
			F	14.5 -2.3R		15.2 -2.1R		15.7 -2R		16.1 -1.9R		16.4 -1.8R		16.6 -1.7R		16.8 -1.6R		17 -1.5R		17.2 -1.4R	
		18"	q_a	623	1123	614	989	544	876	549	883	552	889	507	817	515	829	521	838	488	786
			q_f																		
			F	17.5 -3.6R		18.7 -3.5R		19.6 -3.4R		20.4 -3.3R		21 -3.2R		21.4 -3R		21.8 -2.9R		22.2 -2.8R		22.5 -2.7R	
		24"	q_a	527	848	537	865	469	755	486	782	437	704	455	732	417	672	434	699	404	650
			q_f																		
			F	19.8 -4.7R		21.5 -4.8R		22.8 -4.7R		23.9 -4.7R		24.8 -4.6R		25.5 -4.4R		26.2 -4.3R		26.7 -4.2R		27.2 -4R	

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Pneutek K64 Fasteners to Supports with DeltaGrip® 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	3190	5136	3190	5136	3190	5136	3190	5136	3190	5136	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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	+0R	3.3	+0R	3.3	+0R
		6"	q_a	3190	5136	3189	5135	3177	5114	3167	5099	3160	5088	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.9	-0.1R	3.9	-0.1R	3.9	-0.1R	3.9	-0.1R	3.9	-0.1R	3.9	-0.1R
		8"	q_a	2967	4777	2998	4827	2915	4692	2946	4744	2886	4647	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.3	-0.3R	4.4	-0.3R	4.4	-0.3R	4.4	-0.2R	4.4	-0.2R	4.4	-0.2R	4.5	-0.2R	4.5	-0.2R	4.5	-0.1R
		12"	q_a	2552	4108	2497	4021	2459	3960	2431	3915	2410	3880	2393	3853	2134	3414	1763	2821	1482	2371
			q_f																		
			F	5.3	-0.6R	5.4	-0.6R	5.4	-0.5R	5.5	-0.5R	5.5	-0.4R	5.6	-0.4R	5.6	-0.4R	5.6	-0.3R	5.6	-0.3R
		18"	q_a	2238	4108	2240	3606	1979	3186	2020	3253	2051	3302	1884	3033	1924	3098	1763	2821	1482	2371
			q_f																		
			F	6.5	-1.2R	6.7	-1.1R	6.9	-1R	7	-0.9R	7.1	-0.8R	7.1	-0.8R	7.2	-0.7R	7.2	-0.7R	7.3	-0.6R
		24"	q_a	1826	2940	1919	3090	1669	2687	1764	2840	1586	2553	1672	2692	1534	2470	1611	2594	1482	2371
			q_f																		
			F	7.6	-1.7R	7.9	-1.6R	8.2	-1.5R	8.3	-1.4R	8.5	-1.3R	8.6	-1.2R	8.7	-1.1R	8.7	-1.1R	8.8	-1R
	18 ga	4"	q_a	2604	4192	2604	4192	2604	4192	2604	4192	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.4	-0.2R	4.4	-0.2R	4.4	-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
		6"	q_a	2454	3951	2430	3913	2414	3887	2402	3867	2393	3852	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.2	-0.4R	5.3	-0.4R	5.3	-0.3R	5.3	-0.3R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R
		8"	q_a	2223	3579	2244	3613	2161	3480	2187	3521	2128	3426	1914	3062	1550	2481	1281	2050	1077	1723
			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
		12"	q_a	1864	3002	1808	2910	1768	2847	1739	2800	1717	2764	1699	2736	1550	2481	1281	2050	1077	1723
			q_f																		
			F	7.3	-1.2R	7.5	-1.1R	7.7	-1R	7.8	-0.9R	7.8	-0.8R	7.9	-0.8R	7.9	-0.7R	8	-0.7R	8	-0.6R
		18"	q_a	1617	3002	1604	2583	1398	2250	1420	2287	1437	2314	1308	2107	1334	2148	1281	2050	1077	1723
			q_f																		
			F	9	-2R	9.4	-1.9R	9.7	-1.8R	9.9	-1.6R	10.1	-1.5R	10.2	-1.5R	10.3	-1.4R	10.4	-1.3R	10.5	-1.2R
		24"	q_a	1316	2119	1365	2198	1175	1891	1233	1985	1100	1772	1156	1861	1055	1698	1105	1779	1024	1648
			q_f																		
			F	10.4	-2.8R	11	-2.7R	11.5	-2.6R	11.8	-2.5R	12.1	-2.3R	12.3	-2.2R	12.4	-2.1R	12.6	-2R	12.7	-1.9R
	20 ga	4"	q_a	1879	3025	1865	3003	1856	2988	1849	2977	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.5	-0.5R	6.6	-0.4R	6.7	-0.4R	6.7	-0.3R	6.7	-0.3R	6.7	-0.3R	6.7	-0.2R	6.8	-0.2R	6.8	-0.2R
		6"	q_a	1651	2657	1624	2615	1606	2586	1593	2564	1583	2548	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.8	-0.9R	8	-0.8R	8.1	-0.7R	8.2	-0.7R	8.2	-0.6R	8.3	-0.6R	8.3	-0.5R	8.3	-0.5R	8.3	-0.4R
		8"	q_a	1464	2357	1472	2371	1402	2257	1418	2282	1369	2204	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	9	-1.4R	9.2	-1.3R	9.4	-1.2R	9.5	-1.1R	9.6	-1R	9.7	-0.9R	9.8	-0.8R	9.8	-0.8R	9.9	-0.7R
		12"	q_a	1204	1938	1153	1857	1118	1800	1092	1759	1073	1727	1057	1702	1025	1640	847	1355	712	1139
			q_f																		
			F	11	-2.4R	11.5	-2.2R	11.8	-2.1R	12	-2R	12.2	-1.8R	12.4	-1.7R	12.5	-1.6R	12.6	-1.6R	12.7	-1.5R
		18"	q_a	1040	1938	1018	1638	876	1411	883	1422	889	1431	803	1293	816	1314	826	1330	712	1139
			q_f																		
			F	13.4	-3.7R	14.2	-3.6R	14.8	-3.5R	15.3	-3.4R	15.7	-3.3R	16	-3.1R	16.2	-3R	16.5	-2.9R	16.6	-2.8R
		24"	q_a	851	1370	866	1395	739	1190	767	1235	680	1095	709	1142	644	1038	672	1081	620	999
			q_f																		
			F	15.2	-4.8R	16.4	-4.9R	17.3	-4.9R	18	-4.8R	18.6	-4.7R	19.1	-4.6R	19.5	-4.5R	19.8	-4.3R	20.1	-4.2R
	22 ga	4"	q_a	1422	2290	1409	2269	1400	2254	1393	2243	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	8.4	-0.8R	8.6	-0.7R	8.7	-0.7R	8.7	-0.6R	8.8	-0.5R	8.8	-0.5R	8.8	-0.4R	8.9	-0.4R	8.9	-0.4R
		6"	q_a	1232	1983	1208	1945	1191	1918	1179	1898	1170	1883	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.2	-1.5R	10.4	-1.4R	10.6	-1.2R	10.7	-1.1R	10.8	-1.1R	10.9	-1R	11	-0.9R	11	-0.8R	11.1	-0.8R
		8"	q_a	1084	1745	1087	1750	1029	1657	1040	1674	1000	1611	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	11.7	-2.2R	12.1	-2.1R	12.4	-1.9R	12.6	-1.8R	12.8	-1.7R	12.9	-1.6R	13	-1.5R	13.1	-1.4R	13.2	-1.3R
		12"	q_a	886	1427	844	1359	814	1311	793	1277	776	1250	763	1229	753	1212	644	1031	541	866
			q_f																		
			F	14.1	-3.5R	14.9	-3.4R	15.4	-3.3R	15.9	-3.2R	16.2	-3R	16.5	-2.9R	16.7	-2.7R	16.9	-2.6R	17.1	-2.5R
		18"	q_a	766	1427	744	1198	638	1027	640	1031	642	1034	579	932	587	944	593	954	541	866
			q_f																		
			F	16.9	-5.2R	18.2	-5.3R	19.1	-5.3R	19.9	-5.2R	20.6	-5.1R	21.1	-5R	21.5	-4.8R	21.9	-4.7R	22.2	-4.5R
		24"	q_a	630	1014	635	1022	540	869	557	896	493	794	512	824	464	747	482	777	445	716
			q_f																		
			F	18.9	-6.6R	20.7	-6.9R	22.1	-7.1R	23.2	-7.1R	24.1	-7.1R	24.9	-7R	25.6	-6.9R	26.2	-6.7R	26.7	-6.6R

B-36 36/7/4 Support Attachment: Pneutek K64 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.7

Pneutek K64 Fasteners to Supports with DeltaGrip® 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	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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	+0R	3.3	+0R	3.3	+0R
		6"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	3190	5136	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.7	-0.2R	3.7	-0.2R	3.7	-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
		8"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	3190	5136	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R
		12"	q_a	3127	5035	3009	4844	2924	4708	2861	4606	2812	4528	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.8	-0.5R	5	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.3R	5.4	-0.3R	5.4	-0.3R
		18"	q_a	2786	5035	2720	4379	2387	3843	2393	3853	2398	3860	2190	3526	2134	3414	1763	2821	1482	2371
			q_f																		
			F	5.7	-0.9R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.7R	6.6	-0.7R	6.7	-0.6R	6.8	-0.6R	6.8	-0.6R
		24"	q_a	2366	3809	2379	3830	2062	3319	2117	3409	1897	3054	1961	3157	1794	2888	1763	2821	1482	2371
			q_f																		
			F	6.4	-1.2R	6.8	-1.2R	7.1	-1.2R	7.4	-1.1R	7.6	-1.1R	7.8	-1R	7.9	-1R	8	-1R	8.1	-0.9R
	18 ga	4"	q_a	2604	4192	2604	4192	2604	4192	2604	4192	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.3	-0.2R	4.3	-0.2R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		6"	q_a	2604	4192	2604	4192	2604	4192	2604	4192	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.4R	5	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.2R
		8"	q_a	2604	4192	2604	4192	2572	4140	2583	4158	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			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
		12"	q_a	2314	3726	2198	3538	2115	3405	2053	3306	2005	3229	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.5	-0.9R	6.8	-0.9R	7	-0.8R	7.1	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.7R	7.5	-0.6R	7.6	-0.6R
		18"	q_a	2058	3726	1981	3189	1719	2768	1708	2749	1699	2735	1541	2481	1550	2481	1281	2050	1077	1723
			q_f																		
			F	7.6	-1.4R	8.1	-1.4R	8.4	-1.4R	8.7	-1.3R	9	-1.3R	9.2	-1.2R	9.4	-1.2R	9.5	-1.1R	9.6	-1.1R
		24"	q_a	1760	2834	1736	2795	1492	2403	1513	2436	1348	2170	1381	2224	1258	2026	1281	2050	1077	1723
			q_f																		
			F	8.4	-1.8R	9.1	-1.9R	9.6	-1.9R	10	-1.8R	10.4	-1.8R	10.7	-1.8R	11	-1.7R	11.2	-1.7R	11.4	-1.6R
	20 ga	4"	q_a	1918	3088	1918	3088	1918	3088	1918	3088	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R
		6"	q_a	1918	3088	1918	3088	1912	3078	1880	3026	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.2	-0.8R	7.4	-0.7R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.5R	8.1	-0.4R
		8"	q_a	1803	2902	1776	2859	1670	2688	1668	2686	1596	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	8	-1.1R	8.4	-1R	8.6	-1R	8.8	-0.9R	9	-0.9R	9.1	-0.8R	9.2	-0.8R	9.3	-0.7R	9.4	-0.7R
		12"	q_a	1529	2462	1429	2301	1359	2188	1307	2104	1267	2039	1235	1988	1025	1640	847	1355	712	1139
			q_f																		
			F	9.3	-1.6R	9.9	-1.6R	10.3	-1.6R	10.7	-1.6R	10.9	-1.5R	11.2	-1.5R	11.4	-1.4R	11.6	-1.4R	11.7	-1.3R
		18"	q_a	1365	2462	1291	2078	1110	1787	1089	1753	1073	1728	968	1559	967	1557	847	1355	712	1139
			q_f																		
			F	10.6	-2.3R	11.5	-2.4R	12.2	-2.5R	12.8	-2.5R	13.3	-2.5R	13.7	-2.4R	14.1	-2.4R	14.4	-2.3R	14.7	-2.3R
		24"	q_a	1182	1904	1139	1834	973	1567	971	1563	860	1385	872	1404	785	1264	806	1298	712	1139
			q_f																		
			F	11.5	-2.8R	12.7	-3R	13.6	-3.2R	14.4	-3.3R	15.1	-3.3R	15.7	-3.3R	16.3	-3.3R	16.7	-3.3R	17.2	-3.2R
	22 ga	4"	q_a	1501	2417	1501	2417	1501	2417	1501	2417	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.9	-0.7R	8.1	-0.6R	8.2	-0.6R	8.3	-0.5R	8.4	-0.5R	8.5	-0.5R	8.5	-0.4R	8.6	-0.4R	8.6	-0.4R
		6"	q_a	1501	2417	1454	2341	1416	2280	1388	2235	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	9.1	-1.2R	9.5	-1.1R	9.7	-1.1R	10	-1R	10.1	-0.9R	10.3	-0.9R	10.4	-0.8R	10.5	-0.8R	10.6	-0.8R
		8"	q_a	1344	2164	1316	2119	1230	1981	1225	1973	1168	1880	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.1	-1.6R	10.6	-1.6R	11	-1.5R	11.3	-1.5R	11.6	-1.4R	11.8	-1.3R	12	-1.3R	12.2	-1.2R	12.3	-1.2R
		12"	q_a	1140	1836	1058	1704	1000	1610	957	1541	924	1488	898	1446	779	1247	644	1031	541	866
			q_f																		
			F	11.5	-2.3R	12.4	-2.4R	13	-2.4R	13.6	-2.4R	14.1	-2.3R	14.5	-2.3R	14.8	-2.2R	15.1	-2.2R	15.3	-2.1R
		18"	q_a	1021	1836	957	1542	821	1322	800	1289	785	1264	707	1138	703	1132	644	1031	541	866
			q_f																		
			F	12.9	-3.1R	14.2	-3.3R	15.2	-3.4R	16.1	-3.5R	16.8	-3.6R	17.5	-3.6R	18.1	-3.6R	18.6	-3.5R	19	-3.5R
		24"	q_a	891	1434	849	1367	724	1165	716	1153	625	1006	633	1019	569	917	582	937	533	859
			q_f																		
			F	13.9	-3.6R	15.4	-4R	16.7	-4.3R	17.9	-4.5R	18.9	-4.6R	19.8	-4.7R	20.6	-4.7R	21.3	-4.8R	22	-4.8R

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Pneutek K66 Fasteners to Supports with DeltaGrip® 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	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821	1482	2371
			q_f																		
			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	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821	1482	2371
			q_f																		
			F	3.8	-0.1R	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	+0R	3.9	+0R
		8"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821	1482	2371
			q_f																		
			F	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.5	-0.1R	4.5	-0.1R	4.5	-0.1R
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821	1482	2371
			q_f																		
			F	5.3	-0.4R	5.4	-0.3R	5.5	-0.3R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.2R	5.6	-0.2R
		18"	q_a	1772	2853	1772	2853	1648	2653	1675	2696	1694	2727	1594	2567	1620	2608	1641	2641	1482	2371
			q_f																		
			F	6.6	-0.7R	6.8	-0.6R	6.9	-0.5R	7	-0.5R	7.1	-0.5R	7.1	-0.4R	7.2	-0.4R	7.2	-0.4R	7.3	-0.3R
		24"	q_a	1544	2486	1609	2590	1447	2329	1514	2437	1393	2243	1455	2342	1359	2189	1415	2278	1336	2151
			q_f																		
			F	7.8	-1R	8	-0.9R	8.3	-0.9R	8.4	-0.8R	8.5	-0.7R	8.6	-0.7R	8.7	-0.6R	8.8	-0.6R	8.8	-0.6R
	18 ga	4"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1281	2050	1077	1723
			q_f																		
			F	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	+0R	4.5	+0R	4.5	+0R
		6"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1281	2050	1077	1723
			q_f																		
			F	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R	5.4	-0.1R
		8"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1281	2050	1077	1723
			q_f																		
			F	6	-0.4R	6.1	-0.3R	6.1	-0.3R	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R
		12"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1357	2185	1349	2172	1343	2162	1281	2050	1077	1723
			q_f																		
			F	7.4	-0.7R	7.6	-0.6R	7.7	-0.5R	7.8	-0.5R	7.9	-0.4R	7.9	-0.4R	8	-0.4R	8	-0.4R	8	-0.3R
		18"	q_a	1291	2192	1288	2074	1167	1879	1185	1907	1198	1928	1117	1798	1135	1828	1150	1852	1077	1723
			q_f																		
			F	9.2	-1.2R	9.5	-1.1R	9.8	-1R	10	-1R	10.1	-0.9R	10.2	-0.8R	10.3	-0.8R	10.4	-0.7R	10.5	-0.7R
		24"	q_a	1101	1773	1142	1838	1015	1634	1060	1707	967	1557	1010	1627	937	1509	977	1573	917	1476
			q_f																		
			F	10.7	-1.8R	11.2	-1.7R	11.6	-1.6R	11.9	-1.5R	12.2	-1.4R	12.4	-1.3R	12.5	-1.2R	12.7	-1.2R	12.8	-1.1R
	20 ga	4"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	847	1355	712	1139
			q_f																		
			F	6.6	-0.3R	6.6	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.2R	6.7	-0.1R	6.8	-0.1R	6.8	-0.1R	6.8	-0.1R
		6"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	847	1355	712	1139
			q_f																		
			F	7.9	-0.5R	8	-0.5R	8.1	-0.4R	8.2	-0.4R	8.2	-0.3R	8.3	-0.3R	8.3	-0.3R	8.3	-0.3R	8.4	-0.2R
		8"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	847	1355	712	1139
			q_f																		
			F	9.1	-0.8R	9.3	-0.7R	9.5	-0.7R	9.6	-0.6R	9.7	-0.5R	9.7	-0.5R	9.8	-0.5R	9.8	-0.4R	9.9	-0.4R
		12"	q_a	945	1521	921	1483	904	1455	891	1434	881	1418	873	1405	866	1395	847	1355	712	1139
			q_f																		
			F	11.2	-1.5R	11.6	-1.3R	11.9	-1.2R	12.1	-1.1R	12.3	-1.1R	12.5	-1R	12.6	-0.9R	12.7	-0.9R	12.8	-0.8R
		18"	q_a	847	1521	839	1350	747	1203	756	1217	762	1226	703	1131	713	1149	722	1163	679	1093
			q_f																		
			F	13.7	-2.4R	14.5	-2.3R	15.1	-2.2R	15.5	-2.1R	15.9	-2R	16.2	-1.9R	16.4	-1.8R	16.6	-1.7R	16.8	-1.6R
		24"	q_a	717	1155	735	1184	645	1038	670	1079	605	975	631	1015	581	935	604	973	564	907
			q_f																		
			F	15.7	-3.3R	16.9	-3.3R	17.7	-3.2R	18.4	-3.1R	18.9	-2.9R	19.4	-2.8R	19.8	-2.7R	20.1	-2.6R	20.4	-2.5R
	22 ga	4"	q_a	801	1289	801	1289	801	1289	801	1289	801	1289	801	1289	779	1247	644	1031	541	866
			q_f																		
			F	8.5	-0.5R	8.6	-0.4R	8.7	-0.4R	8.7	-0.3R	8.8	-0.3R	8.8	-0.3R	8.8	-0.2R	8.9	-0.2R	8.9	-0.2R
		6"	q_a	801	1289	801	1289	801	1289	801	1289	801	1289	801	1289	779	1247	644	1031	541	866
			q_f																		
			F	10.3	-0.9R	10.5	-0.8R	10.7	-0.7R	10.8	-0.6R	10.9	-0.6R	10.9	-0.5R	11	-0.5R	11.1	-0.5R	11.1	-0.4R
		8"	q_a	801	1289	801	1289	801	1289	801	1289	797	1284	801	1289	779	1247	644	1031	541	866
			q_f																		
			F	11.8	-1.3R	12.2	-1.2R	12.5	-1.1R	12.7	-1R	12.8	-0.9R	13	-0.9R	13.1	-0.8R	13.1	-0.8R	13.2	-0.7R
		12"	q_a	726	1168	702	1131	686	1104	673	1084	664	1068	656	1056	650	1046	644	1031	541	866
			q_f																		
			F	14.5	-2.3R	15.2	-2.1R	15.7	-2R	16.1	-1.9R	16.4	-1.8R	16.6	-1.7R	16.8	-1.6R	17	-1.5R	17.2	-1.4R
		18"	q_a	647	1168	636	1024	561	904	565	910	568	915	521	838	528	850	534	859	499	804
			q_f																		
			F	17.5	-3.6R	18.7	-3.5R	19.6	-3.4R	20.4	-3.3R	21	-3.2R	21.4	-3R	21.8	-2.9R	22.2	-2.8R	22.5	-2.7R
		24"	q_a	547	881	556	895	483	778	500	805	449	723	466	750	427	688	444	715	413	664
			q_f																		
			F	19.8	-4.7R	21.5	-4.8R	22.8	-4.7R	23.9	-4.7R	24.8	-4.6R	25.5	-4.4R	26.2	-4.3R	26.7	-4.2R	27.2	-4R

B-36 36/4 Support Attachment: Pneutek K66 PAF Side Seam Attachment: DeltaGrip

ASC STEEL DECK

DGB-36 & DGBF-36 2.7

Pneutek K66 Fasteners to Supports with DeltaGrip® 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	3544	5706	3544	5706	3544	5706	3544	5706	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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 +0R		3.3 +0R		3.3 +0R	
		6"	q_a	3473	5592	3448	5552	3431	5524	3418	5503	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.8 -0.2R		3.8 -0.2R		3.8 -0.2R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R		3.9 -0.1R	
		8"	q_a	3184	5126	3217	5179	3115	5015	3151	5073	3078	4956	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.3 -0.3R		4.4 -0.3R		4.4 -0.3R		4.4 -0.2R		4.4 -0.2R		4.4 -0.2R		4.5 -0.2R		4.5 -0.2R		4.5 -0.1R	
		12"	q_a	2707	4358	2639	4249	2592	4174	2558	4118	2531	4075	2510	4041	2134	3414	1763	2821	1482	2371
			q_f																		
			F	5.3 -0.6R		5.4 -0.6R		5.4 -0.5R		5.5 -0.5R		5.5 -0.4R		5.6 -0.4R		5.6 -0.4R		5.6 -0.3R		5.6 -0.3R	
		18"	q_a	2361	4358	2355	3791	2068	3329	2107	3393	2137	3440	1955	3147	1995	3213	1763	2821	1482	2371
			q_f																		
			F	6.5 -1.2R		6.7 -1.1R		6.9 -1R		7 -0.9R		7.1 -0.8R		7.1 -0.8R		7.2 -0.7R		7.2 -0.7R		7.3 -0.6R	
		24"	q_a	1922	3095	2011	3237	1740	2801	1834	2953	1643	2645	1730	2786	1584	2550	1662	2676	1482	2371
			q_f																		
			F	7.6 -1.7R		7.9 -1.6R		8.2 -1.5R		8.3 -1.4R		8.5 -1.3R		8.6 -1.2R		8.7 -1.1R		8.7 -1.1R		8.8 -1R	
	18 ga	4"	q_a	2723	4384	2723	4384	2723	4384	2723	4384	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.4 -0.2R		4.4 -0.2R		4.4 -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	
		6"	q_a	2531	4075	2505	4033	2486	4003	2473	3981	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	5.2 -0.4R		5.3 -0.4R		5.3 -0.3R		5.3 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R	
		8"	q_a	2285	3678	2305	3712	2216	3568	2242	3610	2179	3509	1914	3062	1550	2481	1281	2050	1077	1723
			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	
		12"	q_a	1908	3072	1847	2973	1804	2905	1773	2854	1748	2815	1729	2784	1550	2481	1281	2050	1077	1723
			q_f																		
			F	7.3 -1.2R		7.5 -1.1R		7.7 -1R		7.8 -0.9R		7.8 -0.8R		7.9 -0.8R		7.9 -0.7R		8 -0.7R		8 -0.6R	
		18"	q_a	1653	3072	1637	2635	1423	2291	1444	2325	1460	2350	1327	2137	1353	2178	1281	2050	1077	1723
			q_f																		
			F	9 -2R		9.4 -1.9R		9.7 -1.8R		9.9 -1.6R		10.1 -1.5R		10.2 -1.5R		10.3 -1.4R		10.4 -1.3R		10.5 -1.2R	
		24"	q_a	1346	2167	1392	2242	1196	1925	1253	2018	1117	1799	1172	1887	1069	1721	1119	1801	1036	1668
			q_f																		
			F	10.4 -2.8R		11 -2.7R		11.5 -2.6R		11.8 -2.5R		12.1 -2.3R		12.3 -2.2R		12.4 -2.1R		12.6 -2R		12.7 -1.9R	
	20 ga	4"	q_a	1912	3078	1897	3055	1887	3039	1880	3027	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.5 -0.5R		6.6 -0.4R		6.7 -0.4R		6.7 -0.3R		6.7 -0.3R		6.7 -0.3R		6.7 -0.2R		6.8 -0.2R		6.8 -0.2R	
		6"	q_a	1675	2696	1647	2652	1628	2621	1614	2598	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.8 -0.9R		8 -0.8R		8.1 -0.7R		8.2 -0.7R		8.2 -0.6R		8.3 -0.6R		8.3 -0.5R		8.3 -0.5R		8.3 -0.4R	
		8"	q_a	1483	2388	1491	2400	1418	2283	1434	2308	1383	2227	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	9 -1.4R		9.2 -1.3R		9.4 -1.2R		9.5 -1.1R		9.6 -1R		9.7 -0.9R		9.8 -0.8R		9.8 -0.8R		9.9 -0.7R	
		12"	q_a	1218	1961	1165	1876	1129	1818	1102	1775	1082	1742	1066	1716	1025	1640	847	1355	712	1139
			q_f																		
			F	11 -2.4R		11.5 -2.2R		11.8 -2.1R		12 -2R		12.2 -1.8R		12.4 -1.7R		12.5 -1.6R		12.6 -1.6R		12.7 -1.5R	
		18"	q_a	1052	1961	1028	1655	884	1424	891	1434	896	1442	809	1303	822	1323	832	1339	712	1139
			q_f																		
			F	13.4 -3.7R		14.2 -3.6R		14.8 -3.5R		15.3 -3.4R		15.7 -3.3R		16 -3.1R		16.2 -3R		16.5 -2.9R		16.6 -2.8R	
		24"	q_a	862	1387	875	1409	746	1202	774	1245	686	1105	715	1150	649	1045	676	1089	624	1005
			q_f																		
			F	15.2 -4.8R		16.4 -4.9R		17.3 -4.9R		18 -4.8R		18.6 -4.7R		19.1 -4.6R		19.5 -4.5R		19.8 -4.3R		20.1 -4.2R	
	22 ga	4"	q_a	1487	2395	1472	2369	1461	2352	1453	2339	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	8.4 -0.8R		8.6 -0.7R		8.7 -0.7R		8.7 -0.6R		8.8 -0.5R		8.8 -0.5R		8.8 -0.4R		8.9 -0.4R		8.9 -0.4R	
		6"	q_a	1279	2059	1251	2014	1232	1984	1218	1961	1207	1943	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.2 -1.5R		10.4 -1.4R		10.6 -1.2R		10.7 -1.1R		10.8 -1.1R		10.9 -1R		11 -0.9R		11 -0.8R		11.1 -0.8R	
		8"	q_a	1121	1805	1122	1806	1060	1706	1069	1722	1027	1653	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	11.7 -2.2R		12.1 -2.1R		12.4 -1.9R		12.6 -1.8R		12.8 -1.7R		12.9 -1.6R		13 -1.5R		13.1 -1.4R		13.2 -1.3R	
		12"	q_a	915	1473	868	1397	836	1345	812	1307	794	1278	780	1255	768	1237	644	1031	541	866
			q_f																		
			F	14.1 -3.5R		14.9 -3.4R		15.4 -3.3R		15.9 -3.2R		16.2 -3R		16.5 -2.9R		16.7 -2.7R		16.9 -2.6R		17.1 -2.5R	
		18"	q_a	791	1473	765	1232	655	1054	656	1055	656	1056	591	951	598	963	604	972	541	866
			q_f																		
			F	16.9 -5.2R		18.2 -5.3R		19.1 -5.3R		19.9 -5.2R		20.6 -5.1R		21.1 -5R		21.5 -4.8R		21.9 -4.7R		22.2 -4.5R	
		24"	q_a	653	1051	654	1053	555	894	571	919	505	813	523	842	474	763	492	792	453	730
			q_f																		
			F	18.9 -6.6R		20.7 -6.9R		22.1 -7.1R		23.2 -7.1R		24.1 -7.1R		24.9 -7R		25.6 -6.9R		26.2 -6.7R		26.7 -6.6R	

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2.7 DGB-36 & DGBF-36

Pneutek K66 Fasteners to Supports with DeltaGrip® 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	3544	5706	3544	5706	3544	5706	3544	5706	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	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	+0R	3.3	+0R	3.3	+0R
		6"	q_a	3544	5706	3544	5706	3544	5706	3544	5706	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3.7	-0.2R	3.7	-0.2R	3.7	-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
		8"	q_a	3544	5706	3544	5706	3544	5706	3544	5706	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.1	-0.3R	4.2	-0.3R	4.2	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.3	-0.2R	4.4	-0.2R	4.4	-0.1R
		12"	q_a	3333	5365	3189	5134	3087	4970	3010	4847	2951	4752	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	4.8	-0.5R	5	-0.5R	5.1	-0.5R	5.2	-0.4R	5.2	-0.4R	5.3	-0.4R	5.3	-0.3R	5.4	-0.3R	5.4	-0.3R
		18"	q_a	2965	5365	2877	4632	2513	4046	2510	4041	2507	4037	2283	3675	2134	3414	1763	2821	1482	2371
			q_f																		
			F	5.7	-0.9R	6	-0.8R	6.2	-0.8R	6.4	-0.8R	6.5	-0.7R	6.6	-0.7R	6.7	-0.6R	6.8	-0.6R	6.8	-0.6R
		24"	q_a	2524	4063	2517	4053	2173	3499	2221	3575	1984	3194	2044	3291	1866	3004	1763	2821	1482	2371
			q_f																		
			F	6.4	-1.2R	6.8	-1.2R	7.1	-1.2R	7.4	-1.1R	7.6	-1.1R	7.8	-1R	7.9	-1R	8	-1R	8.1	-0.9R
	18 ga	4"	q_a	2723	4384	2723	4384	2723	4384	2723	4384	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.3	-0.2R	4.3	-0.2R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R
		6"	q_a	2723	4384	2723	4384	2723	4384	2723	4384	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.9	-0.4R	5	-0.3R	5.1	-0.3R	5.2	-0.3R	5.2	-0.2R	5.2	-0.2R	5.3	-0.2R	5.3	-0.2R	5.3	-0.2R
		8"	q_a	2723	4384	2723	4384	2635	4243	2645	4258	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			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
		12"	q_a	2376	3826	2251	3624	2162	3481	2096	3374	2044	3292	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	6.5	-0.9R	6.8	-0.9R	7	-0.8R	7.1	-0.8R	7.3	-0.7R	7.4	-0.7R	7.5	-0.7R	7.5	-0.6R	7.6	-0.6R
		18"	q_a	2114	3826	2029	3266	1758	2830	1743	2806	1731	2787	1569	2525	1550	2481	1281	2050	1077	1723
			q_f																		
			F	7.6	-1.4R	8.1	-1.4R	8.4	-1.4R	8.7	-1.3R	9	-1.3R	9.2	-1.2R	9.4	-1.2R	9.5	-1.1R	9.6	-1.1R
		24"	q_a	1811	2916	1779	2865	1528	2460	1545	2488	1375	2214	1407	2265	1281	2062	1281	2050	1077	1723
			q_f																		
			F	8.4	-1.8R	9.1	-1.9R	9.6	-1.9R	10	-1.8R	10.4	-1.8R	10.7	-1.8R	11	-1.7R	11.2	-1.7R	11.4	-1.6R
	20 ga	4"	q_a	1964	3161	1964	3161	1964	3161	1964	3161	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	6.2	-0.4R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.6	-0.2R	6.6	-0.2R
		6"	q_a	1964	3161	1964	3161	1937	3118	1903	3064	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	7.2	-0.8R	7.4	-0.7R	7.6	-0.7R	7.7	-0.6R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.5R	8.1	-0.4R
		8"	q_a	1828	2943	1799	2896	1690	2720	1687	2716	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	8	-1.1R	8.4	-1R	8.6	-1R	8.8	-0.9R	9	-0.9R	9.1	-0.8R	9.2	-0.8R	9.3	-0.7R	9.4	-0.7R
		12"	q_a	1551	2496	1448	2331	1375	2213	1321	2126	1279	2059	1246	2006	1025	1640	847	1355	712	1139
			q_f																		
			F	9.3	-1.6R	9.9	-1.6R	10.3	-1.6R	10.7	-1.6R	10.9	-1.5R	11.2	-1.5R	11.4	-1.4R	11.6	-1.4R	11.7	-1.3R
		18"	q_a	1385	2496	1307	2105	1124	1809	1101	1773	1084	1745	978	1574	976	1571	847	1355	712	1139
			q_f																		
			F	10.6	-2.3R	11.5	-2.4R	12.2	-2.5R	12.8	-2.5R	13.3	-2.5R	13.7	-2.4R	14.1	-2.4R	14.4	-2.3R	14.7	-2.3R
		24"	q_a	1201	1934	1155	1860	986	1588	982	1582	869	1399	880	1417	792	1275	812	1308	712	1139
			q_f																		
			F	11.5	-2.8R	12.7	-3R	13.6	-3.2R	14.4	-3.3R	15.1	-3.3R	15.7	-3.3R	16.3	-3.3R	16.7	-3.3R	17.2	-3.2R
	22 ga	4"	q_a	1601	2578	1601	2578	1601	2578	1590	2545	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	7.9	-0.7R	8.1	-0.6R	8.2	-0.6R	8.3	-0.5R	8.4	-0.5R	8.5	-0.5R	8.5	-0.4R	8.6	-0.4R	8.6	-0.4R
		6"	q_a	1567	2523	1508	2427	1465	2359	1433	2307	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	9.1	-1.2R	9.5	-1.1R	9.7	-1.1R	10	-1R	10.1	-0.9R	10.3	-0.9R	10.4	-0.8R	10.5	-0.8R	10.6	-0.8R
		8"	q_a	1396	2248	1363	2194	1270	2045	1262	2032	1201	1933	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	10.1	-1.6R	10.6	-1.6R	11	-1.5R	11.3	-1.5R	11.6	-1.4R	11.8	-1.3R	12	-1.3R	12.2	-1.2R	12.3	-1.2R
		12"	q_a	1186	1909	1096	1764	1033	1663	986	1587	950	1529	921	1483	779	1247	644	1031	541	866
			q_f																		
			F	11.5	-2.3R	12.4	-2.4R	13	-2.4R	13.6	-2.4R	14.1	-2.3R	14.5	-2.3R	14.8	-2.2R	15.1	-2.2R	15.3	-2.1R
		18"	q_a	1064	1909	993	1599	850	1369	826	1330	808	1301	727	1170	722	1162	644	1031	541	866
			q_f																		
			F	12.9	-3.1R	14.2	-3.3R	15.2	-3.4R	16.1	-3.5R	16.8	-3.6R	17.5	-3.6R	18.1	-3.6R	18.6	-3.5R	19	-3.5R
		24"	q_a	932	1500	883	1422	752	1210	740	1192	643	1035	649	1044	584	940	595	958	541	866
			q_f																		
			F	13.9	-3.6R	15.4	-4R	16.7	-4.3R	17.9	-4.5R	18.9	-4.6R	19.8	-4.7R	20.6	-4.7R	21.3	-4.8R	22	-4.8R

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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"	
36/4	16 ga	4"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R
		6"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			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	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
		8"	q_a	984	986	986	948	955	928	936	915	923	906								
			q_f	1585	1587	1587	1526	1537	1494	1507	1473	1486	1459								
			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	4.8 +0R								
		12"	q_a	847	814	791	774	760	749	741	734	727									
			q_f	1363	1311	1273	1245	1224	1207	1193	1181	1171									
			F	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R									
		18"	q_a	753	734	644	645	647	590	597	602	562									
			q_f	1363	1183	1036	1039	1041	950	961	970	904									
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R									
		24"	q_a	637	641	555	570	510	528	482	500	463									
			q_f	1026	1032	893	918	821	850	777	804	746									
			F	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R									
	18 ga	4"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			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	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	788	788	788	788	788	788	788	788	786	783								
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1265	1261								
			F	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R								
		8"	q_a	757	756	723	728	705	711	693	699	685									
			q_f	1218	1217	1165	1172	1135	1145	1116	1126	1103									
			F	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R									
		12"	q_a	647	618	598	583	571	562	554	548	543									
			q_f	1041	996	963	939	920	905	893	883	874									
			F	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R									
		18"	q_a	574	557	485	485	484	440	444	448	417									
			q_f	1041	897	781	780	780	709	716	721	671									
			F	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R									
		24"	q_a	488	486	419	428	382	394	359	371	344									
			q_f	785	783	675	690	616	634	579	598	553									
			F	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R									
	20 ga	4"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R
		6"	q_a	592	585	576	570	565	561	558	555	553									
			q_f	953	942	928	918	909	903	898	893	890									
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R									
		8"	q_a	539	536	510	512	494	497	484	488	477									
			q_f	868	864	821	825	795	801	779	785	767									
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R									
		12"	q_a	458	434	418	405	396	388	382	377	372									
			q_f	737	699	672	652	637	625	615	606	599									
			F	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R									
		18"	q_a	407	391	339	336	334	303	305	306	284									
			q_f	737	629	545	541	538	488	491	493	458									
			F	11.3 +0R	11.3 +0R	11.3 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R									
		24"	q_a	347	342	294	298	265	271	247	254	235									
			q_f	559	551	473	479	426	437	398	409	378									
			F	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R									
	22 ga	4"	q_a	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			q_f	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R
		6"	q_a	482	471	463	457	452	448	445	443	440									
			q_f	777	758	745	735	728	722	717	713	709									
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R									
		8"	q_a	433	430	407	408	392	395	383	386	377									
			q_f	698	692	655	657	631	636	617	622	606									
			F	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R									
		12"	q_a	367	346	332	321	312	306	300	296	292									
			q_f	591	558	534	517	503	492	483	476	470									
			F	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R									
		18"	q_a	326	312	269	266	264	239	240	240	223									
			q_f	591	502	434	429	425	384	386	387	359									
			F	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R									
		24"	q_a	280	273	234	236	210	214	194	200	184									
			q_f	450	440	377	380	337	345	312	322	296									
			F	15.6 -0.1R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R									

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

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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	1749	2816	1725	2777	1708	2751	1696	2731	1687	2716	1679	2704	1673	2694	1668	2686	1482	2371
			q_f																		
			F	3.4	+0R	3.4	+0R	3.4	+0R	3.4	+0R	3.4	+0R	3.4	+0R	3.4	+0R	3.4	+0R	3.4	+0R
		6"	q_a	1481	2385	1442	2322	1415	2279	1395	2246	1380	2222	1368	2202	1358	2186	1350	2173	1343	2162
			q_f																		
			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
		8"	q_a	1290	2077	1285	2069	1207	1943	1215	1956	1162	1871	1174	1890	1135	1827	1147	1847	1116	1796
			q_f																		
			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
		12"	q_a	1050	1691	989	1592	947	1524	916	1475	892	1437	874	1407	859	1383	847	1363	836	1346
			q_f																		
			F	6.2	+0R	6.2	+0R	6.2	+0R	6.2	+0R	6.2	+0R	6.2	+0R	6.2	+0R	6.2	+0R	6.2	+0R
		18"	q_a	910	1691	873	1406	744	1199	741	1193	738	1188	663	1068	669	1077	673	1084	622	1001
			q_f																		
			F	8.2	+0R	8.2	+0R	8.2	+0R	8.2	+0R	8.2	+0R	8.2	+0R	8.2	+0R	8.2	+0R	8.2	+0R
		24"	q_a	757	1219	750	1207	635	1022	647	1042	572	920	588	947	531	855	550	885	503	810
			q_f																		
			F	10.2	+0R	10.2	+0R	10.2	+0R	10.2	+0R	10.2	+0R	10.2	+0R	10.2	+0R	10.2	+0R	10.2	+0R
	18 ga	4"	q_a	1341	2159	1319	2123	1303	2098	1292	2080	1283	2066	1276	2054	1270	2045	1266	2038	1077	1723
			q_f																		
			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	1124	1809	1089	1754	1065	1715	1048	1687	1034	1665	1023	1648	1015	1634	1007	1622	1001	1612
			q_f																		
			F	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R
		8"	q_a	975	1569	966	1556	903	1454	907	1461	865	1393	873	1405	841	1355	850	1369	826	1329
			q_f																		
			F	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R
		12"	q_a	793	1277	742	1195	707	1139	682	1098	662	1066	647	1042	635	1022	624	1005	616	991
			q_f																		
			F	7.2	+0R	7.2	+0R	7.2	+0R	7.2	+0R	7.2	+0R	7.2	+0R	7.2	+0R	7.2	+0R	7.2	+0R
		18"	q_a	690	1277	657	1058	558	899	553	890	549	883	492	793	495	797	497	800	458	738
			q_f																		
			F	9.4	+0R	9.4	+0R	9.4	+0R	9.4	+0R	9.4	+0R	9.4	+0R	9.4	+0R	9.4	+0R	9.4	+0R
		24"	q_a	578	931	566	912	479	771	485	780	425	684	436	702	391	629	404	650	370	596
			q_f																		
			F	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R
	20 ga	4"	q_a	950	1530	930	1498	916	1475	906	1459	898	1446	892	1436	887	1428	847	1355	712	1139
			q_f																		
			F	5.2	+0R	5.2	+0R	5.2	+0R	5.2	+0R	5.2	+0R	5.2	+0R	5.2	+0R	5.2	+0R	5.2	+0R
		6"	q_a	787	1267	758	1221	738	1188	723	1165	712	1146	703	1132	696	1120	690	1111	685	1102
			q_f																		
			F	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R
		8"	q_a	681	1096	670	1079	623	1002	623	1003	592	953	596	959	573	922	578	930	560	902
			q_f																		
			F	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R
		12"	q_a	555	894	515	830	488	785	468	753	453	729	441	709	431	694	423	681	416	670
			q_f																		
			F	8.7	+0R	8.7	+0R	8.7	+0R	8.7	+0R	8.7	+0R	8.7	+0R	8.7	+0R	8.7	+0R	8.7	+0R
		18"	q_a	485	894	458	737	388	624	381	614	376	606	335	539	336	541	338	544	310	498
			q_f																		
			F	11.3	+0R	11.3	+0R	11.3	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R
		24"	q_a	411	661	397	639	332	535	333	537	290	467	296	476	266	428	274	441	251	404
			q_f																		
			F	14	-0.1R	14	-0.1R	14	-0.1R	14	+0R	14	+0R	14	+0R	14	+0R	14	+0R	14	+0R
	22 ga	4"	q_a	761	1225	742	1195	729	1174	720	1159	713	1148	707	1138	702	1131	644	1031	541	866
			q_f																		
			F	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R	6.1	+0R
		6"	q_a	626	1008	601	967	583	938	570	917	560	901	552	889	546	878	540	870	536	863
			q_f																		
			F	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R	7	+0R
		8"	q_a	541	871	530	854	491	790	490	789	464	747	466	751	448	721	451	726	437	703
			q_f																		
			F	8	+0R	8	+0R	8	+0R	8	+0R	8	+0R	8	+0R	8	+0R	8	+0R	8	+0R
		12"	q_a	442	712	408	658	385	620	368	593	355	572	345	555	337	542	330	531	324	522
			q_f																		
			F	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R
		18"	q_a	388	712	364	586	308	495	300	483	295	474	262	421	262	422	263	423	241	388
			q_f																		
			F	12.8	-0.1R	12.8	-0.1R	12.8	+0R	12.8	+0R	12.8	+0R	12.8	+0R	12.8	+0R	12.8	+0R	12.8	+0R
		24"	q_a	331	533	317	511	263	424	262	422	228	367	232	373	209	336	214	344	196	316
			q_f																		
			F	15.6	-0.1R	15.7	-0.1R	15.7	-0.1R	15.7	-0.1R	15.7	-0.1R	15.7	-0.1R	15.7	+0R	15.7	+0R	15.7	+0R

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

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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	1742	1723	1709	1698	1690	1683	1677	1482												
			q_f	2847	2804	2774	2751	2734	2720	2709	2700	2371												
			F	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R											
		6"	q_a	1513	1470	1439	1416	1398	1384	1373	1364	1356												
			q_f	2436	2366	2316	2280	2251	2229	2211	2196	2183												
			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												
		8"	q_a	1331	1318	1236	1240	1185	1194	1154	1164	1132												
			q_f	2142	2122	1990	1997	1908	1923	1857	1874	1822												
			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												
		12"	q_a	1100	1031	983	948	921	899	882	868	856												
			q_f	1772	1660	1583	1526	1483	1448	1420	1397	1378												
			F	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R												
		18"	q_a	966	919	785	776	769	692	694	697	643												
			q_f	1772	1480	1264	1249	1238	1113	1118	1121	1036												
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R												
		24"	q_a	818	798	678	684	605	618	560	574	527												
			q_f	1317	1285	1091	1101	973	994	901	925	849												
			F	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R												
	18 ga	4"	q_a	1359	1334	1317	1304	1294	1286	1279	1274	1077												
			q_f	2188	2148	2120	2099	2083	2070	2059	2050	1723												
			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	1152	1113	1086	1066	1050	1038	1028	1020	1013												
			q_f	1855	1792	1748	1716	1691	1671	1655	1642	1631												
			F	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R												
		8"	q_a	1010	995	928	929	885	890	858	865	839												
			q_f	1625	1601	1495	1496	1425	1433	1381	1392	1351												
			F	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R												
		12"	q_a	835	778	738	708	686	668	654	642	632												
			q_f	1345	1252	1188	1140	1104	1076	1053	1033	1018												
			F	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R												
		18"	q_a	735	695	592	582	574	515	516	516	476												
			q_f	1345	1118	953	936	924	830	830	831	766												
			F	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R												
		24"	q_a	627	606	514	514	454	462	414	425	390												
			q_f	1010	976	827	828	731	743	667	684	627												
			F	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R												
	20 ga	4"	q_a	967	944	928	917	908	901	895	847	712												
			q_f	1556	1520	1495	1476	1462	1450	1441	1355	1139												
			F	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R												
		6"	q_a	811	778	755	739	726	715	707	700	694												
			q_f	1306	1253	1216	1189	1168	1152	1138	1127	1118												
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R												
		8"	q_a	709	693	643	641	608	610	586	590	571												
			q_f	1141	1116	1035	1032	979	982	943	950	919												
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R												
		12"	q_a	588	543	511	489	471	457	446	437	429												
			q_f	947	874	824	786	758	736	718	703	691												
			F	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R												
		18"	q_a	521	487	413	403	396	354	353	352	324												
			q_f	947	784	666	649	637	570	569	567	522												
			F	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.4 +0R	11.4 +0R	11.4 +0R												
		24"	q_a	448	428	362	358	312	315	283	290	265												
			q_f	722	688	582	577	502	507	456	466	427												
			F	13.9 -0.1R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R												
	22 ga	4"	q_a	776	755	741	730	722	715	710	644	541												
			q_f	1249	1216	1192	1175	1162	1151	1142	1031	866												
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R												
		6"	q_a	647	618	598	583	572	563	555	549	541												
			q_f	1042	996	963	939	921	906	894	884	866												
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R												
		8"	q_a	566	550	508	505	478	479	459	461	446												
			q_f	911	886	818	813	769	771	739	743	718												
			F	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R												
		12"	q_a	471	432	405	386	371	359	349	342	335												
			q_f	758	696	652	621	597	578	563	550	539												
			F	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R												
		18"	q_a	418	388	329	320	313	278	277	276	253												
			q_f	758	625	530	515	503	447	446	444	407												
			F	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R												
		24"	q_a	363	343	287	283	246	248	223	227	208												
			q_f	584	552	463	455	396	399	359	366	335												
			F	15.6 -0.1R	15.6 -0.1R	15.6 -0.1R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R												

BN-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	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1965	3164	1950	3139	1763	2821	1482	2371
			q_f																		
			F	3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R	
		6"	q_a	1827	2942	1745	2810	1687	2716	1643	2645	1609	2591	1583	2548	1561	2513	1542	2483	1482	2371
			q_f																		
			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	
		8"	q_a	1625	2617	1574	2534	1458	2347	1442	2322	1366	2199	1364	2196	1309	2107	1312	2112	1269	2043
			q_f																		
			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	
		12"	q_a	1385	2230	1269	2043	1188	1912	1128	1816	1081	1741	1045	1682	1015	1634	991	1595	970	1562
			q_f																		
			F	6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R	
		18"	q_a	1249	2230	1154	1858	985	1586	950	1530	924	1488	830	1336	820	1321	811	1306	742	1194
			q_f																		
			F	8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R	
		24"	q_a	1103	1776	1033	1663	877	1413	857	1380	750	1208	747	1203	669	1077	674	1085	616	991
			q_f																		
			F	10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R	
	18 ga	4"	q_a	1576	2537	1576	2537	1550	2496	1523	2453	1502	2419	1486	2392	1472	2370	1281	2050	1077	1723
			q_f																		
			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	1396	2247	1325	2133	1275	2052	1237	1992	1208	1945	1185	1908	1166	1877	1150	1852	1077	1723
			q_f																		
			F	4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R	
		8"	q_a	1242	1999	1194	1922	1100	1771	1084	1745	1023	1647	1019	1640	975	1570	976	1571	942	1517
			q_f																		
			F	5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R	
		12"	q_a	1062	1710	967	1556	900	1448	850	1369	812	1307	782	1259	758	1220	738	1187	721	1160
			q_f																		
			F	7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R	
		18"	q_a	962	1710	882	1420	751	1210	721	1160	697	1122	618	996	608	978	600	966	550	886
			q_f																		
			F	9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R	
		24"	q_a	856	1378	794	1278	672	1082	649	1045	564	909	558	899	500	804	502	808	460	741
			q_f																		
			F	11.7 -0.1R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R	
	20 ga	4"	q_a	1164	1875	1121	1804	1090	1754	1066	1717	1048	1688	1034	1665	1022	1640	847	1355	712	1139
			q_f																		
			F	5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R	
		6"	q_a	989	1592	931	1499	890	1433	859	1383	836	1345	817	1315	802	1291	789	1270	712	1139
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		8"	q_a	881	1418	839	1351	768	1237	753	1212	707	1139	702	1130	669	1077	668	1075	643	1036
			q_f																		
			F	7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R	
		12"	q_a	758	1221	684	1101	632	1018	594	956	564	909	541	871	522	841	507	816	494	795
			q_f																		
			F	8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R	
		18"	q_a	691	1221	628	1010	533	858	503	811	481	775	425	684	417	672	411	662	377	607
			q_f																		
			F	11.3 -0.1R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R	
		24"	q_a	621	1000	569	916	474	764	453	730	393	633	386	621	347	559	347	559	318	513
			q_f																		
			F	13.9 -0.1R		13.9 -0.1R		13.9 -0.1R		14 -0.1R		14 +0R		14 +0R		14 +0R		14 +0R		14 +0R	
	22 ga	4"	q_a	935	1506	896	1443	868	1398	847	1364	831	1338	818	1318	779	1247	644	1031	541	866
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		6"	q_a	793	1277	743	1196	707	1139	681	1096	660	1063	644	1036	631	1015	620	998	541	866
			q_f																		
			F	7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R	
		8"	q_a	708	1140	670	1079	611	984	597	960	559	900	553	890	526	848	524	844	504	812
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		12"	q_a	612	986	549	885	505	814	473	761	446	719	426	685	410	660	397	639	386	622
			q_f																		
			F	9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R	
		18"	q_a	561	986	506	814	425	684	399	642	380	611	337	542	330	531	324	522	297	478
			q_f																		
			F	12.7 -0.1R		12.8 -0.1R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R	
		24"	q_a	506	815	461	742	380	612	361	581	313	503	307	494	276	445	275	443	252	406
			q_f																		
			F	15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.7 -0.1R		15.7 +0R		15.7 +0R	

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

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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	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R
		6"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			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	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
		8"	q_a	986	986	986	986	972	972	979	979	953	953	962	962	942	942	950	950	934	934
			q_f	1587	1587	1587	1587	1565	1565	1576	1576	1535	1535	1548	1548	1516	1516	1529	1529	1503	1503
			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	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
		12"	q_a	869	869	838	838	816	816	799	799	787	787	777	777	768	768	761	761	756	756
			q_f	1398	1398	1349	1349	1313	1313	1287	1287	1266	1266	1250	1250	1237	1237	1226	1226	1217	1217
			F	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R
		18"	q_a	773	773	757	757	665	665	669	669	671	671	613	613	621	621	628	628	586	586
			q_f	1398	1398	1219	1219	1071	1071	1076	1076	1080	1080	988	988	1000	1000	1010	1010	943	943
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R
		24"	q_a	654	654	661	661	573	573	591	591	530	530	549	549	502	502	521	521	484	484
			q_f	1053	1053	1064	1064	923	923	951	951	853	853	884	884	809	809	839	839	779	779
			F	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R
	18 ga	4"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			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	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	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			F	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R
		8"	q_a	774	774	775	775	743	743	748	748	726	726	732	732	715	715	722	722	708	708
			q_f	1246	1246	1247	1247	1197	1197	1205	1205	1169	1169	1179	1179	1152	1152	1162	1162	1140	1140
			F	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R
		12"	q_a	664	664	637	637	618	618	603	603	592	592	583	583	576	576	570	570	565	565
			q_f	1069	1069	1025	1025	994	994	971	971	953	953	939	939	927	927	918	918	909	909
			F	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R
		18"	q_a	590	590	574	574	502	502	502	502	503	503	458	458	463	463	467	467	435	435
			q_f	1069	1069	924	924	808	808	809	809	809	809	737	737	745	745	752	752	700	700
			F	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R
		24"	q_a	500	500	501	501	433	433	444	444	397	397	410	410	374	374	387	387	359	359
			q_f	805	805	807	807	697	697	714	714	639	639	659	659	602	602	623	623	578	578
			F	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R
	20 ga	4"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R
		6"	q_a	592	592	592	592	591	591	585	585	580	580	576	576	573	573	571	571	569	569
			q_f	953	953	953	953	951	951	941	941	934	934	928	928	923	923	919	919	916	916
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R
		8"	q_a	552	552	551	551	525	525	528	528	510	510	514	514	500	500	505	505	494	494
			q_f	889	889	886	886	845	845	850	850	821	821	827	827	805	805	812	812	795	795
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R
		12"	q_a	470	470	448	448	432	432	420	420	410	410	403	403	397	397	392	392	388	388
			q_f	757	757	721	721	695	695	676	676	661	661	649	649	639	639	631	631	624	624
			F	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R
		18"	q_a	417	417	403	403	350	350	348	348	347	347	315	315	318	318	319	319	297	297
			q_f	757	757	649	649	563	563	561	561	559	559	507	507	511	511	514	514	478	478
			F	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R
		24"	q_a	355	355	352	352	303	303	308	308	275	275	282	282	257	257	265	265	245	245
			q_f	572	572	567	567	488	488	496	496	442	442	454	454	414	414	426	426	394	394
			F	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R
	22 ga	4"	q_a	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			q_f	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R
		6"	q_a	493	493	482	482	475	475	469	469	465	465	462	462	459	459	456	456	454	454
			q_f	793	793	777	777	765	765	756	756	749	749	743	743	738	738	735	735	731	731
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R
		8"	q_a	444	444	442	442	419	419	421	421	406	406	409	409	397	397	400	400	391	391
			q_f	715	715	711	711	675	675	678	678	653	653	658	658	639	639	644	644	629	629
			F	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R
		12"	q_a	377	377	357	357	343	343	332	332	324	324	318	318	313	313	308	308	305	305
			q_f	607	607	575	575	552	552	535	535	522	522	512	512	503	503	496	496	490	490
			F	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R
		18"	q_a	335	335	321	321	278	278	276	276	274	274	248	248	250	250	251	251	232	232
			q_f	607	607	517	517	448	448	444	444	441	441	400	400	402	402	404	404	374	374
			F	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R
		24"	q_a	286	286	281	281	241	241	244	244	217	217	222	222	202	202	208	208	192	192
			q_f	461	461	453	453	389	389	393	393	350	350	358	358	326	326	335	335	310	310
			F	15.6 -0.1R	15.6 -0.1R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R

BN-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	1482	2371
			q_f																		
			F	3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R	
		6"	q_a	1525	2455	1488	2396	1463	2355	1444	2325	1430	2302	1418	2283	1409	2269	1401	2256	1395	2246
			q_f																		
			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	
		8"	q_a	1332	2144	1330	2141	1252	2016	1262	2032	1209	1947	1222	1968	1183	1905	1196	1926	1165	1876
			q_f																		
			F	4.8 +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	
		12"	q_a	1085	1747	1025	1651	984	1585	954	1536	931	1499	913	1470	899	1447	886	1427	876	1411
			q_f																		
			F	6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R	
		18"	q_a	939	1747	905	1457	773	1244	771	1241	770	1239	692	1115	699	1126	705	1135	651	1048
			q_f																		
			F	8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R	
		24"	q_a	778	1253	775	1247	657	1058	672	1082	594	957	613	988	556	895	575	926	528	850
			q_f																		
			F	10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R	
	18 ga	4"	q_a	1374	2212	1354	2179	1339	2156	1329	2139	1321	2126	1314	2116	1309	2108	1281	2050	1077	1723
			q_f																		
			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	1158	1865	1126	1812	1103	1776	1086	1749	1073	1728	1063	1712	1055	1699	1048	1688	1043	1679
			q_f																		
			F	4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R	
		8"	q_a	1007	1621	1001	1611	938	1510	944	1519	901	1451	910	1465	879	1414	888	1430	863	1390
			q_f																		
			F	5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R	
		12"	q_a	819	1319	770	1239	735	1184	710	1143	691	1113	676	1088	664	1069	654	1053	645	1039
			q_f																		
			F	7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R	
		18"	q_a	711	1319	680	1095	579	932	575	926	572	921	514	827	517	833	520	838	480	773
			q_f																		
			F	9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R	
		24"	q_a	593	955	585	941	495	797	503	810	443	712	456	734	409	658	423	681	388	625
			q_f																		
			F	11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R	
	20 ga	4"	q_a	976	1571	958	1542	945	1521	935	1506	928	1494	922	1484	917	1477	847	1355	712	1139
			q_f																		
			F	5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R	
		6"	q_a	812	1308	785	1264	766	1233	751	1210	741	1192	732	1179	725	1168	719	1158	712	1139
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		8"	q_a	703	1132	695	1118	647	1042	649	1045	617	994	622	1001	599	964	605	973	586	944
			q_f																		
			F	7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R	
		12"	q_a	573	922	534	859	507	816	487	784	472	760	460	741	451	726	443	713	436	703
			q_f																		
			F	8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R	
		18"	q_a	499	922	473	762	402	646	396	638	392	631	350	564	352	567	353	569	325	523
			q_f																		
			F	11.3 +0R		11.3 +0R		11.3 +0R		11.4 +0R		11.4 +0R		11.4 +0R		11.4 +0R		11.4 +0R		11.4 +0R	
		24"	q_a	421	678	409	659	344	554	347	558	302	486	308	497	278	447	286	461	263	423
			q_f																		
			F	14 -0.1R		14 -0.1R		14 -0.1R		14 +0R		14 +0R		14 +0R		14 +0R		14 +0R		14 +0R	
	22 ga	4"	q_a	782	1260	765	1232	753	1213	744	1198	738	1188	732	1179	728	1172	644	1031	541	866
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		6"	q_a	647	1041	622	1002	605	974	593	954	583	939	575	926	569	916	564	908	541	866
			q_f																		
			F	7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R	
		8"	q_a	559	900	550	885	510	821	510	821	484	779	487	784	468	754	472	760	457	736
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		12"	q_a	456	735	423	681	400	644	383	617	370	596	360	580	352	567	345	556	340	547
			q_f																		
			F	9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R	
		18"	q_a	399	735	376	605	318	513	313	503	308	496	273	440	275	442	275	444	253	407
			q_f																		
			F	12.8 -0.1R		12.8 -0.1R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R	
		24"	q_a	339	545	327	526	272	438	272	438	237	381	242	389	217	350	224	360	205	330
			q_f																		
			F	15.6 -0.1R		15.7 -0.1R		15.7 -0.1R		15.7 -0.1R		15.7 -0.1R		15.7 -0.1R		15.7 +0R		15.7 +0R		15.7 +0R	

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

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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	1806	1782	1764	1752	1742	1734	1728	1723	1482												
			q_f	2908	2868	2841	2820	2805	2792	2782	2774	2371												
			F	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R	3.4 +0R											
		6"	q_a	1555	1514	1485	1463	1447	1434	1423	1415	1407												
			q_f	2503	2437	2391	2356	2330	2309	2292	2277	2265												
			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												
		8"	q_a	1371	1361	1280	1286	1232	1242	1201	1213	1181												
			q_f	2207	2191	2061	2071	1983	2000	1934	1952	1901												
			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												
		12"	q_a	1134	1067	1020	985	959	938	921	907	896												
			q_f	1826	1717	1642	1586	1544	1510	1483	1461	1442												
			F	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R												
		18"	q_a	994	950	813	806	800	720	724	728	673												
			q_f	1826	1529	1309	1297	1288	1160	1166	1172	1083												
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R												
		24"	q_a	838	823	700	709	627	642	582	599	552												
			q_f	1349	1325	1126	1141	1009	1034	938	965	889												
			F	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R	10.2 +0R												
	18 ga	4"	q_a	1391	1368	1352	1340	1330	1323	1317	1281	1077												
			q_f	2239	2202	2176	2157	2142	2130	2121	2050	1723												
			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	1185	1148	1123	1104	1089	1077	1068	1060	1053												
			q_f	1908	1849	1807	1777	1753	1734	1719	1707	1696												
			F	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R												
		8"	q_a	1040	1028	962	964	920	927	894	902	876												
			q_f	1675	1655	1549	1553	1482	1492	1440	1452	1411												
			F	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R												
		12"	q_a	860	804	765	736	714	697	683	671	661												
			q_f	1385	1294	1231	1185	1150	1122	1099	1080	1065												
			F	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R	7.2 +0R												
		18"	q_a	756	717	612	603	597	536	538	539	497												
			q_f	1385	1154	985	971	961	864	866	868	801												
			F	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R												
		24"	q_a	642	624	529	532	471	480	432	444	407												
			q_f	1034	1005	852	857	758	772	696	716	656												
			F	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R												
	20 ga	4"	q_a	991	970	956	945	937	930	925	847	712												
			q_f	1596	1562	1539	1521	1508	1497	1489	1355	1139												
			F	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R	5.2 +0R												
		6"	q_a	835	804	782	766	754	744	736	729	712												
			q_f	1344	1294	1259	1233	1213	1198	1185	1174	1139												
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R												
		8"	q_a	731	717	667	666	633	636	612	616	597												
			q_f	1176	1154	1074	1072	1019	1024	985	992	961												
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R												
		12"	q_a	605	561	530	507	490	477	466	456	449												
			q_f	974	903	853	817	789	767	750	735	723												
			F	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R	8.7 +0R												
		18"	q_a	534	502	427	418	411	369	368	368	339												
			q_f	974	808	687	673	662	594	593	592	546												
			F	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.4 +0R	11.4 +0R	11.4 +0R												
		24"	q_a	458	440	372	371	324	328	295	302	277												
			q_f	738	708	599	597	521	528	475	487	446												
			F	13.9 -0.1R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R	14 +0R												
	22 ga	4"	q_a	796	777	764	754	746	740	735	644	541												
			q_f	1282	1251	1229	1213	1201	1191	1183	1031	866												
			F	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R	6.1 +0R												
		6"	q_a	667	639	620	606	595	586	579	573	541												
			q_f	1074	1029	998	975	957	943	932	922	866												
			F	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R	7 +0R												
		8"	q_a	583	569	527	525	498	499	479	482	467												
			q_f	938	916	849	845	801	804	771	776	751												
			F	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R												
		12"	q_a	484	446	420	400	386	374	365	357	350												
			q_f	779	718	676	645	621	602	587	575	564												
			F	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R												
		18"	q_a	429	400	340	331	324	290	289	288	265												
			q_f	779	644	547	533	522	466	465	464	426												
			F	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R	12.8 +0R												
		24"	q_a	370	352	296	293	255	258	232	237	217												
			q_f	596	567	477	472	410	415	374	381	350												
			F	15.6 -0.1R	15.6 -0.1R	15.6 -0.1R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R	15.7 +0R												

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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	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821	1482	2371
			q_f																		
			F	3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R		3.4 +0R	
		6"	q_a	1875	3018	1797	2892	1741	2803	1699	2736	1667	2684	1642	2643	1621	2609	1603	2581	1482	2371
			q_f																		
			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	
		8"	q_a	1668	2686	1622	2611	1506	2425	1494	2405	1418	2282	1417	2282	1362	2193	1367	2201	1324	2131
			q_f																		
			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	
		12"	q_a	1419	2285	1306	2102	1226	1974	1167	1879	1121	1806	1086	1748	1056	1701	1032	1662	1012	1629
			q_f																		
			F	6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R	
		18"	q_a	1277	2285	1185	1908	1013	1631	981	1579	956	1539	859	1384	851	1371	845	1360	775	1248
			q_f																		
			F	8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R	
		24"	q_a	1123	1808	1058	1703	899	1448	882	1420	775	1248	775	1248	694	1117	701	1129	641	1032
			q_f																		
			F	10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R	
	18 ga	4"	q_a	1576	2537	1576	2537	1576	2537	1570	2527	1550	2496	1534	2471	1522	2450	1281	2050	1077	1723
			q_f																		
			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	1433	2306	1365	2197	1316	2119	1280	2061	1253	2017	1230	1981	1212	1952	1197	1928	1077	1723
			q_f																		
			F	4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R		4.9 +0R	
		8"	q_a	1274	2051	1230	1981	1137	1830	1123	1808	1062	1710	1059	1705	1015	1634	1017	1637	983	1582
			q_f																		
			F	5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R		5.6 +0R	
		12"	q_a	1087	1751	993	1600	928	1493	879	1415	842	1355	812	1307	788	1269	768	1237	751	1210
			q_f																		
			F	7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R	
		18"	q_a	983	1751	905	1457	772	1242	742	1195	720	1160	642	1034	633	1019	626	1008	574	924
			q_f																		
			F	9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R	
		24"	q_a	870	1401	812	1307	689	1109	670	1078	582	937	578	931	517	833	521	840	478	770
			q_f																		
			F	11.7 -0.1R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R	
	20 ga	4"	q_a	1183	1905	1152	1855	1123	1808	1101	1773	1084	1745	1071	1724	1025	1640	847	1355	712	1139
			q_f																		
			F	5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R	
		6"	q_a	1015	1634	959	1544	919	1480	890	1433	867	1396	849	1367	834	1343	822	1323	712	1139
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		8"	q_a	903	1455	864	1392	794	1278	780	1255	734	1182	729	1174	697	1122	696	1121	671	1081
			q_f																		
			F	7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R	
		12"	q_a	775	1248	702	1131	651	1048	613	987	584	940	561	904	543	874	527	849	514	828
			q_f																		
			F	8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R		8.7 +0R	
		18"	q_a	705	1248	643	1035	547	880	520	837	499	803	440	709	434	698	428	690	393	632
			q_f																		
			F	11.3 -0.1R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R	
		24"	q_a	630	1015	581	935	486	783	467	751	405	652	399	642	359	577	360	580	330	532
			q_f																		
			F	13.9 -0.1R		13.9 -0.1R		13.9 -0.1R		14 -0.1R		14 +0R		14 +0R		14 +0R		14 +0R		14 +0R	
	22 ga	4"	q_a	959	1545	922	1485	896	1442	876	1410	861	1385	848	1366	779	1247	644	1031	541	866
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		6"	q_a	814	1311	765	1232	731	1177	705	1135	685	1103	669	1078	656	1057	644	1031	541	866
			q_f																		
			F	7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R		7 +0R	
		8"	q_a	726	1169	690	1111	631	1016	618	994	580	934	575	925	548	882	547	880	526	847
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		12"	q_a	626	1007	563	907	520	837	488	786	463	746	443	714	428	689	415	668	404	650
			q_f																		
			F	9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R	
		18"	q_a	571	1007	518	833	437	703	412	663	393	632	348	561	342	551	337	542	309	497
			q_f																		
			F	12.7 -0.1R		12.8 -0.1R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R		12.8 +0R	
		24"	q_a	514	827	470	756	389	626	371	597	322	518	317	510	285	459	285	459	261	421
			q_f																		
			F	15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.6 -0.1R		15.7 -0.1R		15.7 +0R		15.7 +0R	

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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	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.3	-0.1R	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
		6"	q_a	1271	2047	1257	2024	1239	1994	1225	1972	1214	1954	1205	1940	1198	1929	1192	1920	1187	1912
			q_f																		
			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	1158	1865	1153	1856	1096	1764	1101	1772	1061	1709	1069	1721	1039	1673	1048	1687	1024	1649
			q_f																		
			F	4.2	-0.4R	4.3	-0.3R	4.4	-0.3R	4.4	-0.3R	4.5	-0.2R	4.5	-0.2R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R
		12"	q_a	984	1584	933	1503	898	1445	871	1402	850	1369	834	1342	820	1321	809	1303	800	1288
			q_f																		
			F	5	-0.6R	5.1	-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	874	1584	840	1352	728	1172	723	1163	719	1157	651	1048	655	1055	659	1060	611	984
			q_f																		
			F	5.8	-1R	6.2	-1R	6.4	-0.9R	6.6	-0.9R	6.8	-0.8R	6.9	-0.8R	7	-0.8R	7.1	-0.7R	7.2	-0.7R
		24"	q_a	746	1201	735	1183	631	1016	640	1030	569	917	583	939	531	855	546	880	505	813
			q_f																		
			F	6.5	-1.3R	7	-1.3R	7.3	-1.3R	7.6	-1.3R	7.9	-1.2R	8.1	-1.2R	8.2	-1.2R	8.4	-1.1R	8.5	-1.1R
	18 ga	4"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			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	-0.1R
		6"	q_a	996	1603	971	1563	953	1535	940	1513	930	1497	922	1484	915	1473	909	1464	905	1457
			q_f																		
			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	893	1438	885	1425	836	1347	838	1350	805	1296	810	1304	785	1264	791	1274	772	1242
			q_f																		
			F	5	-0.4R	5.1	-0.4R	5.2	-0.3R	5.2	-0.3R	5.3	-0.3R	5.3	-0.3R	5.3	-0.2R	5.4	-0.2R	5.4	-0.2R
		12"	q_a	756	1218	712	1147	681	1097	658	1059	640	1031	626	1008	614	989	605	974	597	961
			q_f																		
			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	673	1218	641	1032	553	891	546	879	541	871	489	787	490	789	491	791	455	733
			q_f																		
			F	6.8	-1.1R	7.2	-1.1R	7.4	-1R	7.7	-1R	7.8	-0.9R	8	-0.9R	8.1	-0.9R	8.2	-0.8R	8.3	-0.8R
		24"	q_a	577	929	563	906	482	775	485	780	430	693	439	706	397	639	409	658	375	604
			q_f																		
			F	7.6	-1.4R	8.1	-1.5R	8.5	-1.4R	8.8	-1.4R	9.1	-1.4R	9.3	-1.3R	9.5	-1.3R	9.6	-1.2R	9.8	-1.2R
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	781	1258	778	1252	775	1247	712	1139
			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	715	1151	693	1115	677	1090	665	1071	656	1056	648	1044	642	1034	637	1026	633	1019
			q_f																		
			F	5.6	-0.3R	5.7	-0.3R	5.8	-0.2R	5.8	-0.2R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.1R
		8"	q_a	638	1027	628	1011	589	948	588	947	562	905	564	909	545	878	549	883	533	859
			q_f																		
			F	6.2	-0.5R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R	6.7	-0.2R
		12"	q_a	539	869	503	810	478	769	459	739	444	715	433	697	423	682	416	669	409	659
			q_f																		
			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	481	869	454	731	390	628	382	615	376	605	339	546	338	545	338	544	312	503
			q_f																		
			F	8.3	-1.3R	8.7	-1.2R	9.1	-1.2R	9.3	-1.1R	9.5	-1.1R	9.7	-1R	9.8	-1R	9.9	-0.9R	10	-0.9R
		24"	q_a	417	671	401	645	342	550	340	548	298	480	302	486	272	437	279	449	256	412
			q_f																		
			F	9.2	-1.7R	9.8	-1.7R	10.2	-1.7R	10.6	-1.6R	10.9	-1.6R	11.2	-1.5R	11.4	-1.5R	11.6	-1.4R	11.7	-1.4R
	22 ga	4"	q_a	656	1056	655	1055	646	1040	639	1029	634	1020	629	1013	626	1007	623	1003	541	866
			q_f																		
			F	5.8	-0.2R	5.9	-0.1R	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"	q_a	577	929	557	896	542	872	531	855	522	841	516	830	510	821	506	814	502	808
			q_f																		
			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	514	827	503	810	470	756	468	753	446	717	447	719	430	693	433	697	420	676
			q_f																		
			F	7.2	-0.5R	7.3	-0.5R	7.4	-0.4R	7.5	-0.4R	7.5	-0.3R	7.6	-0.3R	7.6	-0.3R	7.7	-0.3R	7.7	-0.3R
		12"	q_a	435	700	403	649	381	613	364	587	352	566	342	550	334	537	327	526	321	517
			q_f																		
			F	8.2	-0.9R	8.5	-0.8R	8.7	-0.8R	8.8	-0.7R	8.9	-0.7R	9	-0.6R	9.1	-0.6R	9.2	-0.5R	9.2	-0.5R
		18"	q_a	389	700	364	586	312	502	304	490	298	480	267	431	267	430	266	428	245	395
			q_f																		
			F	9.5	-1.4R	9.9	-1.4R	10.3	-1.3R	10.6	-1.2R	10.8	-1.2R	11	-1.1R	11.1	-1.1R	11.2	-1R	11.4	-1R
		24"	q_a	338	545	323	519	273	440	270	435	235	378	238	383	214	344	219	352	201	323
			q_f																		
			F	10.4	-1.8R	11.1	-1.8R	11.6	-1.8R	12	-1.8R	12.3	-1.7R	12.6	-1.7R	12.8	-1.6R	13.1	-1.6R	13.2	-1.5R

BN-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	2042	3288	1999	3219	1969	3171	1947	3135	1931	3108	1917	3087	1906	3069	1763	2821	1482	2371
			q_f																		
			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	1692	2724	1630	2624	1586	2554	1555	2503	1530	2464	1511	2433	1495	2408	1483	2387	1472	2370
			q_f																		
			F	3.7	-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	1463	2355	1440	2319	1338	2154	1339	2156	1272	2048	1281	2062	1231	1982	1242	2000	1204	1938
			q_f																		
			F	4.2	-0.6R	4.3	-0.5R	4.4	-0.5R	4.4	-0.5R	4.5	-0.4R	4.5	-0.4R	4.5	-0.4R	4.5	-0.4R	4.6	-0.3R
		12"	q_a	1193	1921	1107	1783	1048	1688	1005	1619	973	1566	947	1525	926	1491	909	1464	895	1441
			q_f																		
			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	5.6	-0.7R
		18"	q_a	1043	1921	983	1583	834	1342	819	1319	809	1302	725	1167	725	1168	726	1169	665	1071
			q_f																		
			F	5.7	-1.4R	6	-1.5R	6.3	-1.4R	6.5	-1.4R	6.7	-1.4R	6.8	-1.3R	6.9	-1.3R	7	-1.2R	7.1	-1.2R
		24"	q_a	883	1421	853	1374	720	1160	722	1163	630	1014	641	1033	575	926	590	949	539	868
			q_f																		
			F	6.3	-1.8R	6.8	-1.9R	7.1	-1.9R	7.4	-1.9R	7.7	-1.9R	7.9	-1.9R	8.1	-1.9R	8.2	-1.8R	8.4	-1.8R
	18 ga	4"	q_a	1565	2520	1526	2456	1498	2412	1478	2379	1462	2354	1450	2334	1440	2318	1281	2050	1077	1723
			q_f																		
			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	-0.1R
		6"	q_a	1287	2071	1232	1983	1194	1922	1166	1878	1145	1843	1128	1816	1115	1794	1103	1776	1077	1723
			q_f																		
			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	1111	1789	1087	1750	1004	1617	1002	1613	948	1527	953	1534	914	1471	920	1482	890	1433
			q_f																		
			F	4.9	-0.7R	5.1	-0.6R	5.1	-0.6R	5.2	-0.5R	5.3	-0.5R	5.3	-0.5R	5.3	-0.4R	5.4	-0.4R	5.4	-0.4R
		12"	q_a	910	1465	838	1350	789	1271	753	1213	726	1169	705	1135	688	1107	673	1084	661	1065
			q_f																		
			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	799	1465	747	1203	632	1018	617	994	606	976	537	865	536	863	535	862	491	790
			q_f																		
			F	6.6	-1.6R	7	-1.6R	7.3	-1.6R	7.5	-1.6R	7.7	-1.5R	7.9	-1.5R	8	-1.4R	8.1	-1.4R	8.2	-1.3R
		24"	q_a	683	1100	653	1051	546	878	542	873	472	760	477	769	428	689	437	704	401	645
			q_f																		
			F	7.3	-2.1R	7.8	-2.1R	8.2	-2.2R	8.6	-2.2R	8.9	-2.2R	9.1	-2.1R	9.3	-2.1R	9.5	-2R	9.6	-2R
	20 ga	4"	q_a	1107	1782	1072	1726	1048	1687	1030	1659	1017	1637	1006	1619	997	1605	847	1355	712	1139
			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	904	1455	859	1382	827	1332	804	1295	787	1267	773	1245	762	1227	753	1212	712	1139
			q_f																		
			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	781	1258	757	1219	695	1120	690	1111	650	1047	651	1048	623	1003	626	1008	604	972
			q_f																		
			F	6.2	-0.8R	6.3	-0.7R	6.4	-0.7R	6.5	-0.6R	6.5	-0.6R	6.6	-0.5R	6.6	-0.5R	6.6	-0.5R	6.7	-0.4R
		12"	q_a	644	1037	588	947	549	885	521	840	500	805	484	778	470	757	459	739	450	724
			q_f																		
			F	7.1	-1.2R	7.3	-1.2R	7.5	-1.1R	7.7	-1.1R	7.8	-1R	7.9	-1R	7.9	-0.9R	8	-0.9R	8.1	-0.8R
		18"	q_a	570	1037	527	849	442	711	426	686	415	668	367	591	365	588	364	586	334	537
			q_f																		
			F	8.1	-1.9R	8.6	-1.9R	8.9	-1.9R	9.2	-1.8R	9.4	-1.8R	9.6	-1.7R	9.7	-1.7R	9.8	-1.6R	9.9	-1.6R
		24"	q_a	493	794	463	745	383	617	376	605	327	526	328	528	295	475	300	483	275	443
			q_f																		
			F	8.9	-2.4R	9.5	-2.5R	10	-2.5R	10.4	-2.5R	10.7	-2.5R	11	-2.4R	11.2	-2.4R	11.4	-2.3R	11.6	-2.3R
	22 ga	4"	q_a	885	1424	853	1374	831	1339	815	1313	803	1293	793	1277	779	1247	644	1031	541	866
			q_f																		
			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	721	1160	681	1096	654	1052	634	1020	618	995	606	976	596	960	588	947	541	866
			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	6.8	-0.3R
		8"	q_a	624	1004	601	968	550	885	543	875	511	823	510	822	487	784	489	787	471	759
			q_f																		
			F	7.1	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R	7.5	-0.6R	7.6	-0.6R	7.6	-0.5R	7.6	-0.5R	7.7	-0.5R
		12"	q_a	517	832	469	755	436	703	413	664	393	632	378	609	367	591	358	576	351	564
			q_f																		
			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	460	832	422	680	350	564	336	541	326	524	289	465	287	462	285	459	261	421
			q_f																		
			F	9.3	-2R	9.7	-2.1R	10.1	-2R	10.4	-2R	10.6	-1.9R	10.8	-1.9R	11	-1.8R	11.1	-1.8R	11.3	-1.7R
		24"	q_a	400	644	370	596	306	492	298	480	259	417	259	417	233	376	236	381	217	349
			q_f																		
			F	10.1	-2.6R	10.8	-2.7R	11.3	-2.8R	11.7	-2.7R	12.1	-2.7R	12.4	-2.7R	12.6	-2.6R	12.9	-2.6R	13.1	-2.5R

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

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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	2077	3344	2029	3267	1995	3212	1970	3172	1951	3141	1936	3116	1923	3096	1763	2821	1482	2371
			q_f																		
			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	1743	2806	1673	2693	1624	2614	1587	2556	1560	2511	1537	2475	1520	2446	1505	2423	1482	2371
			q_f																		
			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	1523	2453	1490	2399	1382	2225	1377	2217	1306	2103	1311	2111	1259	2028	1268	2041	1227	1976
			q_f																		
			F	4	-0.4R	4.1	-0.4R	4.2	-0.4R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R	4.4	-0.3R	4.4	-0.3R	4.5	-0.2R
		12"	q_a	1264	2035	1167	1878	1099	1770	1050	1690	1012	1630	982	1582	958	1543	939	1511	922	1484
			q_f																		
			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	1119	2035	1046	1684	889	1431	867	1396	850	1369	763	1228	760	1223	757	1219	697	1122
			q_f																		
			F	5.2	-1R	5.6	-1R	5.8	-1R	6.1	-1R	6.2	-0.9R	6.4	-0.9R	6.5	-0.9R	6.7	-0.9R	6.8	-0.8R
		24"	q_a	964	1551	919	1479	777	1251	771	1241	677	1090	683	1100	613	987	624	1005	571	919
			q_f																		
			F	5.7	-1.2R	6.1	-1.3R	6.5	-1.3R	6.8	-1.3R	7.1	-1.3R	7.3	-1.3R	7.5	-1.3R	7.7	-1.3R	7.8	-1.2R
	18 ga	4"	q_a	1598	2572	1553	2501	1522	2450	1499	2413	1481	2384	1467	2361	1455	2343	1281	2050	1077	1723
			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	1331	2144	1270	2044	1227	1975	1195	1924	1171	1885	1151	1853	1136	1828	1123	1807	1077	1723
			q_f																		
			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	4.6	-0.2R	4.7	-0.2R
		8"	q_a	1163	1873	1129	1818	1042	1678	1034	1665	978	1574	979	1575	938	1510	942	1517	910	1466
			q_f																		
			F	4.7	-0.5R	4.9	-0.4R	5	-0.4R	5.1	-0.4R	5.1	-0.4R	5.2	-0.3R	5.2	-0.3R	5.2	-0.3R	5.3	-0.3R
		12"	q_a	969	1560	888	1429	832	1339	790	1272	759	1222	734	1182	714	1150	698	1123	684	1101
			q_f																		
			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	862	1560	799	1286	677	1091	656	1057	641	1031	571	920	566	912	563	907	516	831
			q_f																		
			F	6.1	-1.1R	6.5	-1.1R	6.8	-1.1R	7.1	-1.1R	7.3	-1.1R	7.4	-1R	7.6	-1R	7.7	-1R	7.8	-0.9R
		24"	q_a	749	1207	706	1137	596	960	586	943	510	821	511	823	458	738	465	748	426	686
			q_f																		
			F	6.6	-1.3R	7.1	-1.4R	7.6	-1.4R	7.9	-1.5R	8.2	-1.5R	8.5	-1.4R	8.7	-1.4R	8.9	-1.4R	9.1	-1.4R
	20 ga	4"	q_a	1136	1828	1096	1765	1069	1721	1049	1688	1033	1663	1021	1643	1011	1627	847	1355	712	1139
			q_f																		
			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	941	1515	890	1433	854	1376	828	1333	808	1301	792	1275	779	1254	769	1237	712	1139
			q_f																		
			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	823	1325	792	1275	726	1168	716	1153	674	1085	672	1082	642	1033	643	1036	620	998
			q_f																		
			F	5.9	-0.5R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R	6.4	-0.4R	6.4	-0.4R	6.5	-0.4R	6.5	-0.3R	6.5	-0.3R
		12"	q_a	691	1112	627	1009	583	938	550	886	526	847	506	815	491	790	478	770	467	752
			q_f																		
			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	619	1112	567	914	480	773	459	740	444	715	393	632	388	625	385	620	353	568
			q_f																		
			F	7.5	-1.2R	8	-1.3R	8.3	-1.3R	8.6	-1.2R	8.8	-1.2R	9	-1.2R	9.2	-1.2R	9.4	-1.1R	9.5	-1.1R
		24"	q_a	544	876	506	815	422	679	409	659	356	573	354	569	318	512	321	517	294	474
			q_f																		
			F	8.1	-1.5R	8.7	-1.6R	9.2	-1.7R	9.6	-1.7R	9.9	-1.7R	10.2	-1.7R	10.5	-1.6R	10.7	-1.6R	10.9	-1.6R
	22 ga	4"	q_a	911	1466	875	1409	850	1369	832	1339	818	1317	807	1299	779	1247	644	1031	541	866
			q_f																		
			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	5.9	-0.1R
		6"	q_a	753	1213	708	1141	677	1090	654	1053	637	1025	623	1003	612	985	602	970	541	866
			q_f																		
			F	6.3	-0.4R	6.5	-0.4R	6.5	-0.3R	6.6	-0.3R	6.6	-0.3R	6.7	-0.3R	6.7	-0.2R	6.7	-0.2R	6.8	-0.2R
		8"	q_a	660	1063	631	1016	576	927	566	911	531	855	528	851	504	811	504	811	485	781
			q_f																		
			F	6.9	-0.6R	7	-0.5R	7.2	-0.5R	7.3	-0.5R	7.3	-0.4R	7.4	-0.4R	7.5	-0.4R	7.5	-0.4R	7.5	-0.3R
		12"	q_a	557	897	502	809	465	748	437	704	416	670	400	644	387	622	376	605	367	590
			q_f																		
			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	502	897	457	735	383	616	364	586	350	564	311	500	306	493	303	487	278	447
			q_f																		
			F	8.6	-1.4R	9.1	-1.4R	9.5	-1.4R	9.8	-1.4R	10	-1.3R	10.3	-1.3R	10.5	-1.3R	10.6	-1.2R	10.8	-1.2R
		24"	q_a	444	715	409	659	338	545	326	525	283	456	281	452	253	407	254	409	233	375
			q_f																		
			F	9.2	-1.7R	9.9	-1.8R	10.4	-1.8R	10.9	-1.8R	11.2	-1.8R	11.6	-1.8R	11.8	-1.8R	12.1	-1.8R	12.3	-1.7R

