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STEEL ROOF DECK

CSI Sections:

05 30 00 Metal Decking
05 31 00 Steel Decking
05 31 23 Steel Roof Decking

1.0 RECOGNITION

The ASC Profiles Steel Roof Decks recognized in this report have been evaluated for use as horizontal or sloped roof decks. The structural properties of the ASC Profiles Steel Roof Decks were evaluated for compliance with the following codes:

- 2021, 2018, 2015, and 2012 International Building Code® (IBC)
- 2022 and 2019 California Building Code (CBC) – Attached supplement
- 2020 City of Los Angeles Building Code (LABC) – Attached supplement

2.0 LIMITATIONS

Use of the ASC Profiles Steel Roof Decks recognized in this report is subject to the following limitations:

2.1 Special Inspections are required in accordance with 2021, 2018, 2015, and 2012 IBC Section 1705.2, Steel Construction. Under the 2015 IBC, special inspections and qualification of welding special inspectors shall be in accordance with the quality assurance inspection requirements of SDI QA/QC.

2.2 Structural Observation is required in accordance with 2021, 2018, and 2015 IBC Section 1704.6, or 2012 IBC Section 1704.5.

2.3 Fatigue loads, fire-resistance ratings, and acoustical performance are beyond the scope of this report. The steel decks shall not be used in conditions subject to loads that are predominately cyclic in nature unless a registered design professional submits substantiating calculations to the building official in accordance with AISI S100 Chapter M (2021 IBC and 2018 IBC) [AISI S100 Chapter G (2015 IBC and 2012 IBC)].

2.4 Out-of-Plane Loads: Uniform out-of-plane load capacities and reactions at supports may be selected from the tables in this report. For out-of-plane loads exceeding the scope of the tables, such as point loads, line loads, distributed concentrated loads, and skip loading conditions, the following shall be considered:

2.4.1 Out-of-plane load capacities that fall outside the uniform load tables described in Section 3.2 of this report shall be determined by a registered design professional and submitted to the building official for approval. The calculations shall be based on principles of engineering mechanics, section properties for the steel deck panel, and applicable load or load combinations.

2.4.2 Reactions at supports and at concentrated loads resulting in load conditions that fall outside the scope of the uniform reactions tables in Section 3.2 of this report, shall be determined by a registered design professional and submitted to the building official for approval. The calculations shall be based on principles of engineering mechanics, web crippling capacities for multi-web steel decks in accordance with the AISI S100, the panel geometry presented in the reactions tables in this report, and applicable load combinations. Load distribution devices such as plates or bars may be required to distribute concentrated loads across the webs of the steel deck to support concentrated loads on the steel deck or hanging from the steel deck.

2.4.3 All attachments to the underside of the riveted cellular deck and Acustadeck® for the support of suspended items shall be made at low flute locations only. The design professional is responsible for verifying that the connection to the low flute material has sufficient capacity to resist the suspended load.

2.5 The use of the Steel Roof Decks for vertical diaphragms (shear walls) is beyond the scope of this report.

2.6 Acustadek® Options: Distributed loads for spans and deflection limits exceeding the Acustadek® load tables shall be permitted based on section properties presented in the tables of this report and where calculations based on equations of engineering mechanics are submitted by the registered design professional and approved by the building official.

2.6.1 Total Perforation Acustadek®: The diaphragm shear for the total perforated profile, designated "AT", has a reduced shear capacity compared to the non-perforated version of the deck profile. Diaphragm allowable shear, q_a, and factored shear, q_f, for the non-perforated version of the profile shall be reduced by 15 percent ($0.85q_a$ and $0.85q_f$) for the AT profile. The diaphragm flexibility is the same as the non-perforated profile.

2.6.2 Web Perforated Acustadek®: The web perforated profile, designated by "AW", has the same shear and flexibility as the non-perforated version of the deck profile.

2.6.3 Cellular Acustadek®: The diaphragm and shear flexibility for the flat sheet cellular profile designated "A", are the same as the non-perforated version of the deck profile.

2.7 Steel decks are produced in Kalama, Washington, and West Sacramento, California.

3.0 PRODUCT USE

3.1 General: The ASC Profiles Steel Decks are steel deck panels for use as horizontal or sloped roof decks. The decks comply with requirements in IBC Section 2210.1 and 2210.1.1.2. Supporting structural members shall be steel materials complying with AISC 360 or AISI S100.

3.2 Out-of-Plane Loads: Steel decks may resist out-of-plane loads and in-plane loads as specified in Tables 7, 13, 15, 19, 22, 24, 26, 28, 31, 34, 36, 40, 42, 45, 47, 50, 52, 57, 59, 63, and 65 of this report. Out-of-plane loads include vertical seismic effects, inward loads due to gravity and wind, and outward loads such as wind. In-plane loads include diaphragm shear and axial compression parallel to the flutes.

In accordance with ANSI/SDI RD, Standard for Steel Roof Deck, Steel Roof Decks shall be anchored to resist the required net uplift forces, but not less than the following Allowable Stress Design values:

a. 45 pounds per square foot (2.15 kPa) for eave overhang.
b. 30 pounds per square foot (1.44 kPa) for all other roof areas.

Deflections resulting from out-of-plane load shall comply with Section 1604.3 of the IBC.

In addition to the loads specified in IBC Chapter 16, the deck shall be evaluated for strength under the following minimum construction and maintenance load combinations:

a. Allowable Strength Design

$$w_{dd} + P_{lc} \quad \text{(Eq. 1)}$$

Where:

w_{dd} = weight of steel deck, psf (kPa)
P_{lc} = concentrated construction and maintenance live load per unit width of deck section; minimum pounds on a 1-foot width (2.92 kN on a 1-meter width)

b. Load and Resistance Factor Design

$$1.2\, w_{dd} + 1.4\, P_{lc} \quad \text{(Eq. 2)}$$

In addition to the service loads specified in IBC Chapter 16, cantilever spans shall be evaluated for strength under the following minimum construction and maintenance load combinations:

a. Allowable Strength Design

$$w_{dd} + w_{lcc} + P_{lc} \quad \text{(Eq. 3)}$$

Where:

w_{dd} = weight of steel deck, psf (kPa)
w_{lcc} = uniform construction live load applied to cantilever span and adjacent span, minimum 10 psf (0.48 kPa)
P_{lc} = concentrated construction and maintenance live load per unit width of deck section; minimum 200 pounds on a 1-foot width (2.92 kN on a 1-meter width), applied at the end of the cantilever

b. Load and Resistance Factor Design

$$1.2\, w_{dd} + 1.6\, w_{lcc} + 1.4\, P_{lc} \quad \text{(Eq. 4)}$$

3.3 Diaphragm Size: When steel deck panels are used as the stressed skin shear carrying element of a horizontal or sloped diaphragm as defined in Section 202 of the IBC, the diaphragm length and width shall be limited by one of the following:

1) engineering mechanics, 2) the applied loads, 3) shear capacity of the diaphragm, or 4) the diaphragm shear deflection limited by the requirements of ASCE 7 in Sections 12.8.6 titled, "Story Drift Determination" and 12.12 titled, "Drift and Deformation". The shear deflection shall be based on the shear stiffness for the steel deck diaphragm, stiffness or flexibility factors for the diaphragm, and equations of mechanics. Common shear deflection equations as shown in Figure 2B of this report may be used.

3.4 Diaphragm Deflection: The web diaphragm deflection equations in Figure 2B of this report provide an aid to the designer. The total diaphragm deflection is comprised of both the flexural and shear deflection. Beam theory may be used to determine the flexural deflection for diaphragms with an aspect ratio of depth to width large enough to justify the use of beam theory.

3.5 Partial Panels, Openings, Holes, or Penetrations Through Steel Deck: Partial Panels, Openings, Holes, or Penetrations through the diaphragm shall require a registered design professional to submit design calculations and opening details to the building official for approval based on principles of mechanics. For lateral force resisting systems, the calculations shall consider the effects of the partial panels, openings, holes, or penetrations on the overall strength and stiffness of the diaphragm.

3.6 Installation of Steel Deck: Installation methods and sequencing of steel deck erection is the responsibility of the contractor(s) installing the steel deck. Methods shall be in accordance with the SDI Manual of Construction (Third Edition). Supporting steel members shall be of materials complying with the requirements of AISC 360.

4.0 PRODUCT DESCRIPTION

4.1 Product Information: All decks are fluted sections cold-formed from steel sheets. Galvanized decks are manufactured from ASTM A653 SS minimum Grade 50 steel. Prime painted steel decks are manufactured from ASTM A1008 SS Grade 50 steel. In accordance with ANSI/SDI RD1.0, the steel deck finish shall be galvanized or primer painted bare steel. In high moisture atmospheres, G60 (Z180) or G90 (Z275) galvanized coating is available. In highly corrosive or chemical atmospheres or where reactive materials could be in contact with the steel deck, special care in specifying the finish shall be considered with the finish selected by the registered design professional. All fasteners exposed to weather shall be corrosion-resistant or protected to prevent corrosion. Corrosion-resistant fasteners may be stainless steel, galvanized, or covered by corrosion-resistant paint, sealant, or a stainless-steel sealing cap.

4.2 Roof Deck (Non-Cellular): Standard non-cellular roof deck types are DGB-36, B-36, BN-36, BS-36, DGN-32, NN-32, DG2WH-36, DG3WxH-36, C0.9-32, C1.4-32/CP-32 4.5-inch-deep deck (4.5D-12), 6-inch-deep deck (6D-12), and 7.5-inch-deep deck (7.5D-12) form decks. Steel Roof Deck profile types DGB-36, DG2WH-36, DG3WxH-36, and DGN-32 have a standing seam interlock for the DeltaGrip™ side seam connection. NN-32 deck has a nestable side lap for a self-drilling screw side seam connection.

4.3 Roof Deck (Cellular): The "F" designator in the profile name is used to indicate cellular roof decks (e.g., DGB*F*-36). The cellular profiles included in this report are DGBF-36, DGNF-32, BF-36, DG2WHF-36, DG3WxHF-36, 4.5DF-24, 6DF-24, and 7.5DF-24. Cellular decks have a top fluted section joined by resistance welds or rivets to the bottom sheet. The top fluted section is referred to as the beam and the bottom flat section is referred to as the flat pan. Standing seam side lap connections are formed on the pan. The first number (**XX**/xx) in the gauge combination refers to the top fluted beam section and the second (xx/**XX**) number refers to the bottom flat pan section. The decimal thickness is present with the first thickness (**0.XXXX**/0.xxx) of the beam and the second thickness (0.xxxx/**0.XXX**) of the pan.

4.4 Acustadek®: Acustadek® profiles are roof decks with perforations designated by the suffix "AW" for web perforation, "AT" for total perforation, and "A" for cellular deck pan perforation (e.g., DBG-36*AW*, DGBF-36*A*, and N-32*AT*). The Acustadek® profiles included in this report are DGB-36AW, DGB-36AT, DGBF-36A, DGN-32AW, DGN-32AT, DGNF-32A, N-32AW, N-32AT, 2WH-36A, 3WxH-36A, 4.5D-12AW, 6D-12AW, 7.5D-12AW, 4.5DF-24A, 6DF-24A, and 7.5DF-24A. Additional details are given in Figures 18 to 23 of this report.

4.5 Roof Deck Connections

4.5.1 DeltaGrip™: The DeltaGrip™ side seam attachment system is designated by decks having the "DG" prefix. A DeltaGrip™ seam attachment is comprised of three 3/8-inch-wide (9.5 mm) 60-degree triangular tabs punching through and engaging all three layers of the standing seam side lap of the steel deck.

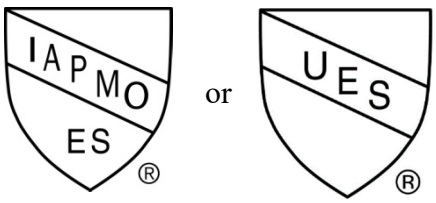
4.5.2 Self-Drilling Screws: Self-drilling screws may be used to attach steel deck panels to supporting members and to attach the side laps of the nestable steel deck. The screws shall be in conformance with Table 3 of this report and manufactured in accordance with ASME J78 and have a galvanized finish. All fasteners shall have a valid, current Evaluation Report issued by an approved and accredited evaluation service.

4.5.3 Welds: Arc spot and arc seam welds may be used to connect the steel deck to steel supporting members in accordance with AWS D1.3 and Table 2 of this report. The weld filler metal shall be designated as a minimum of 60 ksi (413.7 MPa).

4.5.4 Power Actuated Fasteners: Mechanical power-actuated fasteners may be used to connect the steel deck to steel supports. Acceptable manufacturers are Hilti, Inc., and Pneutek Inc. The fasteners shall comply with the details in Table 3 of this report and be described in a current evaluation report issued by an approved and accredited evaluation service.

5.0 IDENTIFICATION

The product is to be identified with a visible label on each bundle of panels. The label includes the manufacturer's name and address, roof deck type, ASTM steel specification, steel gauge, and the evaluation report number (ER-161). Either IAPMO UES Mark of Conformity may also be used as shown below:



IAPMO UES ER-161

6.0 SUBSTANTIATING DATA

Data in accordance with IAPMO-ES EC 007-2021, Evaluation Criteria for Steel Composite, Non-Composite,

and Roof Deck Construction. Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on ASC Profiles Steel Decks to assess their conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product's certification. Products are manufactured at locations noted in Section 2.7 of this report under a quality control program with periodic inspections under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email at us info@uniform-es.org

General Notes for Tables

1-1/2" Roof Deck Profiles

Acustadek® Options

Deep Deck Profiles

General Notes

The following sections of the general notes apply to all steel decks included in this report.

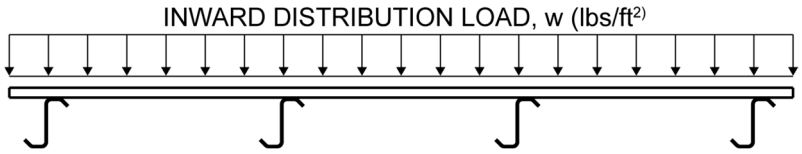
For SI: 1 inch = 25.4 mm; 1 foot = 305 mm; 1 lbf = 4.448 N; 1 psi = 6.895 MPa; 1 psf = 47.88 N/m^2; 1 plf = 14.5939 N/m; 1 in^2/ft = 2117 mm^2/m; 1 in^3/ft = 53773 mm^3/m; 1 in^4/ft = 1365833 mm^4/m

Section Properties Tables

1. Section properties are calculated based on deck panel geometry and the provisions of the American Steel and Iron Institute North American Specification for the Design of Cold-Formed Steel Structural Members (S100).
2. For calculating the deflection of the panel subject to uniform distributed loads, the hybrid moment of inertia is equal to two times the effective moment of inertia and the gross moment of inertia divided by 3: $(2I_e + I_g)/3$.
3. The thickness presented in the table is the design base steel thickness. This thickness is exclusive of metallic coatings (galvanizing) and prime paint.

Uniform Out-of-Plane Load Tables

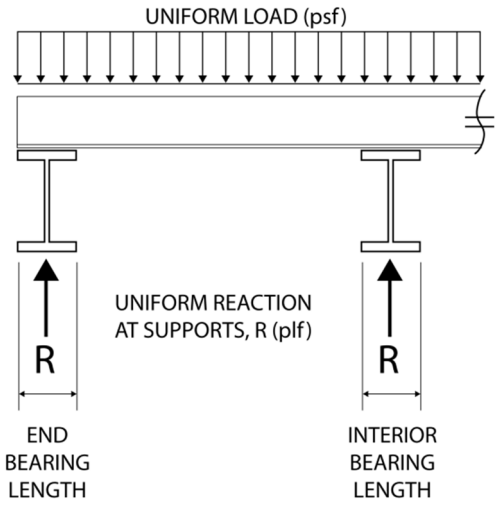
FIGURE 1: Inward Uniform Distributed Load



1. Inward out-of-plane uniform load tables used commonly for gravity and inward wind loads are based on equations of mechanics and the section properties presented in this report.
2. Outward uniform load capacities used commonly for wind uplift load shall be determined using the section properties presented in this report and equations of engineering mechanics by the registered design professional as required for a structure.
3. Allowable (f_b/Ω) and LRFD factored (ϕf_b) uniform distributed loads are presented in the tables based on the bending capacity of the steel deck panels. Loads limited by shear or combined bending and shear are outside the scope of the uniform load tables in this report and shall be analyzed in accordance with AISI S100 Sections G2, G3, and H2 (2021 and 2018 IBC) [AISI S100 Sections C3.2 and C3.3 (2015 and 2012 IBC)].
4. Loads limited by web crippling and combined bending and web crippling are outside the scope of the uniform load tables in this report. Reactions resulting from the tabulated values in the inward out-of-plane uniform load tables shall be determined by the structural design professional. The resulting reactions shall be less than the values in the reactions (at supports based on web crippling) tables of this report. In addition, combined bending and web crippling shall be analyzed in accordance with AISI S100 Section H3 (2021 and 2018 IBC)] [AISI S100 Section C3.5 (2015 and 2012 IBC)].
5. Service level distributed loads for deflection are presented in the tables for common deflection limits.
6. Limitations in Section 3.2 of this report shall be referenced for loading conditions other than uniform distributed loads.

Allowable and Factored Reactions Tables

FIGURE 2A: Web Crippling Bearing Length and Support Condition



1. The allowable (R_n/Ω) and LRFD factored (ϕR_n) reactions presented in the tables are in pounds per linear foot running axially along the support for a given panel bearing length on the support. This is based on the web crippling capacity of a web multiplied by the number of webs per foot.
2. The allowable (R_n/Ω) and LRFD factored (ϕR_n) web crippling strengths at supports are calculated in accordance with AISI S100 Section G5 (2021 and 2018 IBC) [AISI S100 Section C3.4 (2015 and 2012 IBC)] for multi-web steel panels supported by framing that supports a uniform distributed load.
3. Reactions exceeding, or for conditions other than a uniform distributed load shall be determined by the registered design professional in accordance with Section C3.4 of the North American Specifications for the Design of Cold-Formed Steel Structural Members (AISI S100) for multi-web steel panels and the geometric constants presented in the tables as required for the structure.
4. Panels shall be attached to supports with fastener patterns not less than the minimum attachment patterns shown in this report.
5. The cellular deck section properties listed within this report are based on a riveted beam/pan that provides more conservative design values when compared to a resistance-welded cellular deck. Cellular deck designations "F" (welded) and "Fr" (riveted) may be used interchangeably.