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

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ASC STEEL DECK

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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	2502	4028	2408	3878	2342	3770	2292	3690	2253	3627	2222	3578	2134	3414	1763	2821	1482	2371
			q_f																		
			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	2125	3421	2000	3221	1912	3079	1847	2973	1796	2892	1756	2827	1723	2774	1696	2730	1482	2371
			q_f																		
			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	1893	3048	1804	2904	1651	2659	1618	2605	1520	2448	1508	2428	1438	2316	1436	2311	1383	2226
			q_f																		
			F	3.7	-0.4R	3.9	-0.4R	4	-0.4R	4.1	-0.4R	4.2	-0.4R	4.2	-0.4R	4.3	-0.3R	4.3	-0.3R	4.3	-0.3R
		12"	q_a	1629	2623	1470	2367	1358	2187	1276	2054	1213	1953	1163	1873	1123	1808	1089	1754	1061	1709
			q_f																		
			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	1486	2623	1349	2171	1146	1845	1090	1756	1047	1686	926	1491	905	1456	887	1428	811	1305
			q_f																		
			F	4.6	-0.9R	4.9	-0.9R	5.2	-1R	5.5	-1R	5.7	-1R	5.8	-1R	6	-1R	6.1	-1R	6.3	-0.9R
		24"	q_a	1334	2148	1222	1968	1032	1662	987	1588	858	1381	842	1355	753	1213	750	1207	684	1102
			q_f																		
			F	4.9	-1R	5.3	-1.1R	5.7	-1.2R	6	-1.2R	6.3	-1.3R	6.5	-1.3R	6.7	-1.3R	6.9	-1.3R	7.1	-1.3R
	18 ga	4"	q_a	1928	3104	1844	2969	1784	2873	1740	2801	1705	2745	1678	2701	1550	2481	1281	2050	1077	1723
			q_f																		
			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	3.9	-0.1R	4	-0.1R	4	-0.1R
		6"	q_a	1635	2633	1528	2460	1452	2338	1396	2247	1353	2178	1318	2122	1290	2077	1267	2040	1077	1723
			q_f																		
			F	4.1	-0.4R	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	4.6	-0.2R
		8"	q_a	1460	2351	1380	2221	1256	2023	1224	1971	1146	1845	1132	1823	1077	1735	1072	1726	1030	1659
			q_f																		
			F	4.5	-0.5R	4.6	-0.5R	4.7	-0.5R	4.8	-0.4R	4.9	-0.4R	5	-0.4R	5	-0.4R	5.1	-0.4R	5.1	-0.3R
		12"	q_a	1265	2037	1133	1824	1040	1675	972	1565	920	1481	878	1413	840	1352	811	1306	789	1270
			q_f																		
			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	1160	2037	1044	1681	886	1426	831	1337	790	1271	697	1123	678	1091	664	1068	608	979
			q_f																		
			F	5.4	-1R	5.8	-1R	6.1	-1.1R	6.4	-1.1R	6.6	-1.1R	6.8	-1.1R	7	-1.1R	7.1	-1.1R	7.3	-1.1R
		24"	q_a	1050	1691	953	1534	795	1281	753	1213	654	1053	637	1026	570	917	565	910	518	834
			q_f																		
			F	5.7	-1.1R	6.2	-1.3R	6.6	-1.3R	7	-1.4R	7.3	-1.4R	7.6	-1.4R	7.8	-1.5R	8	-1.5R	8.2	-1.5R
	20 ga	4"	q_a	1377	2216	1305	2102	1255	2020	1217	1960	1188	1913	1165	1876	1025	1640	847	1355	712	1139
			q_f																		
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R	5	-0.2R	5	-0.1R	5	-0.1R	5	-0.1R
		6"	q_a	1169	1882	1082	1742	1020	1643	975	1570	940	1513	912	1469	890	1432	847	1355	712	1139
			q_f																		
			F	5.2	-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	1048	1688	980	1577	886	1427	857	1380	799	1286	785	1265	745	1199	738	1189	708	1139
			q_f																		
			F	5.6	-0.6R	5.8	-0.5R	5.9	-0.5R	6	-0.5R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R
		12"	q_a	917	1476	813	1309	741	1193	685	1103	639	1029	604	972	578	931	558	898	540	870
			q_f																		
			F	6.2	-0.8R	6.5	-0.8R	6.7	-0.8R	6.9	-0.8R	7	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R
		18"	q_a	847	1476	754	1214	629	1013	585	941	551	888	486	783	473	761	462	743	423	681
			q_f																		
			F	6.7	-1.1R	7.1	-1.2R	7.5	-1.2R	7.8	-1.3R	8.1	-1.3R	8.3	-1.3R	8.5	-1.3R	8.7	-1.2R	8.8	-1.2R
		24"	q_a	774	1246	692	1114	571	919	534	861	463	746	447	720	402	647	398	640	364	587
			q_f																		
			F	7.1	-1.3R	7.6	-1.5R	8.1	-1.5R	8.5	-1.6R	8.9	-1.6R	9.2	-1.7R	9.5	-1.7R	9.7	-1.7R	9.9	-1.7R
	22 ga	4"	q_a	1109	1785	1045	1683	1001	1611	967	1557	941	1516	921	1483	779	1247	644	1031	541	866
			q_f																		
			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	943	1518	867	1397	814	1311	775	1248	745	1199	721	1161	701	1129	644	1031	541	866
			q_f																		
			F	6.1	-0.4R	6.2	-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
		8"	q_a	849	1366	788	1268	710	1143	683	1100	635	1022	622	1002	589	948	582	937	541	866
			q_f																		
			F	6.5	-0.6R	6.7	-0.6R	6.9	-0.6R	7	-0.6R	7.1	-0.5R	7.2	-0.5R	7.2	-0.5R	7.3	-0.5R	7.3	-0.4R
		12"	q_a	747	1202	659	1060	596	959	544	876	506	814	478	770	457	736	440	708	425	685
			q_f																		
			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	693	1202	613	988	506	815	468	753	439	706	389	626	377	607	367	591	336	541
			q_f																		
			F	7.7	-1.2R	8.2	-1.3R	8.6	-1.4R	8.9	-1.4R	9.2	-1.4R	9.5	-1.4R	9.7	-1.4R	9.9	-1.4R	10.1	-1.3R
		24"	q_a	637	1025	560	902	462	743	429	691	372	599	359	578	323	520	318	512	292	470
			q_f																		
			F	8.1	-1.5R	8.7	-1.6R	9.2	-1.7R	9.7	-1.8R	10.1	-1.8R	10.4	-1.8R	10.7	-1.8R	11	-1.8R	11.3	-1.8R

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

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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	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			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	1348	2171	1317	2121	1295	2085	1279	2058	1266	2038	1255	2021	1247	2008	1240	1997	1234	1987
			q_f																		
			F	3.6	-0.3R	3.7	-0.3R	3.7	-0.2R	3.8	-0.2R	3.8	-0.2R	3.8	-0.2R	3.9	-0.2R	3.9	-0.2R	3.9	-0.2R
		8"	q_a	1212	1952	1203	1937	1140	1835	1144	1841	1100	1771	1108	1783	1075	1730	1083	1744	1057	1702
			q_f																		
			F	3.9	-0.4R	4.1	-0.4R	4.2	-0.4R	4.2	-0.4R	4.3	-0.3R	4.3	-0.3R	4.4	-0.3R	4.4	-0.3R	4.4	-0.3R
		12"	q_a	1028	1655	971	1563	930	1498	900	1449	877	1412	859	1382	844	1358	831	1338	821	1321
			q_f																		
			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	5.3	-0.5R	5.4	-0.5R
		18"	q_a	913	1655	874	1406	755	1215	747	1203	741	1193	670	1079	673	1084	676	1088	626	1008
			q_f																		
			F	5.1	-0.9R	5.4	-1R	5.7	-1R	5.9	-1R	6.1	-1R	6.3	-0.9R	6.4	-0.9R	6.5	-0.9R	6.6	-0.9R
		24"	q_a	782	1259	766	1233	656	1056	662	1066	589	948	601	968	547	880	561	904	518	834
			q_f																		
			F	5.5	-1.2R	5.9	-1.2R	6.3	-1.3R	6.6	-1.3R	6.9	-1.3R	7.1	-1.3R	7.3	-1.3R	7.5	-1.3R	7.7	-1.3R
	18 ga	4"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1077	1723
			q_f																		
			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	1044	1681	1015	1634	994	1601	979	1576	967	1557	957	1541	949	1529	943	1518	937	1509
			q_f																		
			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	934	1504	922	1485	869	1399	869	1399	833	1341	837	1348	810	1304	816	1314	795	1279
			q_f																		
			F	4.7	-0.5R	4.8	-0.4R	4.9	-0.4R	5	-0.4R	5.1	-0.4R	5.1	-0.3R	5.2	-0.3R	5.2	-0.3R	5.2	-0.3R
		12"	q_a	790	1272	741	1193	706	1136	680	1095	660	1063	644	1037	631	1017	621	999	612	985
			q_f																		
			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	703	1272	667	1074	574	925	565	910	558	898	504	811	504	811	504	812	467	751
			q_f																		
			F	5.9	-1R	6.3	-1.1R	6.6	-1.1R	6.9	-1.1R	7.1	-1.1R	7.3	-1.1R	7.4	-1R	7.6	-1R	7.7	-1R
		24"	q_a	606	976	587	945	502	807	502	809	446	718	453	729	407	655	418	673	383	617
			q_f																		
			F	6.4	-1.3R	6.9	-1.4R	7.3	-1.4R	7.7	-1.5R	8	-1.5R	8.2	-1.5R	8.5	-1.4R	8.7	-1.4R	8.9	-1.4R
	20 ga	4"	q_a	843	1357	843	1357	837	1348	829	1334	822	1323	817	1315	812	1308	809	1302	712	1139
			q_f																		
			F	4.9	-0.2R	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
		6"	q_a	749	1205	723	1163	704	1134	690	1112	680	1094	671	1081	664	1070	659	1060	654	1053
			q_f																		
			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	666	1073	653	1052	611	983	609	980	580	934	582	937	561	904	565	909	548	882
			q_f																		
			F	5.9	-0.5R	6	-0.5R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R	6.4	-0.4R	6.4	-0.4R	6.5	-0.4R	6.5	-0.3R
		12"	q_a	564	908	524	843	495	797	474	764	458	738	445	717	435	700	426	687	419	675
			q_f																		
			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	504	908	473	761	405	652	396	637	388	625	349	562	348	561	347	559	320	516
			q_f																		
			F	7.3	-1.2R	7.8	-1.3R	8.1	-1.3R	8.4	-1.3R	8.7	-1.2R	8.9	-1.2R	9.1	-1.2R	9.2	-1.2R	9.3	-1.1R
		24"	q_a	438	705	419	674	356	574	353	569	307	495	310	499	279	449	286	460	262	422
			q_f																		
			F	7.8	-1.5R	8.4	-1.6R	8.9	-1.6R	9.3	-1.7R	9.7	-1.7R	10	-1.7R	10.2	-1.7R	10.5	-1.6R	10.7	-1.6R
	22 ga	4"	q_a	702	1130	687	1106	676	1088	667	1075	661	1064	656	1056	652	1049	644	1031	541	866
			q_f																		
			F	5.7	-0.2R	5.8	-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"	q_a	604	972	580	934	563	907	551	886	541	871	533	858	527	848	522	840	517	833
			q_f																		
			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	536	863	523	842	487	784	484	779	460	740	460	741	443	713	445	716	431	694
			q_f																		
			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
		12"	q_a	454	731	419	675	395	636	377	607	363	584	352	566	343	552	335	540	329	530
			q_f																		
			F	7.5	-0.9R	7.9	-0.9R	8.1	-0.9R	8.3	-0.9R	8.4	-0.8R	8.6	-0.8R	8.7	-0.8R	8.8	-0.7R	8.9	-0.7R
		18"	q_a	407	731	380	611	325	523	315	508	308	496	274	442	274	441	273	440	250	403
			q_f																		
			F	8.4	-1.3R	8.9	-1.4R	9.3	-1.4R	9.6	-1.4R	9.9	-1.4R	10.1	-1.3R	10.3	-1.3R	10.5	-1.3R	10.6	-1.2R
		24"	q_a	356	574	337	543	284	458	279	450	242	390	245	394	220	354	224	361	206	331
			q_f																		
			F	8.9	-1.6R	9.6	-1.7R	10.1	-1.8R	10.6	-1.8R	11	-1.8R	11.3	-1.8R	11.6	-1.8R	11.8	-1.8R	12.1	-1.8R

BN-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)

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	2130	3429	2080	3349	2045	3292	2019	3251	1999	3219	1984	3194	1971	3174	1763	2821	1482	2371
			q_f																		
			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	1756	2827	1685	2713	1636	2635	1600	2577	1573	2533	1551	2498	1534	2469	1519	2446	1482	2371
			q_f																		
			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	1517	2442	1488	2395	1378	2218	1376	2216	1304	2100	1312	2112	1259	2027	1269	2044	1229	1978
			q_f																		
			F	3.9	-0.6R	4	-0.6R	4.1	-0.6R	4.2	-0.6R	4.3	-0.6R	4.3	-0.5R	4.4	-0.5R	4.4	-0.5R	4.4	-0.5R
		12"	q_a	1240	1996	1146	1844	1081	1740	1034	1665	998	1607	970	1562	947	1525	929	1495	913	1470
			q_f																		
			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	1087	1996	1020	1642	863	1390	845	1361	832	1339	743	1196	742	1194	741	1193	678	1091
			q_f																		
			F	4.9	-1.3R	5.2	-1.4R	5.5	-1.4R	5.8	-1.5R	6	-1.5R	6.1	-1.5R	6.3	-1.4R	6.4	-1.4R	6.5	-1.4R
		24"	q_a	925	1490	888	1430	747	1203	745	1200	649	1045	658	1060	590	950	603	971	552	888
			q_f																		
			F	5.2	-1.6R	5.7	-1.7R	6.1	-1.8R	6.4	-1.9R	6.7	-1.9R	6.9	-1.9R	7.1	-1.9R	7.3	-1.9R	7.5	-1.9R
	18 ga	4"	q_a	1629	2623	1584	2550	1552	2498	1528	2460	1510	2431	1496	2408	1484	2390	1281	2050	1077	1723
			q_f																		
			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	1334	2148	1273	2049	1230	1981	1199	1931	1175	1892	1157	1862	1141	1838	1129	1817	1077	1723
			q_f																		
			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	1152	1855	1123	1807	1034	1665	1029	1657	972	1565	975	1570	934	1504	940	1513	908	1462
			q_f																		
			F	4.6	-0.7R	4.8	-0.7R	4.9	-0.7R	5	-0.7R	5	-0.6R	5.1	-0.6R	5.1	-0.6R	5.2	-0.5R	5.2	-0.5R
		12"	q_a	946	1524	868	1398	815	1311	775	1248	746	1201	722	1163	704	1133	688	1108	675	1087
			q_f																		
			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	835	1524	776	1249	656	1056	637	1026	623	1002	551	887	548	882	546	880	501	806
			q_f																		
			F	5.7	-1.5R	6.1	-1.5R	6.4	-1.6R	6.7	-1.6R	6.9	-1.6R	7.1	-1.6R	7.3	-1.6R	7.5	-1.6R	7.6	-1.6R
		24"	q_a	717	1155	681	1096	567	912	560	902	487	785	491	790	440	708	448	721	411	661
			q_f																		
			F	6.1	-1.7R	6.6	-1.9R	7	-2R	7.4	-2.1R	7.7	-2.1R	8	-2.2R	8.2	-2.2R	8.5	-2.2R	8.7	-2.2R
	20 ga	4"	q_a	1150	1852	1110	1788	1083	1743	1063	1711	1047	1686	1035	1666	1025	1640	847	1355	712	1139
			q_f																		
			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	937	1509	887	1428	852	1372	826	1331	807	1299	792	1275	779	1255	769	1238	712	1139
			q_f																		
			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	811	1306	782	1260	716	1154	709	1141	667	1074	666	1073	637	1025	639	1029	616	992
			q_f																		
			F	5.8	-0.8R	6	-0.8R	6.1	-0.8R	6.2	-0.8R	6.3	-0.7R	6.3	-0.7R	6.4	-0.7R	6.4	-0.6R	6.5	-0.6R
		12"	q_a	671	1081	610	982	568	915	538	866	514	828	494	796	480	773	468	754	459	738
			q_f																		
			F	6.4	-1.2R	6.7	-1.3R	6.9	-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	597	1081	549	883	458	737	440	708	427	687	377	607	374	603	372	599	341	549
			q_f																		
			F	7.1	-1.7R	7.5	-1.8R	7.9	-1.8R	8.2	-1.9R	8.5	-1.9R	8.7	-1.9R	8.9	-1.9R	9.1	-1.8R	9.2	-1.8R
		24"	q_a	519	836	482	777	399	642	390	627	339	545	338	544	304	489	308	496	283	455
			q_f																		
			F	7.5	-2R	8.1	-2.2R	8.6	-2.3R	9	-2.4R	9.4	-2.5R	9.7	-2.5R	10	-2.5R	10.2	-2.5R	10.4	-2.5R
	22 ga	4"	q_a	918	1479	883	1421	858	1381	840	1352	826	1330	815	1312	779	1247	644	1031	541	866
			q_f																		
			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	747	1203	703	1132	673	1084	651	1048	634	1021	621	999	610	982	601	967	541	866
			q_f																		
			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	648	1043	621	1000	567	913	559	899	524	844	523	841	498	802	499	804	481	774
			q_f																		
			F	6.7	-0.9R	6.9	-0.9R	7	-0.9R	7.1	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.4	-0.7R	7.5	-0.7R
		12"	q_a	540	869	487	785	452	727	424	683	402	648	387	623	375	603	365	588	357	575
			q_f																		
			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	482	869	440	708	364	586	347	559	335	540	298	479	295	474	292	470	268	431
			q_f																		
			F	8.1	-1.8R	8.6	-2R	9	-2R	9.4	-2.1R	9.6	-2.1R	9.9	-2.1R	10.1	-2R	10.3	-2R	10.4	-2R
		24"	q_a	420	677	386	622	319	514	309	498	268	432	268	431	241	388	243	392	223	359
			q_f																		
			F	8.6	-2.2R	9.2	-2.4R	9.8	-2.5R	10.2	-2.6R	10.6	-2.7R	11	-2.7R	11.3	-2.8R	11.6	-2.8R	11.8	-2.7R

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

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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	2171	3495	2115	3405	2075	3341	2046	3294	2023	3257	2005	3229	1991	3205	1763	2821	1482	2371
			q_f																		
			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	1813	2920	1734	2792	1679	2703	1638	2637	1606	2586	1581	2546	1561	2513	1544	2486	1482	2371
			q_f																		
			F	3.4	-0.3R	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
		8"	q_a	1584	2551	1543	2484	1427	2297	1418	2284	1343	2162	1345	2166	1291	2078	1298	2089	1255	2021
			q_f																		
			F	3.7	-0.4R	3.8	-0.4R	3.9	-0.4R	4	-0.4R	4.1	-0.4R	4.2	-0.4R	4.2	-0.4R	4.3	-0.3R	4.3	-0.3R
		12"	q_a	1318	2121	1211	1949	1137	1830	1083	1743	1041	1676	1009	1624	982	1582	961	1547	943	1518
			q_f																		
			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	1170	2121	1088	1752	923	1486	897	1444	877	1412	786	1265	781	1258	777	1251	712	1146
			q_f																		
			F	4.4	-0.8R	4.8	-0.9R	5	-0.9R	5.3	-1R	5.5	-1R	5.7	-1R	5.8	-1R	6	-1R	6.1	-1R
		24"	q_a	1013	1631	959	1545	811	1305	800	1288	700	1127	704	1133	631	1016	640	1031	585	942
			q_f																		
			F	4.7	-1R	5.1	-1.1R	5.4	-1.2R	5.8	-1.2R	6	-1.2R	6.3	-1.3R	6.5	-1.3R	6.7	-1.3R	6.9	-1.3R
	18 ga	4"	q_a	1667	2684	1615	2601	1579	2543	1552	2499	1532	2466	1515	2440	1502	2418	1281	2050	1077	1723
			q_f																		
			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	3.9	-0.1R	4	-0.1R
		6"	q_a	1385	2230	1316	2118	1267	2040	1231	1983	1204	1939	1182	1904	1165	1875	1150	1852	1077	1723
			q_f																		
			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	1210	1948	1170	1884	1076	1732	1065	1715	1005	1617	1004	1616	960	1546	964	1552	930	1498
			q_f																		
			F	4.4	-0.5R	4.5	-0.5R	4.7	-0.5R	4.8	-0.5R	4.9	-0.4R	4.9	-0.4R	5	-0.4R	5	-0.4R	5.1	-0.4R
		12"	q_a	1012	1629	922	1485	861	1386	816	1314	782	1258	755	1215	733	1180	715	1151	700	1127
			q_f																		
			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	903	1629	832	1340	705	1135	680	1095	662	1066	588	946	581	935	576	928	528	850
			q_f																		
			F	5.2	-0.9R	5.6	-1R	5.9	-1R	6.2	-1.1R	6.4	-1.1R	6.6	-1.1R	6.8	-1.1R	7	-1.1R	7.1	-1.1R
		24"	q_a	789	1271	739	1190	621	1001	607	977	528	851	527	849	473	761	478	769	438	705
			q_f																		
			F	5.5	-1.1R	6	-1.2R	6.4	-1.3R	6.7	-1.4R	7	-1.4R	7.3	-1.4R	7.6	-1.4R	7.8	-1.5R	8	-1.5R
	20 ga	4"	q_a	1183	1904	1138	1832	1107	1782	1084	1744	1066	1716	1052	1693	1025	1640	847	1355	712	1139
			q_f																		
			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	979	1576	922	1484	882	1420	853	1373	830	1337	813	1309	798	1285	787	1266	712	1139
			q_f																		
			F	5.2	-0.4R	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
		8"	q_a	857	1380	820	1321	750	1207	738	1187	693	1115	689	1110	658	1059	658	1059	634	1020
			q_f																		
			F	5.5	-0.6R	5.7	-0.6R	5.9	-0.5R	6	-0.5R	6.1	-0.5R	6.1	-0.5R	6.2	-0.5R	6.3	-0.4R	6.3	-0.4R
		12"	q_a	722	1163	652	1050	604	973	569	916	542	873	521	839	504	812	490	789	479	771
			q_f																		
			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	650	1163	592	954	499	804	475	766	458	737	405	652	399	643	395	636	362	583
			q_f																		
			F	6.5	-1.1R	6.9	-1.2R	7.3	-1.2R	7.6	-1.2R	7.9	-1.3R	8.1	-1.3R	8.3	-1.3R	8.5	-1.3R	8.7	-1.2R
		24"	q_a	574	925	530	854	441	709	425	685	370	595	366	589	329	530	331	533	303	489
			q_f																		
			F	6.8	-1.3R	7.3	-1.4R	7.8	-1.5R	8.2	-1.6R	8.6	-1.6R	8.9	-1.6R	9.2	-1.7R	9.4	-1.7R	9.7	-1.7R
	22 ga	4"	q_a	948	1526	907	1461	879	1416	859	1382	843	1357	830	1336	779	1247	644	1031	541	866
			q_f																		
			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	784	1262	734	1182	699	1126	674	1085	654	1053	639	1029	626	1009	616	992	541	866
			q_f																		
			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	688	1108	654	1053	595	959	583	939	546	880	542	873	516	831	516	830	496	798
			q_f																		
			F	6.4	-0.6R	6.6	-0.6R	6.8	-0.6R	6.9	-0.6R	7	-0.6R	7.1	-0.5R	7.2	-0.5R	7.2	-0.5R	7.3	-0.5R
		12"	q_a	583	939	524	843	483	777	453	729	428	690	410	660	396	637	384	618	374	603
			q_f																		
			F	6.9	-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	527	939	477	768	399	642	377	608	362	582	321	516	315	508	311	501	285	459
			q_f																		
			F	7.5	-1.2R	8	-1.3R	8.4	-1.3R	8.7	-1.4R	9	-1.4R	9.2	-1.4R	9.5	-1.4R	9.7	-1.4R	9.8	-1.4R
		24"	q_a	469	756	428	689	354	570	339	546	295	474	291	469	262	422	262	423	241	387
			q_f																		
			F	7.8	-1.4R	8.4	-1.5R	8.9	-1.6R	9.4	-1.7R	9.8	-1.8R	10.1	-1.8R	10.4	-1.8R	10.7	-1.8R	10.9	-1.8R

BN-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)

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	2617	4213	2510	4041	2433	3917	2376	3826	2332	3754	2297	3698	2134	3414	1763	2821	1482	2371
			q_f																		
			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	2220	3575	2081	3351	1983	3192	1909	3074	1853	2983	1808	2911	1772	2852	1741	2803	1482	2371
			q_f																		
			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	1981	3189	1878	3023	1714	2759	1673	2694	1569	2526	1553	2500	1479	2381	1474	2373	1417	2282
			q_f																		
			F	3.4	-0.4R	3.6	-0.4R	3.7	-0.4R	3.8	-0.4R	3.9	-0.4R	3.9	-0.4R	4	-0.4R	4.1	-0.4R	4.1	-0.4R
		12"	q_a	1711	2755	1537	2475	1415	2278	1325	2133	1256	2023	1202	1935	1158	1864	1119	1802	1086	1749
			q_f																		
			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	1566	2755	1414	2277	1200	1932	1137	1831	1084	1745	958	1543	933	1503	913	1470	834	1343
			q_f																		
			F	3.9	-0.7R	4.2	-0.8R	4.4	-0.8R	4.7	-0.9R	4.9	-0.9R	5.1	-0.9R	5.2	-1R	5.4	-1R	5.5	-1R
		24"	q_a	1413	2274	1287	2071	1082	1743	1029	1657	895	1440	874	1407	782	1259	775	1249	708	1140
			q_f																		
			F	4	-0.8R	4.4	-0.9R	4.7	-1R	5	-1.1R	5.2	-1.1R	5.5	-1.2R	5.7	-1.2R	5.9	-1.2R	6	-1.3R
	18 ga	4"	q_a	2015	3244	1920	3091	1852	2981	1801	2900	1762	2837	1731	2787	1550	2481	1281	2050	1077	1723
			q_f																		
			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	1709	2752	1590	2560	1506	2424	1443	2324	1395	2246	1357	2185	1326	2135	1281	2050	1077	1723
			q_f																		
			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	1529	2462	1438	2315	1305	2101	1267	2040	1184	1906	1167	1879	1108	1785	1101	1773	1057	1702
			q_f																		
			F	4.1	-0.5R	4.2	-0.5R	4.4	-0.5R	4.5	-0.5R	4.6	-0.5R	4.7	-0.5R	4.7	-0.5R	4.8	-0.4R	4.9	-0.4R
		12"	q_a	1331	2143	1186	1910	1085	1748	1011	1628	954	1536	904	1455	863	1390	832	1339	808	1300
			q_f																		
			F	4.4	-0.6R	4.6	-0.7R	4.8	-0.7R	5	-0.7R	5.1	-0.7R	5.3	-0.7R	5.4	-0.7R	5.5	-0.7R	5.6	-0.7R
		18"	q_a	1224	2143	1097	1766	926	1491	865	1392	819	1319	723	1165	701	1128	684	1102	627	1010
			q_f																		
			F	4.6	-0.8R	4.9	-0.9R	5.2	-0.9R	5.5	-1R	5.7	-1R	5.9	-1R	6.1	-1.1R	6.3	-1.1R	6.4	-1.1R
		24"	q_a	1114	1793	1004	1617	836	1346	788	1268	684	1101	663	1068	593	954	586	944	537	865
			q_f																		
			F	4.8	-0.9R	5.2	-1R	5.5	-1.1R	5.8	-1.2R	6.1	-1.2R	6.4	-1.3R	6.6	-1.3R	6.8	-1.4R	7	-1.4R
	20 ga	4"	q_a	1438	2316	1358	2187	1301	2095	1259	2027	1226	1974	1200	1933	1025	1640	847	1355	712	1139
			q_f																		
			F	4.6	-0.3R	4.7	-0.3R	4.8	-0.3R	4.8	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	4.9	-0.2R	5	-0.2R
		6"	q_a	1223	1969	1127	1814	1059	1705	1009	1624	970	1562	939	1513	915	1473	847	1355	712	1139
			q_f																		
			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	5.5	-0.3R
		8"	q_a	1100	1770	1022	1646	922	1484	889	1431	826	1331	810	1305	767	1235	759	1222	712	1139
			q_f																		
			F	5.2	-0.5R	5.4	-0.6R	5.5	-0.6R	5.7	-0.6R	5.8	-0.6R	5.9	-0.5R	5.9	-0.5R	6	-0.5R	6.1	-0.5R
		12"	q_a	966	1555	853	1374	775	1248	711	1145	661	1065	623	1003	595	959	573	923	555	893
			q_f																		
			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	895	1555	794	1278	660	1062	610	983	573	923	506	814	490	789	477	769	438	705
			q_f																		
			F	5.8	-0.9R	6.2	-1R	6.5	-1.1R	6.8	-1.1R	7.1	-1.2R	7.3	-1.2R	7.5	-1.2R	7.7	-1.2R	7.9	-1.3R
		24"	q_a	822	1323	729	1173	601	968	560	902	485	782	467	751	420	675	413	666	379	610
			q_f																		
			F	5.9	-1R	6.4	-1.1R	6.8	-1.3R	7.2	-1.4R	7.5	-1.4R	7.8	-1.5R	8.1	-1.5R	8.3	-1.6R	8.6	-1.6R
	22 ga	4"	q_a	1158	1865	1088	1751	1037	1670	1000	1610	971	1564	948	1527	779	1247	644	1031	541	866
			q_f																		
			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	987	1590	904	1456	846	1361	802	1292	769	1238	743	1196	721	1162	644	1031	541	866
			q_f																		
			F	5.8	-0.5R	5.9	-0.5R	6	-0.5R	6.1	-0.4R	6.2	-0.4R	6.3	-0.4R	6.3	-0.4R	6.4	-0.4R	6.4	-0.4R
		8"	q_a	891	1435	823	1325	739	1190	709	1141	658	1059	643	1034	605	975	599	964	541	866
			q_f																		
			F	6	-0.6R	6.2	-0.6R	6.4	-0.6R	6.6	-0.6R	6.7	-0.6R	6.8	-0.6R	6.9	-0.6R	6.9	-0.6R	7	-0.6R
		12"	q_a	788	1268	692	1114	621	999	565	910	524	844	494	796	472	759	453	729	438	705
			q_f																		
			F	6.4	-0.8R	6.7	-0.8R	7	-0.9R	7.2	-0.9R	7.4	-0.9R	7.5	-0.9R	7.7	-0.9R	7.8	-0.9R	7.9	-0.9R
		18"	q_a	733	1268	645	1038	532	856	489	787	457	736	405	652	391	630	380	612	348	561
			q_f																		
			F	6.7	-1R	7.1	-1.1R	7.5	-1.2R	7.8	-1.2R	8.1	-1.3R	8.4	-1.3R	8.6	-1.4R	8.8	-1.4R	9	-1.4R
		24"	q_a	677	1090	591	952	487	784	451	726	390	628	375	604	338	544	331	534	304	489
			q_f																		
			F	6.9	-1.1R	7.4	-1.3R	7.8	-1.4R	8.2	-1.5R	8.6	-1.6R	8.9	-1.6R	9.2	-1.7R	9.5	-1.7R	9.8	-1.8R

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

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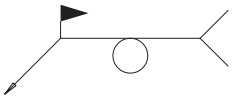
2.10 **B-36**

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	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371
			q_f																		
			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	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371
			q_f																		
			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	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371
			q_f																		
			F	3	-0.1R	3	-0.1R	3	-0.1R	3	-0.1R	3	+0R	3	+0R	3	+0R	3	+0R	3.1	+0R
		12"	q_a	2318	3825	2258	3725	2214	3654	2182	3601	2157	3560	2137	3527	2121	3414	1763	2821	1482	2371
			q_f																		
			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	2077	3825	2055	3391	1829	3019	1849	3051	1864	3075	1718	2835	1744	2878	1763	2821	1482	2371
			q_f																		
			F	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	4.2	-0.2R	4.2	-0.1R
		24"	q_a	1758	2901	1801	2972	1578	2604	1640	2705	1480	2442	1542	2544	1419	2341	1476	2436	1377	2271
			q_f																		
			F	4.4	-0.4R	4.5	-0.4R	4.6	-0.4R	4.6	-0.3R	4.7	-0.3R	4.7	-0.3R	4.8	-0.3R	4.8	-0.3R	4.8	-0.2R
	18 ga	4"	q_a	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1900	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1900	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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	1900	3136	1900	3136	1900	3136	1900	3136	1900	3136	1900	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	3.6	-0.1R	3.6	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R
		12"	q_a	1783	2942	1733	2859	1697	2799	1670	2755	1649	2721	1632	2693	1550	2481	1281	2050	1077	1723
			q_f																		
			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	1594	2942	1574	2596	1396	2304	1409	2325	1419	2342	1305	2154	1325	2186	1281	2050	1077	1723
			q_f																		
			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
		24"	q_a	1348	2225	1377	2273	1203	1986	1248	2059	1124	1855	1170	1931	1075	1774	1118	1845	1041	1718
			q_f																		
			F	5.2	-0.5R	5.3	-0.4R	5.4	-0.4R	5.5	-0.4R	5.5	-0.3R	5.6	-0.3R	5.6	-0.3R	5.6	-0.3R	5.7	-0.3R
	20 ga	4"	q_a	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1025	1640	847	1355	712	1139
			q_f																		
			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	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1025	1640	847	1355	712	1139
			q_f																		
			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	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1025	1640	847	1355	712	1139
			q_f																		
			F	4.6	-0.1R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R	4.7	+0R	4.7	+0R	4.7	+0R
		12"	q_a	1108	1829	1083	1787	1065	1758	1052	1736	1042	1719	1033	1705	1025	1640	847	1355	712	1139
			q_f																		
			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	997	1829	990	1634	887	1463	898	1481	906	1495	838	1383	852	1406	847	1355	712	1139
			q_f																		
			F	5.8	-0.4R	5.9	-0.3R	6	-0.3R	6	-0.3R	6.1	-0.3R	6.1	-0.2R	6.1	-0.2R	6.2	-0.2R	6.2	-0.2R
		24"	q_a	846	1395	871	1436	766	1264	798	1317	723	1193	754	1244	696	1148	725	1196	677	1117
			q_f																		
			F	6.4	-0.6R	6.6	-0.5R	6.7	-0.5R	6.8	-0.4R	6.8	-0.4R	6.9	-0.4R	6.9	-0.3R	7	-0.3R	7	-0.3R
	22 ga	4"	q_a	805	1329	805	1329	805	1329	805	1329	805	1329	805	1329	779	1247	644	1031	541	866
			q_f																		
			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	805	1329	805	1329	805	1329	805	1329	805	1329	805	1329	779	1247	644	1031	541	866
			q_f																		
			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	805	1329	805	1329	805	1329	805	1329	805	1329	805	1329	779	1247	644	1031	541	866
			q_f																		
			F	5.4	-0.1R	5.5	-0.1R	5.5	-0.1R	5.5	-0.1R	5.5	-0.1R	5.5	-0.1R	5.5	-0.1R	5.5	+0R	5.5	+0R
		12"	q_a	805	1329	804	1326	792	1307	784	1293	777	1282	772	1273	767	1247	644	1031	541	866
			q_f																		
			F	6	-0.2R	6	-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	741	1329	738	1217	664	1096	674	1112	681	1123	632	1043	643	1060	644	1031	541	866
			q_f																		
			F	6.7	-0.4R	6.8	-0.4R	6.9	-0.3R	7	-0.3R	7	-0.3R	7.1	-0.3R	7.1	-0.2R	7.1	-0.2R	7.1	-0.2R
		24"	q_a	630	1039	651	1074	576	950	601	991	546	901	570	941	528	871	550	907	515	849
			q_f																		
			F	7.4	-0.6R	7.6	-0.6R	7.7	-0.5R	7.8	-0.5R	7.8	-0.4R	7.9	-0.4R	8	-0.4R	8	-0.4R	8	-0.3R

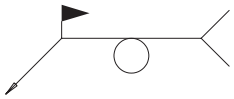
B-36 36/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

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	4726	7798	4685	7730	4656	7682	4354	6967	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	2.5 +0R		2.5 +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	4163	6869	4085	6741	4030	6650	3990	6583	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	2.7 -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	3712	6125	3713	6127	3528	5821	3557	5868	3334	5334	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			F	2.9 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 +0R		3 +0R	
		12"	q_a	3089	5097	2941	4853	2838	4683	2762	4558	2704	4461	2634	4215	2134	3414	1763	2821	1482	2371
			q_f																		
			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	2699	5097	2616	4316	2255	3721	2256	3723	2257	3724	2041	3367	2063	3405	1763	2821	1482	2371
			q_f																		
			F	3.7 -0.3R		3.8 -0.3R		3.9 -0.3R		4 -0.3R		4 -0.3R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R	
		24"	q_a	2251	3715	2254	3718	1925	3177	1975	3259	1754	2893	1813	2991	1648	2719	1707	2816	1482	2371
			q_f																		
			F	4.1 -0.5R		4.2 -0.5R		4.4 -0.4R		4.4 -0.4R		4.5 -0.4R		4.6 -0.4R		4.6 -0.3R		4.7 -0.3R		4.7 -0.3R	
	18 ga	4"	q_a	3656	6032	3620	5973	3595	5931	3164	5062	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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	3201	5281	3135	5173	3089	5097	3055	5040	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	3.3 -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	2844	4693	2841	4687	2692	4443	2712	4475	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R	
		12"	q_a	2362	3897	2243	3700	2159	3562	2097	3461	2050	3383	1914	3062	1550	2481	1281	2050	1077	1723
			q_f																		
			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	2064	3897	1994	3291	1716	2831	1713	2826	1710	2822	1545	2549	1550	2481	1281	2050	1077	1723
			q_f																		
			F	4.4 -0.4R		4.6 -0.3R		4.6 -0.3R		4.7 -0.3R		4.7 -0.3R		4.8 -0.3R		4.8 -0.2R		4.8 -0.2R		4.9 -0.2R	
		24"	q_a	1726	2849	1720	2838	1467	2421	1501	2476	1331	2196	1373	2266	1247	2058	1281	2050	1077	1723
			q_f																		
			F	4.9 -0.5R		5 -0.5R		5.1 -0.5R		5.2 -0.5R		5.3 -0.4R		5.4 -0.4R		5.4 -0.4R		5.5 -0.4R		5.5 -0.3R	
	20 ga	4"	q_a	2238	3693	2222	3667	2211	3648	2092	3347	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			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	1991	3286	1960	3233	1937	3196	1921	3169	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			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	1786	2947	1791	2955	1709	2819	1724	2844	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			F	4.6 -0.1R		4.6 -0.1R		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	
		12"	q_a	1493	2463	1428	2357	1383	2282	1350	2227	1324	2185	1265	2024	1025	1640	847	1355	712	1139
			q_f																		
			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	1304	2463	1271	2097	1100	1814	1104	1822	1107	1827	1003	1655	1016	1640	847	1355	712	1139
			q_f																		
			F	5.6 -0.4R		5.7 -0.4R		5.8 -0.4R		5.9 -0.3R		5.9 -0.3R		6 -0.3R		6 -0.3R		6.1 -0.3R		6.1 -0.3R	
		24"	q_a	1084	1789	1094	1804	937	1545	965	1593	859	1417	891	1469	810	1337	842	1355	712	1139
			q_f																		
			F	6.1 -0.6R		6.3 -0.6R		6.4 -0.6R		6.5 -0.5R		6.6 -0.5R		6.7 -0.5R		6.7 -0.4R		6.8 -0.4R		6.8 -0.4R	
	22 ga	4"	q_a	1611	2658	1611	2658	1611	2658	1590	2545	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			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	1473	2430	1453	2397	1438	2373	1428	2356	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 +0R		5.2 +0R		5.2 +0R		5.2 +0R	
		8"	q_a	1329	2193	1335	2202	1278	2109	1291	2129	1218	1948	962	1539	779	1247	644	1031	541	866
			q_f																		
			F	5.4 -0.1R		5.4 -0.1R		5.4 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R	
		12"	q_a	1117	1842	1073	1770	1042	1720	1020	1683	1003	1654	962	1539	779	1247	644	1031	541	866
			q_f																		
			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	976	1842	956	1577	830	1370	836	1380	840	1387	763	1259	774	1247	644	1031	541	866
			q_f																		
			F	6.5 -0.5R		6.6 -0.4R		6.7 -0.4R		6.8 -0.4R		6.9 -0.4R		6.9 -0.3R		7 -0.3R		7 -0.3R		7 -0.3R	
		24"	q_a	809	1336	822	1356	706	1165	731	1206	651	1074	677	1118	617	1018	642	1031	541	866
			q_f																		
			F	7 -0.7R		7.2 -0.6R		7.4 -0.6R		7.5 -0.6R		7.6 -0.5R		7.7 -0.5R		7.7 -0.5R		7.8 -0.5R		7.8 -0.4R	

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

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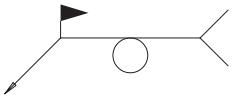
2.10 **B-36**

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	920	748	633	551	489	441	403	372	347												
			q_f	1518	1234	1044	909	807	728	665	614	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	887	714	600	518	456	408	370	339	313												
			q_f	1463	1179	989	854	752	673	610	559	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	870	701	583	503	439	393	353	323	297												
			q_f	1435	1157	962	830	725	649	583	534	490												
			F	8.7 -2.6R	9.9 -3R	11 -3.3R	11.9 -3.6R	12.8 -3.8R	13.6 -3.9R	14.3 -4R	15 -4.1R	15.6 -4.2R												
		12"	q_a	853	681	566	484	423	375	337	305	280												
			q_f	1408	1124	934	799	697	618	555	504	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	845	674	555	475	414	364	327	296	269												
			q_f	1408	1113	916	783	684	600	539	489	444												
			F	9.7 -3.3R	11.3 -3.9R	12.9 -4.5R	14.3 -5R	15.7 -5.5R	17 -6R	18.2 -6.3R	19.4 -6.7R	20.5 -7R												
		24"	q_a	837	668	550	470	406	360	320	290	263												
			q_f	1380	1102	907	775	670	594	528	479	435												
			F	9.9 -3.5R	11.7 -4.2R	13.4 -4.8R	15 -5.5R	16.5 -6R	17.9 -6.6R	19.3 -7.1R	20.7 -7.5R	22 -7.9R												
	18 ga	4"	q_a	740	605	514	450	402	364	334	311	294												
			q_f	1221	998	849	743	663	601	551	514	485												
			F	8.6 -2.1R	9.4 -2.3R	10.1 -2.3R	10.7 -2.4R	11.3 -2.4R	11.7 -2.4R	12.1 -2.4R	12.4 -2.4R	12.7 -2.4R												
		6"	q_a	706	571	481	417	368	331	301	278	260												
			q_f	1166	943	794	688	608	546	496	459	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	690	558	464	402	352	316	284	263	244												
			q_f	1138	921	766	664	580	522	469	434	402												
			F	10 -3R	11.4 -3.4R	12.6 -3.7R	13.6 -4R	14.6 -4.2R	15.5 -4.4R	16.3 -4.5R	17 -4.6R	17.7 -4.7R												
		12"	q_a	673	538	448	383	335	298	268	245	227												
			q_f	1111	888	739	633	553	491	441	404	375												
			F	10.6 -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	665	531	437	374	327	286	258	236	216												
			q_f	1111	877	721	617	539	473	425	389	356												
			F	11.1 -3.7R	13 -4.4R	14.7 -5.1R	16.3 -5.6R	17.8 -6.2R	19.3 -6.7R	20.7 -7.1R	22 -7.5R	23.2 -7.9R												
		24"	q_a	656	525	431	369	318	283	251	229	210												
			q_f	1083	866	711	609	525	467	414	379	347												
			F	11.4 -3.9R	13.3 -4.7R	15.2 -5.4R	17 -6.1R	18.7 -6.7R	20.3 -7.3R	21.9 -7.9R	23.4 -8.4R	24.9 -8.9R												
	20 ga	4"	q_a	473	394	341	303	275	253	237	225	214												
			q_f	781	651	563	500	453	417	391	371	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	441	361	308	270	241	219	204	191	181												
			q_f	727	596	508	445	398	362	336	316	299												
			F	11.4 -3R	12.7 -3.4R	13.8 -3.6R	14.8 -3.8R	15.7 -4R	16.5 -4.1R	17.2 -4.1R	17.9 -4.2R	18.5 -4.2R												
		8"	q_a	424	348	291	256	225	204	187	176	164												
			q_f	700	574	481	422	371	337	309	291	271												
			F	12 -3.4R	13.6 -3.9R	14.9 -4.3R	16.2 -4.6R	17.3 -4.8R	18.3 -5R	19.3 -5.2R	20.1 -5.3R	20.9 -5.4R												
		12"	q_a	408	328	275	237	208	186	170	158	148												
			q_f	672	541	453	390	343	307	281	261	244												
			F	12.7 -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	399	321	263	227	200	175	160	149	136												
			q_f	672	530	435	375	330	288	265	246	225												
			F	13.3 -4.3R	15.4 -5.1R	17.4 -5.8R	19.3 -6.5R	21 -7.1R	22.7 -7.7R	24.3 -8.2R	25.8 -8.7R	27.3 -9.1R												
		24"	q_a	391	314	258	222	191	171	154	143	131												
			q_f	645	519	426	367	316	282	254	236	216												
			F	13.6 -4.5R	15.9 -5.4R	18 -6.2R	20.1 -7R	22 -7.8R	23.9 -8.5R	25.7 -9.1R	27.5 -9.7R	29.2 -10.2R												
	22 ga	4"	q_a	364	310	272	244	224	209	198	190	182												
			q_f	600	511	448	403	369	346	328	313	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	334	276	238	211	191	176	165	156	149												
			q_f	551	456	393	348	314	291	273	258	245												
			F	12.8 -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	317	263	222	197	174	161	148	141	132												
			q_f	523	434	366	325	287	266	245	233	218												
			F	13.5 -3.7R	15.2 -4.3R	16.7 -4.7R	18.1 -5R	19.3 -5.3R	20.4 -5.5R	21.5 -5.7R	22.4 -5.8R	23.3 -5.9R												
		12"	q_a	300	243	205	178	157	143	132	123	115												
			q_f	496	401	338	293	259	236	218	203	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	292	236	194	168	149	132	122	114	104												
			q_f	496	390	320	277	246	217	201	188	172												
			F	14.9 -4.7R	17.2 -5.6R	19.4 -6.4R	21.5 -7.1R	23.4 -7.8R	25.3 -8.4R	27 -9R	28.7 -9.5R	30.3 -9.9R												
		24"	q_a	284	230	188	163	141	128	115	108	99												
			q_f	468	379	311	270	232	211	190	178	163												
			F	15.3 -4.9R	17.7 -5.9R	20.1 -6.8R	22.4 -7.7R	24.5 -8.5R	26.6 -9.3R	28.6 -10R	30.5 -10.6R	32.3 -11.2R												

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

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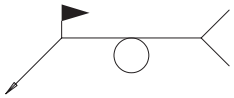
B-36 2.10

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		7.8 -2.3R		8.7 -2.6R		9.5 -2.9R		10.2 -3.1R		10.9 -3.3R		11.6 -3.5R		12.2 -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	2000	961	1586	794	1310	680	1121	594	980	523	863	470	776	427	704	388	641
			F		7.3 -2.3R		8.5 -2.8R		9.7 -3.3R		10.8 -3.7R		11.8 -4.1R		12.8 -4.5R		13.8 -4.9R		14.7 -5.2R		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		8.7 -2.9R		9.9 -3.4R		11.1 -3.9R		12.2 -4.4R		13.3 -4.8R		14.4 -5.2R		15.4 -5.6R		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		9.4 -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		9 -2.6R		10 -2.9R		10.9 -3.2R		11.7 -3.5R		12.5 -3.7R		13.2 -3.9R		13.9 -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	1575	757	1248	624	1030	535	882	468	772	412	679	370	611	338	558	310	511
			F		8.5 -2.6R		9.8 -3.2R		11.1 -3.7R		12.3 -4.2R		13.5 -4.6R		14.6 -5R		15.7 -5.4R		16.8 -5.8R		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		10 -3.3R		11.3 -3.9R		12.7 -4.4R		13.9 -4.9R		15.2 -5.4R		16.3 -5.9R		17.5 -6.3R		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		13 -3.7R		14 -4R		14.9 -4.3R		15.7 -4.5R		16.5 -4.7R		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		13.9 -4.3R		15.1 -4.7R		16.2 -5.1R		17.3 -5.4R		18.3 -5.7R		19.3 -6R	
		18"	q_a	q_f	565	947	454	749	374	617	322	531	283	467	249	410	227	374	209	345	192	317
			F		10.3 -3R		11.8 -3.6R		13.3 -4.2R		14.7 -4.8R		16 -5.3R		17.3 -5.8R		18.6 -6.3R		19.8 -6.7R		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		12 -3.8R		13.6 -4.4R		15.1 -5.1R		16.5 -5.7R		17.9 -6.2R		19.3 -6.8R		20.7 -7.3R		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		12.2 -3.3R		13.5 -3.7R		14.6 -4.1R		15.7 -4.4R		16.7 -4.7R		17.6 -4.9R		18.5 -5.1R		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		15.6 -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	693	332	548	273	451	236	390	208	344	185	305	170	280	157	259	144	238
			F		11.6 -3.3R		13.3 -4R		14.9 -4.6R		16.4 -5.3R		17.9 -5.8R		19.4 -6.4R		20.7 -6.9R		22.1 -7.3R		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		13.5 -4.2R		15.2 -4.9R		16.9 -5.6R		18.5 -6.2R		20 -6.8R		21.5 -7.4R		23 -8R		24.4 -8.5R	

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

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

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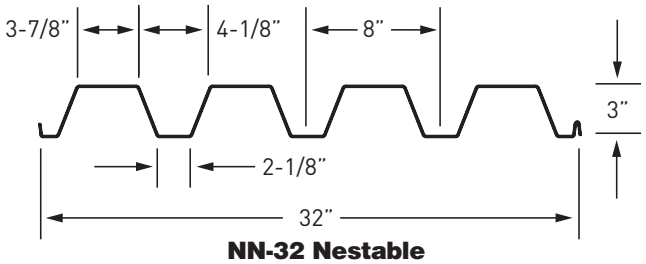
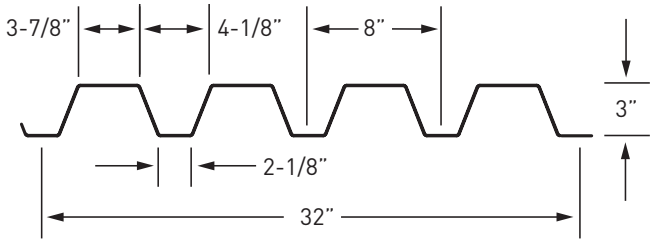
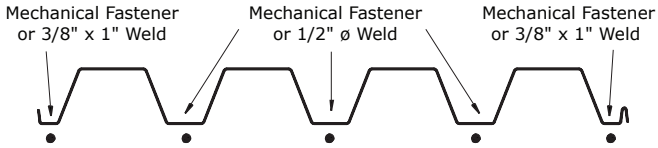
DGN-32 & N-32



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	1.96	0.0299	50	65	0.569	0.814	1.68	0.483	1.195
21	2.16	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	2.73	0.0420	50	65	0.795	1.125	1.69	0.668	1.190
18	3.10	0.0478	50	65	0.902	1.275	1.69	0.755	1.189
16	3.86	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			
								Uniform Load Only	
	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	$I_d = (2I_e+I_g)/3$	
	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

Gage	Condition	Bearing Length of Webs							
		ASD, R/Ω				LRFD, ϕR			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	500	566	622	716	764	866	952	1095
	Interior	876	973	1056	1194	1303	1448	1570	1776
20	End	709	799	876	1004	1084	1223	1340	1536
	Interior	1240	1371	1482	1669	1844	2040	2205	2482
18	End	1221	1367	1490	1697	1868	2092	2280	2597
	Interior	2133	2343	2519	2816	3173	3485	3748	4189
16	End	1864	2076	2254	2554	2852	3176	3449	3907
	Interior	3260	3560	3814	4239	4849	5296	5673	6305

Constants h = 3.06" 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	1178	349	147	75	44	27	18	13	9
		L/240	1767	524	221	113	65	41	28	19	14
		L/180	2356	698	295	151	87	55	37	26	19
		L/120	3535	1047	442	226	131	82	55	39	28
	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	923	273	115	59	34	22	14	10	7
		L/240	1384	410	173	89	51	32	22	15	11
		L/180	1846	547	231	118	68	43	29	20	15
		L/120	2769	820	346	177	103	65	43	30	22
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	1460	433	182	93	54	34	23	16	12
		L/240	2190	649	274	140	81	51	34	24	18
		L/180	2920	865	365	187	108	68	46	32	23
		L/120	4380	1298	547	280	162	102	68	48	35
	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	1144	339	143	73	42	27	18	13	9
		L/240	1715	508	214	110	64	40	27	19	14
		L/180	2287	678	286	146	85	53	36	25	18
		L/120	3431	1017	429	220	127	80	54	38	27
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	2036	603	254	130	75	47	32	22	16
		L/240	3053	905	382	195	113	71	48	34	24
		L/180	4071	1206	509	261	151	95	64	45	33
		L/120	6107	1809	763	391	226	142	95	67	49
	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	1595	472	199	102	59	37	25	17	13
		L/240	2392	709	299	153	89	56	37	26	19
		L/180	3189	945	399	204	118	74	50	35	26
		L/120	4784	1417	598	306	177	112	75	52	38
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	2570	762	321	164	95	60	40	28	21
		L/240	3855	1142	482	247	143	90	60	42	31
		L/180	5140	1523	643	329	190	120	80	56	41
		L/120	7711	2285	964	493	286	180	120	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	2013	597	252	129	75	47	31	22	16
		L/240	3020	895	378	193	112	70	47	33	24
		L/180	4027	1193	503	258	149	94	63	44	32
		L/120	6040	1790	755	387	224	141	94	66	48

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3.2 DGN-32

Allowable Wind Uplift Loads

ASC STEEL DECK

DGN-32 — Support Fastener Pattern: 32 / 5

Allowable Wind Uplift Load (psf)

Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.) 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	223	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	223	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

DGN-32 — Support Fastener Pattern: 32 / 5

Allowable Wind Uplift Load (psf)

Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.) 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.

ASC STEEL DECK

DGN-32 3.2
Allowable Wind Uplift Loads

DGN-32 Support Fastener Pattern: 32 / 5

Allowable Wind Uplift Load (psf)

Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.) 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

DGN-32 Support Fastener Pattern: 32 / 5

Allowable Wind Uplift Load (psf)

Gauge	Fastener	Support Thickness	Fastener Capacity [lbs]	Span	Span (ft.-in.) 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	91	72	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	91	72	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.

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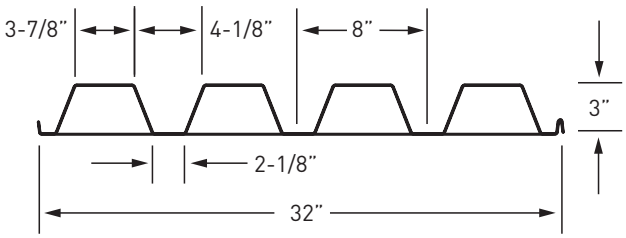
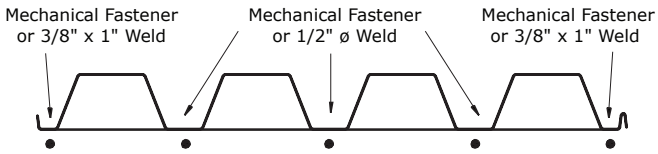


Attachment Patterns



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

Panel Properties

Gage	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	3.96	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

Gage	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
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

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	500	566	622	716	764	866	952	1095
	Interior	876	973	1056	1194	1303	1448	1570	1776
20	End	709	799	876	1004	1084	1223	1340	1536
	Interior	1240	1371	1482	1669	1844	2040	2205	2482
18	End	1221	1367	1490	1697	1868	2092	2280	2597
	Interior	2133	2343	2519	2816	3173	3485	3748	4189
16	End	1864	2076	2254	2554	2852	3176	3449	3907
	Interior	3260	3560	3814	4239	4849	5296	5673	6305

Constants h = 3.06" 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

ASC STEEL DECK

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

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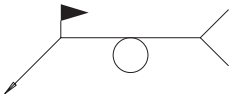
ASC STEEL DECK

DGN-32 & DGNF-32 3.4

Arc Spot/Seam Welds to Supports with DeltaGrip® 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	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405
			q_f																		
			F	3.5	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0R	3.6	+0R	3.6	+0R	3.6	+0R
		6"	q_a	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405
			q_f																		
			F	4	-0.3R	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
		8"	q_a	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405
			q_f																		
			F	4.4	-0.4R	4.6	-0.3R	4.7	-0.3R	4.8	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	4.9	-0.1R	4.9	-0.1R
		12"	q_a	2569	4239	2382	3930	2281	3764	2219	3661	2176	3591	2145	3540	2122	3501	1856	2969	1503	2405
			q_f																		
			F	5.2	-0.6R	5.5	-0.6R	5.7	-0.5R	5.8	-0.4R	5.9	-0.4R	6	-0.4R	6.1	-0.3R	6.1	-0.3R	6.1	-0.3R
		18"	q_a	2240	4239	1889	3117	1905	3143	1749	2885	1640	2707	1687	2783	1612	2660	1553	2563	1503	2405
			q_f																		
			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
		24"	q_a	1857	3064	1606	2650	1474	2431	1392	2297	1337	2206	1297	2140	1267	2091	1243	2052	1225	2021
			q_f																		
			F	6.6	-1.3R	7.5	-1.3R	8	-1.3R	8.4	-1.2R	8.7	-1.1R	8.9	-1.1R	9.1	-1R	9.3	-1R	9.4	-0.9R
	18 ga	4"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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	5	-0.1R
		6"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	5.3	-0.5R	5.6	-0.4R	5.7	-0.3R	5.8	-0.3R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R
		8"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1824	2918	1663	2744	1575	2599	1520	2508	1483	2447	1456	2402	1436	2369	1339	2142	1084	1735
			q_f																		
			F	6.8	-1R	7.5	-1R	7.8	-0.9R	8.1	-0.8R	8.3	-0.8R	8.4	-0.7R	8.5	-0.6R	8.6	-0.6R	8.7	-0.6R
		18"	q_a	1596	2918	1319	2177	1311	2164	1193	1969	1112	1835	1138	1877	1083	1787	1040	1716	1066	1735
			q_f																		
			F	7.8	-1.5R	8.8	-1.6R	9.5	-1.5R	10	-1.5R	10.3	-1.4R	10.6	-1.3R	10.8	-1.2R	11	-1.1R	11.1	-1.1R
		24"	q_a	1335	2203	1127	1859	1018	1679	952	1571	909	1499	877	1447	852	1406	833	1375	818	1350
			q_f																		
			F	8.5	-1.9R	9.9	-2.1R	10.8	-2.1R	11.5	-2.1R	12.1	-2R	12.5	-1.9R	12.8	-1.8R	13.1	-1.7R	13.3	-1.7R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	6.7	-0.5R	7	-0.5R	7.1	-0.4R	7.2	-0.3R	7.3	-0.3R	7.4	-0.3R	7.4	-0.2R	7.4	-0.2R	7.5	-0.2R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.7	-0.9R	8.2	-0.8R	8.5	-0.7R	8.7	-0.6R	8.8	-0.6R	8.9	-0.5R	9	-0.5R	9.1	-0.4R	9.1	-0.4R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.5	-1.2R	9.2	-1.2R	9.7	-1.1R	10	-1R	10.2	-0.9R	10.4	-0.8R	10.5	-0.8R	10.6	-0.7R	10.7	-0.7R
		12"	q_a	1056	1728	956	1578	903	1490	870	1436	848	1399	832	1372	819	1352	810	1336	712	1139
			q_f																		
			F	9.6	-1.8R	10.8	-1.9R	11.6	-1.8R	12.2	-1.7R	12.6	-1.6R	12.9	-1.5R	13.2	-1.5R	13.4	-1.4R	13.6	-1.3R
		18"	q_a	922	1728	759	1253	752	1241	683	1127	636	1049	649	1071	618	1019	593	978	607	1001
			q_f																		
			F	10.7	-2.4R	12.5	-2.7R	13.8	-2.8R	14.7	-2.8R	15.5	-2.7R	16.1	-2.6R	16.6	-2.5R	17	-2.4R	17.3	-2.4R
		24"	q_a	773	1276	647	1067	583	961	544	897	518	855	500	825	486	802	475	784	466	769
			q_f																		
			F	11.5	-2.9R	13.7	-3.3R	15.4	-3.6R	16.7	-3.7R	17.8	-3.7R	18.7	-3.7R	19.4	-3.6R	20	-3.5R	20.5	-3.5R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	8.5	-0.8R	8.9	-0.7R	9.2	-0.7R	9.3	-0.6R	9.5	-0.5R	9.6	-0.5R	9.6	-0.4R	9.7	-0.4R	9.7	-0.4R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.6	-1.3R	10.4	-1.3R	10.9	-1.2R	11.2	-1.1R	11.5	-1R	11.7	-0.9R	11.8	-0.8R	11.9	-0.8R	12	-0.7R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	767	1233	673	1076	545	872
			q_f																		
			F	10.5	-1.8R	11.6	-1.8R	12.4	-1.7R	12.9	-1.6R	13.3	-1.5R	13.6	-1.4R	13.8	-1.3R	14	-1.2R	14.1	-1.2R
		12"	q_a	746	1231	673	1111	634	1047	610	1007	594	980	582	961	573	946	566	935	545	872
			q_f																		
			F	11.8	-2.4R	13.5	-2.6R	14.7	-2.7R	15.6	-2.6R	16.3	-2.5R	16.8	-2.4R	17.3	-2.3R	17.6	-2.2R	17.9	-2.1R
		18"	q_a	652	1231	535	883	528	872	479	791	445	735	455	750	432	713	414	684	424	700
			q_f																		
			F	12.9	-3.1R	15.4	-3.6R	17.2	-3.9R	18.6	-4R	19.8	-4R	20.7	-4R	21.5	-3.9R	22.1	-3.8R	22.7	-3.7R
		24"	q_a	548	904	455	751	409	675	381	629	363	598	349	577	340	560	332	547	326	537
			q_f																		
			F	13.7	-3.6R	16.6	-4.4R	19	-4.8R	20.9	-5.1R	22.4	-5.3R	23.7	-5.3R	24.9	-5.4R	25.8	-5.3R	26.6	-5.3R

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

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3.5 DGN-32 & DGNF-32

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R	
		6"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R	
		8"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R	
		12"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R	
		18"	q_a	1478	2380	1398	2251	1443	2323	1396	2247	1360	2190	1394	2245	1368	2203	1347	2168	1373	2211
			q_f																		
			F	8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R	
		24"	q_a	1289	2075	1239	1994	1211	1950	1194	1923	1183	1904	1174	1891	1168	1880	1163	1872	1159	1866
			q_f																		
			F	10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R	
	18 ga	4"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R	
		6"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		8"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R	
		12"	q_a	1182	1903	1182	1903	1179	1898	1172	1887	1167	1879	1164	1874	1161	1870	1159	1866	1084	1735
			q_f																		
			F	9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R	
		18"	q_a	1104	1903	1019	1641	1055	1698	1010	1627	978	1574	1007	1621	983	1582	963	1550	986	1587
			q_f																		
			F	12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R	
		24"	q_a	937	1508	886	1427	859	1383	842	1356	831	1337	822	1324	816	1313	811	1305	807	1299
			q_f																		
			F	15.9 +0R		16 +0R		16 +0R		16 +0R		16 +0R		16 +0R		16 +0R		16 +0R		16 +0R	
	20 ga	4"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R	
		6"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R	
		8"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	11.5 +0R		11.5 +0R		11.5 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R	
		12"	q_a	830	1336	806	1297	793	1276	785	1263	779	1254	775	1248	772	1243	769	1239	712	1139
			q_f																		
			F	15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R	
		18"	q_a	741	1336	666	1072	689	1109	651	1049	624	1005	645	1038	625	1007	609	981	626	1008
			q_f																		
			F	21.2 -0.1R		21.2 -0.1R		21.2 -0.1R		21.2 +0R		21.2 +0R		21.2 +0R		21.2 +0R		21.2 +0R		21.2 +0R	
		24"	q_a	616	992	569	917	544	876	529	851	518	834	510	822	504	812	500	805	496	799
			q_f																		
			F	26.9 -0.2R		26.9 -0.1R		27 -0.1R		27 -0.1R		27 -0.1R		27 -0.1R		27 +0R		27 +0R		27 +0R	
	22 ga	4"	q_a	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1076	545	872
			q_f																		
			F	10.1 +0R		10.1 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R	
		6"	q_a	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1076	545	872
			q_f																		
			F	12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R	
		8"	q_a	739	1190	729	1174	721	1161	717	1154	713	1148	711	1145	709	1142	673	1076	545	872
			q_f																		
			F	15.7 -0.1R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R	
		12"	q_a	644	1037	619	997	606	975	597	961	591	952	587	945	584	940	581	936	545	872
			q_f																		
			F	21.2 -0.1R		21.3 -0.1R		21.3 -0.1R		21.3 +0R		21.3 +0R		21.3 +0R		21.3 +0R		21.3 +0R		21.3 +0R	
		18"	q_a	569	1037	503	810	518	834	486	782	463	745	478	770	462	744	449	722	461	743
			q_f																		
			F	29.5 -0.3R		29.6 -0.2R		29.6 -0.1R		29.6 -0.1R		29.6 -0.1R		29.7 -0.1R		29.7 -0.1R		29.7 -0.1R		29.7 -0.1R	
		24"	q_a	471	758	427	688	404	651	390	628	380	612	373	601	368	592	364	586	360	580
			q_f																		
			F	37.6 -0.5R		37.8 -0.3R		37.9 -0.2R		37.9 -0.2R		38 -0.2R		38 -0.1R		38 -0.1R		38 -0.1R		38 -0.1R	

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

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ASC STEEL DECK

DGN-32 & DGNF-32 3.5

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R	
		6"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R	
		8"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R		5.1 +0R	
		12"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R	
		18"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R		8.6 +0R	
		24"	q_a	1478	2380	1478	2380	1454	2340	1414	2276	1386	2232	1366	2199	1351	2175	1339	2155	1329	2139
			q_f																		
			F	10.6 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R		10.7 +0R	
	18 ga	4"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R	
		6"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R		6.1 +0R	
		8"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R		7.2 +0R	
		12"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R	
		18"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1151	1854	1182	1903	1146	1846	1115	1796	1084	1735
			q_f																		
			F	12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R	
		24"	q_a	1182	1903	1083	1743	1024	1648	987	1589	961	1548	943	1518	929	1495	918	1478	909	1463
			q_f																		
			F	15.9 -0.1R		15.9 -0.1R		15.9 +0R		16 +0R		16 +0R		16 +0R		16 +0R		16 +0R		16 +0R	
	20 ga	4"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R		7.7 +0R	
		6"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R		9.6 +0R	
		8"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R	
		12"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	15.4 -0.1R		15.4 -0.1R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R		15.4 +0R	
		18"	q_a	888	1429	814	1310	823	1325	764	1231	723	1164	742	1195	713	1148	690	1111	708	1139
			q_f																		
			F	21.1 -0.2R		21.1 -0.1R		21.2 -0.1R		21.2 -0.1R		21.2 -0.1R		21.2 -0.1R		21.2 +0R		21.2 +0R		21.2 +0R	
		24"	q_a	795	1280	701	1129	651	1048	619	997	597	962	582	936	570	917	560	902	553	890
			q_f																		
			F	26.8 -0.3R		26.9 -0.2R		26.9 -0.2R		27 -0.1R		27 -0.1R		27 -0.1R		27 -0.1R		27 -0.1R		27 -0.1R	
	22 ga	4"	q_a	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1076	545	872
			q_f																		
			F	10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.2 +0R		10.2 +0R		10.2 +0R		10.2 +0R	
		6"	q_a	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1076	545	872
			q_f																		
			F	12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R		12.9 +0R	
		8"	q_a	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	673	1076	545	872
			q_f																		
			F	15.7 -0.1R		15.7 -0.1R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R	
		12"	q_a	739	1190	739	1190	727	1170	707	1138	693	1116	683	1100	675	1087	669	1076	545	872
			q_f																		
			F	21.1 -0.2R		21.2 -0.1R		21.2 -0.1R		21.3 -0.1R		21.3 -0.1R		21.3 -0.1R		21.3 +0R		21.3 +0R		21.3 +0R	
		18"	q_a	725	1190	617	993	617	994	568	915	534	859	546	880	523	842	504	811	516	831
			q_f																		
			F	29.3 -0.4R		29.4 -0.3R		29.5 -0.2R		29.6 -0.2R		29.6 -0.1R		29.6 -0.1R		29.6 -0.1R		29.6 -0.1R		29.6 -0.1R	
		24"	q_a	616	991	532	857	487	785	459	740	440	709	426	687	416	670	408	656	401	646
			q_f																		
			F	37.3 -0.7R		37.6 -0.5R		37.7 -0.4R		37.8 -0.3R		37.9 -0.3R		37.9 -0.2R		37.9 -0.2R		37.9 -0.2R		38 -0.2R	

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

N PANELS

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3.6 **DGN-32 & DGNF-32**

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			F	3.5	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R
		6"	q_a	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			F	4.5	-0.4R	4.6	-0.3R	4.7	-0.3R	4.8	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.2R	4.9	-0.1R	4.9	-0.1R
		12"	q_a	1907	3070	1901	3061	1883	3031	1871	3012	1863	2999	1857	2990	1853	2983	1849	2969	1503	2405
			q_f																		
			F	5.2	-0.6R	5.6	-0.6R	5.8	-0.5R	5.9	-0.4R	6	-0.4R	6	-0.3R	6.1	-0.3R	6.1	-0.3R	6.2	-0.3R
		18"	q_a	1762	3070	1622	2611	1679	2703	1606	2586	1553	2500	1599	2575	1560	2512	1528	2460	1503	2405
			q_f																		
			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
		24"	q_a	1491	2400	1407	2266	1362	2193	1334	2148	1315	2117	1301	2095	1291	2078	1282	2064	1276	2054
			q_f																		
			F	6.8	-1.3R	7.6	-1.3R	8.2	-1.3R	8.6	-1.2R	8.8	-1.1R	9.1	-1R	9.2	-1R	9.4	-0.9R	9.5	-0.9R
	18 ga	4"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			F	4.7	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R
		6"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			F	5.4	-0.4R	5.6	-0.4R	5.7	-0.3R	5.8	-0.3R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R	5.9	-0.2R	6	-0.2R
		8"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			F	6	-0.6R	6.3	-0.6R	6.5	-0.5R	6.6	-0.4R	6.7	-0.4R	6.8	-0.3R	6.9	-0.3R	6.9	-0.3R	6.9	-0.3R
		12"	q_a	1453	2339	1412	2273	1390	2238	1376	2216	1367	2201	1360	2190	1355	2181	1339	2142	1084	1735
			q_f																		
			F	7	-1R	7.6	-1R	7.9	-0.9R	8.2	-0.8R	8.4	-0.7R	8.5	-0.7R	8.6	-0.6R	8.7	-0.6R	8.7	-0.5R
		18"	q_a	1299	2339	1170	1884	1210	1949	1145	1844	1099	1769	1135	1827	1101	1772	1073	1728	1084	1735
			q_f																		
			F	8	-1.5R	9	-1.6R	9.7	-1.5R	10.1	-1.4R	10.5	-1.3R	10.7	-1.2R	10.9	-1.2R	11.1	-1.1R	11.2	-1R
		24"	q_a	1082	1742	1001	1612	958	1542	931	1499	913	1470	899	1448	889	1432	881	1419	875	1409
			q_f																		
			F	8.8	-1.9R	10.2	-2.1R	11.1	-2.1R	11.8	-2R	12.3	-1.9R	12.7	-1.9R	13	-1.8R	13.3	-1.7R	13.5	-1.6R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	6.8	-0.5R	7	-0.4R	7.2	-0.4R	7.3	-0.3R	7.3	-0.3R	7.4	-0.2R	7.4	-0.2R	7.4	-0.2R	7.5	-0.2R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.8	-0.9R	8.3	-0.8R	8.6	-0.7R	8.7	-0.6R	8.9	-0.6R	9	-0.5R	9	-0.5R	9.1	-0.4R	9.2	-0.4R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.6	-1.2R	9.3	-1.2R	9.8	-1.1R	10.1	-1R	10.3	-0.9R	10.4	-0.8R	10.6	-0.7R	10.7	-0.7R	10.7	-0.6R
		12"	q_a	983	1583	939	1512	915	1473	900	1449	890	1433	882	1421	877	1411	872	1404	712	1139
			q_f																		
			F	9.9	-1.8R	11	-1.9R	11.8	-1.8R	12.4	-1.7R	12.8	-1.6R	13.1	-1.5R	13.3	-1.4R	13.5	-1.3R	13.7	-1.2R
		18"	q_a	865	1583	757	1218	777	1251	726	1168	689	1109	712	1146	686	1104	665	1071	684	1101
			q_f																		
			F	11.1	-2.5R	12.9	-2.7R	14.2	-2.8R	15.1	-2.8R	15.8	-2.7R	16.4	-2.6R	16.9	-2.5R	17.2	-2.4R	17.6	-2.3R
		24"	q_a	714	1149	642	1033	604	972	580	934	564	908	552	889	544	875	537	864	531	855
			q_f																		
			F	11.9	-3R	14.2	-3.4R	15.9	-3.6R	17.2	-3.7R	18.3	-3.7R	19.1	-3.6R	19.8	-3.6R	20.4	-3.5R	20.9	-3.4R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	8.6	-0.8R	9	-0.7R	9.2	-0.6R	9.4	-0.6R	9.5	-0.5R	9.6	-0.4R	9.7	-0.4R	9.7	-0.4R	9.8	-0.3R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.8	-1.3R	10.6	-1.2R	11	-1.1R	11.4	-1R	11.6	-0.9R	11.8	-0.9R	11.9	-0.8R	12	-0.7R	12.1	-0.7R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	10.8	-1.8R	11.9	-1.8R	12.6	-1.7R	13.1	-1.6R	13.4	-1.4R	13.7	-1.3R	13.9	-1.3R	14.1	-1.2R	14.2	-1.1R
		12"	q_a	758	1221	714	1150	690	1111	675	1087	665	1071	658	1059	652	1050	648	1043	545	872
			q_f																		
			F	12.1	-2.5R	13.9	-2.7R	15.1	-2.7R	15.9	-2.6R	16.6	-2.5R	17.1	-2.4R	17.5	-2.3R	17.9	-2.2R	18.2	-2.1R
		18"	q_a	663	1221	569	917	580	934	537	864	507	816	523	841	501	807	485	780	498	802
			q_f																		
			F	13.4	-3.2R	15.9	-3.7R	17.8	-3.9R	19.2	-4R	20.3	-4R	21.2	-3.9R	22	-3.8R	22.6	-3.7R	23.1	-3.6R
		24"	q_a	547	881	483	777	449	722	427	688	413	665	403	648	395	636	389	626	384	618
			q_f																		
			F	14.3	-3.7R	17.3	-4.5R	19.7	-5R	21.6	-5.2R	23.2	-5.3R	24.4	-5.4R	25.5	-5.3R	26.5	-5.3R	27.3	-5.2R

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

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ASC Steel Deck

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Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			F	3.4	-0.2R	3.5	-0.1R	3.5	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R
		6"	q_a	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			F	4.2	-0.4R	4.4	-0.4R	4.6	-0.3R	4.6	-0.3R	4.7	-0.3R	4.8	-0.2R	4.8	-0.2R	4.8	-0.2R	4.8	-0.2R
		12"	q_a	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1907	3070	1856	2969	1503	2405
			q_f																		
			F	4.7	-0.7R	5.1	-0.6R	5.4	-0.6R	5.6	-0.6R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R	5.9	-0.4R	6	-0.4R
		18"	q_a	1907	3070	1907	3070	1907	3070	1907	3070	1824	2937	1877	3022	1815	2922	1764	2841	1503	2405
			q_f																		
			F	5.3	-1R	6	-1R	6.4	-1R	6.7	-0.9R	7	-0.9R	7.1	-0.9R	7.3	-0.8R	7.4	-0.8R	7.5	-0.7R
		24"	q_a	1897	3054	1720	2769	1623	2613	1562	2516	1521	2448	1490	2400	1467	2363	1449	2333	1435	2310
			q_f																		
			F	5.7	-1.2R	6.6	-1.3R	7.2	-1.3R	7.7	-1.3R	8	-1.3R	8.3	-1.2R	8.5	-1.2R	8.7	-1.2R	8.9	-1.1R
	18 ga	4"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			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
		6"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			F	5.1	-0.5R	5.3	-0.5R	5.5	-0.4R	5.6	-0.4R	5.7	-0.3R	5.7	-0.3R	5.8	-0.3R	5.8	-0.3R	5.9	-0.2R
		8"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142	1084	1735
			q_f																		
			F	6.1	-1R	6.8	-1R	7.3	-1R	7.6	-1R	7.8	-0.9R	8	-0.9R	8.1	-0.8R	8.3	-0.8R	8.4	-0.7R
		18"	q_a	1544	2485	1429	2301	1447	2330	1345	2166	1273	2049	1307	2105	1257	2024	1216	1958	1084	1735
			q_f																		
			F	6.8	-1.4R	7.8	-1.5R	8.5	-1.6R	9	-1.6R	9.5	-1.5R	9.8	-1.5R	10.1	-1.4R	10.3	-1.4R	10.5	-1.3R
		24"	q_a	1393	2243	1232	1984	1145	1843	1090	1755	1052	1694	1025	1651	1005	1617	988	1591	975	1570
			q_f																		
			F	7.2	-1.6R	8.5	-1.9R	9.4	-2R	10.2	-2.1R	10.8	-2.1R	11.3	-2.1R	11.7	-2R	12	-2R	12.3	-1.9R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	6.4	-0.6R	6.7	-0.5R	6.9	-0.5R	7	-0.4R	7.1	-0.4R	7.2	-0.4R	7.3	-0.3R	7.3	-0.3R	7.3	-0.3R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.1	-0.9R	7.7	-0.9R	8	-0.9R	8.3	-0.8R	8.5	-0.7R	8.6	-0.7R	8.7	-0.6R	8.8	-0.6R	8.9	-0.6R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.6	-1.2R	8.4	-1.2R	9	-1.2R	9.3	-1.2R	9.6	-1.1R	9.8	-1R	10	-1R	10.2	-0.9R	10.3	-0.9R
		12"	q_a	1080	1728	1080	1728	1080	1728	1060	1706	1036	1668	1019	1641	1006	1620	879	1406	712	1139
			q_f																		
			F	8.4	-1.6R	9.6	-1.8R	10.4	-1.9R	11.1	-1.9R	11.5	-1.8R	11.9	-1.8R	12.3	-1.7R	12.5	-1.6R	12.8	-1.6R
		18"	q_a	1080	1728	932	1500	926	1492	849	1366	794	1279	812	1307	775	1247	746	1200	712	1139
			q_f																		
			F	9	-2R	10.7	-2.4R	11.9	-2.6R	12.9	-2.7R	13.7	-2.8R	14.4	-2.8R	14.9	-2.8R	15.4	-2.7R	15.8	-2.7R
		24"	q_a	942	1516	806	1297	732	1179	687	1106	656	1056	633	1020	616	992	603	971	592	953
			q_f																		
			F	9.5	-2.3R	11.4	-2.8R	13	-3.2R	14.2	-3.4R	15.3	-3.6R	16.2	-3.7R	17	-3.7R	17.7	-3.7R	18.3	-3.7R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	7.9	-0.9R	8.5	-0.9R	8.8	-0.8R	9	-0.7R	9.2	-0.7R	9.3	-0.6R	9.4	-0.6R	9.5	-0.5R	9.5	-0.5R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	8.7	-1.3R	9.6	-1.3R	10.2	-1.3R	10.6	-1.2R	10.9	-1.2R	11.1	-1.1R	11.3	-1R	11.5	-1R	11.6	-0.9R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.3	-1.6R	10.5	-1.8R	11.3	-1.8R	11.9	-1.8R	12.3	-1.7R	12.7	-1.6R	13	-1.6R	13.2	-1.5R	13.4	-1.4R
		12"	q_a	771	1233	771	1233	771	1233	771	1233	769	1233	753	1212	741	1192	673	1076	545	872
			q_f																		
			F	10.1	-2.1R	11.7	-2.4R	12.9	-2.6R	13.9	-2.7R	14.6	-2.7R	15.3	-2.7R	15.8	-2.6R	16.2	-2.6R	16.6	-2.5R
		18"	q_a	771	1233	709	1142	695	1119	631	1016	587	945	596	960	567	912	543	875	545	872
			q_f																		
			F	10.7	-2.5R	12.8	-3.1R	14.5	-3.5R	15.9	-3.7R	17.1	-3.9R	18.1	-4R	18.9	-4R	19.7	-4R	20.3	-4R
		24"	q_a	736	1186	617	993	551	887	511	823	485	780	466	750	452	727	440	709	431	694
			q_f																		
			F	11.1	-2.7R	13.6	-3.5R	15.6	-4.1R	17.3	-4.5R	18.8	-4.8R	20.1	-5R	21.3	-5.2R	22.3	-5.3R	23.2	-5.3R