Diaphragm Shear and Flexibility Tables

1. Diaphragm shears and flexibility factors shall be selected from the tables determined by the deck gauge, span, connection to support type, connection to support pattern, side lap connection type, and spacing. Linear Interpolation for shear and flexibility for spans between those listed in the tables is acceptable provided the higher value does not exceed the lower value by more than 50 percent.
2. For cellular decks, the diaphragm shear and flexibility shall be based on the gauge of the pan. Actual shears for cellular decks are higher and stiffer than indicated in the tables due to the combination of the pan and beam, which is not considered in this conservative approach to cellular deck shear and flexibility selection. However, the diaphragm shear and flexibility capacities for cellular decks may be determined, in accordance with AISI S310-20 using the cellular deck section properties published in this report.
3. The fastener shall be selected for the appropriate range of support steel thicknesses. For decks that require combinations of fasteners for varying support steel thicknesses, the least strength fastener shall be used for design.
4. The diaphragm allowable and LRFD factored diaphragm shears presented in the tables are based on the load combination including earthquake (seismic) loading in accordance with Section B1 of the North American Standard for the Design of Profiled Steel Diaphragm Panels (AISI S310-20) and listed in Table 1A. For wind load combinations, the nominal diaphragm shear may be derived from the allowable or factored shear and the appropriate factor from Table 1A for wind loading. Eq-1 and Eq-2 of this report provide the relationship between nominal and design (allowable or LRFD) shears:

ASD

$$S_a = \frac{S_n}{\Omega} \qquad \text{(Eq-1)}$$

LRFD

$$S_f = \phi S_n \qquad \text{(Eq-2)}$$

S_a Allowable diaphragm shear, plf
S_f Factored diaphragm strength, plf
S_n Nominal diaphragm strength, plf
Φ Resistance factor for LRFD, in accordance with Section I2 of AISI S100-16 (Section D5 of AISI S100-12 and AISI S100-07/S2-10)
Ω Safety Factor for ASD, in accordance with Section I2 of AISI S100-16 (Section D5 of AISI S100-12 and AISI S100-07/S2-10)

TABLE 1A: Safety Factors and Resistance Factors for Diaphragms from the AISI S310, North American Standard for the Design of Profiled Steel Diaphragm Panels, and UES EC-007

Load Type or Combinations Including	Connection Type	Limit State					
		Connection-Related			Stability Related		
		Ωd (*ASD*)	Φd (*LRFD*)	Φd (*LSD*)	Ωd (*ASD*)	Φd (*LRFD*)	Φd (*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			

5. Diaphragm boundary fastener spacing parallel to panel ribs shall not exceed the spacing determined by dividing the diaphragm shear capacity by the fastener shear strength as given by Eq-3, Eq-4, Eq-5, and Eq-6 of this report nor the spacing of interior side-lap seam fasteners. Connector shear strengths are presented in the diaphragm connections section of the General Notes.

ASD

$$Q_a = \frac{Q_s}{\Omega} \quad \text{(Eq-3)}$$

$$s = \frac{Q_a}{S_a}\left(12\,{}^{in}/_{ft}\right) \quad \text{(Eq-4)}$$

LRFD

$$Q_f = \phi Q_s \quad \text{(Eq-5)}$$

$$s = \frac{Q_f}{S_f}\left(12\,{}^{in}/_{ft}\right) \quad \text{(Eq-6)}$$

s Maximum parallel fastener Spacing, in
S_a Allowable Diaphragm Shear Demand, lbs/ft
Q_a Allowable Fastener Strength, lbs
S_f Factored Diaphragm Shear Demand, lbs/ft
Q_f Factored Fastener Strength, lbs
Q_s Fastener Shear Strength, lbs

6. At skew cut conditions, the minimum number of fasteners shall be determined based on the location of the fasteners in the ribs conforming to the perpendicular attachment schedule. The number of fasteners shall not be fewer than the required spacing for the parallel diaphragm boundary conditions on an average fasteners per-foot basis.
7. Determination of Diaphragm Shear (Web) Deflections shall be based on the flexibility factor, F, in 10^{-6} in/lbs and equations of engineering mechanics. The flexibility factor, F, is determined by Eq-7 and Eq-8 of this report, in the following format.

$$F = c_1 + c_2 R \text{ or } F = c_1 - c_2 R \quad \text{(Eq-7)}$$

$$R = L_v / L \quad \text{(Eq-8)}$$

Where:

F Diaphragm shear flexibility, micro-inches/lbs
L_v Support spacing of deck (vertical load span of deck), ft
L Overall length of the sheet of deck, ft
c_1, c_2 Constants presented in the format shown above in the diaphragm shear and flexibility tables

8. Figure 2B of this report provides a partial list of common configurations for the determination of shear (Web) deflection using the flexibility factor, F.
9. B-36 roof deck is also available in 36/7 attachment pattern. The provided B deck shear tables for 36/7/4 pattern may be conservatively applied for 36/7 attachment pattern.
10. Diaphragm shear strength and stiffness are calculated in accordance with AISI S100-16(2020) w/S2-20; or AISI S310-16 with the following modifications:

Proprietary fasteners: Delta Grip System

The nominal shear strength for Delta Grip System (DG) connection shall be determined in accordance with Eq-9:

$$Q_s = 27.9 * (t)^2 * F_u \quad \text{(Eq-9)}$$

The flexibility of the Delta Grip System connection shall be determined in accordance with Eq-10:

$$S_s = \frac{0.04}{1000 * (t)^2} \quad \text{(Eq-10)}$$

Simpson Strong-Tie

The nominal shear strength and flexibility for Simpson XL Screw shall be determined by Eq-11 and Eq-12. Applicable to 1/8 in. through 3/8 in. support steel.

$$Q_f = 78\, t_{deck} \left(t_{support}\right)^{0.15} \text{ < = } P_{nvs} \qquad \text{(Eq-11)}$$

$$S_f = \frac{1.30}{1000\sqrt{t}}, \frac{in}{kip} \qquad \text{(Eq-12)}$$

The nominal shear strength and flexibility for Simpson XM Screw shall be determined by Eq-13 or Eq-14, and Eq-15.

For, $t_{support}$ < = 0.1875 nominal shear is $P_{nf} = 240*(t)^{1.5}$ <= P_{nvs} (Eq-13)

For, $t_{support}$ > 0.1875 nominal shear is $P_{nf} = 53 * t$ <= P_{nvs} (Eq-14)

$$S_f = \frac{1.30}{1000\sqrt{t}}, \frac{in}{kip} \qquad \text{(Eq–15)}$$

The nominal shear strength for Simpson X1S1016 or XQ1S1016 Screw shall be determined by Eq-16.

$P_{nf} = 20 * t$ <= 1.625 (Eq-16)

The nominal shear Strength for Simpson XU34B1016 Screw shall be determined by Eq-17.

$P_{nf} = 25.2 * t$ <= 1.735 (Eq-17)

S_s = Table 1B for the selected fastener

TABLE 1B: Side-lap Connection Flexibilities, S_s

SIDE-LAP FASTENER FLEXIBILITY							
	Ss, in/Kip / Deck Thickness No.						
TYPE OF SIDE-LAP FASTENER	28	26	24	22	20	18	16
5/8" puddle weld or 1.5" long fillet weld				0.0073	0.0066	0.0057	0.0051
#8 screws	0.0246	0.0224	0.0194	0.0175	0.0159	0.0138	0.0123
#10 screws	0.0246	0.0224	0.0194	0.0175	0.0159	0.0138	0.0123
#12 screws	0.0246	0.0224	0.0194	0.0175	0.0159	0.0138	0.0123
#14 screws	0.0246	0.0224	0.0194	0.0175	0.0159	0.0138	0.0123

Where,

t = Base Steel thickness of panel in inches
$t_{support}$ = Thickness of support in inches
S_s = Side-lap connection flexibility (in/kip)
S_f = Screw connection flexibility (in/kip)
Q_f = Nominal shear strength of a support connection in Kips
P_{ns} = Nominal shear strength of a side-lap connection per fastener in Kips
P_{nvs} = Nominal shear strength of screw for XM Screw and XL Screw in Kips
= 3.110 kips

Perforated Profiles:

Reduction factors for perforated webs.

The reduction factor is calculated as follows:

$$q_s = 1-(1-k)\,(W_p / h_w) \qquad \text{(Eq-19)}$$

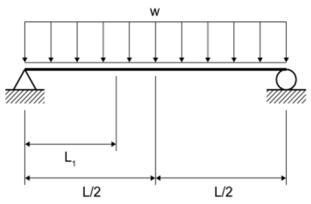
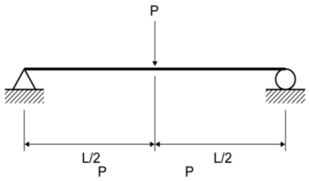
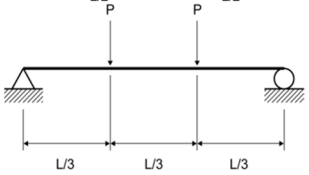
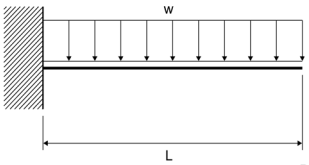
$$p_o = 0.9069(d_p^2 / c_p^2) \qquad \text{(Eq-20)}$$

$k = 1- 2.17p_o$ for $p_o < 0.20$
$k = 0.9 + p_o^2 – 1.875\ p_o$ for $0.20 <= p_o <=0.58$

Where,

q_s = Perforated web reduction factor
k = Ratio of stiffness
W_p = Width of perforated band in web in inches
h_w = Flat dimension of web measured in plane of web in inches.
P_o = Percentage of open area
D_p = Diameter of perforated hole in inches
C_p = Perforation hole center-to-center spacing in inches

FIGURE 2B: Diaphragm Shear Deflection Equations
Diaphragm In-Plane Shear (Web) Deflection Equations

Type of Loading	Loading Condition	Web Shear Deflection	
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 1/3 points	Point Loads, P	$\Delta_w = \frac{PL}{3bG'}$	
Cantilever Beam at End	Uniform Load, w	$\Delta_w = \frac{WL^2}{2bG'}$	
Cantilever Beam at End	Point Load, P	$\Delta_w = \frac{PL}{bG'}$	
Relations ship between the flexibility and stiffness factors		$F = \frac{1000}{G'}$	

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

Deck Sheet End Details

FIGURE 3: Butted Deck Condition

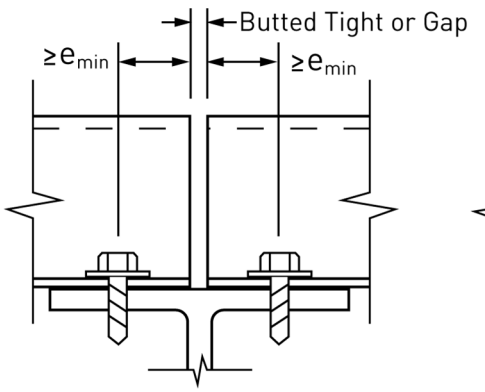
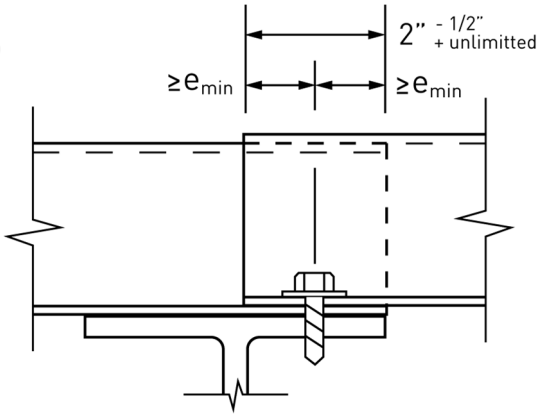


FIGURE 4: End Lapped Deck Condition



1. Steel decks may be butted at supports or end-lapped. The standard end lap is a 2-inch overlap with a tolerance of ±½ inch. A minimum 1½-inch overlap (2-inch standard less ½-inch tolerance) is required. Overlaps greater than 2½ inches do not affect diaphragm performance but are more difficult to install.
2. The minimum edge distance for self-drilling screws and power-driven fasteners (pins/nails) is ½ inch.
3. The minimum edge distance for welds is ¾ inch, measured from the center of the arc spot weld and the center of the end radius of the arc seam weld.
4. Shear and flexibility tables within this report are based on end-lapped conditions.

Arc Spot and Seam Welds to Supports

1. Arc spot and arc seam welds to supporting members are shown in Figures 5 and 6 of this report, respectively.

FIGURE 5: Arc Spot Weld (weld to support)

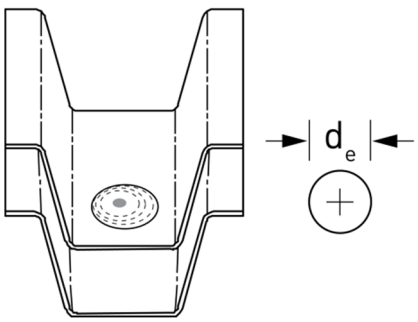
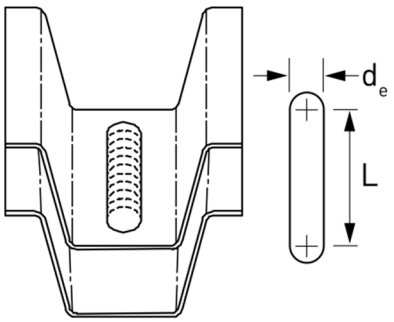


FIGURE 6: Arc Seam Weld (weld to support)



d_e = Effective Diameter

2. The supporting steel member shall be thicker than the thickness of the steel deck being welded to the supporting member.
3. Arc spot and arc seam weld nominal shear and tension nominal strength are shown in Table 2 of this report.

TABLE 2: Weld Nominal Strength

Nominal Weld Strength, per AISI S100-16 w/S2-20				
Deck Profile	Gauge	Arc Spot (puddle Weld (1/2 inch 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,	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	3618	6344
	16	7263	4056	8065
4.5D-12, 6D-12, 7.5D-12	20	3967	2755	3052
	18	5368	3618	4982
	16	6824	4056	6145
	14	8730	4056	7569
B-36, N-32, 3WxH-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
2WH-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
4.5DF-24, 6DF-24, 7.5DF-24	20/20	7283	4538	8336
	20/18	8287	4538	9749
	20/16	8836	4538	11332
	18/20	8368	4538	9866
	18/18	8836	4538	11318
	18/16	8836	4538	12944
	16/20	8836	4538	11452
	16/18	8836	4538	12944
	16/16	8836	4538	14614

TABLE 3: Properties of Mechanical Fasteners
Screw and Power-Driven Fasteners to Supports

Mechanical Fasteners											
Fastener	**Screw**	**Hilti**		**Pneutek**						**Simpson Strong-Tie**	
Material	**SAE J78**	**Hardened ASTM B 633-19, SC 1, Type III**		**Hardened ASTM A108-18**						**Carbon Steel ASTM A510-20, min grade 1022**	
Fastener Type:	**Screw**	**Pin**		**Pin**						**Screw**	
Fastener:	**# 12 Self Drill**	**X-ENP-19**	**X-HSN-24**	**K66062**	**K66075**	**K64062**	**K64075**	**SDK63075**	**SDK61075**	**XM Screw**	**XL Screw**
Length (in)	variable	0.937	0.960	0.625	0.750	0.625	0.750	0.750	0.750	1.25	1.25
Diameter (in)	0.216	0.177	0.157	0.199	0.199	0.181	0.181	0.173	0.140	0.216	0.216
Washer Diameter (in)	0.313*	0.591	0.472	n/a	n/a	n/a	n/a	n/a	n/a	0.483	0.625
Head Diameter (in)	0.313*	n/a	n/a	0.50	0.50	0.50	0.50	0.50	0.50	0.313	0.313

*Minimum washer or head diameter and minimum washer thickness shall be in accordance with AISI S100-16w/S2-20 Section J4.4, except the washer thickness shall be 0.05-inch minimum.

1. Approved mechanical fasteners including self-drilling screws and power-actuated fasteners (nails) are described in Table 3 of this report.
2. Self-drilling screws shall be installed using a suitable powered screw gun. A properly driven screw shall seat the head against the deck to ensure tight contact between the deck and the supporting member as shown in Figure 8 of this report.
3. Pneutek, Inc. power-actuated fasteners shall be installed in accordance with the manufacturer's recommendations and installation instructions. A properly driven fastener shall seat the head against the deck to ensure tight contact between the deck and the supporting member as shown in Figure 7 of this report.
4. Hilti, Inc. power-actuated fasteners (nails) shall be installed in accordance with the manufacturer's recommendations and installation instructions. A properly driven fastener shall hold the deck tightly against the support member and have a nail head standoff within the range shown in Figure 9 of this report.

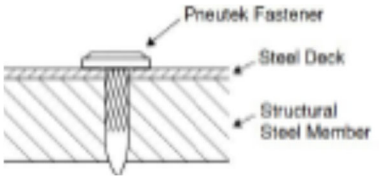


FIGURE 7: Pneutek Fastener

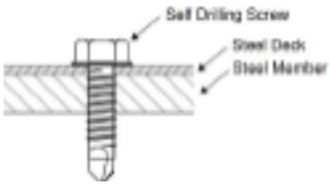


FIGURE 8: Self Drilling Screw

FIGURE 9: Drive Heights for Hilti Nails

5. Mechanical fastener nominal shear capacities are listed in Table 4 of this report based on steel deck gauge and supporting steel thickness. The fasteners shall be selected for the appropriate range of support steel thicknesses. For decks that require combinations of fasteners for varying support steel thicknesses, the least strength fastener shall be used for design.

TABLE 4: Mechanical Fastener Nominal Shear Strength

Mechanical Fasteners										
		Nominal Shear Strength, Q_f (lbs)								
		Screws	Hilti		Pneutek				Simpson Strong Tie	
Supporting Framing Steel Thickness (in)	Min:	0.0385	0.250	0.125	0.281	0.187	0.155	0.113	0.125	0.125
	Max:	unlimitted	unlimitted	0.375	unlimitted	0.312	0.250	0.155	0.188	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	2345	2508	2729
	16	2654	3149	2924	4076	3686	2812	2345	3110	3110
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	2345	2477	2707
	16	2654	3149	2924	4076	3686	2812	2345	3110	3110
4.5D-12, 6D-12, 7.5D-12	20	1436	1938	1800	2258	2216	1977	1833	1632	2050
	18	1912	2549	2367	3132	3009	2417	2345	2508	2729
	16	2392	3149	2924	4076	3686	2812	2345	3110	3110
	14	2654	3838	3020	4479	3705	3265	2345	3110	3110
BF-36, NF-36, 3WxHF-36	20/20	2654	3737	3020	4479	3705	3176	2345	3110	3110
	20/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	20/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/16	2654	3838	3020	4479	3705	3385	2345	3110	3110

*The self-drilling screw evaluation report shall be referenced for recommended thread pitch, drill point type, and length for the specified supporting member thickness.

TABLE 4: Mechanical Fastener Nominal Shear Strength (continued)

Mechanical Fasteners										
		Nominal Shear Strength, Q_f (lbs)								
		Screws	Hilti		Pneutek				Simpson Strong Tie	
Supporting Framing Steel Thickness (in)	Min: / Max:	0.0385 / unlimitted	0.250 / unlimitted	0.125 / 0.375	0.281 / unlimitted	0.187 / 0.312	0.155 / 0.250	0.113 / 0.155	0.125 / 0.188	0.125 / 0.247
2WHF-36	20/20	2654	3737	3020	4479	3705	3176	2345	3110	3110
	20/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	20/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
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	1920	2559	2376	3147	3021	2424	2345	2524	2741
4.5DF-24, 6DF-24, 7.5DF-24	20/20	2654	3737	3020	4479	3705	3176	2345	3110	3110
	20/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	20/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/16	2654	3838	3020	4479	3705	3385	2345	3110	3110

Calculated in Accordance with the SDI DDM and AISI S310

*The self-drilling screw evaluation report shall be referenced for recommended thread pitch, drill point type, and length for the specified supporting member thickness.