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Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			F	3.4	-0.2R	3.5	-0.1R	3.5	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R
		6"	q_a	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			F	4.2	-0.4R	4.4	-0.4R	4.6	-0.3R	4.6	-0.3R	4.7	-0.3R	4.8	-0.2R	4.8	-0.2R	4.8	-0.2R	4.8	-0.2R
		12"	q_a	2040	3284	1997	3215	1974	3179	1960	3156	1950	3140	1943	3128	1938	3120	1856	2969	1503	2405
			q_f																		
			F	4.7	-0.7R	5.1	-0.6R	5.4	-0.6R	5.6	-0.6R	5.7	-0.5R	5.8	-0.5R	5.9	-0.4R	5.9	-0.4R	6	-0.4R
		18"	q_a	1845	3284	1687	2717	1747	2813	1666	2682	1606	2586	1656	2667	1613	2597	1577	2540	1503	2405
			q_f																		
			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
		24"	q_a	1552	2499	1457	2346	1405	2263	1373	2211	1351	2176	1336	2150	1324	2131	1314	2116	1306	2103
			q_f																		
			F	5.7	-1.2R	6.6	-1.3R	7.2	-1.3R	7.6	-1.3R	8	-1.3R	8.3	-1.3R	8.5	-1.2R	8.7	-1.2R	8.8	-1.1R
	18 ga	4"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142	1084	1735
			q_f																		
			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
		6"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142	1084	1735
			q_f																		
			F	5.1	-0.5R	5.3	-0.5R	5.5	-0.4R	5.6	-0.4R	5.7	-0.3R	5.7	-0.3R	5.8	-0.3R	5.8	-0.3R	5.9	-0.2R
		8"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1523	2452	1475	2374	1448	2332	1432	2306	1421	2288	1413	2274	1406	2264	1339	2142	1084	1735
			q_f																		
			F	6.1	-1R	6.8	-1R	7.3	-1R	7.6	-1R	7.8	-0.9R	8	-0.9R	8.1	-0.8R	8.3	-0.8R	8.4	-0.7R
		18"	q_a	1355	2452	1212	1951	1252	2016	1181	1902	1130	1819	1168	1880	1131	1820	1101	1772	1084	1735
			q_f																		
			F	6.8	-1.4R	7.8	-1.5R	8.5	-1.6R	9	-1.6R	9.5	-1.5R	9.8	-1.5R	10.1	-1.4R	10.3	-1.4R	10.5	-1.3R
		24"	q_a	1125	1811	1034	1665	985	1586	955	1538	935	1505	920	1481	908	1462	900	1448	892	1437
			q_f																		
			F	7.2	-1.6R	8.5	-1.9R	9.4	-2R	10.2	-2.1R	10.8	-2.1R	11.2	-2.1R	11.7	-2R	12	-2R	12.3	-1.9R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	6.4	-0.6R	6.7	-0.5R	6.9	-0.5R	7	-0.4R	7.1	-0.4R	7.2	-0.4R	7.3	-0.3R	7.3	-0.3R	7.3	-0.3R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.1	-0.9R	7.7	-0.9R	8	-0.9R	8.3	-0.8R	8.5	-0.7R	8.6	-0.7R	8.7	-0.6R	8.8	-0.6R	8.9	-0.6R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.6	-1.2R	8.4	-1.2R	9	-1.2R	9.3	-1.2R	9.6	-1.1R	9.8	-1R	10	-1R	10.2	-0.9R	10.3	-0.9R
		12"	q_a	1026	1651	974	1569	947	1524	929	1496	917	1477	909	1463	902	1453	879	1406	712	1139
			q_f																		
			F	8.4	-1.6R	9.5	-1.8R	10.4	-1.9R	11	-1.9R	11.5	-1.8R	11.9	-1.8R	12.3	-1.7R	12.5	-1.6R	12.8	-1.6R
		18"	q_a	900	1651	781	1258	800	1289	745	1199	705	1136	728	1173	701	1128	678	1092	698	1123
			q_f																		
			F	9	-2R	10.6	-2.4R	11.9	-2.6R	12.9	-2.7R	13.7	-2.8R	14.4	-2.8R	14.9	-2.8R	15.4	-2.7R	15.8	-2.7R
		24"	q_a	742	1194	662	1066	620	998	594	956	576	928	563	907	554	891	546	879	540	869
			q_f																		
			F	9.4	-2.2R	11.4	-2.8R	12.9	-3.2R	14.2	-3.4R	15.3	-3.6R	16.2	-3.7R	17	-3.7R	17.7	-3.7R	18.3	-3.7R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	7.9	-0.9R	8.4	-0.9R	8.8	-0.8R	9	-0.7R	9.2	-0.7R	9.3	-0.6R	9.4	-0.6R	9.5	-0.5R	9.5	-0.5R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	8.7	-1.3R	9.6	-1.3R	10.2	-1.3R	10.6	-1.2R	10.9	-1.2R	11.1	-1.1R	11.3	-1.1R	11.5	-1R	11.6	-0.9R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.3	-1.6R	10.5	-1.8R	11.3	-1.8R	11.9	-1.8R	12.3	-1.7R	12.7	-1.6R	13	-1.6R	13.2	-1.5R	13.4	-1.4R
		12"	q_a	771	1233	739	1190	712	1146	695	1119	683	1100	675	1087	669	1076	664	1068	545	872
			q_f																		
			F	10.1	-2R	11.7	-2.4R	12.9	-2.6R	13.9	-2.7R	14.6	-2.7R	15.2	-2.7R	15.8	-2.6R	16.2	-2.6R	16.6	-2.5R
		18"	q_a	689	1233	587	946	596	960	550	886	518	834	534	859	511	823	493	795	507	817
			q_f																		
			F	10.7	-2.5R	12.8	-3.1R	14.5	-3.5R	15.9	-3.7R	17.1	-3.9R	18.1	-4R	18.9	-4R	19.6	-4R	20.3	-4R
		24"	q_a	570	917	498	803	461	742	438	705	422	679	411	661	402	647	395	637	390	628
			q_f																		
			F	11.1	-2.7R	13.5	-3.5R	15.6	-4.1R	17.3	-4.5R	18.8	-4.8R	20.1	-5R	21.2	-5.2R	22.3	-5.3R	23.2	-5.3R

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

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DGN-32 & DGNF-32 3.6

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			F	3.3 -0.2R		3.4 -0.2R		3.5 -0.2R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R	
		6"	q_a	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			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	
		8"	q_a	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			F	3.8 -0.4R		4.1 -0.4R		4.3 -0.4R		4.4 -0.4R		4.5 -0.4R		4.6 -0.3R		4.6 -0.3R		4.7 -0.3R		4.7 -0.3R	
		12"	q_a	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	1856	2969	1503	2405
			q_f																		
			F	4.2 -0.6R		4.6 -0.7R		4.9 -0.7R		5.1 -0.6R		5.3 -0.6R		5.4 -0.6R		5.5 -0.6R		5.6 -0.5R		5.7 -0.5R	
		18"	q_a	2053	3306	2053	3306	2053	3306	1973	3176	1877	3022	1931	3109	1864	3001	1809	2913	1503	2405
			q_f																		
			F	4.5 -0.8R		5.2 -0.9R		5.6 -1R		6 -1R		6.2 -1R		6.5 -1R		6.7 -1R		6.8 -0.9R		7 -0.9R	
		24"	q_a	1981	3190	1783	2870	1674	2696	1606	2586	1560	2511	1526	2457	1500	2415	1480	2383	1464	2357
			q_f																		
			F	4.7 -0.9R		5.5 -1.1R		6.1 -1.2R		6.6 -1.3R		7 -1.3R		7.3 -1.3R		7.6 -1.3R		7.8 -1.3R		8 -1.3R	
	18 ga	4"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142	1084	1735
			q_f																		
			F	4.3 -0.3R		4.5 -0.3R		4.6 -0.3R		4.7 -0.3R		4.7 -0.2R		4.8 -0.2R		4.8 -0.2R		4.8 -0.2R		4.8 -0.2R	
		6"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142	1084	1735
			q_f																		
			F	4.7 -0.5R		5 -0.5R		5.2 -0.5R		5.3 -0.5R		5.4 -0.4R		5.5 -0.4R		5.6 -0.4R		5.6 -0.3R		5.7 -0.3R	
		8"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142	1084	1735
			q_f																		
			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	
		12"	q_a	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1646	2651	1339	2142	1084	1735
			q_f																		
			F	5.3 -0.9R		6 -1R		6.4 -1R		6.8 -1R		7.1 -1R		7.3 -1R		7.5 -1R		7.7 -1R		7.8 -0.9R	
		18"	q_a	1662	2676	1482	2386	1494	2406	1384	2228	1306	2103	1340	2158	1286	2071	1243	2001	1084	1735
			q_f																		
			F	5.6 -1.1R		6.5 -1.3R		7.2 -1.4R		7.8 -1.5R		8.2 -1.6R		8.6 -1.6R		8.9 -1.6R		9.2 -1.6R		9.5 -1.5R	
		24"	q_a	1456	2344	1277	2056	1180	1900	1120	1803	1078	1736	1048	1688	1026	1651	1008	1623	993	1600
			q_f																		
			F	5.9 -1.2R		6.9 -1.5R		7.8 -1.7R		8.5 -1.9R		9.1 -2R		9.6 -2R		10 -2.1R		10.4 -2.1R		10.8 -2.1R	
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	5.9 -0.6R		6.3 -0.6R		6.5 -0.6R		6.7 -0.5R		6.8 -0.5R		6.9 -0.5R		7 -0.4R		7.1 -0.4R		7.1 -0.4R	
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	6.4 -0.8R		7 -0.9R		7.4 -0.9R		7.7 -0.9R		7.9 -0.9R		8.1 -0.8R		8.2 -0.8R		8.4 -0.8R		8.5 -0.7R	
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	6.7 -1R		7.4 -1.2R		8 -1.2R		8.4 -1.2R		8.8 -1.2R		9.1 -1.2R		9.3 -1.2R		9.5 -1.1R		9.6 -1.1R	
		12"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1064	1714	1045	1683	1031	1659	879	1406	712	1139
			q_f																		
			F	7 -1.3R		8.1 -1.5R		8.9 -1.7R		9.6 -1.8R		10.1 -1.8R		10.6 -1.9R		10.9 -1.9R		11.3 -1.8R		11.5 -1.8R	
		18"	q_a	1080	1728	966	1555	955	1538	872	1404	814	1311	830	1337	791	1274	760	1224	712	1139
			q_f																		
			F	7.4 -1.5R		8.7 -1.9R		9.7 -2.2R		10.7 -2.4R		11.5 -2.5R		12.1 -2.6R		12.7 -2.7R		13.3 -2.8R		13.7 -2.8R	
		24"	q_a	987	1588	837	1348	757	1218	707	1138	673	1083	648	1043	629	1013	615	990	603	971
			q_f																		
			F	7.5 -1.6R		9 -2.1R		10.3 -2.5R		11.4 -2.8R		12.4 -3.1R		13.2 -3.3R		14 -3.4R		14.7 -3.5R		15.3 -3.6R	
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	7.2 -0.8R		7.8 -0.9R		8.2 -0.9R		8.5 -0.9R		8.7 -0.8R		8.8 -0.8R		9 -0.7R		9.1 -0.7R		9.2 -0.7R	
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	7.7 -1.1R		8.5 -1.3R		9.1 -1.3R		9.6 -1.3R		10 -1.3R		10.3 -1.3R		10.5 -1.3R		10.7 -1.2R		10.9 -1.2R	
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	8 -1.3R		9 -1.6R		9.8 -1.7R		10.5 -1.8R		11 -1.8R		11.4 -1.8R		11.8 -1.8R		12.1 -1.7R		12.3 -1.7R	
		12"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	757	1219	673	1076	545	872
			q_f																		
			F	8.4 -1.5R		9.7 -1.9R		10.8 -2.2R		11.7 -2.4R		12.5 -2.5R		13.1 -2.6R		13.7 -2.7R		14.2 -2.7R		14.6 -2.7R	
		18"	q_a	771	1233	736	1185	717	1155	649	1045	602	968	610	982	579	932	554	892	545	872
			q_f																		
			F	8.7 -1.7R		10.3 -2.3R		11.6 -2.7R		12.8 -3.1R		13.9 -3.3R		14.8 -3.5R		15.7 -3.7R		16.4 -3.8R		17.1 -3.9R	
		24"	q_a	771	1233	637	1026	566	911	523	843	495	797	475	764	459	739	447	720	438	705
			q_f																		
			F	8.8 -1.8R		10.6 -2.5R		12.2 -3.1R		13.6 -3.5R		14.8 -3.9R		16 -4.2R		17 -4.4R		18 -4.7R		18.8 -4.8R	

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3.7 DGN-32 & DGNF-32

Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			F	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R
		6"	q_a	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		12"	q_a	1888	3040	1888	3040	1871	3012	1859	2994	1852	2981	1846	2972	1842	2965	1838	2959	1503	2405
			q_f																		
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.1R	6.3	-0.1R
		18"	q_a	1751	3040	1614	2598	1670	2689	1598	2574	1546	2489	1592	2563	1553	2501	1522	2450	1503	2405
			q_f																		
			F	7.3	-0.8R	7.7	-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
		24"	q_a	1483	2388	1401	2256	1357	2184	1329	2140	1310	2110	1297	2088	1286	2071	1278	2058	1271	2047
			q_f																		
			F	8.5	-1.2R	9.1	-1R	9.4	-0.9R	9.7	-0.8R	9.8	-0.7R	9.9	-0.6R	10	-0.5R	10.1	-0.5R	10.1	-0.5R
	18 ga	4"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			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
		6"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			F	5.8	-0.3R	5.9	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6.1	-0.1R	6.1	-0.1R
		8"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1457	2346	1416	2280	1394	2244	1380	2221	1370	2206	1363	2195	1358	2187	1339	2142	1084	1735
			q_f																		
			F	8.1	-0.8R	8.5	-0.7R	8.7	-0.5R	8.8	-0.5R	8.9	-0.4R	9	-0.4R	9.1	-0.3R	9.1	-0.3R	9.1	-0.3R
		18"	q_a	1302	2346	1173	1888	1213	1953	1148	1848	1100	1772	1137	1830	1102	1775	1075	1730	1084	1735
			q_f																		
			F	10.1	-1.4R	10.8	-1.2R	11.2	-1.1R	11.5	-0.9R	11.7	-0.8R	11.8	-0.7R	11.9	-0.7R	12	-0.6R	12	-0.6R
		24"	q_a	1084	1746	1003	1615	960	1545	933	1501	914	1472	901	1450	891	1434	883	1421	876	1411
			q_f																		
			F	11.7	-2R	12.8	-1.8R	13.4	-1.6R	13.9	-1.5R	14.2	-1.3R	14.4	-1.2R	14.6	-1.1R	14.7	-1R	14.8	-0.9R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.3	-0.3R	7.4	-0.2R	7.5	-0.2R	7.5	-0.2R	7.5	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.7	-0.6R	9	-0.5R	9.1	-0.4R	9.2	-0.3R	9.3	-0.3R	9.3	-0.3R	9.4	-0.2R	9.4	-0.2R	9.4	-0.2R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	10	-1R	10.5	-0.8R	10.7	-0.7R	10.9	-0.6R	11	-0.5R	11.1	-0.4R	11.1	-0.4R	11.2	-0.4R	11.2	-0.3R
		12"	q_a	994	1600	948	1526	923	1486	907	1461	897	1444	889	1431	883	1422	878	1406	712	1139
			q_f																		
			F	12.3	-1.7R	13.1	-1.5R	13.6	-1.3R	13.9	-1.1R	14.2	-1R	14.3	-0.9R	14.5	-0.8R	14.6	-0.7R	14.6	-0.7R
		18"	q_a	873	1600	763	1228	783	1260	730	1176	693	1116	716	1153	689	1110	668	1076	687	1107
			q_f																		
			F	14.9	-2.8R	16.5	-2.6R	17.4	-2.3R	18.1	-2.1R	18.5	-1.9R	18.9	-1.7R	19.1	-1.6R	19.4	-1.5R	19.5	-1.4R
		24"	q_a	720	1160	647	1041	608	978	583	939	567	913	555	894	546	879	539	868	533	859
			q_f																		
			F	17	-3.7R	19.3	-3.6R	20.7	-3.4R	21.7	-3.2R	22.5	-2.9R	23	-2.7R	23.4	-2.5R	23.8	-2.4R	24.1	-2.2R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.4	-0.6R	9.6	-0.4R	9.7	-0.3R	9.8	-0.3R	9.9	-0.3R	9.9	-0.2R	9.9	-0.2R	10	-0.2R	10	-0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.3	-1.1R	11.8	-0.8R	12.1	-0.7R	12.2	-0.6R	12.3	-0.5R	12.4	-0.5R	12.5	-0.4R	12.5	-0.4R	12.6	-0.3R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	13	-1.6R	13.8	-1.3R	14.2	-1.1R	14.5	-1R	14.7	-0.9R	14.8	-0.8R	14.9	-0.7R	15	-0.6R	15.1	-0.6R
		12"	q_a	769	1233	722	1163	698	1123	682	1098	671	1081	664	1068	658	1059	653	1052	545	872
			q_f																		
			F	15.8	-2.6R	17.2	-2.4R	18	-2.1R	18.6	-1.9R	19	-1.7R	19.3	-1.5R	19.5	-1.4R	19.7	-1.3R	19.9	-1.2R
		18"	q_a	672	1233	575	926	586	943	541	872	510	822	526	847	505	813	488	785	501	807
			q_f																		
			F	18.9	-4R	21.4	-3.9R	22.9	-3.7R	24	-3.4R	24.8	-3.2R	25.4	-2.9R	25.8	-2.7R	26.2	-2.5R	26.5	-2.4R
		24"	q_a	554	893	488	785	453	729	431	694	416	670	405	653	397	640	391	630	386	621
			q_f																		
			F	21.2	-5.2R	24.7	-5.4R	27	-5.2R	28.6	-5R	29.8	-4.7R	30.8	-4.5R	31.5	-4.2R	32.1	-4R	32.6	-3.8R

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Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.7 +0R		3.7 +0R	
		6"	q_a	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			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	
		8"	q_a	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			F	4.6 -0.3R		4.8 -0.2R		4.8 -0.2R		4.9 -0.2R		4.9 -0.1R		4.9 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R	
		12"	q_a	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1888	3040	1856	2969	1503	2405
			q_f																		
			F	5.5 -0.6R		5.8 -0.5R		6 -0.4R		6.1 -0.3R		6.1 -0.3R		6.2 -0.3R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R	
		18"	q_a	1888	3040	1888	3040	1888	3040	1888	3040	1817	2926	1870	3010	1808	2911	1759	2831	1503	2405
			q_f																		
			F	6.7 -1R		7.2 -0.8R		7.5 -0.7R		7.7 -0.7R		7.8 -0.6R		7.9 -0.5R		8 -0.5R		8 -0.4R		8.1 -0.4R	
		24"	q_a	1886	3037	1712	2756	1617	2603	1557	2506	1516	2440	1486	2392	1463	2356	1445	2327	1431	2304
			q_f																		
			F	7.6 -1.3R		8.3 -1.2R		8.8 -1.1R		9.1 -1R		9.3 -0.9R		9.5 -0.8R		9.6 -0.8R		9.7 -0.7R		9.8 -0.7R	
	18 ga	4"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			F	4.8 -0.2R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R	
		6"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			F	5.6 -0.4R		5.8 -0.3R		5.8 -0.2R		5.9 -0.2R		5.9 -0.2R		6 -0.2R		6 -0.1R		6 -0.1R		6 -0.1R	
		8"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			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	
		12"	q_a	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1551	2497	1339	2142	1084	1735
			q_f																		
			F	7.5 -1R		8 -0.9R		8.3 -0.7R		8.5 -0.7R		8.7 -0.6R		8.8 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R	
		18"	q_a	1551	2497	1433	2307	1450	2335	1348	2170	1275	2052	1309	2108	1259	2026	1218	1961	1084	1735
			q_f																		
			F	8.9 -1.6R		9.9 -1.5R		10.4 -1.3R		10.8 -1.2R		11.1 -1.1R		11.3 -1R		11.4 -0.9R		11.6 -0.9R		11.7 -0.8R	
		24"	q_a	1397	2249	1235	1988	1147	1846	1092	1757	1054	1697	1027	1653	1006	1619	990	1593	976	1572
			q_f																		
			F	10 -2.1R		11.3 -2.1R		12.2 -2R		12.8 -1.8R		13.2 -1.7R		13.5 -1.6R		13.8 -1.5R		14 -1.4R		14.2 -1.3R	
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7 -0.4R		7.2 -0.4R		7.3 -0.3R		7.4 -0.2R		7.4 -0.2R		7.5 -0.2R		7.5 -0.2R		7.5 -0.1R		7.5 -0.1R	
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.2 -0.8R		8.6 -0.7R		8.8 -0.6R		9 -0.5R		9.1 -0.4R		9.2 -0.4R		9.2 -0.3R		9.3 -0.3R		9.3 -0.3R	
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	9.3 -1.2R		9.9 -1R		10.2 -0.9R		10.5 -0.8R		10.6 -0.7R		10.8 -0.6R		10.8 -0.6R		10.9 -0.5R		11 -0.5R	
		12"	q_a	1080	1728	1080	1728	1080	1728	1067	1718	1043	1679	1026	1651	1012	1630	879	1406	712	1139
			q_f																		
			F	10.9 -1.9R		12 -1.8R		12.7 -1.6R		13.1 -1.5R		13.5 -1.3R		13.7 -1.2R		13.9 -1.1R		14.1 -1.1R		14.2 -1R	
		18"	q_a	1080	1728	940	1513	933	1503	854	1376	799	1287	816	1314	779	1254	749	1206	712	1139
			q_f																		
			F	12.7 -2.7R		14.5 -2.8R		15.7 -2.7R		16.5 -2.6R		17.1 -2.4R		17.6 -2.3R		18 -2.1R		18.3 -2R		18.5 -1.9R	
		24"	q_a	953	1534	813	1309	738	1189	692	1113	660	1062	637	1025	619	997	606	975	595	958
			q_f																		
			F	14 -3.4R		16.4 -3.7R		18.1 -3.7R		19.3 -3.6R		20.2 -3.5R		21 -3.4R		21.6 -3.2R		22.1 -3.1R		22.5 -2.9R	
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9 -0.7R		9.3 -0.6R		9.5 -0.5R		9.6 -0.4R		9.7 -0.4R		9.8 -0.3R		9.8 -0.3R		9.8 -0.3R		9.9 -0.2R	
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	10.5 -1.3R		11.2 -1.1R		11.5 -1R		11.8 -0.8R		12 -0.8R		12.1 -0.7R		12.2 -0.6R		12.3 -0.6R		12.3 -0.5R	
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.8 -1.8R		12.8 -1.6R		13.4 -1.5R		13.8 -1.3R		14 -1.2R		14.3 -1.1R		14.4 -1R		14.6 -0.9R		14.7 -0.9R	
		12"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	759	1221	746	1201	673	1076	545	872
			q_f																		
			F	13.7 -2.7R		15.4 -2.6R		16.5 -2.5R		17.2 -2.4R		17.8 -2.2R		18.2 -2.1R		18.5 -1.9R		18.8 -1.8R		19 -1.7R	
		18"	q_a	771	1233	718	1156	702	1131	637	1026	592	952	601	967	571	919	547	881	545	872
			q_f																		
			F	15.7 -3.7R		18.3 -4R		20.1 -4R		21.4 -3.9R		22.4 -3.8R		23.2 -3.6R		23.8 -3.5R		24.4 -3.3R		24.8 -3.1R	
		24"	q_a	748	1205	624	1004	556	895	515	829	488	786	469	755	454	731	443	713	434	698
			q_f																		
			F	17 -4.4R		20.4 -5.1R		22.8 -5.3R		24.7 -5.4R		26.2 -5.3R		27.4 -5.2R		28.3 -5R		29.2 -4.9R		29.9 -4.7R	

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Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			F	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R
		6"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			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
		8"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		12"	q_a	1826	2939	1826	2939	1826	2939	1819	2928	1812	2917	1806	2908	1803	2902	1799	2897	1503	2405
			q_f																		
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.1R	6.3	-0.1R
		18"	q_a	1713	2939	1584	2550	1639	2638	1571	2529	1521	2448	1565	2520	1528	2461	1498	2412	1503	2405
			q_f																		
			F	7.3	-0.8R	7.7	-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
		24"	q_a	1455	2343	1378	2219	1337	2152	1311	2111	1293	2082	1280	2061	1271	2046	1263	2033	1257	2023
			q_f																		
			F	8.5	-1.2R	9.1	-1R	9.4	-0.9R	9.7	-0.8R	9.8	-0.7R	9.9	-0.6R	10	-0.5R	10.1	-0.5R	10.1	-0.5R
	18 ga	4"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			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
		6"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			F	5.8	-0.3R	5.9	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6.1	-0.1R	6.1	-0.1R
		8"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1468	2364	1426	2296	1403	2259	1389	2236	1379	2220	1372	2209	1366	2200	1339	2142	1084	1735
			q_f																		
			F	8.1	-0.8R	8.5	-0.7R	8.7	-0.5R	8.8	-0.5R	8.9	-0.4R	9	-0.4R	9.1	-0.3R	9.1	-0.3R	9.1	-0.3R
		18"	q_a	1311	2364	1179	1899	1220	1964	1153	1857	1106	1780	1142	1839	1107	1783	1079	1738	1084	1735
			q_f																		
			F	10.1	-1.4R	10.8	-1.2R	11.2	-1.1R	11.5	-0.9R	11.7	-0.8R	11.8	-0.7R	11.9	-0.7R	12	-0.6R	12	-0.6R
		24"	q_a	1091	1757	1008	1623	964	1552	936	1508	918	1477	904	1455	894	1439	885	1426	879	1415
			q_f																		
			F	11.7	-2R	12.8	-1.8R	13.4	-1.6R	13.9	-1.5R	14.2	-1.3R	14.4	-1.2R	14.6	-1.1R	14.7	-1R	14.8	-0.9R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.3	-0.3R	7.4	-0.2R	7.5	-0.2R	7.5	-0.2R	7.5	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.7	-0.6R	9	-0.5R	9.1	-0.4R	9.2	-0.3R	9.3	-0.3R	9.3	-0.3R	9.4	-0.2R	9.4	-0.2R	9.4	-0.2R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	10	-1R	10.5	-0.8R	10.7	-0.7R	10.9	-0.6R	11	-0.5R	11.1	-0.4R	11.1	-0.4R	11.2	-0.4R	11.2	-0.3R
		12"	q_a	1034	1665	982	1580	953	1534	935	1506	923	1486	914	1472	907	1461	879	1406	712	1139
			q_f																		
			F	12.3	-1.7R	13.1	-1.5R	13.6	-1.3R	13.9	-1.1R	14.2	-1R	14.3	-0.9R	14.5	-0.8R	14.6	-0.7R	14.6	-0.7R
		18"	q_a	907	1665	786	1266	805	1296	748	1205	709	1141	732	1178	704	1133	681	1097	701	1128
			q_f																		
			F	14.9	-2.8R	16.5	-2.6R	17.4	-2.3R	18.1	-2.1R	18.5	-1.9R	18.9	-1.7R	19.1	-1.6R	19.4	-1.5R	19.5	-1.4R
		24"	q_a	748	1204	667	1073	624	1004	597	961	579	932	566	911	556	895	548	882	542	872
			q_f																		
			F	17	-3.7R	19.3	-3.6R	20.7	-3.4R	21.7	-3.2R	22.5	-2.9R	23	-2.7R	23.4	-2.5R	23.8	-2.4R	24.1	-2.2R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.4	-0.6R	9.6	-0.4R	9.7	-0.3R	9.8	-0.3R	9.9	-0.3R	9.9	-0.2R	9.9	-0.2R	10	-0.2R	10	-0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.3	-1.1R	11.8	-0.8R	12.1	-0.7R	12.2	-0.6R	12.3	-0.5R	12.4	-0.5R	12.5	-0.4R	12.5	-0.4R	12.6	-0.3R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	13	-1.6R	13.8	-1.3R	14.2	-1.1R	14.5	-1R	14.7	-0.9R	14.8	-0.8R	14.9	-0.7R	15	-0.6R	15.1	-0.6R
		12"	q_a	771	1233	758	1221	728	1173	710	1143	697	1122	688	1107	681	1096	673	1076	545	872
			q_f																		
			F	15.8	-2.6R	17.2	-2.4R	18	-2.1R	18.6	-1.9R	19	-1.7R	19.3	-1.5R	19.5	-1.4R	19.7	-1.3R	19.9	-1.2R
		18"	q_a	710	1233	602	969	609	981	560	902	527	848	542	873	519	835	500	805	514	827
			q_f																		
			F	18.9	-4R	21.4	-3.9R	22.9	-3.7R	24	-3.4R	24.8	-3.2R	25.4	-2.9R	25.8	-2.7R	26.2	-2.5R	26.5	-2.4R
		24"	q_a	588	946	511	823	471	758	446	718	429	691	417	671	408	656	401	645	395	636
			q_f																		
			F	21.2	-5.2R	24.7	-5.4R	27	-5.2R	28.6	-5R	29.8	-4.7R	30.8	-4.5R	31.5	-4.2R	32.1	-4R	32.6	-3.8R

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

ASC Steel Deck

DGN-32 & DGNF-32 3.7

Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.7 +0R		3.7 +0R	
		6"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			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	
		8"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			F	4.6 -0.3R		4.8 -0.2R		4.8 -0.2R		4.9 -0.2R		4.9 -0.1R		4.9 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R	
		12"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939	1503	2405
			q_f																		
			F	5.5 -0.6R		5.8 -0.5R		6 -0.4R		6.1 -0.3R		6.1 -0.3R		6.2 -0.3R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R	
		18"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1793	2886	1826	2939	1785	2874	1737	2797	1503	2405
			q_f																		
			F	6.7 -1R		7.2 -0.8R		7.5 -0.7R		7.7 -0.7R		7.8 -0.6R		7.9 -0.5R		8 -0.5R		8 -0.4R		8.1 -0.4R	
		24"	q_a	1826	2939	1684	2711	1594	2566	1537	2474	1498	2412	1469	2366	1448	2331	1431	2304	1417	2282
			q_f																		
			F	7.6 -1.3R		8.3 -1.2R		8.8 -1.1R		9.1 -1R		9.3 -0.9R		9.5 -0.8R		9.6 -0.8R		9.7 -0.7R		9.8 -0.7R	
	18 ga	4"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			F	4.8 -0.2R		4.9 -0.1R		4.9 -0.1R		4.9 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R		5 -0.1R	
		6"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			F	5.6 -0.4R		5.8 -0.3R		5.8 -0.2R		5.9 -0.2R		5.9 -0.2R		6 -0.2R		6 -0.1R		6 -0.1R		6 -0.1R	
		8"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			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	
		12"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1339	2142	1084	1735
			q_f																		
			F	7.5 -1R		8 -0.9R		8.3 -0.7R		8.5 -0.7R		8.7 -0.6R		8.8 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R	
		18"	q_a	1569	2526	1441	2320	1458	2347	1354	2180	1280	2061	1315	2117	1263	2034	1222	1968	1084	1735
			q_f																		
			F	8.9 -1.6R		9.9 -1.5R		10.4 -1.3R		10.8 -1.2R		11.1 -1.1R		11.3 -1R		11.4 -0.9R		11.6 -0.9R		11.7 -0.8R	
		24"	q_a	1407	2265	1242	1999	1152	1855	1096	1765	1058	1703	1030	1659	1009	1625	993	1598	979	1577
			q_f																		
			F	10 -2.1R		11.3 -2.1R		12.2 -2R		12.8 -1.8R		13.2 -1.7R		13.5 -1.6R		13.8 -1.5R		14 -1.4R		14.2 -1.3R	
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7 -0.4R		7.2 -0.4R		7.3 -0.3R		7.4 -0.2R		7.4 -0.2R		7.5 -0.2R		7.5 -0.2R		7.5 -0.1R		7.5 -0.1R	
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.2 -0.8R		8.6 -0.7R		8.8 -0.6R		9 -0.5R		9.1 -0.4R		9.2 -0.4R		9.2 -0.3R		9.3 -0.3R		9.3 -0.3R	
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	9.3 -1.2R		9.9 -1R		10.2 -0.9R		10.5 -0.8R		10.6 -0.7R		10.8 -0.6R		10.8 -0.6R		10.9 -0.5R		11 -0.5R	
		12"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1070	1723	1050	1691	1036	1667	879	1406	712	1139
			q_f																		
			F	10.9 -1.9R		12 -1.8R		12.7 -1.6R		13.1 -1.5R		13.5 -1.3R		13.7 -1.2R		13.9 -1.1R		14.1 -1.1R		14.2 -1R	
		18"	q_a	1080	1728	973	1567	961	1548	877	1412	818	1317	834	1343	794	1279	763	1229	712	1139
			q_f																		
			F	12.7 -2.7R		14.5 -2.8R		15.7 -2.7R		16.5 -2.6R		17.1 -2.4R		17.6 -2.3R		18 -2.1R		18.3 -2R		18.5 -1.9R	
		24"	q_a	996	1604	844	1358	762	1226	711	1144	676	1089	651	1048	632	1018	617	994	605	975
			q_f																		
			F	14 -3.4R		16.4 -3.7R		18.1 -3.7R		19.3 -3.6R		20.2 -3.5R		21 -3.4R		21.6 -3.2R		22.1 -3.1R		22.5 -2.9R	
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9 -0.7R		9.3 -0.6R		9.5 -0.5R		9.6 -0.4R		9.7 -0.4R		9.8 -0.3R		9.8 -0.3R		9.8 -0.3R		9.9 -0.2R	
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	10.5 -1.3R		11.2 -1.1R		11.5 -1R		11.8 -0.8R		12 -0.8R		12.1 -0.7R		12.2 -0.6R		12.3 -0.6R		12.3 -0.5R	
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.8 -1.8R		12.8 -1.6R		13.4 -1.5R		13.8 -1.3R		14 -1.2R		14.3 -1.1R		14.4 -1R		14.6 -0.9R		14.7 -0.9R	
		12"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	770	1233	673	1076	545	872
			q_f																		
			F	13.7 -2.7R		15.4 -2.6R		16.5 -2.5R		17.2 -2.4R		17.8 -2.2R		18.2 -2.1R		18.5 -1.9R		18.8 -1.8R		19 -1.7R	
		18"	q_a	771	1233	758	1220	735	1183	663	1067	613	988	621	999	588	947	563	906	545	872
			q_f																		
			F	15.7 -3.7R		18.3 -4R		20.1 -4R		21.4 -3.9R		22.4 -3.8R		23.2 -3.6R		23.8 -3.5R		24.4 -3.3R		24.8 -3.1R	
		24"	q_a	771	1233	654	1053	579	932	533	859	503	810	482	776	466	750	453	729	443	713
			q_f																		
			F	17 -4.4R		20.4 -5.1R		22.8 -5.3R		24.7 -5.4R		26.2 -5.3R		27.4 -5.2R		28.3 -5R		29.2 -4.9R		29.9 -4.7R	

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Pneutek K64 Fasteners to Supports with DeltaGrip® 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	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			F	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R
		6"	q_a	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		12"	q_a	2259	3638	2197	3538	2164	3484	2143	3450	2128	3427	2118	3410	2110	3397	1856	2969	1503	2405
			q_f																		
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.1R	6.3	-0.1R
		18"	q_a	2022	3638	1823	2935	1886	3036	1785	2874	1713	2758	1769	2848	1716	2763	1674	2695	1503	2405
			q_f																		
			F	7.3	-0.8R	7.7	-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
		24"	q_a	1684	2712	1560	2512	1494	2405	1452	2338	1424	2293	1404	2260	1388	2235	1376	2215	1366	2199
			q_f																		
			F	8.5	-1.2R	9.1	-1R	9.4	-0.9R	9.7	-0.8R	9.8	-0.7R	9.9	-0.6R	10	-0.5R	10.1	-0.5R	10.1	-0.5R
	18 ga	4"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		6"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	5.8	-0.3R	5.9	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6.1	-0.1R	6.1	-0.1R
		8"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1680	2704	1611	2593	1574	2533	1550	2496	1534	2470	1523	2452	1514	2437	1339	2142	1084	1735
			q_f																		
			F	8.1	-0.8R	8.5	-0.7R	8.7	-0.5R	8.8	-0.5R	8.9	-0.4R	9	-0.4R	9.1	-0.3R	9.1	-0.3R	9.1	-0.3R
		18"	q_a	1482	2704	1304	2100	1343	2162	1257	2024	1196	1926	1236	1990	1193	1920	1158	1864	1084	1735
			q_f																		
			F	10.1	-1.4R	10.8	-1.2R	11.2	-1.1R	11.5	-0.9R	11.7	-0.8R	11.8	-0.7R	11.9	-0.7R	12	-0.6R	12	-0.6R
		24"	q_a	1224	1970	1108	1783	1046	1684	1007	1622	981	1580	963	1550	948	1527	937	1509	928	1494
			q_f																		
			F	11.7	-2R	12.8	-1.8R	13.4	-1.6R	13.9	-1.5R	14.2	-1.3R	14.4	-1.2R	14.6	-1.1R	14.7	-1R	14.8	-0.9R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.3	-0.3R	7.4	-0.2R	7.5	-0.2R	7.5	-0.2R	7.5	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.7	-0.6R	9	-0.5R	9.1	-0.4R	9.2	-0.3R	9.3	-0.3R	9.3	-0.3R	9.4	-0.2R	9.4	-0.2R	9.4	-0.2R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	10	-1R	10.5	-0.8R	10.7	-0.7R	10.9	-0.6R	11	-0.5R	11.1	-0.4R	11.1	-0.4R	11.2	-0.4R	11.2	-0.3R
		12"	q_a	1080	1728	1036	1669	1001	1612	979	1576	964	1552	953	1535	945	1521	879	1406	712	1139
			q_f																		
			F	12.3	-1.7R	13.1	-1.5R	13.6	-1.3R	13.9	-1.1R	14.2	-1R	14.3	-0.9R	14.5	-0.8R	14.6	-0.7R	14.6	-0.7R
		18"	q_a	963	1728	826	1329	841	1354	778	1252	734	1181	756	1218	726	1168	701	1129	712	1139
			q_f																		
			F	14.9	-2.8R	16.5	-2.6R	17.4	-2.3R	18.1	-2.1R	18.5	-1.9R	18.9	-1.7R	19.1	-1.6R	19.4	-1.5R	19.5	-1.4R
		24"	q_a	795	1280	700	1127	650	1046	619	997	598	963	583	938	571	920	562	905	555	894
			q_f																		
			F	17	-3.7R	19.3	-3.6R	20.7	-3.4R	21.7	-3.2R	22.5	-2.9R	23	-2.7R	23.4	-2.5R	23.8	-2.4R	24.1	-2.2R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.4	-0.6R	9.6	-0.4R	9.7	-0.3R	9.8	-0.3R	9.9	-0.3R	9.9	-0.2R	9.9	-0.2R	10	-0.2R	10	-0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.3	-1.1R	11.8	-0.8R	12.1	-0.7R	12.2	-0.6R	12.3	-0.5R	12.4	-0.5R	12.5	-0.4R	12.5	-0.4R	12.6	-0.3R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	13	-1.6R	13.8	-1.3R	14.2	-1.1R	14.5	-1R	14.7	-0.9R	14.8	-0.8R	14.9	-0.7R	15	-0.6R	15.1	-0.6R
		12"	q_a	771	1233	760	1223	729	1174	711	1144	698	1123	689	1109	681	1097	673	1076	545	872
			q_f																		
			F	15.8	-2.6R	17.2	-2.4R	18	-2.1R	18.6	-1.9R	19	-1.7R	19.3	-1.5R	19.5	-1.4R	19.7	-1.3R	19.9	-1.2R
		18"	q_a	711	1233	603	971	610	982	561	903	527	849	543	874	519	836	501	806	514	828
			q_f																		
			F	18.9	-4R	21.4	-3.9R	22.9	-3.7R	24	-3.4R	24.8	-3.2R	25.4	-2.9R	25.8	-2.7R	26.2	-2.5R	26.5	-2.4R
		24"	q_a	589	948	512	824	471	759	446	719	430	692	417	672	408	657	401	645	395	636
			q_f																		
			F	21.2	-5.2R	24.7	-5.4R	27	-5.2R	28.6	-5R	29.8	-4.7R	30.8	-4.5R	31.5	-4.2R	32.1	-4R	32.6	-3.8R

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

ASC STEEL DECK

DGN-32 & DGNF-32 3.7

Pneutek K64 Fasteners to Supports with DeltaGrip® 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	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			F	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R	3.7	+0R	3.7	+0R
		6"	q_a	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			F	4.6	-0.3R	4.8	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		12"	q_a	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852	2349	3758	1856	2969	1503	2405
			q_f																		
			F	5.5	-0.6R	5.8	-0.5R	6	-0.4R	6.1	-0.3R	6.1	-0.3R	6.2	-0.3R	6.2	-0.2R	6.2	-0.2R	6.3	-0.2R
		18"	q_a	2393	3852	2227	3585	2255	3631	2098	3377	1985	3196	2040	3284	1961	3157	1856	2969	1503	2405
			q_f																		
			F	6.7	-1R	7.2	-0.8R	7.5	-0.7R	7.7	-0.7R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.4R	8.1	-0.4R
		24"	q_a	2168	3491	1919	3090	1784	2872	1700	2736	1642	2643	1600	2576	1568	2524	1543	2484	1503	2405
			q_f																		
			F	7.6	-1.3R	8.3	-1.2R	8.8	-1.1R	9.1	-1R	9.3	-0.9R	9.5	-0.8R	9.6	-0.8R	9.7	-0.7R	9.8	-0.7R
	18 ga	4"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		6"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	5.6	-0.4R	5.8	-0.3R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R	6	-0.1R
		8"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1794	2888	1767	2844	1694	2711	1339	2142	1084	1735
			q_f																		
			F	7.5	-1R	8	-0.9R	8.3	-0.7R	8.5	-0.7R	8.7	-0.6R	8.8	-0.5R	8.8	-0.5R	8.9	-0.4R	8.9	-0.4R
		18"	q_a	1824	2918	1602	2579	1600	2575	1470	2367	1379	2220	1411	2272	1349	2172	1300	2092	1084	1735
			q_f																		
			F	8.9	-1.6R	9.9	-1.5R	10.4	-1.3R	10.8	-1.2R	11.1	-1.1R	11.3	-1R	11.4	-0.9R	11.6	-0.9R	11.7	-0.8R
		24"	q_a	1606	2585	1383	2227	1263	2034	1189	1914	1138	1832	1101	1773	1073	1728	1051	1692	1034	1664
			q_f																		
			F	10	-2.1R	11.3	-2.1R	12.2	-2R	12.8	-1.8R	13.2	-1.7R	13.5	-1.6R	13.8	-1.5R	14	-1.4R	14.2	-1.3R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7	-0.4R	7.2	-0.4R	7.3	-0.3R	7.4	-0.2R	7.4	-0.2R	7.5	-0.2R	7.5	-0.2R	7.5	-0.1R	7.5	-0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.2	-0.8R	8.6	-0.7R	8.8	-0.6R	9	-0.5R	9.1	-0.4R	9.2	-0.4R	9.2	-0.3R	9.3	-0.3R	9.3	-0.3R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	9.3	-1.2R	9.9	-1R	10.2	-0.9R	10.5	-0.8R	10.6	-0.7R	10.8	-0.6R	10.8	-0.6R	10.9	-0.5R	11	-0.5R
		12"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1072	1726	879	1406	712	1139
			q_f																		
			F	10.9	-1.9R	12	-1.8R	12.7	-1.6R	13.1	-1.5R	13.5	-1.3R	13.7	-1.2R	13.9	-1.1R	14.1	-1.1R	14.2	-1R
		18"	q_a	1080	1728	1030	1658	1008	1623	915	1473	850	1368	863	1390	820	1321	786	1266	712	1139
			q_f																		
			F	12.7	-2.7R	14.5	-2.8R	15.7	-2.7R	16.5	-2.6R	17.1	-2.4R	17.6	-2.3R	18	-2.1R	18.3	-2R	18.5	-1.9R
		24"	q_a	1072	1725	895	1441	798	1285	740	1192	701	1129	674	1085	653	1052	637	1025	623	1003
			q_f																		
			F	14	-3.4R	16.4	-3.7R	18.1	-3.7R	19.3	-3.6R	20.2	-3.5R	21	-3.4R	21.6	-3.2R	22.1	-3.1R	22.5	-2.9R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9	-0.7R	9.3	-0.6R	9.5	-0.5R	9.6	-0.4R	9.7	-0.4R	9.8	-0.3R	9.8	-0.3R	9.8	-0.3R	9.9	-0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	10.5	-1.3R	11.2	-1.1R	11.5	-1R	11.8	-0.8R	12	-0.8R	12.1	-0.7R	12.2	-0.6R	12.3	-0.6R	12.3	-0.5R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.8	-1.8R	12.8	-1.6R	13.4	-1.5R	13.8	-1.3R	14	-1.2R	14.3	-1.1R	14.4	-1R	14.6	-0.9R	14.7	-0.9R
		12"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	13.7	-2.7R	15.4	-2.6R	16.5	-2.5R	17.2	-2.4R	17.8	-2.2R	18.2	-2.1R	18.5	-1.9R	18.8	-1.8R	19	-1.7R
		18"	q_a	771	1233	759	1222	736	1185	664	1069	614	989	621	1000	589	948	563	906	545	872
			q_f																		
			F	15.7	-3.7R	18.3	-4R	20.1	-4R	21.4	-3.9R	22.4	-3.8R	23.2	-3.6R	23.8	-3.5R	24.4	-3.3R	24.8	-3.1R
		24"	q_a	771	1233	655	1055	580	933	534	860	504	811	482	776	466	750	453	730	443	714
			q_f																		
			F	17	-4.4R	20.4	-5.1R	22.8	-5.3R	24.7	-5.4R	26.2	-5.3R	27.4	-5.2R	28.3	-5R	29.2	-4.9R	29.9	-4.7R

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Pneutek K66 Fasteners to Supports with DeltaGrip® 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	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2349	3758	1856	2969	1503	2405
			q_f																		
			F	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R	3.7	+0R
		6"	q_a	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2349	3758	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4279	2349	3758	1856	2969	1503	2405
			q_f																		
			F	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		12"	q_a	2416	3889	2336	3761	2293	3692	2266	3649	2248	3619	2234	3598	2224	3581	1856	2969	1503	2405
			q_f																		
			F	5.9	-0.4R	6	-0.3R	6.1	-0.3R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.1R	6.3	-0.1R
		18"	q_a	2147	3889	1916	3085	1979	3186	1865	3002	1783	2870	1842	2966	1783	2871	1735	2794	1503	2405
			q_f																		
			F	7.3	-0.8R	7.7	-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
		24"	q_a	1780	2866	1633	2630	1555	2503	1506	2424	1473	2371	1448	2332	1430	2303	1416	2279	1404	2261
			q_f																		
			F	8.5	-1.2R	9.1	-1R	9.4	-0.9R	9.7	-0.8R	9.8	-0.7R	9.9	-0.6R	10	-0.5R	10.1	-0.5R	10.1	-0.5R
	18 ga	4"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		6"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	5.8	-0.3R	5.9	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R	6	-0.1R	6	-0.1R	6.1	-0.1R	6.1	-0.1R
		8"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1724	2776	1649	2654	1608	2589	1582	2547	1565	2519	1552	2499	1542	2483	1339	2142	1084	1735
			q_f																		
			F	8.1	-0.8R	8.5	-0.7R	8.7	-0.5R	8.8	-0.5R	8.9	-0.4R	9	-0.4R	9.1	-0.3R	9.1	-0.3R	9.1	-0.3R
		18"	q_a	1518	2776	1330	2142	1368	2202	1278	2057	1214	1954	1254	2020	1209	1947	1173	1888	1084	1735
			q_f																		
			F	10.1	-1.4R	10.8	-1.2R	11.2	-1.1R	11.5	-0.9R	11.7	-0.8R	11.8	-0.7R	11.9	-0.7R	12	-0.6R	12	-0.6R
		24"	q_a	1253	2017	1129	1817	1063	1711	1022	1646	994	1601	974	1569	959	1544	947	1525	938	1510
			q_f																		
			F	11.7	-2R	12.8	-1.8R	13.4	-1.6R	13.9	-1.5R	14.2	-1.3R	14.4	-1.2R	14.6	-1.1R	14.7	-1R	14.8	-0.9R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7.3	-0.3R	7.4	-0.2R	7.5	-0.2R	7.5	-0.2R	7.5	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.7	-0.6R	9	-0.5R	9.1	-0.4R	9.2	-0.3R	9.3	-0.3R	9.3	-0.3R	9.4	-0.2R	9.4	-0.2R	9.4	-0.2R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	10	-1R	10.5	-0.8R	10.7	-0.7R	10.9	-0.6R	11	-0.5R	11.1	-0.4R	11.1	-0.4R	11.2	-0.4R	11.2	-0.3R
		12"	q_a	1080	1728	1048	1687	1011	1628	988	1591	972	1566	961	1547	952	1533	879	1406	712	1139
			q_f																		
			F	12.3	-1.7R	13.1	-1.5R	13.6	-1.3R	13.9	-1.1R	14.2	-1R	14.3	-0.9R	14.5	-0.8R	14.6	-0.7R	14.6	-0.7R
		18"	q_a	975	1728	834	1343	848	1366	784	1262	739	1189	762	1226	730	1176	705	1135	712	1139
			q_f																		
			F	14.9	-2.8R	16.5	-2.6R	17.4	-2.3R	18.1	-2.1R	18.5	-1.9R	18.9	-1.7R	19.1	-1.6R	19.4	-1.5R	19.5	-1.4R
		24"	q_a	805	1296	707	1139	656	1056	624	1004	602	969	586	944	575	925	565	910	558	898
			q_f																		
			F	17	-3.7R	19.3	-3.6R	20.7	-3.4R	21.7	-3.2R	22.5	-2.9R	23	-2.7R	23.4	-2.5R	23.8	-2.4R	24.1	-2.2R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9.4	-0.6R	9.6	-0.4R	9.7	-0.3R	9.8	-0.3R	9.9	-0.3R	9.9	-0.2R	9.9	-0.2R	10	-0.2R	10	-0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.3	-1.1R	11.8	-0.8R	12.1	-0.7R	12.2	-0.6R	12.3	-0.5R	12.4	-0.5R	12.5	-0.4R	12.5	-0.4R	12.6	-0.3R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	13	-1.6R	13.8	-1.3R	14.2	-1.1R	14.5	-1R	14.7	-0.9R	14.8	-0.8R	14.9	-0.7R	15	-0.6R	15.1	-0.6R
		12"	q_a	771	1233	771	1233	748	1204	727	1171	713	1148	703	1131	695	1119	673	1076	545	872
			q_f																		
			F	15.8	-2.6R	17.2	-2.4R	18	-2.1R	18.6	-1.9R	19	-1.7R	19.3	-1.5R	19.5	-1.4R	19.7	-1.3R	19.9	-1.2R
		18"	q_a	736	1233	620	998	624	1005	573	922	537	865	552	889	528	849	508	818	522	840
			q_f																		
			F	18.9	-4R	21.4	-3.9R	22.9	-3.7R	24	-3.4R	24.8	-3.2R	25.4	-2.9R	25.8	-2.7R	26.2	-2.5R	26.5	-2.4R
		24"	q_a	610	983	527	848	483	778	456	734	438	705	425	684	415	667	407	655	400	645
			q_f																		
			F	21.2	-5.2R	24.7	-5.4R	27	-5.2R	28.6	-5R	29.8	-4.7R	30.8	-4.5R	31.5	-4.2R	32.1	-4R	32.6	-3.8R

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

ASC STEEL DECK

DGN-32 & DGNF-32 3.7

Pneutek K66 Fasteners to Supports with DeltaGrip® 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	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2349	3758	1856	2969	1503	2405
			q_f																		
			F	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R	3.7	+0R	3.7	+0R
		6"	q_a	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2349	3758	1856	2969	1503	2405
			q_f																		
			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
		8"	q_a	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2658	4280	2349	3758	1856	2969	1503	2405
			q_f																		
			F	4.6	-0.3R	4.8	-0.2R	4.8	-0.2R	4.9	-0.2R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		12"	q_a	2658	4280	2658	4280	2658	4280	2658	4280	2656	4277	2623	4223	2349	3758	1856	2969	1503	2405
			q_f																		
			F	5.5	-0.6R	5.8	-0.5R	6	-0.4R	6.1	-0.3R	6.1	-0.3R	6.2	-0.3R	6.2	-0.2R	6.2	-0.2R	6.3	-0.2R
		18"	q_a	2658	4280	2343	3773	2360	3800	2184	3516	2059	3315	2112	3401	2026	3262	1856	2969	1503	2405
			q_f																		
			F	6.7	-1R	7.2	-0.8R	7.5	-0.7R	7.7	-0.7R	7.8	-0.6R	7.9	-0.5R	8	-0.5R	8	-0.4R	8.1	-0.4R
		24"	q_a	2309	3717	2020	3252	1864	3001	1767	2844	1700	2737	1652	2659	1615	2600	1586	2554	1503	2405
			q_f																		
			F	7.6	-1.3R	8.3	-1.2R	8.8	-1.1R	9.1	-1R	9.3	-0.9R	9.5	-0.8R	9.6	-0.8R	9.7	-0.7R	9.8	-0.7R
	18 ga	4"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	4.8	-0.2R	4.9	-0.1R	4.9	-0.1R	4.9	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R	5	-0.1R
		6"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	5.6	-0.4R	5.8	-0.3R	5.8	-0.2R	5.9	-0.2R	5.9	-0.2R	6	-0.2R	6	-0.1R	6	-0.1R	6	-0.1R
		8"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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
		12"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1795	2890	1694	2711	1339	2142	1084	1735
			q_f																		
			F	7.5	-1R	8	-0.9R	8.3	-0.7R	8.5	-0.7R	8.7	-0.6R	8.8	-0.5R	8.8	-0.5R	8.9	-0.4R	8.9	-0.4R
		18"	q_a	1824	2918	1637	2635	1630	2624	1494	2406	1400	2253	1431	2303	1366	2200	1315	2117	1084	1735
			q_f																		
			F	8.9	-1.6R	9.9	-1.5R	10.4	-1.3R	10.8	-1.2R	11.1	-1.1R	11.3	-1R	11.4	-0.9R	11.6	-0.9R	11.7	-0.8R
		24"	q_a	1650	2657	1415	2278	1288	2074	1209	1947	1155	1860	1116	1797	1087	1750	1064	1712	1045	1682
			q_f																		
			F	10	-2.1R	11.3	-2.1R	12.2	-2R	12.8	-1.8R	13.2	-1.7R	13.5	-1.6R	13.8	-1.5R	14	-1.4R	14.2	-1.3R
	20 ga	4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	7	-0.4R	7.2	-0.4R	7.3	-0.3R	7.4	-0.2R	7.4	-0.2R	7.5	-0.2R	7.5	-0.2R	7.5	-0.1R	7.5	-0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	8.2	-0.8R	8.6	-0.7R	8.8	-0.6R	9	-0.5R	9.1	-0.4R	9.2	-0.4R	9.2	-0.3R	9.3	-0.3R	9.3	-0.3R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	9.3	-1.2R	9.9	-1R	10.2	-0.9R	10.5	-0.8R	10.6	-0.7R	10.8	-0.6R	10.8	-0.6R	10.9	-0.5R	11	-0.5R
		12"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	10.9	-1.9R	12	-1.8R	12.7	-1.6R	13.1	-1.5R	13.5	-1.3R	13.7	-1.2R	13.9	-1.1R	14.1	-1.1R	14.2	-1R
		18"	q_a	1080	1728	1042	1677	1018	1639	923	1486	857	1379	869	1400	826	1329	791	1274	712	1139
			q_f																		
			F	12.7	-2.7R	14.5	-2.8R	15.7	-2.7R	16.5	-2.6R	17.1	-2.4R	17.6	-2.3R	18	-2.1R	18.3	-2R	18.5	-1.9R
		24"	q_a	1080	1728	904	1456	805	1296	746	1201	706	1137	678	1091	657	1057	640	1031	627	1009
			q_f																		
			F	14	-3.4R	16.4	-3.7R	18.1	-3.7R	19.3	-3.6R	20.2	-3.5R	21	-3.4R	21.6	-3.2R	22.1	-3.1R	22.5	-2.9R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	9	-0.7R	9.3	-0.6R	9.5	-0.5R	9.6	-0.4R	9.7	-0.4R	9.8	-0.3R	9.8	-0.3R	9.8	-0.3R	9.9	-0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	10.5	-1.3R	11.2	-1.1R	11.5	-1R	11.8	-0.8R	12	-0.8R	12.1	-0.7R	12.2	-0.6R	12.3	-0.6R	12.3	-0.5R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	11.8	-1.8R	12.8	-1.6R	13.4	-1.5R	13.8	-1.3R	14	-1.2R	14.3	-1.1R	14.4	-1R	14.6	-0.9R	14.7	-0.9R
		12"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	13.7	-2.7R	15.4	-2.6R	16.5	-2.5R	17.2	-2.4R	17.8	-2.2R	18.2	-2.1R	18.5	-1.9R	18.8	-1.8R	19	-1.7R
		18"	q_a	771	1233	771	1233	757	1218	680	1096	628	1011	634	1020	600	966	573	922	545	872
			q_f																		
			F	15.7	-3.7R	18.3	-4R	20.1	-4R	21.4	-3.9R	22.4	-3.8R	23.2	-3.6R	23.8	-3.5R	24.4	-3.3R	24.8	-3.1R
		24"	q_a	771	1233	675	1087	595	957	546	879	514	827	491	790	474	762	460	741	449	723
			q_f																		
			F	17	-4.4R	20.4	-5.1R	22.8	-5.3R	24.7	-5.4R	26.2	-5.3R	27.4	-5.2R	28.3	-5R	29.2	-4.9R	29.9	-4.7R

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

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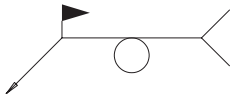
3.8 **N-32**

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	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405
			q_f																		
			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	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405
			q_f																		
			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	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405
			q_f																		
			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	2733	4387	2563	4229	2472	4078	2414	3984	2375	3920	2347	3873	2326	3758	1856	2969	1503	2405
			q_f																		
			F	3.7	-0.2R	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	3.9	-0.1R
		18"	q_a	2387	4387	2039	3365	2072	3419	1914	3158	1803	2975	1858	3066	1781	2939	1720	2838	1503	2405
			q_f																		
			F	4.3	-0.3R	4.5	-0.3R	4.5	-0.2R	4.6	-0.2R	4.6	-0.2R	4.7	-0.2R	4.7	-0.1R	4.7	-0.1R	4.7	-0.1R
		24"	q_a	1972	3253	1730	2854	1602	2643	1523	2513	1469	2424	1431	2361	1401	2312	1379	2275	1360	2244
			q_f																		
			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	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			F	3.5	+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	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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	1824	2918	1824	2918	1824	2918	1824	2918	1798	2918	1775	2918	1694	2711	1339	2142	1084	1735
			q_f																		
			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	1824	2918	1550	2558	1571	2591	1447	2387	1360	2245	1401	2312	1341	2213	1294	2135	1084	1735
			q_f																		
			F	5.1	-0.4R	5.3	-0.3R	5.4	-0.3R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R	5.6	-0.2R	5.6	-0.1R	5.6	-0.1R
		24"	q_a	1509	2490	1316	2171	1214	2003	1151	1899	1109	1829	1078	1778	1055	1740	1036	1710	1022	1686
			q_f																		
			F	5.7	-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	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			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	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			F	4.8	-0.1R	4.8	-0.1R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R
		8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			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	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139
			q_f																		
			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	1080	1728	995	1642	1016	1677	942	1554	890	1469	919	1516	882	1456	853	1406	712	1139
			q_f																		
			F	6.4	-0.4R	6.6	-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
		24"	q_a	952	1572	844	1392	786	1297	750	1238	726	1198	709	1169	695	1147	685	1130	677	1117
			q_f																		
			F	7	-0.6R	7.4	-0.6R	7.5	-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
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	5.3	+0R	5.3	+0R	5.4	+0R	5.4	+0R	5.4	+0R	5.4	+0R	5.4	+0R	5.4	+0R	5.4	+0R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	5.7	-0.1R	5.7	-0.1R	5.7	+0R	5.7	+0R	5.7	+0R	5.7	+0R	5.8	+0R	5.8	+0R	5.8	+0R
		8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	6	-0.1R	6.1	-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	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	6.6	-0.3R	6.7	-0.2R	6.8	-0.2R	6.8	-0.1R	6.9	-0.1R	6.9	-0.1R	6.9	-0.1R	6.9	-0.1R	6.9	-0.1R
		18"	q_a	771	1233	752	1233	770	1233	717	1183	679	1121	702	1158	675	1114	654	1076	545	872
			q_f																		
			F	7.4	-0.5R	7.6	-0.4R	7.8	-0.3R	7.8	-0.3R	7.9	-0.2R	7.9	-0.2R	8	-0.2R	8	-0.2R	8	-0.2R
		24"	q_a	713	1176	637	1051	597	985	572	944	555	916	543	896	534	881	526	869	521	859
			q_f																		
			F	8.1	-0.7R	8.5	-0.6R	8.7	-0.5R	8.8	-0.5R	8.9	-0.4R	9	-0.4R	9	-0.3R	9.1	-0.3R	9.1	-0.3R

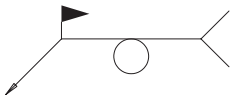
N-32 32/5 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

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		17.3 -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	1493	578	953	442	729	357	588	300	495	262	432	231	382	207	342	190	313
			q_f																		
			F	10.1 -3.4R		13.4 -4.7R		16.3 -5.8R		19 -6.7R		21.5 -7.4R		23.7 -8.1R		25.7 -8.6R		27.6 -9.1R		29.4 -9.5R	
		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		20.1 -7.3R		22.8 -8.3R		25.4 -9.2R		27.9 -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	9.2 -2.3R		10.9 -2.6R		12.1 -2.7R		13.1 -2.7R		13.8 -2.7R		14.5 -2.7R		15 -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		15.5 -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		14.4 -4.7R		17.2 -5.5R		19.6 -6.2R		21.8 -6.8R		23.7 -7.2R		25.4 -7.5R		26.9 -7.7R		28.3 -7.9R	
		18"	q_a	702	1172	458	756	352	581	285	470	240	396	211	348	186	308	168	277	154	254
			q_f																		
			F	11.6 -3.8R		15.2 -5.2R		18.6 -6.4R		21.6 -7.5R		24.3 -8.3R		26.8 -9R		29.1 -9.7R		31.2 -10.2R		33.2 -10.6R	
		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		28.8 -10.3R		31.5 -11.1R		34 -11.8R		36.4 -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		13.1 -3R		14.5 -3.1R		15.6 -3.2R		16.5 -3.1R		17.2 -3.1R		17.8 -3R		18.2 -2.9R		18.7 -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	12.1 -3.2R		14.7 -3.9R		16.8 -4.3R		18.5 -4.6R		19.9 -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		23.9 -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		31.6 -8.9R		33.1 -9.1R	
		18"	q_a	418	703	280	461	218	360	178	293	151	249	134	221	119	197	108	178	101	166
			q_f																		
			F	13.8 -4.4R		18.1 -6R		21.9 -7.4R		25.4 -8.6R		28.6 -9.6R		31.4 -10.4R		34.1 -11.1R		36.5 -11.7R		38.8 -12.2R	
		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		22.9 -8.1R		26.7 -9.5R		30.3 -10.7R		33.7 -11.8R		36.8 -12.8R		39.7 -13.7R		42.5 -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		18.5 -3.4R		19.2 -3.4R		19.9 -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		22.2 -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	14.3 -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		28.5 -8.6R		30.9 -9.1R		33 -9.5R		35 -9.8R		36.7 -10R	
		18"	q_a	304	515	207	342	164	270	134	221	115	189	103	170	92	152	84	138	79	130
			q_f																		
			F	15.6 -4.8R		20.2 -6.6R		24.4 -8.1R		28.2 -9.4R		31.7 -10.5R		34.8 -11.4R		37.7 -12.2R		40.4 -12.8R		42.9 -13.4R	
		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		20.9 -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

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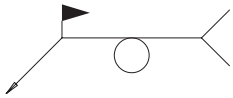
3.8 **N-32**

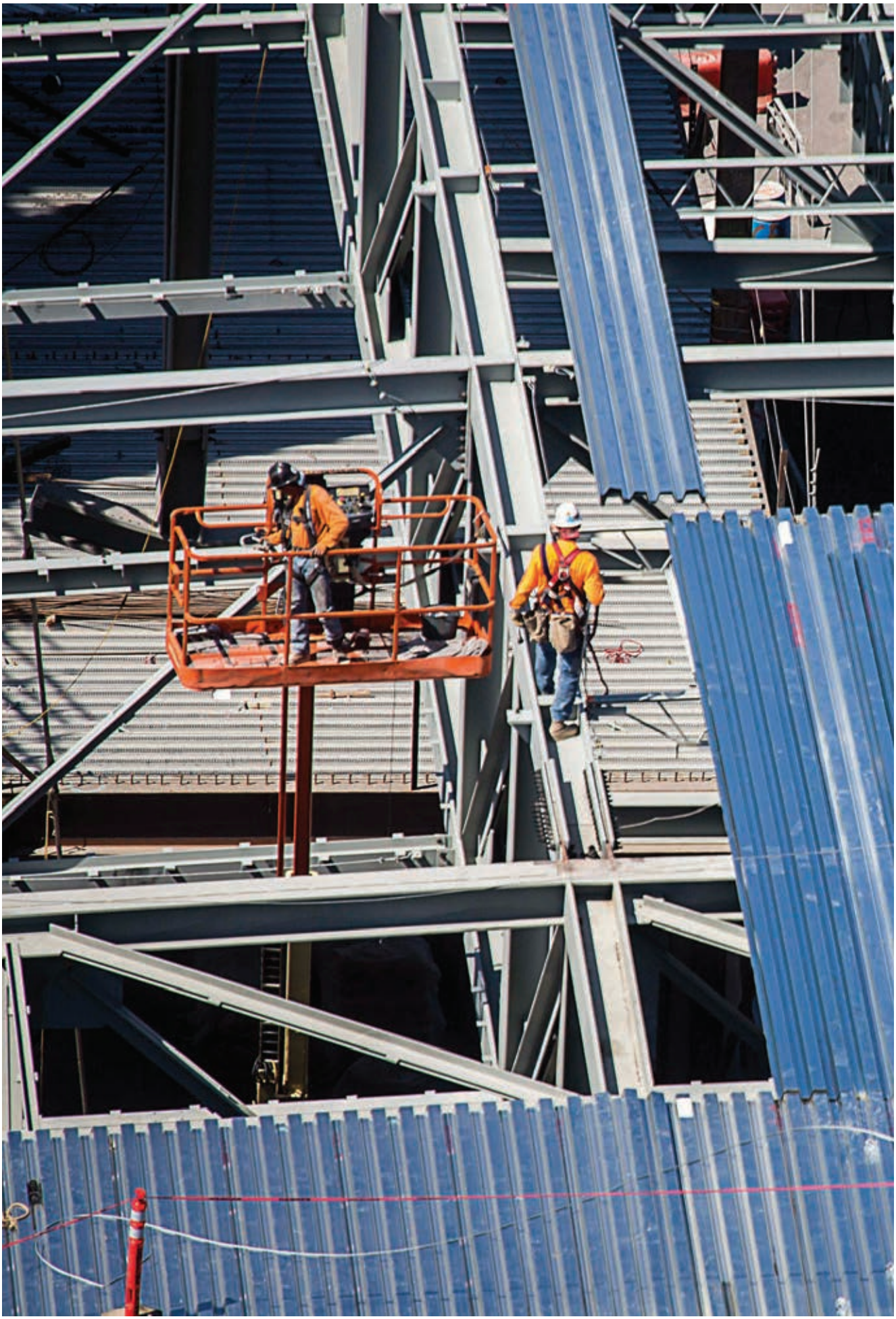
Arc Spot/Seam Welds to Supports with No. 12 Self-Drilling Side Lap Screws

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	2389	2184	2075	2007	1960	1927	1901	1856	1503												
			q_f	3942	3604	3423	3311	3235	3179	3137	2969	2405												
			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	3.8 -0.1R	3.8 +0R	3.8 +0R											
		6"	q_a	1973	1731	1604	1525	1471	1432	1403	1380	1362												
			q_f	3256	2857	2646	2516	2427	2364	2315	2278	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	4.5 -0.1R	4.5 -0.1R	4.5 -0.1R												
		8"	q_a	1738	1479	1342	1258	1201	1160	1130	1105	1086												
			q_f	2868	2440	2214	2076	1982	1915	1864	1824	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	1486	1174	1035	952	896	857	827	804	785												
			q_f	2452	1937	1708	1570	1479	1413	1364	1326	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	1336	968	880	766	690	680	634	597	600												
			q_f	2452	1597	1453	1264	1139	1122	1045	986	989												
			F	6.2 -1.1R	6.9 -1.1R	7.3 -1R	7.6 -0.9R	7.8 -0.9R	8 -0.8R	8.1 -0.8R	8.2 -0.7R	8.3 -0.7R												
		24"	q_a	1181	865	726	643	587	547	518	494	476												
			q_f	1949	1427	1198	1060	969	903	854	816	785												
			F	6.8 -1.4R	7.8 -1.5R	8.4 -1.4R	8.9 -1.4R	9.2 -1.3R	9.4 -1.2R	9.7 -1.2R	9.8 -1.1R	10 -1R												
	18 ga	4"	q_a	1793	1625	1535	1479	1441	1414	1393	1339	1084												
			q_f	2918	2681	2532	2440	2378	2332	2298	2142	1735												
			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	1485	1290	1187	1123	1080	1049	1026	1008	993												
			q_f	2450	2128	1958	1853	1783	1731	1693	1663	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	1313	1099	990	925	881	850	827	808	792												
			q_f	2166	1813	1634	1526	1454	1402	1364	1333	1308												
			F	5.4 -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	1119	878	769	704	660	629	606	587	573												
			q_f	1846	1449	1269	1161	1089	1038	999	969	945												
			F	6.3 -0.8R	6.7 -0.7R	7 -0.6R	7.2 -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	1008	731	659	571	513	503	467	440	440												
			q_f	1846	1206	1087	942	846	829	771	726	726												
			F	7.2 -1.2R	8 -1.2R	8.5 -1.1R	8.8 -1R	9 -1R	9.2 -0.9R	9.4 -0.8R	9.5 -0.8R	9.6 -0.7R												
		24"	q_a	898	657	548	483	439	408	385	366	352												
			q_f	1481	1084	904	796	724	673	634	604	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	11.5 -1.2R												
	20 ga	4"	q_a	1080	1014	964	932	911	895	883	874	712												
			q_f	1728	1673	1590	1538	1503	1477	1458	1406	1139												
			F	5.5 -0.2R	5.6 -0.2R	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	916	804	745	708	683	666	652	641	633												
			q_f	1511	1326	1229	1169	1128	1098	1076	1058	1044												
			F	6.2 -0.4R	6.4 -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	807	686	623	584	558	539	525	514	505												
			q_f	1331	1133	1028	964	921	890	866	848	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	680	545	481	442	416	398	384	373	365												
			q_f	1123	899	793	729	687	657	634	616	602												
			F	7.8 -0.9R	8.3 -0.8R	8.6 -0.7R	8.8 -0.7R	8.9 -0.6R	9 -0.5R	9.1 -0.5R	9.2 -0.5R	9.2 -0.4R												
		18"	q_a	608	449	409	356	320	316	294	278	279												
			q_f	1123	741	674	587	529	521	486	458	460												
			F	8.9 -1.4R	9.7 -1.4R	10.3 -1.3R	10.7 -1.2R	10.9 -1.1R	11.2 -1R	11.3 -1R	11.5 -0.9R	11.6 -0.8R												
		24"	q_a	537	401	337	298	272	254	240	230	221												
			q_f	885	662	556	492	450	419	397	379	365												
			F	9.7 -1.8R	10.9 -1.9R	11.7 -1.9R	12.3 -1.8R	12.7 -1.7R	13.1 -1.6R	13.3 -1.5R	13.5 -1.4R	13.7 -1.3R												
	22 ga	4"	q_a	771	752	717	695	680	669	661	655	545												
			q_f	1233	1233	1183	1147	1122	1104	1091	1076	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	675	596	554	529	511	498	489	481	475												
			q_f	1114	984	915	872	843	822	807	794	784												
			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	7.7 -0.1R	7.7 -0.1R												
		8"	q_a	594	508	463	436	417	403	393	385	379												
			q_f	979	838	764	719	688	666	649	636	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	497	403	357	330	311	298	288	280	274												
			q_f	821	666	589	544	513	491	475	462	452												
			F	8.9 -1R	9.4 -0.9R	9.8 -0.8R	10 -0.7R	10.2 -0.7R	10.3 -0.6R	10.4 -0.5R	10.4 -0.5R	10.5 -0.5R												
		18"	q_a	443	331	303	264	238	235	220	207	209												
			q_f	821	545	499	436	393	388	362	342	344												
			F	10.1 -1.6R	11.1 -1.5R	11.7 -1.4R	12.1 -1.3R	12.4 -1.2R	12.6 -1.1R	12.8 -1.1R	13 -1R	13.1 -0.9R												
		24"	q_a	388	294	248	220	202	189	179	171	165												
			q_f	640	485	409	363	333	311	295	282	272												
			F	11 -2R	12.3 -2.1R	13.2 -2R	13.9 -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



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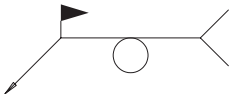
3.9 **NN-32** 3.9

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	2422	3997	2208	3644	2094	3455	2022	3337	1974	3256	1938	3198	1912	3154	1856	2969	1503	2405
			q_f																		
			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	3.8	-0.1R	3.8	+0R	3.8	+0R
		6"	q_a	2013	3321	1760	2904	1626	2683	1543	2546	1486	2453	1446	2385	1415	2335	1391	2295	1371	2263
			q_f																		
			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	1781	2939	1509	2490	1366	2253	1277	2108	1218	2009	1174	1938	1142	1884	1116	1842	1096	1808
			q_f																		
			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	1532	2527	1210	1997	1062	1753	974	1606	914	1509	872	1439	840	1387	816	1346	796	1313
			q_f																		
			F	5.3	-0.7R	5.7	-0.7R	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	1390	2527	1004	1657	908	1498	788	1300	708	1169	695	1147	647	1068	610	1006	610	1007
			q_f																		
			F	6.2	-1.1R	6.8	-1.1R	7.3	-1R	7.6	-0.9R	7.8	-0.9R	8	-0.8R	8.1	-0.8R	8.2	-0.7R	8.3	-0.7R
		24"	q_a	1235	2038	901	1487	753	1243	664	1096	605	998	563	929	531	876	506	836	487	803
			q_f																		
			F	6.8	-1.4R	7.7	-1.5R	8.4	-1.4R	8.8	-1.4R	9.1	-1.3R	9.4	-1.2R	9.6	-1.2R	9.8	-1.1R	9.9	-1.1R
	18 ga	4"	q_a	1821	2918	1645	2714	1550	2558	1492	2462	1452	2396	1423	2348	1401	2312	1339	2142	1084	1735
			q_f																		
			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	-0.1R
		6"	q_a	1517	2502	1313	2166	1205	1988	1138	1877	1093	1803	1060	1749	1035	1708	1016	1676	1000	1651
			q_f																		
			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	1347	2222	1128	1860	1011	1669	942	1554	895	1477	862	1422	837	1381	817	1347	800	1321
			q_f																		
			F	5.4	-0.5R	5.7	-0.4R	5.8	-0.4R	5.9	-0.3R	5.9	-0.3R	6	-0.2R	6	-0.2R	6.1	-0.2R	6.1	-0.2R
		12"	q_a	1161	1916	907	1496	790	1304	721	1189	674	1113	641	1058	616	1017	597	985	581	959
			q_f																		
			F	6.2	-0.8R	6.7	-0.7R	7	-0.7R	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	1051	1916	759	1253	680	1122	588	970	527	869	515	849	478	789	450	742	449	740
			q_f																		
			F	7.2	-1.2R	7.9	-1.2R	8.4	-1.1R	8.8	-1.1R	9	-1R	9.2	-0.9R	9.3	-0.9R	9.5	-0.8R	9.6	-0.7R
		24"	q_a	940	1552	686	1131	569	940	500	825	453	748	420	693	395	652	376	620	360	595
			q_f																		
			F	7.9	-1.6R	8.9	-1.6R	9.6	-1.6R	10.2	-1.5R	10.5	-1.5R	10.8	-1.4R	11.1	-1.3R	11.3	-1.2R	11.4	-1.2R
	20 ga	4"	q_a	1080	1728	1025	1692	972	1604	939	1550	917	1513	900	1486	888	1465	878	1406	712	1139
			q_f																		
			F	5.5	-0.2R	5.6	-0.2R	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	934	1541	817	1348	755	1246	717	1182	691	1139	672	1108	657	1085	646	1066	637	1052
			q_f																		
			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	-0.2R	6.6	-0.1R	6.6	-0.1R
		8"	q_a	826	1364	701	1156	634	1046	593	979	566	933	546	900	531	875	519	856	509	840
			q_f																		
			F	6.8	-0.6R	7	-0.5R	7.2	-0.4R	7.3	-0.4R	7.4	-0.3R	7.4	-0.3R	7.5	-0.3R	7.5	-0.2R	7.5	-0.2R
		12"	q_a	706	1164	562	927	493	814	452	746	425	701	405	668	390	644	379	625	370	610
			q_f																		
			F	7.7	-0.9R	8.2	-0.8R	8.5	-0.8R	8.7	-0.7R	8.9	-0.6R	9	-0.6R	9.1	-0.5R	9.1	-0.5R	9.2	-0.4R
		18"	q_a	634	1164	466	769	421	695	366	604	329	543	323	533	301	496	283	467	284	468
			q_f																		
			F	8.8	-1.4R	9.7	-1.4R	10.2	-1.3R	10.6	-1.2R	10.9	-1.1R	11.1	-1.1R	11.3	-1R	11.4	-0.9R	11.5	-0.9R
		24"	q_a	562	927	418	690	349	577	308	509	281	463	261	431	247	407	235	388	226	373
			q_f																		
			F	9.6	-1.8R	10.8	-1.9R	11.6	-1.9R	12.2	-1.8R	12.7	-1.7R	13	-1.6R	13.3	-1.5R	13.5	-1.4R	13.7	-1.4R
	22 ga	4"	q_a	771	1233	760	1233	723	1193	700	1155	684	1129	673	1111	664	1096	658	1076	545	872
			q_f																		
			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	688	1135	606	999	562	927	535	882	516	852	503	830	493	813	485	800	478	789
			q_f																		
			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	607	1002	518	855	471	777	442	729	422	697	408	673	397	656	389	642	382	631
			q_f																		
			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	-0.3R	8.6	-0.2R
		12"	q_a	515	850	416	686	366	604	337	556	317	523	303	500	292	483	284	469	278	458
			q_f																		
			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	-0.6R	10.4	-0.5R	10.5	-0.5R
		18"	q_a	461	850	343	565	312	514	271	447	244	403	241	397	224	370	211	349	212	350
			q_f																		
			F	10	-1.6R	11	-1.5R	11.6	-1.4R	12	-1.3R	12.3	-1.2R	12.6	-1.2R	12.8	-1.1R	12.9	-1R	13	-0.9R
		24"	q_a	406	670	306	505	257	424	227	375	208	343	194	320	183	302	175	289	168	278
			q_f																		
			F	10.9	-2R	12.3	-2.1R	13.1	-2R	13.8	-2R	14.3	-1.9R	14.6	-1.8R	14.9	-1.7R	15.2	-1.6R	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	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a	1365	2197	1320	2126	1296	2087	1281	2063	1271	2046	1263	2034	1258	2025	1253	2017	1249	2011
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		8"	q_a	1219	1962	1157	1863	1124	1809	1103	1776	1088	1752	1078	1736	1070	1723	1064	1713	1059	1705
			q_f																		
			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	
		12"	q_a	1017	1637	933	1502	888	1429	860	1384	840	1353	826	1331	816	1314	808	1300	801	1290
			q_f																		
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		18"	q_a	890	1637	743	1196	742	1195	678	1092	634	1020	649	1045	619	997	596	959	611	983
			q_f																		
			F	9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R	
		24"	q_a	745	1199	636	1024	578	931	543	874	519	835	501	807	488	786	478	769	470	756
			q_f																		
			F	11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R	
	18 ga	4"	q_a	1182	1903	1177	1895	1165	1875	1157	1863	1152	1854	1148	1848	1145	1843	1143	1839	1084	1735
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		6"	q_a	1046	1684	1005	1618	983	1583	969	1560	960	1545	953	1534	948	1526	943	1519	940	1513
			q_f																		
			F	5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R	
		8"	q_a	928	1494	874	1407	844	1359	826	1330	813	1309	804	1295	797	1283	792	1275	787	1267
			q_f																		
			F	6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R	
		12"	q_a	772	1242	700	1127	662	1066	638	1028	622	1002	610	983	601	968	595	957	589	948
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		18"	q_a	676	1242	558	899	553	891	503	810	468	754	478	770	455	733	437	703	447	720
			q_f																		
			F	10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R	
		24"	q_a	569	916	480	772	433	696	404	650	384	618	370	595	359	578	351	565	344	554
			q_f																		
			F	13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R	
	20 ga	4"	q_a	863	1389	841	1354	829	1335	822	1324	817	1315	813	1310	811	1305	808	1302	712	1139
			q_f																		
			F	5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R	
		6"	q_a	742	1194	706	1136	686	1105	674	1086	666	1072	660	1062	655	1055	652	1049	649	1045
			q_f																		
			F	6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		8"	q_a	654	1053	608	979	584	940	568	915	558	898	550	885	544	876	540	869	536	863
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		12"	q_a	542	873	485	781	455	732	436	702	423	681	414	666	406	654	401	646	397	638
			q_f																		
			F	9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R	
		18"	q_a	477	873	388	625	380	612	344	553	318	513	324	521	307	494	294	473	300	484
			q_f																		
			F	12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R	
		24"	q_a	404	651	332	535	296	477	274	442	260	418	250	402	242	389	236	380	231	372
			q_f																		
			F	15.6 -0.1R		15.6 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R	
	22 ga	4"	q_a	697	1122	676	1089	665	1071	658	1060	653	1052	650	1046	647	1042	645	1039	545	872
			q_f																		
			F	6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a	594	957	562	904	544	876	533	858	525	846	520	837	516	831	513	825	510	821
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		8"	q_a	522	841	482	776	460	741	446	719	437	704	430	693	425	685	421	678	418	673
			q_f																		
			F	8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R	
		12"	q_a	433	698	384	618	358	576	341	550	330	532	322	519	316	509	311	501	308	495
			q_f																		
			F	11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R	
		18"	q_a	382	698	308	496	299	482	270	434	249	401	252	406	239	385	228	368	233	375
			q_f																		
			F	14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R	
		24"	q_a	324	522	263	424	233	375	215	346	203	327	194	313	188	302	183	294	179	288
			q_f																		
			F	17.5 -0.1R		17.5 +0R		17.5 +0R		17.5 +0R		17.6 +0R		17.6 +0R		17.6 +0R		17.6 +0R		17.6 +0R	

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

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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	1478	2380	1478	2380	1478	2380	1472	2370	1466	2360	1461	2353	1458	2347	1455	2343	1453	2339
			q_f																		
			F	3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a	1333	2146	1285	2068	1258	2026	1242	2000	1231	1982	1223	1968	1216	1958	1212	1951	1208	1944
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		8"	q_a	1186	1909	1120	1804	1085	1747	1063	1711	1048	1687	1037	1669	1028	1656	1022	1645	1016	1636
			q_f																		
			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	
		12"	q_a	987	1589	900	1449	853	1374	824	1327	804	1295	790	1272	779	1254	771	1241	764	1230
			q_f																		
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		18"	q_a	864	1589	717	1155	713	1148	650	1046	606	975	620	998	590	950	567	913	581	935
			q_f																		
			F	9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R	
		24"	q_a	726	1168	615	990	557	896	521	838	496	799	479	771	465	749	455	733	447	719
			q_f																		
			F	11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R	
	18 ga	4"	q_a	1178	1896	1152	1855	1138	1833	1130	1819	1124	1809	1119	1802	1116	1797	1114	1793	1084	1735
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		6"	q_a	1020	1642	976	1571	952	1533	937	1509	927	1493	920	1481	914	1472	910	1464	906	1459
			q_f																		
			F	5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R	
		8"	q_a	902	1452	845	1360	814	1310	794	1279	781	1258	772	1242	764	1230	759	1221	754	1214
			q_f																		
			F	6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R	
		12"	q_a	749	1206	675	1088	636	1024	612	985	595	958	583	939	574	924	567	912	561	903
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		18"	q_a	657	1206	539	868	532	856	482	776	448	721	457	735	434	698	416	670	425	685
			q_f																		
			F	10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R	
		24"	q_a	555	893	463	745	415	668	386	621	367	590	353	568	343	552	334	538	328	527
			q_f																		
			F	13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R	
	20 ga	4"	q_a	845	1360	821	1322	808	1301	800	1288	794	1279	790	1272	787	1268	785	1264	712	1139
			q_f																		
			F	5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R	
		6"	q_a	722	1162	684	1101	663	1068	650	1047	641	1033	635	1022	630	1014	626	1008	623	1003
			q_f																		
			F	6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		8"	q_a	635	1022	587	946	562	904	546	878	535	861	527	848	521	838	516	831	512	824
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		12"	q_a	527	848	468	754	437	703	417	672	404	651	395	636	388	624	382	615	377	607
			q_f																		
			F	9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R	
		18"	q_a	464	848	375	604	366	589	329	530	305	490	309	498	293	471	280	451	286	460
			q_f																		
			F	12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R	
		24"	q_a	395	636	321	516	284	458	263	423	248	400	238	383	230	371	224	361	219	353
			q_f																		
			F	15.6 -0.1R		15.6 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R	
	22 ga	4"	q_a	681	1097	659	1061	647	1041	639	1029	634	1020	630	1014	627	1010	625	1006	545	872
			q_f																		
			F	6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a	578	930	543	875	525	845	513	826	505	813	499	804	495	797	492	792	489	787
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		8"	q_a	507	816	465	749	442	712	428	690	419	674	412	663	406	654	402	648	399	642
			q_f																		
			F	8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R	
		12"	q_a	421	678	370	596	344	553	327	526	316	508	308	495	301	485	297	477	293	471
			q_f																		
			F	11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R	
		18"	q_a	372	678	298	480	288	464	259	416	238	384	241	388	228	367	218	350	222	357
			q_f																		
			F	14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R	
		24"	q_a	315	508	254	409	224	361	206	332	194	312	185	298	179	288	174	280	170	274
			q_f																		
			F	17.5 -0.1R		17.5 +0R		17.5 +0R		17.5 +0R		17.6 +0R		17.6 +0R		17.6 +0R		17.6 +0R		17.6 +0R	