Deck Side Lap Connections

1. Roof deck side lap connections shall be in accordance with those types specified in the diaphragm shear and flexibility tables for the fastener combination selected.
2. The first connection from the supporting member shall not be more than one-half the specified spacing of the side lap connections, as shown in Figure 10 of this report. No side lap connection needs to be installed directly over the centerline of the support member.
3. Self-drilling screws shall be installed using a suitable powered screw gun. A properly driven screw shall seat the head against the deck to ensure tight contact between the deck sheets as shown in Figure 11 of this report.
4. Figure 12 of this report shows a correctly installed DeltaGrip™ connection in a standard standing seam interlock side lap.
5. The DeltaGrip™ side lap connection shall punch through the male leg and female hem of the standing seam interlock as shown in Figure 12 of this report.
6. The DeltaGrip™ connection shall be punched out the minimum distance as shown in Figure 12 of this report.

FIGURE 10: Side Lap Connection Spacing

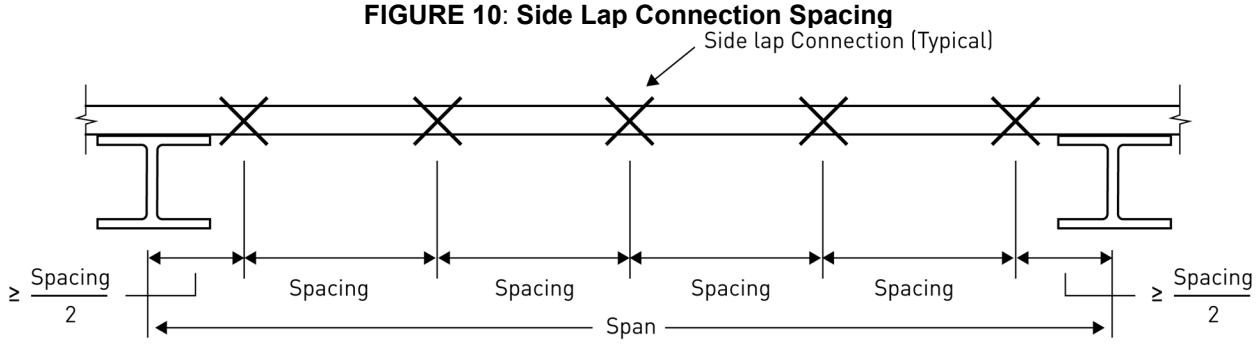


FIGURE 11: Side Lap Screw

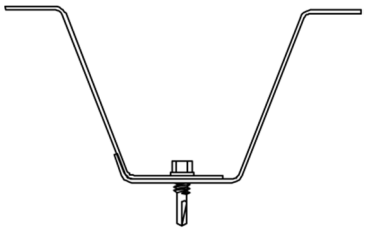
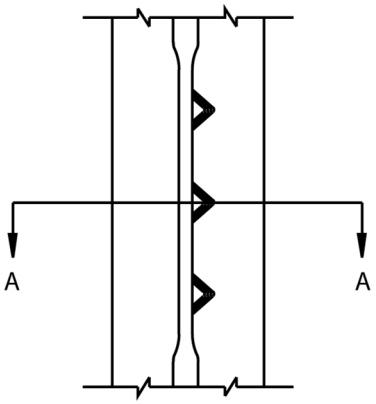
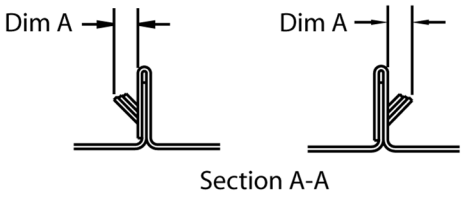
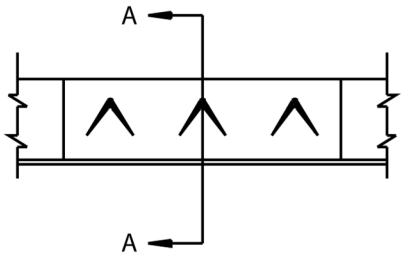


FIGURE 12: DeltaGrip™ Side Lap Detail



Schedule Minimum Offset	
Gage	Dim A (in)
22	0.197
20	0.197
18	0.161
16	0.161
For SI 1 inch = 25.4 mm	





Acustadek® Options

1. Acustadek® steel decks are manufactured from steel sheets with perforations in the web, the entire profile except for the side-laps, or in strips of the pan for the cellular deck. Acustadek® Figures 18 to 23 of this report provide diagrams of the perforations.
2. The section properties of Acustadek® are less than the non-perforated version of the deck profile. The section property tables in the Acustadek® section shall be referenced for design.
3. The end reactions for Acustadek® based on web crippling are the same as the non-perforated versions of the deck profile. The reactions table for the non-perforated versions of the deck profile Acustadek® shall be referenced for design.
4. Note 1 to the Diaphragm Tables of this report provides the shear and flexibility adjustment requirements.

FIGURE 13a: DGB-36 & B-36 Profile

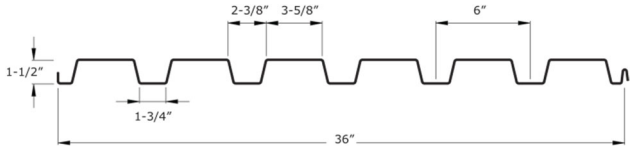


FIGURE 14a: DGBF-36 & BF-36 Profile

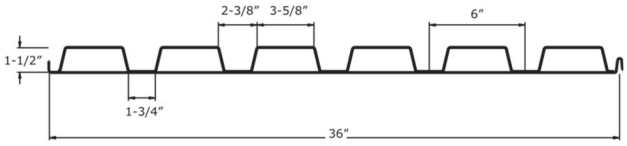
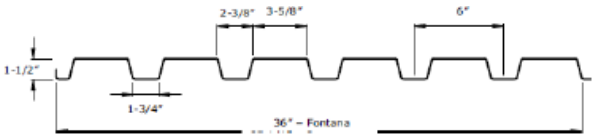
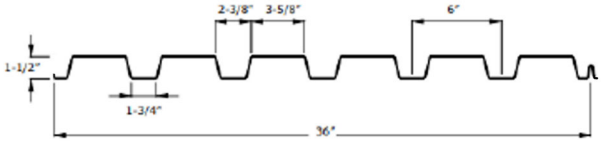


FIGURE 13b: BN-36 Profile



BN-36 NESTABLE PROFILE

FIGURE 14b: BS-36 Profile



BS-36 SCREWABLE SIDELAP PROFILE

FIGURE 15: B-36 Attachment Patterns

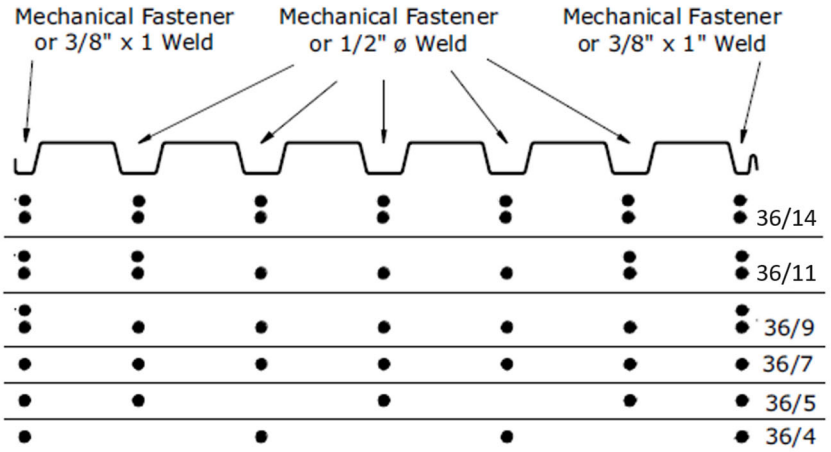


FIGURE 16: 36/7/4 Attachment Pattern

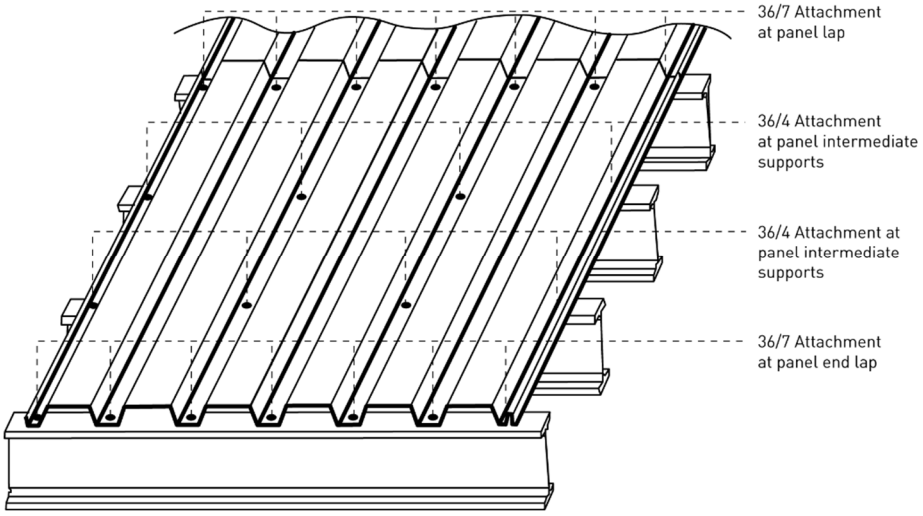


TABLE 5: DGB-36, B-36, BS-36, & BN-36 Properties

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	0.253	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 for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.179	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

TABLE 6: DGB-36, B-36, BS-36, BN-36, BF-36 & DGBF-36 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°			

	Flat width of top flange	Flat width of bottom flange	Coefficient for composite deck
B-36, BS-36, BN-36 & DGB-36 deck	wtf	wbf	K
	3.624	1.66	1

TABLE 7: DGB-36, BN-36, B-36, and BS-36 Out-of-Plane Capacities

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"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
22	Single Span	f_b/Ω	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	325	167	96	61	41	29	21	16	12
		L/240	488	250	145	91	61	43	31	23	18
		L/180	651	333	193	121	81	57	42	31	24
		L/120	976	500	289	182	122	86	62	47	36
	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	255	130	76	48	32	22	16	12	9
		L/240	382	196	113	71	48	34	24	18	14
		L/180	510	261	151	95	64	45	33	25	19
		L/120	765	391	227	143	96	67	49	37	28
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	391	200	116	73	49	34	25	19	14
		L/240	587	300	174	109	73	52	38	28	22
		L/180	782	401	232	146	98	69	50	38	29
		L/120	1173	601	348	219	147	103	75	56	43
	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	306	157	91	57	38	27	20	15	11
		L/240	460	235	136	86	57	40	29	22	17
		L/180	613	314	182	114	77	54	39	29	23
		L/120	919	471	272	172	115	81	59	44	34

TABLE 7: DGB-36, BN-36, B-36, and BS-36 Out-of-Plane Capacities (continued)

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"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
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	515	264	153	96	64	45	33	25	19
		L/240	773	396	229	144	97	68	49	37	29
		L/180	1031	528	305	192	129	90	66	50	38
		L/120	1546	792	458	289	193	136	99	74	57
	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	404	207	120	75	50	35	26	19	15
		L/240	606	310	179	113	76	53	39	29	22
		L/180	808	413	239	151	101	71	52	39	30
		L/120	1211	620	359	226	151	106	78	58	45
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	631	323	187	118	79	55	40	30	23
		L/240	946	484	280	176	118	83	61	45	35
		L/180	1261	646	374	235	158	111	81	61	47
		L/120	1892	969	560	353	236	166	121	91	70
	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	494	253	146	92	62	43	32	24	18
		L/240	741	379	220	138	93	65	47	36	27
		L/180	988	506	293	184	123	87	63	48	37
		L/120	1482	759	439	277	185	130	95	71	55

TABLE 8: DGBF-36 & BF-36 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	1.040	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
Gauge	Effective Section Properties at F_y					Effective Section Properties at Service Load			
	Comp-ression Area	for Bending Strength				for Deflection			
		Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e	S_e+	y_b	S_e-	y_b	I_e+	I_e-	I+	I-
	in^2/ft	in^3/ft	in	in^3/ft	in	in^4/ft	in^4/ft	in^4/ft	in^4/ft
20/20	0.643	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

TABLE 9: DGBF-36 & BF-36 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	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	679	201	85	43	25	16	11	7	5
		L/240	1019	302	127	65	38	24	16	11	8
		L/180	1358	402	170	87	50	32	21	15	11
		L/120	2037	604	255	130	75	48	32	22	16
	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	532	158	67	34	20	12	8	6	4
		L/240	798	236	100	51	30	19	12	9	6
		L/180	1064	315	133	68	39	25	17	12	9
		L/120	1596	473	200	102	59	37	25	18	13
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	761	226	95	49	28	18	12	8	6
		L/240	1142	338	143	73	42	27	18	13	9
		L/180	1523	451	190	97	56	36	24	17	12
		L/120	2284	677	286	146	85	53	36	25	18
	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	596	177	75	38	22	14	9	7	5
		L/240	895	265	112	57	33	21	14	10	7
		L/180	1193	353	149	76	44	28	19	13	10
		L/120	1789	530	224	115	66	42	28	20	14

TABLE 9: DGBF-36 & BF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/16	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	847	251	106	54	31	20	13	9	7
		L/240	1270	376	159	81	47	30	20	14	10
		L/180	1694	502	212	108	63	39	26	19	14
		L/120	2540	753	318	163	94	59	40	28	20
	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	663	197	83	42	25	15	10	7	5
		L/240	995	295	124	64	37	23	16	11	8
		L/180	1327	393	166	85	49	31	21	15	11
		L/120	1990	590	249	127	74	46	31	22	16
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	843	250	105	54	31	20	13	9	7
		L/240	1264	375	158	81	47	29	20	14	10
		L/180	1685	499	211	108	62	39	26	18	13
		L/120	2528	749	316	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	660	196	83	42	24	15	10	7	5
		L/240	990	293	124	63	37	23	15	11	8
		L/180	1320	391	165	84	49	31	21	14	11
		L/120	1980	587	248	127	73	46	31	22	16

TABLE 9: DGBF-36 & BF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/18	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	936	277	117	60	35	22	15	10	7
		L/240	1405	416	176	90	52	33	22	15	11
		L/180	1873	555	234	120	69	44	29	21	15
		L/120	2809	832	351	180	104	66	44	31	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	734	217	92	47	27	17	11	8	6
		L/240	1100	326	138	70	41	26	17	12	9
		L/180	1467	435	183	94	54	34	23	16	12
		L/120	2201	652	275	141	82	51	34	24	18
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	1039	308	130	66	38	24	16	11	8
		L/240	1558	462	195	100	58	36	24	17	12
		L/180	2077	616	260	133	77	48	32	23	17
		L/120	3116	923	390	199	115	73	49	34	25
	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	814	241	102	52	30	19	13	9	7
		L/240	1221	362	153	78	45	28	19	13	10
		L/180	1627	482	203	104	60	38	25	18	13
		L/120	2441	723	305	156	90	57	38	27	20

TABLE 9: DGBF-36 & BF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	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	1001	297	125	64	37	23	16	11	8
		L/240	1502	445	188	96	56	35	23	16	12
		L/180	2002	593	250	128	74	47	31	22	16
		L/120	3004	890	375	192	111	70	47	33	24
	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	784	232	98	50	29	18	12	9	6
		L/240	1176	349	147	75	44	27	18	13	9
		L/180	1569	465	196	100	58	37	25	17	13
		L/120	2353	697	294	151	87	55	37	26	19
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	1104	327	138	71	41	26	17	12	9
		L/240	1655	490	207	106	61	39	26	18	13
		L/180	2207	654	276	141	82	51	34	24	18
		L/120	3311	981	414	212	123	77	52	36	26
	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	865	256	108	55	32	20	14	9	7
		L/240	1297	384	162	83	48	30	20	14	10
		L/180	1729	512	216	111	64	40	27	19	14
		L/120	2594	768	324	166	96	60	41	28	21

TABLE 9: DGBF-36 & BF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/16	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	1219	361	152	78	45	28	19	13	10
		L/240	1828	542	229	117	68	43	29	20	15
		L/180	2438	722	305	156	90	57	38	27	20
		L/120	3657	1083	457	234	135	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	955	283	119	61	35	22	15	10	8
		L/240	1432	424	179	92	53	33	22	16	11
		L/180	1910	566	239	122	71	45	30	21	15
		L/120	2864	849	358	183	106	67	45	31	23

TABLE 10a: DGB-36 and DGBF-36 Shear and Flexibility
DGB-36 and DGBF-36 with DeltaGrip and Arc Spot Welds

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2134 3414	1763 2821	1482 2371
			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 q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2134 3414	1763 2821	1482 2371
			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 q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2134 3414	1763 2821	1482 2371
			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 q_f	2206 3641	2137 3526	2087 3444	2050 3382	2021 3335	1998 3297	1980 3266	1763 2821	1482 2371
			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 q_f	1968 3641	1935 3193	1709 2821	1722 2842	1732 2857	1588 2620	1610 2657	1628 2686	1482 2371
			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 q_f	1664 2746	1691 2791	1473 2430	1523 2513	1369 2259	1422 2346	1304 2151	1355 2235	1259 2078
			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 q_f	1900 3136	1900 3136	1900 3136	1900 3136	1900 3136	1900 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1900 3136	1900 3136	1900 3136	1900 3136	1900 3136	1900 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1863 3074	1864 3075	1788 2950	1800 2970	1746 2881	1761 2906	1550 2481	1281 2050	1077 1723
			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 q_f	1597 2635	1531 2527	1485 2450	1450 2392	1423 2347	1401 2312	1384 2283	1281 2050	1077 1723
			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 q_f	1419 2635	1380 2277	1206 1990	1207 1992	1208 1993	1100 1815	1112 1834	1121 1850	1044 1723
			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 q_f	1203 1985	1205 1988	1041 1717	1066 1760	953 1573	984 1624	899 1483	930 1534	861 1421
			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 q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1025 1640	847 1355	712 1139
			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 q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1025 1640	847 1355	712 1139
			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 q_f	1082 1785	1081 1784	1035 1708	1042 1719	1009 1665	1018 1679	993 1638	847 1355	712 1139
			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 q_f	925 1527	885 1460	857 1413	835 1378	819 1351	806 1329	795 1312	786 1297	712 1139
			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 q_f	821 1527	797 1315	695 1147	695 1146	694 1145	631 1042	638 1052	643 1060	598 987
			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 q_f	697 1151	696 1149	600 990	614 1013	548 904	565 932	515 850	533 879	493 814
			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 q_f	805 1329	805 1329	805 1329	805 1329	805 1329	805 1329	779 1247	644 1031	541 866
			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 q_f	805 1329	805 1329	805 1329	805 1329	805 1329	803 1324	779 1247	644 1031	541 866
			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 q_f	767 1266	766 1264	732 1209	737 1216	713 1177	719 1186	701 1157	644 1031	541 866
			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 q_f	655 1081	626 1032	605 997	589 972	577 952	567 936	559 923	553 912	541 866
			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 q_f	582 1081	563 929	490 809	489 807	489 806	444 733	448 739	451 744	420 692
			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 q_f	494 815	492 812	424 699	433 714	386 637	397 655	362 598	374 617	346 571
			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

TABLE 10b: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and Arc Spot Welds

Support Fastener 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	4518 7454	4471 7378	4439 7325	4354 6967	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3890 6418	3808 6283	3751 6189	3709 6120	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3413 5631	3417 5638	3229 5329	3260 5379	3132 5167	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2786 4596	2645 4365	2548 4205	2477 4087	2423 3998	2380 3927	2134 3414	1763 2821	1482 2371
			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 q_f	2408 4596	2333 3850	1997 3295	2000 3300	2002 3304	1804 2976	1826 3013	1763 2821	1482 2371
			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 q_f	1986 3277	1993 3288	1693 2793	1741 2872	1540 2542	1596 2633	1447 2388	1501 2477	1384 2284
			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 q_f	3306 5455	3256 5373	3222 5316	3164 5062	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2785 4596	2706 4465	2651 4374	2610 4307	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2420 3994	2405 3969	2253 3718	2267 3740	2165 3572	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1969 3249	1849 3051	1766 2914	1706 2814	1660 2738	1623 2678	1550 2481	1281 2050	1077 1723
			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 q_f	1710 3249	1635 2697	1391 2296	1381 2279	1373 2266	1233 2035	1242 2049	1249 2050	1077 1723
			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 q_f	1427 2355	1406 2319	1190 1963	1208 1994	1063 1754	1094 1805	981 1619	1016 1676	931 1536
			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 q_f	1918 3164	1887 3113	1865 3077	1849 3050	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1609 2655	1560 2574	1526 2519	1502 2478	1482 2446	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1396 2303	1385 2285	1295 2136	1301 2147	1241 2048	1252 2024	1025 1640	847 1355	712 1139
			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 q_f	1136 1874	1064 1756	1014 1674	978 1614	950 1568	929 1532	911 1503	847 1355	712 1139
			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 q_f	987 1874	941 1553	800 1321	793 1308	787 1299	706 1165	710 1172	714 1178	658 1086
			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 q_f	827 1364	811 1338	686 1132	695 1146	606 1000	622 1027	560 924	580 957	531 877
			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 q_f	1359 2242	1335 2204	1319 2176	1307 2157	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1136 1875	1101 1816	1076 1775	1057 1744	1043 1721	962 1539	779 1247	644 1031	541 866
			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 q_f	985 1625	976 1610	911 1503	915 1509	872 1438	879 1450	779 1247	644 1031	541 866
			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 q_f	802 1323	750 1237	713 1177	687 1134	667 1101	651 1075	638 1054	628 1031	541 866
			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 q_f	698 1323	664 1095	564 930	558 920	553 912	496 818	498 822	500 825	461 761
			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 q_f	586 966	573 945	482 795	487 804	424 699	436 720	393 648	406 670	372 614
			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

TABLE 10c: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and #12 Self Drilling 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 →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			F	3.3+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	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			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	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			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	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			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	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			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	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			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	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268
			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	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268
			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	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268
			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	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268
			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	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268
			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	785 1264	788 1268	756 1216	787 1268	739 1190	768 1236	729 1174	755 1215	722 1163
			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 q_f	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953
			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	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953
			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	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953
			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	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953
			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 q_f	592 953	592 953	568 914	577 929	584 940	551 888	560 902	567 913	543 874
			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 q_f	531 855	554 892	501 807	524 844	484 780	505 814	474 763	493 793	466 751
			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 q_f	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793
			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	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793
			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	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793
			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 q_f	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793
			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 q_f	480 793	480 773	438 705	445 716	450 724	421 677	428 689	433 698	412 663
			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 q_f	411 662	428 688	382 615	399 643	366 589	382 615	355 572	370 596	348 561
			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

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

TABLE 10d: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and #12 Self Drilling 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 →	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

TABLE 10e: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and #12 Self Drilling 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 →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	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	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	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	1971 3174	1971 3174	1873 3015	1899 3057	1918 3088	1786 2875	1814 2921	1763 2821	1482 2371
			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 q_f	1776 2859	1835 2954	1628 2621	1698 2734	1547 2491	1614 2599	1496 2408	1558 2508	1461 2352
			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	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1550 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	1576 2537	1576 2537	1576 2537	1576 2537	1576 2537	1565 2520	1550 2481	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	1526 2537	1509 2429	1344 2163	1357 2185	1367 2200	1260 2028	1279 2059	1281 2050	1077 1723
			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	1295 2086	1325 2133	1161 1869	1204 1939	1087 1751	1132 1822	1041 1677	1083 1743	1010 1626
			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 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	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	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	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	1183 1905	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	1147 1847	1102 1774	1070 1722	1046 1684	1027 1654	1012 1630	1000 1610	847 1355	712 1139
			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 q_f	1021 1847	995 1603	873 1405	874 1407	875 1409	798 1285	807 1299	814 1311	712 1139
			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 q_f	868 1397	871 1402	754 1214	773 1245	692 1114	715 1151	653 1052	676 1089	627 1010
			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 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	986 1587	986 1587	986 1587	986 1587	986 1587	962 1539	779 1247	644 1031	541 866
			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 q_f	986 1587	986 1587	986 1587	986 1587	959 1544	962 1539	779 1247	644 1031	541 866
			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 q_f	888 1429	845 1360	814 1311	791 1274	773 1245	759 1223	748 1204	644 1031	541 866
			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 q_f	790 1429	761 1226	662 1066	658 1060	656 1055	595 958	599 965	603 970	541 866
			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 q_f	674 1086	667 1074	574 924	583 939	520 837	533 859	486 782	500 806	463 745
			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

TABLE 10f: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and X-EDN19 / HSN-24 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	3.2+-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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	3.6+-0.2R	3.7+-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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1253 2018	1271 2047	1204 1939	1256 2022	1177 1895	1223 1970	1160 1867	1201 1934	1148 1848
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			F	5.5+-0.6R	5.6+-0.5R	5.7+-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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	1029 1657	1029 1657	995 1602	1011 1628	1023 1647	967 1557	982 1582	994 1601	952 1533
			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 q_f	931 1499	971 1563	879 1415	919 1480	850 1369	887 1429	832 1340	866 1394	820 1320
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	712 1139
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	712 1139
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	712 1139
			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 q_f	783 1260	783 1260	783 1260	780 1256	774 1247	770 1239	766 1233	763 1228	712 1139
			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 q_f	737 1260	735 1183	665 1071	675 1087	682 1098	635 1023	646 1040	654 1054	620 998
			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 q_f	628 1011	651 1048	578 930	603 972	550 886	575 925	533 858	555 894	521 838
			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 q_f	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	644 1031	541 866
			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 q_f	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	644 1031	541 866
			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 q_f	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	644 1031	541 866
			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 q_f	640 1030	624 1005	613 987	605 974	599 964	594 956	590 949	586 944	541 866
			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 q_f	574 1030	570 917	509 819	515 829	519 836	480 772	487 784	493 794	464 747
			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 q_f	487 783	500 805	439 707	457 736	413 666	431 694	397 639	414 666	386 621
			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

TABLE 10g: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and X-EDN19 / HSN-24 Pins

Support Fastener 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	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2134 3414	1763 2821	1482 2371
			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 q_f	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2134 3414	1763 2821	1482 2371
			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 q_f	2520 4057	2542 4093	2492 4012	2515 4049	2477 3988	2497 4021	2134 3414	1763 2821	1482 2371
			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 q_f	2225 3583	2193 3531	2170 3494	2154 3467	2141 3447	2131 3430	2122 3414	1763 2821	1482 2371
			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 q_f	1981 3583	1994 3210	1790 2881	1830 2947	1860 2995	1726 2779	1763 2838	1763 2821	1482 2371
			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 q_f	1633 2629	1729 2784	1522 2451	1614 2598	1464 2357	1545 2487	1427 2298	1499 2413	1403 2258
			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 q_f	2058 3314	2058 3314	2058 3314	2058 3314	2058 3314	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2058 3314	2053 3305	2044 3291	2038 3282	2033 3274	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1908 3072	1928 3105	1874 3017	1895 3050	1855 2987	1874 3018	1550 2481	1281 2050	1077 1723
			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 q_f	1639 2639	1604 2582	1579 2542	1561 2513	1547 2491	1536 2473	1527 2458	1281 2050	1077 1723
			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 q_f	1437 2639	1438 2315	1270 2044	1296 2087	1315 2118	1208 1945	1234 1986	1254 2020	1077 1723
			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 q_f	1172 1887	1232 1983	1070 1723	1131 1821	1016 1636	1072 1725	983 1583	1032 1662	961 1547
			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 q_f	1565 2520	1565 2520	1565 2520	1565 2520	1565 2520	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1446 2328	1430 2303	1419 2285	1411 2272	1405 2262	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1303 2098	1315 2117	1263 2033	1278 2057	1241 1998	1256 2022	1025 1640	847 1355	712 1139
			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 q_f	1087 1750	1051 1692	1026 1652	1008 1622	994 1600	983 1582	974 1567	847 1355	712 1139
			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 q_f	941 1750	931 1499	808 1302	820 1321	829 1335	753 1213	768 1236	779 1254	712 1139
			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 q_f	766 1234	792 1275	680 1094	712 1146	634 1021	665 1071	606 976	634 1021	587 945
			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 q_f	1290 2076	1281 2062	1274 2052	1270 2044	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1135 1827	1117 1799	1105 1779	1096 1765	1089 1754	962 1539	779 1247	644 1031	541 866
			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 q_f	1008 1622	1014 1632	966 1555	977 1572	943 1519	955 1537	779 1247	644 1031	541 866
			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 q_f	829 1335	795 1280	771 1242	754 1213	740 1192	730 1175	721 1161	644 1031	541 866
			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 q_f	716 1335	702 1129	604 973	610 981	613 988	555 893	564 907	571 919	529 852
			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 q_f	586 943	597 961	510 820	529 852	470 756	490 788	445 717	464 747	429 690
			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

TABLE 10h: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and X-EDN19 / HSN-24 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
		Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2134 3414	1763 2821	1482 2371
			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 q_f	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2134 3414	1763 2821	1482 2371
			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 q_f	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2542 4093	2134 3414	1763 2821	1482 2371
			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 q_f	2542 4093	2542 4093	2542 4093	2542 4093	2514 4047	2489 4007	2134 3414	1763 2821	1482 2371
			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 q_f	2433 4093	2402 3867	2135 3437	2155 3469	2169 3492	1997 3216	2026 3262	1763 2821	1482 2371
			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 q_f	2064 3324	2107 3393	1844 2969	1911 3077	1724 2775	1793 2886	1648 2654	1714 2759	1482 2371
			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 q_f	2058 3314	2058 3314	2058 3314	2058 3314	2058 3314	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2058 3314	2058 3314	2058 3314	2058 3314	2058 3314	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2058 3314	2058 3314	2058 3314	2058 3314	2058 3314	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2010 3236	1933 3112	1878 3023	1837 2957	1805 2906	1780 2865	1550 2481	1281 2050	1077 1723
			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 q_f	1790 3236	1747 2812	1532 2467	1536 2473	1538 2477	1405 2261	1420 2287	1281 2050	1077 1723
			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 q_f	1521 2448	1528 2460	1324 2131	1359 2188	1217 1959	1258 2025	1150 1852	1191 1917	1077 1723
			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 q_f	1565 2520	1565 2520	1565 2520	1565 2520	1565 2520	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1565 2520	1565 2520	1565 2520	1565 2520	1565 2520	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1565 2520	1565 2520	1502 2417	1507 2426	1451 2336	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1355 2182	1282 2065	1231 1982	1192 1919	1162 1872	1139 1833	1025 1640	847 1355	712 1139
			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 q_f	1206 2182	1156 1861	1001 1612	991 1596	984 1584	891 1435	896 1442	847 1355	712 1139
			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 q_f	1034 1665	1014 1633	870 1401	879 1416	782 1260	800 1288	728 1172	747 1203	691 1112
			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 q_f	1312 2112	1312 2112	1312 2112	1312 2112	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1312 2112	1312 2112	1312 2112	1294 2083	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1240 1996	1222 1968	1150 1851	1149 1850	1100 1771	962 1539	779 1247	644 1031	541 866
			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 q_f	1052 1693	984 1584	936 1507	901 1450	873 1406	852 1371	779 1247	644 1031	541 866
			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 q_f	939 1693	888 1430	764 1231	750 1208	740 1191	668 1075	667 1074	644 1031	541 866
			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 q_f	812 1308	784 1262	670 1078	669 1077	591 951	601 968	542 873	557 896	510 822
			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

TABLE 10i: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and X-ENP19 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			F	3.1+-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 q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			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 q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			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 q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204
			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 q_f	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1369 2204	1361 2191
			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 q_f	1315 2117	1369 2204	1257 2024	1313 2114	1225 1973	1275 2053	1205 1940	1250 2012	1191 1918
			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 q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1077 1723
			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 q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1077 1723
			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 q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1077 1723
			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 q_f	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1108 1784	1077 1723
			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 q_f	1108 1784	1108 1784	1040 1674	1057 1701	1069 1721	1007 1621	1023 1648	1036 1668	990 1593
			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 q_f	974 1568	1015 1634	914 1472	956 1540	881 1419	920 1481	860 1385	896 1442	846 1362
			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 q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1355	712 1139
			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 q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1355	712 1139
			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 q_f	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1357	843 1355	712 1139
			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 q_f	843 1357	837 1348	825 1329	816 1314	809 1303	803 1294	799 1286	795 1280	712 1139
			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 q_f	772 1357	768 1237	691 1113	701 1129	708 1140	657 1058	668 1076	677 1090	639 1029
			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 q_f	656 1056	678 1091	599 964	625 1006	568 914	593 954	548 883	571 920	535 861
			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 q_f	706 1137	706 1137	706 1137	706 1137	706 1137	706 1137	706 1137	644 1031	541 866
			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 q_f	706 1137	706 1137	706 1137	706 1137	706 1137	706 1137	706 1137	644 1031	541 866
			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 q_f	706 1137	706 1137	706 1137	706 1137	706 1137	706 1137	706 1137	644 1031	541 866
			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 q_f	671 1080	653 1051	640 1030	630 1015	623 1003	617 993	612 985	608 979	541 866
			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 q_f	601 1080	594 956	528 850	533 859	537 865	495 797	502 809	508 819	477 768
			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 q_f	508 818	520 837	455 733	473 761	426 686	444 715	408 657	425 684	396 637
			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

TABLE 10j: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and X-ENP19 Pins

Support Fastener 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	2738 4408	2738 4408	2738 4408	2738 4408	2738 4408	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2738 4408	2738 4408	2738 4408	2738 4408	2738 4408	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2662 4286	2689 4329	2628 4231	2654 4272	2609 4201	2632 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2331 3752	2292 3690	2265 3646	2245 3614	2230 3590	2218 3570	2134 3414	1763 2821	1482 2371
			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 q_f	2063 3752	2074 3339	1851 2981	1893 3048	1923 3096	1779 2864	1817 2925	1763 2821	1482 2371
			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 q_f	1694 2727	1791 2883	1570 2527	1663 2677	1503 2421	1587 2554	1463 2355	1536 2473	1435 2310
			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 q_f	2216 3568	2216 3568	2216 3568	2216 3568	2216 3568	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2184 3516	2169 3492	2159 3475	2151 3463	2145 3454	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2006 3229	2027 3263	1964 3162	1987 3198	1942 3126	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1709 2752	1668 2685	1639 2639	1618 2605	1601 2578	1589 2558	1550 2481	1281 2050	1077 1723
			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 q_f	1492 2752	1490 2398	1309 2108	1335 2150	1354 2180	1240 1996	1266 2038	1281 2050	1077 1723
			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 q_f	1215 1957	1273 2049	1102 1774	1163 1872	1042 1678	1098 1768	1005 1619	1055 1699	980 1578
			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 q_f	1685 2714	1685 2714	1685 2714	1683 2710	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1520 2447	1501 2416	1487 2395	1478 2379	1470 2367	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1361 2192	1372 2209	1314 2115	1329 2140	1288 2074	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1129 1817	1088 1751	1059 1706	1039 1672	1023 1646	1010 1626	1000 1610	847 1355	712 1139
			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 q_f	976 1817	962 1548	833 1340	843 1357	850 1369	771 1242	785 1264	796 1282	712 1139
			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 q_f	796 1281	818 1317	700 1128	731 1177	650 1047	681 1096	620 998	648 1043	599 964
			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 q_f	1362 2192	1351 2175	1343 2162	1337 2153	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1188 1912	1167 1879	1152 1855	1142 1838	1133 1825	962 1539	779 1247	644 1031	541 866
			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 q_f	1049 1689	1054 1697	1001 1611	1011 1628	975 1570	962 1539	779 1247	644 1031	541 866
			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 q_f	860 1385	822 1323	795 1280	775 1248	760 1224	748 1205	739 1189	644 1031	541 866
			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 q_f	743 1385	725 1167	622 1002	626 1008	629 1013	568 914	576 927	583 938	540 866
			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 q_f	609 981	617 994	526 847	544 876	482 776	502 807	455 733	474 763	437 704
			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

TABLE 10k: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and X-ENP19 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	2738 4408	2738 4408	2738 4408	2738 4408	2738 4408	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2738 4408	2738 4408	2738 4408	2738 4408	2738 4408	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2738 4408	2738 4408	2738 4408	2738 4408	2738 4408	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2738 4408	2738 4408	2694 4338	2647 4262	2611 4204	2582 4157	2134 3414	1763 2821	1482 2371
			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 q_f	2544 4408	2503 4029	2215 3566	2231 3592	2243 3611	2059 3316	2088 3361	1763 2821	1482 2371
			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 q_f	2158 3474	2192 3530	1912 3078	1976 3182	1778 2863	1846 2972	1694 2728	1760 2821	1482 2371
			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 q_f	2216 3568	2216 3568	2216 3568	2216 3568	2216 3568	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2216 3568	2216 3568	2216 3568	2216 3568	2216 3568	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2216 3568	2216 3568	2216 3568	2216 3568	2216 3568	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2102 3384	2014 3242	1951 3141	1904 3065	1868 3007	1839 2960	1550 2481	1281 2050	1077 1723
			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 q_f	1871 3384	1817 2926	1589 2558	1588 2557	1588 2556	1446 2328	1460 2351	1281 2050	1077 1723
			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 q_f	1591 2562	1590 2560	1374 2212	1405 2262	1256 2022	1295 2085	1183 1904	1222 1968	1077 1723
			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 q_f	1685 2714	1685 2714	1685 2714	1685 2714	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1685 2714	1685 2714	1685 2714	1685 2714	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1667 2684	1651 2658	1562 2515	1565 2520	1504 2421	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1416 2280	1334 2148	1276 2055	1233 1985	1200 1931	1173 1889	1025 1640	847 1355	712 1139
			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 q_f	1261 2280	1203 1937	1039 1673	1026 1651	1015 1635	918 1478	921 1482	847 1355	712 1139
			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 q_f	1085 1747	1058 1703	906 1458	911 1467	810 1304	825 1328	750 1208	768 1237	709 1139
			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 q_f	1412 2274	1412 2274	1412 2274	1412 2274	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1412 2274	1404 2260	1370 2206	1345 2166	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1296 2087	1273 2050	1194 1922	1191 1917	1137 1831	962 1539	779 1247	644 1031	541 866
			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 q_f	1099 1770	1024 1649	971 1563	931 1499	901 1450	877 1412	779 1247	644 1031	541 866
			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 q_f	983 1770	925 1490	795 1279	777 1251	764 1230	689 1109	687 1105	644 1031	541 866
			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 q_f	854 1375	819 1318	698 1124	694 1118	609 980	618 996	557 896	570 918	523 841
			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