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

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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	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
			q_f																		
			F	3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R		3.8 +0R	
		6"	q_a	1478	2380	1478	2380	1478	2380	1478	2380	1455	2343	1435	2310	1420	2286	1408	2266	1398	2250
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		8"	q_a	1478	2380	1378	2218	1301	2094	1252	2016	1219	1962	1194	1923	1176	1893	1161	1869	1149	1850
			q_f																		
			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	
		12"	q_a	1295	2085	1125	1811	1033	1663	975	1569	935	1506	906	1459	885	1424	868	1397	854	1375
			q_f																		
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		18"	q_a	1166	2085	930	1498	881	1418	786	1266	721	1161	722	1162	680	1095	647	1042	655	1055
			q_f																		
			F	9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R		9.2 +0R	
		24"	q_a	1026	1652	826	1329	718	1157	652	1050	607	978	575	925	550	886	531	855	516	830
			q_f																		
			F	11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R	
	18 ga	4"	q_a	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1084	1735
			q_f																		
			F	4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R		4.6 +0R	
		6"	q_a	1182	1903	1182	1903	1146	1845	1111	1789	1087	1751	1070	1723	1057	1701	1046	1684	1038	1671
			q_f																		
			F	5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R		5.4 +0R	
		8"	q_a	1160	1868	1041	1676	976	1571	934	1504	906	1459	885	1426	870	1400	858	1381	848	1365
			q_f																		
			F	6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R	
		12"	q_a	993	1598	852	1371	775	1248	727	1171	695	1119	671	1080	653	1052	639	1029	628	1011
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		18"	q_a	898	1598	709	1141	664	1069	589	949	538	867	536	863	504	811	478	770	483	778
			q_f																		
			F	10.5 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R		10.6 +0R	
		24"	q_a	795	1280	632	1018	546	879	491	790	454	731	428	689	408	657	393	633	381	613
			q_f																		
			F	13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R	
	20 ga	4"	q_a	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429	879	1406	712	1139
			q_f																		
			F	5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R		5.8 +0R	
		6"	q_a	888	1429	841	1353	795	1280	767	1234	747	1202	732	1179	722	1162	713	1148	706	1137
			q_f																		
			F	6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		8"	q_a	824	1326	728	1172	675	1087	642	1034	620	998	603	971	591	951	581	935	573	923
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		12"	q_a	708	1140	598	963	538	867	501	807	476	766	457	737	444	714	433	697	424	683
			q_f																		
			F	9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R		9.7 +0R	
		18"	q_a	644	1140	502	808	464	747	409	658	371	598	367	592	344	554	326	525	328	527
			q_f																		
			F	12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R		12.7 +0R	
		24"	q_a	576	927	451	727	383	617	342	550	314	506	294	474	280	450	268	431	259	417
			q_f																		
			F	15.6 -0.1R		15.6 -0.1R		15.6 +0R		15.6 +0R		15.6 +0R		15.7 +0R		15.7 +0R		15.7 +0R		15.7 +0R	
	22 ga	4"	q_a	739	1190	739	1190	739	1190	739	1190	739	1190	739	1190	736	1185	673	1076	545	872
			q_f																		
			F	6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a	739	1190	669	1077	629	1013	604	972	587	944	574	924	565	909	557	897	545	872
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		8"	q_a	662	1066	579	932	534	859	505	814	486	782	472	760	461	743	453	729	446	718
			q_f																		
			F	8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R		8.9 +0R	
		12"	q_a	572	920	478	769	427	687	395	637	374	602	358	577	347	558	338	543	330	531
			q_f																		
			F	11 +0R		11 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R	
		18"	q_a	522	920	404	650	369	595	324	522	293	472	289	466	270	435	255	411	256	412
			q_f																		
			F	14.3 -0.1R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R	
		24"	q_a	469	755	364	586	306	493	272	437	249	400	232	374	220	354	210	339	203	326
			q_f																		
			F	17.5 -0.1R		17.5 -0.1R		17.5 -0.1R		17.5 +0R		17.5 +0R		17.5 +0R		17.5 +0R		17.5 +0R		17.6 +0R	

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

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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	1854	2985	1808	2910	1782	2870	1767	2844	1756	2827	1748	2814	1742	2805	1737	2797	1503	2405
			q_f																		
			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	+0R	3.8	+0R
		6"	q_a	1594	2566	1517	2442	1475	2375	1449	2333	1431	2304	1418	2283	1408	2268	1401	2255	1394	2245
			q_f																		
			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	1405	2262	1307	2104	1254	2019	1221	1966	1199	1930	1182	1903	1170	1883	1160	1867	1152	1855
			q_f																		
			F	4.6	-0.4R	4.8	-0.4R	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	1166	1877	1043	1679	977	1573	937	1508	909	1463	889	1431	874	1407	862	1388	852	1372
			q_f																		
			F	5.4	-0.7R	5.8	-0.6R	6	-0.6R	6.2	-0.5R	6.3	-0.5R	6.3	-0.4R	6.4	-0.4R	6.5	-0.3R	6.5	-0.3R
		18"	q_a	1024	1877	835	1344	817	1316	738	1189	684	1102	696	1120	660	1063	632	1018	646	1039
			q_f																		
			F	6.3	-1.1R	7	-1.1R	7.4	-1R	7.7	-0.9R	7.9	-0.8R	8	-0.8R	8.2	-0.7R	8.3	-0.7R	8.3	-0.6R
		24"	q_a	869	1399	714	1150	636	1025	590	950	559	900	537	864	520	837	507	816	497	799
			q_f																		
			F	7	-1.4R	7.9	-1.5R	8.5	-1.4R	9	-1.3R	9.3	-1.3R	9.5	-1.2R	9.7	-1.1R	9.9	-1.1R	10	-1R
	18 ga	4"	q_a	1438	2316	1394	2244	1369	2205	1354	2180	1344	2163	1336	2151	1330	2142	1326	2135	1084	1735
			q_f																		
			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	1223	1969	1153	1857	1116	1796	1092	1758	1076	1732	1064	1713	1055	1699	1048	1687	1042	1678
			q_f																		
			F	4.9	-0.3R	5.1	-0.3R	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	1074	1730	988	1591	942	1516	913	1470	893	1438	879	1415	868	1398	860	1384	853	1373
			q_f																		
			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	892	1435	787	1268	732	1178	697	1123	674	1085	657	1058	644	1038	634	1021	626	1008
			q_f																		
			F	6.3	-0.8R	6.8	-0.7R	7	-0.6R	7.2	-0.6R	7.3	-0.5R	7.4	-0.5R	7.5	-0.4R	7.5	-0.4R	7.6	-0.4R
		18"	q_a	786	1435	633	1019	613	987	551	887	509	819	515	829	487	784	465	749	474	764
			q_f																		
			F	7.3	-1.2R	8.1	-1.2R	8.6	-1.1R	8.9	-1R	9.1	-0.9R	9.3	-0.9R	9.4	-0.8R	9.5	-0.8R	9.6	-0.7R
		24"	q_a	672	1082	540	869	477	768	439	707	414	667	396	638	383	616	372	599	364	586
			q_f																		
			F	8.1	-1.6R	9.1	-1.6R	9.8	-1.6R	10.3	-1.5R	10.7	-1.4R	11	-1.3R	11.2	-1.3R	11.4	-1.2R	11.5	-1.1R
	20 ga	4"	q_a	1032	1661	991	1595	968	1559	954	1536	945	1521	938	1509	932	1501	879	1406	712	1139
			q_f																		
			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	868	1397	808	1301	775	1249	755	1216	741	1194	731	1177	724	1165	718	1156	712	1139
			q_f																		
			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	760	1224	689	1109	651	1047	627	1009	611	983	599	964	590	950	583	939	577	930
			q_f																		
			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	633	1019	549	885	505	814	478	770	460	740	446	718	436	702	428	689	422	679
			q_f																		
			F	7.8	-0.9R	8.3	-0.8R	8.6	-0.7R	8.8	-0.6R	8.9	-0.6R	9	-0.5R	9.1	-0.5R	9.2	-0.4R	9.2	-0.4R
		18"	q_a	561	1019	441	711	425	684	377	608	346	557	350	564	330	531	314	505	320	515
			q_f																		
			F	9	-1.4R	9.8	-1.4R	10.4	-1.3R	10.8	-1.2R	11	-1.1R	11.2	-1R	11.4	-0.9R	11.5	-0.9R	11.6	-0.8R
		24"	q_a	479	772	379	610	331	533	302	487	283	456	270	434	259	418	251	405	245	394
			q_f																		
			F	9.9	-1.8R	11.1	-1.9R	11.9	-1.8R	12.4	-1.7R	12.8	-1.6R	13.2	-1.5R	13.4	-1.5R	13.6	-1.4R	13.8	-1.3R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	759	1222	750	1208	744	1197	739	1189	673	1076	545	872
			q_f																		
			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	6.7	-0.1R	6.7	-0.1R	6.7	-0.1R
		6"	q_a	696	1120	642	1033	613	987	595	958	583	938	574	924	567	913	561	904	545	872
			q_f																		
			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	7.7	-0.1R	7.7	-0.1R
		8"	q_a	609	981	546	880	513	826	492	792	478	770	468	753	460	741	454	731	449	723
			q_f																		
			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	-0.3R	8.6	-0.2R	8.7	-0.2R
		12"	q_a	508	819	437	703	399	642	376	605	360	579	348	561	340	547	333	536	328	527
			q_f																		
			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	453	819	350	564	334	538	296	476	270	435	272	439	256	412	244	392	248	399
			q_f																		
			F	10.2	-1.6R	11.2	-1.5R	11.8	-1.4R	12.2	-1.3R	12.5	-1.2R	12.7	-1.1R	12.9	-1R	13	-1R	13.1	-0.9R
		24"	q_a	384	619	303	488	263	423	239	384	223	359	211	340	203	326	196	316	191	307
			q_f																		
			F	11.2	-2R	12.5	-2.1R	13.4	-2R	14	-1.9R	14.5	-1.8R	14.8	-1.7R	15.1	-1.6R	15.3	-1.5R	15.5	-1.4R

NN-32 32/5 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: #12 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

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	1948	3136	1892	3046	1862	2998	1843	2967	1830	2947	1821	2931	1814	2920	1808	2911	1503	2405
			q_f																		
			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	1663	2678	1575	2535	1526	2458	1496	2409	1476	2376	1461	2352	1449	2333	1440	2319	1433	2307
			q_f																		
			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	1463	2355	1352	2176	1292	2080	1255	2020	1229	1979	1211	1949	1197	1927	1186	1909	1177	1895
			q_f																		
			F	4.3	-0.5R	4.6	-0.4R	4.7	-0.4R	4.8	-0.4R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R
		12"	q_a	1213	1954	1077	1735	1005	1618	960	1545	929	1496	907	1460	890	1433	877	1412	867	1395
			q_f																		
			F	4.8	-0.7R	5.3	-0.7R	5.6	-0.7R	5.8	-0.6R	5.9	-0.6R	6	-0.6R	6.1	-0.5R	6.2	-0.5R	6.3	-0.5R
		18"	q_a	1069	1954	864	1392	841	1354	758	1220	700	1128	710	1144	673	1083	643	1036	656	1057
			q_f																		
			F	5.4	-1R	6.1	-1.1R	6.6	-1.1R	7	-1.1R	7.2	-1R	7.4	-1R	7.6	-0.9R	7.8	-0.9R	7.9	-0.8R
		24"	q_a	910	1466	738	1188	654	1053	604	973	571	919	547	880	529	851	515	829	504	811
			q_f																		
			F	5.8	-1.2R	6.7	-1.4R	7.4	-1.5R	7.9	-1.5R	8.3	-1.4R	8.6	-1.4R	8.9	-1.4R	9.1	-1.3R	9.3	-1.3R
	18 ga	4"	q_a	1508	2428	1455	2342	1426	2296	1408	2267	1395	2247	1386	2232	1380	2221	1339	2142	1084	1735
			q_f																		
			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	1275	2053	1195	1924	1152	1854	1125	1811	1106	1781	1093	1760	1083	1743	1075	1730	1068	1720
			q_f																		
			F	4.7	-0.4R	4.9	-0.3R	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
		8"	q_a	1118	1800	1021	1644	969	1560	937	1508	915	1473	899	1447	887	1427	877	1412	869	1400
			q_f																		
			F	5.1	-0.5R	5.4	-0.5R	5.6	-0.4R	5.7	-0.4R	5.8	-0.4R	5.8	-0.3R	5.9	-0.3R	5.9	-0.3R	6	-0.3R
		12"	q_a	929	1495	814	1310	753	1212	715	1151	689	1109	671	1080	656	1057	646	1039	637	1025
			q_f																		
			F	5.7	-0.8R	6.2	-0.8R	6.5	-0.8R	6.8	-0.7R	6.9	-0.7R	7.1	-0.6R	7.2	-0.6R	7.2	-0.5R	7.3	-0.5R
		18"	q_a	821	1495	655	1055	632	1017	566	911	520	837	526	847	497	800	474	763	482	777
			q_f																		
			F	6.3	-1.1R	7.1	-1.2R	7.7	-1.2R	8.1	-1.2R	8.4	-1.1R	8.6	-1.1R	8.8	-1R	9	-1R	9.1	-0.9R
		24"	q_a	705	1136	559	900	491	791	451	726	424	682	404	651	390	628	379	609	370	595
			q_f																		
			F	6.8	-1.4R	7.8	-1.6R	8.6	-1.6R	9.1	-1.6R	9.6	-1.6R	10	-1.6R	10.2	-1.5R	10.5	-1.5R	10.7	-1.4R
	20 ga	4"	q_a	1079	1728	1031	1659	1004	1617	988	1591	977	1573	969	1560	962	1549	879	1406	712	1139
			q_f																		
			F	5.4	-0.3R	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	904	1455	836	1345	799	1286	776	1249	760	1224	749	1206	740	1192	734	1181	712	1139
			q_f																		
			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	791	1274	712	1146	669	1077	643	1034	625	1005	611	985	602	969	594	956	588	946
			q_f																		
			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	660	1063	569	915	520	837	490	789	470	757	455	733	444	715	436	701	429	690
			q_f																		
			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	8.9	-0.6R
		18"	q_a	587	1063	456	734	436	702	386	622	353	569	356	574	335	540	319	513	324	522
			q_f																		
			F	7.8	-1.3R	8.8	-1.4R	9.4	-1.4R	9.8	-1.4R	10.2	-1.3R	10.5	-1.3R	10.7	-1.2R	10.9	-1.1R	11	-1.1R
		24"	q_a	502	808	394	634	342	551	311	501	291	468	276	444	265	426	256	413	249	402
			q_f																		
			F	8.3	-1.6R	9.5	-1.8R	10.4	-1.9R	11.1	-1.9R	11.6	-1.9R	12	-1.8R	12.3	-1.8R	12.6	-1.7R	12.8	-1.6R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	766	1233	761	1225	673	1076	545	872
			q_f																		
			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	724	1166	663	1068	631	1016	611	983	597	961	587	945	579	932	573	923	545	872
			q_f																		
			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	634	1021	564	909	527	849	504	812	489	787	477	769	469	755	462	744	457	735
			q_f																		
			F	7.4	-0.7R	7.8	-0.6R	8	-0.6R	8.2	-0.5R	8.3	-0.5R	8.3	-0.4R	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R
		12"	q_a	531	855	452	728	411	662	385	621	368	593	356	573	346	558	339	546	333	536
			q_f																		
			F	8.2	-1R	8.8	-1R	9.2	-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	474	855	363	584	343	553	303	488	276	445	278	447	261	420	248	399	251	405
			q_f																		
			F	9	-1.4R	10	-1.5R	10.7	-1.5R	11.2	-1.5R	11.6	-1.4R	11.9	-1.4R	12.1	-1.3R	12.3	-1.3R	12.5	-1.2R
		24"	q_a	403	649	315	508	272	438	246	396	229	369	217	349	207	334	200	322	194	313
			q_f																		
			F	9.5	-1.8R	10.8	-2R	11.8	-2.1R	12.5	-2.1R	13.1	-2R	13.5	-2R	13.9	-1.9R	14.2	-1.9R	14.5	-1.8R

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

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Pneutek SDK61 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	1842	1797	1772	1757	1746	1739	1733	1728	1503												
			q_f	2965	2893	2853	2828	2811	2799	2790	2782	2405												
			F	3.7 -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											
		6"	q_a	1585	1509	1469	1443	1425	1413	1403	1395	1389												
			q_f	2551	2430	2364	2323	2295	2274	2259	2247	2237												
			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 -0.1R	4.5 +0R	4.5 +0R												
		8"	q_a	1398	1301	1249	1217	1195	1178	1166	1157	1149												
			q_f	2250	2095	2011	1959	1923	1897	1877	1862	1849												
			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	1160	1038	974	934	906	887	872	860	850												
			q_f	1867	1672	1568	1503	1459	1427	1403	1384	1369												
			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	1019	831	814	736	682	694	659	631	644												
			q_f	1867	1337	1311	1185	1098	1117	1060	1015	1037												
			F	7.6 -0.9R	8.1 -0.8R	8.3 -0.6R	8.5 -0.6R	8.6 -0.5R	8.7 -0.4R	8.7 -0.4R	8.8 -0.4R	8.8 -0.3R												
		24"	q_a	864	711	634	588	557	535	519	506	496												
			q_f	1390	1145	1021	947	897	862	835	815	798												
			F	8.9 -1.4R	9.6 -1.2R	10 -1R	10.3 -0.9R	10.4 -0.8R	10.6 -0.7R	10.7 -0.7R	10.8 -0.6R	10.8 -0.6R												
	18 ga	4"	q_a	1443	1397	1373	1358	1347	1339	1333	1329	1084												
			q_f	2323	2250	2210	2186	2169	2156	2147	2139	1735												
			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	1226	1156	1118	1094	1078	1066	1057	1050	1044												
			q_f	1975	1861	1800	1761	1735	1716	1701	1690	1681												
			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 -0.1R	5.4 +0R												
		8"	q_a	1077	990	944	914	895	880	869	861	854												
			q_f	1734	1594	1519	1472	1440	1417	1399	1386	1374												
			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	894	789	733	698	675	658	645	635	627												
			q_f	1439	1270	1180	1125	1087	1059	1039	1023	1010												
			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	788	634	614	552	509	516	488	466	475												
			q_f	1439	1022	989	889	820	830	785	750	764												
			F	8.8 -1R	9.3 -0.9R	9.6 -0.7R	9.8 -0.6R	9.9 -0.5R	10 -0.5R	10.1 -0.4R	10.1 -0.4R	10.2 -0.4R												
		24"	q_a	674	541	478	440	415	397	383	372	364												
			q_f	1085	871	769	708	668	638	617	600	586												
			F	10.2 -1.5R	11 -1.3R	11.5 -1.1R	11.8 -1R	12 -0.9R	12.1 -0.8R	12.2 -0.7R	12.3 -0.7R	12.4 -0.6R												
	20 ga	4"	q_a	1043	1000	977	963	953	945	940	879	712												
			q_f	1680	1611	1573	1550	1534	1522	1513	1406	1139												
			F	5.7 -0.1R	5.7 -0.1R	5.7 -0.1R	5.7 +0R	5.7 +0R	5.7 +0R	5.8 +0R	5.8 +0R	5.8 +0R												
		6"	q_a	877	815	781	760	746	736	728	722	712												
			q_f	1411	1312	1258	1224	1201	1185	1172	1162	1139												
			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	768	694	655	631	614	602	593	586	580												
			q_f	1236	1118	1055	1015	989	969	954	943	934												
			F	7.3 -0.3R	7.5 -0.3R	7.5 -0.2R	7.6 -0.2R	7.6 -0.1R	7.6 -0.1R	7.6 -0.1R	7.7 -0.1R	7.7 -0.1R												
		12"	q_a	639	554	509	481	462	448	438	430	424												
			q_f	1029	892	819	774	744	722	705	692	682												
			F	8.8 -0.7R	9.1 -0.5R	9.2 -0.4R	9.3 -0.4R	9.4 -0.3R	9.4 -0.3R	9.5 -0.2R	9.5 -0.2R	9.5 -0.2R												
		18"	q_a	567	445	428	380	348	352	331	315	321												
			q_f	1029	716	688	611	560	566	533	507	517												
			F	10.7 -1.2R	11.3 -1R	11.6 -0.8R	11.8 -0.7R	11.9 -0.6R	12 -0.6R	12.1 -0.5R	12.2 -0.5R	12.2 -0.4R												
		24"	q_a	485	382	334	304	285	271	261	253	246												
			q_f	780	616	537	490	459	436	420	407	396												
			F	12.3 -1.8R	13.2 -1.5R	13.8 -1.3R	14.1 -1.2R	14.3 -1R	14.5 -0.9R	14.6 -0.8R	14.7 -0.8R	14.8 -0.7R												
	22 ga	4"	q_a	771	771	771	768	758	751	746	673	545												
			q_f	1233	1233	1233	1233	1221	1210	1201	1076	872												
			F	6.6 -0.1R	6.6 -0.1R	6.7 -0.1R	6.7 -0.1R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R												
		6"	q_a	705	649	619	600	587	578	571	565	545												
			q_f	1135	1045	996	966	946	931	919	910	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	7.8 -0.1R	7.8 -0.1R												
		8"	q_a	617	552	518	496	482	471	463	457	452												
			q_f	994	889	834	799	775	758	745	735	727												
			F	8.4 -0.4R	8.6 -0.3R	8.6 -0.2R	8.7 -0.2R	8.7 -0.2R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R	8.8 -0.1R												
		12"	q_a	516	442	403	379	363	351	342	335	329												
			q_f	830	712	649	610	584	565	550	539	530												
			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	460	354	337	298	272	274	258	245	249												
			q_f	830	571	543	480	438	441	415	394	401												
			F	12.1 -1.3R	12.7 -1.1R	13.1 -0.9R	13.3 -0.8R	13.5 -0.7R	13.6 -0.6R	13.7 -0.6R	13.7 -0.5R	13.8 -0.5R												
		24"	q_a	390	307	266	241	225	213	204	197	192												
			q_f	628	494	428	388	362	343	329	318	309												
			F	13.9 -1.9R	14.9 -1.7R	15.5 -1.5R	15.8 -1.3R	16.1 -1.1R	16.3 -1R	16.4 -0.9R	16.6 -0.8R	16.7 -0.8R												

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ASC STEEL DECK

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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	1800	2897	1758	2831	1736	2794	1722	2772	1712	2756	1705	2745	1700	2736	1695	2729	1503	2405
			q_f																		
			F	3.7	-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
		6"	q_a	1553	2501	1483	2388	1445	2326	1421	2288	1405	2262	1393	2242	1384	2228	1377	2216	1371	2207
			q_f																		
			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	-0.1R	4.5	+0R	4.5	+0R
		8"	q_a	1372	2209	1281	2063	1232	1983	1201	1934	1180	1900	1165	1876	1153	1857	1144	1842	1137	1831
			q_f																		
			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	1139	1833	1023	1647	962	1548	923	1486	897	1444	878	1414	864	1391	853	1373	844	1358
			q_f																		
			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	1000	1833	818	1316	804	1294	727	1171	675	1087	688	1107	653	1051	626	1007	639	1029
			q_f																		
			F	7.6	-0.9R	8.1	-0.8R	8.3	-0.6R	8.5	-0.6R	8.6	-0.5R	8.7	-0.4R	8.7	-0.4R	8.8	-0.4R	8.8	-0.3R
		24"	q_a	846	1361	701	1128	626	1009	582	937	552	889	531	855	515	829	503	809	493	793
			q_f																		
			F	8.9	-1.4R	9.6	-1.2R	10	-1R	10.3	-0.9R	10.4	-0.8R	10.6	-0.7R	10.7	-0.7R	10.8	-0.6R	10.8	-0.6R
	18 ga	4"	q_a	1454	2340	1407	2265	1382	2225	1366	2199	1355	2182	1347	2169	1341	2159	1337	2142	1084	1735
			q_f																		
			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	1235	1988	1163	1872	1124	1809	1099	1770	1083	1743	1070	1723	1061	1709	1054	1697	1048	1688
			q_f																		
			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	-0.1R	5.4	+0R
		8"	q_a	1084	1745	995	1603	948	1526	918	1478	898	1446	883	1422	872	1404	863	1390	856	1379
			q_f																		
			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	900	1448	793	1277	736	1185	701	1129	677	1091	660	1063	647	1042	637	1025	629	1012
			q_f																		
			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	794	1448	638	1027	617	994	554	892	511	823	517	833	489	788	467	752	476	766
			q_f																		
			F	8.8	-1R	9.3	-0.9R	9.6	-0.7R	9.8	-0.6R	9.9	-0.5R	10	-0.5R	10.1	-0.4R	10.1	-0.4R	10.2	-0.4R
		24"	q_a	679	1094	544	876	480	773	442	711	416	670	398	641	384	618	373	601	365	588
			q_f																		
			F	10.2	-1.5R	11	-1.3R	11.5	-1.1R	11.8	-1R	12	-0.9R	12.1	-0.8R	12.2	-0.7R	12.3	-0.7R	12.4	-0.6R
	20 ga	4"	q_a	1080	1728	1039	1673	1012	1629	995	1602	983	1583	975	1570	968	1559	879	1406	712	1139
			q_f																		
			F	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	+0R	5.7	+0R	5.7	+0R	5.8	+0R	5.8	+0R	5.8	+0R
		6"	q_a	911	1467	841	1354	804	1294	780	1256	764	1230	753	1212	744	1198	737	1186	712	1139
			q_f																		
			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	798	1284	716	1153	673	1083	646	1040	627	1010	614	989	604	972	596	960	590	949
			q_f																		
			F	7.3	-0.3R	7.5	-0.3R	7.5	-0.2R	7.6	-0.2R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.7	-0.1R	7.7	-0.1R
		12"	q_a	666	1072	573	922	523	842	493	793	472	760	457	736	446	718	437	704	430	693
			q_f																		
			F	8.8	-0.7R	9.1	-0.5R	9.2	-0.4R	9.3	-0.4R	9.4	-0.3R	9.4	-0.3R	9.5	-0.2R	9.5	-0.2R	9.5	-0.2R
		18"	q_a	593	1072	459	739	438	706	388	625	355	571	358	576	336	542	320	515	325	524
			q_f																		
			F	10.7	-1.2R	11.3	-1R	11.6	-0.8R	11.8	-0.7R	11.9	-0.6R	12	-0.6R	12.1	-0.5R	12.2	-0.5R	12.2	-0.4R
		24"	q_a	506	815	397	639	344	555	313	504	292	470	277	446	266	428	257	414	250	403
			q_f																		
			F	12.3	-1.8R	13.2	-1.5R	13.8	-1.3R	14.1	-1.2R	14.3	-1R	14.5	-0.9R	14.6	-0.8R	14.7	-0.8R	14.8	-0.7R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	6.6	-0.1R	6.6	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R
		6"	q_a	747	1202	680	1096	645	1038	623	1003	608	978	597	961	588	947	582	937	545	872
			q_f																		
			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	7.8	-0.1R	7.8	-0.1R
		8"	q_a	654	1053	579	932	539	868	514	828	497	800	485	781	476	766	469	754	463	745
			q_f																		
			F	8.4	-0.4R	8.6	-0.3R	8.6	-0.2R	8.7	-0.2R	8.7	-0.2R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R
		12"	q_a	549	884	465	749	421	677	393	633	375	604	362	582	352	566	344	553	337	543
			q_f																		
			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	490	884	373	600	351	565	309	498	282	453	282	454	265	426	251	404	254	410
			q_f																		
			F	12.1	-1.3R	12.7	-1.1R	13.1	-0.9R	13.3	-0.8R	13.5	-0.7R	13.6	-0.6R	13.7	-0.6R	13.7	-0.5R	13.8	-0.5R
		24"	q_a	418	673	325	524	280	450	252	406	234	377	221	356	211	340	204	328	197	318
			q_f																		
			F	13.9	-1.9R	14.9	-1.7R	15.5	-1.5R	15.8	-1.3R	16.1	-1.1R	16.3	-1R	16.4	-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

N PANELS

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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	2147	3457	2068	3330	2025	3261	1998	3217	1980	3188	1966	3166	1956	3150	1856	2969	1503	2405
			q_f																		
			F	3.7	-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
		6"	q_a	1812	2918	1695	2728	1631	2626	1591	2562	1564	2518	1544	2486	1529	2462	1518	2443	1503	2405
			q_f																		
			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	-0.1R	4.5	+0R	4.5	+0R
		8"	q_a	1588	2557	1447	2329	1371	2207	1324	2131	1291	2079	1268	2041	1250	2013	1236	1990	1225	1972
			q_f																		
			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	1320	2126	1153	1857	1064	1714	1010	1625	972	1566	945	1522	925	1489	909	1464	896	1443
			q_f																		
			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	1169	2126	928	1494	894	1440	799	1286	733	1180	742	1195	701	1128	668	1075	679	1094
			q_f																		
			F	7.6	-0.9R	8.1	-0.8R	8.3	-0.6R	8.5	-0.6R	8.6	-0.5R	8.7	-0.4R	8.7	-0.4R	8.8	-0.4R	8.8	-0.3R
		24"	q_a	1006	1619	793	1277	696	1120	637	1026	598	963	570	918	550	885	533	859	520	838
			q_f																		
			F	8.9	-1.4R	9.6	-1.2R	10	-1R	10.3	-0.9R	10.4	-0.8R	10.6	-0.7R	10.7	-0.7R	10.8	-0.6R	10.8	-0.6R
	18 ga	4"	q_a	1663	2678	1588	2557	1547	2491	1522	2450	1504	2422	1492	2402	1482	2386	1339	2142	1084	1735
			q_f																		
			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	1393	2242	1287	2072	1230	1981	1195	1924	1171	1885	1153	1856	1140	1835	1129	1818	1084	1735
			q_f																		
			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	-0.1R	5.4	+0R
		8"	q_a	1219	1963	1096	1764	1030	1658	989	1592	961	1547	941	1515	926	1490	914	1471	904	1456
			q_f																		
			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	1017	1638	876	1410	801	1289	755	1215	723	1165	701	1128	684	1101	670	1079	660	1062
			q_f																		
			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	905	1638	703	1131	671	1080	595	957	543	875	548	883	516	830	490	790	499	803
			q_f																		
			F	8.8	-1R	9.3	-0.9R	9.6	-0.7R	9.8	-0.6R	9.9	-0.5R	10	-0.5R	10.1	-0.4R	10.1	-0.4R	10.2	-0.4R
		24"	q_a	781	1258	607	977	527	848	479	772	447	720	425	684	408	656	394	635	384	618
			q_f																		
			F	10.2	-1.5R	11	-1.3R	11.5	-1.1R	11.8	-1R	12	-0.9R	12.1	-0.8R	12.2	-0.7R	12.3	-0.7R	12.4	-0.6R
	20 ga	4"	q_a	1080	1728	1080	1728	1067	1718	1046	1684	1031	1660	1021	1643	1013	1630	879	1406	712	1139
			q_f																		
			F	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	+0R	5.7	+0R	5.7	+0R	5.8	+0R	5.8	+0R	5.8	+0R
		6"	q_a	969	1560	885	1425	840	1353	812	1308	793	1277	779	1255	769	1238	760	1224	712	1139
			q_f																		
			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	849	1366	753	1212	702	1130	671	1080	649	1045	634	1020	622	1001	613	986	605	974
			q_f																		
			F	7.3	-0.3R	7.5	-0.3R	7.5	-0.2R	7.6	-0.2R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.7	-0.1R	7.7	-0.1R
		12"	q_a	712	1146	604	973	548	882	513	826	489	788	472	760	459	740	449	723	441	710
			q_f																		
			F	8.8	-0.7R	9.1	-0.5R	9.2	-0.4R	9.3	-0.4R	9.4	-0.3R	9.4	-0.3R	9.5	-0.2R	9.5	-0.2R	9.5	-0.2R
		18"	q_a	637	1146	485	780	457	736	403	649	367	591	368	593	346	557	328	529	333	536
			q_f																		
			F	10.7	-1.2R	11.3	-1R	11.6	-0.8R	11.8	-0.7R	11.9	-0.6R	12	-0.6R	12.1	-0.5R	12.2	-0.5R	12.2	-0.4R
		24"	q_a	545	877	422	679	363	585	328	529	305	491	288	464	276	444	266	428	258	415
			q_f																		
			F	12.3	-1.8R	13.2	-1.5R	13.8	-1.3R	14.1	-1.2R	14.3	-1R	14.5	-0.9R	14.6	-0.8R	14.7	-0.8R	14.8	-0.7R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	6.6	-0.1R	6.6	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R
		6"	q_a	748	1204	682	1097	646	1040	624	1004	608	979	597	962	589	948	583	938	545	872
			q_f																		
			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	7.8	-0.1R	7.8	-0.1R
		8"	q_a	655	1055	580	933	540	869	515	829	498	801	485	782	476	767	469	755	463	746
			q_f																		
			F	8.4	-0.4R	8.6	-0.3R	8.6	-0.2R	8.7	-0.2R	8.7	-0.2R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R
		12"	q_a	550	886	466	750	421	678	394	634	375	604	362	583	352	566	344	554	338	544
			q_f																		
			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	490	886	374	602	352	566	310	499	282	454	282	455	265	426	251	405	255	410
			q_f																		
			F	12.1	-1.3R	12.7	-1.1R	13.1	-0.9R	13.3	-0.8R	13.5	-0.7R	13.6	-0.6R	13.7	-0.6R	13.7	-0.5R	13.8	-0.5R
		24"	q_a	419	675	326	525	280	451	253	407	234	377	221	356	211	340	204	328	198	318
			q_f																		
			F	13.9	-1.9R	14.9	-1.7R	15.5	-1.5R	15.8	-1.3R	16.1	-1.1R	16.3	-1R	16.4	-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

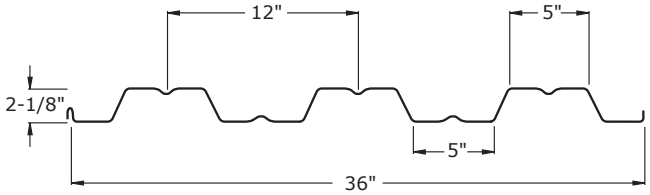
Diaphragm Shear in pounds per linear foot (plf)

PNEUTEK

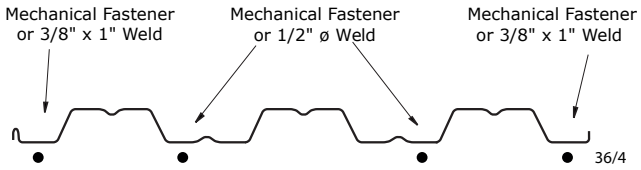
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a	2289	3686	2190	3526	2136	3439	2103	3385	2079	3348	2063	3321	2050	3300	1856	2969	1503	2405
			q_f																		
			F	3.7	-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
		6"	q_a	1920	3091	1779	2863	1703	2741	1655	2665	1623	2613	1599	2575	1581	2546	1567	2523	1503	2405
			q_f																		
			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	-0.1R	4.5	+0R	4.5	+0R
		8"	q_a	1681	2706	1515	2439	1426	2296	1371	2208	1334	2147	1307	2104	1286	2070	1270	2044	1257	2024
			q_f																		
			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	1401	2256	1210	1948	1109	1785	1046	1684	1004	1616	973	1567	950	1529	932	1500	917	1477
			q_f																		
			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	1245	2256	971	1563	930	1497	825	1328	754	1215	762	1227	717	1154	682	1098	695	1118
			q_f																		
			F	7.6	-0.9R	8.1	-0.8R	8.3	-0.6R	8.5	-0.6R	8.6	-0.5R	8.7	-0.4R	8.7	-0.4R	8.8	-0.4R	8.8	-0.3R
		24"	q_a	1080	1738	837	1347	728	1172	663	1068	620	998	589	948	566	911	548	882	533	859
			q_f																		
			F	8.9	-1.4R	9.6	-1.2R	10	-1R	10.3	-0.9R	10.4	-0.8R	10.6	-0.7R	10.7	-0.7R	10.8	-0.6R	10.8	-0.6R
	18 ga	4"	q_a	1708	2749	1625	2617	1581	2545	1553	2500	1534	2469	1520	2447	1509	2430	1339	2142	1084	1735
			q_f																		
			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	1427	2297	1313	2114	1252	2016	1214	1954	1188	1913	1169	1882	1155	1859	1144	1841	1084	1735
			q_f																		
			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	-0.1R	5.4	+0R
		8"	q_a	1249	2011	1118	1799	1047	1686	1004	1616	974	1568	953	1534	936	1508	924	1487	913	1471
			q_f																		
			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	1044	1681	894	1440	815	1312	766	1234	733	1181	710	1142	691	1113	677	1091	666	1072
			q_f																		
			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	931	1681	717	1155	682	1098	603	971	551	887	554	893	521	839	495	797	503	810
			q_f																		
			F	8.8	-1R	9.3	-0.9R	9.6	-0.7R	9.8	-0.6R	9.9	-0.5R	10	-0.5R	10.1	-0.4R	10.1	-0.4R	10.2	-0.4R
		24"	q_a	804	1294	621	1000	538	866	488	786	455	732	431	694	413	665	399	643	388	625
			q_f																		
			F	10.2	-1.5R	11	-1.3R	11.5	-1.1R	11.8	-1R	12	-0.9R	12.1	-0.8R	12.2	-0.7R	12.3	-0.7R	12.4	-0.6R
	20 ga	4"	q_a	1080	1728	1080	1728	1078	1728	1056	1700	1041	1676	1030	1658	1022	1645	879	1406	712	1139
			q_f																		
			F	5.7	-0.1R	5.7	-0.1R	5.7	-0.1R	5.7	+0R	5.7	+0R	5.7	+0R	5.8	+0R	5.8	+0R	5.8	+0R
		6"	q_a	981	1580	894	1440	848	1365	819	1318	799	1286	785	1263	774	1246	765	1232	712	1139
			q_f																		
			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	859	1384	761	1225	708	1140	676	1088	654	1052	638	1027	626	1007	616	992	608	980
			q_f																		
			F	7.3	-0.3R	7.5	-0.3R	7.5	-0.2R	7.6	-0.2R	7.6	-0.1R	7.6	-0.1R	7.6	-0.1R	7.7	-0.1R	7.7	-0.1R
		12"	q_a	722	1162	611	984	553	890	517	833	493	794	475	765	462	744	452	728	444	714
			q_f																		
			F	8.8	-0.7R	9.1	-0.5R	9.2	-0.4R	9.3	-0.4R	9.4	-0.3R	9.4	-0.3R	9.5	-0.2R	9.5	-0.2R	9.5	-0.2R
		18"	q_a	647	1162	490	789	461	743	407	655	370	596	371	597	348	560	330	532	335	539
			q_f																		
			F	10.7	-1.2R	11.3	-1R	11.6	-0.8R	11.8	-0.7R	11.9	-0.6R	12	-0.6R	12.1	-0.5R	12.2	-0.5R	12.2	-0.4R
		24"	q_a	554	891	428	688	368	592	332	534	308	495	290	468	278	447	268	431	260	418
			q_f																		
			F	12.3	-1.8R	13.2	-1.5R	13.8	-1.3R	14.1	-1.2R	14.3	-1R	14.5	-0.9R	14.6	-0.8R	14.7	-0.8R	14.8	-0.7R
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
			q_f																		
			F	6.6	-0.1R	6.6	-0.1R	6.7	-0.1R	6.7	-0.1R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R
		6"	q_a	771	1233	701	1129	662	1065	637	1026	621	999	609	980	599	965	592	954	545	872
			q_f																		
			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	7.8	-0.1R	7.8	-0.1R
		8"	q_a	679	1093	597	961	553	890	526	846	507	817	494	795	484	779	476	766	470	756
			q_f																		
			F	8.4	-0.4R	8.6	-0.3R	8.6	-0.2R	8.7	-0.2R	8.7	-0.2R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R	8.8	-0.1R
		12"	q_a	572	921	481	774	432	695	403	648	383	617	369	594	358	576	349	563	343	552
			q_f																		
			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	509	921	386	621	361	581	317	510	288	464	288	463	269	434	255	411	258	416
			q_f																		
			F	12.1	-1.3R	12.7	-1.1R	13.1	-0.9R	13.3	-0.8R	13.5	-0.7R	13.6	-0.6R	13.7	-0.6R	13.7	-0.5R	13.8	-0.5R
		24"	q_a	438	704	338	545	289	466	260	419	240	387	226	365	216	348	208	335	201	324
			q_f																		
			F	13.9	-1.9R	14.9	-1.7R	15.5	-1.5R	15.8	-1.3R	16.1	-1.1R	16.3	-1R	16.4	-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

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	1.94	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			
								Uniform Load Only	
	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	$I_d = (2I_e+I_g)/3$	
	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

Gage	Condition	Bearing Length of Webs							
		ASD, R/Ω				LRFD, ϕR			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	316	393	503	588	483	602	770	899
	Interior	528	638	792	911	786	948	1178	1355
21	End	403	499	636	741	616	764	973	1133
	Interior	675	810	1001	1148	1004	1205	1489	1708
20	End	450	556	707	822	688	851	1081	1258
	Interior	755	903	1114	1275	1123	1344	1657	1897
19	End	633	777	980	1137	968	1188	1500	1739
	Interior	1066	1266	1549	1766	1585	1883	2304	2627
18	End	781	954	1199	1387	1195	1460	1835	2122
	Interior	1319	1559	1898	2158	1961	2318	2823	3211
16	End	1194	1445	1800	2072	1827	2211	2754	3170
	Interior	2027	2373	2862	3237	3015	3530	4257	4815
	Constants		h = 2.16"		r = 0.125"		θ = 64°		

DG2WH-36 & 2WH-36 4.1

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	556	165	69	36	21	13	9	6	4
		L/240	833	247	104	53	31	19	13	9	7
		L/180	1111	329	139	71	41	26	17	12	9
		L/120	1667	494	208	107	62	39	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	435	129	54	28	16	10	7	5	3
		L/240	653	193	82	42	24	15	10	7	5
		L/180	871	258	109	56	32	20	14	10	7
		L/120	1306	387	163	84	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	645	191	81	41	24	15	10	7	5
		L/240	968	287	121	62	36	23	15	11	8
		L/180	1290	382	161	83	48	30	20	14	10
		L/120	1936	573	242	124	72	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	505	150	63	32	19	12	8	6	4
		L/240	758	225	95	49	28	18	12	8	6
		L/180	1011	300	126	65	37	24	16	11	8
		L/120	1516	449	190	97	56	35	24	17	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	711	211	89	46	26	17	11	8	6
		L/240	1066	316	133	68	39	25	17	12	9
		L/180	1422	421	178	91	53	33	22	16	11
		L/120	2133	632	267	137	79	50	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	557	165	70	36	21	13	9	6	4
		L/240	835	248	104	53	31	19	13	9	7
		L/180	1114	330	139	71	41	26	17	12	9
		L/120	1671	495	209	107	62	39	26	18	13

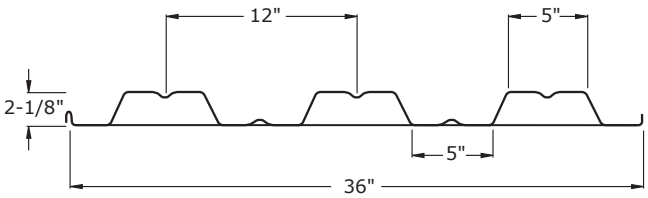
4.1 DG2WH-36 & 2WH-36

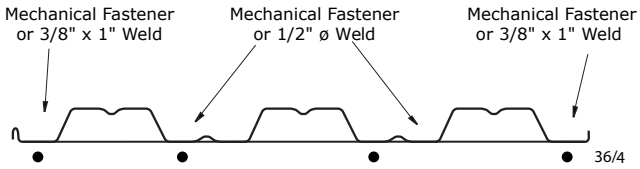
ASC STEEL DECK

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	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	833	247	104	53	31	19	13	9	7
		L/240	1250	370	156	80	46	29	20	14	10
		L/180	1667	494	208	107	62	39	26	18	13
		L/120	2500	741	313	160	93	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	653	193	82	42	24	15	10	7	5
		L/240	979	290	122	63	36	23	15	11	8
		L/180	1306	387	163	84	48	30	20	14	10
		L/120	1959	580	245	125	73	46	31	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: Compression Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Effective Section Properties at Service Load for Deflection: 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

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	2"	4"	6"	LRFD, ϕR 1"	2"	4"	6"
22	End	316	393	503	588	483	602	770	899
	Interior	528	638	792	911	786	948	1178	1355
21	End	403	499	636	741	616	764	973	1133
	Interior	675	810	1001	1148	1004	1205	1489	1708
20	End	450	556	707	822	688	851	1081	1258
	Interior	755	903	1114	1275	1123	1344	1657	1897
19	End	633	777	980	1137	968	1188	1500	1739
	Interior	1066	1266	1549	1766	1585	1883	2304	2627
18	End	781	954	1199	1387	1195	1460	1835	2122
	Interior	1319	1559	1898	2158	1961	2318	2823	3211
16	End	1194	1445	1800	2072	1827	2211	2754	3170
	Interior	2027	2373	2862	3237	3015	3530	4257	4815

Constants h = 2.16" r = 0.125" θ = 64°

4.2 DG2WHF-36 & 2WHF-36

ASC STEEL DECK

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	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	1225	363	153	78	45	29	19	13	10
		L/240	1838	544	230	118	68	43	29	20	15
		L/180	2450	726	306	157	91	57	38	27	20
		L/120	3675	1089	459	235	136	86	57	40	29
	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	960	284	120	61	36	22	15	11	8
		L/240	1440	427	180	92	53	34	22	16	12
		L/180	1919	569	240	123	71	45	30	21	15
		L/120	2879	853	360	184	107	67	45	32	23
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	1300	385	163	83	48	30	20	14	10
		L/240	1950	578	244	125	72	45	30	21	16
		L/180	2601	771	325	166	96	61	41	29	21
		L/120	3901	1156	488	250	144	91	61	43	31
	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	1019	302	127	65	38	24	16	11	8
		L/240	1528	453	191	98	57	36	24	17	12
		L/180	2037	604	255	130	75	48	32	22	16
		L/120	3056	905	382	196	113	71	48	34	24
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	1369	406	171	88	51	32	21	15	11
		L/240	2053	608	257	131	76	48	32	23	16
		L/180	2737	811	342	175	101	64	43	30	22
		L/120	4106	1217	513	263	152	96	64	45	33
	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	1072	318	134	69	40	25	17	12	9
		L/240	1608	477	201	103	60	38	25	18	13
		L/180	2144	635	268	137	79	50	34	24	17
		L/120	3217	953	402	206	119	75	50	35	26

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	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	1579	468	197	101	58	37	25	17	13
		L/240	2369	702	296	152	88	55	37	26	19
		L/180	3159	936	395	202	117	74	49	35	25
		L/120	4738	1404	592	303	175	111	74	52	38
	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	1237	367	155	79	46	29	19	14	10
		L/240	1856	550	232	119	69	43	29	20	15
		L/180	2474	733	309	158	92	58	39	27	20
		L/120	3712	1100	464	238	137	87	58	41	30
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	1684	499	210	108	62	39	26	18	13
		L/240	2526	748	316	162	94	59	39	28	20
		L/180	3367	998	421	216	125	79	53	37	27
		L/120	5051	1497	631	323	187	118	79	55	40
	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	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
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	1779	527	222	114	66	41	28	20	14
		L/240	2668	791	334	171	99	62	42	29	21
		L/180	3558	1054	445	228	132	83	56	39	28
		L/120	5337	1581	667	342	198	124	83	59	43
	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	1394	413	174	89	52	33	22	15	11
		L/240	2090	619	261	134	77	49	33	23	17
		L/180	2787	826	348	178	103	65	44	31	22
		L/120	4181	1239	523	268	155	98	65	46	33

4.2 DG2WHF-36 & 2WHF-36

ASC STEEL DECK

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

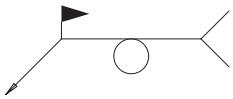
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	972	432	243	155	108	79	61	48	39
		Φf_b	1460	649	365	234	162	119	91	72	58
		L/360	790	234	99	51	29	18	12	9	6
		L/240	1185	351	148	76	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	1903	564	238	122	70	44	30	21	15
		L/240	2854	846	357	183	106	67	45	31	23
		L/180	3805	1128	476	244	141	89	59	42	30
		L/120	5708	1691	714	365	211	133	89	63	46
	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	1491	442	186	95	55	35	23	16	12
		L/240	2236	662	279	143	83	52	35	25	18
		L/180	2981	883	373	191	110	70	47	33	24
		L/120	4472	1325	559	286	166	104	70	49	36
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	2028	601	254	130	75	47	32	22	16
		L/240	3042	901	380	195	113	71	48	33	24
		L/180	4056	1202	507	260	150	95	63	45	32
		L/120	6085	1803	761	389	225	142	95	67	49
	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	1589	471	199	102	59	37	25	17	13
		L/240	2383	706	298	153	88	56	37	26	19
		L/180	3178	942	397	203	118	74	50	35	25
		L/120	4767	1412	596	305	177	111	74	52	38
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	2145	636	268	137	79	50	34	24	17
		L/240	3218	953	402	206	119	75	50	35	26
		L/180	4291	1271	536	275	159	100	67	47	34
		L/120	6436	1907	804	412	238	150	101	71	51
	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	1681	498	210	108	62	39	26	18	13
		L/240	2521	747	315	161	93	59	39	28	20
		L/180	3361	996	420	215	124	78	53	37	27
		L/120	5042	1494	630	323	187	118	79	55	40

ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.3

Arc Spot/Seam Welds to Supports with DeltaGrip® 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	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3906	2080	3328	1794	2870
			q_f																		
			F	3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 +0R		3 +0R		3 +0R	
		6"	q_a	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2421	3906	2080	3328	1794	2870
			q_f																		
			F	3.5 -0.2R		3.5 -0.2R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R	
		8"	q_a	2421	3994	2421	3994	2420	3993	2421	3994	2396	3953	2416	3986	2379	3906	2080	3328	1794	2870
			q_f																		
			F	3.9 -0.3R		4 -0.2R		4 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R	
		12"	q_a	2077	3428	2041	3368	2014	3322	1991	3286	1973	3256	1958	3231	1945	3210	1935	3192	1794	2870
			q_f																		
			F	4.7 -0.5R		4.8 -0.5R		4.9 -0.4R		5 -0.4R		5 -0.4R		5.1 -0.4R		5.1 -0.3R		5.1 -0.3R		5.2 -0.3R	
		18"	q_a	1696	3428	1711	2823	1722	2841	1578	2604	1602	2643	1620	2674	1516	2502	1540	2540	1559	2573
			q_f																		
			F	5.8 -0.8R		5.9 -0.8R		6.1 -0.8R		6.2 -0.7R		6.3 -0.7R		6.4 -0.7R		6.4 -0.6R		6.5 -0.6R		6.6 -0.6R	
		24"	q_a	1458	2405	1510	2492	1357	2239	1411	2329	1294	2135	1346	2220	1251	2064	1299	2143	1220	2013
			q_f																		
			F	6.6 -1.2R		6.9 -1.2R		7.1 -1.1R		7.3 -1.1R		7.4 -1.1R		7.5 -1R		7.7 -1R		7.8 -1R		7.8 -0.9R	
	18 ga	4"	q_a	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1734	2774	1477	2364	1274	2038
			q_f																		
			F	4 -0.2R		4.1 -0.2R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R	
		6"	q_a	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1734	2774	1477	2364	1274	2038
			q_f																		
			F	4.8 -0.3R		4.8 -0.3R		4.9 -0.3R		4.9 -0.3R		4.9 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R	
		8"	q_a	1753	2893	1766	2914	1713	2827	1729	2852	1688	2786	1704	2811	1671	2757	1477	2364	1274	2038
			q_f																		
			F	5.4 -0.5R		5.5 -0.5R		5.6 -0.4R		5.7 -0.4R		5.7 -0.4R		5.8 -0.4R		5.8 -0.3R		5.8 -0.3R		5.8 -0.3R	
		12"	q_a	1452	2396	1418	2340	1393	2298	1372	2264	1355	2236	1342	2213	1330	2194	1320	2178	1274	2038
			q_f																		
			F	6.5 -0.9R		6.7 -0.8R		6.9 -0.8R		7 -0.8R		7.1 -0.7R		7.2 -0.7R		7.3 -0.7R		7.3 -0.6R		7.4 -0.6R	
		18"	q_a	1175	2396	1178	1944	1180	1947	1074	1772	1087	1793	1096	1809	1021	1685	1035	1708	1047	1727
			q_f																		
			F	7.9 -1.4R		8.2 -1.4R		8.4 -1.4R		8.7 -1.3R		8.9 -1.3R		9 -1.2R		9.2 -1.2R		9.3 -1.2R		9.4 -1.1R	
		24"	q_a	1011	1669	1039	1714	928	1531	959	1583	876	1445	907	1497	840	1387	870	1436	815	1345
			q_f																		
			F	8.9 -1.9R		9.3 -1.9R		9.7 -1.9R		10 -1.9R		10.3 -1.8R		10.6 -1.8R		10.8 -1.8R		11 -1.7R		11.2 -1.7R	
	20 ga	4"	q_a	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1845	983	1572	847	1356
			q_f																		
			F	5.9 -0.4R		6 -0.4R		6 -0.3R		6.1 -0.3R		6.1 -0.3R		6.1 -0.3R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R	
		6"	q_a	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1119	1845	983	1572	847	1356
			q_f																		
			F	7 -0.7R		7.1 -0.7R		7.3 -0.6R		7.3 -0.6R		7.4 -0.5R		7.5 -0.5R		7.5 -0.5R		7.6 -0.5R		7.6 -0.4R	
		8"	q_a	1031	1702	1039	1714	1006	1660	1015	1675	990	1634	999	1649	980	1616	983	1572	847	1356
			q_f																		
			F	7.9 -1R		8.2 -1R		8.3 -0.9R		8.5 -0.9R		8.6 -0.9R		8.7 -0.8R		8.8 -0.8R		8.9 -0.7R		8.9 -0.7R	
		12"	q_a	851	1404	830	1370	814	1344	802	1323	791	1306	783	1292	776	1280	769	1269	764	1261
			q_f																		
			F	9.5 -1.6R		9.8 -1.6R		10.1 -1.6R		10.4 -1.5R		10.6 -1.5R		10.8 -1.5R		11 -1.4R		11.1 -1.4R		11.3 -1.3R	
		18"	q_a	688	1404	689	1136	689	1137	627	1034	633	1045	639	1054	594	980	602	993	609	1004
			q_f																		
			F	11.1 -2.4R		11.7 -2.5R		12.2 -2.5R		12.7 -2.5R		13.1 -2.4R		13.4 -2.4R		13.7 -2.4R		14 -2.3R		14.2 -2.3R	
		24"	q_a	593	978	607	1002	542	894	560	923	510	842	528	871	489	807	506	835	474	781
			q_f																		
			F	12.3 -3.1R		13.1 -3.2R		13.8 -3.2R		14.4 -3.3R		15 -3.3R		15.5 -3.3R		15.9 -3.3R		16.3 -3.3R		16.7 -3.2R	
	22 ga	4"	q_a	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	714	1142	615	984
			q_f																		
			F	7.9 -0.7R		8 -0.6R		8.1 -0.6R		8.2 -0.6R		8.3 -0.5R		8.3 -0.5R		8.4 -0.5R		8.4 -0.5R		8.5 -0.4R	
		6"	q_a	774	1277	774	1276	768	1267	764	1260	760	1254	757	1249	754	1245	714	1142	615	984
			q_f																		
			F	9.3 -1.2R		9.6 -1.1R		9.8 -1.1R		10 -1R		10.1 -1R		10.2 -0.9R		10.3 -0.9R		10.4 -0.9R		10.5 -0.8R	
		8"	q_a	695	1146	699	1154	676	1116	682	1125	665	1097	671	1106	657	1083	662	1093	615	984
			q_f																		
			F	10.5 -1.7R		10.9 -1.6R		11.2 -1.6R		11.5 -1.5R		11.7 -1.5R		11.9 -1.4R		12 -1.4R		12.2 -1.3R		12.3 -1.3R	
		12"	q_a	571	942	556	917	545	898	535	883	528	871	522	861	517	852	512	845	508	839
			q_f																		
			F	12.4 -2.5R		13 -2.5R		13.5 -2.5R		13.9 -2.5R		14.3 -2.5R		14.7 -2.4R		15 -2.4R		15.2 -2.3R		15.5 -2.3R	
		18"	q_a	461	942	461	760	460	759	418	689	422	696	425	701	395	651	400	660	404	666
			q_f																		
			F	14.2 -3.5R		15.1 -3.6R		15.9 -3.7R		16.7 -3.8R		17.3 -3.8R		17.9 -3.8R		18.4 -3.8R		18.8 -3.8R		19.2 -3.7R	
		24"	q_a	398	656	406	670	362	598	373	616	340	561	351	580	325	536	336	554	314	519
			q_f																		
			F	15.5 -4.2R		16.7 -4.4R		17.7 -4.6R		18.6 -4.8R		19.5 -4.9R		20.3 -5R		21 -5R		21.6 -5R		22.2 -5.1R	

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

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4.4 DG2WH-36 & DG2WHF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979
			q_f	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576
			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	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	972	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971
			q_f	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564
			F	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R
		8"	q_a	961	963	961	963	961	961	963	961	962	961	961	962	961	962	961	962	961	961
			q_f	1548	1551	1547	1550	1547	1549	1547	1548	1546									
			F	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		12"	q_a	935	934	934	933	933	933	933	933	933	933	933	933	933	933	933	933	933	932
			q_f	1505	1504	1503	1503	1502	1502	1502	1502	1501	1501								
			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	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
		18"	q_a	885	894	900	881	888	894	879	885	890									
			q_f	1505	1440	1450	1419	1430	1439	1416	1425	1433									
			F	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R
		24"	q_a	830	856	825	847	822	841	820	836	818									
			q_f	1337	1378	1328	1363	1323	1353	1320	1346	1317									
			F	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R
	18 ga	4"	q_a	773	773	773	773	773	773	773	773	773	773	773	773	773	773	773	773	773	773
			q_f	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245
			F	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	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	764	764	764	764	764	763	763	763	763									
			q_f	1230	1230	1230	1229	1229	1229	1229	1229	1229									
			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	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
		8"	q_a	752	754	751	753	751	752	751	752	750									
			q_f	1210	1214	1209	1212	1209	1211	1209	1211	1208									
			F	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R
		12"	q_a	721	720	720	719	719	718	718	718	718									
			q_f	1161	1160	1159	1158	1157	1157	1156	1156	1155									
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R
		18"	q_a	668	677	683	663	670	676	660	666	671									
			q_f	1161	1090	1100	1067	1079	1088	1063	1072	1080									
			F	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R
		24"	q_a	613	637	607	628	603	621	600	616	598									
			q_f	987	1026	977	1010	971	1000	966	992	963									
			F	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R
	20 ga	4"	q_a	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581
			q_f	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936
			F	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R
		6"	q_a	570	570	569	569	569	569	569	569	569	569	569	569	569	569	569	569	569	569
			q_f	917	917	917	916	916	916	916	916	916	916	916	916	916	916	916	916	916	916
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R
		8"	q_a	555	558	554	556	554	556	553	555	553									
			q_f	894	898	892	896	892	894	891	893	891									
			F	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R
		12"	q_a	521	519	518	518	517	517	516	516	515									
			q_f	838	836	835	833	832	832	831	830	830									
			F	13.3 +0R	13.3 +0R	13.3 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R	13.4 +0R
		18"	q_a	466	474	480	460	467	472	456	462	467									
			q_f	838	764	773	740	751	760	735	744	752									
			F	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R
		24"	q_a	417	437	410	427	405	420	402	416	400									
			q_f	671	704	659	688	652	677	647	669	643									
			F	23.6 -0.1R	23.6 -0.1R	23.7 -0.1R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R	23.7 +0R
	22 ga	4"	q_a	466	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465
			q_f	749	749	749	749	749	749	749	749	749	749	749	749	749	749	749	749	749	749
			F	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R
		6"	q_a	452	452	451	451	451	451	451	451	451	451	451	451	451	451	451	451	451	451
			q_f	728	727	727	727	726	726	726	726	726	726	726	726	726	726	726	726	726	726
			F	11.6 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R
		8"	q_a	436	438	434	437	434	436	433	435	433									
			q_f	701	705	700	703	698	701	698	700	697									
			F	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R
		12"	q_a	399	398	397	396	395	394	394	393	393									
			q_f	643	641	639	637	636	635	634	633	633									
			F	19.5 +0R	19.5 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R	19.6 +0R
		18"	q_a	347	354	359	340	346	351	337	342	346									
			q_f	643	571	579	548	558	565	542	550	557									
			F	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.5 -0.1R	27.5 -0.1R	27.5 -0.1R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R	27.5 +0R
		24"	q_a	305	321	297	312	293	305	289	301	287									
			q_f	491	517	478	502	471	491	466	484	462									
			F	35.2 -0.2R	35.3 -0.2R	35.3 -0.1R	35.3 -0.1R	35.3 -0.1R	35.3 -0.1R	35.3 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R	35.4 -0.1R

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

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ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.4

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	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	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R		3.7 +0R	
		8"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R		4.3 +0R	
		12"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			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	
		18"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R		7.4 +0R	
		24"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f																		
			F	9.3 +0R		9.3 +0R		9.3 +0R		9.3 +0R		9.3 +0R		9.3 +0R		9.3 +0R		9.3 +0R		9.3 +0R	
	18 ga	4"	q_a	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			q_f																		
			F	4.3 +0R		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	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			q_f																		
			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	
		8"	q_a	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			q_f																		
			F	6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R		6.2 +0R	
		12"	q_a	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			q_f																		
			F	8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R	
		18"	q_a	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258	781	1258
			q_f																		
			F	11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R	
		24"	q_a	744	1198	777	1250	729	1173	757	1219	719	1157	744	1198	712	1146	735	1183	707	1138
			q_f																		
			F	14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R	
	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	6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R		6.5 +0R	
		6"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R		8.2 +0R	
		8"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R	
		12"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f																		
			F	13.3 +0R		13.3 +0R		13.3 +0R		13.3 +0R		13.3 +0R		13.3 +0R		13.3 +0R		13.4 +0R		13.4 +0R	
		18"	q_a	566	953	576	927	582	938	550	886	559	900	566	911	542	872	550	885	556	895
			q_f																		
			F	18.5 -0.1R		18.5 -0.1R		18.5 +0R		18.5 +0R		18.5 +0R		18.5 +0R		18.5 +0R		18.5 +0R		18.5 +0R	
		24"	q_a	499	803	522	841	482	776	504	811	472	760	491	791	465	749	482	777	460	740
			q_f																		
			F	23.6 -0.1R		23.6 -0.1R		23.6 -0.1R		23.6 -0.1R		23.6 -0.1R		23.7 -0.1R		23.7 -0.1R		23.7 +0R		23.7 +0R	
	22 ga	4"	q_a	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			q_f																		
			F	9 +0R		9 +0R		9 +0R		9 +0R		9 +0R		9 +0R		9 +0R		9 +0R		9 +0R	
		6"	q_a	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			q_f																		
			F	11.6 +0R		11.6 +0R		11.6 +0R		11.6 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R	
		8"	q_a	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770	478	770
			q_f																		
			F	14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R		14.3 +0R	
		12"	q_a	478	770	478	770	478	770	478	770	478	770	478	770	477	767	475	765	474	764
			q_f																		
			F	19.5 -0.1R		19.5 -0.1R		19.5 -0.1R		19.5 -0.1R		19.5 +0R		19.5 +0R		19.6 +0R		19.6 +0R		19.6 +0R	
		18"	q_a	417	770	424	682	429	690	400	645	407	656	413	665	392	631	398	641	403	649
			q_f																		
			F	27.3 -0.2R		27.4 -0.1R		27.4 -0.1R		27.4 -0.1R		27.4 -0.1R		27.4 -0.1R		27.4 -0.1R		27.4 -0.1R		27.4 -0.1R	
		24"	q_a	362	584	380	611	347	558	363	584	337	543	351	566	330	532	343	553	325	524
			q_f																		
			F	35.1 -0.3R		35.2 -0.3R		35.2 -0.2R		35.2 -0.2R		35.3 -0.2R		35.3 -0.2R		35.3 -0.2R		35.3 -0.1R		35.3 -0.1R	

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

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4.4 DG2WH-36 & DG2WHF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			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	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	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R	3.7 +0R
		8"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R
		12"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			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	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
		18"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R	7.4 +0R
		24"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R	9.3 +0R
	18 ga	4"	q_a	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			F	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	4.3 +0R	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	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			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	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
		8"	q_a	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			F	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R	6.2 +0R
		12"	q_a	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R
		18"	q_a	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			F	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R
		24"	q_a	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			F	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R
	20 ga	4"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R	6.5 +0R
		6"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R	8.2 +0R
		8"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R
		12"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R	13.3 +0R
		18"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	18.5 -0.1R	18.5 -0.1R	18.5 -0.1R	18.5 -0.1R	18.5 -0.1R	18.5 -0.1R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R	18.5 +0R
		24"	q_a	581	592	554	583	537	563	526	549	518									
			q_f	935	953	892	939	865	907	847	884	834									
			F	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R	23.6 -0.1R									
	22 ga	4"	q_a	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478
			q_f	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770
			F	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R
		6"	q_a	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478
			q_f	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770
			F	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.6 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R
		8"	q_a	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478
			q_f	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770
			F	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R	14.3 +0R
		12"	q_a	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478	478
			q_f	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770
			F	19.5 -0.1R	19.5 -0.1R	19.5 -0.1R	19.5 -0.1R	19.5 -0.1R	19.5 -0.1R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R	19.5 +0R
		18"	q_a	478	478	478	478	478	462	471	478	447	455	462							
			q_f	770	770	770	770	770	743	758	770	720	733	745							
			F	27.3 -0.2R	27.3 -0.2R	27.3 -0.2R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R	27.4 -0.1R							
		24"	q_a	414	435	390	410	375	393	365	381	358									
			q_f	666	700	628	660	604	633	588	614	577									
			F	35 -0.4R	35.1 -0.3R	35.1 -0.3R	35.2 -0.3R	35.2 -0.2R	35.2 -0.2R	35.2 -0.2R	35.3 -0.2R	35.3 -0.2R									

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ASC STEEL DECK

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Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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 →	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	1258	1258	1258	1258	1257	1257	1257	1257	1257	1257	1257	1257	1257	1257	1257	1257	1257	1257
			q_f	2025	2025	2025	2025	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
			F	3 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1242	1242	1242	1242	1241	1241	1241	1241	1241	1241	1241	1241	1241	1241	1241	1241	1241	1241
			q_f	1999	1999	1999	1999	1999	1999	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
			F	3.5 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R	
		8"	q_a	1221	1225	1220	1223	1220	1222	1219	1222	1219	1219	1219	1219	1219	1219	1219	1219	1219	1219
			q_f	1966	1972	1965	1969	1964	1968	1963	1967	1963	1963	1963	1963	1963	1963	1963	1963	1963	1963
			F	4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.1R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R	
		12"	q_a	1170	1168	1167	1166	1166	1165	1165	1164	1164	1164	1164	1164	1164	1164	1164	1164	1164	1164
			q_f	1883	1881	1879	1878	1877	1876	1875	1874	1874	1874	1874	1874	1874	1874	1874	1874	1874	1874
			F	5 -0.4R		5.1 -0.3R		5.1 -0.3R		5.2 -0.3R		5.2 -0.3R		5.2 -0.3R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R	
		18"	q_a	1080	1095	1106	1072	1084	1093	1067	1077	1086	1086	1086	1086	1086	1086	1086	1086	1086	1086
			q_f	1883	1764	1780	1725	1745	1760	1718	1735	1748	1748	1748	1748	1748	1748	1748	1748	1748	1748
			F	6.3 -0.7R		6.4 -0.7R		6.5 -0.6R		6.6 -0.6R		6.7 -0.5R		6.7 -0.5R		6.8 -0.5R		6.8 -0.4R		6.9 -0.4R	
		24"	q_a	990	1030	980	1014	973	1003	968	994	965	965	965	965	965	965	965	965	965	965
			q_f	1594	1658	1577	1632	1566	1614	1559	1601	1554	1554	1554	1554	1554	1554	1554	1554	1554	1554
			F	7.4 -1.1R		7.6 -1R		7.8 -0.9R		7.9 -0.9R		8 -0.8R		8.1 -0.8R		8.2 -0.8R		8.3 -0.7R		8.3 -0.7R	
	18 ga	4"	q_a	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003
			q_f	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615	1615
			F	4.1 -0.1R		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	984	983	983	983	983	982	982	982	982	982	982	982	982	982	982	982	982	982
			q_f	1584	1583	1583	1582	1582	1582	1582	1581	1581	1581	1581	1581	1581	1581	1581	1581	1581	1581
			F	4.9 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R	
		8"	q_a	959	963	957	961	957	960	956	959	956	956	956	956	956	956	956	956	956	956
			q_f	1544	1550	1541	1547	1540	1545	1539	1543	1538	1538	1538	1538	1538	1538	1538	1538	1538	1538
			F	5.7 -0.4R		5.8 -0.4R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R	
		12"	q_a	900	898	896	895	894	893	893	892	892	892	892	892	892	892	892	892	892	892
			q_f	1449	1446	1443	1441	1440	1438	1437	1436	1435	1435	1435	1435	1435	1435	1435	1435	1435	1435
			F	7.1 -0.7R		7.2 -0.7R		7.3 -0.6R		7.4 -0.6R		7.5 -0.5R		7.6 -0.5R		7.6 -0.5R		7.6 -0.5R		7.7 -0.4R	
		18"	q_a	807	821	831	796	808	817	790	800	808	808	808	808	808	808	808	808	808	808
			q_f	1449	1322	1338	1282	1301	1315	1273	1289	1302	1302	1302	1302	1302	1302	1302	1302	1302	1302
			F	8.8 -1.3R		9.1 -1.2R		9.3 -1.2R		9.5 -1.1R		9.6 -1R		9.8 -1R		9.9 -0.9R		9.9 -0.9R		10 -0.9R	
		24"	q_a	722	757	710	740	702	729	697	720	693	693	693	693	693	693	693	693	693	693
			q_f	1163	1219	1143	1192	1131	1173	1122	1160	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116
			F	10.3 -1.8R		10.7 -1.8R		11 -1.7R		11.3 -1.6R		11.5 -1.6R		11.7 -1.5R		11.9 -1.5R		12 -1.4R		12.2 -1.4R	
	20 ga	4"	q_a	759	759	759	759	759	759	759	759	759	759	759	759	759	759	759	759	759	759
			q_f	1223	1222	1222	1222	1222	1222	1222	1221	1221	1221	1221	1221	1221	1221	1221	1221	1221	1221
			F	6.1 -0.3R		6.2 -0.3R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R	
		6"	q_a	735	734	734	733	733	733	733	732	732	732	732	732	732	732	732	732	732	732
			q_f	1183	1182	1181	1181	1180	1180	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179
			F	7.4 -0.6R		7.5 -0.5R		7.6 -0.5R		7.6 -0.4R		7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.8 -0.3R	
		8"	q_a	705	710	703	707	702	705	701	704	700	700	700	700	700	700	700	700	700	700
			q_f	1136	1143	1132	1138	1130	1135	1128	1133	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
			F	8.6 -0.9R		8.7 -0.8R		8.9 -0.7R		9 -0.7R		9.1 -0.6R		9.1 -0.6R		9.2 -0.6R		9.2 -0.5R		9.3 -0.5R	
		12"	q_a	642	639	637	635	633	632	631	630	630	630	630	630	630	630	630	630	630	630
			q_f	1033	1028	1025	1022	1020	1018	1016	1015	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014
			F	10.6 -1.5R		10.9 -1.4R		11.2 -1.3R		11.4 -1.3R		11.5 -1.2R		11.7 -1.2R		11.8 -1.1R		11.9 -1.1R		12 -1R	
		18"	q_a	553	565	573	540	550	558	534	542	549	549	549	549	549	549	549	549	549	549
			q_f	1033	909	922	870	886	898	859	873	884	884	884	884	884	884	884	884	884	884
			F	13.1 -2.4R		13.6 -2.4R		14 -2.3R		14.4 -2.2R		14.7 -2.2R		15 -2.1R		15.2 -2R		15.5 -2R		15.6 -1.9R	
		24"	q_a	482	509	469	493	461	482	456	474	452	452	452	452	452	452	452	452	452	452
			q_f	777	820	756	793	742	776	734	763	727	727	727	727	727	727	727	727	727	727
			F	15 -3.3R		15.7 -3.3R		16.4 -3.3R		17 -3.2R		17.4 -3.1R		17.9 -3.1R		18.2 -3R		18.5 -2.9R		18.8 -2.8R	
	22 ga	4"	q_a	609	608	608	608	608	608	608	607	607	607	607	607	607	607	607	607	607	607
			q_f	980	979	979	979	978	978	978	978	978	978	978	978	978	978	978	978	978	978
			F	8.3 -0.5R		8.4 -0.5R		8.4 -0.4R		8.5 -0.4R		8.6 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R	
		6"	q_a	580	579	579	578	578	578	577	577	577	577	577	577	577	577	577	577	577	577
			q_f	934	933	932	931	930	930	929	929	929	929	929	929	929	929	929	929	929	929
			F	10.1 -1R		10.3 -0.9R		10.4 -0.9R		10.6 -0.8R		10.7 -0.8R		10.7 -0.7R		10.8 -0.7R		10.9 -0.6R		10.9 -0.6R	
		8"	q_a	548	553	546	550	544	547	543	546	542	542	542	542	542	542	542	542	542	542
			q_f	883	890	878	885	875	881	874	879	872	872	872	872	872	872	872	872	872	872
			F	11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.4 -1.3R		12.6 -1.2R		12.7 -1.1R		12.8 -1.1R		12.9 -1R		13 -1R	
		12"	q_a	485	481	479	477	475	474	473	472	471	471	471	471	471	471	471	471	471	471
			q_f	781	775	771	768	765	763	761	759	758	758	758	758	758	758	758	758	758	758
			F	14.3 -2.5R		14.8 -2.4R		15.3 -2.3R		15.7 -2.2R		16 -2.2R		16.2 -2.1R		16.5 -2R		16.7 -1.9R		16.8 -1.8R	
		18"	q_a	406	415	421	393	400	407	386	392	398	398	398	398	398	398	398	398	398	398
			q_f	781	668	678	632	645	655	621	632	641	641	641	641	641	641	641	641	641	641
			F	17.3 -3.8R		18.2 -3.8R		18.9 -3.8R		19.6 -3.7R		20.1 -3.6R		20.6 -3.6R		21.1 -3.5R		21.4 -3.4R		21.8 -3.3R	
		24"	q_a	349	368	336	354	328	344	323	336	319	319	319	319	319	319	319	319	319	319
			q_f	561	593	541	569	528	553	519	542	513	513	513	513	513	513	513	513	513	513
			F	19.5 -4.9R		20.7 -5R		21.8 -5R		22.7 -5.1R		23.5 -5R		24.2 -5R		24.9 -4.9R		25.4 -4.9R		25.9 -4.8R	

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

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4.5 DG2WH-36 & DG2WHF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.5 -0.2R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R	
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.9 -0.3R		4 -0.2R		4 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.1R		4.1 -0.1R	
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	4.8 -0.5R		4.9 -0.4R		4.9 -0.4R		5 -0.4R		5.1 -0.4R		5.1 -0.3R		5.1 -0.3R		5.2 -0.3R		5.2 -0.3R	
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	5.9 -0.8R		6 -0.8R		6.2 -0.7R		6.3 -0.7R		6.4 -0.7R		6.4 -0.6R		6.5 -0.6R		6.6 -0.6R		6.6 -0.6R	
		24"	q_a	1200	1932	1253	2017	1174	1890	1221	1965	1157	1863	1199	1930	1146	1845	1183	1905	1137	1831
			q_f																		
			F	6.7 -1.2R		7 -1.1R		7.2 -1.1R		7.4 -1.1R		7.5 -1R		7.6 -1R		7.8 -0.9R		7.9 -0.9R		7.9 -0.9R	
	18 ga	4"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f																		
			F	4.1 -0.2R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R	
		6"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f																		
			F	4.8 -0.3R		4.9 -0.3R		4.9 -0.3R		4.9 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R	
		8"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f																		
			F	5.5 -0.5R		5.6 -0.5R		5.6 -0.4R		5.7 -0.4R		5.7 -0.4R		5.8 -0.3R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R	
		12"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f																		
			F	6.6 -0.9R		6.8 -0.8R		7 -0.8R		7.1 -0.7R		7.2 -0.7R		7.3 -0.7R		7.3 -0.6R		7.4 -0.6R		7.4 -0.6R	
		18"	q_a	981	1644	997	1606	1009	1625	954	1535	969	1560	981	1580	939	1512	953	1534	964	1552
			q_f																		
			F	8 -1.4R		8.3 -1.4R		8.6 -1.3R		8.8 -1.3R		9 -1.2R		9.2 -1.2R		9.3 -1.2R		9.4 -1.1R		9.5 -1.1R	
		24"	q_a	864	1392	905	1457	837	1347	874	1407	819	1319	852	1372	807	1299	837	1348	798	1285
			q_f																		
			F	9.1 -1.9R		9.6 -1.9R		9.9 -1.9R		10.3 -1.8R		10.5 -1.8R		10.8 -1.8R		11 -1.7R		11.2 -1.7R		11.3 -1.6R	
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	5.9 -0.4R		6 -0.3R		6.1 -0.3R		6.1 -0.3R		6.1 -0.3R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R	
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	7.1 -0.7R		7.2 -0.6R		7.3 -0.6R		7.4 -0.6R		7.5 -0.5R		7.5 -0.5R		7.6 -0.5R		7.6 -0.4R		7.7 -0.4R	
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	8.1 -1R		8.3 -1R		8.4 -0.9R		8.6 -0.9R		8.7 -0.8R		8.8 -0.8R		8.9 -0.7R		8.9 -0.7R		9 -0.7R	
		12"	q_a	783	1260	779	1253	773	1244	768	1237	764	1231	761	1226	759	1222	757	1218	755	1215
			q_f																		
			F	9.7 -1.6R		10 -1.6R		10.3 -1.6R		10.6 -1.5R		10.8 -1.5R		11 -1.4R		11.1 -1.4R		11.3 -1.3R		11.4 -1.3R	
		18"	q_a	662	1260	672	1082	680	1094	633	1019	644	1037	653	1051	618	995	628	1011	636	1024
			q_f																		
			F	11.4 -2.5R		12 -2.5R		12.6 -2.5R		13 -2.4R		13.4 -2.4R		13.7 -2.4R		14 -2.3R		14.3 -2.3R		14.5 -2.2R	
		24"	q_a	574	924	600	966	547	880	572	921	530	853	553	890	518	835	539	868	510	821
			q_f																		
			F	12.7 -3.1R		13.6 -3.2R		14.3 -3.3R		14.9 -3.3R		15.4 -3.3R		15.9 -3.3R		16.3 -3.3R		16.7 -3.2R		17.1 -3.2R	
	22 ga	4"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f																		
			F	8 -0.7R		8.1 -0.6R		8.2 -0.6R		8.3 -0.5R		8.3 -0.5R		8.4 -0.5R		8.4 -0.4R		8.5 -0.4R		8.5 -0.4R	
		6"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f																		
			F	9.5 -1.2R		9.7 -1.1R		9.9 -1.1R		10.1 -1R		10.2 -1R		10.3 -0.9R		10.4 -0.9R		10.5 -0.8R		10.6 -0.8R	
		8"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f																		
			F	10.7 -1.7R		11.1 -1.6R		11.4 -1.6R		11.6 -1.5R		11.9 -1.4R		12 -1.4R		12.2 -1.3R		12.3 -1.3R		12.4 -1.2R	
		12"	q_a	585	943	577	930	571	920	566	912	562	905	559	900	556	895	554	891	551	888
			q_f																		
			F	12.7 -2.5R		13.3 -2.5R		13.8 -2.5R		14.2 -2.5R		14.6 -2.4R		14.9 -2.4R		15.2 -2.3R		15.5 -2.3R		15.7 -2.2R	
		18"	q_a	483	943	489	787	493	794	455	733	462	744	468	754	440	709	447	720	453	730
			q_f																		
			F	14.7 -3.6R		15.6 -3.7R		16.5 -3.7R		17.2 -3.8R		17.8 -3.8R		18.3 -3.8R		18.8 -3.8R		19.3 -3.7R		19.7 -3.7R	
		24"	q_a	416	669	433	697	391	630	408	657	376	605	391	630	365	588	379	611	357	575
			q_f																		
			F	16.1 -4.3R		17.3 -4.6R		18.4 -4.7R		19.3 -4.9R		20.2 -5R		20.9 -5R		21.6 -5R		22.3 -5.1R		22.9 -5.1R	

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

ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.5

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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 →	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
			q_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	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f	3.4 -0.2R		3.4 -0.2R		3.5 -0.2R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.6 -0.1R	
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f	3.8 -0.3R		3.9 -0.3R		3.9 -0.3R		4 -0.2R		4 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R	
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f	4.6 -0.5R		4.7 -0.5R		4.8 -0.5R		4.9 -0.4R		4.9 -0.4R		5 -0.4R		5 -0.4R		5 -0.4R		5.1 -0.3R	
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f	5.5 -0.9R		5.7 -0.8R		5.9 -0.8R		6 -0.8R		6.1 -0.8R		6.2 -0.7R		6.3 -0.7R		6.4 -0.7R		6.4 -0.7R	
		24"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f	6.2 -1.2R		6.5 -1.2R		6.8 -1.2R		7 -1.1R		7.1 -1.1R		7.3 -1.1R		7.4 -1.1R		7.5 -1R		7.6 -1R	
	18 ga	4"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f	4 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R	
		6"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f	4.7 -0.4R		4.8 -0.3R		4.8 -0.3R		4.9 -0.3R		4.9 -0.3R		4.9 -0.3R		4.9 -0.2R		5 -0.2R		5 -0.2R	
		8"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f	5.3 -0.5R		5.4 -0.5R		5.5 -0.5R		5.6 -0.5R		5.6 -0.4R		5.7 -0.4R		5.7 -0.4R		5.7 -0.4R		5.8 -0.4R	
		12"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f	6.3 -0.9R		6.5 -0.9R		6.7 -0.9R		6.8 -0.8R		6.9 -0.8R		7 -0.8R		7.1 -0.7R		7.2 -0.7R		7.2 -0.7R	
		18"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f	7.4 -1.4R		7.8 -1.4R		8.1 -1.4R		8.3 -1.4R		8.5 -1.3R		8.7 -1.3R		8.8 -1.3R		9 -1.3R		9.1 -1.2R	
		24"	q_a	1008	1622	1021	1644	962	1548	1013	1630	933	1503	979	1576	914	1472	954	1537	900	1449
			q_f	8.3 -1.8R		8.8 -1.9R		9.2 -1.9R		9.5 -1.9R		9.8 -1.9R		10.1 -1.9R		10.3 -1.8R		10.5 -1.8R		10.7 -1.8R	
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f	5.8 -0.4R		5.9 -0.4R		5.9 -0.4R		6 -0.3R		6 -0.3R		6.1 -0.3R		6.1 -0.3R		6.1 -0.3R		6.2 -0.3R	
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f	6.8 -0.7R		7 -0.7R		7.1 -0.7R		7.2 -0.6R		7.3 -0.6R		7.3 -0.6R		7.4 -0.6R		7.5 -0.5R		7.5 -0.5R	
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f	7.7 -1.1R		7.9 -1R		8.1 -1R		8.2 -1R		8.4 -0.9R		8.5 -0.9R		8.6 -0.9R		8.7 -0.8R		8.7 -0.8R	
		12"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f	9 -1.6R		9.4 -1.6R		9.7 -1.6R		10 -1.6R		10.2 -1.6R		10.4 -1.5R		10.6 -1.5R		10.8 -1.5R		10.9 -1.4R	
		18"	q_a	771	1260	783	1260	783	1260	724	1166	738	1188	749	1206	700	1126	712	1147	723	1164
			q_f	10.4 -2.3R		11 -2.4R		11.5 -2.5R		12 -2.5R		12.4 -2.5R		12.7 -2.5R		13.1 -2.4R		13.3 -2.4R		13.6 -2.4R	
		24"	q_a	652	1050	684	1101	612	985	642	1034	587	945	615	990	570	918	595	958	558	899
			q_f	11.3 -2.9R		12.1 -3R		12.8 -3.1R		13.4 -3.2R		14 -3.3R		14.5 -3.3R		15 -3.3R		15.4 -3.3R		15.7 -3.3R	
	22 ga	4"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f	7.7 -0.7R		7.9 -0.7R		8 -0.7R		8.1 -0.6R		8.2 -0.6R		8.2 -0.6R		8.3 -0.5R		8.3 -0.5R		8.4 -0.5R	
		6"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f	9 -1.2R		9.3 -1.2R		9.5 -1.2R		9.7 -1.1R		9.8 -1.1R		10 -1R		10.1 -1R		10.2 -1R		10.3 -0.9R	
		8"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f	10.1 -1.7R		10.5 -1.7R		10.8 -1.6R		11.1 -1.6R		11.3 -1.6R		11.5 -1.5R		11.7 -1.5R		11.8 -1.4R		12 -1.4R	
		12"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	637	1025	615	984
			q_f	11.6 -2.4R		12.2 -2.5R		12.8 -2.5R		13.2 -2.5R		13.6 -2.5R		14 -2.5R		14.3 -2.5R		14.6 -2.4R		14.8 -2.4R	
		18"	q_a	552	1025	557	897	561	903	509	820	517	833	524	844	487	784	495	797	502	809
			q_f	13.1 -3.3R		14 -3.4R		14.8 -3.6R		15.5 -3.7R		16.2 -3.7R		16.7 -3.8R		17.3 -3.8R		17.7 -3.8R		18.2 -3.8R	
		24"	q_a	459	739	485	781	427	688	451	725	408	657	428	689	395	637	412	663	385	621
			q_f	14.1 -3.9R		15.2 -4.1R		16.2 -4.4R		17.1 -4.5R		18 -4.7R		18.8 -4.8R		19.5 -4.9R		20.1 -4.9R		20.7 -5R	