TABLE 10I: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and K66 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1763 2821	1482 2371
			F	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R
		6"	q_a q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1763 2821	1482 2371
			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 q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1763 2821	1482 2371
			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 q_f	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1772 2853	1763 2821	1482 2371
			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 q_f	1772 2853	1772 2853	1648 2653	1675 2696	1694 2727	1594 2567	1620 2608	1641 2641	1482 2371
			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 q_f	1544 2486	1609 2590	1447 2329	1514 2437	1393 2243	1455 2342	1359 2189	1415 2278	1336 2151
			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 q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1281 2050	1077 1723
			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 q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1281 2050	1077 1723
			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 q_f	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1362 2192	1281 2050	1077 1723
			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 q_f	1362 2192	1362 2192	1362 2192	1362 2192	1357 2185	1349 2172	1343 2162	1281 2050	1077 1723
			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 q_f	1291 2192	1288 2074	1167 1879	1185 1907	1198 1928	1117 1798	1135 1828	1150 1852	1077 1723
			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 q_f	1101 1773	1142 1838	1015 1634	1060 1707	967 1557	1010 1627	937 1509	977 1573	917 1476
			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 q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	847 1355	712 1139
			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 q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	847 1355	712 1139
			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 q_f	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	982 1581	847 1355	712 1139
			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 q_f	945 1521	921 1483	904 1455	891 1434	881 1418	873 1405	866 1395	847 1355	712 1139
			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 q_f	847 1521	839 1350	747 1203	756 1217	762 1226	703 1131	713 1149	722 1163	679 1093
			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 q_f	717 1155	735 1184	645 1038	670 1079	605 975	631 1015	581 935	604 973	564 907
			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 q_f	801 1289	801 1289	801 1289	801 1289	801 1289	801 1289	779 1247	644 1031	541 866
			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 q_f	801 1289	801 1289	801 1289	801 1289	801 1289	801 1289	779 1247	644 1031	541 866
			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 q_f	801 1289	801 1289	801 1289	801 1289	797 1284	801 1289	779 1247	644 1031	541 866
			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 q_f	726 1168	702 1131	686 1104	673 1084	664 1068	656 1056	650 1046	644 1031	541 866
			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 q_f	647 1168	636 1024	561 904	565 910	568 915	521 838	528 850	534 859	499 804
			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 q_f	547 881	556 895	483 778	500 805	449 723	466 750	427 688	444 715	413 664
			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

TABLE 10m: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and K66 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/7/4	16 ga	4"	q_a q_f	3544 5706	3544 5706	3544 5706	3544 5706	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3473 5592	3448 5552	3431 5524	3418 5503	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3184 5126	3217 5179	3115 5015	3151 5073	3078 4956	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2707 4358	2639 4249	2592 4174	2558 4118	2531 4075	2510 4041	2134 3414	1763 2821	1482 2371
			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 q_f	2361 4358	2355 3791	2068 3329	2107 3393	2137 3440	1955 3147	1995 3213	1763 2821	1482 2371
			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 q_f	1922 3095	2011 3237	1740 2801	1834 2953	1643 2645	1730 2786	1584 2550	1662 2676	1482 2371
			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 q_f	2723 4384	2723 4384	2723 4384	2723 4384	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2531 4075	2505 4033	2486 4003	2473 3981	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2285 3678	2305 3712	2216 3568	2242 3610	2179 3509	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1908 3072	1847 2973	1804 2905	1773 2854	1748 2815	1729 2784	1550 2481	1281 2050	1077 1723
			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 q_f	1653 3072	1637 2635	1423 2291	1444 2325	1460 2350	1327 2137	1353 2178	1281 2050	1077 1723
			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 q_f	1346 2167	1392 2242	1196 1925	1253 2018	1117 1799	1172 1887	1069 1721	1119 1801	1036 1668
			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 q_f	1912 3078	1897 3055	1887 3039	1880 3027	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1675 2696	1647 2652	1628 2621	1614 2598	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1483 2388	1491 2400	1418 2283	1434 2308	1383 2227	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1218 1961	1165 1876	1129 1818	1102 1775	1082 1742	1066 1716	1025 1640	847 1355	712 1139
			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 q_f	1052 1961	1028 1655	884 1424	891 1434	896 1442	809 1303	822 1323	832 1339	712 1139
			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 q_f	862 1387	875 1409	746 1202	774 1245	686 1105	715 1150	649 1045	676 1089	624 1005
			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 q_f	1487 2395	1472 2369	1461 2352	1453 2339	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1279 2059	1251 2014	1232 1984	1218 1961	1207 1943	962 1539	779 1247	644 1031	541 866
			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 q_f	1121 1805	1122 1806	1060 1706	1069 1722	1027 1653	962 1539	779 1247	644 1031	541 866
			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 q_f	915 1473	868 1397	836 1345	812 1307	794 1278	780 1255	768 1237	644 1031	541 866
			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 q_f	791 1473	765 1232	655 1054	656 1055	656 1056	591 951	598 963	604 972	541 866
			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 q_f	653 1051	654 1053	555 894	571 919	505 813	523 842	474 763	492 792	453 730
			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 K66 PAF Side Seam Attachment: DeltaGrip

TABLE 10n: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and K66 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	3544 5706	3544 5706	3544 5706	3544 5706	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3544 5706	3544 5706	3544 5706	3544 5706	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3544 5706	3544 5706	3544 5706	3544 5706	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3333 5365	3189 5134	3087 4970	3010 4847	2951 4752	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2965 5365	2877 4632	2513 4046	2510 4041	2507 4037	2283 3675	2134 3414	1763 2821	1482 2371
			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 q_f	2524 4063	2517 4053	2173 3499	2221 3575	1984 3194	2044 3291	1866 3004	1763 2821	1482 2371
			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 q_f	2723 4384	2723 4384	2723 4384	2723 4384	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2723 4384	2723 4384	2723 4384	2723 4384	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2723 4384	2723 4384	2635 4243	2645 4258	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2376 3826	2251 3624	2162 3481	2096 3374	2044 3292	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2114 3826	2029 3266	1758 2830	1743 2806	1731 2787	1569 2525	1550 2481	1281 2050	1077 1723
			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 q_f	1811 2916	1779 2865	1528 2460	1545 2488	1375 2214	1407 2265	1281 2062	1281 2050	1077 1723
			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 q_f	1964 3161	1964 3161	1964 3161	1964 3161	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1964 3161	1964 3161	1937 3118	1903 3064	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1828 2943	1799 2896	1690 2720	1687 2716	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1551 2496	1448 2331	1375 2213	1321 2126	1279 2059	1246 2006	1025 1640	847 1355	712 1139
			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 q_f	1385 2496	1307 2105	1124 1809	1101 1773	1084 1745	978 1574	976 1571	847 1355	712 1139
			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 q_f	1201 1934	1155 1860	986 1588	982 1582	869 1399	880 1417	792 1275	812 1308	712 1139
			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 q_f	1601 2578	1601 2578	1601 2578	1590 2545	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1567 2523	1508 2427	1465 2359	1433 2307	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1396 2248	1363 2194	1270 2045	1262 2032	1201 1933	962 1539	779 1247	644 1031	541 866
			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 q_f	1186 1909	1096 1764	1033 1663	986 1587	950 1529	921 1483	779 1247	644 1031	541 866
			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 q_f	1064 1909	993 1599	850 1369	826 1330	808 1301	727 1170	722 1162	644 1031	541 866
			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 q_f	932 1500	883 1422	752 1210	740 1192	643 1035	649 1044	584 940	595 958	541 866
			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 K66 PAF Side Seam Attachment: DeltaGrip

TABLE 10o: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and K64 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1482 2371
			F	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R
		6"	q_a q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1482 2371
			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 q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1482 2371
			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 q_f	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1595 2568	1482 2371
			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 q_f	1595 2568	1595 2568	1548 2493	1573 2533	1591 2562	1506 2424	1529 2462	1548 2492	1482 2371
			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 q_f	1448 2331	1511 2432	1369 2204	1431 2305	1325 2133	1382 2225	1297 2088	1349 2171	1278 2058
			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 q_f	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1281 2050	1077 1723
			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 q_f	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1281 2050	1077 1723
			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 q_f	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1281 2050	1077 1723
			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 q_f	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1302 2096	1281 2050	1077 1723
			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 q_f	1254 2096	1253 2018	1139 1834	1157 1862	1170 1883	1093 1760	1111 1789	1126 1812	1068 1720
			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 q_f	1073 1727	1114 1793	992 1598	1038 1670	948 1527	991 1595	921 1482	959 1545	902 1452
			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 q_f	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	847 1355	712 1139
			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 q_f	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	847 1355	712 1139
			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 q_f	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	959 1544	847 1355	712 1139
			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 q_f	931 1498	908 1462	891 1435	879 1416	870 1400	862 1388	856 1378	847 1355	712 1139
			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 q_f	835 1498	828 1333	739 1189	747 1203	754 1213	696 1120	707 1138	715 1152	673 1083
			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 q_f	707 1139	726 1169	638 1026	663 1068	599 965	625 1006	576 927	599 965	559 900
			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 q_f	751 1208	751 1208	751 1208	751 1208	751 1208	751 1208	751 1208	644 1031	541 866
			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 q_f	751 1208	751 1208	751 1208	751 1208	751 1208	751 1208	751 1208	644 1031	541 866
			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 q_f	751 1208	751 1208	751 1208	751 1208	751 1208	751 1208	751 1208	644 1031	541 866
			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 q_f	697 1123	677 1090	662 1066	651 1048	643 1035	636 1024	630 1015	626 1008	541 866
			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 q_f	623 1123	614 989	544 876	549 883	552 889	507 817	515 829	521 838	488 786
			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 q_f	527 848	537 865	469 755	486 782	437 704	455 732	417 672	434 699	404 650
			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 K64 PAF Side Seam Attachment: DeltaGrip

TABLE 10p: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and K64 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/7/4	16 ga	4"	q_a q_f	3190 5136	3190 5136	3190 5136	3190 5136	3190 5136	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3190 5136	3189 5135	3177 5114	3167 5099	3160 5088	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2967 4777	2998 4827	2915 4692	2946 4744	2886 4647	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2552 4108	2497 4021	2459 3960	2431 3915	2410 3880	2393 3853	2134 3414	1763 2821	1482 2371
			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 q_f	2238 4108	2240 3606	1979 3186	2020 3253	2051 3302	1884 3033	1924 3098	1763 2821	1482 2371
			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 q_f	1826 2940	1919 3090	1669 2687	1764 2840	1586 2553	1672 2692	1534 2470	1611 2594	1482 2371
			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 q_f	2604 4192	2604 4192	2604 4192	2604 4192	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2454 3951	2430 3913	2414 3887	2402 3867	2393 3852	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2223 3579	2244 3613	2161 3480	2187 3521	2128 3426	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1864 3002	1808 2910	1768 2847	1739 2800	1717 2764	1699 2736	1550 2481	1281 2050	1077 1723
			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 q_f	1617 3002	1604 2583	1398 2250	1420 2287	1437 2314	1308 2107	1334 2148	1281 2050	1077 1723
			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 q_f	1316 2119	1365 2198	1175 1891	1233 1985	1100 1772	1156 1861	1055 1698	1105 1779	1024 1648
			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 q_f	1879 3025	1865 3003	1856 2988	1849 2977	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1651 2657	1624 2615	1606 2586	1593 2564	1583 2548	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1464 2357	1472 2371	1402 2257	1418 2282	1369 2204	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1204 1938	1153 1857	1118 1800	1092 1759	1073 1727	1057 1702	1025 1640	847 1355	712 1139
			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 q_f	1040 1938	1018 1638	876 1411	883 1422	889 1431	803 1293	816 1314	826 1330	712 1139
			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 q_f	851 1370	866 1395	739 1190	767 1235	680 1095	709 1142	644 1038	672 1081	620 999
			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 q_f	1422 2290	1409 2269	1400 2254	1393 2243	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1232 1983	1208 1945	1191 1918	1179 1898	1170 1883	962 1539	779 1247	644 1031	541 866
			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 q_f	1084 1745	1087 1750	1029 1657	1040 1674	1000 1611	962 1539	779 1247	644 1031	541 866
			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 q_f	886 1427	844 1359	814 1311	793 1277	776 1250	763 1229	753 1212	644 1031	541 866
			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 q_f	766 1427	744 1198	638 1027	640 1031	642 1034	579 932	587 944	593 954	541 866
			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 q_f	630 1014	635 1022	540 869	557 896	493 794	512 824	464 747	482 777	445 716
			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

TABLE 10q: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and K64 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	3190 5136	3190 5136	3190 5136	3190 5136	3190 5136	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3190 5136	3190 5136	3190 5136	3190 5136	3190 5136	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3190 5136	3190 5136	3190 5136	3190 5136	3190 5136	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3127 5035	3009 4844	2924 4708	2861 4606	2812 4528	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	2786 5035	2720 4379	2387 3843	2393 3853	2398 3860	2190 3526	2134 3414	1763 2821	1482 2371
			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 q_f	2366 3809	2379 3830	2062 3319	2117 3409	1897 3054	1961 3157	1794 2888	1763 2821	1482 2371
			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 q_f	2604 4192	2604 4192	2604 4192	2604 4192	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2604 4192	2604 4192	2604 4192	2604 4192	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2604 4192	2604 4192	2572 4140	2583 4158	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2314 3726	2198 3538	2115 3405	2053 3306	2005 3229	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2058 3726	1981 3189	1719 2768	1708 2749	1699 2735	1541 2481	1550 2481	1281 2050	1077 1723
			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 q_f	1760 2834	1736 2795	1492 2403	1513 2436	1348 2170	1381 2224	1258 2026	1281 2050	1077 1723
			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 q_f	1918 3088	1918 3088	1918 3088	1918 3088	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1918 3088	1918 3088	1912 3078	1880 3026	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1803 2902	1776 2859	1670 2688	1668 2686	1596 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1529 2462	1429 2301	1359 2188	1307 2104	1267 2039	1235 1988	1025 1640	847 1355	712 1139
			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 q_f	1365 2462	1291 2078	1110 1787	1089 1753	1073 1728	968 1559	967 1557	847 1355	712 1139
			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 q_f	1182 1904	1139 1834	973 1567	971 1563	860 1385	872 1404	785 1264	806 1298	712 1139
			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 q_f	1501 2417	1501 2417	1501 2417	1501 2417	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1501 2417	1454 2341	1416 2280	1388 2235	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1344 2164	1316 2119	1230 1981	1225 1973	1168 1880	962 1539	779 1247	644 1031	541 866
			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 q_f	1140 1836	1058 1704	1000 1610	957 1541	924 1488	898 1446	779 1247	644 1031	541 866
			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 q_f	1021 1836	957 1542	821 1322	800 1289	785 1264	707 1138	703 1132	644 1031	541 866
			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 q_f	891 1434	849 1367	724 1165	716 1153	625 1006	633 1019	569 917	582 937	533 859
			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 K64 PAF Side Seam Attachment: DeltaGrip

TABLE 10r: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and SDK63 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R
		6"	q_a q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			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 q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			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 q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			F	5.3+-0.4R	5.4+-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 q_f	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959	1217 1959
			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 q_f	1217 1959	1217 1959	1173 1889	1217 1959	1149 1849	1193 1920	1133 1824	1172 1887	1122 1807
			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 q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			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 q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			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 q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			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 q_f	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684	1046 1684
			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 q_f	1046 1684	1046 1684	1005 1618	1021 1644	1033 1663	976 1571	992 1596	1004 1616	961 1547
			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 q_f	940 1514	980 1579	887 1428	928 1493	857 1380	895 1440	839 1350	872 1404	826 1330
			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 q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1355	712 1139
			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 q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1355	712 1139
			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 q_f	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	856 1377	847 1355	712 1139
			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 q_f	856 1377	846 1361	833 1341	823 1326	816 1314	810 1305	806 1297	802 1291	712 1139
			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 q_f	779 1377	775 1248	697 1122	706 1137	713 1149	662 1066	673 1083	681 1097	643 1036
			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 q_f	662 1065	683 1100	603 971	629 1013	571 920	596 960	551 888	574 925	538 866
			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 q_f	748 1204	748 1204	748 1204	748 1204	748 1204	748 1204	748 1204	644 1031	541 866
			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 q_f	748 1204	748 1204	748 1204	748 1204	748 1204	748 1204	748 1204	644 1031	541 866
			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 q_f	748 1204	748 1204	748 1204	748 1204	748 1204	748 1204	748 1204	644 1031	541 866
			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 q_f	696 1120	675 1087	661 1064	650 1046	642 1033	635 1022	629 1013	625 1006	541 866
			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 q_f	622 1120	613 987	543 874	548 882	551 888	507 816	514 828	520 837	487 785
			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 q_f	526 846	536 863	468 753	485 781	437 703	454 731	417 671	433 698	403 650
			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

TABLE 10s: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and SDK63 Pins

Support Fastener 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	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2134 3414	1763 2821	1482 2371
			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 q_f	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2134 3414	1763 2821	1482 2371
			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 q_f	2434 3919	2434 3919	2413 3885	2434 3919	2400 3864	2419 3895	2134 3414	1763 2821	1482 2371
			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 q_f	2164 3484	2135 3437	2115 3405	2100 3380	2088 3362	2079 3347	2072 3335	1763 2821	1482 2371
			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 q_f	1933 3484	1947 3134	1753 2822	1793 2887	1822 2934	1695 2729	1731 2786	1759 2821	1482 2371
			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 q_f	1598 2573	1694 2727	1495 2407	1585 2552	1440 2319	1520 2447	1406 2264	1476 2377	1383 2227
			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 q_f	2092 3368	2092 3368	2092 3368	2092 3368	2092 3368	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2091 3366	2078 3346	2069 3332	2063 3321	2058 3313	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1930 3107	1950 3139	1894 3049	1915 3083	1875 3018	1894 3049	1550 2481	1281 2050	1077 1723
			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 q_f	1655 2664	1618 2605	1592 2564	1574 2533	1559 2510	1548 2492	1538 2477	1281 2050	1077 1723
			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 q_f	1449 2664	1449 2333	1278 2058	1305 2100	1324 2132	1215 1956	1241 1998	1262 2031	1077 1723
			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 q_f	1182 1902	1241 1997	1077 1734	1138 1832	1022 1646	1077 1735	988 1591	1037 1670	965 1554
			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 q_f	1711 2755	1711 2755	1707 2748	1702 2741	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1535 2471	1515 2439	1501 2417	1491 2401	1483 2388	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1373 2211	1384 2228	1324 2132	1340 2157	1298 2090	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1137 1831	1095 1764	1066 1717	1045 1682	1028 1656	1016 1635	1005 1618	847 1355	712 1139
			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 q_f	983 1831	968 1559	837 1348	847 1364	855 1376	775 1248	789 1270	800 1287	712 1139
			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 q_f	802 1291	823 1326	705 1135	735 1184	654 1053	684 1101	623 1002	650 1047	601 968
			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 q_f	1419 2284	1406 2263	1397 2249	1390 2238	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1229 1979	1205 1941	1189 1914	1177 1895	1167 1880	962 1539	779 1247	644 1031	541 866
			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 q_f	1082 1742	1085 1747	1028 1655	1038 1671	999 1608	962 1539	779 1247	644 1031	541 866
			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 q_f	885 1424	843 1356	813 1309	792 1275	775 1249	763 1228	752 1211	644 1031	541 866
			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 q_f	764 1424	743 1196	637 1026	639 1029	641 1032	578 931	586 943	592 953	541 866
			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 q_f	629 1012	634 1020	539 868	556 895	492 793	511 823	464 747	482 776	444 716
			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 SDK63 PAF Side Seam Attachment: DeltaGrip