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4.5 DG2WH-36 & DG2WHF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352
			q_f	2177	2177	2177	2177	2177	2177	2176	2176	2176	2176	2176	2176	2176	2176	2176	2176	2176	2176
			F	3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 -0.1R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1333	1332	1332	1332	1332	1332	1332	1332	1332	1332	1332	1332	1331	1331	1331	1331	1331	1331
			q_f	2145	2145	2145	2145	2145	2145	2144	2144	2144	2144	2144	2144	2144	2144	2144	2144	2144	2143
			F	3.5 -0.2R		3.5 -0.2R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.5 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R	
		8"	q_a	1307	1312	1306	1310	1306	1309	1305	1308	1305	1305	1305	1305	1305	1305	1308	1305	1305	1305
			q_f	2105	2112	2103	2109	2102	2107	2101	2105	2100	2100	2100	2100	2100	2100	2105	2100	2100	2100
			F	3.9 -0.3R		4 -0.2R		4 -0.2R		4 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R	
		12"	q_a	1246	1244	1242	1241	1240	1239	1239	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238
			q_f	2005	2002	2000	1998	1997	1995	1994	1994	1993	1993	1993	1993	1993	1993	1994	1993	1993	1993
			F	4.7 -0.5R		4.8 -0.5R		4.9 -0.4R		5 -0.4R		5 -0.4R		5.1 -0.4R		5.1 -0.3R		5.1 -0.3R		5.1 -0.3R	
		18"	q_a	1141	1158	1170	1130	1144	1155	1124	1136	1146	1146	1146	1146	1146	1146	1136	1146	1146	1146
			q_f	2005	1864	1883	1819	1842	1859	1810	1829	1844	1844	1844	1844	1844	1844	1829	1844	1844	1844
			F	5.7 -0.8R		5.9 -0.8R		6.1 -0.8R		6.2 -0.7R		6.3 -0.7R		6.4 -0.7R		6.4 -0.6R		6.5 -0.6R		6.6 -0.6R	
		24"	q_a	1038	1082	1025	1063	1017	1050	1012	1041	1008	1008	1008	1008	1008	1008	1041	1008	1008	1008
			q_f	1671	1743	1651	1712	1637	1691	1629	1676	1622	1622	1622	1622	1622	1622	1676	1622	1622	1622
			F	6.6 -1.2R		6.8 -1.2R		7.1 -1.1R		7.2 -1.1R		7.4 -1.1R		7.5 -1R		7.6 -1R		7.7 -1R		7.8 -0.9R	
	18 ga	4"	q_a	1078	1078	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077	1077
			q_f	1735	1735	1735	1735	1734	1734	1734	1734	1734	1734	1734	1734	1734	1734	1734	1734	1734	1734
			F	4 -0.2R		4.1 -0.2R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.1 -0.1R		4.2 -0.1R		4.2 -0.1R	
		6"	q_a	1054	1053	1053	1052	1052	1052	1052	1052	1052	1052	1052	1052	1052	1052	1052	1052	1052	1052
			q_f	1696	1696	1695	1694	1694	1694	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
			F	4.8 -0.3R		4.8 -0.3R		4.9 -0.3R		4.9 -0.3R		4.9 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R		5 -0.2R	
		8"	q_a	1024	1028	1022	1026	1021	1024	1020	1023	1019	1019	1019	1019	1019	1019	1023	1019	1019	1019
			q_f	1648	1656	1645	1652	1643	1649	1642	1647	1641	1641	1641	1641	1641	1641	1647	1641	1641	1641
			F	5.4 -0.5R		5.5 -0.5R		5.6 -0.4R		5.7 -0.4R		5.7 -0.4R		5.8 -0.4R		5.8 -0.3R		5.8 -0.3R		5.8 -0.3R	
		12"	q_a	954	951	949	948	946	945	944	944	943	943	943	943	943	943	944	943	943	943
			q_f	1536	1531	1528	1526	1524	1522	1521	1519	1518	1518	1518	1518	1518	1518	1519	1518	1518	1518
			F	6.5 -0.9R		6.7 -0.8R		6.9 -0.8R		7 -0.8R		7.1 -0.7R		7.2 -0.7R		7.2 -0.7R		7.3 -0.6R		7.4 -0.6R	
		18"	q_a	847	863	874	834	847	857	827	838	847	847	847	847	847	847	838	847	847	847
			q_f	1536	1389	1406	1342	1363	1380	1331	1349	1364	1364	1364	1364	1364	1364	1349	1364	1364	1364
			F	7.8 -1.4R		8.2 -1.4R		8.4 -1.4R		8.7 -1.3R		8.8 -1.3R		9 -1.2R		9.2 -1.2R		9.3 -1.2R		9.4 -1.1R	
		24"	q_a	753	791	738	771	729	758	723	748	718	718	718	718	718	718	748	718	718	718
			q_f	1212	1273	1188	1242	1174	1220	1164	1205	1156	1156	1156	1156	1156	1156	1205	1156	1156	1156
			F	8.9 -1.9R		9.3 -1.9R		9.7 -1.9R		10 -1.9R		10.3 -1.8R		10.6 -1.8R		10.8 -1.8R		11 -1.7R		11.1 -1.7R	
	20 ga	4"	q_a	814	814	814	814	813	813	813	813	813	813	813	813	813	813	813	813	813	813
			q_f	1311	1311	1310	1310	1310	1310	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309
			F	5.9 -0.4R		6 -0.4R		6 -0.3R		6.1 -0.3R		6.1 -0.3R		6.1 -0.3R		6.2 -0.2R		6.2 -0.2R		6.2 -0.2R	
		6"	q_a	784	784	783	782	782	782	781	781	781	781	781	781	781	781	781	781	781	781
			q_f	1263	1262	1261	1260	1259	1259	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258	1258
			F	7 -0.7R		7.1 -0.7R		7.2 -0.6R		7.3 -0.6R		7.4 -0.6R		7.5 -0.5R		7.5 -0.5R		7.6 -0.5R		7.6 -0.4R	
		8"	q_a	749	754	746	751	745	749	744	747	743	743	743	743	743	743	747	743	743	743
			q_f	1206	1215	1202	1209	1199	1206	1197	1203	1196	1196	1196	1196	1196	1196	1203	1196	1196	1196
			F	7.9 -1R		8.2 -1R		8.3 -0.9R		8.5 -0.9R		8.6 -0.9R		8.7 -0.8R		8.8 -0.8R		8.9 -0.7R		8.9 -0.7R	
		12"	q_a	675	672	669	667	665	664	663	662	661	661	661	661	661	661	662	661	661	661
			q_f	1087	1082	1077	1074	1071	1069	1067	1065	1064	1064	1064	1064	1064	1064	1065	1064	1064	1064
			F	9.4 -1.6R		9.8 -1.6R		10.1 -1.6R		10.4 -1.5R		10.6 -1.5R		10.8 -1.5R		11 -1.4R		11.1 -1.4R		11.3 -1.3R	
		18"	q_a	576	589	597	561	572	580	553	563	570	570	570	570	570	570	563	570	570	570
			q_f	1087	948	962	904	921	934	891	906	918	918	918	918	918	918	906	918	918	918
			F	11.1 -2.4R		11.7 -2.5R		12.2 -2.5R		12.7 -2.5R		13.1 -2.4R		13.4 -2.4R		13.7 -2.4R		14 -2.3R		14.2 -2.3R	
		24"	q_a	500	528	485	509	475	497	469	488	464	464	464	464	464	464	488	464	464	464
			q_f	805	850	780	820	765	800	755	786	748	748	748	748	748	748	786	748	748	748
			F	12.3 -3.1R		13.1 -3.2R		13.8 -3.2R		14.4 -3.3R		15 -3.3R		15.4 -3.3R		15.9 -3.3R		16.3 -3.3R		16.6 -3.2R	
	22 ga	4"	q_a	651	651	650	650	650	650	650	650	615	615	615	615	615	615	650	615	615	615
			q_f	1048	1048	1047	1047	1047	1046	1046	1046	984	984	984	984	984	984	1046	984	984	984
			F	7.9 -0.7R		8 -0.6R		8.1 -0.6R		8.2 -0.6R		8.3 -0.5R		8.3 -0.5R		8.4 -0.5R		8.4 -0.5R		8.5 -0.4R	
		6"	q_a	617	616	615	615	614	614	613	613	613	613	613	613	613	613	613	613	613	613
			q_f	994	992	991	990	989	988	987	987	984	984	984	984	984	984	987	984	984	984
			F	9.3 -1.2R		9.6 -1.1R		9.8 -1.1R		10 -1R		10.1 -1R		10.2 -1R		10.3 -0.9R		10.4 -0.9R		10.5 -0.8R	
		8"	q_a	580	585	576	581	574	578	572	576	571	571	571	571	571	571	576	571	571	571
			q_f	933	942	928	935	924	931	922	927	920	920	920	920	920	920	927	920	920	920
			F	10.5 -1.7R		10.9 -1.6R		11.2 -1.6R		11.5 -1.5R		11.7 -1.5R		11.9 -1.4R		12 -1.4R		12.2 -1.3R		12.3 -1.3R	
		12"	q_a	507	503	500	498	496	494	493	492	491	491	491	491	491	491	492	491	491	491
			q_f	817	811	806	802	798	796	793	792	790	790	790	790	790	790	792	790	790	790
			F	12.3 -2.5R		12.9 -2.5R		13.5 -2.5R		13.9 -2.5R		14.3 -2.5R		14.6 -2.4R		14.9 -2.4R		15.2 -2.3R		15.4 -2.3R	
		18"	q_a	421	430	436	406	414	420	397	405	411	411	411	411	411	411	405	411	411	411
			q_f	817	692	703	653	666	677	640	652	661	661	661	661	661	661	652	661	661	661
			F	14.2 -3.5R		15.1 -3.6R		15.9 -3.7R		16.6 -3.8R		17.3 -3.8R		17.8 -3.8R		18.3 -3.8R		18.8 -3.8R		19.2 -3.7R	
		24"	q_a	360	381	346	364	337	353	331	345	326	326	326	326	326	326	345	326	326	326
			q_f	580	613	556	586	542	568	532	556	525	525	525	525	525	525	556	525	525	525
			F	15.4 -4.2R		16.6 -4.4R		17.7 -4.6R		18.6 -4.8R		19.5 -4.9R		20.2 -5R		20.9 -5R		21.6 -5R		22.2 -5.1R	

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Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	2.9	-0.1R	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
		6"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	3.4	-0.2R	3.4	-0.2R	3.4	-0.2R	3.4	-0.2R	3.5	-0.2R	3.5	-0.1R	3.5	-0.1R	3.5	-0.1R	3.5	-0.1R
		8"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	3.7	-0.3R	3.8	-0.3R	3.9	-0.3R	3.9	-0.3R	3.9	-0.3R	4	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R
		12"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	4.4	-0.6R	4.5	-0.5R	4.6	-0.5R	4.7	-0.5R	4.8	-0.5R	4.8	-0.5R	4.9	-0.4R	4.9	-0.4R	5	-0.4R
		18"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1359	2188	1369	2204	1369	2204
			q_f																		
			F	5.2	-0.9R	5.4	-0.9R	5.6	-0.9R	5.7	-0.8R	5.9	-0.8R	6	-0.8R	6.1	-0.8R	6.1	-0.8R	6.2	-0.7R
		24"	q_a	1253	2017	1309	2108	1222	1967	1272	2049	1202	1935	1247	2008	1189	1914	1229	1979	1179	1898
			q_f																		
			F	5.8	-1.2R	6.1	-1.2R	6.3	-1.2R	6.5	-1.2R	6.7	-1.2R	6.9	-1.1R	7	-1.1R	7.2	-1.1R	7.3	-1.1R
	18 ga	4"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																		
			F	3.9	-0.2R	4	-0.2R	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
		6"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																		
			F	4.6	-0.4R	4.6	-0.4R	4.7	-0.4R	4.8	-0.3R	4.8	-0.3R	4.8	-0.3R	4.9	-0.3R	4.9	-0.3R	4.9	-0.3R
		8"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																		
			F	5.1	-0.6R	5.2	-0.6R	5.3	-0.5R	5.4	-0.5R	5.5	-0.5R	5.5	-0.5R	5.6	-0.4R	5.6	-0.4R	5.7	-0.4R
		12"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																		
			F	6	-0.9R	6.2	-0.9R	6.4	-0.9R	6.5	-0.9R	6.6	-0.9R	6.8	-0.8R	6.8	-0.8R	6.9	-0.8R	7	-0.8R
		18"	q_a	1024	1770	1042	1677	1054	1697	992	1598	1009	1624	1022	1645	975	1570	990	1594	1002	1613
			q_f																		
			F	6.9	-1.4R	7.3	-1.4R	7.6	-1.4R	7.8	-1.4R	8	-1.4R	8.2	-1.4R	8.4	-1.4R	8.6	-1.3R	8.7	-1.3R
		24"	q_a	898	1446	941	1515	866	1395	906	1458	846	1362	881	1419	832	1340	864	1391	822	1324
			q_f																		
			F	7.6	-1.7R	8	-1.8R	8.4	-1.9R	8.8	-1.9R	9.1	-1.9R	9.4	-1.9R	9.6	-1.9R	9.9	-1.9R	10.1	-1.9R
	20 ga	4"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																		
			F	5.7	-0.5R	5.8	-0.4R	5.8	-0.4R	5.9	-0.4R	5.9	-0.4R	6	-0.4R	6	-0.3R	6	-0.3R	6.1	-0.3R
		6"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																		
			F	6.6	-0.8R	6.7	-0.8R	6.9	-0.7R	7	-0.7R	7.1	-0.7R	7.2	-0.7R	7.2	-0.6R	7.3	-0.6R	7.4	-0.6R
		8"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																		
			F	7.3	-1.1R	7.5	-1.1R	7.7	-1.1R	7.9	-1R	8.1	-1R	8.2	-1R	8.3	-0.9R	8.4	-0.9R	8.5	-0.9R
		12"	q_a	823	1325	814	1311	807	1300	802	1291	797	1284	794	1278	791	1273	788	1268	786	1265
			q_f																		
			F	8.4	-1.6R	8.8	-1.6R	9.1	-1.7R	9.4	-1.6R	9.7	-1.6R	9.9	-1.6R	10.1	-1.6R	10.3	-1.6R	10.4	-1.5R
		18"	q_a	688	1325	698	1124	705	1136	655	1054	666	1072	675	1086	637	1026	648	1043	656	1056
			q_f																		
			F	9.4	-2.2R	10	-2.3R	10.6	-2.4R	11	-2.4R	11.4	-2.5R	11.8	-2.5R	12.2	-2.5R	12.5	-2.5R	12.7	-2.5R
		24"	q_a	594	957	621	1000	564	908	590	949	545	878	569	915	532	857	553	891	523	842
			q_f																		
			F	10.2	-2.6R	10.9	-2.8R	11.6	-2.9R	12.2	-3R	12.7	-3.1R	13.2	-3.2R	13.7	-3.2R	14.1	-3.3R	14.5	-3.3R
	22 ga	4"	q_a	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	615	984
			q_f																		
			F	7.5	-0.8R	7.6	-0.8R	7.8	-0.7R	7.9	-0.7R	8	-0.7R	8	-0.6R	8.1	-0.6R	8.2	-0.6R	8.2	-0.6R
		6"	q_a	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	615	984
			q_f																		
			F	8.6	-1.3R	8.9	-1.2R	9.1	-1.2R	9.3	-1.2R	9.5	-1.2R	9.6	-1.1R	9.8	-1.1R	9.9	-1.1R	10	-1R
		8"	q_a	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	615	984
			q_f																		
			F	9.4	-1.7R	9.8	-1.7R	10.2	-1.7R	10.5	-1.7R	10.7	-1.7R	11	-1.6R	11.2	-1.6R	11.3	-1.6R	11.5	-1.5R
		12"	q_a	610	983	601	967	594	956	588	946	583	939	579	932	576	927	573	922	571	919
			q_f																		
			F	10.6	-2.3R	11.2	-2.4R	11.8	-2.5R	12.3	-2.5R	12.7	-2.5R	13.1	-2.5R	13.4	-2.5R	13.7	-2.5R	14	-2.5R
		18"	q_a	501	983	506	815	510	821	469	755	476	767	482	776	452	728	459	740	465	749
			q_f																		
			F	11.8	-3R	12.6	-3.2R	13.4	-3.3R	14.1	-3.5R	14.7	-3.6R	15.3	-3.6R	15.8	-3.7R	16.3	-3.7R	16.7	-3.8R
		24"	q_a	431	693	447	720	403	649	420	676	386	621	402	647	374	602	389	626	365	588
			q_f																		
			F	12.5	-3.4R	13.5	-3.7R	14.4	-3.9R	15.3	-4.2R	16.1	-4.3R	16.8	-4.5R	17.5	-4.6R	18.2	-4.7R	18.8	-4.8R

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4.5 DG2WH-36 & DG2WHF-36

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			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	-0.1R	3	-0.1R	3	-0.1R
		6"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.3	-0.2R	3.3	-0.2R	3.4	-0.2R	3.4	-0.2R	3.4	-0.2R	3.4	-0.2R	3.5	-0.2R	3.5	-0.2R	3.5	-0.2R
		8"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.6	-0.4R	3.7	-0.3R	3.8	-0.3R	3.8	-0.3R	3.8	-0.3R	3.9	-0.3R	3.9	-0.3R	3.9	-0.3R	4	-0.2R
		12"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	4.2	-0.6R	4.3	-0.6R	4.4	-0.6R	4.5	-0.5R	4.6	-0.5R	4.7	-0.5R	4.7	-0.5R	4.8	-0.5R	4.8	-0.5R
		18"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	4.8	-0.9R	5	-0.9R	5.2	-0.9R	5.4	-0.9R	5.5	-0.9R	5.6	-0.9R	5.7	-0.8R	5.8	-0.8R	5.9	-0.8R
		24"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1360	2189
			q_f																				
			F	5.3	-1.1R	5.6	-1.2R	5.8	-1.2R	6.1	-1.2R	6.2	-1.2R	6.4	-1.2R	6.6	-1.2R	6.7	-1.2R	6.8	-1.2R
	18 ga	4"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																				
			F	3.9	-0.3R	3.9	-0.2R	3.9	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R	4	-0.2R	4.1	-0.2R	4.1	-0.2R
		6"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																				
			F	4.4	-0.4R	4.5	-0.4R	4.6	-0.4R	4.6	-0.4R	4.7	-0.4R	4.7	-0.3R	4.8	-0.3R	4.8	-0.3R	4.8	-0.3R
		8"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																				
			F	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	5.5	-0.5R	5.5	-0.5R
		12"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																				
			F	5.6	-0.9R	5.8	-0.9R	6	-0.9R	6.2	-0.9R	6.3	-0.9R	6.4	-0.9R	6.5	-0.9R	6.6	-0.9R	6.7	-0.8R
		18"	q_a	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770	1099	1770
			q_f																				
			F	6.3	-1.3R	6.6	-1.4R	6.9	-1.4R	7.2	-1.4R	7.4	-1.4R	7.7	-1.4R	7.8	-1.4R	8	-1.4R	8.2	-1.4R
		24"	q_a	1039	1673	1096	1764	988	1591	1040	1674	956	1540	1003	1614	935	1505	976	1572	919	1480
			q_f																				
			F	6.8	-1.6R	7.2	-1.7R	7.6	-1.8R	8	-1.8R	8.3	-1.8R	8.6	-1.9R	8.9	-1.9R	9.1	-1.9R	9.3	-1.9R
	20 ga	4"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																				
			F	5.5	-0.5R	5.6	-0.5R	5.7	-0.5R	5.7	-0.4R	5.8	-0.4R	5.9	-0.4R	5.9	-0.4R	5.9	-0.4R	6	-0.4R
		6"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																				
			F	6.2	-0.8R	6.4	-0.8R	6.6	-0.8R	6.7	-0.8R	6.8	-0.7R	6.9	-0.7R	7	-0.7R	7.1	-0.7R	7.1	-0.7R
		8"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																				
			F	6.8	-1.1R	7.1	-1.1R	7.3	-1.1R	7.5	-1.1R	7.7	-1.1R	7.8	-1R	7.9	-1R	8.1	-1R	8.2	-1R
		12"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1356
			q_f																				
			F	7.6	-1.5R	8	-1.6R	8.4	-1.6R	8.7	-1.6R	9	-1.6R	9.2	-1.7R	9.4	-1.6R	9.6	-1.6R	9.8	-1.6R
		18"	q_a	796	1357	807	1299	815	1312	743	1196	756	1218	767	1235	715	1152	728	1172	739	1190
			q_f																				
			F	8.4	-2R	9	-2.1R	9.5	-2.2R	10	-2.3R	10.4	-2.3R	10.7	-2.4R	11.1	-2.4R	11.4	-2.5R	11.7	-2.5R
		24"	q_a	672	1082	703	1132	628	1011	658	1059	601	967	628	1012	582	938	607	978	569	916
			q_f																				
			F	8.9	-2.3R	9.6	-2.5R	10.2	-2.6R	10.8	-2.8R	11.3	-2.9R	11.8	-3R	12.3	-3.1R	12.7	-3.1R	13.1	-3.2R
	22 ga	4"	q_a	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	615	984
			q_f																				
			F	7.1	-0.8R	7.3	-0.8R	7.5	-0.8R	7.6	-0.8R	7.7	-0.7R	7.8	-0.7R	7.9	-0.7R	8	-0.7R	8	-0.6R
		6"	q_a	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	615	984
			q_f																				
			F	8	-1.3R	8.3	-1.3R	8.6	-1.3R	8.8	-1.3R	9	-1.2R	9.2	-1.2R	9.3	-1.2R	9.5	-1.2R	9.6	-1.1R
		8"	q_a	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	686	1104	615	984
			q_f																				
			F	8.7	-1.6R	9.1	-1.6R	9.5	-1.7R	9.8	-1.7R	10.1	-1.7R	10.3	-1.7R	10.5	-1.7R	10.7	-1.7R	10.9	-1.6R
		12"	q_a	686	1104	686	1104	686	1104	681	1097	673	1084	667	1073	661	1064	656	1057	615	984
			q_f																				
			F	9.6	-2.1R	10.2	-2.2R	10.7	-2.3R	11.2	-2.4R	11.6	-2.4R	12	-2.5R	12.3	-2.5R	12.7	-2.5R	12.9	-2.5R
		18"	q_a	569	1104	573	922	576	927	522	840	530	853	536	863	497	801	505	814	512	825
			q_f																				
			F	10.4	-2.6R	11.1	-2.8R	11.9	-3R	12.5	-3.1R	13.1	-3.3R	13.7	-3.4R	14.2	-3.5R	14.7	-3.5R	15.1	-3.6R
		24"	q_a	469	755	497	800	435	700	460	741	414	667	437	703	400	644	420	677	390	629
			q_f																				
			F	10.9	-2.9R	11.8	-3.2R	12.6	-3.4R	13.4	-3.7R	14.1	-3.9R	14.8	-4R	15.4	-4.2R	16	-4.3R	16.6	-4.4R

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Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1246	2006	1246	2006	1246	2005	1246	2005	1246	2005	1246	2005	1246	2005	1245	2005	1245	2005
			q_f																		
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1230	1981	1230	1981	1230	1980	1230	1980	1230	1980	1230	1980	1230	1980	1230	1980	1229	1979
			q_f																		
			F	3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	q_a	1210	1949	1214	1954	1209	1947	1212	1952	1209	1946	1211	1950	1209	1946	1211	1949	1208	1945
			q_f																		
			F	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		4.2 +0R		4.3 +0R	
		12"	q_a	1160	1868	1159	1866	1158	1864	1157	1862	1156	1861	1156	1860	1155	1860	1155	1859	1154	1858
			q_f																		
			F	5.3 -0.2R		5.3 -0.2R		5.4 -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	
		18"	q_a	1073	1868	1087	1751	1098	1767	1064	1713	1076	1733	1085	1748	1060	1706	1070	1722	1078	1735
			q_f																		
			F	6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R		7.1 -0.3R		7.1 -0.2R		7.2 -0.2R		7.2 -0.2R	
		24"	q_a	984	1584	1023	1647	974	1568	1007	1622	967	1557	996	1604	963	1550	988	1591	959	1545
			q_f																		
			F	8.4 -0.7R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R		8.8 -0.4R		8.8 -0.4R		8.8 -0.4R		8.9 -0.4R	
	18 ga	4"	q_a	1008	1623	1008	1623	1008	1623	1008	1623	1008	1623	1008	1623	1008	1623	1008	1623	1008	1623
			q_f																		
			F	4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	988	1591	988	1591	988	1590	987	1590	987	1589	987	1589	987	1589	987	1589	987	1589
			q_f																		
			F	5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	963	1551	967	1557	962	1548	965	1554	961	1547	964	1552	960	1546	963	1550	960	1545
			q_f																		
			F	6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R	
		12"	q_a	904	1455	902	1452	900	1449	899	1447	898	1445	897	1444	896	1443	896	1442	895	1441
			q_f																		
			F	7.7 -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 -0.2R		8 -0.2R	
		18"	q_a	810	1455	824	1327	834	1343	799	1286	811	1305	820	1320	793	1277	803	1293	811	1306
			q_f																		
			F	10.1 -0.8R		10.2 -0.8R		10.3 -0.7R		10.4 -0.6R		10.5 -0.6R		10.5 -0.5R		10.6 -0.5R		10.6 -0.5R		10.7 -0.5R	
		24"	q_a	724	1166	760	1223	712	1146	742	1195	704	1134	731	1177	699	1125	722	1163	695	1119
			q_f																		
			F	12.2 -1.3R		12.5 -1.2R		12.6 -1.1R		12.8 -1R		12.9 -1R		13 -0.9R		13.1 -0.8R		13.2 -0.8R		13.2 -0.8R	
	20 ga	4"	q_a	773	1244	772	1243	772	1243	772	1243	772	1243	772	1243	772	1243	772	1242	772	1242
			q_f																		
			F	6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	747	1202	746	1201	746	1200	745	1200	745	1199	745	1199	744	1198	744	1198	744	1198
			q_f																		
			F	7.8 -0.3R		7.9 -0.3R		7.9 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.1R	
		8"	q_a	716	1153	721	1160	714	1149	718	1155	712	1147	716	1152	711	1145	714	1150	711	1144
			q_f																		
			F	9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.3R		9.6 -0.3R		9.6 -0.3R		9.6 -0.3R		9.6 -0.2R	
		12"	q_a	650	1046	647	1041	645	1038	643	1035	641	1032	640	1030	639	1029	638	1027	637	1026
			q_f																		
			F	12 -1R		12.2 -0.9R		12.3 -0.8R		12.4 -0.7R		12.5 -0.7R		12.6 -0.6R		12.7 -0.6R		12.7 -0.6R		12.8 -0.5R	
		18"	q_a	559	1046	570	918	579	932	546	878	556	895	564	907	539	867	547	881	554	892
			q_f																		
			F	15.7 -1.9R		16.1 -1.7R		16.3 -1.6R		16.5 -1.5R		16.7 -1.4R		16.9 -1.3R		17 -1.2R		17.1 -1.2R		17.2 -1.1R	
		24"	q_a	487	783	514	827	473	762	497	800	465	748	486	782	459	739	477	769	455	732
			q_f																		
			F	18.9 -2.8R		19.5 -2.6R		19.9 -2.5R		20.3 -2.3R		20.6 -2.2R		20.8 -2.1R		21.1 -2R		21.2 -1.9R		21.4 -1.8R	
	22 ga	4"	q_a	623	1003	623	1003	623	1002	622	1002	622	1002	622	1001	622	1001	622	1001	615	984
			q_f																		
			F	8.7 -0.3R		8.7 -0.3R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.9 -0.1R		8.9 -0.1R	
		6"	q_a	593	955	592	953	591	952	591	951	590	950	590	950	590	949	589	949	589	949
			q_f																		
			F	10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.2 -0.4R		11.2 -0.4R		11.3 -0.4R		11.3 -0.3R		11.3 -0.3R		11.3 -0.3R	
		8"	q_a	559	900	564	908	556	895	560	902	554	892	558	898	553	890	556	895	552	889
			q_f																		
			F	13 -1R		13.2 -0.9R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R		13.6 -0.6R		13.6 -0.6R		13.7 -0.5R		13.7 -0.5R	
		12"	q_a	493	793	489	787	486	783	484	780	482	777	481	774	480	772	479	771	478	769
			q_f																		
			F	16.9 -1.8R		17.2 -1.7R		17.5 -1.5R		17.7 -1.4R		17.9 -1.3R		18 -1.2R		18.1 -1.2R		18.2 -1.1R		18.3 -1R	
		18"	q_a	411	793	420	676	426	686	397	639	405	652	412	663	390	628	397	639	403	648
			q_f																		
			F	21.9 -3.3R		22.5 -3.1R		23.1 -2.9R		23.5 -2.7R		23.8 -2.6R		24.1 -2.4R		24.4 -2.3R		24.6 -2.2R		24.8 -2.1R	
		24"	q_a	353	568	373	600	339	546	357	575	331	533	347	558	325	524	339	547	321	517
			q_f																		
			F	26.1 -4.8R		27.1 -4.6R		28 -4.4R		28.6 -4.2R		29.2 -4R		29.7 -3.8R		30.1 -3.6R		30.4 -3.5R		30.7 -3.3R	

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Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	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		4.2 -0.1R	
		12"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	5.2 -0.3R		5.2 -0.3R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.1R	
		18"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	6.6 -0.6R		6.7 -0.5R		6.8 -0.5R		6.9 -0.4R		6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R	
		24"	q_a	1193	1922	1245	2005	1168	1880	1214	1955	1151	1854	1193	1920	1140	1836	1177	1895	1132	1822
			q_f																				
			F	8 -0.9R		8.1 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R	
	18 ga	4"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			q_f																				
			F	4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			q_f																				
			F	5 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			q_f																				
			F	5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.1R	
		12"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			q_f																				
			F	7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R	
		18"	q_a	984	1652	1000	1610	1012	1629	956	1540	972	1565	984	1584	942	1516	955	1538	967	1556
			q_f																				
			F	9.6 -1.1R		9.8 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.7R		10.4 -0.6R	
		24"	q_a	867	1395	908	1461	839	1350	876	1410	821	1322	854	1376	809	1302	839	1351	800	1288
			q_f																				
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.4 -1.3R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	20 ga	4"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.2R		7.9 -0.2R		8 -0.2R	
		8"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	9 -0.7R		9.1 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.4R	
		12"	q_a	795	1280	787	1267	781	1258	776	1250	773	1244	769	1239	767	1234	764	1230	762	1227
			q_f																				
			F	11.5 -1.3R		11.7 -1.2R		11.9 -1.1R		12 -1R		12.1 -0.9R		12.2 -0.9R		12.3 -0.8R		12.4 -0.8R		12.5 -0.7R	
		18"	q_a	668	1280	679	1092	686	1105	638	1028	649	1046	658	1060	623	1002	633	1019	641	1032
			q_f																				
			F	14.6 -2.2R		15 -2.1R		15.4 -2R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R		16.3 -1.6R		16.4 -1.5R		16.6 -1.5R	
		24"	q_a	579	932	605	975	551	887	576	928	534	859	557	896	522	840	543	874	513	826
			q_f																				
			F	17.2 -3.2R		17.9 -3.1R		18.4 -3R		18.9 -2.8R		19.3 -2.7R		19.6 -2.6R		19.9 -2.5R		20.1 -2.4R		20.4 -2.3R	
	22 ga	4"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			q_f																				
			F	8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R	
		6"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			q_f																				
			F	10.6 -0.8R		10.7 -0.7R		10.8 -0.6R		10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.1 -0.5R		11.1 -0.4R		11.2 -0.4R	
		8"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984
			q_f																				
			F	12.5 -1.2R		12.7 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.8R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R	
		12"	q_a	594	956	586	943	579	932	574	924	569	917	566	911	563	906	560	902	558	899
			q_f																				
			F	15.8 -2.2R		16.2 -2.1R		16.6 -1.9R		16.9 -1.8R		17.1 -1.7R		17.3 -1.6R		17.5 -1.6R		17.6 -1.5R		17.7 -1.4R	
		18"	q_a	489	956	495	797	499	804	460	740	467	752	473	762	444	715	451	727	457	737
			q_f																				
			F	19.8 -3.7R		20.6 -3.6R		21.3 -3.4R		21.8 -3.3R		22.3 -3.2R		22.7 -3R		23 -2.9R		23.3 -2.8R		23.6 -2.7R	
		24"	q_a	421	678	438	705	395	636	412	664	379	610	395	636	368	593	383	616	360	580
			q_f																				
			F	23.1 -5.1R		24.2 -5R		25.2 -4.9R		26 -4.8R		26.7 -4.7R		27.3 -4.5R		27.9 -4.4R		28.3 -4.3R		28.7 -4.1R	

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

ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.6

Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1259	2027
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R			
		6"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R			
		8"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			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			
		12"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	5.1 -0.3R		5.1 -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			
		18"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	6.4 -0.6R		6.6 -0.6R		6.7 -0.5R		6.7 -0.5R		6.8 -0.5R		6.8 -0.4R		6.9 -0.4R		6.9 -0.4R		7 -0.4R			
		24"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			F	7.6 -1R		7.8 -0.9R		8 -0.9R		8.1 -0.8R		8.2 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R			
	18 ga	4"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	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		4.2 +0R			
		6"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	5 -0.2R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R			
		8"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	5.8 -0.3R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R			
		12"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	7.2 -0.7R		7.4 -0.6R		7.5 -0.6R		7.5 -0.5R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R			
		18"	q_a	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652	1026	1652
			F	9.2 -1.2R		9.4 -1.1R		9.6 -1.1R		9.7 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.1 -0.8R		10.2 -0.8R			
		24"	q_a	1010	1626	1026	1652	964	1551	1014	1633	935	1505	980	1578	915	1474	956	1539	901	1451		
			F	10.8 -1.8R		11.1 -1.7R		11.4 -1.6R		11.7 -1.5R		11.9 -1.5R		12.1 -1.4R		12.2 -1.3R		12.3 -1.3R		12.5 -1.2R			
	20 ga	4"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R			
		6"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	7.5 -0.5R		7.6 -0.4R		7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R			
		8"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	8.8 -0.8R		8.9 -0.7R		9 -0.7R		9.1 -0.6R		9.2 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R			
		12"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			F	11 -1.4R		11.3 -1.3R		11.5 -1.2R		11.7 -1.2R		11.8 -1.1R		11.9 -1R		12 -1R		12.1 -0.9R		12.2 -0.9R			
		18"	q_a	777	1283	789	1271	797	1283	729	1173	742	1195	754	1213	703	1132	716	1153	727	1171		
			F	13.7 -2.4R		14.2 -2.3R		14.6 -2.2R		15 -2.1R		15.2 -2R		15.5 -1.9R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R			
		24"	q_a	657	1058	688	1108	616	992	646	1040	591	951	618	995	573	923	598	963	561	903		
			F	15.9 -3.3R		16.6 -3.2R		17.3 -3.2R		17.8 -3.1R		18.2 -3R		18.6 -2.9R		18.9 -2.8R		19.2 -2.7R		19.5 -2.6R			
	22 ga	4"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984		
			F	8.4 -0.5R		8.5 -0.4R		8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.3R			
		6"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984		
			F	10.3 -0.9R		10.5 -0.8R		10.6 -0.8R		10.7 -0.7R		10.8 -0.7R		10.9 -0.6R		10.9 -0.6R		11 -0.6R		11 -0.5R			
		8"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	615	984		
			F	12 -1.4R		12.3 -1.3R		12.5 -1.2R		12.7 -1.1R		12.8 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.9R			
		12"	q_a	653	1052	653	1052	653	1052	653	1052	653	1052	653	1052	651	1048	646	1041	615	984		
			F	14.9 -2.4R		15.4 -2.3R		15.8 -2.2R		16.2 -2.1R		16.5 -2R		16.7 -1.9R		16.9 -1.8R		17.1 -1.7R		17.2 -1.7R			
		18"	q_a	558	1052	563	906	566	912	513	827	522	840	528	850	491	790	499	803	506	814		
			F	18.3 -3.8R		19.2 -3.7R		19.9 -3.7R		20.5 -3.6R		21.1 -3.5R		21.5 -3.4R		21.9 -3.3R		22.2 -3.2R		22.5 -3.1R			
		24"	q_a	463	745	490	789	430	692	454	732	410	660	431	694	397	639	415	668	388	624		
			F	20.9 -5R		22.2 -5.1R		23.2 -5.1R		24.1 -5R		24.9 -4.9R		25.5 -4.9R		26.1 -4.8R		26.7 -4.7R		27.1 -4.6R			

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

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Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940
			q_f																		
			F	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R	3	+0R
		6"	q_a	1191	1918	1191	1917	1191	1917	1191	1917	1191	1917	1190	1917	1190	1916	1190	1916	1190	1916
			q_f																		
			F	3.6	-0.1R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R	3.6	+0R
		8"	q_a	1173	1888	1176	1893	1172	1887	1175	1891	1172	1886	1174	1890	1171	1886	1173	1889	1171	1885
			q_f																		
			F	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	4.2	+0R	4.3	+0R
		12"	q_a	1127	1814	1126	1812	1125	1811	1124	1809	1123	1808	1123	1807	1122	1807	1122	1806	1122	1806
			q_f																		
			F	5.3	-0.2R	5.3	-0.2R	5.4	-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
		18"	q_a	1045	1814	1059	1706	1069	1721	1038	1671	1049	1689	1058	1703	1034	1665	1043	1680	1051	1692
			q_f																		
			F	6.9	-0.4R	7	-0.4R	7	-0.3R	7	-0.3R	7.1	-0.3R	7.1	-0.3R	7.1	-0.2R	7.2	-0.2R	7.2	-0.2R
		24"	q_a	962	1549	999	1609	953	1534	985	1585	947	1525	974	1569	943	1518	967	1557	940	1513
			q_f																		
			F	8.4	-0.7R	8.5	-0.6R	8.6	-0.6R	8.6	-0.5R	8.7	-0.5R	8.8	-0.4R	8.8	-0.4R	8.8	-0.4R	8.9	-0.4R
	18 ga	4"	q_a	1022	1645	1021	1645	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
			q_f																		
			F	4.2	-0.1R	4.2	+0R	4.2	+0R	4.2	+0R	4.2	+0R	4.2	+0R	4.2	+0R	4.2	+0R	4.2	+0R
		6"	q_a	1001	1611	1000	1611	1000	1610	1000	1610	1000	1609	1000	1609	999	1609	999	1609	999	1609
			q_f																		
			F	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R
		8"	q_a	975	1569	979	1576	973	1567	977	1573	972	1565	975	1571	972	1564	974	1569	971	1564
			q_f																		
			F	6	-0.2R	6	-0.2R	6.1	-0.2R	6.1	-0.1R	6.1	-0.1R	6.1	-0.1R	6.1	-0.1R	6.1	-0.1R	6.1	-0.1R
		12"	q_a	913	1471	911	1467	910	1464	908	1462	907	1460	906	1459	905	1458	905	1457	904	1456
			q_f																		
			F	7.7	-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	-0.2R	8	-0.2R
		18"	q_a	817	1471	832	1339	842	1355	806	1297	818	1317	827	1332	800	1287	810	1304	818	1317
			q_f																		
			F	10.1	-0.8R	10.2	-0.8R	10.3	-0.7R	10.4	-0.6R	10.5	-0.6R	10.5	-0.5R	10.6	-0.5R	10.6	-0.5R	10.7	-0.5R
		24"	q_a	730	1175	766	1233	717	1154	748	1204	709	1141	736	1185	703	1133	727	1171	700	1126
			q_f																		
			F	12.2	-1.3R	12.5	-1.2R	12.6	-1.1R	12.8	-1R	12.9	-1R	13	-0.9R	13.1	-0.8R	13.2	-0.8R	13.2	-0.8R
	20 ga	4"	q_a	826	1330	826	1329	825	1329	825	1328	825	1328	825	1328	825	1328	825	1328	825	1328
			q_f																		
			F	6.3	-0.1R	6.3	-0.1R	6.3	-0.1R	6.4	-0.1R	6.4	-0.1R	6.4	-0.1R	6.4	-0.1R	6.4	-0.1R	6.4	-0.1R
		6"	q_a	795	1280	794	1278	793	1277	793	1276	792	1276	792	1275	792	1275	791	1274	791	1274
			q_f																		
			F	7.8	-0.3R	7.9	-0.3R	7.9	-0.2R	8	-0.2R	8	-0.2R	8	-0.2R	8	-0.2R	8	-0.2R	8	-0.1R
		8"	q_a	758	1221	764	1230	755	1216	760	1224	754	1213	758	1220	752	1211	756	1217	752	1210
			q_f																		
			F	9.3	-0.5R	9.4	-0.4R	9.4	-0.4R	9.5	-0.4R	9.5	-0.3R	9.6	-0.3R	9.6	-0.3R	9.6	-0.3R	9.6	-0.2R
		12"	q_a	682	1098	679	1092	676	1088	674	1084	672	1081	670	1079	669	1077	668	1075	667	1074
			q_f																		
			F	12	-1R	12.2	-0.9R	12.3	-0.8R	12.4	-0.7R	12.5	-0.7R	12.6	-0.6R	12.7	-0.6R	12.7	-0.6R	12.8	-0.5R
		18"	q_a	581	1098	593	955	602	970	566	910	576	928	585	942	557	897	567	912	574	925
			q_f																		
			F	15.7	-1.9R	16.1	-1.7R	16.3	-1.6R	16.5	-1.5R	16.7	-1.4R	16.9	-1.3R	17	-1.2R	17.1	-1.2R	17.2	-1.1R
		24"	q_a	503	810	532	856	488	785	513	826	478	770	500	805	472	759	491	791	467	752
			q_f																		
			F	18.9	-2.8R	19.5	-2.6R	19.9	-2.5R	20.3	-2.3R	20.6	-2.2R	20.8	-2.1R	21.1	-2R	21.2	-1.9R	21.4	-1.8R
	22 ga	4"	q_a	690	1111	689	1110	689	1109	689	1109	688	1108	688	1108	688	1108	688	1107	615	984
			q_f																		
			F	8.7	-0.3R	8.7	-0.3R	8.8	-0.2R	8.8	-0.2R	8.8	-0.2R	8.8	-0.2R	8.8	-0.2R	8.9	-0.1R	8.9	-0.1R
		6"	q_a	650	1047	649	1045	648	1043	647	1042	646	1041	646	1040	645	1039	645	1038	615	984
			q_f																		
			F	10.9	-0.6R	11	-0.5R	11.1	-0.5R	11.2	-0.4R	11.2	-0.4R	11.3	-0.4R	11.3	-0.3R	11.3	-0.3R	11.3	-0.3R
		8"	q_a	607	978	613	987	603	971	608	979	600	967	605	974	599	964	603	970	597	962
			q_f																		
			F	13	-1R	13.2	-0.9R	13.3	-0.8R	13.4	-0.7R	13.5	-0.7R	13.6	-0.6R	13.6	-0.6R	13.7	-0.5R	13.7	-0.5R
		12"	q_a	527	849	522	841	519	835	516	831	514	827	512	824	510	821	509	819	507	817
			q_f																		
			F	16.9	-1.8R	17.2	-1.7R	17.5	-1.5R	17.7	-1.4R	17.9	-1.3R	18	-1.2R	18.1	-1.2R	18.2	-1.1R	18.3	-1R
		18"	q_a	434	849	443	714	450	724	417	671	425	685	432	695	408	656	415	668	421	678
			q_f																		
			F	21.9	-3.3R	22.5	-3.1R	23.1	-2.9R	23.5	-2.7R	23.8	-2.6R	24.1	-2.4R	24.4	-2.3R	24.6	-2.2R	24.8	-2.1R
		24"	q_a	370	596	391	629	354	570	373	600	344	554	361	581	337	543	352	567	333	535
			q_f																		
			F	26.1	-4.8R	27.1	-4.6R	28	-4.4R	28.6	-4.2R	29.2	-4R	29.7	-3.8R	30.1	-3.6R	30.4	-3.5R	30.7	-3.3R

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

ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.6

Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	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		4.2 -0.1R	
		12"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	5.2 -0.3R		5.2 -0.3R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.1R	
		18"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	6.6 -0.6R		6.7 -0.5R		6.8 -0.5R		6.9 -0.4R		6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R	
		24"	q_a	1170	1883	1217	1959	1146	1845	1190	1917	1131	1820	1170	1884	1120	1804	1156	1861	1113	1792
			q_f																		
			F	8 -0.9R		8.1 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R	
	18 ga	4"	q_a	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674
			q_f																		
			F	4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674
			q_f																		
			F	5 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674
			q_f																		
			F	5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.1R	
		12"	q_a	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674	1040	1674
			q_f																		
			F	7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R	
		18"	q_a	992	1674	1008	1623	1020	1643	963	1551	979	1576	991	1596	948	1527	962	1549	974	1567
			q_f																		
			F	9.6 -1.1R		9.8 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.7R		10.4 -0.6R	
		24"	q_a	873	1405	914	1472	844	1359	882	1420	826	1330	860	1384	813	1310	844	1359	804	1295
			q_f																		
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.4 -1.3R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	20 ga	4"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	847	1356
			q_f																		
			F	6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	847	1356
			q_f																		
			F	7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.2R		7.9 -0.2R		8 -0.2R	
		8"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	847	1356
			q_f																		
			F	9 -0.7R		9.1 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.4R	
		12"	q_a	830	1337	821	1322	814	1311	809	1302	804	1294	800	1288	797	1283	794	1279	792	1275
			q_f																		
			F	11.5 -1.3R		11.7 -1.2R		11.9 -1.1R		12 -1R		12.1 -0.9R		12.2 -0.9R		12.3 -0.8R		12.4 -0.8R		12.5 -0.7R	
		18"	q_a	693	1337	703	1132	711	1144	659	1061	670	1079	679	1094	641	1032	651	1049	660	1063
			q_f																		
			F	14.6 -2.2R		15 -2.1R		15.4 -2R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R		16.3 -1.6R		16.4 -1.5R		16.6 -1.5R	
		24"	q_a	599	964	626	1007	568	914	593	955	548	883	572	921	535	861	556	896	525	846
			q_f																		
			F	17.2 -3.2R		17.9 -3.1R		18.4 -3R		18.9 -2.8R		19.3 -2.7R		19.6 -2.6R		19.9 -2.5R		20.1 -2.4R		20.4 -2.3R	
	22 ga	4"	q_a	731	1177	731	1177	731	1177	731	1177	731	1177	731	1177	731	1177	714	1142	615	984
			q_f																		
			F	8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R	
		6"	q_a	731	1177	731	1177	731	1177	731	1177	731	1177	731	1177	731	1177	714	1142	615	984
			q_f																		
			F	10.6 -0.8R		10.7 -0.7R		10.8 -0.6R		10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.1 -0.5R		11.1 -0.4R		11.2 -0.4R	
		8"	q_a	731	1177	731	1177	731	1177	731	1177	728	1172	731	1177	723	1164	714	1142	615	984
			q_f																		
			F	12.5 -1.2R		12.7 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.8R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R	
		12"	q_a	632	1017	621	1000	613	987	606	976	601	967	596	960	593	954	589	949	587	944
			q_f																		
			F	15.8 -2.2R		16.2 -2.1R		16.6 -1.9R		16.9 -1.8R		17.1 -1.7R		17.3 -1.6R		17.5 -1.6R		17.6 -1.5R		17.7 -1.4R	
		18"	q_a	516	1017	521	839	525	845	481	775	488	786	494	796	463	745	470	756	476	766
			q_f																		
			F	19.8 -3.7R		20.6 -3.6R		21.3 -3.4R		21.8 -3.3R		22.3 -3.2R		22.7 -3R		23 -2.9R		23.3 -2.8R		23.6 -2.7R	
		24"	q_a	444	714	460	741	414	666	430	693	395	635	411	661	382	615	397	638	372	600
			q_f																		
			F	23.1 -5.1R		24.2 -5R		25.2 -4.9R		26 -4.8R		26.7 -4.7R		27.3 -4.5R		27.9 -4.4R		28.3 -4.3R		28.7 -4.1R	

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Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1217		1217		1217		1217		1217		1217		1217		1217		1217	
			q_f	1959		1959		1959		1959		1959		1959		1959		1959		1959	
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1217		1217		1217		1217		1217		1217		1217		1217		1217	
			q_f	1959		1959		1959		1959		1959		1959		1959		1959		1959	
			F	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	-0.1R	3.6	+0R
		8"	q_a	1217		1217		1217		1217		1217		1217		1217		1217		1217	
			q_f	1959		1959		1959		1959		1959		1959		1959		1959		1959	
			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
		12"	q_a	1217		1217		1217		1217		1217		1217		1217		1217		1217	
			q_f	1959		1959		1959		1959		1959		1959		1959		1959		1959	
			F	5.1	-0.3R	5.1	-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
		18"	q_a	1217		1217		1217		1217		1217		1217		1217		1217		1217	
			q_f	1959		1959		1959		1959		1959		1959		1959		1959		1959	
			F	6.4	-0.6R	6.6	-0.6R	6.7	-0.5R	6.7	-0.5R	6.8	-0.5R	6.8	-0.4R	6.9	-0.4R	6.9	-0.4R	7	-0.4R
		24"	q_a	1217		1217		1217		1217		1217		1217		1217		1217		1217	
			q_f	1959		1959		1959		1959		1959		1959		1959		1959		1959	
			F	7.6	-1R	7.8	-0.9R	8	-0.9R	8.1	-0.8R	8.2	-0.8R	8.3	-0.7R	8.4	-0.7R	8.4	-0.6R	8.5	-0.6R
	18 ga	4"	q_a	1040		1040		1040		1040		1040		1040		1040		1040		1040	
			q_f	1674		1674		1674		1674		1674		1674		1674		1674		1674	
			F	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	4.2	+0R
		6"	q_a	1040		1040		1040		1040		1040		1040		1040		1040		1040	
			q_f	1674		1674		1674		1674		1674		1674		1674		1674		1674	
			F	5	-0.2R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R	5.1	-0.1R
		8"	q_a	1040		1040		1040		1040		1040		1040		1040		1040		1040	
			q_f	1674		1674		1674		1674		1674		1674		1674		1674		1674	
			F	5.8	-0.3R	5.8	-0.3R	5.9	-0.3R	5.9	-0.3R	6	-0.2R	6	-0.2R	6	-0.2R	6	-0.2R	6	-0.2R
		12"	q_a	1040		1040		1040		1040		1040		1040		1040		1040		1040	
			q_f	1674		1674		1674		1674		1674		1674		1674		1674		1674	
			F	7.2	-0.7R	7.4	-0.6R	7.5	-0.6R	7.5	-0.5R	7.6	-0.5R	7.7	-0.5R	7.7	-0.4R	7.7	-0.4R	7.8	-0.4R
		18"	q_a	1040		1040		1040		1040		1040		1040		1040		1040		1040	
			q_f	1674		1674		1674		1674		1674		1674		1674		1674		1674	
			F	9.2	-1.2R	9.4	-1.1R	9.6	-1.1R	9.7	-1R	9.9	-0.9R	10	-0.9R	10.1	-0.8R	10.1	-0.8R	10.2	-0.8R
		24"	q_a	1015		1040		968		1019		939		985		919		960		905	
			q_f	1635		1674		1559		1641		1512		1585		1480		1546		1457	
			F	10.8	-1.8R	11.1	-1.7R	11.4	-1.6R	11.7	-1.5R	11.9	-1.5R	12.1	-1.4R	12.2	-1.3R	12.3	-1.3R	12.5	-1.2R
	20 ga	4"	q_a	856		856		856		856		856		856		856		856		847	
			q_f	1377		1377		1377		1377		1377		1377		1377		1377		1356	
			F	6.2	-0.2R	6.2	-0.2R	6.2	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.2R	6.3	-0.1R	6.3	-0.1R	6.3	-0.1R
		6"	q_a	856		856		856		856		856		856		856		856		847	
			q_f	1377		1377		1377		1377		1377		1377		1377		1377		1356	
			F	7.5	-0.5R	7.6	-0.4R	7.7	-0.4R	7.7	-0.4R	7.8	-0.3R	7.8	-0.3R	7.8	-0.3R	7.9	-0.3R	7.9	-0.3R
		8"	q_a	856		856		856		856		856		856		856		856		847	
			q_f	1377		1377		1377		1377		1377		1377		1377		1377		1356	
			F	8.8	-0.8R	8.9	-0.7R	9	-0.7R	9.1	-0.6R	9.2	-0.6R	9.2	-0.5R	9.3	-0.5R	9.3	-0.5R	9.4	-0.4R
		12"	q_a	856		856		856		856		856		856		856		856		847	
			q_f	1377		1377		1377		1377		1377		1377		1377		1377		1356	
			F	11	-1.4R	11.3	-1.3R	11.5	-1.2R	11.7	-1.2R	11.8	-1.1R	11.9	-1R	12	-1R	12.1	-0.9R	12.2	-0.9R
		18"	q_a	801		811		820		747		760		771		719		731		742	
			q_f	1377		1306		1319		1202		1224		1241		1157		1178		1195	
			F	13.7	-2.4R	14.2	-2.3R	14.6	-2.2R	15	-2.1R	15.2	-2R	15.5	-1.9R	15.7	-1.9R	15.9	-1.8R	16.1	-1.7R
		24"	q_a	677		707		632		661		604		631		585		610		571	
			q_f	1089		1139		1017		1065		972		1016		942		982		920	
			F	15.9	-3.3R	16.6	-3.2R	17.3	-3.2R	17.8	-3.1R	18.2	-3R	18.6	-2.9R	18.9	-2.8R	19.2	-2.7R	19.5	-2.6R
	22 ga	4"	q_a	731		731		731		731		731		731		731		714		615	
			q_f	1177		1177		1177		1177		1177		1177		1177		1142		984	
			F	8.4	-0.5R	8.5	-0.4R	8.5	-0.4R	8.6	-0.4R	8.6	-0.3R	8.7	-0.3R	8.7	-0.3R	8.7	-0.3R	8.7	-0.3R
		6"	q_a	731		731		731		731		731		731		731		714		615	
			q_f	1177		1177		1177		1177		1177		1177		1177		1142		984	
			F	10.3	-0.9R	10.5	-0.8R	10.6	-0.8R	10.7	-0.7R	10.8	-0.7R	10.9	-0.6R	10.9	-0.6R	11	-0.6R	11	-0.5R
		8"	q_a	731		731		731		731		731		731		731		714		615	
			q_f	1177		1177		1177		1177		1177		1177		1177		1142		984	
			F	12	-1.4R	12.3	-1.3R	12.5	-1.2R	12.7	-1.1R	12.8	-1.1R	12.9	-1R	13	-1R	13.1	-0.9R	13.2	-0.9R
		12"	q_a	731		722		708		697		688		681		675		670		615	
			q_f	1177		1163		1140		1123		1108		1096		1086		1078		984	
			F	14.9	-2.4R	15.4	-2.3R	15.8	-2.2R	16.2	-2.1R	16.5	-2R	16.7	-1.9R	16.9	-1.8R	17.1	-1.7R	17.2	-1.7R
		18"	q_a	584		587		589		533		540		546		506		514		521	
			q_f	1177		945		949		858		870		879		815		828		838	
			F	18.3	-3.8R	19.2	-3.7R	19.9	-3.7R	20.5	-3.6R	21.1	-3.5R	21.5	-3.4R	21.9	-3.3R	22.2	-3.2R	22.5	-3.1R
		24"	q_a	478		505		441		466		419		442		405		425		394	
			q_f	770		812		711		750		675		711		652		684		635	
			F	20.9	-5R	22.2	-5.1R	23.2	-5.1R	24.1	-5R	24.9	-4.9R	25.5	-4.9R	26.1	-4.8R	26.7	-4.7R	27.1	-4.6R

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

ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.6

Pneutek K64 Fasteners to Supports with DeltaGrip® 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	1569	2526	1569	2525	1568	2525	1568	2525	1568	2525	1568	2525	1568	2525	1568	2525	1568	2525
			q_f																		
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1539	2478	1538	2477	1538	2476	1538	2476	1537	2475	1537	2475	1537	2475	1537	2474	1537	2474
			q_f																		
			F	3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	q_a	1501	2417	1508	2427	1499	2414	1504	2422	1498	2412	1502	2419	1497	2410	1501	2417	1496	2409
			q_f																		
			F	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		4.2 +0R		4.3 +0R	
		12"	q_a	1412	2273	1409	2268	1406	2264	1404	2261	1403	2259	1402	2257	1401	2255	1400	2253	1399	2252
			q_f																		
			F	5.3 -0.2R		5.3 -0.2R		5.4 -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	
		18"	q_a	1269	2273	1291	2078	1306	2103	1252	2016	1271	2046	1285	2068	1244	2002	1259	2027	1271	2047
			q_f																		
			F	6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R		7.1 -0.3R		7.1 -0.2R		7.2 -0.2R		7.2 -0.2R	
		24"	q_a	1138	1832	1192	1919	1119	1801	1166	1877	1107	1782	1148	1849	1099	1769	1135	1828	1093	1760
			q_f																		
			F	8.4 -0.7R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R		8.8 -0.4R		8.8 -0.4R		8.8 -0.4R		8.9 -0.4R	
	18 ga	4"	q_a	1257	2024	1257	2024	1257	2023	1256	2023	1256	2023	1256	2022	1256	2022	1256	2022	1256	2022
			q_f																		
			F	4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	1220	1964	1219	1963	1218	1962	1218	1961	1217	1960	1217	1959	1217	1959	1217	1959	1216	1958
			q_f																		
			F	5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1175	1892	1182	1903	1172	1887	1178	1896	1170	1883	1175	1892	1169	1881	1173	1889	1168	1880
			q_f																		
			F	6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R	
		12"	q_a	1076	1732	1072	1725	1068	1720	1066	1716	1064	1712	1062	1710	1060	1707	1059	1705	1058	1704
			q_f																		
			F	7.7 -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 -0.2R		8 -0.2R	
		18"	q_a	934	1732	953	1535	967	1556	915	1473	931	1499	944	1519	905	1456	918	1479	930	1497
			q_f																		
			F	10.1 -0.8R		10.2 -0.8R		10.3 -0.7R		10.4 -0.6R		10.5 -0.6R		10.5 -0.5R		10.6 -0.5R		10.6 -0.5R		10.7 -0.5R	
		24"	q_a	819	1318	863	1390	798	1285	837	1348	785	1264	820	1319	777	1250	807	1299	770	1240
			q_f																		
			F	12.2 -1.3R		12.5 -1.2R		12.6 -1.1R		12.8 -1R		12.9 -1R		13 -0.9R		13.1 -0.8R		13.2 -0.8R		13.2 -0.8R	
	20 ga	4"	q_a	918	1478	918	1477	917	1477	917	1476	917	1476	917	1476	916	1475	916	1475	847	1356
			q_f																		
			F	6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	876	1411	875	1409	874	1408	874	1406	873	1405	872	1405	872	1404	872	1403	847	1356
			q_f																		
			F	7.8 -0.3R		7.9 -0.3R		7.9 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.1R	
		8"	q_a	829	1335	836	1346	825	1329	831	1338	823	1325	828	1333	821	1322	826	1329	820	1320
			q_f																		
			F	9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.3R		9.6 -0.3R		9.6 -0.3R		9.6 -0.3R		9.6 -0.2R	
		12"	q_a	735	1183	730	1175	726	1169	723	1164	721	1161	719	1157	717	1155	716	1152	714	1150
			q_f																		
			F	12 -1R		12.2 -0.9R		12.3 -0.8R		12.4 -0.7R		12.5 -0.7R		12.6 -0.6R		12.7 -0.6R		12.7 -0.6R		12.8 -0.5R	
		18"	q_a	617	1183	630	1014	640	1030	597	961	609	980	618	995	587	944	597	961	605	975
			q_f																		
			F	15.7 -1.9R		16.1 -1.7R		16.3 -1.6R		16.5 -1.5R		16.7 -1.4R		16.9 -1.3R		17 -1.2R		17.1 -1.2R		17.2 -1.1R	
		24"	q_a	530	854	560	902	511	823	538	866	499	804	523	842	491	791	512	825	486	782
			q_f																		
			F	18.9 -2.8R		19.5 -2.6R		19.9 -2.5R		20.3 -2.3R		20.6 -2.2R		20.8 -2.1R		21.1 -2R		21.2 -1.9R		21.4 -1.8R	
	22 ga	4"	q_a	677	1090	677	1090	676	1089	676	1088	676	1088	676	1088	676	1088	675	1087	615	984
			q_f																		
			F	8.7 -0.3R		8.7 -0.3R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.9 -0.1R		8.9 -0.1R	
		6"	q_a	640	1030	638	1028	637	1026	637	1025	636	1024	635	1023	635	1022	635	1022	615	984
			q_f																		
			F	10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.2 -0.4R		11.2 -0.4R		11.3 -0.4R		11.3 -0.3R		11.3 -0.3R		11.3 -0.3R	
		8"	q_a	598	964	604	972	594	957	599	965	592	953	596	960	590	950	594	956	589	948
			q_f																		
			F	13 -1R		13.2 -0.9R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R		13.6 -0.6R		13.6 -0.6R		13.7 -0.5R		13.7 -0.5R	
		12"	q_a	521	838	516	831	513	826	510	821	508	818	506	815	504	812	503	810	502	808
			q_f																		
			F	16.9 -1.8R		17.2 -1.7R		17.5 -1.5R		17.7 -1.4R		17.9 -1.3R		18 -1.2R		18.1 -1.2R		18.2 -1.1R		18.3 -1R	
		18"	q_a	430	838	439	707	445	717	413	665	422	679	428	690	404	651	412	663	418	673
			q_f																		
			F	21.9 -3.3R		22.5 -3.1R		23.1 -2.9R		23.5 -2.7R		23.8 -2.6R		24.1 -2.4R		24.4 -2.3R		24.6 -2.2R		24.8 -2.1R	
		24"	q_a	367	591	388	624	351	566	370	596	342	550	358	577	335	540	350	563	330	532
			q_f																		
			F	26.1 -4.8R		27.1 -4.6R		28 -4.4R		28.6 -4.2R		29.2 -4R		29.7 -3.8R		30.1 -3.6R		30.4 -3.5R		30.7 -3.3R	

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

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Pneutek K64 Fasteners to Supports with DeltaGrip® 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	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	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		4.2 -0.1R	
		12"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	5.2 -0.3R		5.2 -0.3R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.1R	
		18"	q_a	1544	2568	1570	2527	1588	2557	1502	2419	1526	2458	1545	2488	1480	2383	1502	2417	1519	2446
			q_f																		
			F	6.6 -0.6R		6.7 -0.5R		6.8 -0.5R		6.9 -0.4R		6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R	
		24"	q_a	1362	2193	1427	2297	1320	2125	1378	2219	1293	2082	1345	2166	1274	2052	1321	2127	1261	2030
			q_f																		
			F	8 -0.9R		8.1 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R	
	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	4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	5 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.1R	
		12"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1290	2077	1286	2070	1282	2063	1278	2058	1274	2038
			q_f																		
			F	7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R	
		18"	q_a	1121	2079	1139	1833	1152	1855	1076	1732	1094	1762	1109	1785	1052	1693	1068	1720	1082	1743
			q_f																		
			F	9.6 -1.1R		9.8 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.7R		10.4 -0.6R	
		24"	q_a	974	1568	1019	1641	931	1499	974	1568	904	1456	943	1518	886	1426	921	1483	873	1405
			q_f																		
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.4 -1.3R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	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	6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.2R		7.9 -0.2R		8 -0.2R	
		8"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	9 -0.7R		9.1 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.4R	
		12"	q_a	888	1430	876	1411	867	1396	860	1385	854	1375	849	1367	845	1360	841	1355	838	1350
			q_f																		
			F	11.5 -1.3R		11.7 -1.2R		11.9 -1.1R		12 -1R		12.1 -0.9R		12.2 -0.9R		12.3 -0.8R		12.4 -0.8R		12.5 -0.7R	
		18"	q_a	734	1430	743	1197	750	1208	692	1115	704	1133	713	1147	670	1079	681	1096	690	1111
			q_f																		
			F	14.6 -2.2R		15 -2.1R		15.4 -2R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R		16.3 -1.6R		16.4 -1.5R		16.6 -1.5R	
		24"	q_a	632	1018	659	1060	595	958	621	1000	572	921	596	960	556	895	578	931	545	877
			q_f																		
			F	17.2 -3.2R		17.9 -3.1R		18.4 -3R		18.9 -2.8R		19.3 -2.7R		19.6 -2.6R		19.9 -2.5R		20.1 -2.4R		20.4 -2.3R	
	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	8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R	
		6"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	10.6 -0.8R		10.7 -0.7R		10.8 -0.6R		10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.1 -0.5R		11.1 -0.4R		11.2 -0.4R	
		8"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1150	714	1142	615	984
			q_f																		
			F	12.5 -1.2R		12.7 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.8R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R	
		12"	q_a	625	1006	615	990	607	977	600	967	595	958	591	951	587	945	584	940	581	936
			q_f																		
			F	15.8 -2.2R		16.2 -2.1R		16.6 -1.9R		16.9 -1.8R		17.1 -1.7R		17.3 -1.6R		17.5 -1.6R		17.6 -1.5R		17.7 -1.4R	
		18"	q_a	511	1006	516	831	520	837	477	768	484	780	490	789	459	739	466	751	472	761
			q_f																		
			F	19.8 -3.7R		20.6 -3.6R		21.3 -3.4R		21.8 -3.3R		22.3 -3.2R		22.7 -3R		23 -2.9R		23.3 -2.8R		23.6 -2.7R	
		24"	q_a	439	708	456	734	410	660	427	687	392	631	408	656	379	611	394	634	370	596
			q_f																		
			F	23.1 -5.1R		24.2 -5R		25.2 -4.9R		26 -4.8R		26.7 -4.7R		27.3 -4.5R		27.9 -4.4R		28.3 -4.3R		28.7 -4.1R	

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Pneutek K64 Fasteners to Supports with DeltaGrip® 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	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R	
		8"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			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	
		12"	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 -0.3R		5.1 -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	
		18"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	6.4 -0.6R		6.6 -0.6R		6.7 -0.5R		6.7 -0.5R		6.8 -0.5R		6.8 -0.4R		6.9 -0.4R		6.9 -0.4R		7 -0.4R	
		24"	q_a	1591	2562	1595	2568	1520	2448	1595	2568	1476	2377	1548	2492	1446	2329	1511	2432	1425	2294
			q_f																		
			F	7.6 -1R		7.8 -0.9R		8 -0.9R		8.1 -0.8R		8.2 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R	
	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	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		4.2 +0R	
		6"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	5 -0.2R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R	
		8"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	5.8 -0.3R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R	
		12"	q_a	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1291	2079	1274	2038
			q_f																		
			F	7.2 -0.7R		7.4 -0.6R		7.5 -0.6R		7.5 -0.5R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R	
		18"	q_a	1291	2079	1291	2079	1291	2079	1238	1994	1262	2033	1282	2064	1199	1930	1221	1966	1240	1996
			q_f																		
			F	9.2 -1.2R		9.4 -1.1R		9.6 -1.1R		9.7 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.1 -0.8R		10.2 -0.8R	
		24"	q_a	1111	1789	1167	1879	1046	1685	1099	1769	1006	1620	1054	1697	979	1577	1022	1646	960	1545
			q_f																		
			F	10.8 -1.8R		11.1 -1.7R		11.4 -1.6R		11.7 -1.5R		11.9 -1.5R		12.1 -1.4R		12.2 -1.3R		12.3 -1.3R		12.5 -1.2R	
	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	6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R	
		6"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	7.5 -0.5R		7.6 -0.4R		7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R	
		8"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	8.8 -0.8R		8.9 -0.7R		9 -0.7R		9.1 -0.6R		9.2 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R	
		12"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847	1356
			q_f																		
			F	11 -1.4R		11.3 -1.3R		11.5 -1.2R		11.7 -1.2R		11.8 -1.1R		11.9 -1R		12 -1R		12.1 -0.9R		12.2 -0.9R	
		18"	q_a	839	1544	848	1365	854	1376	776	1249	789	1270	799	1286	743	1196	755	1216	766	1233
			q_f																		
			F	13.7 -2.4R		14.2 -2.3R		14.6 -2.2R		15 -2.1R		15.2 -2R		15.5 -1.9R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R	
		24"	q_a	705	1134	739	1189	652	1050	687	1105	623	1004	653	1051	604	972	629	1012	588	947
			q_f																		
			F	15.9 -3.3R		16.6 -3.2R		17.3 -3.2R		17.8 -3.1R		18.2 -3R		18.6 -2.9R		18.9 -2.8R		19.2 -2.7R		19.5 -2.6R	
	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	8.4 -0.5R		8.5 -0.4R		8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.3R	
		6"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	10.3 -0.9R		10.5 -0.8R		10.6 -0.8R		10.7 -0.7R		10.8 -0.7R		10.9 -0.6R		10.9 -0.6R		11 -0.6R		11 -0.5R	
		8"	q_a	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	716	1153	714	1142	615	984
			q_f																		
			F	12 -1.4R		12.3 -1.3R		12.5 -1.2R		12.7 -1.1R		12.8 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.9R	
		12"	q_a	716	1153	716	1153	703	1131	692	1114	684	1100	676	1089	670	1079	665	1071	615	984
			q_f																		
			F	14.9 -2.4R		15.4 -2.3R		15.8 -2.2R		16.2 -2.1R		16.5 -2R		16.7 -1.9R		16.9 -1.8R		17.1 -1.7R		17.2 -1.7R	
		18"	q_a	579	1153	582	938	585	942	529	852	537	864	543	874	503	810	511	823	518	834
			q_f																		
			F	18.3 -3.8R		19.2 -3.7R		19.9 -3.7R		20.5 -3.6R		21.1 -3.5R		21.5 -3.4R		21.9 -3.3R		22.2 -3.2R		22.5 -3.1R	
		24"	q_a	475	765	502	808	439	707	464	747	418	672	440	708	403	649	423	682	393	633
			q_f																		
			F	20.9 -5R		22.2 -5.1R		23.2 -5.1R		24.1 -5R		24.9 -4.9R		25.5 -4.9R		26.1 -4.8R		26.7 -4.7R		27.1 -4.6R	

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Pneutek K66 Fasteners to Supports with DeltaGrip® 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	1736	1736	1736	1736	1736	1736	1736	1736	1736	1735	1735	1735	1735	1735	1735	1735	1735	1735
			q_f	2796	2795	2795	2795	2795	2795	2795	2795	2794	2794	2794	2794	2794	2794	2794	2794	2794	2794
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1697	1696	1695	1695	1695	1695	1694	1694	1694	1694	1694	1694	1694	1693	1693	1693	1693	1693
			q_f	2731	2730	2729	2728	2728	2727	2727	2726	2726	2726	2726	2726	2726	2726	2726	2726	2726	2726
			F	3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	q_a	1647	1655	1644	1651	1642	1648	1641	1646	1640									
			q_f	2652	2665	2647	2658	2644	2654	2642	2650	2641									
			F	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		4.2 +0R		4.3 +0R	
		12"	q_a	1533	1529	1525	1523	1521	1519	1517	1516	1515									
			q_f	2468	2461	2456	2452	2448	2445	2443	2441	2439									
			F	5.3 -0.2R		5.3 -0.2R		5.4 -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	
		18"	q_a	1359	1384	1402	1337	1359	1375	1326	1344	1358									
			q_f	2468	2229	2257	2153	2187	2214	2135	2163	2187									
			F	6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R		7.1 -0.3R		7.1 -0.2R		7.2 -0.2R		7.2 -0.2R	
		24"	q_a	1206	1268	1182	1236	1167	1214	1157	1199	1150									
			q_f	1942	2041	1904	1990	1880	1955	1863	1930	1851									
			F	8.4 -0.7R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R		8.8 -0.4R		8.8 -0.4R		8.8 -0.4R		8.9 -0.4R	
	18 ga	4"	q_a	1310	1309	1309	1309	1309	1308	1308	1308	1274									
			q_f	2108	2108	2107	2107	2107	2107	2106	2106	2038									
			F	4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	1268	1267	1266	1265	1265	1264	1264	1264	1264									
			q_f	2041	2040	2038	2037	2036	2036	2035	2035	2034									
			F	5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1218	1225	1214	1221	1212	1218	1210	1216	1209									
			q_f	1961	1973	1955	1966	1951	1961	1949	1957	1947									
			F	6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R		6.1 -0.1R	
		12"	q_a	1109	1105	1101	1098	1096	1094	1092	1091	1089									
			q_f	1786	1778	1772	1768	1764	1761	1758	1756	1754									
			F	7.7 -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 -0.2R		8 -0.2R	
		18"	q_a	958	978	992	936	953	967	925	939	951									
			q_f	1786	1574	1597	1507	1535	1556	1489	1512	1532									
			F	10.1 -0.8R		10.2 -0.8R		10.3 -0.7R		10.4 -0.6R		10.5 -0.6R		10.5 -0.5R		10.6 -0.5R		10.6 -0.5R		10.7 -0.5R	
		24"	q_a	836	882	814	854	800	836	791	822	784									
			q_f	1346	1420	1310	1375	1288	1345	1273	1323	1262									
			F	12.2 -1.3R		12.5 -1.2R		12.6 -1.1R		12.8 -1R		12.9 -1R		13 -0.9R		13.1 -0.8R		13.2 -0.8R		13.2 -0.8R	
	20 ga	4"	q_a	938	938	937	937	937	936	936	936	847									
			q_f	1510	1509	1509	1508	1508	1508	1507	1507	1356									
			F	6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	894	893	892	891	890	890	889	889	847									
			q_f	1439	1437	1436	1434	1433	1432	1432	1431	1356									
			F	7.8 -0.3R		7.9 -0.3R		7.9 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.2R		8 -0.1R	
		8"	q_a	844	851	840	846	837	843	835	840	834									
			q_f	1360	1371	1352	1362	1348	1357	1345	1353	1343									
			F	9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.3R		9.6 -0.3R		9.6 -0.3R		9.6 -0.3R		9.6 -0.2R	
		12"	q_a	746	741	737	734	731	729	727	725	724									
			q_f	1201	1193	1186	1181	1177	1173	1170	1168	1166									
			F	12 -1R		12.2 -0.9R		12.3 -0.8R		12.4 -0.7R		12.5 -0.7R		12.6 -0.6R		12.7 -0.6R		12.7 -0.6R		12.8 -0.5R	
		18"	q_a	624	637	647	603	615	625	592	603	612									
			q_f	1201	1026	1042	971	991	1006	954	971	985									
			F	15.7 -1.9R		16.1 -1.7R		16.3 -1.6R		16.5 -1.5R		16.7 -1.4R		16.9 -1.3R		17 -1.2R		17.1 -1.2R		17.2 -1.1R	
		24"	q_a	536	566	516	543	504	528	495	517	489									
			q_f	862	912	831	874	811	850	797	832	788									
			F	18.9 -2.8R		19.5 -2.6R		19.9 -2.5R		20.3 -2.3R		20.6 -2.2R		20.8 -2.1R		21.1 -2R		21.2 -1.9R		21.4 -1.8R	
	22 ga	4"	q_a	726	725	725	724	724	724	724	714	615									
			q_f	1169	1168	1167	1166	1166	1165	1165	1142	984									
			F	8.7 -0.3R		8.7 -0.3R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R		8.9 -0.1R		8.9 -0.1R	
		6"	q_a	681	679	678	677	676	675	675	674	615									
			q_f	1096	1093	1091	1090	1088	1087	1086	1086	984									
			F	10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.2 -0.4R		11.2 -0.4R		11.3 -0.4R		11.3 -0.3R		11.3 -0.3R		11.3 -0.3R	
		8"	q_a	633	639	628	633	624	629	622	627	615									
			q_f	1018	1028	1010	1019	1005	1013	1002	1009	984									
			F	13 -1R		13.2 -0.9R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R		13.6 -0.6R		13.6 -0.6R		13.7 -0.5R		13.7 -0.5R	
		12"	q_a	545	539	535	532	529	527	525	524	522									
			q_f	877	868	861	856	852	848	845	843	841									
			F	16.9 -1.8R		17.2 -1.7R		17.5 -1.5R		17.7 -1.4R		17.9 -1.3R		18 -1.2R		18.1 -1.2R		18.2 -1.1R		18.3 -1R	
		18"	q_a	446	455	461	426	435	442	416	424	430									
			q_f	877	732	743	687	701	712	670	683	693									
			F	21.9 -3.3R		22.5 -3.1R		23.1 -2.9R		23.5 -2.7R		23.8 -2.6R		24.1 -2.4R		24.4 -2.3R		24.6 -2.2R		24.8 -2.1R	
		24"	q_a	379	400	362	381	351	368	343	359	338									
			q_f	610	644	582	613	565	592	553	577	544									
			F	26.1 -4.8R		27.1 -4.6R		28 -4.4R		28.6 -4.2R		29.2 -4R		29.7 -3.8R		30.1 -3.6R		30.4 -3.5R		30.7 -3.3R	

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

ASC STEEL DECK

DG2WH-36 & DG2WHF-36 4.6

Pneutek K66 Fasteners to Supports with DeltaGrip® 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	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R		3.6 +0R		3.6 +0R		3.6 +0R	
		8"	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 -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		4.2 -0.1R	
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	5.2 -0.3R		5.2 -0.3R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.3 -0.2R		5.4 -0.2R		5.4 -0.2R		5.4 -0.1R	
		18"	q_a	1642	2853	1670	2689	1690	2721	1590	2560	1617	2603	1637	2636	1562	2515	1586	2553	1605	2584
			q_f																		
			F	6.6 -0.6R		6.7 -0.5R		6.8 -0.5R		6.9 -0.4R		6.9 -0.4R		7 -0.4R		7 -0.3R		7 -0.3R		7.1 -0.3R	
		24"	q_a	1439	2317	1508	2427	1387	2233	1450	2334	1354	2180	1411	2271	1332	2144	1383	2226	1315	2118
			q_f																		
			F	8 -0.9R		8.1 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R		8.6 -0.6R		8.6 -0.5R		8.7 -0.5R	
	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	4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 -0.1R		4.2 +0R		4.2 +0R		4.2 +0R		4.2 +0R	
		6"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	5 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.1R	
		12"	q_a	1348	2171	1347	2169	1338	2154	1330	2141	1324	2131	1318	2123	1314	2116	1310	2110	1274	2038
			q_f																		
			F	7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R	
		18"	q_a	1147	2171	1165	1875	1178	1897	1098	1767	1117	1798	1132	1822	1072	1726	1089	1753	1103	1776
			q_f																		
			F	9.6 -1.1R		9.8 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.7R		10.4 -0.6R	
		24"	q_a	994	1601	1041	1675	949	1527	992	1597	920	1481	959	1544	900	1449	936	1507	886	1426
			q_f																		
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.4 -1.3R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	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	6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R		6.4 -0.1R		6.4 -0.1R	
		6"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R		7.9 -0.2R		7.9 -0.2R		8 -0.2R	
		8"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	9 -0.7R		9.1 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R		9.4 -0.4R		9.5 -0.4R		9.5 -0.4R	
		12"	q_a	900	1450	888	1429	878	1414	871	1402	864	1391	859	1383	855	1376	851	1370	847	1356
			q_f																		
			F	11.5 -1.3R		11.7 -1.2R		11.9 -1.1R		12 -1R		12.1 -0.9R		12.2 -0.9R		12.3 -0.8R		12.4 -0.8R		12.5 -0.7R	
		18"	q_a	743	1450	752	1210	758	1221	699	1126	710	1144	720	1158	676	1088	687	1106	696	1121
			q_f																		
			F	14.6 -2.2R		15 -2.1R		15.4 -2R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R		16.3 -1.6R		16.4 -1.5R		16.6 -1.5R	
		24"	q_a	639	1029	665	1071	601	967	627	1009	577	929	601	968	560	902	583	938	549	883
			q_f																		
			F	17.2 -3.2R		17.9 -3.1R		18.4 -3R		18.9 -2.8R		19.3 -2.7R		19.6 -2.6R		19.9 -2.5R		20.1 -2.4R		20.4 -2.3R	
	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	8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.2R		8.8 -0.2R		8.8 -0.2R		8.8 -0.2R	
		6"	q_a	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	714	1142	615	984
			q_f																		
			F	10.6 -0.8R		10.7 -0.7R		10.8 -0.6R		10.9 -0.6R		11 -0.5R		11.1 -0.5R		11.1 -0.5R		11.1 -0.4R		11.2 -0.4R	
		8"	q_a	774	1246	774	1246	761	1225	768	1236	753	1212	759	1222	747	1203	714	1142	615	984
			q_f																		
			F	12.5 -1.2R		12.7 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.8R		13.3 -0.8R		13.4 -0.7R		13.5 -0.7R	
		12"	q_a	651	1049	639	1029	630	1014	623	1003	617	993	612	985	607	978	604	972	601	967
			q_f																		
			F	15.8 -2.2R		16.2 -2.1R		16.6 -1.9R		16.9 -1.8R		17.1 -1.7R		17.3 -1.6R		17.5 -1.6R		17.6 -1.5R		17.7 -1.4R	
		18"	q_a	531	1049	535	861	538	866	492	792	499	803	505	813	472	760	479	771	485	781
			q_f																		
			F	19.8 -3.7R		20.6 -3.6R		21.3 -3.4R		21.8 -3.3R		22.3 -3.2R		22.7 -3R		23 -2.9R		23.3 -2.8R		23.6 -2.7R	
		24"	q_a	456	734	472	759	423	681	440	708	403	649	419	674	389	626	404	650	379	610
			q_f																		
			F	23.1 -5.1R		24.2 -5R		25.2 -4.9R		26 -4.8R		26.7 -4.7R		27.3 -4.5R		27.9 -4.4R		28.3 -4.3R		28.7 -4.1R	

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

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Pneutek K66 Fasteners to Supports with DeltaGrip® Side Seam Attachment

Diaphragm Shear in pounds per linear foot (plf)

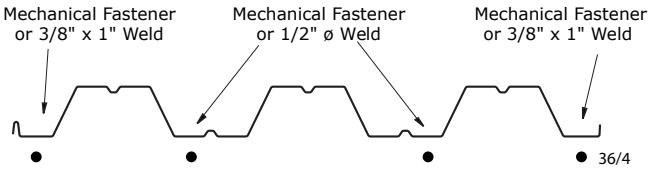
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																							
			Span →	6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"		13' - 0"		14' - 0"	
36/6	16 ga	4"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R		3 +0R	
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.6 +0R	
		8"	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 -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	
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	5.1 -0.3R		5.1 -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	
		18"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	6.4 -0.6R		6.6 -0.6R		6.7 -0.5R		6.7 -0.5R		6.8 -0.5R		6.8 -0.4R		6.9 -0.4R		6.9 -0.4R		7 -0.4R	
		24"	q_a	1663	2677	1753	2822	1580	2543	1662	2676	1528	2461	1602	2579	1493	2404	1560	2511	1468	2363
			q_f																		
			F	7.6 -1R		7.8 -0.9R		8 -0.9R		8.1 -0.8R		8.2 -0.8R		8.3 -0.7R		8.4 -0.7R		8.4 -0.6R		8.5 -0.6R	
	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	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		4.2 +0R	
		6"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	5 -0.2R		5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R		5.1 -0.1R	
		8"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	5.8 -0.3R		5.8 -0.3R		5.9 -0.3R		5.9 -0.3R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R		6 -0.2R	
		12"	q_a	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1348	2171	1274	2038
			q_f																		
			F	7.2 -0.7R		7.4 -0.6R		7.5 -0.6R		7.5 -0.5R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R		7.7 -0.4R		7.8 -0.4R	
		18"	q_a	1338	2171	1348	2171	1348	2171	1257	2024	1281	2063	1301	2094	1215	1956	1237	1992	1256	2023
			q_f																		
			F	9.2 -1.2R		9.4 -1.1R		9.6 -1.1R		9.7 -1R		9.9 -0.9R		10 -0.9R		10.1 -0.8R		10.1 -0.8R		10.2 -0.8R	
		24"	q_a	1131	1821	1186	1910	1062	1711	1115	1795	1020	1642	1068	1719	991	1596	1034	1665	970	1562
			q_f																		
			F	10.8 -1.8R		11.1 -1.7R		11.4 -1.6R		11.7 -1.5R		11.9 -1.5R		12.1 -1.4R		12.2 -1.3R		12.3 -1.3R		12.5 -1.2R	
	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	6.2 -0.2R		6.2 -0.2R		6.2 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.2R		6.3 -0.1R		6.3 -0.1R		6.3 -0.1R	
		6"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	7.5 -0.5R		7.6 -0.4R		7.7 -0.4R		7.7 -0.4R		7.8 -0.3R		7.8 -0.3R		7.8 -0.3R		7.9 -0.3R		7.9 -0.3R	
		8"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	8.8 -0.8R		8.9 -0.7R		9 -0.7R		9.1 -0.6R		9.2 -0.6R		9.2 -0.5R		9.3 -0.5R		9.3 -0.5R		9.4 -0.4R	
		12"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1581	982	1572	847	1356
			q_f																		
			F	11 -1.4R		11.3 -1.3R		11.5 -1.2R		11.7 -1.2R		11.8 -1.1R		11.9 -1R		12 -1R		12.1 -0.9R		12.2 -0.9R	
		18"	q_a	848	1581	856	1378	862	1387	782	1259	794	1279	805	1295	748	1204	760	1224	771	1241
			q_f																		
			F	13.7 -2.4R		14.2 -2.3R		14.6 -2.2R		15 -2.1R		15.2 -2R		15.5 -1.9R		15.7 -1.9R		15.9 -1.8R		16.1 -1.7R	
		24"	q_a	709	1142	745	1200	656	1056	692	1114	626	1008	657	1058	607	976	633	1018	592	953
			q_f																		
			F	15.9 -3.3R		16.6 -3.2R		17.3 -3.2R		17.8 -3.1R		18.2 -3R		18.6 -2.9R		18.9 -2.8R		19.2 -2.7R		19.5 -2.6R	
	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	8.4 -0.5R		8.5 -0.4R		8.5 -0.4R		8.6 -0.4R		8.6 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.3R		8.7 -0.3R	
		6"	q_a	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	714	1142	615	984
			q_f																		
			F	10.3 -0.9R		10.5 -0.8R		10.6 -0.8R		10.7 -0.7R		10.8 -0.7R		10.9 -0.6R		10.9 -0.6R		11 -0.6R		11 -0.5R	
		8"	q_a	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	774	1246	714	1142	615	984
			q_f																		
			F	12 -1.4R		12.3 -1.3R		12.5 -1.2R		12.7 -1.1R		12.8 -1.1R		12.9 -1R		13 -1R		13.1 -0.9R		13.2 -0.9R	
		12"	q_a	758	1221	739	1189	723	1165	711	1145	702	1130	694	1117	687	1106	681	1097	615	984
			q_f																		
			F	14.9 -2.4R		15.4 -2.3R		15.8 -2.2R		16.2 -2.1R		16.5 -2R		16.7 -1.9R		16.9 -1.8R		17.1 -1.7R		17.2 -1.7R	
		18"	q_a	597	1221	600	966	601	968	543	874	550	885	555	894	514	828	522	840	528	851
			q_f																		
			F	18.3 -3.8R		19.2 -3.7R		19.9 -3.7R		20.5 -3.6R		21.1 -3.5R		21.5 -3.4R		21.9 -3.3R		22.2 -3.2R		22.5 -3.1R	
		24"	q_a	487	784	512	824	448	721	472	760	425	684	446	719	409	659	429	690	398	641
			q_f																		
			F	20.9 -5R		22.2 -5.1R		23.2 -5.1R		24.1 -5R		24.9 -4.9R		25.5 -4.9R		26.1 -4.8R		26.7 -4.7R		27.1 -4.6R	

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

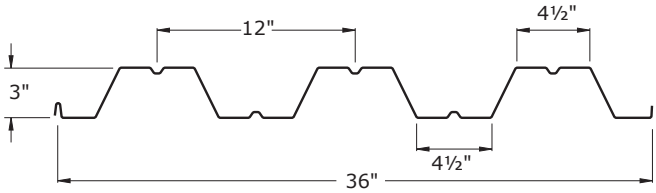
ASC STEEL DECK

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	1.75	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	2.09	0.0359	50	65	0.605	0.927	1.48	0.595	1.236
19	2.43	0.0420	50	65	0.708	1.083	1.48	0.695	1.236
18	2.76	0.0478	50	65	0.806	1.233	1.49	0.789	1.236
16	3.44	0.0598	50	65	1.008	1.540	1.49	0.984	1.236

Gauge	Effective Section Properties at F_y for Bending Strength: Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Effective Section Properties at Service Load Load for Deflection: 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 1"	2"	4"	6"	LRFD, ϕR 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

ASC STEEL DECK

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	1219	361	152	78	45	28	19	13	10
		L/240	1829	542	229	117	68	43	29	20	15
		L/180	2438	722	305	156	90	57	38	27	20
		L/120	3657	1084	457	234	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	955	283	119	61	35	22	15	10	8
		L/240	1433	424	179	92	53	33	22	16	11
		L/180	1910	566	239	122	71	45	30	21	15
		L/120	2865	849	358	183	106	67	45	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	1369	406	171	88	51	32	21	15	11
		L/240	2053	608	257	131	76	48	32	23	16
		L/180	2738	811	342	175	101	64	43	30	22
		L/120	4107	1217	513	263	152	96	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	1072	318	134	69	40	25	17	12	9
		L/240	1609	477	201	103	60	38	25	18	13
		L/180	2145	636	268	137	79	50	34	24	17
		L/120	3217	953	402	206	119	75	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	1506	446	188	96	56	35	24	17	12
		L/240	2259	669	282	145	84	53	35	25	18
		L/180	3012	892	377	193	112	70	47	33	24
		L/120	4518	1339	565	289	167	105	71	50	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	1180	350	147	76	44	28	18	13	9
		L/240	1770	524	221	113	66	41	28	19	14
		L/180	2360	699	295	151	87	55	37	26	19
		L/120	3539	1049	442	227	131	83	55	39	28

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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	1782	528	223	114	66	42	28	20	14
		L/240	2673	792	334	171	99	62	42	29	21
		L/180	3564	1056	446	228	132	83	56	39	29
		L/120	5346	1584	668	342	198	125	84	59	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	1396	414	175	89	52	33	22	15	11
		L/240	2094	620	262	134	78	49	33	23	17
		L/180	2792	827	349	179	103	65	44	31	22
		L/120	4188	1241	524	268	155	98	65	46	34
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	2029	601	254	130	75	47	32	22	16
		L/240	3043	902	380	195	113	71	48	33	24
		L/180	4058	1202	507	260	150	95	63	45	32
		L/120	6086	1803	761	390	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	1589	471	199	102	59	37	25	17	13
		L/240	2384	706	298	153	88	56	37	26	19
		L/180	3179	942	397	203	118	74	50	35	25
		L/120	4768	1413	596	305	177	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

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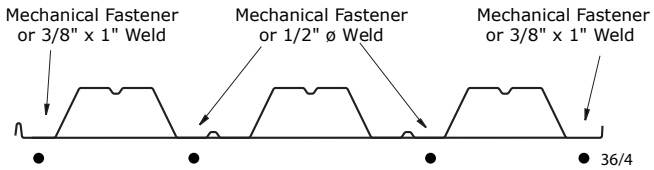
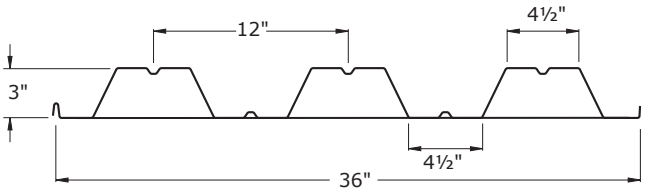
4.8 DG3WxHF-36 & 3WxHF-36





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: Compression Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Effective Section Properties at Service Load for Deflection: 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 1"	2"	4"	6"	LRFD, ϕR 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°		

DG3WxHF-36 & 3WxHF-36 4.8

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

ASC STEEL DECK

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

DG3WxHF-36 & 3WxHF-36 4.8

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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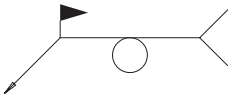
4.9 DG3WxH-36 & DG3WxHF-36

Arc Spot/Seam Welds to Supports with DeltaGrip® 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	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875
			q_f																		
			F	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	+0R	3.1	+0R	3.1	+0R
		6"	q_a	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875	2421	3875
			q_f																		
			F	3.6	-0.2R	3.6	-0.2R	3.6	-0.1R	3.6	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R
		8"	q_a	2421	3875	2421	3875	2421	3875	2421	3875	2397	3875	2417	3875	2380	3875	2399	3875	2367	3875
			q_f																		
			F	4	-0.3R	4.1	-0.2R	4.1	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R
		12"	q_a	2081	3433	2044	3373	2016	3327	1994	3290	1975	3259	1960	3234	1947	3213	1936	3195	1927	3179
			q_f																		
			F	4.9	-0.5R	5	-0.5R	5	-0.4R	5.1	-0.4R	5.1	-0.4R	5.2	-0.4R	5.2	-0.3R	5.3	-0.3R	5.3	-0.3R
		18"	q_a	1701	3433	1715	2829	1725	2847	1582	2610	1605	2647	1623	2678	1519	2506	1542	2544	1561	2576
			q_f																		
			F	5.9	-0.8R	6.1	-0.8R	6.2	-0.8R	6.3	-0.7R	6.4	-0.7R	6.5	-0.7R	6.6	-0.6R	6.6	-0.6R	6.7	-0.6R
		24"	q_a	1463	2413	1515	2499	1361	2245	1415	2335	1297	2141	1349	2225	1254	2069	1302	2148	1222	2017
			q_f																		
			F	6.7	-1.2R	7	-1.2R	7.2	-1.1R	7.4	-1.1R	7.5	-1.1R	7.7	-1R	7.8	-1R	7.9	-1R	8	-0.9R
	18 ga	4"	q_a	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575
			q_f																		
			F	4.2	-0.2R	4.2	-0.2R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R
		6"	q_a	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575
			q_f																		
			F	4.9	-0.3R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R
		8"	q_a	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575	1609	2575
			q_f																		
			F	5.5	-0.5R	5.6	-0.5R	5.7	-0.4R	5.8	-0.4R	5.8	-0.4R	5.8	-0.4R	5.9	-0.3R	5.9	-0.3R	5.9	-0.3R
		12"	q_a	1479	2440	1444	2383	1418	2340	1397	2305	1380	2277	1365	2253	1353	2233	1343	2216	1334	2202
			q_f																		
			F	6.6	-0.9R	6.8	-0.8R	6.9	-0.8R	7.1	-0.7R	7.2	-0.7R	7.2	-0.7R	7.3	-0.6R	7.4	-0.6R	7.4	-0.6R
		18"	q_a	1199	2440	1201	1981	1202	1984	1095	1806	1107	1826	1117	1843	1040	1716	1054	1739	1066	1759
			q_f																		
			F	7.9	-1.4R	8.2	-1.4R	8.5	-1.3R	8.7	-1.3R	8.9	-1.3R	9.1	-1.2R	9.2	-1.2R	9.3	-1.1R	9.4	-1.1R
		24"	q_a	1032	1703	1059	1748	946	1562	978	1614	893	1474	925	1526	857	1414	887	1463	830	1370
			q_f																		
			F	8.9	-1.9R	9.4	-1.9R	9.8	-1.9R	10.1	-1.8R	10.4	-1.8R	10.6	-1.8R	10.8	-1.7R	11	-1.7R	11.2	-1.6R
	20 ga	4"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	6.1	-0.4R	6.2	-0.4R	6.2	-0.3R	6.3	-0.3R	6.3	-0.3R	6.3	-0.3R	6.4	-0.2R	6.4	-0.2R	6.4	-0.2R
		6"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	7.2	-0.7R	7.4	-0.7R	7.5	-0.6R	7.6	-0.6R	7.6	-0.5R	7.7	-0.5R	7.7	-0.5R	7.8	-0.5R	7.8	-0.4R
		8"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	8.2	-1R	8.4	-1R	8.5	-0.9R	8.7	-0.9R	8.8	-0.9R	8.9	-0.8R	9	-0.8R	9.1	-0.7R	9.1	-0.7R
		12"	q_a	853	1407	832	1373	816	1346	803	1325	793	1308	784	1293	777	1281	770	1271	765	1262
			q_f																		
			F	9.7	-1.6R	10	-1.6R	10.4	-1.6R	10.6	-1.5R	10.8	-1.5R	11	-1.5R	11.2	-1.4R	11.3	-1.4R	11.5	-1.3R
		18"	q_a	691	1407	691	1140	691	1140	628	1037	635	1047	640	1056	595	982	603	995	610	1006
			q_f																		
			F	11.3	-2.4R	11.9	-2.5R	12.4	-2.5R	12.9	-2.5R	13.3	-2.4R	13.6	-2.4R	13.9	-2.4R	14.2	-2.3R	14.4	-2.3R
		24"	q_a	595	982	610	1006	544	898	561	926	512	845	530	874	490	809	507	837	475	783
			q_f																		
			F	12.5	-3.1R	13.3	-3.2R	14	-3.2R	14.6	-3.3R	15.2	-3.3R	15.7	-3.3R	16.1	-3.3R	16.5	-3.3R	16.9	-3.2R
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	7.8	-0.6R	7.9	-0.6R	8	-0.6R	8.1	-0.5R	8.2	-0.5R	8.2	-0.5R	8.3	-0.4R	8.3	-0.4R	8.4	-0.4R
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	9.2	-1.1R	9.5	-1.1R	9.6	-1R	9.8	-1R	9.9	-0.9R	10	-0.9R	10.1	-0.8R	10.2	-0.8R	10.3	-0.8R
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	10.4	-1.6R	10.7	-1.5R	11	-1.5R	11.2	-1.4R	11.4	-1.4R	11.6	-1.3R	11.8	-1.3R	11.9	-1.2R	12	-1.2R
		12"	q_a	602	993	586	968	575	948	565	932	557	920	551	909	546	900	541	893	537	886
			q_f																		
			F	12.2	-2.4R	12.7	-2.4R	13.2	-2.4R	13.6	-2.3R	14	-2.3R	14.3	-2.3R	14.6	-2.2R	14.8	-2.2R	15	-2.1R
		18"	q_a	487	993	486	803	486	802	442	729	446	736	449	741	418	689	423	698	427	705
			q_f																		
			F	14	-3.3R	14.9	-3.4R	15.6	-3.5R	16.3	-3.6R	16.9	-3.6R	17.4	-3.6R	17.9	-3.6R	18.3	-3.5R	18.7	-3.5R
		24"	q_a	420	693	429	709	383	632	395	651	360	594	372	614	344	568	356	587	333	549
			q_f																		
			F	15.2	-4R	16.4	-4.2R	17.4	-4.4R	18.2	-4.5R	19.1	-4.6R	19.8	-4.7R	20.4	-4.7R	21	-4.8R	21.6	-4.8R

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.10

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979
			q_f	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576	1576
			F	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R
		6"	q_a	972	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971
			q_f	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564	1564
			F	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	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	961	963	961	963	961	963	961	962	961	962	961	962	961	962	961	962	961	961
			q_f	1548	1551	1547	1550	1547	1549	1547	1548	1546	1546	1546	1546	1546	1546	1546	1546	1546	1546
			F	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R
		12"	q_a	935	934	934	934	933	933	933	933	933	933	933	933	933	933	933	933	932	932
			q_f	1505	1504	1503	1503	1503	1502	1502	1502	1502	1502	1502	1502	1502	1502	1501	1501	1501	1501
			F	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R
		18"	q_a	885	894	900	881	889	894	879	885	890	885	890	885	890	885	890	885	890	890
			q_f	1505	1440	1450	1419	1431	1439	1416	1425	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433
			F	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R
		24"	q_a	830	856	825	847	822	841	820	836	818	836	818	836	818	836	818	836	818	818
			q_f	1337	1378	1329	1363	1323	1353	1320	1346	1317	1346	1317	1346	1317	1346	1317	1346	1317	1317
			F	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R
	18 ga	4"	q_a	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780
			q_f	1256	1256	1256	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
			F	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R
		6"	q_a	771	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770
			q_f	1241	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240
			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	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
		8"	q_a	759	761	758	760	758	759	757	759	757	759	757	759	757	759	757	759	757	757
			q_f	1221	1225	1220	1223	1220	1222	1220	1222	1219	1222	1219	1222	1219	1222	1219	1222	1219	1219
			F	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R
		12"	q_a	728	727	727	726	726	725	725	725	725	725	725	725	725	725	725	725	725	725
			q_f	1172	1171	1170	1169	1168	1168	1167	1167	1167	1167	1167	1167	1167	1167	1167	1167	1167	1167
			F	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R
		18"	q_a	675	684	690	670	677	683	667	673	678	673	678	673	678	673	678	673	678	678
			q_f	1172	1101	1111	1078	1090	1099	1074	1084	1092	1084	1092	1084	1092	1084	1092	1084	1092	1092
			F	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R
		24"	q_a	620	644	614	635	610	628	607	623	605	623	605	623	605	623	605	623	605	605
			q_f	999	1037	989	1022	982	1011	978	1003	975	1003	975	1003	975	1003	975	1003	975	975
			F	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R
	20 ga	4"	q_a	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581
			q_f	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936
			F	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R
		6"	q_a	570	570	569	569	569	569	569	569	569	569	569	569	569	569	569	569	569	569
			q_f	917	917	917	916	916	916	916	916	916	916	916	916	916	916	916	916	916	916
			F	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R
		8"	q_a	555	558	554	556	554	556	553	555	553	555	553	555	553	555	553	555	553	553
			q_f	894	898	892	896	892	894	891	893	891	893	891	893	891	893	891	893	891	891
			F	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R
		12"	q_a	521	519	518	518	517	517	516	516	516	516	516	516	516	516	516	516	516	516
			q_f	838	836	835	833	833	832	831	830	830	830	830	830	830	830	830	830	830	830
			F	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R
		18"	q_a	466	474	480	460	467	472	456	462	467	462	467	462	467	462	467	462	467	467
			q_f	838	764	773	740	751	760	735	744	752	744	752	744	752	744	752	744	752	752
			F	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R
		24"	q_a	417	437	410	427	405	420	402	416	400	416	400	416	400	416	400	416	400	400
			q_f	671	704	659	688	652	677	647	669	644	669	644	669	644	669	644	669	644	644
			F	23.9 -0.1R	23.9 -0.1R	23.9 -0.1R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R	23.9 +0R
	22 ga	4"	q_a	481	481	481	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
			q_f	774	774	774	774	773	773	773	773	773	773	773	773	773	773	773	773	773	773
			F	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R
		6"	q_a	467	467	467	467	467	466	466	466	466	466	466	466	466	466	466	466	466	466
			q_f	753	752	752	751	751	751	751	751	751	751	751	751	751	751	751	751	751	751
			F	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R
		8"	q_a	451	454	450	452	450	451	449	451	449	451	449	451	449	451	449	451	449	449
			q_f	727	731	725	728	724	727	723	726	722	726	722	726	722	726	722	726	722	722
			F	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R
		12"	q_a	415	414	413	412	411	410	410	409	409	409	409	409	409	409	409	409	409	409
			q_f	669	666	664	663	662	661	660	659	659	659	659	659	659	659	659	659	659	659
			F	18.7 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R
		18"	q_a	363	370	375	356	362	367	352	357	361	357	361	357	361	357	361	357	361	361
			q_f	669	596	604	573	583	590	567	575	582	575	582	575	582	575	582	575	582	582
			F	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R	26.2 +0R
		24"	q_a	319	336	311	326	307	320	304	315	301	315	301	315	301	315	301	315	301	301
			q_f	514	541	502	525	494	515	489	507	485	507	485	507	485	507	485	507	485	485
			F	33.5 -0.2R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R

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

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4.10 DG3WxH-36 & DG3WxHF-36

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R
		6"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	3.8 +0R	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	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R
		12"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R
		18"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R	7.5 +0R
		24"	q_a	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986	986
			q_f	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
			F	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R	9.4 +0R
	18 ga	4"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			F	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R	4.4 +0R
		6"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			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	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
		8"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			F	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R	6.3 +0R
		12"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			F	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R	8.3 +0R
		18"	q_a	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			q_f	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			F	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R	11.2 +0R
		24"	q_a	754	786	738	767	728	754	721	744	716									
			q_f	1214	1266	1188	1235	1172	1213	1161	1198	1153									
			F	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R	14.1 +0R									
	20 ga	4"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R
		6"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R
		8"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R	10.1 +0R
		12"	q_a	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			q_f	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			F	13.5 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R	13.6 +0R
		18"	q_a	567	576	583	551	559	566	542	550	556									
			q_f	953	927	938	886	901	912	873	885	896									
			F	18.7 -0.1R	18.7 -0.1R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R	18.7 +0R									
		24"	q_a	499	523	483	504	473	492	465	483	460									
			q_f	804	842	778	812	761	792	749	777	741									
			F	23.8 -0.1R	23.8 -0.1R	23.8 -0.1R	23.9 -0.1R	23.9 -0.1R	23.9 -0.1R	23.9 -0.1R	23.9 +0R	23.9 +0R									
	22 ga	4"	q_a	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			q_f	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			F	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R
		6"	q_a	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			q_f	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			F	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R	11.3 +0R
		8"	q_a	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			q_f	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			F	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R	13.8 +0R
		12"	q_a	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			q_f	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			F	18.7 -0.1R	18.7 -0.1R	18.7 +0R	18.7 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R	18.8 +0R
		18"	q_a	436	444	449	420	427	433	411	417	423									
			q_f	793	714	722	676	687	697	662	672	681									
			F	26.1 -0.1R	26.1 -0.1R	26.1 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R	26.2 -0.1R									
		24"	q_a	380	398	364	381	354	369	348	361	342									
			q_f	612	641	587	613	571	595	559	581	551									
			F	33.4 -0.3R	33.5 -0.2R	33.5 -0.2R	33.5 -0.2R	33.5 -0.2R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R	33.6 -0.1R									

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.10

No. 12 Self-Drilling Screws to Supports with DeltaGrip® 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	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R	
		6"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	3.8 +0R		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	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R	
		12"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R	
		18"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	7.5 +0R		7.5 +0R		7.5 +0R		7.5 +0R		7.5 +0R		7.5 +0R		7.5 +0R		7.5 +0R		7.5 +0R	
		24"	q_a	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			q_f	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587	986	1587
			F	9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R		9.4 +0R	
	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	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R		4.4 +0R	
		6"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			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	
		8"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R		6.3 +0R	
		12"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	8.3 +0R		8.3 +0R		8.3 +0R		8.3 +0R		8.3 +0R		8.3 +0R		8.3 +0R		8.3 +0R		8.3 +0R	
		18"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R		11.2 +0R	
		24"	q_a	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			q_f	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268	788	1268
			F	14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R		14.1 +0R	
	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	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R		6.7 +0R	
		6"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R		8.4 +0R	
		8"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R		10.1 +0R	
		12"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	13.5 +0R		13.5 +0R		13.5 +0R		13.5 +0R		13.5 +0R		13.6 +0R		13.6 +0R		13.6 +0R		13.6 +0R	
		18"	q_a	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			q_f	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953	592	953
			F	18.6 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 +0R		18.7 +0R		18.7 +0R	
		24"	q_a	592	953	592	953	592	953	592	953	576	927	592	953	559	900	579	932	546	880
			q_f	592	953	592	953	592	953	592	953	576	927	592	953	559	900	579	932	546	880
			F	23.7 -0.2R		23.8 -0.1R		23.8 -0.1R		23.8 -0.1R		23.8 -0.1R		23.8 -0.1R		23.8 -0.1R		23.8 -0.1R		23.8 -0.1R	
	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	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R	
		6"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R		11.3 +0R	
		8"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R	
		12"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 -0.1R		18.7 +0R	
		18"	q_a	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			q_f	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793	493	793
			F	26 -0.2R		26 -0.2R		26.1 -0.2R		26.1 -0.2R		26.1 -0.1R		26.1 -0.1R		26.1 -0.1R		26.1 -0.1R		26.1 -0.1R	
		24"	q_a	488	786	493	793	453	729	468	753	430	693	445	717	415	668	429	691	404	650
			q_f	488	786	493	793	453	729	468	753	430	693	445	717	415	668	429	691	404	650
			F	33.3 -0.4R		33.3 -0.4R		33.4 -0.3R		33.4 -0.3R		33.4 -0.3R		33.5 -0.2R		33.5 -0.2R		33.5 -0.2R		33.5 -0.2R	

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

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4.11 DG3WxH-36 & DG3WxHF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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	1258	2025	1258	2025	1257	2024	1257	2024	1257	2024	1257	2024	1257	2024	1257	2024	1257	2024	1257	2024
			q_f																				
			F	3.1	-0.1R	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	1242	1999	1242	1999	1241	1999	1241	1998	1241	1998	1241	1998	1241	1998	1241	1998	1241	1998	1241	1998
			q_f																				
			F	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R		
		8"	q_a	1221	1966	1225	1972	1220	1965	1223	1969	1220	1964	1222	1968	1219	1963	1222	1967	1219	1963		
			q_f																				
			F	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	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	1170	1883	1168	1881	1167	1879	1166	1878	1166	1877	1165	1876	1165	1875	1164	1874	1164	1874		
			q_f																				
			F	5.1	-0.4R	5.2	-0.3R	5.3	-0.3R	5.3	-0.3R	5.3	-0.3R	5.4	-0.3R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R		
		18"	q_a	1080	1883	1096	1764	1106	1780	1072	1726	1084	1745	1093	1760	1067	1718	1077	1735	1086	1748		
			q_f																				
			F	6.4	-0.7R	6.6	-0.7R	6.7	-0.6R	6.7	-0.6R	6.8	-0.5R	6.9	-0.5R	6.9	-0.5R	7	-0.4R	7	-0.4R		
		24"	q_a	990	1595	1030	1658	980	1577	1014	1632	973	1567	1003	1614	968	1559	995	1601	965	1554		
			q_f																				
			F	7.5	-1.1R	7.7	-1R	7.9	-0.9R	8.1	-0.9R	8.2	-0.8R	8.3	-0.8R	8.3	-0.8R	8.4	-0.7R	8.5	-0.7R		
	18 ga	4"	q_a	1012	1629	1012	1629	1012	1629	1011	1628	1011	1628	1011	1628	1011	1628	1011	1628	1011	1628		
			q_f																				
			F	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	4.3	-0.1R	4.3	-0.1R		
		6"	q_a	992	1597	992	1597	992	1596	991	1596	991	1596	991	1595	991	1595	991	1595	991	1595		
			q_f																				
			F	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.2	-0.2R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R		
		8"	q_a	967	1558	972	1564	966	1555	970	1561	965	1554	968	1559	965	1553	967	1557	964	1552		
			q_f																				
			F	5.8	-0.4R	5.9	-0.3R	5.9	-0.3R	6	-0.3R	6	-0.3R	6	-0.2R	6	-0.2R	6.1	-0.2R	6.1	-0.2R		
		12"	q_a	909	1464	907	1460	905	1458	904	1456	903	1454	902	1453	902	1452	901	1451	900	1450		
			q_f																				
			F	7.2	-0.7R	7.3	-0.7R	7.4	-0.6R	7.5	-0.6R	7.6	-0.5R	7.6	-0.5R	7.7	-0.5R	7.7	-0.4R	7.7	-0.4R		
		18"	q_a	816	1464	830	1337	840	1353	805	1296	817	1315	826	1330	800	1287	809	1303	817	1316		
			q_f																				
			F	8.9	-1.3R	9.2	-1.2R	9.4	-1.1R	9.5	-1.1R	9.7	-1R	9.8	-1R	9.9	-0.9R	10	-0.9R	10.1	-0.8R		
		24"	q_a	731	1177	766	1234	719	1157	749	1206	711	1145	738	1188	706	1136	729	1174	702	1130		
			q_f																				
			F	10.4	-1.8R	10.8	-1.7R	11.1	-1.7R	11.3	-1.6R	11.6	-1.5R	11.7	-1.5R	11.9	-1.4R	12	-1.4R	12.2	-1.3R		
	20 ga	4"	q_a	759	1223	759	1222	759	1222	759	1222	759	1222	759	1222	759	1222	759	1221	759	1221		
			q_f																				
			F	6.3	-0.3R	6.4	-0.3R	6.4	-0.2R	6.4	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.2R	6.5	-0.1R		
		6"	q_a	735	1183	734	1182	734	1181	733	1181	733	1180	733	1180	733	1180	732	1179	732	1179		
			q_f																				
			F	7.6	-0.5R	7.7	-0.5R	7.8	-0.5R	7.9	-0.4R	7.9	-0.4R	8	-0.4R	8	-0.3R	8	-0.3R	8	-0.3R		
		8"	q_a	705	1136	710	1143	703	1132	707	1138	702	1130	705	1135	701	1129	704	1133	700	1127		
			q_f																				
			F	8.8	-0.9R	9	-0.8R	9.1	-0.7R	9.2	-0.7R	9.3	-0.6R	9.3	-0.6R	9.4	-0.6R	9.5	-0.5R	9.5	-0.5R		
		12"	q_a	642	1033	639	1028	637	1025	635	1022	633	1020	632	1018	631	1016	631	1015	630	1014		
			q_f																				
			F	10.8	-1.5R	11.2	-1.4R	11.4	-1.3R	11.6	-1.3R	11.8	-1.2R	11.9	-1.2R	12	-1.1R	12.1	-1R	12.2	-1R		
		18"	q_a	553	1033	565	909	573	922	540	870	550	886	558	899	534	859	542	873	549	884		
			q_f																				
			F	13.3	-2.4R	13.8	-2.4R	14.3	-2.3R	14.7	-2.2R	15	-2.2R	15.2	-2.1R	15.5	-2R	15.7	-1.9R	15.9	-1.9R		
		24"	q_a	483	777	509	820	469	756	493	793	461	743	482	776	456	734	474	763	452	727		
			q_f																				
			F	15.2	-3.3R	16	-3.3R	16.6	-3.3R	17.2	-3.2R	17.7	-3.1R	18.1	-3.1R	18.5	-3R	18.8	-2.9R	19.1	-2.8R		
	22 ga	4"	q_a	629	1012	628	1011	628	1011	628	1011	628	1011	628	1010	627	1010	627	1010	627	1010		
			q_f																				
			F	8.2	-0.5R	8.3	-0.4R	8.3	-0.4R	8.4	-0.4R	8.4	-0.3R	8.5	-0.3R	8.5	-0.3R	8.5	-0.3R	8.5	-0.3R		
		6"	q_a	601	967	600	966	599	965	599	964	598	963	598	963	598	962	598	962	597	962		
			q_f																				
			F	9.9	-0.9R	10.1	-0.8R	10.2	-0.8R	10.3	-0.7R	10.4	-0.7R	10.5	-0.6R	10.6	-0.6R	10.6	-0.6R	10.7	-0.5R		
		8"	q_a	569	916	574	923	566	912	570	918	565	909	568	915	563	907	567	912	563	906		
			q_f																				
			F	11.4	-1.4R	11.7	-1.3R	11.9	-1.2R	12.1	-1.1R	12.3	-1.1R	12.4	-1R	12.5	-1R	12.6	-0.9R	12.7	-0.9R		
		12"	q_a	505	814	502	808	499	804	497	801	496	798	494	796	493	794	492	793	492	791		
			q_f																				
			F	14	-2.3R	14.5	-2.2R	14.9	-2.1R	15.2	-2.1R	15.5	-2R	15.8	-1.9R	16	-1.8R	16.2	-1.8R	16.3	-1.7R		
		18"	q_a	425	814	434	699	440	709	412	663	420	676	426	686	404	651	412	663	417	672		
			q_f																				
			F	16.9	-3.6R	17.7	-3.6R	18.4	-3.5R	19	-3.5R	19.6	-3.4R	20	-3.3R	20.4	-3.2R	20.8	-3.1R	21.1	-3.1R		
		24"	q_a	366	589	386	622	353	568	371	598	345	555	361	581	339	546	354	570	335	540		
			q_f																				
			F	19.1	-4.6R	20.2	-4.7R	21.2	-4.8R	22.1	-4.8R	22.9	-4.7R	23.5	-4.7R	24.1	-4.6R	24.6	-4.5R	25.1	-4.5R		

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.11

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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 →	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	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	+0R	3.1	+0R	3.1	+0R	3.1	+0R
		6"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.6	-0.2R	3.6	-0.1R	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
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	4.1	-0.3R	4.1	-0.2R	4.1	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.1R	4.3	-0.1R
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	4.9	-0.5R	5	-0.4R	5.1	-0.4R	5.1	-0.4R	5.2	-0.4R	5.2	-0.3R	5.3	-0.3R	5.3	-0.3R	5.3	-0.3R
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	6	-0.8R	6.1	-0.8R	6.3	-0.7R	6.4	-0.7R	6.5	-0.7R	6.6	-0.6R	6.6	-0.6R	6.7	-0.6R	6.8	-0.6R
		24"	q_a	1202	1935	1254	2019	1175	1892	1222	1967	1158	1865	1200	1931	1147	1846	1184	1906	1138	1832
			q_f																		
			F	6.9	-1.2R	7.1	-1.1R	7.3	-1.1R	7.5	-1.1R	7.6	-1R	7.8	-1R	7.9	-0.9R	8	-0.9R	8.1	-0.9R
	18 ga	4"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	4.2	-0.2R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R
		6"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R
		8"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	5.6	-0.5R	5.7	-0.4R	5.7	-0.4R	5.8	-0.4R	5.8	-0.4R	5.9	-0.3R	5.9	-0.3R	5.9	-0.3R	6	-0.3R
		12"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	6.7	-0.8R	6.9	-0.8R	7	-0.8R	7.1	-0.7R	7.2	-0.7R	7.3	-0.6R	7.4	-0.6R	7.4	-0.6R	7.5	-0.6R
		18"	q_a	993	1657	1010	1625	1021	1644	966	1555	981	1580	993	1599	951	1532	965	1553	976	1571
			q_f																		
			F	8.1	-1.4R	8.4	-1.3R	8.7	-1.3R	8.9	-1.3R	9	-1.2R	9.2	-1.2R	9.3	-1.1R	9.5	-1.1R	9.6	-1.1R
		24"	q_a	876	1411	917	1477	848	1366	886	1426	831	1337	864	1391	818	1318	849	1366	810	1303
			q_f																		
			F	9.2	-1.9R	9.6	-1.9R	10	-1.8R	10.3	-1.8R	10.6	-1.8R	10.8	-1.7R	11	-1.7R	11.2	-1.6R	11.4	-1.6R
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	6.2	-0.4R	6.2	-0.3R	6.3	-0.3R	6.3	-0.3R	6.3	-0.3R	6.4	-0.2R	6.4	-0.2R	6.4	-0.2R	6.4	-0.2R
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	7.3	-0.7R	7.4	-0.6R	7.5	-0.6R	7.6	-0.6R	7.7	-0.5R	7.7	-0.5R	7.8	-0.5R	7.8	-0.4R	7.9	-0.4R
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	8.3	-1R	8.5	-1R	8.6	-0.9R	8.8	-0.9R	8.9	-0.8R	9	-0.8R	9.1	-0.7R	9.1	-0.7R	9.2	-0.7R
		12"	q_a	783	1260	779	1254	773	1245	769	1238	765	1232	762	1227	759	1222	757	1219	755	1215
			q_f																		
			F	9.9	-1.6R	10.2	-1.6R	10.5	-1.6R	10.8	-1.5R	11	-1.5R	11.2	-1.4R	11.4	-1.4R	11.5	-1.3R	11.6	-1.3R
		18"	q_a	663	1260	673	1084	681	1096	634	1021	645	1038	653	1052	618	996	628	1012	637	1025
			q_f																		
			F	11.7	-2.5R	12.3	-2.5R	12.8	-2.5R	13.2	-2.5R	13.6	-2.4R	13.9	-2.4R	14.2	-2.3R	14.5	-2.3R	14.7	-2.2R
		24"	q_a	575	926	601	968	548	882	573	922	531	855	554	891	519	836	540	869	511	822
			q_f																		
			F	12.9	-3.1R	13.8	-3.2R	14.5	-3.3R	15.1	-3.3R	15.6	-3.3R	16.1	-3.3R	16.5	-3.3R	16.9	-3.2R	17.3	-3.2R
	22 ga	4"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	7.9	-0.6R	8	-0.6R	8.1	-0.5R	8.2	-0.5R	8.2	-0.5R	8.3	-0.4R	8.3	-0.4R	8.4	-0.4R	8.4	-0.4R
		6"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	9.4	-1.1R	9.6	-1R	9.8	-1R	9.9	-0.9R	10	-0.9R	10.1	-0.8R	10.2	-0.8R	10.3	-0.8R	10.3	-0.7R
		8"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	10.6	-1.5R	10.9	-1.5R	11.2	-1.4R	11.4	-1.4R	11.6	-1.3R	11.8	-1.3R	11.9	-1.2R	12	-1.2R	12.1	-1.1R
		12"	q_a	612	985	604	972	598	962	593	954	589	948	585	942	582	938	580	934	578	930
			q_f																		
			F	12.5	-2.4R	13	-2.4R	13.5	-2.4R	13.9	-2.3R	14.3	-2.3R	14.6	-2.2R	14.8	-2.2R	15.1	-2.1R	15.3	-2.1R
		18"	q_a	507	985	513	826	518	834	478	770	486	782	492	792	463	745	470	757	477	767
			q_f																		
			F	14.5	-3.4R	15.3	-3.5R	16.1	-3.5R	16.8	-3.6R	17.3	-3.6R	17.9	-3.6R	18.3	-3.5R	18.7	-3.5R	19.1	-3.4R
		24"	q_a	437	703	455	733	411	662	429	691	396	637	412	663	385	619	400	644	377	607
			q_f																		
			F	15.8	-4.1R	17	-4.4R	18	-4.5R	18.9	-4.6R	19.7	-4.7R	20.4	-4.7R	21.1	-4.8R	21.7	-4.8R	22.2	-4.8R

3WxH-36 36/4 Support Attachment: Hilti X-HSN 24 PAF Side Seam Attachment: DeltaGrip

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4.11 DG3WxH-36 & DG3WxHF-36

Hilti X-HSN-24 Fasteners to Supports with DeltaGrip® 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
			q_f																		
			F	3 -0.1R		3 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R	
		6"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.5 -0.2R		3.5 -0.2R		3.5 -0.2R		3.6 -0.2R		3.6 -0.2R		3.6 -0.2R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R	
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	3.9 -0.3R		3.9 -0.3R		4 -0.3R		4 -0.3R		4.1 -0.3R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.2 -0.2R	
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	4.5 -0.6R		4.7 -0.5R		4.8 -0.5R		4.8 -0.5R		4.9 -0.5R		5 -0.5R		5 -0.4R		5.1 -0.4R		5.1 -0.4R	
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	5.3 -0.9R		5.5 -0.9R		5.7 -0.9R		5.8 -0.9R		6 -0.8R		6.1 -0.8R		6.2 -0.8R		6.2 -0.8R		6.3 -0.7R	
		24"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
			q_f																		
			F	5.9 -1.2R		6.2 -1.2R		6.4 -1.2R		6.6 -1.2R		6.8 -1.2R		7 -1.2R		7.1 -1.1R		7.3 -1.1R		7.4 -1.1R	
	18 ga	4"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	4 -0.2R		4.1 -0.2R		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	
		6"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	4.7 -0.4R		4.7 -0.4R		4.8 -0.4R		4.9 -0.3R		4.9 -0.3R		4.9 -0.3R		5 -0.3R		5 -0.3R		5 -0.3R	
		8"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	5.2 -0.6R		5.3 -0.6R		5.4 -0.5R		5.5 -0.5R		5.6 -0.5R		5.6 -0.5R		5.7 -0.4R		5.7 -0.4R		5.7 -0.4R	
		12"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	6 -0.9R		6.3 -0.9R		6.4 -0.9R		6.6 -0.9R		6.7 -0.8R		6.8 -0.8R		6.9 -0.8R		7 -0.8R		7.1 -0.7R	
		18"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657	1029	1657
			q_f																		
			F	7 -1.4R		7.3 -1.4R		7.6 -1.4R		7.8 -1.4R		8.1 -1.4R		8.3 -1.4R		8.4 -1.3R		8.6 -1.3R		8.7 -1.3R	
		24"	q_a	1029	1657	1029	1657	1029	1657	1029	1657	1013	1631	1029	1657	984	1584	1019	1640	962	1549
			q_f																		
			F	7.6 -1.7R		8.1 -1.8R		8.5 -1.8R		8.8 -1.8R		9.1 -1.9R		9.4 -1.9R		9.6 -1.9R		9.9 -1.8R		10.1 -1.8R	
	20 ga	4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	5.9 -0.5R		6 -0.4R		6 -0.4R		6.1 -0.4R		6.1 -0.4R		6.2 -0.4R		6.2 -0.3R		6.3 -0.3R		6.3 -0.3R	
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	6.7 -0.8R		6.9 -0.8R		7.1 -0.7R		7.2 -0.7R		7.3 -0.7R		7.4 -0.7R		7.4 -0.6R		7.5 -0.6R		7.5 -0.6R	
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	7.5 -1.1R		7.7 -1.1R		7.9 -1.1R		8.1 -1R		8.2 -1R		8.4 -1R		8.5 -1R		8.6 -0.9R		8.7 -0.9R	
		12"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260	783	1260
			q_f																		
			F	8.5 -1.6R		8.9 -1.6R		9.3 -1.7R		9.6 -1.6R		9.8 -1.6R		10.1 -1.6R		10.3 -1.6R		10.4 -1.6R		10.6 -1.5R	
		18"	q_a	783	1260	783	1260	783	1260	780	1256	783	1260	783	1260	743	1196	752	1211	760	1223
			q_f																		
			F	9.6 -2.2R		10.2 -2.3R		10.7 -2.4R		11.2 -2.4R		11.6 -2.4R		12 -2.5R		12.3 -2.5R		12.6 -2.5R		12.9 -2.5R	
		24"	q_a	741	1193	758	1220	682	1098	703	1132	645	1039	666	1072	620	998	640	1030	601	968
			q_f																		
			F	10.3 -2.6R		11 -2.8R		11.7 -2.9R		12.3 -3R		12.9 -3.1R		13.4 -3.2R		13.8 -3.2R		14.2 -3.3R		14.6 -3.3R	
	22 ga	4"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	7.4 -0.7R		7.6 -0.7R		7.7 -0.7R		7.8 -0.7R		7.9 -0.6R		7.9 -0.6R		8 -0.6R		8.1 -0.5R		8.1 -0.5R	
		6"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	8.5 -1.2R		8.7 -1.2R		9 -1.1R		9.2 -1.1R		9.3 -1.1R		9.5 -1.1R		9.6 -1R		9.7 -1R		9.8 -1R	
		8"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	9.3 -1.6R		9.7 -1.6R		10 -1.6R		10.3 -1.6R		10.5 -1.5R		10.7 -1.5R		10.9 -1.5R		11.1 -1.5R		11.2 -1.4R	
		12"	q_a	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056	656	1056
			q_f																		
			F	10.5 -2.2R		11 -2.3R		11.6 -2.3R		12 -2.4R		12.4 -2.4R		12.8 -2.4R		13.1 -2.4R		13.4 -2.4R		13.6 -2.3R	
		18"	q_a	651	1056	646	1041	643	1036	587	945	590	950	593	955	553	890	558	899	563	906
			q_f																		
			F	11.6 -2.8R		12.4 -3R		13.1 -3.2R		13.8 -3.3R		14.4 -3.4R		14.9 -3.4R		15.4 -3.5R		15.9 -3.5R		16.3 -3.6R	
		24"	q_a	569	916	577	929	516	832	529	851	483	778	497	800	461	742	474	763	444	715
			q_f																		
			F	12.3 -3.2R		13.2 -3.5R		14.1 -3.8R		15 -4R		15.7 -4.1R		16.4 -4.3R		17.1 -4.4R		17.7 -4.5R		18.2 -4.5R	

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Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	1352	2177	1352	2177	1352	2177	1352	2176	1352	2176	1352	2176	1352	2176	1352	2176	1352	2176
			q_f																		
			F	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	+0R	3.1	+0R	3.1	+0R
		6"	q_a	1333	2145	1332	2145	1332	2145	1332	2144	1332	2144	1332	2144	1331	2144	1331	2144	1331	2143
			q_f																		
			F	3.6	-0.2R	3.6	-0.2R	3.6	-0.1R	3.6	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R	3.7	-0.1R
		8"	q_a	1307	2105	1312	2112	1306	2103	1310	2109	1306	2102	1309	2107	1305	2101	1308	2105	1305	2100
			q_f																		
			F	4	-0.3R	4.1	-0.2R	4.1	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R	4.2	-0.2R
		12"	q_a	1246	2005	1244	2002	1242	2000	1241	1998	1240	1997	1239	1996	1239	1994	1238	1994	1238	1993
			q_f																		
			F	4.9	-0.5R	5	-0.5R	5	-0.4R	5.1	-0.4R	5.1	-0.4R	5.2	-0.4R	5.2	-0.3R	5.3	-0.3R	5.3	-0.3R
		18"	q_a	1141	2005	1158	1864	1170	1883	1130	1819	1144	1842	1155	1859	1124	1810	1136	1829	1146	1844
			q_f																		
			F	5.9	-0.8R	6.1	-0.8R	6.2	-0.8R	6.3	-0.7R	6.4	-0.7R	6.5	-0.7R	6.6	-0.6R	6.6	-0.6R	6.7	-0.6R
		24"	q_a	1038	1672	1083	1743	1025	1651	1063	1712	1017	1638	1050	1691	1012	1629	1041	1676	1008	1622
			q_f																		
			F	6.7	-1.2R	7	-1.2R	7.2	-1.1R	7.4	-1.1R	7.5	-1.1R	7.7	-1R	7.8	-1R	7.9	-1R	8	-0.9R
	18 ga	4"	q_a	1087	1750	1087	1749	1086	1749	1086	1749	1086	1749	1086	1749	1086	1749	1086	1749	1086	1749
			q_f																		
			F	4.2	-0.2R	4.2	-0.2R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.2	-0.1R	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R
		6"	q_a	1063	1711	1062	1710	1062	1710	1062	1709	1061	1709	1061	1709	1061	1708	1061	1708	1061	1708
			q_f																		
			F	4.9	-0.3R	4.9	-0.3R	5	-0.3R	5	-0.3R	5	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R	5.1	-0.2R
		8"	q_a	1033	1663	1038	1671	1031	1660	1035	1667	1030	1658	1034	1664	1029	1657	1032	1662	1029	1656
			q_f																		
			F	5.5	-0.5R	5.6	-0.5R	5.7	-0.4R	5.8	-0.4R	5.8	-0.4R	5.8	-0.4R	5.9	-0.3R	5.9	-0.3R	5.9	-0.3R
		12"	q_a	963	1551	961	1547	959	1544	957	1541	956	1539	955	1538	954	1536	953	1535	953	1534
			q_f																		
			F	6.6	-0.9R	6.8	-0.8R	6.9	-0.8R	7.1	-0.7R	7.2	-0.7R	7.3	-0.7R	7.3	-0.6R	7.4	-0.6R	7.4	-0.6R
		18"	q_a	856	1551	872	1404	883	1422	843	1358	857	1379	867	1396	836	1347	848	1365	857	1379
			q_f																		
			F	7.9	-1.4R	8.2	-1.4R	8.5	-1.3R	8.7	-1.3R	8.9	-1.3R	9.1	-1.2R	9.2	-1.2R	9.3	-1.1R	9.4	-1.1R
		24"	q_a	762	1227	800	1288	747	1203	781	1257	738	1189	767	1235	732	1179	758	1220	728	1171
			q_f																		
			F	8.9	-1.9R	9.4	-1.9R	9.8	-1.9R	10.1	-1.8R	10.4	-1.8R	10.6	-1.8R	10.8	-1.7R	11	-1.7R	11.2	-1.6R
	20 ga	4"	q_a	814	1311	814	1311	814	1310	814	1310	813	1310	813	1310	813	1309	813	1309	813	1309
			q_f																		
			F	6.1	-0.4R	6.2	-0.4R	6.2	-0.3R	6.3	-0.3R	6.3	-0.3R	6.3	-0.3R	6.4	-0.2R	6.4	-0.2R	6.4	-0.2R
		6"	q_a	784	1263	784	1262	783	1261	782	1260	782	1259	782	1259	782	1258	781	1258	781	1258
			q_f																		
			F	7.2	-0.7R	7.4	-0.7R	7.5	-0.6R	7.6	-0.6R	7.6	-0.5R	7.7	-0.5R	7.7	-0.5R	7.8	-0.5R	7.8	-0.4R
		8"	q_a	749	1206	754	1215	747	1202	751	1209	745	1199	749	1206	744	1197	747	1203	743	1196
			q_f																		
			F	8.2	-1R	8.4	-1R	8.5	-0.9R	8.7	-0.9R	8.8	-0.9R	8.9	-0.8R	9	-0.8R	9.1	-0.7R	9.1	-0.7R
		12"	q_a	675	1087	672	1082	669	1077	667	1074	665	1071	664	1069	663	1067	662	1065	661	1064
			q_f																		
			F	9.7	-1.6R	10.1	-1.6R	10.4	-1.6R	10.6	-1.5R	10.8	-1.5R	11	-1.5R	11.2	-1.4R	11.4	-1.4R	11.5	-1.3R
		18"	q_a	577	1087	589	948	597	962	561	904	572	921	580	935	553	891	563	906	570	918
			q_f																		
			F	11.3	-2.4R	11.9	-2.5R	12.5	-2.5R	12.9	-2.5R	13.3	-2.4R	13.6	-2.4R	13.9	-2.4R	14.2	-2.3R	14.4	-2.3R
		24"	q_a	500	805	528	850	485	781	510	820	475	765	497	801	469	755	488	786	464	748
			q_f																		
			F	12.5	-3.1R	13.3	-3.2R	14	-3.2R	14.6	-3.3R	15.2	-3.3R	15.7	-3.3R	16.1	-3.3R	16.5	-3.3R	16.9	-3.2R
	22 ga	4"	q_a	673	1083	672	1082	672	1082	672	1082	672	1081	671	1081	671	1081	671	1081	671	1081
			q_f																		
			F	7.8	-0.6R	7.9	-0.6R	8	-0.6R	8.1	-0.5R	8.2	-0.5R	8.2	-0.5R	8.3	-0.4R	8.3	-0.4R	8.4	-0.4R
		6"	q_a	639	1029	638	1028	637	1026	637	1025	636	1024	636	1024	636	1023	635	1023	635	1022
			q_f																		
			F	9.2	-1.1R	9.5	-1.1R	9.6	-1R	9.8	-1R	9.9	-0.9R	10	-0.9R	10.1	-0.8R	10.2	-0.8R	10.3	-0.8R
		8"	q_a	602	969	607	978	599	964	603	971	596	960	601	967	595	958	599	964	594	956
			q_f																		
			F	10.4	-1.6R	10.7	-1.5R	11	-1.5R	11.2	-1.4R	11.4	-1.4R	11.6	-1.3R	11.8	-1.3R	11.9	-1.2R	12	-1.2R
		12"	q_a	529	852	525	846	522	841	520	837	518	834	516	831	515	829	514	827	513	825
			q_f																		
			F	12.2	-2.4R	12.7	-2.4R	13.2	-2.4R	13.6	-2.3R	14	-2.3R	14.3	-2.3R	14.6	-2.2R	14.8	-2.2R	15	-2.1R
		18"	q_a	441	852	450	725	457	736	425	685	434	699	441	710	417	672	425	684	431	694
			q_f																		
			F	14	-3.3R	14.9	-3.4R	15.6	-3.5R	16.3	-3.6R	16.9	-3.6R	17.4	-3.6R	17.9	-3.6R	18.3	-3.5R	18.7	-3.5R
		24"	q_a	378	608	399	643	363	585	382	616	354	570	371	597	348	560	363	585	343	553
			q_f																		
			F	15.2	-4R	16.4	-4.2R	17.4	-4.4R	18.3	-4.5R	19.1	-4.6R	19.8	-4.7R	20.4	-4.7R	21	-4.8R	21.6	-4.8R

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

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Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3 -0.1R		3 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R		3.1 -0.1R	
		6"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.5 -0.2R		3.5 -0.2R		3.5 -0.2R		3.6 -0.2R		3.6 -0.2R		3.6 -0.1R		3.6 -0.1R		3.6 -0.1R		3.7 -0.1R	
		8"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	3.9 -0.3R		3.9 -0.3R		4 -0.3R		4 -0.3R		4.1 -0.3R		4.1 -0.2R		4.1 -0.2R		4.1 -0.2R		4.2 -0.2R	
		12"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																				
			F	4.5 -0.6R		4.7 -0.5R		4.8 -0.5R		4.8 -0.5R		4.9 -0.5R		5 -0.5R		5 -0.4R		5.1 -0.4R		5.1 -0.4R	
		18"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1360	2189	1369	2204	1369	2204	1369	2204
			q_f																				
			F	5.3 -0.9R		5.5 -0.9R		5.7 -0.9R		5.9 -0.8R		6 -0.8R		6.1 -0.8R		6.2 -0.8R		6.3 -0.8R		6.3 -0.7R	
		24"	q_a	1254	2019	1310	2110	1223	1969	1273	2050	1203	1937	1248	2010	1189	1915	1230	1980	1179	1899
			q_f																				
			F	5.9 -1.2R		6.2 -1.2R		6.5 -1.2R		6.7 -1.2R		6.9 -1.2R		7 -1.1R		7.2 -1.1R		7.3 -1.1R		7.4 -1.1R	
	18 ga	4"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																				
			F	4.1 -0.2R		4.1 -0.2R		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	
		6"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																				
			F	4.7 -0.4R		4.8 -0.4R		4.8 -0.3R		4.9 -0.3R		4.9 -0.3R		4.9 -0.3R		5 -0.3R		5 -0.3R		5 -0.3R	
		8"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																				
			F	5.2 -0.6R		5.3 -0.6R		5.4 -0.5R		5.5 -0.5R		5.6 -0.5R		5.6 -0.5R		5.7 -0.4R		5.7 -0.4R		5.8 -0.4R	
		12"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																				
			F	6.1 -0.9R		6.3 -0.9R		6.4 -0.9R		6.6 -0.9R		6.7 -0.8R		6.8 -0.8R		6.9 -0.8R		7 -0.8R		7.1 -0.7R	
		18"	q_a	1038	1784	1055	1698	1067	1718	1005	1619	1022	1645	1035	1666	988	1591	1003	1615	1015	1634
			q_f																				
			F	7 -1.4R		7.3 -1.4R		7.6 -1.4R		7.9 -1.4R		8.1 -1.4R		8.3 -1.4R		8.5 -1.3R		8.6 -1.3R		8.7 -1.3R	
		24"	q_a	911	1467	954	1536	879	1415	918	1478	858	1382	894	1439	844	1359	876	1411	834	1343
			q_f																				
			F	7.7 -1.7R		8.1 -1.8R		8.5 -1.8R		8.9 -1.9R		9.2 -1.9R		9.5 -1.9R		9.7 -1.9R		9.9 -1.8R		10.1 -1.8R	
	20 ga	4"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																				
			F	5.9 -0.5R		6 -0.4R		6 -0.4R		6.1 -0.4R		6.2 -0.4R		6.2 -0.4R		6.2 -0.3R		6.3 -0.3R		6.3 -0.3R	
		6"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																				
			F	6.8 -0.8R		6.9 -0.8R		7.1 -0.7R		7.2 -0.7R		7.3 -0.7R		7.4 -0.7R		7.4 -0.6R		7.5 -0.6R		7.6 -0.6R	
		8"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																				
			F	7.5 -1.1R		7.7 -1.1R		7.9 -1.1R		8.1 -1R		8.3 -1R		8.4 -1R		8.5 -0.9R		8.6 -0.9R		8.7 -0.9R	
		12"	q_a	824	1326	815	1312	808	1301	802	1292	798	1285	794	1279	791	1273	788	1269	786	1265
			q_f																				
			F	8.6 -1.6R		9 -1.6R		9.3 -1.7R		9.6 -1.6R		9.9 -1.6R		10.1 -1.6R		10.3 -1.6R		10.5 -1.6R		10.7 -1.5R	
		18"	q_a	689	1326	699	1125	706	1137	656	1056	667	1073	676	1088	638	1027	648	1044	657	1057
			q_f																				
			F	9.6 -2.2R		10.2 -2.3R		10.8 -2.4R		11.2 -2.4R		11.7 -2.5R		12 -2.5R		12.4 -2.5R		12.7 -2.5R		12.9 -2.5R	
		24"	q_a	596	960	623	1002	565	910	591	951	546	879	569	917	533	858	554	892	523	843
			q_f																				
			F	10.4 -2.6R		11.1 -2.8R		11.8 -2.9R		12.4 -3R		12.9 -3.1R		13.4 -3.2R		13.9 -3.2R		14.3 -3.3R		14.7 -3.3R	
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																				
			F	7.4 -0.7R		7.6 -0.7R		7.7 -0.7R		7.8 -0.6R		7.9 -0.6R		8 -0.6R		8 -0.6R		8.1 -0.5R		8.1 -0.5R	
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																				
			F	8.5 -1.2R		8.8 -1.2R		9 -1.1R		9.2 -1.1R		9.4 -1.1R		9.5 -1R		9.6 -1R		9.7 -1R		9.8 -1R	
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																				
			F	9.3 -1.6R		9.7 -1.6R		10 -1.6R		10.3 -1.6R		10.6 -1.5R		10.8 -1.5R		11 -1.5R		11.1 -1.5R		11.3 -1.4R	
		12"	q_a	638	1028	629	1012	622	1001	616	991	611	984	607	977	604	972	601	967	598	963
			q_f																				
			F	10.5 -2.2R		11.1 -2.3R		11.6 -2.3R		12.1 -2.4R		12.5 -2.4R		12.8 -2.4R		13.1 -2.4R		13.4 -2.4R		13.7 -2.3R	
		18"	q_a	526	1028	531	855	536	862	493	794	501	806	507	816	476	766	483	778	490	789
			q_f																				
			F	11.7 -2.8R		12.5 -3R		13.2 -3.2R		13.9 -3.3R		14.5 -3.4R		15 -3.4R		15.5 -3.5R		16 -3.5R		16.4 -3.6R	
		24"	q_a	452	728	470	757	424	683	442	712	406	654	423	681	394	635	410	660	385	621
			q_f																				
			F	12.4 -3.3R		13.4 -3.6R		14.3 -3.8R		15.1 -4R		15.8 -4.1R		16.5 -4.3R		17.2 -4.4R		17.8 -4.5R		18.4 -4.6R	

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.11

Hilti X-ENP-19 Fasteners to Supports with DeltaGrip® 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	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	2.9	-0.2R	3	-0.1R	3	-0.1R	3	-0.1R	3	-0.1R	3	-0.1R	3.1	-0.1R	3.1	-0.1R	3.1	-0.1R
		6"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	3.3	-0.3R	3.4	-0.3R	3.4	-0.2R	3.4	-0.2R	3.5	-0.2R	3.5	-0.2R	3.5	-0.2R	3.5	-0.2R	3.6	-0.2R
		8"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	3.6	-0.4R	3.7	-0.4R	3.8	-0.4R	3.8	-0.3R	3.9	-0.3R	3.9	-0.3R	3.9	-0.3R	4	-0.3R	4	-0.3R
		12"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	4.1	-0.6R	4.2	-0.6R	4.3	-0.6R	4.4	-0.6R	4.5	-0.6R	4.6	-0.6R	4.7	-0.5R	4.7	-0.5R	4.8	-0.5R
		18"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	4.6	-0.8R	4.8	-0.9R	5	-0.9R	5.2	-0.9R	5.3	-0.9R	5.4	-0.9R	5.6	-0.9R	5.7	-0.9R	5.7	-0.9R
		24"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			q_f																		
			F	4.9	-1R	5.2	-1.1R	5.5	-1.1R	5.7	-1.2R	5.9	-1.2R	6.1	-1.2R	6.2	-1.2R	6.4	-1.2R	6.5	-1.2R
	18 ga	4"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																		
			F	3.9	-0.3R	3.9	-0.3R	4	-0.2R	4	-0.2R	4	-0.2R	4.1	-0.2R	4.1	-0.2R	4.1	-0.2R	4.1	-0.2R
		6"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																		
			F	4.4	-0.5R	4.5	-0.4R	4.5	-0.4R	4.6	-0.4R	4.7	-0.4R	4.7	-0.4R	4.8	-0.4R	4.8	-0.4R	4.8	-0.3R
		8"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																		
			F	4.7	-0.6R	4.9	-0.6R	5	-0.6R	5.1	-0.6R	5.2	-0.6R	5.3	-0.6R	5.3	-0.6R	5.4	-0.5R	5.4	-0.5R
		12"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																		
			F	5.3	-0.9R	5.5	-0.9R	5.7	-0.9R	5.9	-0.9R	6	-0.9R	6.2	-0.9R	6.3	-0.9R	6.4	-0.9R	6.5	-0.9R
		18"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			q_f																		
			F	5.8	-1.2R	6.2	-1.3R	6.5	-1.3R	6.7	-1.3R	7	-1.4R	7.2	-1.4R	7.4	-1.4R	7.5	-1.4R	7.7	-1.4R
		24"	q_a	1108	1784	1108	1784	1092	1758	1108	1784	1044	1681	1082	1742	1011	1628	1047	1686	987	1590
			q_f																		
			F	6.2	-1.4R	6.6	-1.5R	7	-1.6R	7.3	-1.7R	7.6	-1.7R	7.9	-1.8R	8.2	-1.8R	8.4	-1.8R	8.6	-1.8R
	20 ga	4"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																		
			F	5.5	-0.5R	5.6	-0.5R	5.7	-0.5R	5.8	-0.5R	5.9	-0.5R	5.9	-0.5R	6	-0.4R	6	-0.4R	6.1	-0.4R
		6"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																		
			F	6.1	-0.8R	6.3	-0.8R	6.5	-0.8R	6.6	-0.8R	6.7	-0.8R	6.9	-0.8R	7	-0.8R	7	-0.7R	7.1	-0.7R
		8"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																		
			F	6.6	-1.1R	6.8	-1.1R	7.1	-1.1R	7.3	-1.1R	7.5	-1.1R	7.6	-1.1R	7.8	-1.1R	7.9	-1.1R	8	-1.1R
		12"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357	843	1357
			q_f																		
			F	7.2	-1.4R	7.6	-1.5R	7.9	-1.5R	8.2	-1.6R	8.5	-1.6R	8.8	-1.6R	9	-1.6R	9.2	-1.6R	9.4	-1.7R
		18"	q_a	843	1357	843	1357	843	1357	805	1297	812	1307	817	1316	764	1230	772	1244	780	1256
			q_f																		
			F	7.8	-1.7R	8.3	-1.9R	8.7	-2R	9.2	-2.1R	9.6	-2.2R	9.9	-2.3R	10.3	-2.3R	10.6	-2.4R	10.9	-2.4R
		24"	q_a	771	1241	786	1265	706	1136	726	1168	665	1070	685	1103	637	1025	657	1057	616	992
			q_f																		
			F	8.1	-2R	8.7	-2.1R	9.3	-2.3R	9.8	-2.5R	10.3	-2.6R	10.7	-2.7R	11.2	-2.8R	11.6	-2.9R	11.9	-3R
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	6.8	-0.8R	7	-0.8R	7.2	-0.8R	7.3	-0.8R	7.4	-0.7R	7.5	-0.7R	7.6	-0.7R	7.7	-0.7R	7.7	-0.7R
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	7.5	-1.1R	7.8	-1.2R	8.1	-1.2R	8.3	-1.2R	8.5	-1.2R	8.6	-1.2R	8.8	-1.2R	8.9	-1.2R	9.1	-1.1R
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8	-1.4R	8.4	-1.5R	8.7	-1.5R	9	-1.6R	9.3	-1.6R	9.5	-1.6R	9.7	-1.6R	9.9	-1.6R	10.1	-1.6R
		12"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8.7	-1.8R	9.2	-1.9R	9.6	-2R	10.1	-2.1R	10.5	-2.2R	10.8	-2.2R	11.2	-2.3R	11.5	-2.3R	11.7	-2.3R
		18"	q_a	677	1085	670	1079	665	1071	606	975	608	979	610	983	568	914	573	922	577	929
			q_f																		
			F	9.2	-2.1R	9.9	-2.3R	10.5	-2.5R	11	-2.7R	11.6	-2.8R	12.1	-2.9R	12.5	-3R	13	-3.1R	13.4	-3.2R
		24"	q_a	593	955	598	963	535	861	546	879	499	803	511	823	474	763	487	783	456	734
			q_f																		
			F	9.5	-2.3R	10.3	-2.6R	11	-2.8R	11.6	-3.1R	12.3	-3.2R	12.9	-3.4R	13.4	-3.6R	14	-3.7R	14.5	-3.8R

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Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1246	2006	1246	2006	1246	2005	1246	2005	1246	2005	1246	2005	1246	2005	1246	2005	1245	2005
			q_f																		
			F	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R
		6"	q_a	1230	1981	1230	1981	1230	1980	1230	1980	1230	1980	1230	1980	1230	1980	1230	1980	1229	1979
			q_f																		
			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	1210	1949	1214	1954	1209	1947	1212	1952	1209	1946	1211	1950	1209	1946	1211	1949	1208	1945
			q_f																		
			F	4.3	-0.1R	4.3	-0.1R	4.3	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	-0.1R	4.4	+0R	4.4	+0R
		12"	q_a	1160	1868	1159	1866	1158	1864	1157	1863	1156	1861	1156	1860	1155	1860	1155	1859	1154	1858
			q_f																		
			F	5.4	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.1R	5.5	-0.1R	5.5	-0.1R	5.5	-0.1R	5.6	-0.1R	5.6	-0.1R
		18"	q_a	1073	1868	1088	1751	1098	1767	1064	1713	1076	1733	1085	1748	1060	1706	1070	1723	1078	1735
			q_f																		
			F	7	-0.4R	7.1	-0.4R	7.1	-0.3R	7.2	-0.3R	7.2	-0.3R	7.2	-0.3R	7.3	-0.2R	7.3	-0.2R	7.3	-0.2R
		24"	q_a	984	1585	1023	1647	974	1568	1007	1622	967	1557	996	1604	963	1550	988	1591	960	1545
			q_f																		
			F	8.5	-0.7R	8.6	-0.6R	8.7	-0.6R	8.8	-0.5R	8.8	-0.5R	8.9	-0.4R	8.9	-0.4R	9	-0.4R	9	-0.4R
	18 ga	4"	q_a	1016	1636	1016	1636	1016	1636	1016	1636	1016	1636	1016	1636	1016	1635	1016	1635	1016	1635
			q_f																		
			F	4.3	-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	996	1604	996	1604	996	1603	996	1603	995	1603	995	1602	995	1602	995	1602	995	1602
			q_f																		
			F	5.2	-0.1R	5.2	-0.1R	5.2	-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
		8"	q_a	971	1564	976	1571	970	1562	974	1567	969	1560	972	1565	969	1559	971	1564	968	1559
			q_f																		
			F	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.2	-0.1R	6.2	-0.1R	6.2	-0.1R	6.2	-0.1R	6.2	-0.1R	6.2	-0.1R
		12"	q_a	912	1469	910	1466	909	1463	907	1461	906	1459	906	1458	905	1457	904	1456	904	1455
			q_f																		
			F	7.8	-0.4R	7.8	-0.4R	7.9	-0.3R	7.9	-0.3R	7.9	-0.3R	8	-0.3R	8	-0.2R	8	-0.2R	8	-0.2R
		18"	q_a	818	1469	833	1341	843	1357	808	1300	819	1319	829	1334	802	1291	812	1307	820	1320
			q_f																		
			F	10.1	-0.8R	10.2	-0.7R	10.3	-0.7R	10.4	-0.6R	10.5	-0.6R	10.6	-0.5R	10.6	-0.5R	10.6	-0.5R	10.7	-0.4R
		24"	q_a	733	1180	768	1237	720	1160	751	1209	713	1147	739	1191	707	1139	731	1177	704	1133
			q_f																		
			F	12.2	-1.3R	12.5	-1.2R	12.6	-1.1R	12.8	-1R	12.9	-0.9R	13	-0.9R	13.1	-0.8R	13.2	-0.8R	13.2	-0.7R
	20 ga	4"	q_a	773	1244	772	1243	772	1243	772	1243	772	1243	772	1243	772	1243	772	1242	772	1242
			q_f																		
			F	6.5	-0.1R	6.5	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R	6.6	-0.1R
		6"	q_a	747	1202	746	1201	746	1200	745	1200	745	1199	745	1199	744	1198	744	1198	744	1198
			q_f																		
			F	8.1	-0.3R	8.1	-0.3R	8.1	-0.2R	8.2	-0.2R	8.2	-0.2R	8.2	-0.2R	8.2	-0.2R	8.2	-0.2R	8.2	-0.1R
		8"	q_a	716	1153	721	1160	714	1149	718	1156	712	1147	716	1152	711	1145	714	1150	711	1144
			q_f																		
			F	9.5	-0.5R	9.6	-0.4R	9.7	-0.4R	9.7	-0.4R	9.7	-0.3R	9.8	-0.3R	9.8	-0.3R	9.8	-0.3R	9.9	-0.2R
		12"	q_a	650	1046	647	1041	645	1038	643	1035	641	1032	640	1030	639	1029	638	1027	637	1026
			q_f																		
			F	12.3	-1R	12.4	-0.9R	12.6	-0.8R	12.7	-0.7R	12.7	-0.7R	12.8	-0.6R	12.9	-0.6R	12.9	-0.6R	13	-0.5R
		18"	q_a	559	1046	571	919	579	932	546	878	556	895	564	907	539	867	547	881	554	892
			q_f																		
			F	15.9	-1.9R	16.3	-1.7R	16.5	-1.6R	16.8	-1.5R	16.9	-1.4R	17.1	-1.3R	17.2	-1.2R	17.3	-1.1R	17.4	-1.1R
		24"	q_a	487	784	514	827	473	762	497	800	465	748	486	782	459	739	478	769	455	732
			q_f																		
			F	19.2	-2.8R	19.7	-2.6R	20.2	-2.5R	20.5	-2.3R	20.8	-2.2R	21.1	-2.1R	21.3	-2R	21.5	-1.9R	21.6	-1.8R
	22 ga	4"	q_a	643	1035	643	1035	642	1034	642	1034	642	1034	642	1034	642	1033	642	1033	642	1033
			q_f																		
			F	8.6	-0.3R	8.6	-0.2R	8.6	-0.2R	8.6	-0.2R	8.7	-0.2R	8.7	-0.2R	8.7	-0.1R	8.7	-0.1R	8.7	-0.1R
		6"	q_a	613	988	613	986	612	985	611	984	611	984	611	983	610	982	610	982	610	982
			q_f																		
			F	10.7	-0.5R	10.8	-0.5R	10.8	-0.4R	10.9	-0.4R	10.9	-0.4R	11	-0.3R	11	-0.3R	11	-0.3R	11	-0.3R
		8"	q_a	580	934	585	941	577	929	581	936	575	926	579	932	574	924	577	929	573	923
			q_f																		
			F	12.7	-0.9R	12.8	-0.8R	13	-0.7R	13	-0.6R	13.1	-0.6R	13.2	-0.6R	13.2	-0.5R	13.3	-0.5R	13.3	-0.5R
		12"	q_a	513	826	510	821	507	816	505	813	503	810	502	808	501	806	500	804	499	803
			q_f																		
			F	16.4	-1.7R	16.7	-1.5R	16.9	-1.4R	17.1	-1.3R	17.3	-1.2R	17.4	-1.1R	17.5	-1.1R	17.6	-1R	17.7	-0.9R
		18"	q_a	430	826	439	708	446	718	416	670	425	683	431	694	409	658	416	670	422	679
			q_f																		
			F	21.2	-3R	21.8	-2.8R	22.2	-2.7R	22.6	-2.5R	22.9	-2.4R	23.2	-2.2R	23.4	-2.1R	23.6	-2R	23.8	-1.9R
		24"	q_a	370	595	391	629	356	574	375	604	348	560	364	587	342	551	357	575	338	544
			q_f																		
			F	25.3	-4.4R	26.2	-4.2R	26.9	-4R	27.6	-3.8R	28.1	-3.7R	28.5	-3.5R	28.9	-3.3R	29.2	-3.2R	29.5	-3.1R

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Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	3.1 +0R		3.1 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R	
		6"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	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		3.8 +0R	
		8"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	4.3 -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		4.3 -0.1R		4.4 -0.1R	
		12"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	5.3 -0.3R		5.4 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.1R	
		18"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																		
			F	6.8 -0.6R		6.9 -0.5R		6.9 -0.5R		7 -0.4R		7.1 -0.4R		7.1 -0.4R		7.1 -0.3R		7.2 -0.3R		7.2 -0.3R	
		24"	q_a	1195	1924	1246	2007	1169	1882	1215	1956	1152	1855	1193	1921	1141	1837	1178	1896	1133	1824
			q_f																		
			F	8.1 -0.9R		8.3 -0.8R		8.4 -0.7R		8.5 -0.7R		8.6 -0.6R		8.6 -0.6R		8.7 -0.6R		8.7 -0.5R		8.8 -0.5R	
	18 ga	4"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	4.3 -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	
		6"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	5.1 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.3 -0.1R	
		8"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	6 -0.3R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																		
			F	7.5 -0.6R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R		7.8 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R	
		18"	q_a	996	1664	1012	1630	1024	1649	968	1559	984	1584	996	1603	954	1535	967	1557	978	1575
			q_f																		
			F	9.6 -1R		9.8 -1R		9.9 -0.9R		10.1 -0.8R		10.2 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.6R		10.4 -0.6R	
		24"	q_a	878	1414	920	1480	850	1369	888	1429	832	1340	866	1394	820	1320	850	1369	811	1306
			q_f																		
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.3 -1.2R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	20 ga	4"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																		
			F	6.4 -0.2R		6.5 -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"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																		
			F	7.9 -0.4R		8 -0.4R		8 -0.3R		8 -0.3R		8.1 -0.3R		8.1 -0.3R		8.1 -0.2R		8.2 -0.2R		8.2 -0.2R	
		8"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																		
			F	9.2 -0.7R		9.3 -0.6R		9.4 -0.5R		9.5 -0.5R		9.6 -0.5R		9.6 -0.4R		9.7 -0.4R		9.7 -0.4R		9.7 -0.4R	
		12"	q_a	796	1281	788	1268	782	1259	777	1251	773	1245	770	1239	767	1235	765	1231	763	1228
			q_f																		
			F	11.7 -1.3R		11.9 -1.2R		12.1 -1.1R		12.2 -1R		12.3 -0.9R		12.4 -0.9R		12.5 -0.8R		12.6 -0.8R		12.7 -0.7R	
		18"	q_a	669	1281	679	1094	687	1106	639	1029	650	1047	659	1061	623	1003	633	1019	642	1033
			q_f																		
			F	14.8 -2.2R		15.2 -2.1R		15.6 -2R		15.9 -1.9R		16.1 -1.8R		16.3 -1.7R		16.5 -1.6R		16.7 -1.5R		16.8 -1.5R	
		24"	q_a	580	934	606	976	552	889	577	929	535	861	557	897	523	841	543	875	514	827
			q_f																		
			F	17.4 -3.2R		18.1 -3.1R		18.6 -3R		19.1 -2.8R		19.5 -2.7R		19.8 -2.6R		20.1 -2.5R		20.3 -2.4R		20.6 -2.3R	
	22 ga	4"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																		
			F	8.4 -0.4R		8.5 -0.3R		8.5 -0.3R		8.5 -0.3R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R	
		6"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																		
			F	10.4 -0.7R		10.5 -0.6R		10.6 -0.6R		10.7 -0.5R		10.7 -0.5R		10.8 -0.5R		10.8 -0.4R		10.9 -0.4R		10.9 -0.4R	
		8"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																		
			F	12.2 -1.1R		12.4 -1R		12.5 -1R		12.7 -0.9R		12.8 -0.8R		12.9 -0.8R		12.9 -0.7R		13 -0.7R		13.1 -0.6R	
		12"	q_a	621	999	612	986	606	975	600	967	596	960	593	954	590	949	587	945	585	941
			q_f																		
			F	15.3 -2R		15.7 -1.9R		16.1 -1.8R		16.3 -1.7R		16.5 -1.6R		16.7 -1.5R		16.9 -1.4R		17 -1.4R		17.1 -1.3R	
		18"	q_a	513	999	519	836	524	843	483	778	491	790	497	800	467	752	475	764	481	775
			q_f																		
			F	19.3 -3.4R		20 -3.3R		20.6 -3.2R		21.1 -3R		21.5 -2.9R		21.9 -2.8R		22.2 -2.7R		22.4 -2.6R		22.7 -2.5R	
		24"	q_a	442	711	460	741	416	669	433	698	399	643	416	669	388	624	403	649	380	611
			q_f																		
			F	22.4 -4.7R		23.5 -4.7R		24.4 -4.6R		25.1 -4.5R		25.8 -4.3R		26.3 -4.2R		26.8 -4.1R		27.2 -3.9R		27.6 -3.8R	

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

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Pneutek SDK61 Fasteners to Supports with DeltaGrip® 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	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	3.1 -0.1R		3.1 -0.1R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.2 +0R	
		6"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R	
		8"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	4.2 -0.2R		4.2 -0.2R		4.2 -0.2R		4.2 -0.2R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R	
		12"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	5.1 -0.4R		5.2 -0.4R		5.2 -0.3R		5.3 -0.3R		5.3 -0.3R		5.3 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R	
		18"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	6.3 -0.7R		6.5 -0.7R		6.6 -0.6R		6.7 -0.6R		6.8 -0.6R		6.8 -0.5R		6.9 -0.5R		6.9 -0.5R		7 -0.4R	
		24"	q_a	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
			q_f																				
			F	7.4 -1.1R		7.6 -1R		7.8 -1R		8 -0.9R		8.1 -0.9R		8.2 -0.8R		8.3 -0.8R		8.3 -0.8R		8.4 -0.7R	
	18 ga	4"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																				
			F	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		4.3 -0.1R	
		6"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																				
			F	5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																				
			F	5.8 -0.4R		5.8 -0.4R		5.9 -0.3R		5.9 -0.3R		6 -0.3R		6 -0.3R		6 -0.2R		6 -0.2R		6.1 -0.2R	
		12"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																				
			F	7.1 -0.7R		7.2 -0.7R		7.3 -0.6R		7.4 -0.6R		7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R	
		18"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664	1034	1664
			q_f																				
			F	8.8 -1.3R		9 -1.2R		9.2 -1.2R		9.4 -1.1R		9.6 -1.1R		9.7 -1R		9.8 -1R		9.9 -0.9R		10 -0.9R	
		24"	q_a	1034	1664	1034	1664	1034	1664	1034	1664	1015	1634	1034	1664	985	1586	1020	1643	964	1552
			q_f																				
			F	10.2 -1.8R		10.6 -1.8R		10.9 -1.7R		11.2 -1.7R		11.4 -1.6R		11.6 -1.5R		11.8 -1.5R		11.9 -1.4R		12 -1.4R	
	20 ga	4"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	6.3 -0.3R		6.3 -0.3R		6.4 -0.2R		6.4 -0.2R		6.4 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R	
		6"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	7.6 -0.6R		7.7 -0.5R		7.8 -0.5R		7.8 -0.4R		7.9 -0.4R		7.9 -0.4R		8 -0.4R		8 -0.3R		8 -0.3R	
		8"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	8.7 -0.9R		8.9 -0.8R		9 -0.8R		9.1 -0.7R		9.2 -0.7R		9.3 -0.6R		9.3 -0.6R		9.4 -0.6R		9.5 -0.5R	
		12"	q_a	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283	797	1283
			q_f																				
			F	10.7 -1.5R		11 -1.5R		11.2 -1.4R		11.5 -1.3R		11.6 -1.3R		11.8 -1.2R		11.9 -1.1R		12 -1.1R		12.1 -1.1R	
		18"	q_a	797	1283	797	1283	797	1283	786	1266	793	1277	797	1283	748	1204	757	1219	764	1231
			q_f																				
			F	13 -2.5R		13.5 -2.4R		14 -2.4R		14.4 -2.3R		14.7 -2.2R		15 -2.2R		15.3 -2.1R		15.5 -2R		15.7 -2R	
		24"	q_a	748	1205	765	1231	688	1108	708	1140	650	1046	671	1080	624	1004	644	1037	605	974
			q_f																				
			F	14.8 -3.3R		15.6 -3.3R		16.2 -3.3R		16.8 -3.2R		17.3 -3.2R		17.7 -3.1R		18.1 -3.1R		18.5 -3R		18.8 -2.9R	
	22 ga	4"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																				
			F	8.1 -0.5R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.4 -0.4R		8.4 -0.3R		8.5 -0.3R		8.5 -0.3R		8.5 -0.3R	
		6"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																				
			F	9.8 -0.9R		10 -0.9R		10.1 -0.8R		10.3 -0.8R		10.4 -0.7R		10.4 -0.7R		10.5 -0.6R		10.6 -0.6R		10.6 -0.6R	
		8"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																				
			F	11.3 -1.4R		11.6 -1.3R		11.8 -1.3R		12 -1.2R		12.1 -1.1R		12.3 -1.1R		12.4 -1R		12.5 -1R		12.6 -0.9R	
		12"	q_a	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082	672	1082
			q_f																				
			F	13.7 -2.3R		14.2 -2.3R		14.6 -2.2R		15 -2.1R		15.3 -2R		15.6 -2R		15.8 -1.9R		16 -1.8R		16.1 -1.8R	
		18"	q_a	659	1082	654	1053	651	1047	593	955	596	960	599	964	558	898	563	907	568	914
			q_f																				
			F	16.4 -3.6R		17.3 -3.6R		18 -3.5R		18.6 -3.5R		19.2 -3.4R		19.6 -3.4R		20 -3.3R		20.4 -3.2R		20.7 -3.1R	
		24"	q_a	577	929	584	940	523	841	534	860	488	786	502	808	465	749	478	770	448	721
			q_f																				
			F	18.4 -4.6R		19.6 -4.7R		20.6 -4.7R		21.5 -4.8R		22.3 -4.7R		22.9 -4.7R		23.5 -4.7R		24.1 -4.6R		24.6 -4.5R	

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940	1205	1940
			q_f																		
			F	3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R	
		6"	q_a	1191	1918	1191	1917	1191	1917	1191	1917	1191	1917	1190	1917	1190	1916	1190	1916	1190	1916
			q_f																		
			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	1173	1888	1176	1893	1172	1887	1175	1891	1172	1886	1174	1890	1171	1886	1173	1889	1171	1885
			q_f																		
			F	4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 +0R		4.4 +0R	
		12"	q_a	1127	1814	1126	1812	1125	1811	1124	1809	1123	1808	1123	1808	1122	1807	1122	1806	1122	1806
			q_f																		
			F	5.4 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.6 -0.1R		5.6 -0.1R	
		18"	q_a	1046	1814	1060	1706	1069	1721	1038	1671	1049	1689	1058	1703	1034	1665	1043	1680	1051	1692
			q_f																		
			F	7 -0.4R		7.1 -0.4R		7.1 -0.3R		7.2 -0.3R		7.2 -0.3R		7.2 -0.3R		7.3 -0.2R		7.3 -0.2R		7.3 -0.2R	
		24"	q_a	963	1550	999	1609	953	1534	985	1585	947	1525	975	1569	943	1518	967	1557	940	1513
			q_f																		
			F	8.5 -0.7R		8.6 -0.6R		8.7 -0.6R		8.8 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R		9 -0.4R		9 -0.4R	
	18 ga	4"	q_a	1028	1655	1028	1655	1028	1654	1028	1654	1027	1654	1027	1654	1027	1654	1027	1654	1027	1654
			q_f																		
			F	4.3 -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	1007	1622	1007	1621	1007	1621	1006	1620	1006	1620	1006	1620	1006	1620	1006	1619	1006	1619
			q_f																		
			F	5.2 -0.1R		5.2 -0.1R		5.2 -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	
		8"	q_a	982	1580	986	1587	980	1578	984	1584	979	1577	982	1582	979	1576	981	1580	978	1575
			q_f																		
			F	6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a	921	1483	919	1479	917	1476	916	1474	915	1473	914	1471	913	1470	912	1469	912	1468
			q_f																		
			F	7.8 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R		8 -0.3R		8 -0.2R		8 -0.2R		8 -0.2R	
		18"	q_a	825	1483	839	1351	850	1368	814	1310	826	1329	835	1344	808	1300	818	1317	826	1330
			q_f																		
			F	10.1 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.6R		10.5 -0.6R		10.6 -0.5R		10.6 -0.5R		10.6 -0.5R		10.7 -0.4R	
		24"	q_a	738	1188	774	1246	725	1167	756	1217	717	1154	744	1198	712	1146	736	1184	708	1139
			q_f																		
			F	12.2 -1.3R		12.5 -1.2R		12.6 -1.1R		12.8 -1R		12.9 -0.9R		13 -0.9R		13.1 -0.8R		13.2 -0.8R		13.2 -0.7R	
	20 ga	4"	q_a	826	1330	826	1329	825	1329	825	1328	825	1328	825	1328	825	1328	825	1328	825	1328
			q_f																		
			F	6.5 -0.1R		6.5 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		6"	q_a	795	1280	794	1278	793	1277	793	1276	792	1276	792	1275	792	1275	791	1274	791	1274
			q_f																		
			F	8.1 -0.3R		8.1 -0.3R		8.1 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.1R	
		8"	q_a	758	1221	764	1230	756	1216	760	1224	754	1213	758	1220	752	1211	756	1217	752	1210
			q_f																		
			F	9.5 -0.5R		9.6 -0.4R		9.7 -0.4R		9.7 -0.4R		9.7 -0.3R		9.8 -0.3R		9.8 -0.3R		9.8 -0.3R		9.9 -0.2R	
		12"	q_a	682	1098	679	1093	676	1088	674	1084	672	1082	670	1079	669	1077	668	1075	667	1074
			q_f																		
			F	12.3 -1R		12.4 -0.9R		12.6 -0.8R		12.7 -0.7R		12.7 -0.7R		12.8 -0.6R		12.9 -0.6R		12.9 -0.6R		13 -0.5R	
		18"	q_a	581	1098	594	956	602	970	566	911	576	928	585	942	557	897	567	912	574	925
			q_f																		
			F	15.9 -1.9R		16.3 -1.7R		16.5 -1.6R		16.8 -1.5R		16.9 -1.4R		17.1 -1.3R		17.2 -1.2R		17.3 -1.1R		17.4 -1.1R	
		24"	q_a	503	811	532	856	488	786	513	826	478	770	500	806	472	759	491	791	467	752
			q_f																		
			F	19.2 -2.8R		19.7 -2.6R		20.2 -2.5R		20.5 -2.3R		20.8 -2.2R		21.1 -2.1R		21.3 -2R		21.5 -1.9R		21.6 -1.8R	
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8.6 -0.3R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.1R		8.7 -0.1R		8.7 -0.1R	
		6"	q_a	670	1079	669	1077	668	1075	667	1074	667	1073	666	1072	666	1072	665	1071	665	1071
			q_f																		
			F	10.7 -0.5R		10.8 -0.5R		10.8 -0.4R		10.9 -0.4R		10.9 -0.4R		11 -0.3R		11 -0.3R		11 -0.3R		11 -0.3R	
		8"	q_a	628	1011	634	1020	624	1005	629	1013	622	1001	626	1008	620	998	624	1004	619	996
			q_f																		
			F	12.7 -0.9R		12.8 -0.8R		13 -0.7R		13 -0.6R		13.1 -0.6R		13.2 -0.6R		13.2 -0.5R		13.3 -0.5R		13.3 -0.5R	
		12"	q_a	548	882	543	875	540	869	537	865	535	861	533	858	531	855	530	853	529	851
			q_f																		
			F	16.4 -1.7R		16.7 -1.5R		16.9 -1.4R		17.1 -1.3R		17.3 -1.2R		17.4 -1.1R		17.5 -1.1R		17.6 -1R		17.7 -0.9R	
		18"	q_a	453	882	463	745	470	756	436	702	445	716	452	728	427	687	435	700	441	710
			q_f																		
			F	21.2 -3R		21.8 -2.8R		22.2 -2.7R		22.6 -2.5R		22.9 -2.4R		23.2 -2.2R		23.4 -2.1R		23.6 -2R		23.8 -1.9R	
		24"	q_a	387	624	409	659	371	598	391	629	361	582	379	610	354	571	370	596	350	563
			q_f																		
			F	25.3 -4.4R		26.2 -4.2R		26.9 -4R		27.6 -3.8R		28.1 -3.7R		28.5 -3.5R		28.9 -3.3R		29.2 -3.2R		29.5 -3.1R	