TABLE 10t: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and SDK63 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2134 3414	1763 2821	1482 2371
			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 q_f	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2134 3414	1763 2821	1482 2371
			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 q_f	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2134 3414	1763 2821	1482 2371
			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 q_f	2434 3919	2434 3919	2434 3919	2434 3919	2434 3919	2434 3918	2134 3414	1763 2821	1482 2371
			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 q_f	2370 3919	2344 3773	2089 3363	2110 3398	2126 3423	1961 3157	1990 3204	1763 2821	1482 2371
			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 q_f	2012 3239	2059 3314	1805 2907	1874 3017	1693 2725	1762 2836	1622 2611	1687 2716	1482 2371
			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 q_f	2092 3368	2092 3368	2092 3368	2092 3368	2092 3368	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2092 3368	2092 3368	2092 3368	2092 3368	2092 3368	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2092 3368	2092 3368	2092 3368	2092 3368	2092 3368	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2030 3268	1950 3140	1894 3049	1851 2981	1819 2928	1793 2886	1550 2481	1281 2050	1077 1723
			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 q_f	1808 3268	1762 2837	1545 2487	1547 2491	1549 2494	1414 2276	1429 2301	1281 2050	1077 1723
			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 q_f	1536 2473	1541 2481	1334 2148	1369 2204	1225 1973	1266 2038	1157 1863	1197 1928	1077 1723
			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 q_f	1711 2755	1711 2755	1711 2755	1711 2755	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1711 2755	1711 2755	1711 2755	1711 2755	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1682 2709	1665 2681	1574 2535	1577 2539	1515 2439	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1429 2300	1345 2165	1286 2070	1241 1999	1207 1944	1180 1900	1025 1640	847 1355	712 1139
			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 q_f	1273 2300	1213 1952	1047 1685	1033 1663	1022 1645	924 1487	926 1491	847 1355	712 1139
			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 q_f	1096 1764	1067 1717	913 1470	918 1478	815 1313	830 1337	755 1215	773 1244	712 1139
			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 q_f	1496 2408	1496 2408	1496 2408	1496 2408	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1496 2408	1451 2336	1413 2276	1385 2231	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1341 2159	1313 2115	1228 1977	1223 1970	1166 1877	962 1539	779 1247	644 1031	541 866
			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 q_f	1138 1832	1056 1700	999 1608	956 1539	923 1486	897 1444	779 1247	644 1031	541 866
			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 q_f	1019 1832	956 1538	819 1319	799 1286	784 1262	706 1136	702 1131	644 1031	541 866
			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 q_f	889 1431	847 1364	722 1162	715 1151	624 1005	632 1017	569 915	581 935	533 857
			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

TABLE 10u: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and SDK61 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			F	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R
		6"	q_a q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			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 q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			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 q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			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 q_f	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027	1259 2027
			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 q_f	1245 2005	1259 2027	1197 1928	1248 2010	1171 1885	1217 1959	1154 1858	1195 1924	1142 1839
			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 q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			F	4.4+-0.1R	4.4+-0.1R	4.4+-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 q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			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 q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			F	6+-0.4R	6.1+-0.3R	6.1+-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 q_f	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664	1034 1664
			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 q_f	1034 1664	1034 1664	998 1606	1014 1633	1026 1651	970 1561	985 1586	997 1605	955 1537
			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 q_f	933 1503	973 1567	881 1419	922 1484	852 1372	889 1432	834 1343	868 1397	822 1323
			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 q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	712 1139
			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 q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	712 1139
			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 q_f	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	797 1283	712 1139
			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 q_f	797 1283	797 1283	797 1283	789 1270	783 1260	778 1252	774 1246	771 1241	712 1139
			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 q_f	745 1283	743 1196	671 1081	681 1097	688 1108	641 1032	651 1049	660 1063	625 1005
			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 q_f	635 1022	657 1058	583 938	609 980	554 893	579 932	536 864	559 900	524 844
			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 q_f	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	644 1031	541 866
			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 q_f	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	644 1031	541 866
			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 q_f	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	672 1082	644 1031	541 866
			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 q_f	650 1047	634 1020	622 1002	614 988	607 977	601 968	597 961	593 955	541 866
			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 q_f	583 1047	578 930	515 829	521 839	525 846	485 780	492 793	498 802	469 754
			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 q_f	494 795	507 816	444 716	462 744	418 672	435 701	401 645	417 672	389 627
			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

TABLE 10v: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and SDK61 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/7/4	16 ga	4"	q_a q_f	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2134 3414	1763 2821	1482 2371
			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 q_f	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2134 3414	1763 2821	1482 2371
			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 q_f	2501 4027	2518 4054	2474 3984	2497 4020	2460 3960	2480 3993	2134 3414	1763 2821	1482 2371
			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 q_f	2212 3561	2180 3510	2158 3474	2142 3448	2129 3428	2119 3412	2111 3399	1763 2821	1482 2371
			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 q_f	1970 3561	1983 3193	1781 2868	1822 2934	1852 2981	1719 2768	1756 2827	1763 2821	1482 2371
			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 q_f	1625 2617	1722 2772	1516 2441	1607 2588	1459 2348	1539 2478	1423 2291	1494 2405	1398 2251
			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 q_f	2068 3329	2068 3329	2068 3329	2068 3329	2068 3329	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2068 3329	2060 3316	2051 3303	2045 3293	2040 3285	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1914 3082	1934 3114	1879 3026	1900 3059	1861 2996	1880 3026	1550 2481	1281 2050	1077 1723
			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 q_f	1644 2646	1608 2589	1583 2548	1564 2519	1550 2496	1539 2478	1530 2463	1281 2050	1077 1723
			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 q_f	1440 2646	1441 2320	1272 2048	1298 2090	1318 2122	1210 1948	1236 1989	1256 2023	1077 1723
			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 q_f	1175 1891	1234 1987	1072 1726	1133 1824	1018 1639	1073 1728	985 1585	1034 1664	962 1549
			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 q_f	1594 2566	1594 2566	1594 2566	1594 2566	1594 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1464 2357	1448 2330	1436 2312	1428 2298	1421 2288	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1317 2121	1329 2139	1275 2053	1290 2078	1253 2017	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1097 1766	1060 1707	1034 1665	1015 1635	1001 1611	989 1593	980 1578	847 1355	712 1139
			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 q_f	950 1766	938 1511	814 1311	826 1329	834 1343	758 1220	772 1243	783 1261	712 1139
			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 q_f	773 1245	798 1285	685 1102	716 1153	638 1027	669 1077	609 981	638 1027	590 950
			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 q_f	1314 2115	1304 2099	1297 2088	1292 2081	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1152 1855	1134 1826	1121 1805	1111 1789	1104 1778	962 1539	779 1247	644 1031	541 866
			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 q_f	1022 1645	1027 1654	978 1574	988 1591	954 1536	962 1539	779 1247	644 1031	541 866
			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 q_f	840 1352	804 1294	779 1254	761 1225	747 1203	736 1185	727 1171	644 1031	541 866
			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 q_f	725 1352	709 1142	610 983	615 990	619 996	559 900	568 914	575 925	533 857
			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 q_f	594 956	604 972	515 829	534 860	474 763	494 795	448 722	467 752	431 695
			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 SDK61 PAF Side Seam Attachment: DeltaGrip

TABLE 10w: DGB-36 and DGBF-36 Shear and Flexibility (continued)
DGB-36 and DGBF-36 with DeltaGrip and SDK61 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2134 3414	1763 2821	1482 2371
			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 q_f	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2134 3414	1763 2821	1482 2371
			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 q_f	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2518 4054	2134 3414	1763 2821	1482 2371
			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 q_f	2518 4054	2518 4054	2518 4054	2518 4054	2501 4026	2476 3987	2134 3414	1763 2821	1482 2371
			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 q_f	2419 4054	2389 3846	2125 3421	2145 3453	2160 3477	1989 3203	2018 3250	1763 2821	1482 2371
			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 q_f	2053 3305	2096 3375	1836 2955	1903 3064	1717 2764	1786 2875	1643 2644	1708 2749	1482 2371
			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 q_f	2068 3329	2068 3329	2068 3329	2068 3329	2068 3329	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2068 3329	2068 3329	2068 3329	2068 3329	2068 3329	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2068 3329	2068 3329	2068 3329	2068 3329	2068 3329	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2016 3245	1938 3120	1882 3031	1841 2964	1809 2912	1783 2871	1550 2481	1281 2050	1077 1723
			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 q_f	1795 3245	1751 2819	1536 2473	1539 2478	1541 2482	1407 2265	1423 2291	1281 2050	1077 1723
			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 q_f	1525 2455	1531 2466	1327 2136	1362 2192	1219 1963	1260 2028	1152 1855	1193 1920	1077 1723
			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 q_f	1594 2566	1594 2566	1594 2566	1594 2566	1594 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1594 2566	1594 2566	1594 2566	1594 2566	1594 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1594 2566	1594 2566	1516 2441	1521 2449	1464 2357	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1370 2206	1295 2085	1242 1999	1202 1935	1171 1886	1147 1847	1025 1640	847 1355	712 1139
			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 q_f	1219 2206	1167 1879	1010 1626	1000 1609	992 1597	898 1446	902 1452	847 1355	712 1139
			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 q_f	1046 1684	1025 1650	879 1415	887 1428	789 1270	806 1297	733 1180	752 1211	695 1119
			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 q_f	1344 2165	1344 2165	1344 2165	1344 2165	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1344 2165	1344 2165	1334 2148	1311 2111	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1258 2026	1239 1995	1164 1875	1163 1873	1113 1791	962 1539	779 1247	644 1031	541 866
			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 q_f	1067 1718	997 1605	948 1526	911 1466	882 1421	860 1384	779 1247	644 1031	541 866
			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 q_f	953 1718	900 1450	774 1247	759 1222	748 1204	674 1086	674 1084	644 1031	541 866
			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 q_f	826 1330	795 1280	679 1093	677 1090	597 960	607 978	547 880	561 903	514 828
			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

TABLE 11a: B-36 & BF-36 Shear and Flexibility
B-36 and BF-36 with Arc spot welds at supports and Top Seam Weld at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2134 3414	1763 2821	1482 2371
			F	2.6+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R
		6"	q_a q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2134 3414	1763 2821	1482 2371
			F	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R
		8"	q_a q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2134 3414	1763 2821	1482 2371
			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 q_f	2318 3825	2258 3725	2214 3654	2182 3601	2157 3560	2137 3527	2121 3414	1763 2821	1482 2371
			F	3.4+-0.2R	3.4+-0.1R	3.4+-0.1R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R
		18"	q_a q_f	2077 3825	2055 3391	1829 3019	1849 3051	1864 3075	1718 2835	1744 2878	1763 2821	1482 2371
			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 q_f	1758 2901	1801 2972	1578 2604	1640 2705	1480 2442	1542 2544	1419 2341	1476 2436	1377 2271
			F	4.4+-0.4R	4.5+-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 q_f	1900 3136	1900 3136	1900 3136	1900 3136	1900 3136	1900 3062	1550 2481	1281 2050	1077 1723
			F	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R
		6"	q_a q_f	1900 3136	1900 3136	1900 3136	1900 3136	1900 3136	1900 3062	1550 2481	1281 2050	1077 1723
			F	3.4+-0.1R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R
		8"	q_a q_f	1900 3136	1900 3136	1900 3136	1900 3136	1900 3136	1900 3062	1550 2481	1281 2050	1077 1723
			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 q_f	1783 2942	1733 2859	1697 2799	1670 2755	1649 2721	1632 2693	1550 2481	1281 2050	1077 1723
			F	4.1+-0.2R	4.1+-0.2R	4.1+-0.1R	4.2+-0.1R	4.2+-0.1R	4.2+-0.1R	4.2+-0.1R	4.2+-0.1R	4.2+-0.1R
		18"	q_a q_f	1594 2942	1574 2596	1396 2304	1409 2325	1419 2342	1305 2154	1325 2186	1281 2050	1077 1723
			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 q_f	1348 2225	1377 2273	1203 1986	1248 2059	1124 1855	1170 1931	1075 1774	1118 1845	1041 1718
			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 q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1025 1640	847 1355	712 1139
			F	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
		6"	q_a q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1025 1640	847 1355	712 1139
			F	4.4+-0.1R	4.4+-0.1R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R
		8"	q_a q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1025 1640	847 1355	712 1139
			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 q_f	1108 1829	1083 1787	1065 1758	1052 1736	1042 1719	1033 1705	1025 1640	847 1355	712 1139
			F	5.1+-0.2R	5.2+-0.2R	5.2+-0.2R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R
		18"	q_a q_f	997 1829	990 1634	887 1463	898 1481	906 1495	838 1383	852 1406	847 1355	712 1139
			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 q_f	846 1395	871 1436	766 1264	798 1317	723 1193	754 1244	696 1148	725 1196	677 1117
			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 q_f	805 1329	805 1329	805 1329	805 1329	805 1329	805 1329	779 1247	644 1031	541 866
			F	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R
		6"	q_a q_f	805 1329	805 1329	805 1329	805 1329	805 1329	805 1329	779 1247	644 1031	541 866
			F	5.1+-0.1R	5.2+-0.1R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R
		8"	q_a q_f	805 1329	805 1329	805 1329	805 1329	805 1329	805 1329	779 1247	644 1031	541 866
			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 q_f	805 1329	804 1326	792 1307	784 1293	777 1282	772 1273	767 1247	644 1031	541 866
			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 q_f	741 1329	738 1217	664 1096	674 1112	681 1123	632 1043	643 1060	644 1031	541 866
			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 q_f	630 1039	651 1074	576 950	601 991	546 901	570 941	528 871	550 907	515 849
			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

TABLE 11b: B-36 & BF-36 Shear and Flexibility (Continued)
B-36 and BF-36 with Arc spot welds at supports and Top Seam Weld at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/7	16 ga	4"	q_a q_f	4726 7798	4685 7730	4656 7682	4354 6967	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	4163 6869	4085 6741	4030 6650	3990 6583	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3712 6125	3713 6127	3528 5821	3557 5868	3334 5334	2634 4215	2134 3414	1763 2821	1482 2371
			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 q_f	3089 5097	2941 4853	2838 4683	2762 4558	2704 4461	2634 4215	2134 3414	1763 2821	1482 2371
			F	3.3+-0.2R	3.3+-0.2R	3.4+-0.2R	3.4+-0.1R	3.4+-0.1R	3.4+-0.1R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R
		18"	q_a q_f	2699 5097	2616 4316	2255 3721	2256 3723	2257 3724	2041 3367	2063 3405	1763 2821	1482 2371
			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 q_f	2251 3715	2254 3718	1925 3177	1975 3259	1754 2893	1813 2991	1648 2719	1707 2816	1482 2371
			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 q_f	3656 6032	3620 5973	3595 5931	3164 5062	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			F	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R
		6"	q_a q_f	3201 5281	3135 5173	3089 5097	3055 5040	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2844 4693	2841 4687	2692 4443	2712 4475	2422 3876	1914 3062	1550 2481	1281 2050	1077 1723
			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 q_f	2362 3897	2243 3700	2159 3562	2097 3461	2050 3383	1914 3062	1550 2481	1281 2050	1077 1723
			F	4+-0.2R	4+-0.2R	4.1+-0.2R	4.1+-0.2R	4.1+-0.1R	4.1+-0.1R	4.1+-0.1R	4.2+-0.1R	4.2+-0.1R
		18"	q_a q_f	2064 3897	1994 3291	1716 2831	1713 2826	1710 2822	1545 2549	1550 2481	1281 2050	1077 1723
			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 q_f	1726 2849	1720 2838	1467 2421	1501 2476	1331 2196	1373 2266	1247 2058	1281 2050	1077 1723
			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 q_f	2238 3693	2222 3667	2211 3648	2092 3347	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			F	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
		6"	q_a q_f	1991 3286	1960 3233	1937 3196	1921 3169	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			F	4.3+-0.1R	4.3+-0.1R	4.4+-0.1R	4.4+-0.1R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R
		8"	q_a q_f	1786 2947	1791 2955	1709 2819	1724 2844	1601 2562	1265 2024	1025 1640	847 1355	712 1139
			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 q_f	1493 2463	1428 2357	1383 2282	1350 2227	1324 2185	1265 2024	1025 1640	847 1355	712 1139
			F	5+-0.2R	5.1+-0.2R	5.1+-0.2R	5.2+-0.2R	5.2+-0.2R	5.2+-0.2R	5.2+-0.1R	5.3+-0.1R	5.3+-0.1R
		18"	q_a q_f	1304 2463	1271 2097	1100 1814	1104 1822	1107 1827	1003 1655	1016 1640	847 1355	712 1139
			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 q_f	1084 1789	1094 1804	937 1545	965 1593	859 1417	891 1469	810 1337	842 1355	712 1139
			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 q_f	1611 2658	1611 2658	1611 2658	1590 2545	1218 1948	962 1539	779 1247	644 1031	541 866
			F	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R
		6"	q_a q_f	1473 2430	1453 2397	1438 2373	1428 2356	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1329 2193	1335 2202	1278 2109	1291 2129	1218 1948	962 1539	779 1247	644 1031	541 866
			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 q_f	1117 1842	1073 1770	1042 1720	1020 1683	1003 1654	962 1539	779 1247	644 1031	541 866
			F	5.9+-0.3R	5.9+-0.2R	6+-0.2R	6+-0.2R	6.1+-0.2R	6.1+-0.2R	6.1+-0.2R	6.1+-0.1R	6.1+-0.1R
		18"	q_a q_f	976 1842	956 1577	830 1370	836 1380	840 1387	763 1259	774 1247	644 1031	541 866
			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 q_f	809 1336	822 1356	706 1165	731 1206	651 1074	677 1118	617 1018	642 1031	541 866
			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