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4.12 DG3WxH-36 & DG3WxHF-36

Pneutek SDK63 Fasteners to Supports with DeltaGrip® 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	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	3.1	+0R	3.1	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R
		6"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	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	3.8	+0R
		8"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	4.3	-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	4.3	-0.1R	4.4	-0.1R
		12"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	5.3	-0.3R	5.4	-0.3R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.1R
		18"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			q_f																		
			F	6.8	-0.6R	6.9	-0.5R	6.9	-0.5R	7	-0.4R	7.1	-0.4R	7.1	-0.4R	7.1	-0.3R	7.2	-0.3R	7.2	-0.3R
		24"	q_a	1171	1885	1217	1959	1147	1846	1191	1918	1132	1822	1171	1885	1121	1805	1156	1862	1113	1793
			q_f																		
			F	8.1	-0.9R	8.3	-0.8R	8.4	-0.7R	8.5	-0.7R	8.6	-0.6R	8.6	-0.6R	8.7	-0.6R	8.7	-0.5R	8.8	-0.5R
	18 ga	4"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	4.3	-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
		6"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	5.1	-0.2R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.3	-0.1R
		8"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	6	-0.3R	6	-0.2R	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.2	-0.1R	6.2	-0.1R
		12"	q_a	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			q_f																		
			F	7.5	-0.6R	7.6	-0.5R	7.7	-0.5R	7.7	-0.4R	7.8	-0.4R	7.8	-0.4R	7.9	-0.3R	7.9	-0.3R	7.9	-0.3R
		18"	q_a	1003	1684	1020	1641	1032	1661	975	1569	990	1594	1003	1614	959	1545	973	1567	985	1585
			q_f																		
			F	9.6	-1R	9.8	-1R	9.9	-0.9R	10.1	-0.8R	10.2	-0.8R	10.2	-0.7R	10.3	-0.7R	10.4	-0.6R	10.4	-0.6R
		24"	q_a	884	1423	925	1490	855	1377	893	1437	837	1347	871	1402	824	1327	855	1376	815	1312
			q_f																		
			F	11.4	-1.6R	11.7	-1.5R	12	-1.4R	12.2	-1.3R	12.3	-1.2R	12.5	-1.2R	12.6	-1.1R	12.7	-1.1R	12.8	-1R
	20 ga	4"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			q_f																		
			F	6.4	-0.2R	6.5	-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"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			q_f																		
			F	7.9	-0.4R	8	-0.4R	8	-0.3R	8	-0.3R	8.1	-0.3R	8.1	-0.3R	8.1	-0.2R	8.2	-0.2R	8.2	-0.2R
		8"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			q_f																		
			F	9.2	-0.7R	9.3	-0.6R	9.4	-0.5R	9.5	-0.5R	9.6	-0.5R	9.6	-0.4R	9.7	-0.4R	9.7	-0.4R	9.7	-0.4R
		12"	q_a	831	1338	822	1324	815	1312	809	1303	805	1295	801	1289	797	1284	795	1279	792	1275
			q_f																		
			F	11.7	-1.3R	11.9	-1.2R	12.1	-1.1R	12.2	-1R	12.3	-0.9R	12.4	-0.9R	12.5	-0.8R	12.6	-0.8R	12.7	-0.7R
		18"	q_a	694	1338	704	1134	712	1146	660	1063	671	1081	680	1095	642	1033	652	1050	661	1064
			q_f																		
			F	14.8	-2.2R	15.2	-2.1R	15.6	-2R	15.9	-1.9R	16.1	-1.8R	16.3	-1.7R	16.5	-1.6R	16.7	-1.5R	16.8	-1.5R
		24"	q_a	600	966	627	1009	569	916	594	957	549	884	573	922	536	863	557	897	526	847
			q_f																		
			F	17.4	-3.2R	18.1	-3.1R	18.6	-3R	19.1	-2.8R	19.5	-2.7R	19.8	-2.6R	20.1	-2.5R	20.3	-2.4R	20.6	-2.3R
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R	8.5	-0.3R	8.6	-0.2R	8.6	-0.2R	8.6	-0.2R	8.6	-0.2R	8.7	-0.2R
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	10.4	-0.7R	10.5	-0.6R	10.6	-0.6R	10.7	-0.5R	10.7	-0.5R	10.8	-0.5R	10.8	-0.4R	10.9	-0.4R	10.9	-0.4R
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	12.2	-1.1R	12.4	-1R	12.5	-1R	12.7	-0.9R	12.8	-0.8R	12.9	-0.8R	12.9	-0.7R	13	-0.7R	13.1	-0.6R
		12"	q_a	659	1061	648	1044	640	1030	633	1020	628	1011	624	1004	620	998	617	993	614	988
			q_f																		
			F	15.3	-2R	15.7	-1.9R	16.1	-1.8R	16.3	-1.7R	16.5	-1.6R	16.7	-1.5R	16.9	-1.4R	17	-1.4R	17.1	-1.3R
		18"	q_a	540	1061	546	878	549	885	505	813	512	825	519	835	486	782	493	794	500	805
			q_f																		
			F	19.3	-3.4R	20	-3.3R	20.6	-3.2R	21.1	-3R	21.5	-2.9R	21.9	-2.8R	22.2	-2.7R	22.4	-2.6R	22.7	-2.5R
		24"	q_a	465	748	482	777	434	699	452	728	415	668	432	695	402	647	417	672	392	631
			q_f																		
			F	22.4	-4.7R	23.5	-4.7R	24.4	-4.6R	25.1	-4.5R	25.8	-4.3R	26.3	-4.2R	26.8	-4.1R	27.2	-3.9R	27.6	-3.8R

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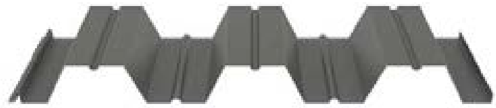
Pneutek SDK63 Fasteners to Supports with DeltaGrip® Side Seam Attachment

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	3.1 -0.1R		3.1 -0.1R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.2 +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	3.7 -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		3.7 -0.1R		3.7 -0.1R	
		8"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	4.2 -0.2R		4.2 -0.2R		4.2 -0.2R		4.2 -0.2R		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	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	5.1 -0.4R		5.2 -0.4R		5.2 -0.3R		5.3 -0.3R		5.3 -0.3R		5.3 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R	
		18"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	6.3 -0.7R		6.5 -0.7R		6.6 -0.6R		6.7 -0.6R		6.8 -0.6R		6.8 -0.5R		6.9 -0.5R		6.9 -0.5R		7 -0.4R	
		24"	q_a q_f	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	7.4 -1.1R		7.6 -1R		7.8 -1R		8 -0.9R		8.1 -0.9R		8.2 -0.8R		8.3 -0.8R		8.3 -0.8R		8.4 -0.7R	
	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	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		4.3 -0.1R	
		6"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	5.8 -0.4R		5.8 -0.4R		5.9 -0.3R		5.9 -0.3R		6 -0.3R		6 -0.3R		6 -0.2R		6 -0.2R		6.1 -0.2R	
		12"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	7.1 -0.7R		7.2 -0.7R		7.3 -0.6R		7.4 -0.6R		7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R	
		18"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684	1046	1684
			F	8.8 -1.3R		9 -1.2R		9.2 -1.2R		9.4 -1.1R		9.6 -1.1R		9.7 -1R		9.8 -1R		9.9 -0.9R		10 -0.9R	
		24"	q_a q_f	1046	1684	1046	1684	1046	1684	1046	1684	1020	1642	1046	1684	990	1594	1025	1650	968	1558
			F	10.2 -1.8R		10.6 -1.8R		10.9 -1.7R		11.2 -1.7R		11.4 -1.6R		11.6 -1.5R		11.8 -1.5R		11.9 -1.4R		12 -1.4R	
	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	6.3 -0.3R		6.3 -0.3R		6.4 -0.2R		6.4 -0.2R		6.4 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R	
		6"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	7.6 -0.6R		7.7 -0.5R		7.8 -0.5R		7.8 -0.4R		7.9 -0.4R		7.9 -0.4R		8 -0.4R		8 -0.3R		8 -0.3R	
		8"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	8.7 -0.9R		8.9 -0.8R		9 -0.8R		9.1 -0.7R		9.2 -0.7R		9.3 -0.6R		9.3 -0.6R		9.4 -0.6R		9.5 -0.5R	
		12"	q_a q_f	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377	856	1377
			F	10.7 -1.5R		11 -1.5R		11.2 -1.4R		11.5 -1.3R		11.6 -1.3R		11.8 -1.2R		11.9 -1.1R		12 -1.1R		12.1 -1.1R	
		18"	q_a q_f	856	1377	856	1377	856	1377	811	1305	817	1315	822	1324	768	1237	777	1250	784	1262
			F	13 -2.5R		13.5 -2.4R		14 -2.4R		14.4 -2.3R		14.7 -2.2R		15 -2.2R		15.3 -2.1R		15.5 -2R		15.7 -2R	
		24"	q_a q_f	777	1251	792	1275	711	1144	730	1176	669	1077	689	1110	640	1031	660	1063	619	997
			F	14.8 -3.3R		15.6 -3.3R		16.2 -3.3R		16.8 -3.2R		17.3 -3.2R		17.7 -3.1R		18.1 -3.1R		18.5 -3R		18.8 -2.9R	
	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	8.1 -0.5R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.4 -0.4R		8.4 -0.3R		8.5 -0.3R		8.5 -0.3R		8.5 -0.3R	
		6"	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 -0.9R		10 -0.9R		10.1 -0.8R		10.3 -0.8R		10.4 -0.7R		10.4 -0.7R		10.5 -0.6R		10.6 -0.6R		10.6 -0.6R	
		8"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	11.3 -1.4R		11.6 -1.3R		11.8 -1.3R		12 -1.2R		12.1 -1.1R		12.3 -1.1R		12.4 -1R		12.5 -1R		12.6 -0.9R	
		12"	q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	13.7 -2.3R		14.2 -2.3R		14.6 -2.2R		15 -2.1R		15.3 -2R		15.6 -2R		15.8 -1.9R		16 -1.8R		16.1 -1.8R	
		18"	q_a q_f	678	1085	678	1085	678	1085	621	999	622	1002	624	1004	580	934	585	941	588	947
			F	16.4 -3.6R		17.3 -3.6R		18 -3.5R		18.6 -3.5R		19.2 -3.4R		19.6 -3.4R		20 -3.3R		20.4 -3.2R		20.7 -3.1R	
		24"	q_a q_f	612	986	616	992	550	885	560	902	511	823	523	842	484	779	497	800	465	748
			F	18.4 -4.6R		19.6 -4.7R		20.6 -4.7R		21.5 -4.8R		22.3 -4.7R		22.9 -4.7R		23.5 -4.7R		24.1 -4.6R		24.6 -4.5R	

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

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4.12 DG3WxH-36 & DG3WxHF-36

Pneutek K64 Fasteners to Supports with DeltaGrip® 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	1569	1569	1569	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568
			q_f	2526	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525
			F	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R	3.2 +0R
		6"	q_a	1539	1538	1538	1538	1538	1538	1537	1537	1537	1537	1537	1537	1537	1537	1537	1537	1537	1537
			q_f	2478	2477	2476	2476	2476	2476	2475	2475	2475	2475	2475	2475	2475	2475	2474	2474	2474	2474
			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	3.8 +0R	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	1501	1508	1499	1505	1498	1502	1497	1501	1496									
			q_f	2417	2427	2414	2422	2412	2419	2410	2417	2409									
			F	4.3 -0.1R	4.3 -0.1R	4.3 -0.1R	4.4 -0.1R	4.4 -0.1R	4.4 -0.1R	4.4 -0.1R	4.4 +0R	4.4 +0R									
		12"	q_a	1412	1409	1406	1404	1403	1402	1401	1400	1399									
			q_f	2273	2268	2264	2261	2259	2257	2255	2253	2252									
			F	5.4 -0.2R	5.5 -0.2R	5.5 -0.2R	5.5 -0.1R	5.5 -0.1R	5.5 -0.1R	5.5 -0.1R	5.6 -0.1R	5.6 -0.1R									
		18"	q_a	1269	1291	1306	1252	1271	1285	1244	1259	1271									
			q_f	2273	2078	2103	2016	2046	2068	2003	2027	2047									
			F	7 -0.4R	7.1 -0.4R	7.1 -0.3R	7.2 -0.3R	7.2 -0.3R	7.2 -0.3R	7.3 -0.2R	7.3 -0.2R	7.3 -0.2R									
		24"	q_a	1138	1192	1119	1166	1107	1148	1099	1136	1093									
			q_f	1832	1919	1802	1877	1783	1849	1770	1828	1760									
			F	8.5 -0.7R	8.6 -0.6R	8.7 -0.6R	8.8 -0.5R	8.8 -0.5R	8.9 -0.4R	8.9 -0.4R	9 -0.4R	9 -0.4R									
	18 ga	4"	q_a	1268	1268	1267	1267	1267	1267	1267	1267	1267									
			q_f	2041	2041	2041	2040	2040	2040	2040	2040	2039									
			F	4.3 -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	1231	1230	1229	1229	1228	1228	1228	1228	1227									
			q_f	1982	1980	1979	1979	1978	1977	1977	1976	1976									
			F	5.2 -0.1R	5.2 -0.1R	5.2 -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									
		8"	q_a	1186	1193	1183	1189	1181	1186	1180	1184	1179									
			q_f	1910	1921	1905	1914	1902	1910	1900	1907	1898									
			F	6.1 -0.2R	6.1 -0.2R	6.1 -0.2R	6.2 -0.1R	6.2 -0.1R	6.2 -0.1R	6.2 -0.1R	6.2 -0.1R	6.2 -0.1R									
		12"	q_a	1087	1083	1080	1077	1075	1073	1072	1071	1070									
			q_f	1750	1744	1738	1734	1731	1728	1726	1724	1722									
			F	7.8 -0.4R	7.8 -0.4R	7.9 -0.3R	7.9 -0.3R	7.9 -0.3R	8 -0.3R	8 -0.2R	8 -0.2R	8 -0.2R									
		18"	q_a	946	965	978	926	942	955	916	930	941									
			q_f	1750	1553	1575	1491	1517	1538	1474	1497	1515									
			F	10.1 -0.8R	10.2 -0.7R	10.3 -0.7R	10.4 -0.6R	10.5 -0.6R	10.6 -0.5R	10.6 -0.5R	10.6 -0.5R	10.7 -0.4R									
		24"	q_a	829	874	809	848	796	830	787	818	781									
			q_f	1335	1407	1302	1365	1281	1337	1267	1316	1257									
			F	12.2 -1.3R	12.5 -1.2R	12.6 -1.1R	12.8 -1R	12.9 -0.9R	13 -0.9R	13.1 -0.8R	13.2 -0.8R	13.2 -0.7R									
	20 ga	4"	q_a	918	918	917	917	917	917	916	916	916									
			q_f	1478	1477	1477	1476	1476	1476	1475	1475	1475									
			F	6.5 -0.1R	6.5 -0.1R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R	6.6 -0.1R									
		6"	q_a	877	875	874	874	873	872	872	872	871									
			q_f	1411	1409	1408	1406	1406	1405	1404	1403	1403									
			F	8.1 -0.3R	8.1 -0.3R	8.1 -0.2R	8.2 -0.2R	8.2 -0.2R	8.2 -0.2R	8.2 -0.2R	8.2 -0.2R	8.2 -0.1R									
		8"	q_a	829	836	825	831	823	828	821	826	820									
			q_f	1335	1346	1329	1338	1325	1333	1322	1329	1320									
			F	9.5 -0.5R	9.6 -0.4R	9.7 -0.4R	9.7 -0.4R	9.7 -0.3R	9.8 -0.3R	9.8 -0.3R	9.8 -0.3R	9.9 -0.2R									
		12"	q_a	735	730	726	723	721	719	717	716	715									
			q_f	1184	1176	1169	1165	1161	1157	1155	1152	1150									
			F	12.3 -1R	12.4 -0.9R	12.6 -0.8R	12.7 -0.7R	12.7 -0.7R	12.8 -0.6R	12.9 -0.6R	12.9 -0.6R	13 -0.5R									
		18"	q_a	617	630	640	597	609	618	587	597	606									
			q_f	1184	1015	1030	961	981	996	945	961	975									
			F	15.9 -1.9R	16.3 -1.7R	16.5 -1.6R	16.8 -1.5R	16.9 -1.4R	17.1 -1.3R	17.2 -1.2R	17.3 -1.1R	17.4 -1.1R									
		24"	q_a	530	561	511	538	500	523	491	513	486									
			q_f	854	902	823	866	804	842	791	825	782									
			F	19.2 -2.8R	19.7 -2.6R	20.2 -2.5R	20.5 -2.3R	20.8 -2.2R	21.1 -2.1R	21.3 -2R	21.5 -1.9R	21.6 -1.8R									
	22 ga	4"	q_a	678	678	678	678	678	678	678	678	678									
			q_f	1085	1085	1085	1085	1085	1085	1085	1085	1085									
			F	8.6 -0.3R	8.6 -0.2R	8.6 -0.2R	8.6 -0.2R	8.7 -0.2R	8.7 -0.2R	8.7 -0.1R	8.7 -0.1R	8.7 -0.1R									
		6"	q_a	672	671	670	669	669	668	668	667	667									
			q_f	1082	1080	1079	1077	1076	1075	1075	1074	1074									
			F	10.7 -0.5R	10.8 -0.5R	10.8 -0.4R	10.9 -0.4R	10.9 -0.4R	11 -0.3R	11 -0.3R	11 -0.3R	11 -0.3R									
		8"	q_a	630	635	626	631	623	628	621	625	620									
			q_f	1014	1023	1007	1016	1003	1010	1000	1007	998									
			F	12.7 -0.9R	12.8 -0.8R	13 -0.7R	13 -0.6R	13.1 -0.6R	13.2 -0.6R	13.2 -0.5R	13.3 -0.5R	13.3 -0.5R									
		12"	q_a	549	545	541	538	536	534	532	531	530									
			q_f	884	877	871	866	863	860	857	855	853									
			F	16.4 -1.7R	16.7 -1.5R	16.9 -1.4R	17.1 -1.3R	17.3 -1.2R	17.4 -1.1R	17.5 -1.1R	17.6 -1R	17.7 -0.9R									
		18"	q_a	454	464	471	437	446	453	428	435	442									
			q_f	884	747	758	703	717	729	688	701	711									
			F	21.2 -3R	21.8 -2.8R	22.2 -2.7R	22.6 -2.5R	22.9 -2.4R	23.2 -2.2R	23.4 -2.1R	23.6 -2R	23.8 -1.9R									
		24"	q_a	388	410	372	391	362	379	355	370	350									
			q_f	624	660	599	630	582	610	571	596	563									
			F	25.3 -4.4R	26.2 -4.2R	26.9 -4R	27.6 -3.8R	28.1 -3.7R	28.5 -3.5R	28.9 -3.3R	29.2 -3.2R	29.5 -3.1R									

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek K64 Fasteners to Supports with DeltaGrip® 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	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	3.1	+0R	3.1	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R	3.2	+0R
		6"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	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	3.8	+0R
		8"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	4.3	-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	4.3	-0.1R	4.4	-0.1R
		12"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568
			q_f																		
			F	5.3	-0.3R	5.4	-0.3R	5.4	-0.2R	5.4	-0.2R	5.4	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.2R	5.5	-0.1R
		18"	q_a	1545	2568	1571	2529	1589	2559	1503	2421	1527	2459	1546	2489	1481	2385	1502	2419	1520	2447
			q_f																		
			F	6.8	-0.6R	6.9	-0.5R	6.9	-0.5R	7	-0.4R	7.1	-0.4R	7.1	-0.4R	7.1	-0.3R	7.2	-0.3R	7.2	-0.3R
		24"	q_a	1364	2197	1428	2299	1321	2128	1379	2221	1294	2084	1346	2168	1276	2054	1322	2129	1262	2032
			q_f																		
			F	8.1	-0.9R	8.3	-0.8R	8.4	-0.7R	8.5	-0.7R	8.6	-0.6R	8.6	-0.6R	8.7	-0.6R	8.7	-0.5R	8.8	-0.5R
	18 ga	4"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			q_f																		
			F	4.3	-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
		6"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			q_f																		
			F	5.1	-0.2R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.2	-0.1R	5.3	-0.1R
		8"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096
			q_f																		
			F	6	-0.3R	6	-0.2R	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.1	-0.2R	6.2	-0.1R	6.2	-0.1R
		12"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1301	2095	1297	2089	1294	2083	1291	2078
			q_f																		
			F	7.5	-0.6R	7.6	-0.5R	7.7	-0.5R	7.7	-0.4R	7.8	-0.4R	7.8	-0.4R	7.9	-0.3R	7.9	-0.3R	7.9	-0.3R
		18"	q_a	1136	2096	1154	1858	1167	1879	1091	1756	1109	1786	1124	1809	1066	1717	1083	1744	1097	1767
			q_f																		
			F	9.6	-1R	9.8	-1R	9.9	-0.9R	10.1	-0.8R	10.2	-0.8R	10.2	-0.7R	10.3	-0.7R	10.4	-0.6R	10.4	-0.6R
		24"	q_a	988	1591	1034	1665	945	1522	988	1591	918	1478	957	1541	899	1448	935	1505	886	1426
			q_f																		
			F	11.4	-1.6R	11.7	-1.5R	12	-1.4R	12.2	-1.3R	12.3	-1.2R	12.5	-1.2R	12.6	-1.1R	12.7	-1.1R	12.8	-1R
	20 ga	4"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	6.4	-0.2R	6.5	-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"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	7.9	-0.4R	8	-0.4R	8	-0.3R	8	-0.3R	8.1	-0.3R	8.1	-0.3R	8.1	-0.2R	8.2	-0.2R	8.2	-0.2R
		8"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	9.2	-0.7R	9.3	-0.6R	9.4	-0.5R	9.5	-0.5R	9.6	-0.5R	9.6	-0.4R	9.7	-0.4R	9.7	-0.4R	9.7	-0.4R
		12"	q_a	889	1432	877	1413	868	1398	861	1386	855	1376	850	1368	845	1361	842	1355	839	1350
			q_f																		
			F	11.7	-1.3R	11.9	-1.2R	12.1	-1.1R	12.2	-1R	12.3	-0.9R	12.4	-0.9R	12.5	-0.8R	12.6	-0.8R	12.7	-0.7R
		18"	q_a	736	1432	745	1199	751	1210	693	1116	705	1134	714	1149	671	1080	682	1098	691	1112
			q_f																		
			F	14.8	-2.2R	15.2	-2.1R	15.6	-2R	15.9	-1.9R	16.1	-1.8R	16.3	-1.7R	16.5	-1.6R	16.7	-1.5R	16.8	-1.5R
		24"	q_a	634	1021	660	1063	597	960	622	1002	573	923	597	961	557	897	579	932	546	878
			q_f																		
			F	17.4	-3.2R	18.1	-3.1R	18.6	-3R	19.1	-2.8R	19.5	-2.7R	19.8	-2.6R	20.1	-2.5R	20.3	-2.4R	20.6	-2.3R
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8.4	-0.4R	8.5	-0.3R	8.5	-0.3R	8.5	-0.3R	8.6	-0.2R	8.6	-0.2R	8.6	-0.2R	8.6	-0.2R	8.7	-0.2R
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	10.4	-0.7R	10.5	-0.6R	10.6	-0.6R	10.7	-0.5R	10.7	-0.5R	10.8	-0.5R	10.8	-0.4R	10.9	-0.4R	10.9	-0.4R
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	12.2	-1.1R	12.4	-1R	12.5	-1R	12.7	-0.9R	12.8	-0.8R	12.9	-0.8R	12.9	-0.7R	13	-0.7R	13.1	-0.6R
		12"	q_a	660	1063	650	1046	641	1032	635	1022	629	1013	625	1006	621	1000	618	994	615	990
			q_f																		
			F	15.3	-2R	15.7	-1.9R	16.1	-1.8R	16.3	-1.7R	16.5	-1.6R	16.7	-1.5R	16.9	-1.4R	17	-1.4R	17.1	-1.3R
		18"	q_a	541	1063	546	880	550	886	505	814	513	826	519	836	487	783	494	795	500	806
			q_f																		
			F	19.3	-3.4R	20	-3.3R	20.6	-3.2R	21.1	-3R	21.5	-2.9R	21.9	-2.8R	22.2	-2.7R	22.4	-2.6R	22.7	-2.5R
		24"	q_a	466	750	483	778	435	700	453	729	415	669	432	696	402	648	418	673	393	632
			q_f																		
			F	22.4	-4.7R	23.5	-4.7R	24.4	-4.6R	25.1	-4.5R	25.8	-4.3R	26.3	-4.2R	26.8	-4.1R	27.2	-3.9R	27.6	-3.8R

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

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Pneutek K66 Fasteners to Supports with DeltaGrip® 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	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	3.1 +0R		3.1 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R	
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	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		3.8 +0R	
		8"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	4.3 -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		4.3 -0.1R		4.4 -0.1R	
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	5.3 -0.3R		5.4 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.1R	
		18"	q_a	1644	2853	1672	2691	1691	2723	1591	2562	1618	2605	1639	2638	1563	2517	1587	2554	1606	2586
			F	6.8 -0.6R		6.9 -0.5R		6.9 -0.5R		7 -0.4R		7.1 -0.4R		7.1 -0.4R		7.1 -0.3R		7.2 -0.3R		7.2 -0.3R	
		24"	q_a	1442	2321	1510	2431	1389	2236	1452	2337	1356	2183	1412	2274	1333	2146	1384	2228	1317	2120
			F	8.1 -0.9R		8.3 -0.8R		8.4 -0.7R		8.5 -0.7R		8.6 -0.6R		8.6 -0.6R		8.7 -0.6R		8.7 -0.5R		8.8 -0.5R	
	18 ga	4"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			F	4.3 -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	
		6"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			F	5.1 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.3 -0.1R	
		8"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			F	6 -0.3R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a	1362	2192	1362	2192	1356	2182	1348	2170	1341	2160	1336	2151	1332	2144	1328	2138	1324	2132
			F	7.5 -0.6R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R		7.8 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R	
		18"	q_a	1164	2192	1182	1903	1195	1924	1114	1794	1133	1824	1148	1848	1088	1751	1105	1779	1119	1802
			F	9.6 -1R		9.8 -1R		9.9 -0.9R		10.1 -0.8R		10.2 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.6R		10.4 -0.6R	
		24"	q_a	1010	1626	1057	1701	964	1551	1007	1622	934	1504	974	1568	914	1472	950	1530	900	1448
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.3 -1.2R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	20 ga	4"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	6.4 -0.2R		6.5 -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"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	7.9 -0.4R		8 -0.4R		8 -0.3R		8 -0.3R		8.1 -0.3R		8.1 -0.3R		8.1 -0.2R		8.2 -0.2R		8.2 -0.2R	
		8"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	9.2 -0.7R		9.3 -0.6R		9.4 -0.5R		9.5 -0.5R		9.6 -0.5R		9.6 -0.4R		9.7 -0.4R		9.7 -0.4R		9.7 -0.4R	
		12"	q_a	901	1451	889	1431	879	1415	871	1403	865	1393	860	1384	855	1377	851	1371	848	1366
			F	11.7 -1.3R		11.9 -1.2R		12.1 -1.1R		12.2 -1R		12.3 -0.9R		12.4 -0.9R		12.5 -0.8R		12.6 -0.8R		12.7 -0.7R	
		18"	q_a	744	1451	753	1212	759	1223	700	1127	711	1145	720	1160	677	1090	688	1107	697	1122
			F	14.8 -2.2R		15.2 -2.1R		15.6 -2R		15.9 -1.9R		16.1 -1.8R		16.3 -1.7R		16.5 -1.6R		16.7 -1.5R		16.8 -1.5R	
		24"	q_a	641	1032	667	1074	602	970	628	1011	578	931	602	969	562	904	584	940	549	885
			F	17.4 -3.2R		18.1 -3.1R		18.6 -3R		19.1 -2.8R		19.5 -2.7R		19.8 -2.6R		20.1 -2.5R		20.3 -2.4R		20.6 -2.3R	
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	8.4 -0.4R		8.5 -0.3R		8.5 -0.3R		8.5 -0.3R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R	
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	10.4 -0.7R		10.5 -0.6R		10.6 -0.6R		10.7 -0.5R		10.7 -0.5R		10.8 -0.5R		10.8 -0.4R		10.9 -0.4R		10.9 -0.4R	
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	12.2 -1.1R		12.4 -1R		12.5 -1R		12.7 -0.9R		12.8 -0.8R		12.9 -0.8R		12.9 -0.7R		13 -0.7R		13.1 -0.6R	
		12"	q_a	678	1085	671	1081	662	1066	654	1054	648	1044	643	1035	639	1029	635	1023	632	1018
			F	15.3 -2R		15.7 -1.9R		16.1 -1.8R		16.3 -1.7R		16.5 -1.6R		16.7 -1.5R		16.9 -1.4R		17 -1.4R		17.1 -1.3R	
		18"	q_a	558	1085	563	906	566	911	519	835	526	847	532	857	498	801	505	813	512	824
			F	19.3 -3.4R		20 -3.3R		20.6 -3.2R		21.1 -3R		21.5 -2.9R		21.9 -2.8R		22.2 -2.7R		22.4 -2.6R		22.7 -2.5R	
		24"	q_a	480	773	497	800	446	719	464	747	425	685	442	711	411	661	426	686	400	644
			F	22.4 -4.7R		23.5 -4.7R		24.4 -4.6R		25.1 -4.5R		25.8 -4.3R		26.3 -4.2R		26.8 -4.1R		27.2 -3.9R		27.6 -3.8R	

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek K66 Fasteners to Supports with DeltaGrip® 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	1736	2796	1736	2795	1736	2795	1736	2795	1736	2794	1735	2794	1735	2794	1735	2794	1735	2794
			q_f																		
			F	3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R	
		6"	q_a	1697	2732	1696	2730	1695	2729	1695	2728	1694	2728	1694	2727	1694	2727	1693	2726	1693	2726
			q_f																		
			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	1647	2652	1655	2665	1644	2647	1651	2658	1642	2644	1648	2654	1641	2642	1646	2650	1640	2641
			q_f																		
			F	4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 -0.1R		4.4 +0R		4.4 +0R	
		12"	q_a	1533	2468	1529	2461	1525	2456	1523	2452	1521	2448	1519	2446	1517	2443	1516	2441	1515	2439
			q_f																		
			F	5.4 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.5 -0.1R		5.6 -0.1R		5.6 -0.1R	
		18"	q_a	1359	2468	1384	2229	1402	2257	1337	2153	1359	2187	1375	2214	1326	2135	1344	2164	1359	2187
			q_f																		
			F	7 -0.4R		7.1 -0.4R		7.1 -0.3R		7.2 -0.3R		7.2 -0.3R		7.2 -0.3R		7.3 -0.2R		7.3 -0.2R		7.3 -0.2R	
		24"	q_a	1207	1942	1268	2041	1183	1904	1236	1990	1168	1880	1214	1955	1157	1863	1199	1930	1150	1852
			q_f																		
			F	8.5 -0.7R		8.6 -0.6R		8.7 -0.6R		8.8 -0.5R		8.8 -0.5R		8.9 -0.4R		8.9 -0.4R		9 -0.4R		9 -0.4R	
	18 ga	4"	q_a	1323	2130	1323	2129	1322	2129	1322	2129	1322	2128	1322	2128	1322	2128	1322	2128	1321	2128
			q_f																		
			F	4.3 -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	1281	2063	1280	2061	1279	2060	1279	2059	1278	2058	1278	2057	1278	2057	1277	2056	1277	2056
			q_f																		
			F	5.2 -0.1R		5.2 -0.1R		5.2 -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	
		8"	q_a	1231	1982	1239	1995	1228	1977	1234	1987	1225	1973	1231	1982	1224	1971	1229	1979	1223	1969
			q_f																		
			F	6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a	1123	1807	1118	1800	1114	1794	1111	1789	1109	1785	1107	1782	1105	1780	1104	1777	1103	1775
			q_f																		
			F	7.8 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R		8 -0.3R		8 -0.2R		8 -0.2R		8 -0.2R	
		18"	q_a	970	1807	990	1595	1005	1617	949	1527	966	1555	979	1577	937	1509	952	1533	964	1552
			q_f																		
			F	10.1 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.6R		10.5 -0.6R		10.6 -0.5R		10.6 -0.5R		10.6 -0.5R		10.7 -0.4R	
		24"	q_a	848	1365	894	1440	825	1329	866	1394	811	1306	847	1364	802	1291	834	1342	795	1280
			q_f																		
			F	12.2 -1.3R		12.5 -1.2R		12.6 -1.1R		12.8 -1R		12.9 -0.9R		13 -0.9R		13.1 -0.8R		13.2 -0.8R		13.2 -0.7R	
	20 ga	4"	q_a	938	1510	938	1510	937	1509	937	1508	937	1508	936	1508	936	1507	936	1507	936	1507
			q_f																		
			F	6.5 -0.1R		6.5 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R		6.6 -0.1R	
		6"	q_a	894	1439	893	1437	892	1436	891	1434	890	1433	890	1432	889	1432	889	1431	889	1430
			q_f																		
			F	8.1 -0.3R		8.1 -0.3R		8.1 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.2R		8.2 -0.1R	
		8"	q_a	844	1360	851	1371	840	1352	846	1362	837	1348	843	1357	835	1345	840	1353	834	1343
			q_f																		
			F	9.5 -0.5R		9.6 -0.4R		9.7 -0.4R		9.7 -0.4R		9.7 -0.3R		9.8 -0.3R		9.8 -0.3R		9.8 -0.3R		9.9 -0.2R	
		12"	q_a	746	1201	741	1193	737	1186	734	1181	731	1177	729	1173	727	1171	726	1168	724	1166
			q_f																		
			F	12.3 -1R		12.4 -0.9R		12.6 -0.8R		12.7 -0.7R		12.7 -0.7R		12.8 -0.6R		12.9 -0.6R		12.9 -0.6R		13 -0.5R	
		18"	q_a	624	1201	638	1027	647	1042	604	972	616	991	625	1007	593	954	603	971	612	985
			q_f																		
			F	15.9 -1.9R		16.3 -1.7R		16.5 -1.6R		16.8 -1.5R		16.9 -1.4R		17.1 -1.3R		17.2 -1.2R		17.3 -1.1R		17.4 -1.1R	
		24"	q_a	536	863	566	912	516	831	543	875	504	811	528	850	495	798	517	832	489	788
			q_f																		
			F	19.2 -2.8R		19.7 -2.6R		20.2 -2.5R		20.5 -2.3R		20.8 -2.2R		21.1 -2.1R		21.3 -2R		21.5 -1.9R		21.6 -1.8R	
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8.6 -0.3R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R		8.7 -0.2R		8.7 -0.1R		8.7 -0.1R		8.7 -0.1R	
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	10.7 -0.5R		10.8 -0.5R		10.8 -0.4R		10.9 -0.4R		10.9 -0.4R		11 -0.3R		11 -0.3R		11 -0.3R		11 -0.3R	
		8"	q_a	660	1062	666	1072	655	1054	660	1063	652	1049	657	1057	649	1046	654	1053	648	1043
			q_f																		
			F	12.7 -0.9R		12.8 -0.8R		13 -0.7R		13 -0.6R		13.1 -0.6R		13.2 -0.6R		13.2 -0.5R		13.3 -0.5R		13.3 -0.5R	
		12"	q_a	570	918	565	909	561	903	557	897	555	893	552	889	551	886	549	884	548	882
			q_f																		
			F	16.4 -1.7R		16.7 -1.5R		16.9 -1.4R		17.1 -1.3R		17.3 -1.2R		17.4 -1.1R		17.5 -1.1R		17.6 -1R		17.7 -0.9R	
		18"	q_a	468	918	478	769	485	780	449	722	458	737	465	749	438	705	446	718	453	729
			q_f																		
			F	21.2 -3R		21.8 -2.8R		22.2 -2.7R		22.6 -2.5R		22.9 -2.4R		23.2 -2.2R		23.4 -2.1R		23.6 -2R		23.8 -1.9R	
		24"	q_a	399	642	421	678	381	613	401	645	370	595	388	624	362	583	378	609	357	574
			q_f																		
			F	25.3 -4.4R		26.2 -4.2R		26.9 -4R		27.6 -3.8R		28.1 -3.7R		28.5 -3.5R		28.9 -3.3R		29.2 -3.2R		29.5 -3.1R	

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

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Pneutek K66 Fasteners to Supports with DeltaGrip® 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	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	3.1 +0R		3.1 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R		3.2 +0R	
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	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		3.8 +0R	
		8"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	4.3 -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		4.3 -0.1R		4.4 -0.1R	
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			F	5.3 -0.3R		5.4 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.2R		5.5 -0.1R	
		18"	q_a	1644	2853	1672	2691	1691	2723	1591	2562	1618	2605	1639	2638	1563	2517	1587	2554	1606	2586
			F	6.8 -0.6R		6.9 -0.5R		6.9 -0.5R		7 -0.4R		7.1 -0.4R		7.1 -0.4R		7.1 -0.3R		7.2 -0.3R		7.2 -0.3R	
		24"	q_a	1442	2321	1510	2431	1389	2236	1452	2337	1356	2183	1412	2274	1333	2146	1384	2228	1317	2120
			F	8.1 -0.9R		8.3 -0.8R		8.4 -0.7R		8.5 -0.7R		8.6 -0.6R		8.6 -0.6R		8.7 -0.6R		8.7 -0.5R		8.8 -0.5R	
	18 ga	4"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			F	4.3 -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	
		6"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			F	5.1 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R		5.3 -0.1R	
		8"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			F	6 -0.3R		6 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.1 -0.2R		6.2 -0.1R		6.2 -0.1R	
		12"	q_a	1362	2192	1362	2192	1356	2182	1348	2170	1341	2160	1336	2151	1332	2144	1328	2138	1324	2132
			F	7.5 -0.6R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R		7.8 -0.4R		7.8 -0.4R		7.9 -0.3R		7.9 -0.3R		7.9 -0.3R	
		18"	q_a	1164	2192	1182	1903	1195	1924	1114	1794	1133	1824	1148	1848	1088	1751	1105	1779	1119	1802
			F	9.6 -1R		9.8 -1R		9.9 -0.9R		10.1 -0.8R		10.2 -0.8R		10.2 -0.7R		10.3 -0.7R		10.4 -0.6R		10.4 -0.6R	
		24"	q_a	1010	1626	1057	1701	964	1551	1007	1622	934	1504	974	1568	914	1472	950	1530	900	1448
			F	11.4 -1.6R		11.7 -1.5R		12 -1.4R		12.2 -1.3R		12.3 -1.2R		12.5 -1.2R		12.6 -1.1R		12.7 -1.1R		12.8 -1R	
	20 ga	4"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	6.4 -0.2R		6.5 -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"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	7.9 -0.4R		8 -0.4R		8 -0.3R		8 -0.3R		8.1 -0.3R		8.1 -0.3R		8.1 -0.2R		8.2 -0.2R		8.2 -0.2R	
		8"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			F	9.2 -0.7R		9.3 -0.6R		9.4 -0.5R		9.5 -0.5R		9.6 -0.5R		9.6 -0.4R		9.7 -0.4R		9.7 -0.4R		9.7 -0.4R	
		12"	q_a	901	1451	889	1431	879	1415	871	1403	865	1393	860	1384	855	1377	851	1371	848	1366
			F	11.7 -1.3R		11.9 -1.2R		12.1 -1.1R		12.2 -1R		12.3 -0.9R		12.4 -0.9R		12.5 -0.8R		12.6 -0.8R		12.7 -0.7R	
		18"	q_a	744	1451	753	1212	759	1223	700	1127	711	1145	720	1160	677	1090	688	1107	697	1122
			F	14.8 -2.2R		15.2 -2.1R		15.6 -2R		15.9 -1.9R		16.1 -1.8R		16.3 -1.7R		16.5 -1.6R		16.7 -1.5R		16.8 -1.5R	
		24"	q_a	641	1032	667	1074	602	970	628	1011	578	931	602	969	562	904	584	940	549	885
			F	17.4 -3.2R		18.1 -3.1R		18.6 -3R		19.1 -2.8R		19.5 -2.7R		19.8 -2.6R		20.1 -2.5R		20.3 -2.4R		20.6 -2.3R	
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	8.4 -0.4R		8.5 -0.3R		8.5 -0.3R		8.5 -0.3R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.6 -0.2R		8.7 -0.2R	
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	10.4 -0.7R		10.5 -0.6R		10.6 -0.6R		10.7 -0.5R		10.7 -0.5R		10.8 -0.5R		10.8 -0.4R		10.9 -0.4R		10.9 -0.4R	
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			F	12.2 -1.1R		12.4 -1R		12.5 -1R		12.7 -0.9R		12.8 -0.8R		12.9 -0.8R		12.9 -0.7R		13 -0.7R		13.1 -0.6R	
		12"	q_a	678	1085	671	1081	662	1066	654	1054	648	1044	643	1035	639	1029	635	1023	632	1018
			F	15.3 -2R		15.7 -1.9R		16.1 -1.8R		16.3 -1.7R		16.5 -1.6R		16.7 -1.5R		16.9 -1.4R		17 -1.4R		17.1 -1.3R	
		18"	q_a	558	1085	563	906	566	911	519	835	526	847	532	857	498	801	505	813	512	824
			F	19.3 -3.4R		20 -3.3R		20.6 -3.2R		21.1 -3R		21.5 -2.9R		21.9 -2.8R		22.2 -2.7R		22.4 -2.6R		22.7 -2.5R	
		24"	q_a	480	773	497	800	446	719	464	747	425	685	442	711	411	661	426	686	400	644
			F	22.4 -4.7R		23.5 -4.7R		24.4 -4.6R		25.1 -4.5R		25.8 -4.3R		26.3 -4.2R		26.8 -4.1R		27.2 -3.9R		27.6 -3.8R	

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

ASC STEEL DECK

DG3WxH-36 & DG3WxHF-36 4.12

Pneutek K66 Fasteners to Supports with DeltaGrip® 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	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	3.1 -0.1R		3.1 -0.1R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.1 +0R		3.2 +0R	
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R		3.7 -0.1R	
		8"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	4.2 -0.2R		4.2 -0.2R		4.2 -0.2R		4.2 -0.2R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R		4.3 -0.1R	
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	5.1 -0.4R		5.2 -0.4R		5.2 -0.3R		5.3 -0.3R		5.3 -0.3R		5.3 -0.3R		5.4 -0.2R		5.4 -0.2R		5.4 -0.2R	
		18"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853	1772	2853
			q_f																		
			F	6.3 -0.7R		6.5 -0.7R		6.6 -0.6R		6.7 -0.6R		6.8 -0.6R		6.8 -0.5R		6.9 -0.5R		6.9 -0.5R		7 -0.4R	
		24"	q_a	1772	2853	1772	2853	1726	2778	1772	2853	1649	2655	1708	2750	1596	2569	1652	2659	1557	2507
			q_f																		
			F	7.4 -1.1R		7.6 -1R		7.8 -1R		8 -0.9R		8.1 -0.9R		8.2 -0.8R		8.3 -0.8R		8.3 -0.8R		8.4 -0.7R	
	18 ga	4"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			q_f																		
			F	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		4.3 -0.1R	
		6"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			q_f																		
			F	5 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.1 -0.2R		5.2 -0.2R		5.2 -0.1R		5.2 -0.1R		5.2 -0.1R	
		8"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			q_f																		
			F	5.8 -0.4R		5.8 -0.4R		5.9 -0.3R		5.9 -0.3R		6 -0.3R		6 -0.3R		6 -0.2R		6 -0.2R		6.1 -0.2R	
		12"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
			q_f																		
			F	7.1 -0.7R		7.2 -0.7R		7.3 -0.6R		7.4 -0.6R		7.5 -0.6R		7.6 -0.5R		7.6 -0.5R		7.7 -0.5R		7.7 -0.4R	
		18"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192	1308	2106	1324	2131	1337	2153
			q_f																		
			F	8.8 -1.3R		9 -1.2R		9.2 -1.2R		9.4 -1.1R		9.6 -1.1R		9.7 -1R		9.8 -1R		9.9 -0.9R		10 -0.9R	
		24"	q_a	1301	2094	1332	2144	1199	1931	1236	1990	1135	1827	1172	1888	1091	1756	1127	1814	1059	1705
			q_f																		
			F	10.2 -1.8R		10.6 -1.8R		10.9 -1.7R		11.2 -1.7R		11.4 -1.6R		11.6 -1.5R		11.8 -1.5R		11.9 -1.4R		12 -1.4R	
	20 ga	4"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	6.3 -0.3R		6.3 -0.3R		6.4 -0.2R		6.4 -0.2R		6.4 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R		6.5 -0.2R	
		6"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	7.6 -0.6R		7.7 -0.5R		7.8 -0.5R		7.8 -0.4R		7.9 -0.4R		7.9 -0.4R		8 -0.4R		8 -0.3R		8 -0.3R	
		8"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	8.7 -0.9R		8.9 -0.8R		9 -0.8R		9.1 -0.7R		9.2 -0.7R		9.3 -0.6R		9.3 -0.6R		9.4 -0.6R		9.5 -0.5R	
		12"	q_a	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522	952	1522
			q_f																		
			F	10.7 -1.5R		11 -1.5R		11.2 -1.4R		11.5 -1.3R		11.6 -1.3R		11.8 -1.2R		11.9 -1.1R		12 -1.1R		12.1 -1.1R	
		18"	q_a	952	1522	949	1522	943	1519	860	1384	864	1391	868	1397	808	1301	816	1313	822	1323
			q_f																		
			F	13 -2.5R		13.5 -2.4R		14 -2.4R		14.4 -2.3R		14.7 -2.2R		15 -2.2R		15.3 -2.1R		15.5 -2R		15.7 -2R	
		24"	q_a	838	1349	847	1364	758	1220	775	1247	708	1140	727	1170	674	1085	693	1115	649	1044
			q_f																		
			F	14.8 -3.3R		15.6 -3.3R		16.2 -3.3R		16.8 -3.2R		17.3 -3.2R		17.7 -3.1R		18.1 -3.1R		18.5 -3R		18.8 -2.9R	
	22 ga	4"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	8.1 -0.5R		8.2 -0.5R		8.3 -0.4R		8.4 -0.4R		8.4 -0.4R		8.4 -0.3R		8.5 -0.3R		8.5 -0.3R		8.5 -0.3R	
		6"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	9.8 -0.9R		10 -0.9R		10.1 -0.8R		10.3 -0.8R		10.4 -0.7R		10.4 -0.7R		10.5 -0.6R		10.6 -0.6R		10.6 -0.6R	
		8"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	11.3 -1.4R		11.6 -1.3R		11.8 -1.3R		12 -1.2R		12.1 -1.1R		12.3 -1.1R		12.4 -1R		12.5 -1R		12.6 -0.9R	
		12"	q_a	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
			q_f																		
			F	13.7 -2.3R		14.2 -2.3R		14.6 -2.2R		15 -2.1R		15.3 -2R		15.6 -2R		15.8 -1.9R		16 -1.8R		16.1 -1.8R	
		18"	q_a	678	1085	678	1085	678	1085	639	1029	640	1030	640	1031	595	957	599	964	602	969
			q_f																		
			F	16.4 -3.6R		17.3 -3.6R		18 -3.5R		18.6 -3.5R		19.2 -3.4R		19.6 -3.4R		20 -3.3R		20.4 -3.2R		20.7 -3.1R	
		24"	q_a	636	1024	638	1026	568	915	577	929	525	845	537	865	496	799	509	820	476	766
			q_f																		
			F	18.4 -4.6R		19.6 -4.7R		20.6 -4.7R		21.5 -4.8R		22.3 -4.7R		22.9 -4.7R		23.5 -4.7R		24.1 -4.6R		24.6 -4.5R	

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

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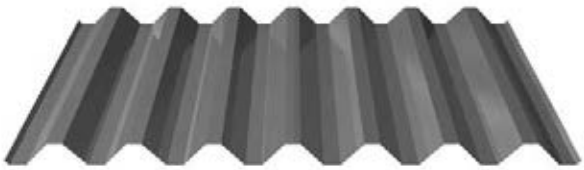
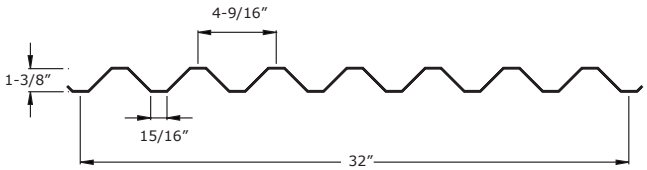
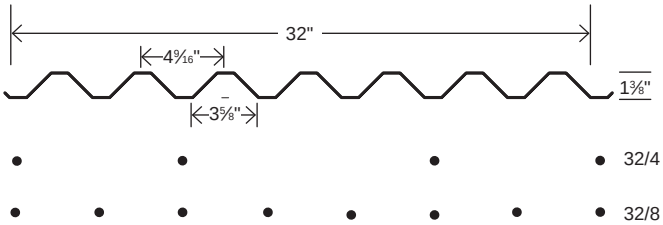
6.1 **C1.4/CP-32**

ASC STEEL DECK







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	0.302	0.079	0.67	0.110	0.512
24	1.39	0.0254	80	82	0.393	0.103	0.67	0.142	0.511
22	1.70	0.0314	80	82	0.485	0.128	0.67	0.175	0.511
20	2.01	0.0374	80	82	0.576	0.150	0.68	0.206	0.510
18	2.57	0.0480	40	55	0.737	0.191	0.68	0.261	0.509

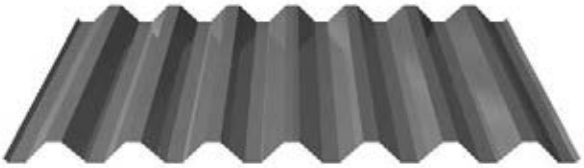
Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
								Uniform Load Only	
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	$I_d = (2I_e+I_g)/3$	
	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	0.172	0.101	0.65	0.106	0.69	0.078	0.078	0.079	0.078
24	0.265	0.139	0.67	0.141	0.68	0.103	0.103	0.103	0.103
22	0.367	0.175	0.68	0.174	0.67	0.128	0.128	0.128	0.128
20	0.473	0.206	0.68	0.206	0.68	0.150	0.150	0.150	0.150
18	0.722	0.261	0.68	0.261	0.68	0.191	0.191	0.191	0.191

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"
26	End	379	480	622	628	580	734	952	961
	Interior	616	757	955	963	917	1125	1420	1432
24	End	624	782	1005	1123	955	1196	1538	1718
	Interior	1021	1239	1548	1711	1518	1843	2302	2545
22	End	928	1153	1471	1654	1420	1764	2251	2531
	Interior	1527	1836	2274	2526	2271	2731	3383	3757
20	End	1286	1587	2011	2255	1968	2427	3077	3451
	Interior	2126	2538	3121	3455	3162	3775	4642	5139
18	End	1364	1665	2091	2336	2087	2548	3200	3574
	Interior	2272	2683	3265	3598	3380	3991	4856	5353
	Constants		h = 1.8194"		r = 0.125"		θ = 45°		

ASC STEEL DECK

C1.4/CP-32 6.1



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	268	197	151	119	96	80	67	49	38
		Φf_b	403	296	227	179	145	120	101	74	57
		L/360	127	80	54	38	27	21	16	10	7
		L/240	191	120	81	57	41	31	24	15	10
		L/180	255	160	107	75	55	41	32	20	13
		L/120	382	240	161	113	82	62	48	30	20
	Double Span	f_b / Ω	283	208	159	126	102	84	71	52	40
		Φf_b	425	313	239	189	153	127	106	78	60
		L/360	307	193	129	91	66	50	38	24	16
		L/240	460	290	194	136	99	75	57	36	24
		L/180	613	386	259	182	132	100	77	48	32
		L/120	920	579	388	273	199	149	115	72	48
	Triple Span	f_b / Ω	354	260	199	157	127	105	88	65	50
		Φf_b	532	391	299	236	191	158	133	98	75
		L/360	240	151	101	71	52	39	30	19	13
		L/240	360	227	152	107	78	58	45	28	19
		L/180	480	302	203	142	104	78	60	38	25
		L/120	720	454	304	213	156	117	90	57	38
24	Single Span	f_b / Ω	370	272	208	164	133	110	92	68	52
		Φf_b	556	408	313	247	200	165	139	102	78
		L/360	166	105	70	49	36	27	21	13	9
		L/240	249	157	105	74	54	40	31	20	13
		L/180	333	209	140	99	72	54	42	26	18
		L/120	499	314	210	148	108	81	62	39	26
	Double Span	f_b / Ω	375	275	211	167	135	111	94	69	53
		Φf_b	563	414	317	250	203	168	141	103	79
		L/360	401	252	169	119	87	65	50	32	21
		L/240	601	378	254	178	130	98	75	47	32
		L/180	801	505	338	237	173	130	100	63	42
		L/120	1202	757	507	356	260	195	150	95	63
	Triple Span	f_b / Ω	468	344	263	208	169	139	117	86	66
		Φf_b	704	517	396	313	253	209	176	129	99
		L/360	314	198	132	93	68	51	39	25	17
		L/240	471	296	199	139	102	76	59	37	25
		L/180	628	395	265	186	136	102	78	49	33
		L/120	942	593	397	279	203	153	118	74	50
22	Single Span	f_b / Ω	465	341	261	206	167	138	116	85	65
		Φf_b	698	513	393	310	251	208	175	128	98
		L/360	206	130	87	61	45	33	26	16	11
		L/240	310	195	131	92	67	50	39	24	16
		L/180	413	260	174	122	89	67	52	32	22
		L/120	619	390	261	183	134	100	77	49	33
	Double Span	f_b / Ω	464	341	261	206	167	138	116	85	65
		Φf_b	697	512	392	310	251	207	174	128	98
		L/360	497	313	210	147	107	81	62	39	26
		L/240	746	470	315	221	161	121	93	59	39
		L/180	994	626	419	295	215	161	124	78	52
		L/120	1491	939	629	442	322	242	186	117	79
	Triple Span	f_b / Ω	580	426	326	258	209	172	145	106	82
		Φf_b	871	640	490	387	314	259	218	160	123
		L/360	389	245	164	115	84	63	49	31	21
		L/240	584	368	246	173	126	95	73	46	31
		L/180	779	491	329	231	168	126	97	61	41
		L/120	1168	736	493	346	252	190	146	92	62

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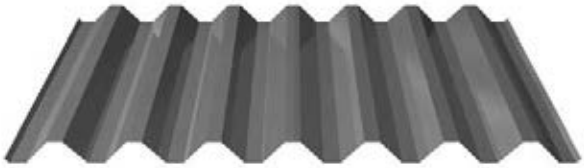
6.1 **C1.4/CP-32**

ASC STEEL DECK



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	549	403	309	244	198	163	137	101	77
		Φf_b	825	606	464	367	297	245	206	152	116
		L/360	243	153	102	72	52	39	30	19	13
		L/240	364	229	154	108	79	59	46	29	19
		L/180	486	306	205	144	105	79	61	38	26
		L/120	728	459	307	216	157	118	91	57	38
	Double Span	f_b/Ω	549	403	309	244	198	163	137	101	77
		Φf_b	825	606	464	367	297	245	206	152	116
		L/360	585	368	247	173	126	95	73	46	31
		L/240	877	552	370	260	189	142	110	69	46
		L/180	1170	737	493	347	253	190	146	92	62
		L/120	1755	1105	740	520	379	285	219	138	93
	Triple Span	f_b/Ω	686	504	386	305	247	204	172	126	97
		Φf_b	1031	758	580	458	371	307	258	189	145
		L/360	458	289	193	136	99	74	57	36	24
		L/240	687	433	290	204	148	112	86	54	36
		L/180	916	577	387	272	198	149	115	72	48
		L/120	1375	866	580	407	297	223	172	108	72
18	Single Span	f_b/Ω	464	341	261	206	167	138	116	85	65
		Φf_b	697	512	392	310	251	207	174	128	98
		L/360	310	195	131	92	67	50	39	24	16
		L/240	464	292	196	138	100	75	58	37	24
		L/180	619	390	261	183	134	100	77	49	33
		L/120	929	585	392	275	201	151	116	73	49
	Double Span	f_b/Ω	464	341	261	206	167	138	116	85	65
		Φf_b	697	512	392	310	251	207	174	128	98
		L/360	746	470	315	221	161	121	93	59	39
		L/240	1119	704	472	331	242	182	140	88	59
		L/180	1491	939	629	442	322	242	186	117	79
		L/120	2237	1409	944	663	483	363	280	176	118
	Triple Span	f_b/Ω	580	426	326	258	209	172	145	106	82
		Φf_b	871	640	490	387	314	259	218	160	123
		L/360	584	368	246	173	126	95	73	46	31
		L/240	876	552	370	260	189	142	110	69	46
		L/180	1168	736	493	346	252	190	146	92	62
		L/120	1753	1104	739	519	379	284	219	138	92

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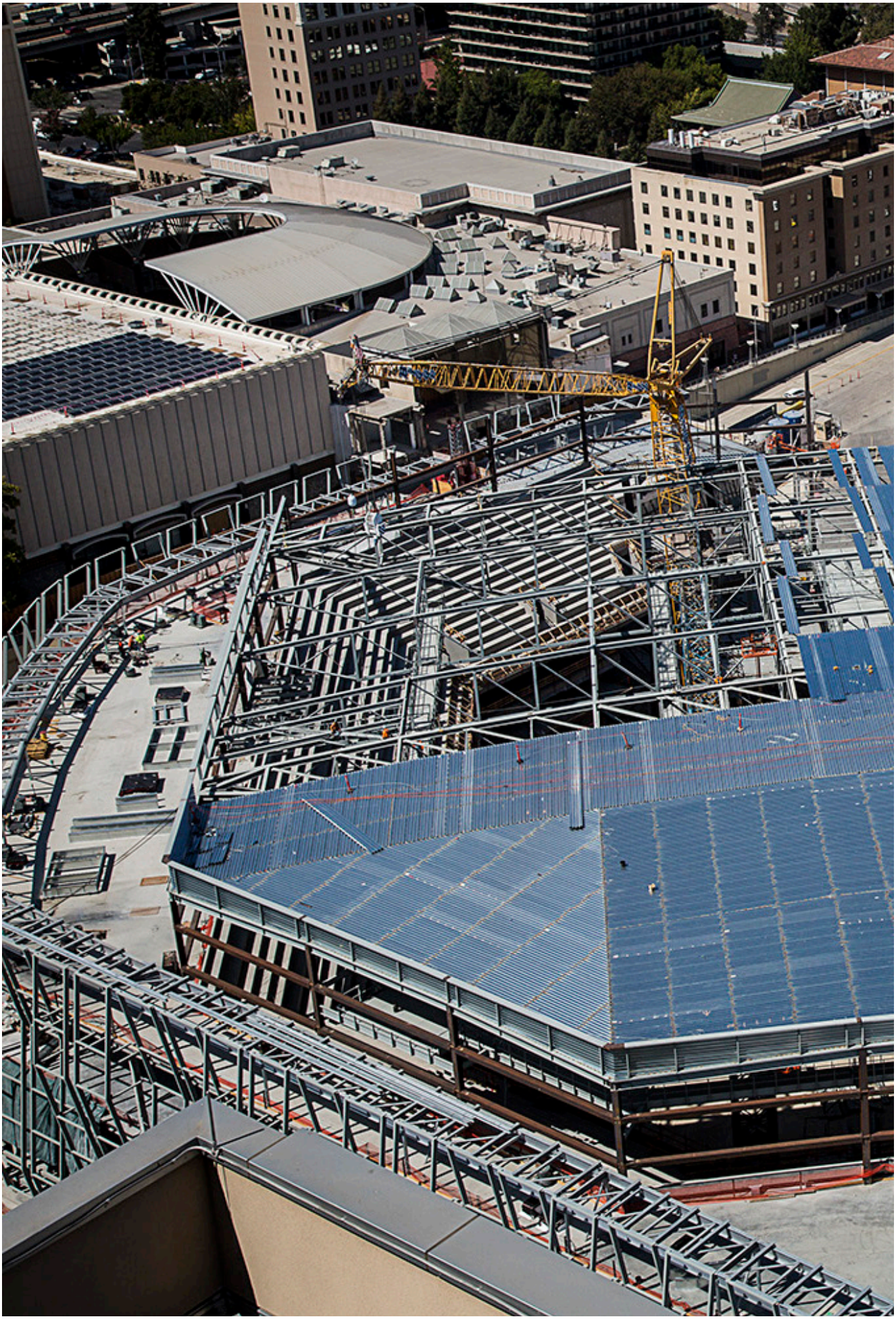

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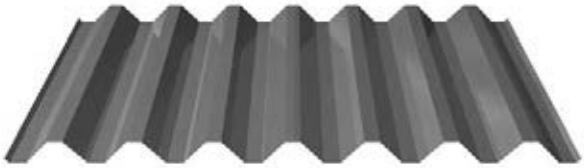
6.2 **C1.4/CP-32**

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	818	818	818	818	818	818	818	818	818	818	818	818	818	818	818	818	764	764
			q_f	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1223	1223
			F	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R	4.9 +0R
		6"	q_a	818	818	818	818	818	818	818	818	818	818	818	818	818	818	816	816	764	764
			q_f	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317	1314	1314	1223	1223
			F	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R
		8"	q_a	818	818	818	818	785	785	780	780	741	741	744	744	717	717	722	722	701	701
			q_f	1317	1317	1317	1317	1264	1264	1257	1257	1193	1193	1198	1198	1154	1154	1162	1162	1129	1129
			F	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R
		12"	q_a	806	806	718	718	665	665	630	630	605	605	586	586	572	572	561	561	551	551
			q_f	1298	1298	1156	1156	1071	1071	1014	1014	974	974	944	944	921	921	903	903	888	888
			F	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R
		18"	q_a	806	806	627	627	590	590	566	566	490	490	486	486	483	483	437	437	440	440
			q_f	1298	1298	1009	1009	949	949	911	911	788	788	782	782	777	777	704	704	708	708
			F	11.6 +0R	11.6 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R
		24"	q_a	694	694	627	627	503	503	495	495	424	424	430	430	382	382	392	392	356	356
			q_f	1117	1117	1009	1009	810	810	797	797	683	683	692	692	615	615	630	630	573	573
			F	14.5 -0.1R	14.5 -0.1R	14.5 +0R	14.5 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R	14.6 +0R
	22 ga	4"	q_a	687	687	687	687	687	687	687	687	687	687	687	687	687	687	687	687	595	595
			q_f	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106	952	952
			F	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R	5.6 +0R
		6"	q_a	687	687	687	687	687	687	687	687	680	680	671	671	664	664	658	658	595	595
			q_f	1106	1106	1106	1106	1106	1106	1106	1106	1095	1095	1080	1080	1069	1069	1059	1059	952	952
			F	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R
		8"	q_a	687	687	687	687	637	637	631	631	596	596	598	598	574	574	578	578	561	561
			q_f	1106	1106	1106	1106	1025	1025	1016	1016	960	960	963	963	925	925	931	931	902	902
			F	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.7 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R
		12"	q_a	663	663	585	585	538	538	507	507	485	485	469	469	456	456	446	446	438	438
			q_f	1067	1067	942	942	866	866	816	816	781	781	755	755	735	735	719	719	705	705
			F	9.8 +0R	9.8 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R
		18"	q_a	663	663	512	512	478	478	456	456	393	393	389	389	385	385	348	348	349	349
			q_f	1067	1067	824	824	769	769	734	734	633	633	626	626	620	620	560	560	562	562
			F	13 -0.1R	13 -0.1R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R	13 +0R
		24"	q_a	573	573	512	512	409	409	400	400	342	342	345	345	306	306	312	312	283	283
			q_f	923	923	824	824	659	659	644	644	550	550	555	555	493	493	502	502	456	456
			F	16.1 -0.1R	16.1 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R	16.2 +0R
	24 ga	4"	q_a	556	556	556	556	556	556	556	556	556	556	556	556	556	556	536	536	434	434
			q_f	895	895	895	895	895	895	895	895	895	895	895	895	895	895	858	858	695	695
			F	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R	6.7 +0R
		6"	q_a	556	556	556	556	553	553	537	537	525	525	517	517	510	510	505	505	434	434
			q_f	895	895	895	895	890	890	864	864	846	846	832	832	822	822	813	813	695	695
			F	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R	7.9 +0R
		8"	q_a	556	556	543	543	493	493	487	487	458	458	458	458	438	438	441	441	426	426
			q_f	895	895	875	875	794	794	784	784	737	737	737	737	706	706	710	710	686	686
			F	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R
		12"	q_a	523	523	457	457	416	416	390	390	371	371	357	357	347	347	338	338	331	331
			q_f	843	843	735	735	670	670	628	628	598	598	575	575	558	558	545	545	534	534
			F	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R	11.4 +0R
		18"	q_a	523	523	401	401	370	370	351	351	302	302	297	297	293	293	264	264	264	264
			q_f	843	843	645	645	596	596	565	565	486	486	478	478	471	471	425	425	425	425
			F	14.9 -0.1R	14.9 -0.1R	14.9 -0.1R	14.9 -0.1R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R	14.9 +0R
		24"	q_a	455	455	401	401	319	319	309	309	263	263	264	264	232	232	237	237	213	213
			q_f	733	733	645	645	514	514	497	497	424	424	425	425	374	374	382	382	344	344
			F	18.3 -0.2R	18.3 -0.2R	18.4 -0.1R	18.4 -0.1R	18.4 -0.1R	18.4 -0.1R	18.4 -0.1R	18.4 -0.1R	18.4 -0.1R	18.4 -0.1R	18.4 +0R	18.4 +0R	18.4 +0R	18.4 +0R	18.4 +0R	18.4 +0R	18.4 +0R	18.4 +0R
	26 ga	4"	q_a	427	427	427	427	427	427	427	427	427	427	427	427	427	427	361	361	293	293
			q_f	687	687	687	687	687	687	687	687	687	687	687	687	687	687	578	578	468	468
			F	8.3 +0R	8.3 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R	8.4 +0R
		6"	q_a	427	427	424	424	403	403	389	389	379	379	372	372	366	366	361	361	293	293
			q_f	687	687	683	683	649	649	627	627	611	611	599	599	590	590	578	578	468	468
			F	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R	9.7 +0R
		8"	q_a	427	427	399	399	358	358	352	352	329	329	328	328	312	312	313	313	293	293
			q_f	687	687	642	642	577	577	566	566	529	529	528	528	503	503	505	505	468	468
			F	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R	11 +0R
		12"	q_a	390	390	335	335	303	303	281	281	266	266	255	255	246	246	239	239	234	234
			q_f	628	628	540	540	487	487	453	453	428	428	410	410	396	396	385	385	376	376
			F	13.7 -0.1R	13.7 -0.1R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R	13.7 +0R
		18"	q_a	390	390	296	296	270	270	254	254	217	217	212	212	208	208	188	188	187	187
			q_f	628	628	477	477	435	435	409	409	350	350	342	342	336	336	302	302	301	301
			F	17.6 -0.1R	17.6 -0.1R	17.7 -0.1R	17.7 -0.1R	17.7 -0.1R	17.7 -0.1R	17.7 -0.1R	17.7 -0.1R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R	17.7 +0R
		24"	q_a	342	342	296	296	235	235	224	224	190	190	188	188	164	164	167	167	150	150
			q_f	551	551	477	477	378	378	361	361	306	306	303	303	265	265	269	269	242	242
			F	21.5 -0.3R	21.5 -0.3R	21.6 -0.2R	21.6 -0.2R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R	21.7 -0.1R

C 1.4-32 32/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

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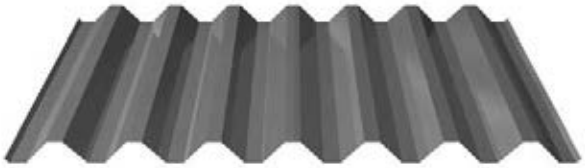
ASC STEEL DECK

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	1672	2691	1561	2513	1498	2411	1456	2345	1428	2299	1407	2265	1194	1910	943	1509	764	1223
			q_f																		
			F	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R	4.9	+0R
		6"	q_a	1470	2366	1318	2122	1231	1982	1176	1893	1137	1830	1109	1785	1087	1750	943	1509	764	1223
			q_f																		
			F	5.9	+0R	5.9	+0R	5.9	+0R	5.9	+0R	5.9	+0R	5.9	+0R	5.9	+0R	5.9	+0R	5.9	+0R
		8"	q_a	1342	2161	1219	1962	1066	1716	1039	1672	958	1542	953	1534	901	1450	903	1455	764	1223
			q_f																		
			F	6.8	+0R	6.8	+0R	6.8	+0R	6.8	+0R	6.8	+0R	6.8	+0R	6.8	+0R	6.8	+0R	6.8	+0R
		12"	q_a	1194	1922	991	1595	877	1412	805	1296	756	1217	720	1159	692	1114	671	1080	653	1052
			q_f																		
			F	8.7	+0R	8.8	+0R	8.8	+0R	8.8	+0R	8.8	+0R	8.8	+0R	8.8	+0R	8.8	+0R	8.8	+0R
		18"	q_a	1194	1922	861	1386	774	1246	720	1159	609	981	593	954	580	934	517	833	514	828
			q_f																		
			F	11.6	-0.1R	11.6	+0R	11.6	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R	11.7	+0R
		24"	q_a	1023	1646	861	1386	666	1072	632	1017	532	856	525	846	458	737	461	742	414	666
			q_f																		
			F	14.5	-0.1R	14.5	-0.1R	14.5	-0.1R	14.5	+0R	14.6	+0R	14.6	+0R	14.6	+0R	14.6	+0R	14.6	+0R
	22 ga	4"	q_a	1366	2199	1265	2037	1207	1944	1170	1884	1144	1842	1125	1811	930	1488	735	1175	595	952
			q_f																		
			F	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R	5.6	+0R
		6"	q_a	1200	1932	1066	1716	989	1593	940	1514	906	1459	881	1419	862	1388	735	1175	595	952
			q_f																		
			F	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R
		8"	q_a	1097	1767	986	1588	857	1379	831	1337	763	1229	757	1219	714	1150	715	1151	595	952
			q_f																		
			F	7.7	+0R	7.7	+0R	7.7	+0R	7.7	+0R	7.7	+0R	7.7	+0R	7.7	+0R	7.7	+0R	7.7	+0R
		12"	q_a	980	1577	805	1296	708	1140	646	1041	604	973	573	923	550	886	532	856	517	832
			q_f																		
			F	9.8	+0R	9.8	+0R	9.8	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R	9.9	+0R
		18"	q_a	980	1577	704	1133	627	1010	580	934	490	789	475	764	462	744	409	659	407	655
			q_f																		
			F	13	-0.1R	13	-0.1R	13	+0R	13	+0R	13	+0R	13	+0R	13	+0R	13	+0R	13	+0R
		24"	q_a	846	1361	704	1133	543	875	512	824	428	688	420	676	366	588	366	590	329	530
			q_f																		
			F	16.1	-0.2R	16.1	-0.1R	16.1	-0.1R	16.2	-0.1R	16.2	-0.1R	16.2	+0R	16.2	+0R	16.2	+0R	16.2	+0R
	24 ga	4"	q_a	1068	1720	980	1577	929	1495	896	1442	873	1405	856	1378	679	1086	536	858	434	695
			q_f																		
			F	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R	6.7	+0R
		6"	q_a	939	1511	824	1327	759	1222	717	1154	688	1108	667	1074	651	1048	536	858	434	695
			q_f																		
			F	7.9	+0R	7.9	+0R	7.9	+0R	7.9	+0R	7.9	+0R	7.9	+0R	7.9	+0R	7.9	+0R	7.9	+0R
		8"	q_a	860	1385	763	1229	658	1060	634	1020	580	934	573	923	539	868	536	858	434	695
			q_f																		
			F	9	+0R	9	+0R	9	+0R	9	+0R	9	+0R	9.1	+0R	9.1	+0R	9.1	+0R	9.1	+0R
		12"	q_a	772	1242	627	1010	547	880	496	799	461	743	436	702	417	671	402	647	390	627
			q_f																		
			F	11.3	-0.1R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R	11.4	+0R
		18"	q_a	772	1242	552	889	487	785	447	720	376	605	360	580	349	562	310	499	307	494
			q_f																		
			F	14.8	-0.1R	14.8	-0.1R	14.9	-0.1R	14.9	-0.1R	14.9	+0R	14.9	+0R	14.9	+0R	14.9	+0R	14.9	+0R
		24"	q_a	672	1083	552	889	426	685	397	639	329	529	320	516	279	449	278	448	251	404
			q_f																		
			F	18.2	-0.2R	18.3	-0.2R	18.3	-0.1R	18.4	-0.1R	18.4	-0.1R	18.4	-0.1R	18.4	-0.1R	18.4	-0.1R	18.4	+0R
	26 ga	4"	q_a	786	1266	711	1145	668	1076	640	1031	621	1000	597	955	457	732	361	578	293	468
			q_f																		
			F	8.3	+0R	8.3	+0R	8.3	+0R	8.4	+0R	8.4	+0R	8.4	+0R	8.4	+0R	8.4	+0R	8.4	+0R
		6"	q_a	692	1114	598	963	545	878	512	824	488	786	471	758	457	732	361	578	293	468
			q_f																		
			F	9.7	+0R	9.7	+0R	9.7	+0R	9.7	+0R	9.7	+0R	9.7	+0R	9.7	+0R	9.7	+0R	9.7	+0R
		8"	q_a	636	1024	555	894	474	764	453	729	412	664	405	652	380	611	361	578	293	468
			q_f																		
			F	11	+0R	11	+0R	11	+0R	11	+0R	11	+0R	11	+0R	11	+0R	11	+0R	11	+0R
		12"	q_a	574	925	460	741	397	640	358	576	331	532	310	500	295	475	283	456	274	441
			q_f																		
			F	13.6	-0.1R	13.7	-0.1R	13.7	-0.1R	13.7	+0R	13.7	+0R	13.7	+0R	13.7	+0R	13.7	+0R	13.7	+0R
		18"	q_a	574	925	409	659	357	574	324	522	269	433	256	413	247	398	220	354	217	349
			q_f																		
			F	17.5	-0.2R	17.6	-0.2R	17.6	-0.1R	17.7	-0.1R	17.7	-0.1R	17.7	-0.1R	17.7	-0.1R	17.7	-0.1R	17.7	+0R
		24"	q_a	506	815	409	659	315	507	287	463	238	383	229	369	200	322	199	320	179	288
			q_f																		
			F	21.4	-0.4R	21.5	-0.3R	21.6	-0.2R	21.6	-0.2R	21.6	-0.1R	21.7	-0.1R	21.7	-0.1R	21.7	-0.1R	21.7	-0.1R

C 1.4-32 32/8 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #12 SD HWH Screw

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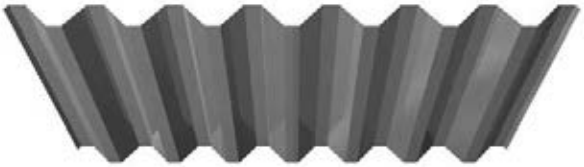
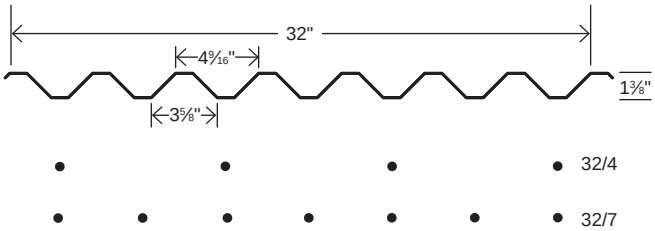
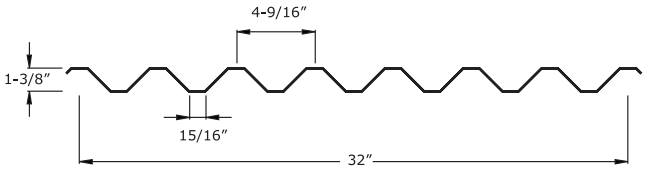
6.3 **Inverted C1.4/CP-32**







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	0.303	0.080	0.72	0.111	0.514
24	1.39	0.0254	80	82	0.394	0.104	0.73	0.143	0.513
22	1.70	0.0314	80	82	0.486	0.128	0.73	0.175	0.513
20	2.01	0.0374	80	82	0.577	0.150	0.73	0.207	0.512
18	2.57	0.0480	40	55	0.738	0.191	0.73	0.262	0.510

Gauge	Effective Section Properties at F_y for Bending Strength: Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Effective Section Properties at Service Load Load for Deflection: 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	0.172	0.107	0.70	0.101	0.75	0.079	0.080	0.079	0.080
24	0.265	0.141	0.71	0.140	0.73	0.104	0.104	0.104	0.104
22	0.367	0.175	0.73	0.175	0.73	0.128	0.128	0.128	0.128
20	0.473	0.207	0.72	0.207	0.72	0.150	0.150	0.150	0.150
18	0.723	0.262	0.73	0.262	0.73	0.191	0.191	0.191	0.191

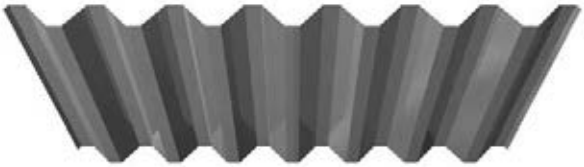
Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	2"	4"	6"	LRFD, ϕR 1"	2"	4"	6"
26	End	379	480	622	628	580	734	952	961
	Interior	616	757	955	963	917	1125	1420	1432
24	End	624	782	1005	1123	955	1196	1538	1718
	Interior	1021	1239	1548	1711	1518	1843	2302	2545
22	End	928	1153	1471	1654	1420	1764	2251	2531
	Interior	1527	1836	2274	2526	2271	2731	3383	3757
20	End	1286	1587	2011	2255	1968	2427	3077	3451
	Interior	2126	2538	3121	3455	3162	3775	4642	5139
18	End	1364	1665	2091	2336	2087	2548	3200	3574
	Interior	2272	2683	3265	3598	3380	3991	4856	5353

Constants h = 1.8194" r = 0.125" θ = 45°

ASC STEEL DECK

Inverted C1.4/CP-32 6.3



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	283	208	159	126	102	84	71	52	40
		Φf_b	426	313	240	189	153	127	107	78	60
		L/360	128	81	54	38	28	21	16	10	7
		L/240	193	121	81	57	42	31	24	15	10
		L/180	257	162	108	76	56	42	32	20	14
		L/120	385	243	163	114	83	63	48	30	20
	Double Span	f_b / Ω	269	198	151	120	97	80	67	49	38
		Φf_b	405	297	228	180	146	120	101	74	57
		L/360	309	195	131	92	67	50	39	24	16
		L/240	464	292	196	138	100	75	58	37	24
		L/180	619	390	261	183	134	100	77	49	33
		L/120	928	585	392	275	201	151	116	73	49
	Triple Span	f_b / Ω	336	247	189	150	121	100	84	62	47
		Φf_b	506	372	284	225	182	150	126	93	71
		L/360	242	153	102	72	52	39	30	19	13
		L/240	364	229	153	108	79	59	45	29	19
		L/180	485	305	205	144	105	79	61	38	26
		L/120	727	458	307	216	157	118	91	57	38
24	Single Span	f_b / Ω	376	276	212	167	135	112	94	69	53
		Φf_b	566	415	318	251	204	168	141	104	80
		L/360	168	106	71	50	36	27	21	13	9
		L/240	252	159	106	75	54	41	32	20	13
		L/180	336	212	142	100	73	55	42	26	18
		L/120	504	318	213	149	109	82	63	40	27
	Double Span	f_b / Ω	371	273	209	165	134	111	93	68	52
		Φf_b	558	410	314	248	201	166	140	103	79
		L/360	405	255	171	120	87	66	51	32	21
		L/240	608	383	256	180	131	99	76	48	32
		L/180	810	510	342	240	175	131	101	64	43
		L/120	1215	765	513	360	262	197	152	96	64
	Triple Span	f_b / Ω	464	341	261	206	167	138	116	85	65
		Φf_b	698	513	393	310	251	208	174	128	98
		L/360	317	200	134	94	69	51	40	25	17
		L/240	476	300	201	141	103	77	59	37	25
		L/180	635	400	268	188	137	103	79	50	33
		L/120	952	599	402	282	206	154	119	75	50
22	Single Span	f_b / Ω	466	342	262	207	168	139	116	86	65
		Φf_b	700	514	394	311	252	208	175	129	98
		L/360	206	130	87	61	45	33	26	16	11
		L/240	310	195	131	92	67	50	39	24	16
		L/180	413	260	174	122	89	67	52	32	22
		L/120	619	390	261	183	134	100	77	49	33
	Double Span	f_b / Ω	466	343	262	207	168	139	117	86	66
		Φf_b	701	515	394	312	252	209	175	129	99
		L/360	497	313	210	147	107	81	62	39	26
		L/240	746	470	315	221	161	121	93	59	39
		L/180	994	626	419	295	215	161	124	78	52
		L/120	1491	939	629	442	322	242	186	117	79
	Triple Span	f_b / Ω	583	428	328	259	210	173	146	107	82
		Φf_b	876	644	493	390	315	261	219	161	123
		L/360	389	245	164	115	84	63	49	31	21
		L/240	584	368	246	173	126	95	73	46	31
		L/180	779	491	329	231	168	126	97	61	41
		L/120	1168	736	493	346	252	190	146	92	62

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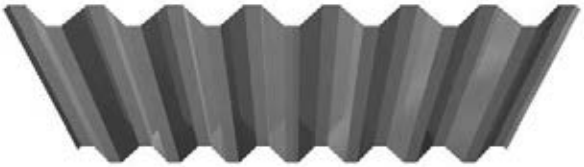
6.3 **Inverted C1.4/CP-32**



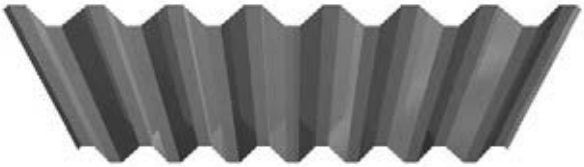
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft²)

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	551	405	310	245	198	164	138	101	78
		Φf_b	829	609	466	368	298	247	207	152	117
		L/360	243	153	102	72	52	39	30	19	13
		L/240	364	229	154	108	79	59	46	29	19
		L/180	486	306	205	144	105	79	61	38	26
		L/120	728	459	307	216	157	118	91	57	38
	Double Span	f_b / Ω	551	405	310	245	198	164	138	101	78
		Φf_b	829	609	466	368	298	247	207	152	117
		L/360	585	368	247	173	126	95	73	46	31
		L/240	877	552	370	260	189	142	110	69	46
		L/180	1170	737	493	347	253	190	146	92	62
		L/120	1755	1105	740	520	379	285	219	138	93
	Triple Span	f_b / Ω	689	506	388	306	248	205	172	127	97
		Φf_b	1036	761	583	460	373	308	259	190	146
		L/360	458	289	193	136	99	74	57	36	24
		L/240	687	433	290	204	148	112	86	54	36
		L/180	916	577	387	272	198	149	115	72	48
		L/120	1375	866	580	407	297	223	172	108	72
18	Single Span	f_b / Ω	465	342	262	207	167	138	116	85	65
		Φf_b	699	514	393	311	252	208	175	128	98
		L/360	310	195	131	92	67	50	39	24	16
		L/240	464	292	196	138	100	75	58	37	24
		L/180	619	390	261	183	134	100	77	49	33
		L/120	929	585	392	275	201	151	116	73	49
	Double Span	f_b / Ω	465	342	262	207	167	138	116	85	65
		Φf_b	699	514	393	311	252	208	175	128	98
		L/360	746	470	315	221	161	121	93	59	39
		L/240	1119	704	472	331	242	182	140	88	59
		L/180	1491	939	629	442	322	242	186	117	79
		L/120	2237	1409	944	663	483	363	280	176	118
	Triple Span	f_b / Ω	581	427	327	258	209	173	145	107	82
		Φf_b	874	642	491	388	315	260	218	160	123
		L/360	584	368	246	173	126	95	73	46	31
		L/240	876	552	370	260	189	142	110	69	46
		L/180	1168	736	493	346	252	190	146	92	62
		L/120	1753	1104	739	519	379	284	219	138	92