TABLE 11c: B-36 & BF-36 Shear and Flexibility (Continued)
B-36 and BF-36 with Arc spot welds at supports and Button Punch at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)																					
			Span →	4' - 0"		5' - 0"		6' - 0"		7' - 0"		8' - 0"		9' - 0"		10' - 0"		11' - 0"		12' - 0"	
36/4	16 ga	4"	q_a q_f	920	1518	748	1234	633	1044	551	909	489	807	441	728	403	665	372	614	347	572
			F	7.4+-1.9R		8.2+-2R		8.8+-2.1R		9.4+-2.1R		9.8+-2.2R		10.2+-2.2R		10.6+-2.2R		10.9+-2.1R		11.2+-2.1R	
		6"	q_a q_f	887	1463	714	1179	600	989	518	854	456	752	408	673	370	610	339	559	313	517
			F	8.2+-2.3R		9.2+-2.6R		10.1+-2.8R		10.9+-3R		11.6+-3.1R		12.2+-3.1R		12.8+-3.2R		13.3+-3.2R		13.7+-3.3R	
		8"	q_a q_f	870	1435	701	1157	583	962	503	830	439	725	393	649	353	583	323	534	297	490
			F	8.7+-2.6R		9.9+-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 q_f	853	1408	681	1124	566	934	484	799	423	697	375	618	337	555	305	504	280	462
			F	9.3+-3R		10.7+-3.5R		12+-4R		13.3+-4.4R		14.4+-4.7R		15.4+-5R		16.4+-5.2R		17.3+-5.4R		18.2+-5.6R	
		18"	q_a q_f	845	1408	674	1113	555	916	475	783	414	684	364	600	327	539	296	489	269	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 q_f	837	1380	668	1102	550	907	470	775	406	670	360	594	320	528	290	479	263	435
			F	9.9+-3.5R		11.7+-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 q_f	740	1221	605	998	514	849	450	743	402	663	364	601	334	551	311	514	294	485
			F	8.6+-2.1R		9.4+-2.3R		10.1+-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 q_f	706	1166	571	943	481	794	417	688	368	608	331	546	301	496	278	459	260	430
			F	9.5+-2.6R		10.6+-2.9R		11.6+-3.1R		12.5+-3.3R		13.2+-3.4R		13.9+-3.5R		14.5+-3.6R		15.1+-3.6R		15.6+-3.6R	
		8"	q_a q_f	690	1138	558	921	464	766	402	664	352	580	316	522	284	469	263	434	244	402
			F	10+-3R		11.4+-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 q_f	673	1111	538	888	448	739	383	633	335	553	298	491	268	441	245	404	227	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 q_f	665	1111	531	877	437	721	374	617	327	539	286	473	258	425	236	389	216	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 q_f	656	1083	525	866	431	711	369	609	318	525	283	467	251	414	229	379	210	347
			F	11.4+-3.9R		13.3+-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 q_f	473	781	394	651	341	563	303	500	275	453	253	417	237	391	225	371	214	354
			F	10.4+-2.4R		11.4+-2.6R		12.2+-2.7R		12.9+-2.8R		13.5+-2.8R		14+-2.8R		14.4+-2.8R		14.8+-2.8R		15.2+-2.7R	
		6"	q_a q_f	441	727	361	596	308	508	270	445	241	398	219	362	204	336	191	316	181	299
			F	11.4+-3R		12.7+-3.4R		13.8+-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 q_f	424	700	348	574	291	481	256	422	225	371	204	337	187	309	176	291	164	271
			F	12+-3.4R		13.6+-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 q_f	408	672	328	541	275	453	237	390	208	343	186	307	170	281	158	261	148	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 q_f	399	672	321	530	263	435	227	375	200	330	175	288	160	265	149	246	136	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 q_f	391	645	314	519	258	426	222	367	191	316	171	282	154	254	143	236	131	216
			F	13.6+-4.5R		15.9+-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 q_f	364	600	310	511	272	448	244	403	224	369	209	346	198	328	190	313	182	300
			F	11.7+-2.7R		12.8+-2.8R		13.7+-3R		14.5+-3R		15.1+-3.1R		15.7+-3.1R		16.2+-3.1R		16.6+-3R		17+-3R	
		6"	q_a q_f	334	551	276	456	238	393	211	348	191	314	176	291	165	273	156	258	149	245
			F	12.8+-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 q_f	317	523	263	434	222	366	197	325	174	287	161	266	148	245	141	233	132	218
			F	13.5+-3.7R		15.2+-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 q_f	300	496	243	401	205	338	178	293	157	259	143	236	132	218	123	203	115	190
			F	14.3+-4.3R		16.4+-5R		18.2+-5.6R		20+-6.2R		21.6+-6.6R		23+-7R		24.4+-7.4R		25.7+-7.7R		26.9+-8R	
		18"	q_a q_f	292	496	236	390	194	320	168	277	149	246	132	217	122	201	114	188	104	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 q_f	284	468	230	379	188	311	163	270	141	232	128	211	115	190	108	178	99	163
			F	15.3+-4.9R		17.7+-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

TABLE 11d: B-36 & BF-36 Shear and Flexibility (Continued)
B-36 and BF-36 with Arc spot welds at supports and Button Punch at side seams

Support Fastener 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

TABLE 12a: BN-36/ BS-36 Shear and Flexibility
No.12 Self Drilling Screws to Supports with No.10 Screws Side Seam Attachment

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/4	16 ga	4"	q_a q_f	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587
			F	3.4+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 q_f	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 1587	986 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
		8"	q_a q_f	984 1585	986 1587	948 1526	955 1537	928 1494	936 1507	915 1473	923 1486	906 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
		12"	q_a q_f	847 1363	814 1311	791 1273	774 1245	760 1224	749 1207	741 1193	734 1181	727 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 q_f	753 1363	734 1183	644 1036	645 1039	647 1041	590 950	597 961	602 970	562 904
			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 q_f	637 1026	641 1032	555 893	570 918	510 821	528 850	482 777	500 804	463 746
			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 q_f	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 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
		6"	q_a q_f	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	788 1268	786 1265	783 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
		8"	q_a q_f	757 1218	756 1217	723 1165	728 1172	705 1135	711 1145	693 1116	699 1126	685 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 q_f	647 1041	618 996	598 963	583 939	571 920	562 905	554 893	548 883	543 874
			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 q_f	574 1041	557 897	485 781	485 780	484 780	440 709	444 716	448 721	417 671
			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 q_f	488 785	486 783	419 675	428 690	382 616	394 634	359 579	371 598	344 553
			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 q_f	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953	592 953
			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
		6"	q_a q_f	592 953	585 942	576 928	570 918	565 909	561 903	558 898	555 893	553 890
			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 q_f	539 868	536 864	510 821	512 825	494 795	497 801	484 779	488 785	477 767
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		12"	q_a q_f	458 737	434 699	418 672	405 652	396 637	388 625	382 615	377 606	372 599
			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 q_f	407 737	391 629	339 545	336 541	334 538	303 488	305 491	306 493	284 458
			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 q_f	347 559	342 551	294 473	298 479	265 426	271 437	247 398	254 409	235 378
			F	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R
	22 ga	4"	q_a q_f	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793	493 793
			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"	q_a q_f	482 777	471 758	463 745	457 735	452 728	448 722	445 717	443 713	440 709
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		8"	q_a q_f	433 698	430 692	407 655	408 657	392 631	395 636	383 617	386 622	377 606
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		12"	q_a q_f	367 591	346 558	332 534	321 517	312 503	306 492	300 483	296 476	292 470
			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 q_f	326 591	312 502	269 434	266 429	264 425	239 384	240 386	240 387	223 359
			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 q_f	280 450	273 440	234 377	236 380	210 337	214 345	194 312	200 322	184 296
			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

TABLE 12b: BN-36/ BS-36 Shear and Flexibility (Continued)
No.12 Self-Drilling Screws to Supports with No.10 Screws Side Seam Attachment.

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/7/4	16 ga	4"	q_a q_f	1749 2816	1725 2777	1708 2751	1696 2731	1687 2716	1679 2704	1673 2694	1668 2686	1482 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 q_f	1481 2385	1442 2322	1415 2279	1395 2246	1380 2222	1368 2202	1358 2186	1350 2173	1343 2162
			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 q_f	1290 2077	1285 2069	1207 1943	1215 1956	1162 1871	1174 1890	1135 1827	1147 1847	1116 1796
			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 q_f	1050 1691	989 1592	947 1524	916 1475	892 1437	874 1407	859 1383	847 1363	836 1346
			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 q_f	910 1691	873 1406	744 1199	741 1193	738 1188	663 1068	669 1077	673 1084	622 1001
			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 q_f	757 1219	750 1207	635 1022	647 1042	572 920	588 947	531 855	550 885	503 810
			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 q_f	1341 2159	1319 2123	1303 2098	1292 2080	1283 2066	1276 2054	1270 2045	1266 2038	1077 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 q_f	1124 1809	1089 1754	1065 1715	1048 1687	1034 1665	1023 1648	1015 1634	1007 1622	1001 1612
			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 q_f	975 1569	966 1556	903 1454	907 1461	865 1393	873 1405	841 1355	850 1369	826 1329
			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 q_f	793 1277	742 1195	707 1139	682 1098	662 1066	647 1042	635 1022	624 1005	616 991
			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 q_f	690 1277	657 1058	558 899	553 890	549 883	492 793	495 797	497 800	458 738
			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 q_f	578 931	566 912	479 771	485 780	425 684	436 702	391 629	404 650	370 596
			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 q_f	950 1530	930 1498	916 1475	906 1459	898 1446	892 1436	887 1428	847 1355	712 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 q_f	787 1267	758 1221	738 1188	723 1165	712 1146	703 1132	696 1120	690 1111	685 1102
			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 q_f	681 1096	670 1079	623 1002	623 1003	592 953	596 959	573 922	578 930	560 902
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		12"	q_a q_f	555 894	515 830	488 785	468 753	453 729	441 709	431 694	423 681	416 670
			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 q_f	485 894	458 737	388 624	381 614	376 606	335 539	336 541	338 544	310 498
			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 q_f	411 661	397 639	332 535	333 537	290 467	296 476	266 428	274 441	251 404
			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 q_f	761 1225	742 1195	729 1174	720 1159	713 1148	707 1138	702 1131	644 1031	541 866
			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 q_f	626 1008	601 967	583 938	570 917	560 901	552 889	546 878	540 870	536 863
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		8"	q_a q_f	541 871	530 854	491 790	490 789	464 747	466 751	448 721	451 726	437 703
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		12"	q_a q_f	442 712	408 658	385 620	368 593	355 572	345 555	337 542	330 531	324 522
			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 q_f	388 712	364 586	308 495	300 483	295 474	262 421	262 422	263 423	241 388
			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 q_f	331 533	317 511	263 424	262 422	228 367	232 373	209 336	214 344	196 316
			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

TABLE 12c: BN-36/ BS-36 Shear and Flexibility (Continued)
No.12 Self-Drilling Screws to Supports with No.10 Screws Side Seam Attachment.

Support Fastener 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	1768 2847	1742 2804	1723 2774	1709 2751	1698 2734	1690 2720	1683 2709	1677 2700	1482 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 q_f	1513 2436	1470 2366	1439 2316	1416 2280	1398 2251	1384 2229	1373 2211	1364 2196	1356 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 q_f	1331 2142	1318 2122	1236 1990	1240 1997	1185 1908	1194 1923	1154 1857	1164 1874	1132 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 q_f	1100 1772	1031 1660	983 1583	948 1526	921 1483	899 1448	882 1420	868 1397	856 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 q_f	966 1772	919 1480	785 1264	776 1249	769 1238	692 1113	694 1118	697 1121	643 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 q_f	818 1317	798 1285	678 1091	684 1101	605 973	618 994	560 901	574 925	527 849
			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 q_f	1359 2188	1334 2148	1317 2120	1304 2099	1294 2083	1286 2070	1279 2059	1274 2050	1077 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 q_f	1152 1855	1113 1792	1086 1748	1066 1716	1050 1691	1038 1671	1028 1655	1020 1642	1013 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 q_f	1010 1625	995 1601	928 1495	929 1496	885 1425	890 1433	858 1381	865 1392	839 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 q_f	835 1345	778 1252	738 1188	708 1140	686 1104	668 1076	654 1053	642 1033	632 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 q_f	735 1345	695 1118	592 953	582 936	574 924	515 830	516 830	516 831	476 766
			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 q_f	627 1010	606 976	514 827	514 828	454 731	462 743	414 667	425 684	390 627
			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 q_f	967 1556	944 1520	928 1495	917 1476	908 1462	901 1450	895 1441	847 1355	712 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 q_f	811 1306	778 1253	755 1216	739 1189	726 1168	715 1152	707 1138	700 1127	694 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 q_f	709 1141	693 1116	643 1035	641 1032	608 979	610 982	586 943	590 950	571 919
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		12"	q_a q_f	588 947	543 874	511 824	489 786	471 758	457 736	446 718	437 703	429 691
			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 q_f	521 947	487 784	413 666	403 649	396 637	354 570	353 569	352 567	324 522
			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 q_f	448 722	428 688	362 582	358 577	312 502	315 507	283 456	290 466	265 427
			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 q_f	776 1249	755 1216	741 1192	730 1175	722 1162	715 1151	710 1142	644 1031	541 866
			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 q_f	647 1042	618 996	598 963	583 939	572 921	563 906	555 894	549 884	541 866
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		8"	q_a q_f	566 911	550 886	508 818	505 813	478 769	479 771	459 739	461 743	446 718
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		12"	q_a q_f	471 758	432 696	405 652	386 621	371 597	359 578	349 563	342 550	335 539
			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 q_f	418 758	388 625	329 530	320 515	313 503	278 447	277 446	276 444	253 407
			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 q_f	363 584	343 552	287 463	283 455	246 396	248 399	223 359	227 366	208 335
			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

TABLE 12d: BN-36/ BS-36 Shear and Flexibility (Continued)
No.12 Self-Drilling Screws to Supports with No.10 Screws Side Seam Attachment.

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
36/9	16 ga	4"	q_a q_f	1971 3174	1971 3174	1971 3174	1971 3174	1971 3174	1965 3164	1950 3139	1763 2821	1482 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 q_f	1827 2942	1745 2810	1687 2716	1643 2645	1609 2591	1583 2548	1561 2513	1542 2483	1482 2371
			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 q_f	1625 2617	1574 2534	1458 2347	1442 2322	1366 2199	1364 2196	1309 2107	1312 2112	1269 2043
			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 q_f	1385 2230	1269 2043	1188 1912	1128 1816	1081 1741	1045 1682	1015 1634	991 1595	970 1562
			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 q_f	1249 2230	1154 1858	985 1586	950 1530	924 1488	830 1336	820 1321	811 1306	742 1194
			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 q_f	1103 1776	1033 1663	877 1413	857 1380	750 1208	747 1203	669 1077	674 1085	616 991
			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 q_f	1576 2537	1576 2537	1550 2496	1523 2453	1502 2419	1486 2392	1472 2370	1281 2050	1077 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 q_f	1396 2247	1325 2133	1275 2052	1237 1992	1208 1945	1185 1908	1166 1877	1150 1852	1077 1723
			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 q_f	1242 1999	1194 1922	1100 1771	1084 1745	1023 1647	1019 1640	975 1570	976 1571	942 1517
			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 q_f	1062 1710	967 1556	900 1448	850 1369	812 1307	782 1259	758 1220	738 1187	721 1160
			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 q_f	962 1710	882 1420	751 1210	721 1160	697 1122	618 996	608 978	600 966	550 886
			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 q_f	856 1378	794 1278	672 1082	649 1045	564 909	558 899	500 804	502 808	460 741
			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 q_f	1164 1875	1121 1804	1090 1754	1066 1717	1048 1688	1034 1665	1022 1640	847 1355	712 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 q_f	989 1592	931 1499	890 1433	859 1383	836 1345	817 1315	802 1291	789 1270	712 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 q_f	881 1418	839 1351	768 1237	753 1212	707 1139	702 1130	669 1077	668 1075	643 1036
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		12"	q_a q_f	758 1221	684 1101	632 1018	594 956	564 909	541 871	522 841	507 816	494 795
			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 q_f	691 1221	628 1010	533 858	503 811	481 775	425 684	417 672	411 662	377 607
			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 q_f	621 1000	569 916	474 764	453 730	393 633	386 621	347 559	347 559	318 513
			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 q_f	935 1506	896 1443	868 1398	847 1364	831 1338	818 1318	779 1247	644 1031	541 866
			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 q_f	793 1277	743 1196	707 1139	681 1096	660 1063	644 1036	631 1015	620 998	541 866
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
		8"	q_a q_f	708 1140	670 1079	611 984	597 960	559 900	553 890	526 848	524 844	504 812
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		12"	q_a q_f	612 986	549 885	505 814	473 761	446 719	426 685	410 660	397 639	386 622
			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 q_f	561 986	506 814	425 684	399 642	380 611	337 542	330 531	324 522	297 478
			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 q_f	506 815	461 742	380 612	361 581	313 503	307 494	276 445	275 443	252 406
			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

FIGURE 17: DGN-32 Profile

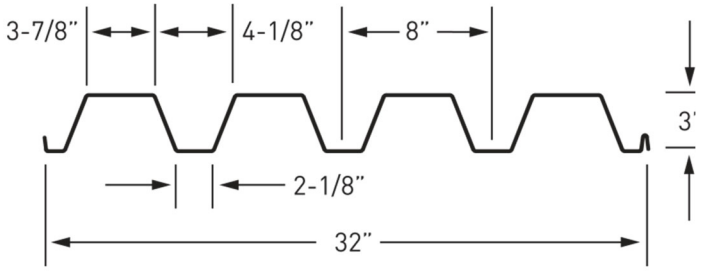


FIGURE 18 DGNF-32

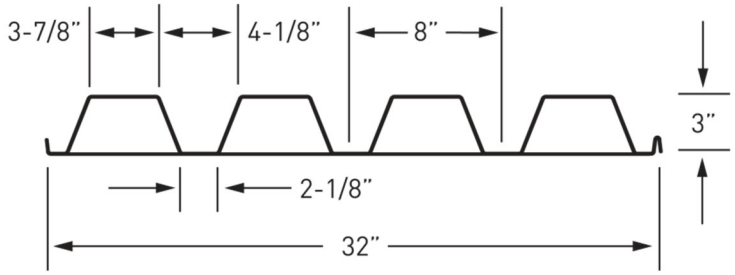


FIGURE 19: NN-32 Profile

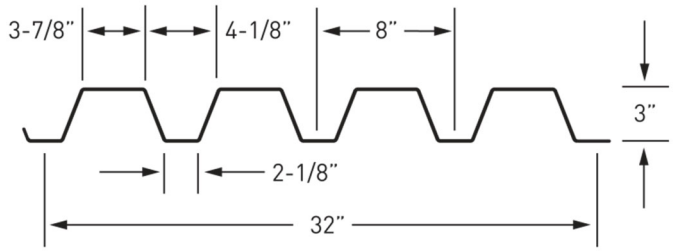


FIGURE 20: N-32 Attachment Patterns

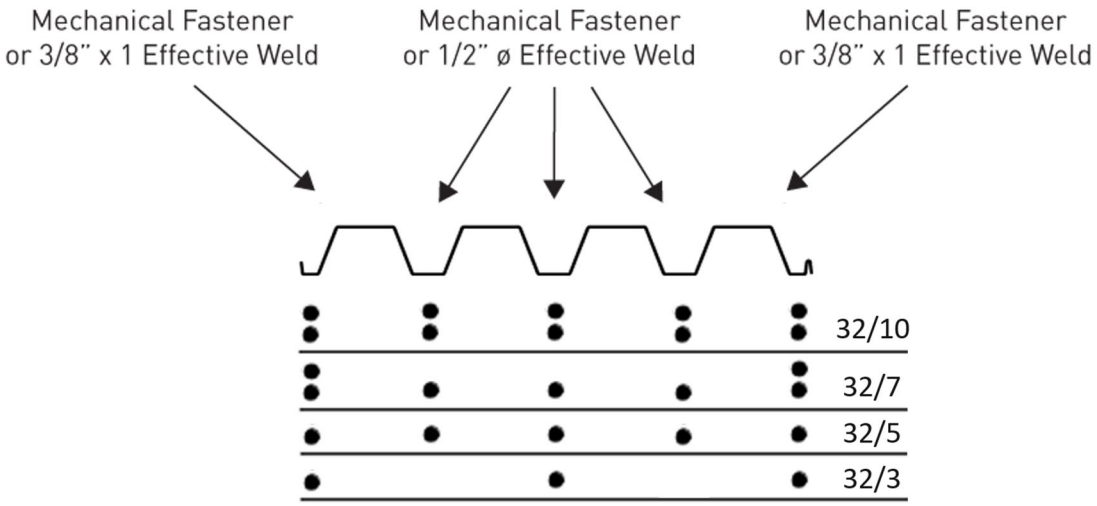


TABLE 13: DGN-32, NN-32 Panel Properties (F_y = 50 ksi)