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	985	1586	961	1548	948	1526	939	1513	933	1503	929	1496	926	1490	923	1486	764	1223
			q_f																		
			F	0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R	
		6"	q_a	887	1428	845	1360	821	1321	805	1296	794	1279	786	1266	780	1256	775	1248	764	1223
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		8"	q_a	812	1307	788	1268	722	1162	724	1166	686	1105	693	1116	667	1074	675	1087	655	1055
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		12"	q_a	709	1142	633	1019	589	949	562	904	542	873	528	851	518	833	509	820	502	809
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		18"	q_a	709	1142	531	854	508	819	495	797	424	683	426	686	428	688	385	621	391	629
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		24"	q_a	573	922	531	854	417	672	421	678	358	577	370	596	326	525	340	548	305	491
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
	22 ga	4"	q_a	810	1305	788	1268	775	1247	766	1234	761	1225	756	1218	753	1212	735	1175	595	952
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		6"	q_a	726	1168	686	1105	664	1069	650	1046	639	1030	632	1018	626	1008	622	1001	595	952
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		8"	q_a	662	1066	638	1027	581	935	581	936	549	884	554	892	532	856	538	866	521	839
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		12"	q_a	579	932	511	823	473	762	449	722	432	695	420	675	410	660	403	648	397	639
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		18"	q_a	579	932	430	692	408	658	395	637	338	544	338	545	339	545	305	491	308	497
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		24"	q_a	470	757	430	692	337	542	337	543	286	460	294	474	256	412	266	429	239	385
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
	24 ga	4"	q_a	639	1028	617	993	605	973	597	961	591	952	587	945	584	940	536	858	434	695
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		6"	q_a	568	914	533	857	512	825	499	804	490	789	483	778	478	770	474	764	434	695
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		8"	q_a	517	833	494	795	446	718	445	716	418	673	421	678	403	649	407	656	394	634
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		12"	q_a	452	728	395	635	362	583	342	550	327	527	317	511	309	498	303	488	298	480
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		18"	q_a	452	728	333	536	313	505	301	485	257	414	256	412	255	411	228	367	232	373
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		24"	q_a	370	596	333	536	260	419	258	416	215	346	220	354	191	308	199	320	179	288
			q_f																		
			F	0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R	
	26 ga	4"	q_a	473	762	453	730	442	711	435	700	429	691	426	685	423	681	361	578	293	468
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		6"	q_a	418	673	387	623	370	595	358	577	350	564	345	555	340	548	337	542	293	468
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		8"	q_a	380	612	358	576	320	515	318	511	297	478	298	480	284	458	287	462	277	445
			q_f																		
			F	0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R	
		12"	q_a	333	536	286	461	260	419	243	392	232	374	224	360	217	350	212	342	208	335
			q_f																		
			F	0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R	
		18"	q_a	333	536	243	391	226	364	215	347	181	291	179	288	178	287	158	255	160	258
			q_f																		
			F	0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R	
		24"	q_a	275	443	243	391	188	302	183	295	151	243	153	247	134	215	139	223	125	201
			q_f																		
			F	0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R	

C 1.4R-32 32/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

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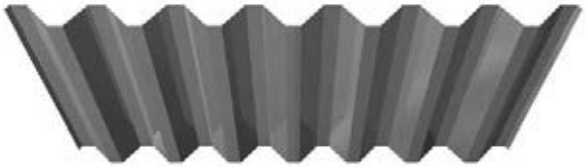
6.4 **Inverted C1.4/CP-32**

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

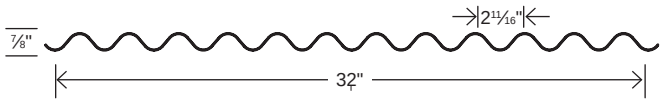


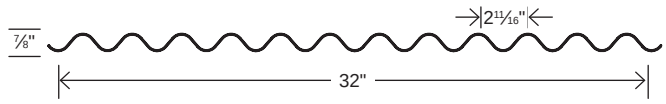
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																			
			Span →	2' - 0"		3' - 0"		4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"	
32/7	20 ga	4"	q_a	1431	2304	1354	2180	1311	2112	1284	2068	1266	2038	1252	2016	1194	1910	943	1509	764	1223
			q_f																		
			F	0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R		0 +0R	
		6"	q_a	1227	1975	1119	1801	1059	1706	1022	1645	996	1603	977	1573	963	1550	943	1509	764	1223
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		8"	q_a	1096	1764	1022	1645	900	1450	892	1436	827	1332	832	1339	789	1271	797	1283	764	1223
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		12"	q_a	942	1517	797	1283	718	1156	669	1077	636	1023	611	984	593	955	579	931	567	913
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		18"	q_a	942	1517	669	1077	619	996	588	946	496	799	491	790	486	783	431	693	433	697
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		24"	q_a	766	1233	669	1077	514	828	503	810	417	672	423	681	368	593	378	609	339	545
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
	22 ga	4"	q_a	1164	1874	1093	1760	1054	1697	1030	1658	1012	1630	1000	1610	930	1488	735	1175	595	952
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		6"	q_a	995	1602	900	1448	847	1364	814	1310	791	1273	774	1247	762	1226	735	1175	595	952
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		8"	q_a	889	1432	821	1322	719	1158	709	1142	656	1056	658	1059	623	1003	628	1011	595	952
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		12"	q_a	768	1236	643	1035	576	927	534	859	505	813	484	780	469	754	456	735	446	719
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		18"	q_a	768	1236	543	874	498	801	470	757	393	633	387	623	382	615	338	545	340	548
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		24"	q_a	630	1014	543	874	415	669	402	647	333	536	335	539	291	469	298	480	268	431
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
	24 ga	4"	q_a	905	1456	842	1356	807	1300	785	1264	770	1240	759	1222	679	1086	536	858	434	695
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		6"	q_a	772	1243	690	1111	645	1039	617	993	597	962	583	939	573	922	536	858	434	695
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		8"	q_a	691	1113	630	1015	548	883	538	865	495	797	495	797	467	753	470	757	434	695
			q_f																		
			F	0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R		0.1 +0R	
		12"	q_a	600	966	496	799	441	709	406	654	382	616	365	588	352	566	342	550	334	538
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		18"	q_a	600	966	422	680	383	617	359	578	297	478	291	468	286	460	254	408	255	410
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		24"	q_a	498	801	422	680	320	515	306	493	253	408	253	407	220	354	224	361	202	325
			q_f																		
			F	0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R	
	26 ga	4"	q_a	660	1062	607	977	577	929	559	899	546	879	536	864	457	732	361	578	293	468
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		6"	q_a	563	906	496	799	459	740	437	703	421	677	409	659	401	645	361	578	293	468
			q_f																		
			F	0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R		0.2 +0R	
		8"	q_a	506	814	454	730	391	630	381	613	349	562	347	559	327	526	328	528	293	468
			q_f																		
			F	0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R	
		12"	q_a	442	711	360	580	317	510	290	466	269	434	255	410	245	394	237	382	231	372
			q_f																		
			F	0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R		0.3 +0R	
		18"	q_a	442	711	310	499	276	445	254	409	210	338	204	328	200	322	178	286	178	286
			q_f																		
			F	0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R		0.4 +0R	
		24"	q_a	372	598	310	499	232	373	219	352	180	290	178	287	156	251	158	255	142	229
			q_f																		
			F	0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R		0.5 +0R	

C 1.4R-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

ASC STEEL DECK

CO.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	0.299	0.028	0.44	0.062	0.306
24	1.39	0.0254	80	82	0.390	0.036	0.44	0.080	0.306
22	1.70	0.0314	80	82	0.482	0.045	0.46	0.098	0.305
20	2.01	0.0374	80	82	0.574	0.053	0.46	0.116	0.305

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load Load for Deflection			
								Uniform Load Only	
	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	$I_d = (2I_e+I_g)/3$	
	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	0.285	0.061	0.45	0.060	0.46	0.028	0.028	0.028	0.028
24	0.390	0.080	0.45	0.080	0.45	0.036	0.036	0.036	0.036
22	0.482	0.098	0.46	0.098	0.46	0.045	0.045	0.045	0.045
20	0.574	0.116	0.45	0.116	0.45	0.053	0.053	0.053	0.053

Reactions at Supports (plf) Based on Web Crippling

Gage	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=48.8°

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ASC STEEL DECK

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	163	120	92	73	59	49	41	30	23
		Φf_b	245	180	138	109	88	73	61	45	34
		L/360	46	29	19	13	10	7	6	4	2
		L/240	68	43	29	20	15	11	9	5	4
		L/180	91	57	38	27	20	15	11	7	5
		L/120	137	86	58	40	30	22	17	11	7
	Double Span	f_b / Ω	158	116	89	70	57	47	40	29	22
		Φf_b	238	175	134	106	86	71	60	44	33
		L/360	110	69	46	32	24	18	14	9	6
		L/240	164	104	69	49	36	27	21	13	9
		L/180	219	138	93	65	47	36	27	17	12
		L/120	329	207	139	97	71	53	41	26	17
	Triple Span	f_b / Ω	198	146	111	88	71	59	50	36	28
		Φf_b	298	219	167	132	107	89	74	55	42
		L/360	86	54	36	25	19	14	11	7	5
		L/240	129	81	54	38	28	21	16	10	7
		L/180	172	108	72	51	37	28	21	14	9
		L/120	258	162	109	76	56	42	32	20	14
24	Single Span	f_b / Ω	213	156	120	95	77	63	53	39	30
		Φf_b	320	235	180	142	115	95	80	59	45
		L/360	59	37	25	17	13	10	7	5	3
		L/240	88	56	37	26	19	14	11	7	5
		L/180	118	74	50	35	25	19	15	9	6
		L/120	177	111	75	52	38	29	22	14	9
	Double Span	f_b / Ω	213	156	120	95	77	63	53	39	30
		Φf_b	320	235	180	142	115	95	80	59	45
		L/360	142	89	60	42	31	23	18	11	7
		L/240	213	134	90	63	46	35	27	17	11
		L/180	284	179	120	84	61	46	35	22	15
		L/120	425	268	180	126	92	69	53	33	22
	Triple Span	f_b / Ω	266	196	150	118	96	79	67	49	37
		Φf_b	400	294	225	178	144	119	100	73	56
		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
22	Single Span	f_b / Ω	261	192	147	116	94	78	65	48	37
		Φf_b	393	288	221	174	141	117	98	72	55
		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	261	192	147	116	94	78	65	48	37
		Φf_b	393	288	221	174	141	117	98	72	55
		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	326	240	184	145	118	97	82	60	46
		Φf_b	491	361	276	218	177	146	123	90	69
		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	309	227	174	137	111	92	77	57	43
		Φf_b	464	341	261	206	167	138	116	85	65
		L/360	85	54	36	25	18	14	11	7	4
		L/240	127	80	54	38	28	21	16	10	7
		L/180	170	107	72	50	37	28	21	13	9
		L/120	255	161	108	76	55	41	32	20	13
	Double Span	f_b / Ω	309	227	174	137	111	92	77	57	43
		Φf_b	464	341	261	206	167	138	116	85	65
		L/360	205	129	86	61	44	33	26	16	11
		L/240	307	193	130	91	66	50	38	24	16
		L/180	409	258	173	121	88	66	51	32	22
		L/120	614	387	259	182	133	100	77	48	32
	Triple Span	f_b / Ω	386	283	217	171	139	115	96	71	54
		Φf_b	580	426	326	258	209	173	145	107	82
		L/360	160	101	68	48	35	26	20	13	8
		L/240	241	151	101	71	52	39	30	19	13
		L/180	321	202	135	95	69	52	40	25	17
		L/120	481	303	203	143	104	78	60	38	25

ASC STEEL DECK

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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	1166	1878	1166	1878	1166	1878	1166	1878	1145	1844	1147	1846	1118	1800	1122	1807	1100	1772
			q_f																		
			F	5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R	
		6"	q_a	1166	1878	1136	1830	1077	1733	1034	1665	1002	1613	977	1574	958	1542	942	1517	929	1496
			q_f																		
			F	5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R	
		8"	q_a	1166	1878	1136	1830	995	1602	961	1547	936	1508	918	1478	844	1358	838	1349	834	1342
			q_f																		
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		12"	q_a	1127	1815	1045	1683	890	1434	872	1404	770	1240	773	1245	700	1127	711	1145	655	1054
			q_f																		
			F	8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R	
		18"	q_a	1127	1815	919	1480	890	1434	766	1233	667	1073	686	1105	617	993	559	899	585	942
			q_f																		
			F	11.7 -0.1R		11.7 -0.1R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R	
		24"	q_a	1127	1815	919	1480	759	1222	766	1233	667	1073	588	947	525	845	559	899	510	821
			q_f																		
			F	14.5 -0.1R		14.6 -0.1R		14.6 -0.1R		14.6 -0.1R		14.6 +0R		14.6 +0R		14.6 +0R		14.6 +0R		14.6 +0R	
	22 ga	4"	q_a	979	1577	979	1577	979	1577	972	1565	937	1508	937	1508	911	1467	914	1471	894	1439
			q_f																		
			F	5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R	
		6"	q_a	979	1577	937	1509	883	1421	844	1358	815	1312	792	1276	775	1247	760	1224	748	1205
			q_f																		
			F	6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		8"	q_a	979	1577	937	1509	815	1312	783	1261	760	1224	743	1197	681	1096	675	1086	670	1078
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		12"	q_a	938	1510	862	1388	731	1177	711	1145	626	1008	626	1007	565	910	572	921	526	847
			q_f																		
			F	9.9 -0.1R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R	
		18"	q_a	938	1510	761	1226	731	1177	626	1008	544	876	556	895	499	803	451	727	471	758
			q_f																		
			F	13 -0.1R		13 -0.1R		13.1 -0.1R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R		13.1 +0R	
		24"	q_a	938	1510	761	1226	627	1009	626	1008	544	876	479	771	427	687	451	727	412	663
			q_f																		
			F	16.1 -0.2R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R		16.2 +0R		16.3 +0R	
	24 ga	4"	q_a	792	1275	792	1275	773	1244	764	1230	732	1179	731	1177	709	1141	710	1143	693	1116
			q_f																		
			F	6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		6"	q_a	792	1275	742	1194	694	1117	659	1061	633	1020	614	988	598	963	585	942	575	925
			q_f																		
			F	8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		8"	q_a	792	1275	742	1194	640	1031	611	984	591	951	575	926	524	844	518	834	513	826
			q_f																		
			F	9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R	
		12"	q_a	751	1208	683	1100	576	927	556	895	487	784	484	780	436	702	440	708	403	649
			q_f																		
			F	11.4 -0.1R		11.5 -0.1R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R	
		18"	q_a	751	1208	606	976	576	927	491	791	426	685	432	695	386	622	349	562	362	582
			q_f																		
			F	14.9 -0.2R		14.9 -0.1R		14.9 -0.1R		15 -0.1R		15 -0.1R		15 -0.1R		15 +0R		15 +0R		15 +0R	
		24"	q_a	751	1208	606	976	497	801	491	791	426	685	374	603	333	536	349	562	318	512
			q_f																		
			F	18.2 -0.3R		18.3 -0.2R		18.4 -0.2R		18.4 -0.1R		18.5 -0.1R		18.5 -0.1R		18.5 -0.1R		18.5 -0.1R		18.5 -0.1R	
	26 ga	4"	q_a	608	979	608	979	573	923	564	908	537	865	535	861	516	831	517	832	502	809
			q_f																		
			F	8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R	
		6"	q_a	608	979	554	892	513	826	484	779	462	744	446	717	432	696	422	679	413	665
			q_f																		
			F	9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R	
		8"	q_a	608	979	554	892	474	764	449	723	431	694	417	672	379	610	373	600	368	592
			q_f																		
			F	11.1 -0.1R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.2 +0R		11.2 +0R		11.2 +0R	
		12"	q_a	569	916	511	823	428	689	409	659	357	575	352	567	316	509	317	510	290	467
			q_f																		
			F	13.7 -0.1R		13.8 -0.1R		13.8 -0.1R		13.8 -0.1R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R		13.8 +0R	
		18"	q_a	569	916	457	736	428	689	364	586	314	506	315	508	282	454	254	409	261	421
			q_f																		
			F	17.6 -0.3R		17.7 -0.2R		17.7 -0.1R		17.8 -0.1R		17.8 -0.1R		17.8 -0.1R		17.8 -0.1R		17.8 -0.1R		17.8 -0.1R	
		24"	q_a	569	916	457	736	374	602	364	586	314	506	276	444	245	395	254	409	231	372
			q_f																		
			F	21.4 -0.5R		21.5 -0.3R		21.6 -0.3R		21.7 -0.2R		21.7 -0.2R		21.7 -0.1R		21.8 -0.1R		21.8 -0.1R		21.8 -0.1R	

C 0.9-32 32/5 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

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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	1693	1617	1503	1482	1411	1408	1358	1361	1324												
			q_f	2725	2603	2421	2386	2272	2267	2187	2192	2131												
			F	5 +0R	5 +0R	5 +0R	5 +0R	5 +0R	5 +0R	5 +0R	5 +0R	5 +0R												
		6"	q_a	1595	1436	1329	1254	1199	1157	1124	1098	1076												
			q_f	2568	2311	2139	2019	1931	1863	1810	1768	1733												
			F	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R	5.9 +0R												
		8"	q_a	1595	1436	1216	1155	1111	1078	976	963	953												
			q_f	2568	2311	1958	1859	1789	1736	1571	1551	1535												
			F	6.9 +0R	6.9 +0R	6.9 +0R	6.9 +0R	6.9 +0R	6.9 +0R	6.9 +0R	6.9 +0R	6.9 +0R												
		12"	q_a	1459	1308	1084	1042	905	898	804	810	741												
			q_f	2348	2107	1744	1677	1457	1446	1295	1305	1192												
			F	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R	8.8 +0R												
		18"	q_a	1459	1149	1084	914	787	797	710	639	662												
			q_f	2348	1850	1744	1472	1266	1283	1143	1029	1066												
			F	11.6 -0.1R	11.7 -0.1R	11.7 -0.1R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R	11.7 +0R												
		24"	q_a	1459	1149	928	914	787	688	610	639	581												
			q_f	2348	1850	1495	1472	1266	1107	982	1029	935												
			F	14.5 -0.2R	14.5 -0.1R	14.6 -0.1R	14.6 -0.1R	14.6 -0.1R	14.6 -0.1R	14.6 +0R	14.6 +0R	14.6 +0R												
	22 ga	4"	q_a	1403	1331	1230	1208	1146	1141	1097	1098	1065												
			q_f	2259	2143	1980	1945	1845	1836	1766	1768	1715												
			F	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R	5.7 +0R												
		6"	q_a	1323	1181	1086	1019	971	934	904	881	862												
			q_f	2130	1901	1748	1641	1563	1503	1456	1419	1388												
			F	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R												
		8"	q_a	1323	1181	995	939	899	870	785	773	763												
			q_f	2130	1901	1602	1512	1448	1400	1264	1244	1228												
			F	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R	7.8 +0R												
		12"	q_a	1213	1078	889	849	736	726	649	652	595												
			q_f	1953	1736	1432	1367	1184	1169	1045	1049	957												
			F	9.9 -0.1R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R	9.9 +0R												
		18"	q_a	1213	952	889	749	643	647	575	518	533												
			q_f	1953	1533	1432	1205	1035	1041	926	833	859												
			F	13 -0.2R	13 -0.1R	13 -0.1R	13.1 -0.1R	13.1 -0.1R	13.1 +0R	13.1 +0R	13.1 +0R	13.1 +0R												
		24"	q_a	1213	952	768	749	643	562	498	518	470												
			q_f	1953	1533	1236	1205	1035	904	801	833	757												
			F	16 -0.3R	16.1 -0.2R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R	16.2 -0.1R												
	24 ga	4"	q_a	1117	1051	964	942	889	882	845	845	780												
			q_f	1799	1692	1551	1516	1431	1420	1361	1360	1248												
			F	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R	6.8 +0R												
		6"	q_a	1054	932	850	793	751	719	694	674	658												
			q_f	1697	1500	1369	1277	1209	1158	1118	1086	1059												
			F	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R	8 +0R												
		8"	q_a	1054	932	780	731	696	670	603	592	582												
			q_f	1697	1500	1256	1177	1121	1079	971	953	938												
			F	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R	9.1 +0R												
		12"	q_a	971	853	701	663	573	562	502	501	456												
			q_f	1563	1374	1128	1068	923	905	808	806	735												
			F	11.4 -0.1R	11.4 -0.1R	11.5 -0.1R	11.5 +0R	11.5 +0R	11.5 +0R	11.5 +0R	11.5 +0R	11.5 +0R												
		18"	q_a	971	759	701	588	504	503	447	402	411												
			q_f	1563	1221	1128	947	812	809	719	647	662												
			F	14.8 -0.2R	14.9 -0.2R	14.9 -0.1R	14.9 -0.1R	15 -0.1R	15 -0.1R	15 -0.1R	15 -0.1R	15 +0R												
		24"	q_a	971	759	610	588	504	440	390	402	364												
			q_f	1563	1221	983	947	812	708	627	647	587												
			F	18.1 -0.4R	18.3 -0.3R	18.4 -0.2R	18.4 -0.2R	18.4 -0.1R	18.4 -0.1R	18.5 -0.1R	18.5 -0.1R	18.5 -0.1R												
	26 ga	4"	q_a	841	782	710	689	646	639	609	607	530												
			q_f	1355	1259	1143	1110	1041	1029	981	978	847												
			F	8.5 +0R	8.5 +0R	8.5 +0R	8.5 +0R	8.5 +0R	8.5 +0R	8.5 +0R	8.5 +0R	8.5 +0R												
		6"	q_a	795	694	627	580	546	520	500	483	470												
			q_f	1280	1118	1009	934	879	837	804	778	756												
			F	9.8 +0R	9.8 +0R	9.8 +0R	9.8 +0R	9.8 +0R	9.8 +0R	9.8 +0R	9.8 +0R	9.8 +0R												
		8"	q_a	795	694	577	536	507	485	435	425	416												
			q_f	1280	1118	929	863	816	781	701	684	671												
			F	11.1 -0.1R	11.1 -0.1R	11.1 +0R	11.1 +0R	11.1 +0R	11.1 +0R	11.1 +0R	11.1 +0R	11.2 +0R												
		12"	q_a	736	638	521	488	421	409	364	361	329												
			q_f	1185	1028	840	786	677	659	587	582	530												
			F	13.7 -0.2R	13.7 -0.1R	13.8 -0.1R	13.8 -0.1R	13.8 -0.1R	13.8 -0.1R	13.8 +0R	13.8 +0R	13.8 +0R												
		18"	q_a	736	572	521	436	373	368	327	294	298												
			q_f	1185	922	840	703	601	593	526	473	480												
			F	17.5 -0.4R	17.6 -0.3R	17.7 -0.2R	17.7 -0.2R	17.7 -0.1R	17.8 -0.1R	17.8 -0.1R	17.8 -0.1R	17.8 -0.1R												
		24"	q_a	736	572	459	436	373	325	288	294	266												
			q_f	1185	922	740	703	601	524	464	473	428												
			F	21.2 -0.6R	21.4 -0.4R	21.5 -0.3R	21.6 -0.3R	21.7 -0.2R	21.7 -0.2R	21.7 -0.2R	21.7 -0.2R	21.8 -0.1R												

C 0.9-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

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ASC STEEL DECK

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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	1750	2817	1750	2817	1750	2817	1750	2817	1683	2710	1663	2678	1590	2561	1584	2551	1393	2229
			q_f																		
			F	5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R		5 +0R	
		6"	q_a	1750	2817	1750	2817	1645	2648	1527	2458	1440	2318	1373	2210	1320	2125	1278	2057	1243	2001
			q_f																		
			F	5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R		5.9 +0R	
		8"	q_a	1750	2817	1750	2817	1525	2456	1420	2286	1344	2163	1286	2071	1159	1865	1131	1820	1108	1783
			q_f																		
			F	6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R		6.9 +0R	
		12"	q_a	1750	2817	1679	2703	1390	2238	1302	2096	1128	1817	1096	1764	979	1576	969	1560	884	1423
			q_f																		
			F	8.8 -0.1R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R		8.8 +0R	
		18"	q_a	1750	2817	1523	2452	1390	2238	1173	1888	1008	1624	992	1597	883	1421	794	1278	804	1294
			q_f																		
			F	11.6 -0.2R		11.6 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 -0.1R		11.7 +0R		11.7 +0R		11.7 +0R		11.7 +0R	
		24"	q_a	1750	2817	1523	2452	1237	1991	1173	1888	1008	1624	882	1420	782	1259	794	1278	721	1161
			q_f																		
			F	14.4 -0.3R		14.5 -0.2R		14.5 -0.1R		14.5 -0.1R		14.6 -0.1R		14.6 -0.1R		14.6 -0.1R		14.6 -0.1R		14.6 -0.1R	
	22 ga	4"	q_a	1469	2365	1469	2365	1469	2365	1458	2348	1367	2200	1346	2168	1284	2067	1276	2054	1081	1729
			q_f																		
			F	5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R		5.7 +0R	
		6"	q_a	1469	2365	1469	2365	1349	2171	1245	2005	1169	1882	1111	1788	1065	1714	1028	1654	997	1605
			q_f																		
			F	6.7 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		8"	q_a	1469	2365	1469	2365	1253	2018	1160	1868	1093	1759	1042	1677	936	1508	911	1466	890	1433
			q_f																		
			F	7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R		7.8 +0R	
		12"	q_a	1469	2365	1389	2237	1146	1846	1067	1718	923	1485	891	1435	795	1280	784	1262	714	1150
			q_f																		
			F	9.8 -0.1R		9.9 -0.1R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R		9.9 +0R	
		18"	q_a	1469	2365	1267	2039	1146	1846	965	1554	829	1335	810	1304	720	1159	647	1042	652	1049
			q_f																		
			F	12.9 -0.2R		13 -0.1R		13 -0.1R		13 -0.1R		13 -0.1R		13.1 -0.1R		13.1 -0.1R		13.1 +0R		13.1 +0R	
		24"	q_a	1469	2365	1267	2039	1027	1654	965	1554	829	1335	724	1166	642	1034	647	1042	588	946
			q_f																		
			F	15.9 -0.4R		16 -0.3R		16.1 -0.2R		16.1 -0.2R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R		16.2 -0.1R	
	24 ga	4"	q_a	1188	1913	1188	1913	1184	1907	1138	1833	1061	1708	1041	1677	989	1592	963	1540	780	1248
			q_f																		
			F	6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R		6.8 +0R	
		6"	q_a	1188	1913	1184	1907	1061	1708	974	1567	909	1463	859	1384	821	1321	789	1271	764	1230
			q_f																		
			F	7.9 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R		8 +0R	
		8"	q_a	1188	1913	1184	1907	989	1592	909	1463	851	1370	807	1300	724	1166	701	1129	683	1100
			q_f																		
			F	9.1 -0.1R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R		9.1 +0R	
		12"	q_a	1188	1913	1105	1779	909	1463	839	1351	724	1166	695	1119	619	997	607	977	552	889
			q_f																		
			F	11.4 -0.1R		11.4 -0.1R		11.4 -0.1R		11.4 -0.1R		11.5 -0.1R		11.5 +0R		11.5 +0R		11.5 +0R		11.5 +0R	
		18"	q_a	1188	1913	1014	1632	909	1463	764	1229	655	1055	635	1022	564	908	506	815	506	815
			q_f																		
			F	14.7 -0.3R		14.8 -0.2R		14.9 -0.2R		14.9 -0.1R		14.9 -0.1R		14.9 -0.1R		15 -0.1R		15 -0.1R		15 -0.1R	
		24"	q_a	1188	1913	1014	1632	821	1321	764	1229	655	1055	572	921	506	815	506	815	459	740
			q_f																		
			F	18 -0.5R		18.2 -0.4R		18.3 -0.3R		18.3 -0.2R		18.4 -0.2R		18.4 -0.2R		18.4 -0.1R		18.4 -0.1R		18.4 -0.1R	
	26 ga	4"	q_a	912	1469	912	1469	876	1411	836	1345	774	1246	755	1216	714	1150	654	1046	530	847
			q_f																		
			F	8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R		8.5 +0R	
		6"	q_a	912	1469	888	1429	788	1268	717	1155	665	1071	625	1007	594	957	569	916	530	847
			q_f																		
			F	9.8 -0.1R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R		9.8 +0R	
		8"	q_a	912	1469	888	1429	737	1187	672	1081	624	1005	589	948	527	848	508	817	492	793
			q_f																		
			F	11.1 -0.1R		11.1 -0.1R		11.1 -0.1R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R		11.1 +0R	
		12"	q_a	912	1469	832	1339	681	1097	623	1003	536	864	511	822	454	732	443	713	402	648
			q_f																		
			F	13.6 -0.2R		13.7 -0.2R		13.7 -0.1R		13.7 -0.1R		13.8 -0.1R		13.8 -0.1R		13.8 -0.1R		13.8 -0.1R		13.8 -0.1R	
		18"	q_a	912	1469	769	1238	681	1097	571	920	489	788	470	756	417	671	374	602	371	597
			q_f																		
			F	17.3 -0.5R		17.5 -0.4R		17.6 -0.3R		17.6 -0.2R		17.7 -0.2R		17.7 -0.2R		17.7 -0.1R		17.7 -0.1R		17.8 -0.1R	
		24"	q_a	912	1469	769	1238	621	1000	571	920	489	788	427	687	378	608	374	602	339	546
			q_f																		
			F	20.9 -0.9R		21.2 -0.6R		21.4 -0.5R		21.5 -0.4R		21.6 -0.3R		21.6 -0.3R		21.6 -0.2R		21.7 -0.2R		21.7 -0.2R	

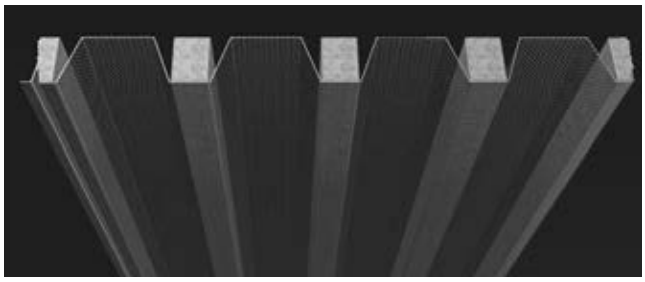
C 0.9-32 32/9 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

7.1 **Acustadek®**

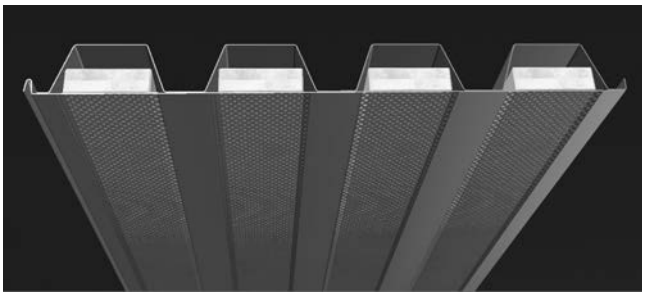
Acustadek®
Acustadek provides the extraordinary beauty of exposed steel, while providing the same noise reduction performance of common Mineral Fiber, Fiberglass, and Bio Acoustic ceiling tile systems. It is an excellent option for reducing noise inside buildings, increasing the comfort for the occupants. 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 gage or heavier. 22 gage 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® 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

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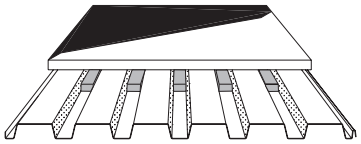
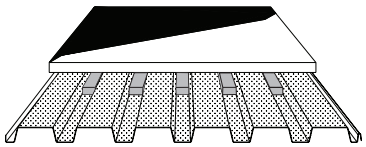
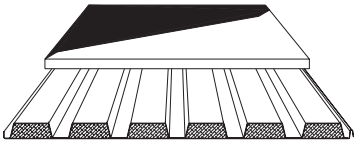
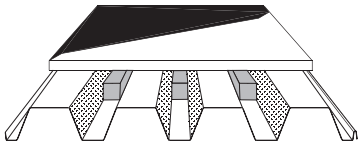
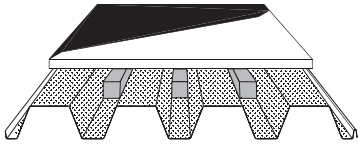
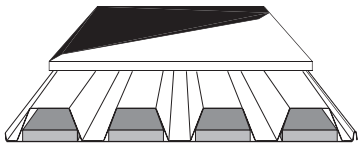
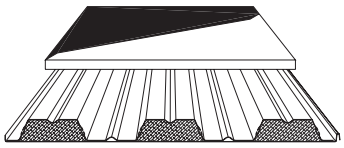
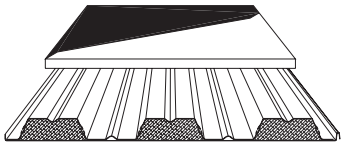
7.2 **Acustadek®**

ASC STEEL DECK

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	Encapsu-lated	0.16	0.37	0.70	1.01	0.64	0.49	0.70
 **DGN-32AW & N-32AW**	Poly-Iso	Unfaced	0.26	0.42	0.83	0.94	0.54	0.44	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	0.21	0.33	0.71	0.89	0.78	0.74	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	0.49	0.63	1.07	0.97	0.79	0.64	0.85
	Poly-Iso	Encapsu-lated	0.49	0.63	1.17	0.93	0.72	0.48	0.85
 **DG2WHF-36A & 2WHF-36A**	Poly-Iso	Unfaced	0.43	0.49	0.80	0.86	0.67	0.56	0.70
	Poly-Iso	Encapsu-lated	0.38	0.42	0.79	0.79	0.48	0.41	0.60
 **DG3WxHF-36A & 3WxHF-36A**	Poly-Iso	Unfaced	0.49	0.56	1.06	0.90	0.69	0.54	0.80
	Poly-Iso	Encapsu-lated	0.60	0.79	0.66	0.50	0.46	0.46	0.60

ASC STEEL DECK

Acustadek® 7.2

Sound Absorption Data

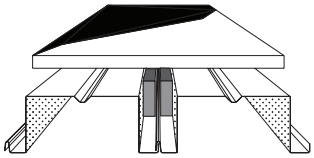
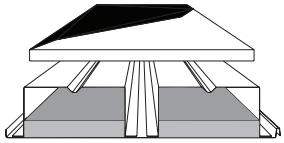
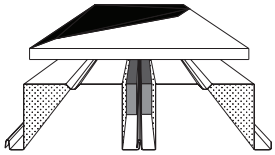
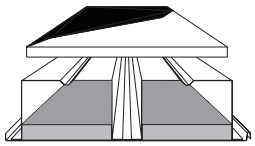
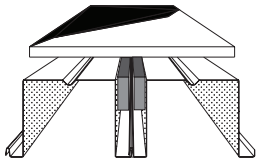
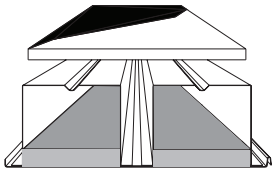
Acustadek® Profile (Perforation Type)	Cover Board[2,3,4]	Batt[5]	Absorption Coefficient[1] 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	Noise Reduction Coefficient[1]
 4.5D-12AW	Foil Faced Poly-Iso	Unfaced	0.22	0.49	0.96	0.78	0.53	0.45	0.70
	Poly-Iso	Encapsu-lated	0.18	0.38	0.83	0.62	0.45	0.29	0.55
 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.

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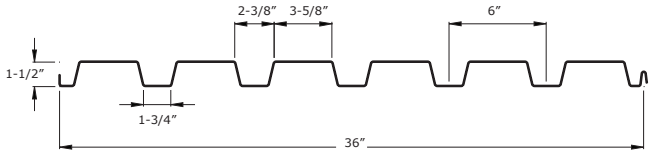
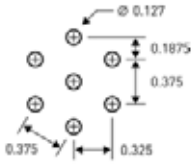
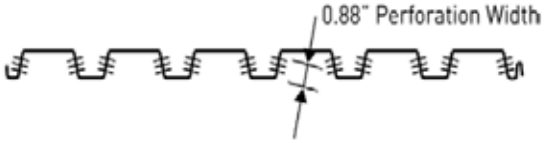
7.3 **DGB-36AW & B-36AW**

Web Perforated Acustadek®







Panel Properties

Gage	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	1.59	0.0299	50	65	0.468	0.199	0.96	0.203	0.625
20	1.91	0.0359	50	65	0.560	0.238	0.96	0.243	0.623
18	2.57	0.0478	50	65	0.755	0.311	0.96	0.317	0.619
16	3.13	0.0598	50	65	0.921	0.380	0.96	0.388	0.615

Gage	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	0.177	0.167	0.74	0.177	1.00	0.156	0.195	0.170	0.196
20	0.233	0.219	0.77	0.225	0.98	0.195	0.235	0.210	0.236
18	0.348	0.300	0.84	0.315	0.96	0.285	0.311	0.294	0.311
16	0.327	0.375	0.90	0.385	0.97	0.374	0.380	0.376	0.380

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

Constants h = 1.32" r = 0.125" θ = 78.3°

ASC STEEL DECK

DGB-36AW & B-36AW 7.3

Web Perforated Acustadek®

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"	10' - 0"	12' - 0"	14' - 0"	16' - 0"
22	Single Span	f_b/Ω	208	133	92	68	52	33	23	17	13
		Φf_b	313	200	139	102	78	50	35	26	20
		L/360	116	59	34	22	15	7	4	3	2
		L/240	174	89	52	32	22	11	6	4	3
		L/180	232	119	69	43	29	15	9	5	4
		L/120	348	178	103	65	44	22	13	8	5
	Double Span	f_b/Ω	221	141	98	72	55	35	25	18	14
		Φf_b	332	213	148	108	83	53	37	27	21
		L/360	280	143	83	52	35	18	10	7	4
		L/240	419	215	124	78	52	27	16	10	7
		L/180	559	286	166	104	70	36	21	13	9
		L/120	839	429	249	157	105	54	31	20	13
	Triple Span	f_b/Ω	276	177	123	90	69	44	31	23	17
		Φf_b	415	266	185	136	104	66	46	34	26
		L/360	219	112	65	41	27	14	8	5	3
		L/240	329	168	97	61	41	21	12	8	5
		L/180	438	224	130	82	55	28	16	10	7
		L/120	657	336	195	123	82	42	24	15	10
20	Single Span	f_b/Ω	273	175	121	89	68	44	30	22	17
		Φf_b	411	263	182	134	103	66	46	34	26
		L/360	143	73	42	27	18	9	5	3	2
		L/240	215	110	64	40	27	14	8	5	3
		L/180	286	147	85	53	36	18	11	7	4
		L/120	429	220	127	80	54	27	16	10	7
	Double Span	f_b/Ω	281	180	125	92	70	45	31	23	18
		Φf_b	422	270	188	138	106	68	47	34	26
		L/360	345	177	102	64	43	22	13	8	5
		L/240	517	265	153	97	65	33	19	12	8
		L/180	690	353	204	129	86	44	26	16	11
		L/120	1035	530	307	193	129	66	38	24	16
	Triple Span	f_b/Ω	351	225	156	115	88	56	39	29	22
		Φf_b	528	338	235	172	132	84	59	43	33
		L/360	270	138	80	50	34	17	10	6	4
		L/240	405	207	120	76	51	26	15	9	6
		L/180	540	277	160	101	68	35	20	13	8
		L/120	810	415	240	151	101	52	30	19	13
18	Single Span	f_b/Ω	374	239	166	122	93	60	42	31	23
		Φf_b	562	360	250	183	140	90	62	46	35
		L/360	200	103	59	37	25	13	7	5	3
		L/240	301	154	89	56	38	19	11	7	5
		L/180	401	205	119	75	50	26	15	9	6
		L/120	601	308	178	112	75	38	22	14	9
	Double Span	f_b/Ω	393	252	175	128	98	63	44	32	25
		Φf_b	591	378	263	193	148	95	66	48	37
		L/360	483	247	143	90	60	31	18	11	8
		L/240	724	371	215	135	91	46	27	17	11
		L/180	966	494	286	180	121	62	36	23	15
		L/120	1449	742	429	270	181	93	54	34	23
	Triple Span	f_b/Ω	492	315	218	160	123	79	55	40	31
		Φf_b	739	473	328	241	185	118	82	60	46
		L/360	378	194	112	71	47	24	14	9	6
		L/240	567	291	168	106	71	36	21	13	9
		L/180	757	387	224	141	95	48	28	18	12
		L/120	1135	581	336	212	142	73	42	26	18
16	Single Span	f_b/Ω	468	300	208	153	117	75	52	38	29
		Φf_b	704	451	313	230	176	113	78	57	44
		L/360	257	132	76	48	32	16	10	6	4
		L/240	385	197	114	72	48	25	14	9	6
		L/180	514	263	152	96	64	33	19	12	8
		L/120	771	395	228	144	96	49	29	18	12
	Double Span	f_b/Ω	480	307	214	157	120	77	53	39	30
		Φf_b	722	462	321	236	181	116	80	59	45
		L/360	619	317	183	115	77	40	23	14	10
		L/240	928	475	275	173	116	59	34	22	15
		L/180	1238	634	367	231	155	79	46	29	19
		L/120	1856	950	550	346	232	119	69	43	29
	Triple Span	f_b/Ω	601	384	267	196	150	96	67	49	38
		Φf_b	903	578	401	295	226	144	100	74	56
		L/360	485	248	144	90	61	31	18	11	8
		L/240	727	372	215	136	91	47	27	17	11
		L/180	969	496	287	181	121	62	36	23	15
		L/120	1454	745	431	271	182	93	54	34	23

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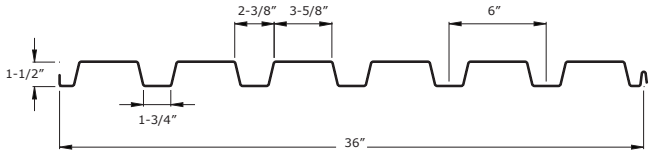
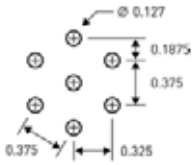
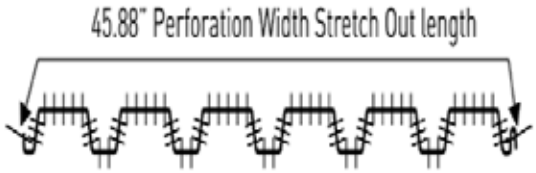
7.4 **DGB-36AT & B-36AT**

Total Perforated Acustadek®







Panel Properties

Gage	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	1.22	0.0299	50	65	0.358	0.177	0.93	0.151	0.625
20	1.46	0.0359	50	65	0.428	0.212	0.93	0.181	0.623
18	1.96	0.0478	50	65	0.576	0.277	0.93	0.234	0.619
16	2.39	0.0598	50	65	0.701	0.338	0.93	0.285	0.615

Gage	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	0.152	0.119	0.73	0.126	0.98	0.131	0.174	0.146	0.175
20	0.200	0.155	0.76	0.163	0.95	0.166	0.209	0.182	0.210
18	0.298	0.220	0.83	0.232	0.92	0.277	0.277	0.277	0.277
16	0.280	0.277	0.89	0.283	0.93	0.331	0.338	0.333	0.338

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

Constants h = 1.32" r = 0.125" θ = 78.3°

ASC STEEL DECK

DGB-36AT & B-36AT 7.4

Total Perforated Acustadek®

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"	10' - 0"	12' - 0"	14' - 0"	16' - 0"
22	Single Span	f_b/Ω	148	95	66	48	37	24	16	12	9
		Φf_b	222	142	99	73	56	36	25	18	14
		L/360	100	51	30	19	12	6	4	2	2
		L/240	150	77	44	28	19	10	6	3	2
		L/180	199	102	59	37	25	13	7	5	3
		L/120	299	153	89	56	37	19	11	7	5
	Double Span	f_b/Ω	157	101	70	51	39	25	17	13	10
		Φf_b	236	151	105	77	59	38	26	19	15
		L/360	240	123	71	45	30	15	9	6	4
		L/240	360	185	107	67	45	23	13	8	6
		L/180	481	246	142	90	60	31	18	11	8
		L/120	721	369	214	134	90	46	27	17	11
	Triple Span	f_b/Ω	197	126	87	64	49	31	22	16	12
		Φf_b	296	189	131	97	74	47	33	24	18
		L/360	188	96	56	35	24	12	7	4	3
		L/240	282	145	84	53	35	18	10	7	4
		L/180	376	193	112	70	47	24	14	9	6
		L/120	565	289	167	105	71	36	21	13	9
20	Single Span	f_b/Ω	193	124	86	63	48	31	21	16	12
		Φf_b	290	186	129	95	73	46	32	24	18
		L/360	124	64	37	23	16	8	5	3	2
		L/240	186	95	55	35	23	12	7	4	3
		L/180	248	127	74	46	31	16	9	6	4
		L/120	372	191	110	69	47	24	14	9	6
	Double Span	f_b/Ω	203	130	90	66	51	32	23	17	13
		Φf_b	305	195	135	100	76	49	34	25	19
		L/360	299	153	89	56	37	19	11	7	5
		L/240	448	230	133	84	56	29	17	10	7
		L/180	598	306	177	112	75	38	22	14	9
		L/120	897	459	266	167	112	57	33	21	14
	Triple Span	f_b/Ω	253	162	113	83	63	41	28	21	16
		Φf_b	381	244	169	124	95	61	42	31	24
		L/360	234	120	69	44	29	15	9	5	4
		L/240	351	180	104	66	44	22	13	8	5
		L/180	468	240	139	87	59	30	17	11	7
		L/120	703	360	208	131	88	45	26	16	11
18	Single Span	f_b/Ω	275	176	122	90	69	44	31	22	17
		Φf_b	413	264	184	135	103	66	46	34	26
		L/360	189	97	56	35	24	12	7	4	3
		L/240	283	145	84	53	35	18	10	7	4
		L/180	378	193	112	70	47	24	14	9	6
		L/120	567	290	168	106	71	36	21	13	9
	Double Span	f_b/Ω	290	185	129	95	72	46	32	24	18
		Φf_b	435	279	193	142	109	70	48	36	27
		L/360	455	233	135	85	57	29	17	11	7
		L/240	682	349	202	127	85	44	25	16	11
		L/180	910	466	270	170	114	58	34	21	14
		L/120	1365	699	404	255	171	87	51	32	21
	Triple Span	f_b/Ω	362	232	161	118	90	58	40	30	23
		Φf_b	544	348	242	178	136	87	60	44	34
		L/360	356	182	106	67	45	23	13	8	6
		L/240	535	274	158	100	67	34	20	12	8
		L/180	713	365	211	133	89	46	26	17	11

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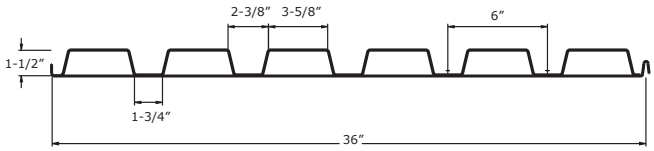
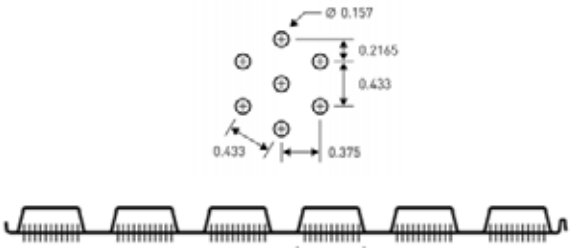
7.5 DGBF-36A & BF-36A

Pan Perforated Cellular Acustadek®





Panel Properties

Gage	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	3.19	0.0359/0.036	50	65	0.938	0.446	0.64	0.454	0.665
20/18	3.56	0.0359/0.047	50	65	1.046	0.485	0.59	0.463	0.651
20/16	3.96	0.0359/0.059	50	65	1.163	0.520	0.54	0.471	0.634
18/20	3.84	0.0478/0.036	50	65	1.129	0.547	0.70	0.589	0.677
18/18	4.21	0.0478/0.047	50	65	1.237	0.595	0.65	0.602	0.670
18/16	4.61	0.0478/0.059	50	65	1.355	0.641	0.61	0.613	0.659
16/20	4.50	0.0598/0.036	50	65	1.321	0.641	0.75	0.702	0.682
16/18	4.86	0.0598/0.047	50	65	1.429	0.699	0.71	0.728	0.679
16/16	5.26	0.0598/0.059	50	65	1.547	0.753	0.67	0.751	0.674

Gage	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
20/20	0.618	0.256	0.48	0.411	0.33	0.344	0.369	0.378	0.394
20/18	0.715	0.273	0.44	0.446	0.69	0.371	0.424	0.409	0.444
20/16	0.826	0.279	0.40	0.459	0.62	0.394	0.486	0.436	0.497
18/20	0.841	0.401	0.58	0.565	0.79	0.475	0.463	0.499	0.491
18/18	0.938	0.411	0.54	0.581	0.74	0.514	0.522	0.541	0.546
18/16	1.050	0.419	0.50	0.597	0.68	0.551	0.592	0.581	0.608
16/20	1.061	0.552	0.66	0.657	0.82	0.601	0.558	0.615	0.585
16/18	1.158	0.565	0.62	0.711	0.77	0.653	0.618	0.668	0.645
16/16	1.270	0.577	0.58	0.730	0.73	0.684	0.694	0.707	0.714

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

Constants h = 1.32" r = 0.125" θ = 78.3°

ASC STEEL DECK

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"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"
20/20	SS	f_b/Ω	320	205	142	104	80	51	36	26	20
		Φf_b	480	307	214	157	120	77	53	39	30
		L/360	258	132	77	48	32	17	10	6	4
		L/240	387	198	115	72	48	25	14	9	6
		L/180	517	264	153	96	65	33	19	12	8
		L/120	775	397	230	145	97	50	29	18	12
	DS	f_b/Ω	513	328	228	168	128	82	57	42	32
		Φf_b	771	493	343	252	193	123	86	63	48
		L/360	622	319	184	116	78	40	23	15	10
		L/240	933	478	277	174	117	60	35	22	15
		L/180	1244	637	369	232	156	80	46	29	19
		L/120	1866	956	553	348	233	119	69	44	29
	TS	f_b/Ω	499	320	222	163	125	80	55	41	31
		Φf_b	751	480	334	245	188	120	83	61	47
		L/360	487	250	144	91	61	31	18	11	8
		L/240	731	374	217	136	91	47	27	17	11
		L/180	975	499	289	182	122	62	36	23	15
		L/120	1462	749	433	273	183	94	54	34	23
20/18	SS	f_b/Ω	341	218	151	111	85	55	38	28	21
		Φf_b	512	328	228	167	128	82	57	42	32
		L/360	279	143	83	52	35	18	10	7	4
		L/240	419	214	124	78	52	27	16	10	7
		L/180	559	286	166	104	70	36	21	13	9
		L/120	838	429	248	156	105	54	31	20	13
	DS	f_b/Ω	557	356	247	182	139	89	62	45	35
		Φf_b	837	536	372	273	209	134	93	68	52
		L/360	673	344	199	126	84	43	25	16	11
		L/240	1009	517	299	188	126	65	37	24	16
		L/180	1346	689	399	251	168	86	50	31	21
		L/120	2018	1033	598	377	252	129	75	47	32
	TS	f_b/Ω	533	341	237	174	133	85	59	43	33
		Φf_b	800	512	356	261	200	128	89	65	50
		L/360	527	270	156	98	66	34	20	12	8
		L/240	791	405	234	148	99	51	29	18	12
		L/180	1054	540	312	197	132	67	39	25	16
		L/120	1581	810	468	295	198	101	59	37	25
20/16	SS	f_b/Ω	348	223	155	114	87	56	39	28	22
		Φf_b	523	334	232	171	131	84	58	43	33
		L/360	298	153	88	56	37	19	11	7	5
		L/240	447	229	132	83	56	29	17	10	7
		L/180	596	305	177	111	74	38	22	14	9
		L/120	894	458	265	167	112	57	33	21	14
	DS	f_b/Ω	573	367	255	187	143	92	64	47	36
		Φf_b	861	551	383	281	215	138	96	70	54
		L/360	718	367	213	134	90	46	27	17	11
		L/240	1076	551	319	201	135	69	40	25	17
		L/180	1435	735	425	268	179	92	53	33	22
		L/120	2153	1102	638	402	269	138	80	50	34
	TS	f_b/Ω	543	348	241	177	136	87	60	44	34
		Φf_b	817	523	363	267	204	131	91	67	51
		L/360	562	288	167	105	70	36	21	13	9
		L/240	843	432	250	157	105	54	31	20	13
		L/180	1124	576	333	210	141	72	42	26	18
		L/120	1686	863	500	315	211	108	62	39	26

7.5 DGBF-36A & BF-36A

Pan Perforated Cellular Acustadek®

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)								
			4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"
18/20	SS	f_b/Ω	501	320	223	164	125	80	56	41	31
		Φf_b	753	482	335	246	188	120	84	61	47
		L/360	341	174	101	64	43	22	13	8	5
		L/240	511	262	151	95	64	33	19	12	8
		L/180	681	349	202	127	85	44	25	16	11
		L/120	1022	523	303	191	128	65	38	24	16
	DS	f_b/Ω	705	451	313	230	176	113	78	58	44
		Φf_b	1060	678	471	346	265	170	118	87	66
		L/360	821	420	243	153	103	53	30	19	13
		L/240	1231	630	365	230	154	79	46	29	19
		L/180	1641	840	486	306	205	105	61	38	26
		L/120	2462	1260	729	459	308	158	91	57	38
	TS	f_b/Ω	782	501	348	255	196	125	87	64	49
		Φf_b	1176	753	523	384	294	188	131	96	73
		L/360	643	329	190	120	80	41	24	15	10
		L/240	964	494	286	180	121	62	36	22	15
		L/180	1286	658	381	240	161	82	48	30	20
		L/120	1928	987	571	360	241	123	71	45	30
18/18	SS	f_b/Ω	513	328	228	167	128	82	57	42	32
		Φf_b	770	493	342	252	193	123	86	63	48
		L/360	370	189	110	69	46	24	14	9	6
		L/240	554	284	164	103	69	35	21	13	9
		L/180	739	379	219	138	92	47	27	17	12
		L/120	1109	568	329	207	139	71	41	26	17
	DS	f_b/Ω	725	464	322	237	181	116	81	59	45
		Φf_b	1090	697	484	356	272	174	121	89	68
		L/360	890	456	264	166	111	57	33	21	14
		L/240	1336	684	396	249	167	85	49	31	21
		L/180	1781	912	528	332	223	114	66	42	28
		L/120	2671	1368	792	498	334	171	99	62	42
	TS	f_b/Ω	801	513	356	261	200	128	89	65	50
		Φf_b	1204	770	535	393	301	193	134	98	75
		L/360	698	357	207	130	87	45	26	16	11
		L/240	1046	536	310	195	131	67	39	24	16
		L/180	1395	714	413	260	174	89	52	33	22
		L/120	2093	1071	620	390	262	134	78	49	33
18/16	SS	f_b/Ω	522	334	232	171	131	84	58	43	33
		Φf_b	785	502	349	256	196	126	87	64	49
		L/360	397	203	117	74	50	25	15	9	6
		L/240	595	305	176	111	74	38	22	14	9
		L/180	793	406	235	148	99	51	29	18	12
		L/120	1190	609	352	222	149	76	44	28	19
	DS	f_b/Ω	744	476	331	243	186	119	83	61	47
		Φf_b	1119	716	497	365	280	179	124	91	70
		L/360	955	489	283	178	119	61	35	22	15
		L/240	1433	734	424	267	179	92	53	33	22
		L/180	1910	978	566	356	239	122	71	45	30
		L/120	2865	1467	849	535	358	183	106	67	45
	TS	f_b/Ω	816	522	363	266	204	131	91	67	51
		Φf_b	1226	785	545	400	307	196	136	100	77
		L/360	748	383	222	140	94	48	28	17	12
		L/240	1122	575	333	209	140	72	42	26	18
		L/180	1496	766	443	279	187	96	55	35	23
		L/120	2245	1149	665	419	281	144	83	52	35

ASC STEEL DECK

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"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"
16/20	SS	f_b/Ω	689	441	306	225	172	110	77	56	43
		Φf_b	1035	662	460	338	259	166	115	85	65
		L/360	420	215	124	78	52	27	16	10	7
		L/240	630	322	187	117	79	40	23	15	10
		L/180	839	430	249	157	105	54	31	20	13
		L/120	1259	645	373	235	157	81	47	29	20
	DS	f_b/Ω	819	524	364	267	205	131	91	67	51
		Φf_b	1231	788	547	402	308	197	137	101	77
		L/360	1011	518	300	189	126	65	37	24	16
		L/240	1516	776	449	283	190	97	56	35	24
		L/180	2022	1035	599	377	253	129	75	47	32
		L/120	3033	1553	899	566	379	194	112	71	47
	TS	f_b/Ω	1024	655	455	334	256	164	114	84	64
		Φf_b	1539	985	684	503	385	246	171	126	96
		L/360	792	405	235	148	99	51	29	18	12
		L/240	1188	608	352	222	148	76	44	28	19
		L/180	1584	811	469	296	198	101	59	37	25
		L/120	2376	1216	704	443	297	152	88	55	37
16/18	SS	f_b/Ω	705	451	313	230	176	113	78	58	44
		Φf_b	1060	678	471	346	265	170	118	87	66
		L/360	456	234	135	85	57	29	17	11	7
		L/240	685	351	203	128	86	44	25	16	11
		L/180	913	467	270	170	114	58	34	21	14
		L/120	1369	701	406	255	171	88	51	32	21
	DS	f_b/Ω	888	568	394	290	222	142	99	72	55
		Φf_b	1334	854	593	436	333	213	148	109	83
		L/360	1099	563	326	205	137	70	41	26	17
		L/240	1649	844	489	308	206	106	61	38	26
		L/180	2199	1126	652	410	275	141	81	51	34
		L/120	3298	1689	977	615	412	211	122	77	52
	TS	f_b/Ω	1102	705	490	360	276	176	122	90	69
		Φf_b	1656	1060	736	541	414	265	184	135	104
		L/360	861	441	255	161	108	55	32	20	13
		L/240	1292	661	383	241	161	83	48	30	20
		L/180	1723	882	510	321	215	110	64	40	27
		L/120	2584	1323	766	482	323	165	96	60	40
16/16	SS	f_b/Ω	719	460	320	235	180	115	80	59	45
		Φf_b	1081	692	481	353	270	173	120	88	68
		L/360	483	247	143	90	60	31	18	11	8
		L/240	724	371	215	135	91	46	27	17	11
		L/180	966	494	286	180	121	62	36	23	15
		L/120	1448	742	429	270	181	93	54	34	23
	DS	f_b/Ω	910	583	405	297	228	146	101	74	57
		Φf_b	1368	876	608	447	342	219	152	112	86
		L/360	1163	595	345	217	145	74	43	27	18
		L/240	1744	893	517	325	218	112	65	41	27
		L/180	2326	1191	689	434	291	149	86	54	36
		L/120	3489	1786	1034	651	436	223	129	81	55
	TS	f_b/Ω	1124	719	500	367	281	180	125	92	70
		Φf_b	1689	1081	751	552	422	270	188	138	106
		L/360	911	466	270	170	114	58	34	21	14
		L/240	1366	700	405	255	171	87	51	32	21
		L/180	1822	933	540	340	228	117	67	42	28
		L/120	2733	1399	810	510	342	175	101	64	43

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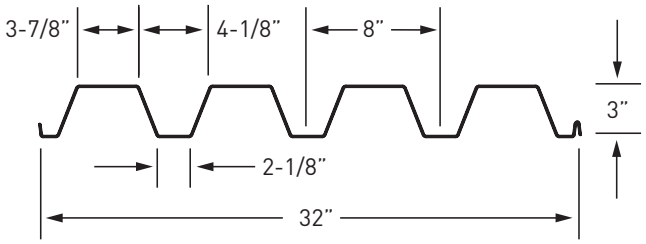
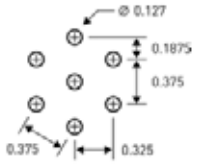
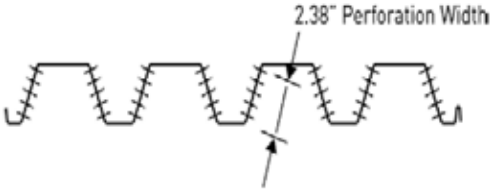
7.6 DGN-32AW & N-32AW

Web Perforated Acustadek®

N-32







Panel Properties

Gage	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	1.66	0.0299	50	65	0.489	0.800	1.71	0.449	1.195
20	1.99	0.0359	50	65	0.585	0.951	1.71	0.533	1.193
18	2.64	0.0478	50	65	0.775	1.253	1.72	0.698	1.189
16	3.28	0.0598	50	65	0.963	1.547	1.72	0.858	1.185

Gage	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	0.267	0.315	1.35	0.392	1.71	0.654	0.740	0.703	0.760
20	0.366	0.407	1.39	0.487	1.71	0.793	0.913	0.846	0.926
18	0.593	0.610	1.47	0.657	1.75	1.198	1.253	1.216	1.253
16	0.856	0.822	1.54	0.857	1.73	1.529	1.547	1.535	1.547

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	500	566	622	716	764	866	952	1095
	Interior	876	973	1056	1194	1303	1448	1570	1776
20	End	709	799	876	1004	1084	1223	1340	1536
	Interior	1240	1371	1482	1669	1844	2040	2205	2482
18	End	1221	1367	1490	1697	1868	2092	2280	2597
	Interior	2133	2343	2519	2816	3173	3485	3748	4189
16	End	1864	2076	2254	2554	2852	3176	3449	3907
	Interior	3260	3560	3814	4239	4849	5296	5673	6305

Constants h = 3.06" r = 0.125" θ = 70.7°

ASC STEEL DECK

DGN-32AW & N-32AW 7.6

Web Perforated 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"
22	Single Span	f_b/Ω	393	175	98	63	44	32	25	19	16
		Φf_b	591	263	148	95	66	48	37	29	24
		L/360	480	142	60	31	18	11	8	5	4
		L/240	720	213	90	46	27	17	11	8	6
		L/180	960	284	120	61	36	22	15	11	8
		L/120	1440	427	180	92	53	34	23	16	12
	Double Span	f_b/Ω	489	217	122	78	54	40	31	24	20
		Φf_b	735	327	184	118	82	60	46	36	29
		L/360	1156	343	145	74	43	27	18	13	9
		L/240	1735	514	217	111	64	40	27	19	14
		L/180	2313	685	289	148	86	54	36	25	19
		L/120	3469	1028	434	222	128	81	54	38	28
	Triple 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	906	268	113	58	34	21	14	10	7
		L/240	1359	403	170	87	50	32	21	15	11
		L/180	1812	537	226	116	67	42	28	20	14
		L/120	2718	805	340	174	101	63	42	30	22
20	Single Span	f_b/Ω	508	226	127	81	56	41	32	25	20
		Φf_b	763	339	191	122	85	62	48	38	31
		L/360	578	171	72	37	21	13	9	6	5
		L/240	867	257	108	55	32	20	14	10	7
		L/180	1155	342	144	74	43	27	18	13	9
		L/120	1733	514	217	111	64	40	27	19	14
	Double Span	f_b/Ω	608	270	152	97	68	50	38	30	24
		Φf_b	913	406	228	146	101	75	57	45	37
		L/360	1392	412	174	89	52	32	22	15	11
		L/240	2087	618	261	134	77	49	33	23	17
		L/180	2783	825	348	178	103	65	43	31	22
		L/120	4175	1237	522	267	155	97	65	46	33
	Triple Span	f_b/Ω	759	338	190	122	84	62	47	38	30
		Φf_b	1141	507	285	183	127	93	71	56	46
		L/360	1090	323	136	70	40	25	17	12	9
		L/240	1635	485	204	105	61	38	26	18	13
		L/180	2180	646	273	140	81	51	34	24	17
		L/120	3271	969	409	209	121	76	51	36	26
18	Single Span	f_b/Ω	761	338	190	122	85	62	48	38	30
		Φf_b	1144	508	286	183	127	93	71	56	46
		L/360	830	246	104	53	31	19	13	9	7
		L/240	1246	369	156	80	46	29	19	14	10
		L/180	1661	492	208	106	62	39	26	18	13
		L/120	2491	738	311	159	92	58	39	27	20
	Double Span	f_b/Ω	820	364	205	131	91	67	51	40	33
		Φf_b	1232	548	308	197	137	101	77	61	49
		L/360	2000	593	250	128	74	47	31	22	16
		L/240	3000	889	375	192	111	70	47	33	24
		L/180	4000	1185	500	256	148	93	63	44	32
		L/120	6001	1778	750	384	222	140	94	66	48
	Triple Span	f_b/Ω	1025	455	256	164	114	84	64	51	41
		Φf_b	1540	684	385	246	171	126	96	76	62
		L/360	1567	464	196	100	58	37	24	17	13
		L/240	2350	696	294	150	87	55	37	26	19
		L/180	3134	929	392	201	116	73	49	34	25
		L/120	4701	1393	588	301	174	110	73	52	38
16	Single Span	f_b/Ω	1025	456	256	164	114	84	64	51	41
		Φf_b	1541	685	385	247	171	126	96	76	62
		L/360	1048	311	131	67	39	24	16	12	8
		L/240	1572	466	197	101	58	37	25	17	13
		L/180	2096	621	262	134	78	49	33	23	17
		L/120	3145	932	393	201	116	73	49	35	25
	Double Span	f_b/Ω	1069	475	267	171	119	87	67	53	43
		Φf_b	1607	714	402	257	179	131	100	79	64
		L/360	2525	748	316	162	94	59	39	28	20
		L/240	3787	1122	473	242	140	88	59	42	30
		L/180	5050	1496	631	323	187	118	79	55	40
		L/120	7575	2244	947	485	281	177	118	83	61
	Triple Span	f_b/Ω	1336	594	334	214	148	109	84	66	53
		Φf_b	2009	893	502	321	223	164	126	99	80
		L/360	1978	586	247	127	73	46	31	22	16
		L/240	2967	879	371	190	110	69	46	33	24
		L/180	3956	1172	495	253	147	92	62	43	32
		L/120	5934	1758	742	380	220	138	93	65	47

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7.7 DGN-32AT & N-32AT

Total Perforated Acustadek®

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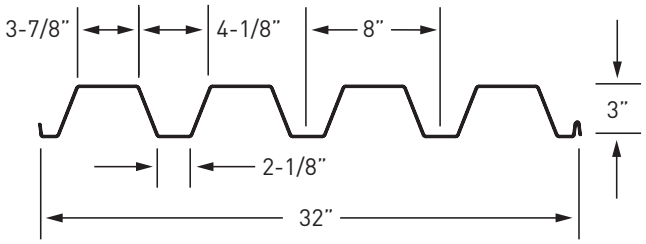

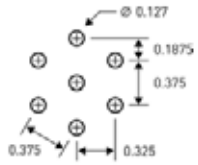

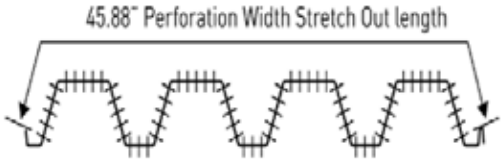

Panel Properties

Gage	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

Gage	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	0.230	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

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	500	566	622	716	764	866	952	1095
	Interior	876	973	1056	1194	1303	1448	1570	1776
20	End	709	799	876	1004	1084	1223	1340	1536
	Interior	1240	1371	1482	1669	1844	2040	2205	2482
18	End	1221	1367	1490	1697	1868	2092	2280	2597
	Interior	2133	2343	2519	2816	3173	3485	3748	4189
16	End	1864	2076	2254	2554	2852	3176	3449	3907
	Interior	3260	3560	3814	4239	4849	5296	5673	6305

Constants h = 3.06" r = 0.125" θ = 70.7°

ASC STEEL DECK

DGN-32AT & N-32AT 7.7

Total Perforated 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"
22	Single Span	f_b/Ω	307	136	77	49	34	25	19	15	12
		Φf_b	461	205	115	74	51	38	29	23	18
		L/360	422	125	53	27	16	10	7	5	3
		L/240	633	188	79	41	23	15	10	7	5
		L/180	844	250	106	54	31	20	13	9	7
		L/120	1266	375	158	81	47	30	20	14	10
	Double Span	f_b/Ω	352	156	88	56	39	29	22	17	14
		Φf_b	529	235	132	85	59	43	33	26	21
		L/360	1017	301	127	65	38	24	16	11	8
		L/240	1525	452	191	98	56	36	24	17	12
		L/180	2033	602	254	130	75	47	32	22	16
		L/120	3050	904	381	195	113	71	48	33	24
	Triple Span	f_b/Ω	440	195	110	70	49	36	27	22	18
		Φf_b	661	294	165	106	73	54	41	33	26
		L/360	796	236	100	51	29	19	12	9	6
		L/240	1195	354	149	76	44	28	19	13	10
		L/180	1593	472	199	102	59	37	25	17	13
		L/120	2389	708	299	153	88	56	37	26	19
20	Single Span	f_b/Ω	392	174	98	63	44	32	24	19	16
		Φf_b	589	262	147	94	65	48	37	29	24
		L/360	498	148	62	32	18	12	8	5	4
		L/240	748	222	93	48	28	17	12	8	6
		L/180	997	295	125	64	37	23	16	11	8
		L/120	1495	443	187	96	55	35	23	16	12
	Double Span	f_b/Ω	443	197	111	71	49	36	28	22	18
		Φf_b	666	296	166	107	74	54	42	33	27
		L/360	1201	356	150	77	44	28	19	13	10
		L/240	1801	534	225	115	67	42	28	20	14
		L/180	2402	712	300	154	89	56	38	26	19
		L/120	3602	1067	450	231	133	84	56	40	29
	Triple Span	f_b/Ω	554	246	138	89	62	45	35	27	22
		Φf_b	832	370	208	133	92	68	52	41	33
		L/360	941	279	118	60	35	22	15	10	8
		L/240	1411	418	176	90	52	33	22	15	11
		L/180	1881	557	235	120	70	44	29	21	15
		L/120	2822	836	353	181	105	66	44	31	23
18	Single Span	f_b/Ω	574	255	143	92	64	47	36	28	23
		Φf_b	863	383	216	138	96	70	54	43	35
		L/360	738	219	92	47	27	17	12	8	6
		L/240	1106	328	138	71	41	26	17	12	9
		L/180	1475	437	184	94	55	34	23	16	12
		L/120	2213	656	277	142	82	52	35	24	18
	Double Span	f_b/Ω	613	272	153	98	68	50	38	30	25
		Φf_b	921	409	230	147	102	75	58	45	37
		L/360	1777	526	222	114	66	41	28	19	14
		L/240	2665	790	333	171	99	62	42	29	21
		L/180	3553	1053	444	227	132	83	56	39	28
		L/120	5330	1579	666	341	197	124	83	58	43
	Triple Span	f_b/Ω	766	340	191	123	85	63	48	38	31
		Φf_b	1151	511	288	184	128	94	72	57	46
		L/360	1392	412	174	89	52	32	22	15	11
		L/240	2088	619	261	134	77	49	33	23	17
		L/180	2783	825	348	178	103	65	43	31	22
		L/120	4175	1237	522	267	155	97	65	46	33
16	Single Span	f_b/Ω	782	348	196	125	87	64	49	39	31
		Φf_b	1176	523	294	188	131	96	73	58	47
		L/360	936	277	117	60	35	22	15	10	7
		L/240	1403	416	175	90	52	33	22	15	11
		L/180	1871	554	234	120	69	44	29	21	15
		L/120	2807	832	351	180	104	65	44	31	22
	Double Span	f_b/Ω	808	359	202	129	90	66	51	40	32
		Φf_b	1215	540	304	194	135	99	76	60	49
		L/360	2254	668	282	144	83	53	35	25	18
		L/240	3380	1002	423	216	125	79	53	37	27
		L/180	4507	1335	563	288	167	105	70	49	36
		L/120	6761	2003	845	433	250	158	106	74	54
	Triple Span	f_b/Ω	1010	449	253	162	112	82	63	50	40
		Φf_b	1519	675	380	243	169	124	95	75	61
		L/360	1765	523	221	113	65	41	28	19	14
		L/240	2648	785	331	169	98	62	41	29	21
		L/180	3531	1046	441	226	131	82	55	39	28
		L/120	5296	1569	662	339	196	124	83	58	42

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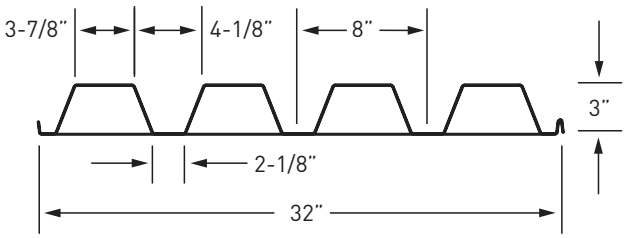
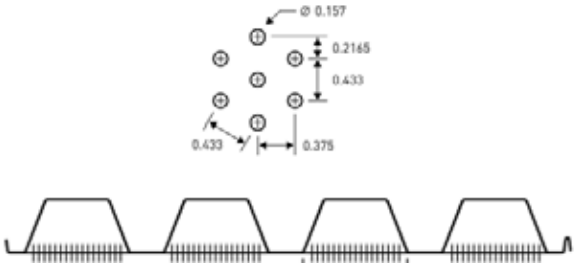
7.8 DGNF-32A & NF-32A

Pan Perforated Cellular Acustadek®





Panel Properties

Gage	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	3.42	0.0359/0.036	50	65	1.004	1.687	1.18	0.849	1.250
20/18	3.78	0.0359/0.047	50	65	1.111	1.820	1.08	0.867	1.223
20/16	4.17	0.0359/0.059	50	65	1.226	1.939	1.00	0.881	1.192
18/20	4.15	0.0478/0.036	50	65	1.220	2.077	1.29	1.103	1.269
18/18	4.51	0.0478/0.047	50	65	1.326	2.244	1.20	1.128	1.255
18/16	4.91	0.0478/0.059	50	65	1.442	2.397	1.12	1.149	1.235
16/20	4.89	0.0598/0.036	50	65	1.437	2.447	1.37	1.354	1.277
16/18	5.25	0.0598/0.047	50	65	1.543	2.640	1.29	1.382	1.271
16/16	5.64	0.0598/0.059	50	65	1.659	2.823	1.21	1.410	1.259

Gage	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
20/20	0.525	0.479	0.85	0.799	1.43	1.342	1.371	1.457	1.476
20/18	0.597	0.482	0.76	0.826	1.31	1.439	1.535	1.566	1.630
20/16	0.700	0.513	0.73	0.848	1.20	1.476	1.732	1.631	1.801
18/20	0.753	0.779	1.09	1.046	1.49	1.782	1.749	1.881	1.858
18/18	0.825	0.796	1.01	1.079	1.38	1.914	1.917	2.024	2.026
18/16	0.927	0.793	0.92	1.104	1.29	2.046	2.130	2.163	2.219
16/20	1.015	1.047	1.22	1.296	1.52	2.250	2.123	2.316	2.231
16/18	1.086	1.071	1.14	1.329	1.43	2.420	2.294	2.494	2.409
16/16	1.189	1.094	1.07	1.358	1.36	2.581	2.517	2.661	2.619

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	1.5"	2"	3"	LRFD, ϕR 1"	1.5"	2"	3"
22	End	500	566	622	716	764	866	952	1095
	Interior	876	973	1056	1194	1303	1448	1570	1776
20	End	709	799	876	1004	1084	1223	1340	1536
	Interior	1240	1371	1482	1669	1844	2040	2205	2482
18	End	1221	1367	1490	1697	1868	2092	2280	2597
	Interior	2133	2343	2519	2816	3173	3485	3748	4189
16	End	1864	2076	2254	2554	2852	3176	3449	3907
	Interior	3260	3560	3814	4239	4849	5296	5673	6305

Constants h = 3.06" r = 0.125" θ = 70.7°

ASC STEEL DECK

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"
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®

ASC STEEL DECK

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	972	432	243	155	108	79	61	48	39
		Φf_b	1460	649	365	234	162	119	91	72	58
		L/360	1284	381	161	82	48	30	20	14	10
		L/240	1926	571	241	123	71	45	30	21	15
		L/180	2568	761	321	164	95	60	40	28	21
		L/120	3853	1142	482	247	143	90	60	42	31
	DS	f_b/Ω	1305	580	326	209	145	107	82	64	52
		Φf_b	1962	872	490	314	218	160	123	97	78
		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	1518	675	380	243	169	124	95	75	61
		Φf_b	2282	1014	570	365	254	186	143	113	91
		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	994	442	248	159	110	81	62	49	40
		Φf_b	1493	664	373	239	166	122	93	74	60
		L/360	1382	409	173	88	51	32	22	15	11
		L/240	2073	614	259	133	77	48	32	23	17
		L/180	2764	819	345	177	102	64	43	30	22
		L/120	4146	1228	518	265	154	97	65	45	33
	DS	f_b/Ω	1346	598	336	215	150	110	84	66	54
		Φf_b	2023	899	506	324	225	165	126	100	81
		L/360	3329	986	416	213	123	78	52	37	27
		L/240	4993	1479	624	320	185	116	78	55	40
		L/180	6657	1973	832	426	247	155	104	73	53
		L/120	9986	2959	1248	639	370	233	156	110	80
	TS	f_b/Ω	1553	690	388	248	173	127	97	77	62
		Φf_b	2333	1037	583	373	259	190	146	115	93
		L/360	2608	773	326	167	97	61	41	29	21
		L/240	3911	1159	489	250	145	91	61	43	31
		L/180	5215	1545	652	334	193	122	81	57	42
		L/120	7823	2318	978	501	290	182	122	86	63
18/16	SS	f_b/Ω	989	439	247	158	110	81	62	49	40
		Φf_b	1486	661	372	238	165	121	93	73	59
		L/360	1477	438	185	95	55	34	23	16	12
		L/240	2216	657	277	142	82	52	35	24	18
		L/180	2955	875	369	189	109	69	46	32	24
		L/120	4432	1313	554	284	164	103	69	49	35
	DS	f_b/Ω	1377	612	344	220	153	112	86	68	55
		Φf_b	2070	920	518	331	230	169	129	102	83
		L/360	3559	1054	445	228	132	83	56	39	28
		L/240	5338	1582	667	342	198	125	83	59	43
		L/180	7117	2109	890	456	264	166	111	78	57
		L/120	10676	3163	1335	683	395	249	167	117	85
	TS	f_b/Ω	1545	687	386	247	172	126	97	76	62
		Φf_b	2322	1032	581	372	258	190	145	115	93
		L/360	2788	826	348	178	103	65	44	31	22
		L/240	4182	1239	523	268	155	98	65	46	33
		L/180	5576	1652	697	357	207	130	87	61	45
		L/120	8364	2478	1045	535	310	195	131	92	67

ASC STEEL DECK

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

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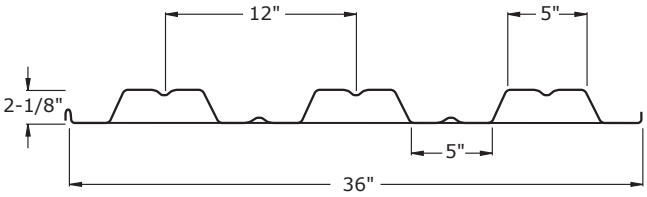
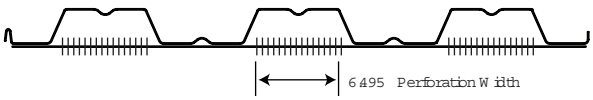
7.9 DG2WHF-36A & 2WHF-36A

Pan Perforated Cellular Acustadek®





Panel Properties

Gage	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

Gage	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
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

Gage	Condition	Bearing Length of Webs: ASD, R/Ω 1"	2"	4"	6"	LRFD, ϕR 1"	2"	4"	6"
22	End	316	393	503	588	483	602	770	899
	Interior	528	638	792	911	786	948	1178	1355
21	End	403	499	636	741	616	764	973	1133
	Interior	675	810	1001	1148	1004	1205	1489	1708
20	End	450	556	707	822	688	851	1081	1258
	Interior	755	903	1114	1275	1123	1344	1657	1897
19	End	633	777	980	1137	968	1188	1500	1739
	Interior	1066	1266	1549	1766	1585	1883	2304	2627
18	End	781	954	1199	1387	1195	1460	1835	2122
	Interior	1319	1559	1898	2158	1961	2318	2823	3211
16	End	1194	1445	1800	2072	1827	2211	2754	3170
	Interior	2027	2373	2862	3237	3015	3530	4257	4815

Constants h = 2.16" r = 0.125" θ = 64°

ASC STEEL DECK

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

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7.9 DG2WHF-36A & 2WHF-36A

Pan Perforated Cellular Acustadek®

ASC STEEL DECK

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

ASC STEEL DECK

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"
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

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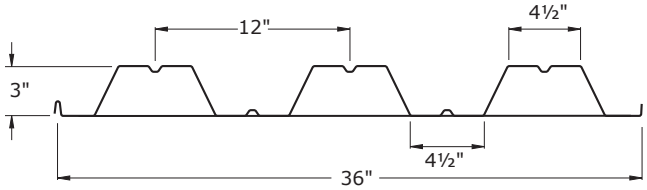
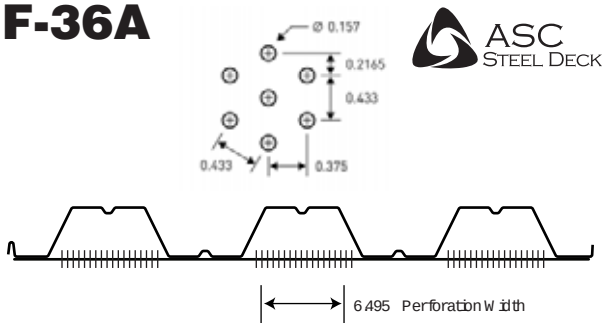
7.10 DG3WxHF-36A & 3WxHF-36A

Pan Perforated Cellular Acustadek®





Panel Properties

Gage	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

Gage	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
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 1"	2"	4"	6"	LRFD, ϕR 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°

ASC STEEL DECK

DG3WxHF-36A & 3WxHF-36A 7.10

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	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

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7.10 DG3WxHF-36A & 3WxHF-36A

Pan Perforated Cellular Acustadek®

ASC STEEL DECK

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

ASC STEEL DECK

DG3WxHF-36A & 3WxHF-36A 7.10

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	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

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Metric Conversion Chart

ASC STEEL DECK

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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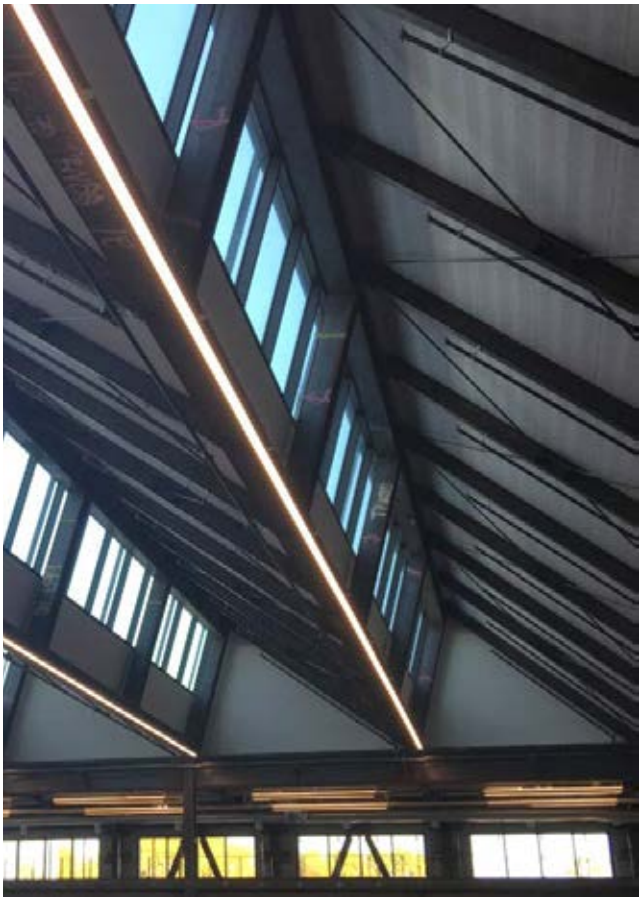

General Benefits of Steel

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-gage 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.

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ASC
STEEL DECK

Manufacturing Facilities

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