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 (in)	F_y (ksi)	F_u (ksi)	A_g (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_{gtop} (in^3/ft)	r (in)
22	1.95	0.0299	50	65	0.569	0.814	1.68	0.483	1.195
21	2.14	0.0330	50	65	0.628	0.893	1.68	0.531	1.192
20	2.33	0.0359	50	65	0.681	0.968	1.68	0.576	1.193
19	2.72	0.0420	50	65	0.795	1.125	1.69	0.668	1.190
18	3.09	0.0478	50	65	0.902	1.275	1.69	0.755	1.189
16	3.85	0.0598	50	65	1.123	1.575	1.69	0.931	1.185

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
								Uniform Load Only	
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	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	1.1256	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

TABLE 14: DGN-32, NN-32 & DGNF-32 Web Crippling

Reactions at Supports (plf) Based on Web Crippling									
Gauge No.	Condition	Bearing Length of Webs							
		Allowable				Factored			
		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°		---

Deck Profile	Flat width of the top flange	Flat width of the bottom flange	Coefficient for composite deck
	wtf	wbf	K
N-32, DGN-32, DGNF-32, NN-32	3.875	2.157	1

TABLE 15: DGN-32, NN-32 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	435	193	109	70	48	36	27	21	17
		Φf_b	654	291	163	105	73	53	41	32	26
		L/360	489	145	61	31	18	11	8	5	4
		L/240	734	217	92	47	27	17	11	8	6
		L/180	978	290	122	63	36	23	15	11	8
		L/120	1467	435	183	94	54	34	23	16	12
	Double Span	f_b/Ω	502	223	125	80	56	41	31	25	20
		Φf_b	754	335	189	121	84	62	47	37	30
		L/360	1273	377	159	81	47	30	20	14	10
		L/240	1909	566	239	122	71	45	30	21	15
		L/180	2546	754	318	163	94	59	40	28	20
		L/120	3818	1131	477	244	141	89	60	42	31
	Triple Span	f_b/Ω	627	279	157	100	70	51	39	31	25
		Φf_b	943	419	236	151	105	77	59	47	38
		L/360	997	295	125	64	37	23	16	11	8
		L/240	1496	443	187	96	55	35	23	16	12
		L/180	1994	591	249	128	74	47	31	22	16
		L/120	2991	886	374	191	111	70	47	33	24
20	Single Span	f_b/Ω	557	247	139	89	62	45	35	27	22
		Φf_b	837	372	209	134	93	68	52	41	33
		L/360	606	180	76	39	22	14	9	7	5
		L/240	909	269	114	58	34	21	14	10	7
		L/180	1212	359	152	78	45	28	19	13	10
		L/120	1818	539	227	116	67	42	28	20	15
	Double Span	f_b/Ω	630	280	158	101	70	51	39	31	25
		Φf_b	947	421	237	152	105	77	59	47	38
		L/360	1550	459	194	99	57	36	24	17	12
		L/240	2326	689	291	149	86	54	36	26	19
		L/180	3101	919	388	198	115	72	48	34	25
		L/120	4651	1378	581	298	172	108	73	51	37
	Triple Span	f_b/Ω	788	350	197	126	88	64	49	39	32
		Φf_b	1184	526	296	189	132	97	74	58	47
		L/360	1215	360	152	78	45	28	19	13	10
		L/240	1822	540	228	117	67	42	28	20	15
		L/180	2429	720	304	155	90	57	38	27	19
		L/120	3644	1080	455	233	135	85	57	40	29

TABLE 15: DGN-32, NN-32 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18	Single Span	f_b/Ω	825	367	206	132	92	67	52	41	33
		Φf_b	1240	551	310	198	138	101	77	61	50
		L/360	845	250	106	54	31	20	13	9	7
		L/240	1268	376	158	81	47	30	20	14	10
		L/180	1690	501	211	108	63	39	26	19	14
		L/120	2535	751	317	162	94	59	40	28	20
	Double Span	f_b/Ω	892	396	223	143	99	73	56	44	36
		Φf_b	1341	596	335	215	149	109	84	66	54
		L/360	2097	621	262	134	78	49	33	23	17
		L/240	3146	932	393	201	117	73	49	35	25
		L/180	4195	1243	524	268	155	98	66	46	34
		L/120	6292	1864	786	403	233	147	98	69	50
	Triple Span	f_b/Ω	1115	496	279	178	124	91	70	55	45
		Φf_b	1676	745	419	268	186	137	105	83	67
		L/360	1643	487	205	105	61	38	26	18	13
		L/240	2465	730	308	158	91	57	39	27	20
		L/180	3286	974	411	210	122	77	51	36	26
		L/120	4929	1460	616	315	183	115	77	54	39
16	Single Span	f_b/Ω	1097	487	274	175	122	90	69	54	44
		Φf_b	1648	733	412	264	183	135	103	81	66
		L/360	1067	316	133	68	40	25	17	12	9
		L/240	1600	474	200	102	59	37	25	18	13
		L/180	2134	632	267	137	79	50	33	23	17
		L/120	3201	948	400	205	119	75	50	35	26
	Double Span	f_b/Ω	1156	514	289	185	128	94	72	57	46
		Φf_b	1737	772	434	278	193	142	109	86	69
		L/360	2591	768	324	166	96	60	40	28	21
		L/240	3886	1151	486	249	144	91	61	43	31
		L/180	5182	1535	648	332	192	121	81	57	41
		L/120	7772	2303	972	497	288	181	121	85	62
	Triple Span	f_b/Ω	1445	642	361	231	161	118	90	71	58
		Φf_b	2172	965	543	347	241	177	136	107	87
		L/360	2030	601	254	130	75	47	32	22	16
		L/240	3044	902	381	195	113	71	48	33	24
		L/180	4059	1203	507	260	150	95	63	45	32
		L/120	6089	1804	761	390	226	142	95	67	49

TABLE 16: DGNF-32 Properties

Panel Properties									
Gauge No.	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 (in)	F_y (ksi)	F_u (ksi)	A_g (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_{gtop} (in^3/ft)	r (in)
20/20	3.96	.0359/.036	50	65	1.114	1.740	1.07	0.867	1.250
20/18	4.44	.0359/.047	50	65	1.254	1.877	0.96	0.884	1.223
20/16	4.96	.0359/.059	50	65	1.406	1.999	0.87	0.899	1.192
18/20	4.71	.0478/.036	50	65	1.330	2.143	1.19	1.129	1.269
18/18	5.19	.0478/.047	50	65	1.470	2.316	1.09	1.153	1.255
18/16	5.71	.0478/.059	50	65	1.622	2.474	1.00	1.173	1.235
16/20	5.47	.0598/.036	50	65	1.547	2.522	1.27	1.385	1.277
16/18	5.95	.0598/.047	50	65	1.687	2.725	1.18	1.415	1.271
16/16	6.47	.0598/.059	50	65	1.839	2.914	1.10	1.442	1.259

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Compression Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ (in^2/ft)	S_e+ (in^3/ft)	y_b (in)	S_e- (in^3/ft)	y_b (in)	I_e+ (in^4/ft)	I_e- (in^4/ft)	I+ (in^4/ft)	I- (in^4/ft)
20/20	0.547	0.488	0.76	0.808	1.39	1.381	1.454	1.501	1.549
20/18	0.622	0.490	0.66	0.838	1.24	1.480	1.623	1.612	1.708
20/16	0.729	0.522	0.62	0.863	1.11	1.515	1.816	1.676	1.877
18/20	0.784	0.798	0.99	1.057	1.45	1.835	1.839	1.938	1.940
18/18	0.859	0.816	0.90	1.093	1.33	1.972	2.019	2.087	2.118
18/16	0.966	0.810	0.81	1.123	1.22	2.107	2.234	2.230	2.314
16/20	1.057	1.073	1.13	1.306	1.49	2.316	2.218	2.385	2.319
16/18	1.132	1.098	1.04	1.346	1.39	2.495	2.405	2.572	2.512
16/16	1.238	1.119	0.96	1.380	1.30	2.661	2.636	2.746	2.729

TABLE 17: DGNF-32 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	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	2549	755	319	163	94	59	40	28	20
		L/240	3823	1133	478	245	142	89	60	42	31
		L/180	5098	1510	637	326	189	119	80	56	41
		L/120	7646	2266	956	489	283	178	119	84	61
	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	1997	592	250	128	74	47	31	22	16
		L/240	2995	887	374	192	111	70	47	33	24
		L/180	3993	1183	499	256	148	93	62	44	32
		L/120	5990	1775	749	383	222	140	94	66	48
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	2810	832	351	180	104	66	44	31	22
		L/240	4214	1249	527	270	156	98	66	46	34
		L/180	5619	1665	702	360	208	131	88	62	45
		L/120	8429	2497	1054	539	312	197	132	92	67
	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	2201	652	275	141	82	51	34	24	18
		L/240	3302	978	413	211	122	77	52	36	26
		L/180	4402	1304	550	282	163	103	69	48	35
		L/120	6603	1956	825	423	245	154	103	72	53

TABLE 17: DGNF-32 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/16	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	3088	915	386	198	114	72	48	34	25
		L/240	4631	1372	579	296	172	108	72	51	37
		L/180	6175	1830	772	395	229	144	96	68	49
		L/120	9263	2745	1158	593	343	216	145	102	74
	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	2419	717	302	155	90	56	38	27	19
		L/240	3628	1075	454	232	134	85	57	40	29
		L/180	4838	1433	605	310	179	113	76	53	39
		L/120	7256	2150	907	464	269	169	113	80	58
18/20	Single Span	f_b/Ω	995	442	249	159	111	81	62	49	40
		Φf_b	1495	665	374	239	166	122	93	74	60
		L/360	1323	392	165	85	49	31	21	15	11
		L/240	1985	588	248	127	74	46	31	22	16
		L/180	2646	784	331	169	98	62	41	29	21
		L/120	3969	1176	496	254	147	93	62	44	32
	Double Span	f_b/Ω	1319	586	330	211	147	108	82	65	53
		Φf_b	1983	881	496	317	220	162	124	98	79
		L/360	3192	946	399	204	118	74	50	35	26
		L/240	4788	1419	598	306	177	112	75	53	38
		L/180	6384	1892	798	409	236	149	100	70	51
		L/120	9576	2837	1197	613	355	223	150	105	77
	Triple Span	f_b/Ω	1555	691	389	249	173	127	97	77	62
		Φf_b	2336	1038	584	374	260	191	146	115	93
		L/360	2501	741	313	160	93	58	39	27	20
		L/240	3751	1111	469	240	139	87	59	41	30
		L/180	5001	1482	625	320	185	117	78	55	40
		L/120	7502	2223	938	480	278	175	117	82	60

TABLE 17: DGNF-32 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/18	Single Span	f_b/Ω	1018	452	254	163	113	83	64	50	41
		Φf_b	1529	680	382	245	170	125	96	76	61
		L/360	1425	422	178	91	53	33	22	16	11
		L/240	2137	633	267	137	79	50	33	23	17
		L/180	2850	844	356	182	106	66	45	31	23
		L/120	4275	1267	534	274	158	100	67	47	34
	Double Span	f_b/Ω	1363	606	341	218	151	111	85	67	55
		Φf_b	2049	911	512	328	228	167	128	101	82
		L/360	3483	1032	435	223	129	81	54	38	28
		L/240	5225	1548	653	334	194	122	82	57	42
		L/180	6967	2064	871	446	258	162	109	76	56
		L/120	10450	3096	1306	669	387	244	163	115	84
	Triple Span	f_b/Ω	1590	707	397	254	177	130	99	79	64
		Φf_b	2390	1062	597	382	266	195	149	118	96
		L/360	2729	809	341	175	101	64	43	30	22
		L/240	4093	1213	512	262	152	95	64	45	33
		L/180	5458	1617	682	349	202	127	85	60	44
		L/120	8187	2426	1023	524	303	191	128	90	65
18/16	Single Span	f_b/Ω	1011	449	253	162	112	82	63	50	40
		Φf_b	1519	675	380	243	169	124	95	75	61
		L/360	1522	451	190	97	56	36	24	17	12
		L/240	2284	677	285	146	85	53	36	25	18
		L/180	3045	902	381	195	113	71	48	33	24
		L/120	4567	1353	571	292	169	107	71	50	37
	Double Span	f_b/Ω	1401	623	350	224	156	114	88	69	56
		Φf_b	2105	936	526	337	234	172	132	104	84
		L/360	3806	1128	476	244	141	89	59	42	30
		L/240	5709	1692	714	365	211	133	89	63	46
		L/180	7612	2255	952	487	282	178	119	84	61
		L/120	11418	3383	1427	731	423	266	178	125	91
	Triple Span	f_b/Ω	1579	702	395	253	175	129	99	78	63
		Φf_b	2373	1055	593	380	264	194	148	117	95
		L/360	2982	883	373	191	110	70	47	33	24
		L/240	4472	1325	559	286	166	104	70	49	36
		L/180	5963	1767	745	382	221	139	93	65	48
		L/120	8945	2650	1118	572	331	209	140	98	72

TABLE 17: DGNF-32 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	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	3815	1130	477	244	141	89	60	42	31
		L/240	5723	1696	715	366	212	133	89	63	46
		L/180	7630	2261	954	488	283	178	119	84	61
		L/120	11445	3391	1431	733	424	267	179	126	92
	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	2989	886	374	191	111	70	47	33	24
		L/240	4483	1328	560	287	166	105	70	49	36
		L/180	5978	1771	747	383	221	139	93	66	48
		L/120	8966	2657	1121	574	332	209	140	98	72
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	4131	1224	516	264	153	96	65	45	33
		L/240	6197	1836	775	397	230	145	97	68	50
		L/180	8263	2448	1033	529	306	193	129	91	66
		L/120	12394	3672	1549	793	459	289	194	136	99
	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	3237	959	405	207	120	75	51	36	26
		L/240	4855	1438	607	311	180	113	76	53	39
		L/180	6473	1918	809	414	240	151	101	71	52
		L/120	9710	2877	1214	621	360	226	152	107	78

TABLE 17: DGNF-32 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/16	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	4489	1330	561	287	166	105	70	49	36
		L/240	6733	1995	842	431	249	157	105	74	54
		L/180	8977	2660	1122	575	332	209	140	99	72
		L/120	13466	3990	1683	862	499	314	210	148	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	3516	1042	440	225	130	82	55	39	28
		L/240	5275	1563	659	338	195	123	82	58	42
		L/180	7033	2084	879	450	260	164	110	77	56
		L/120	10549	3126	1319	675	391	246	165	116	84

TABLE 18a: DGN-32 and DGNF-32 Shear and Flexibility
DGN-32 and DGNF-32 with DeltaGrip and 0.5" Effective Diameter Arc Spot Welds

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2349 3758	1856 2969	1503 2405
			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+0R	3.6+0R	3.6+0R
		6"	q_a q_f	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2349 3758	1856 2969	1503 2405
			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 q_f	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2349 3758	1856 2969	1503 2405
			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 q_f	2569 4239	2382 3930	2281 3764	2219 3661	2176 3591	2145 3540	2122 3501	1856 2969	1503 2405
			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 q_f	2240 4239	1889 3117	1905 3143	1749 2885	1640 2707	1687 2783	1612 2660	1553 2563	1503 2405
			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 q_f	1857 3064	1606 2650	1474 2431	1392 2297	1337 2206	1297 2140	1267 2091	1243 2052	1225 2021
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1663 2744	1575 2599	1520 2508	1483 2447	1456 2402	1436 2369	1339 2142	1084 1735
			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 q_f	1596 2918	1319 2177	1311 2164	1193 1969	1112 1835	1138 1877	1083 1787	1040 1716	1066 1735
			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 q_f	1335 2203	1127 1859	1018 1679	952 1571	909 1499	877 1447	852 1406	833 1375	818 1350
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1056 1728	956 1578	903 1490	870 1436	848 1399	832 1372	819 1352	810 1336	712 1139
			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 q_f	922 1728	759 1253	752 1241	683 1127	636 1049	649 1071	618 1019	593 978	607 1001
			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 q_f	773 1276	647 1067	583 961	544 897	518 855	500 825	486 802	475 784	466 769
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	767 1233	673 1076	545 872
			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 q_f	746 1231	673 1111	634 1047	610 1007	594 980	582 961	573 946	566 935	545 872
			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 q_f	652 1231	535 883	528 872	479 791	445 735	455 750	432 713	414 684	424 700
			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 q_f	548 904	455 751	409 675	381 629	363 598	349 577	340 560	332 547	326 537
			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

TABLE 18b: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and #12 HWH 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	3.7+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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1398 2251	1443 2323	1396 2247	1360 2190	1394 2245	1368 2203	1347 2168	1373 2211
			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 q_f	1289 2075	1239 1994	1211 1950	1194 1923	1183 1904	1174 1891	1168 1880	1163 1872	1159 1866
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			F	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R
		6"	q_a q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			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 q_f	1182 1903	1182 1903	1179 1898	1172 1887	1167 1879	1164 1874	1161 1870	1159 1866	1084 1735
			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 q_f	1104 1903	1019 1641	1055 1698	1010 1627	978 1574	1007 1621	983 1582	963 1550	986 1587
			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 q_f	937 1508	886 1427	859 1383	842 1356	831 1337	822 1324	816 1313	811 1305	807 1299
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	830 1336	806 1297	793 1276	785 1263	779 1254	775 1248	772 1243	769 1239	712 1139
			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 q_f	741 1336	666 1072	689 1109	651 1049	624 1005	645 1038	625 1007	609 981	626 1008
			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 q_f	616 992	569 917	544 876	529 851	518 834	510 822	504 812	500 805	496 799
			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 q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1076	545 872
			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 q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1076	545 872
			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 q_f	739 1190	729 1174	721 1161	717 1154	713 1148	711 1145	709 1142	673 1076	545 872
			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 q_f	644 1037	619 997	606 975	597 961	591 952	587 945	584 940	581 936	545 872
			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 q_f	569 1037	503 810	518 834	486 782	463 745	478 770	462 744	449 722	461 743
			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 q_f	471 758	427 688	404 651	390 628	380 612	373 601	368 592	364 586	360 580
			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

TABLE 18c: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and #12 HWH 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	3.7+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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			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 q_f	1478 2380	1478 2380	1454 2340	1414 2276	1386 2232	1366 2199	1351 2175	1339 2155	1329 2139
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			F	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R
		6"	q_a q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1151 1854	1182 1903	1146 1846	1115 1796	1084 1735
			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 q_f	1182 1903	1083 1743	1024 1648	987 1589	961 1548	943 1518	929 1495	918 1478	909 1463
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	814 1310	823 1325	764 1231	723 1164	742 1195	713 1148	690 1111	708 1139
			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 q_f	795 1280	701 1129	651 1048	619 997	597 962	582 936	570 917	560 902	553 890
			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 q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1076	545 872
			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 q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1076	545 872
			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 q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	673 1076	545 872
			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 q_f	739 1190	739 1190	727 1170	707 1138	693 1116	683 1100	675 1087	669 1076	545 872
			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 q_f	725 1190	617 993	617 994	568 915	534 859	546 880	523 842	504 811	516 831
			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 q_f	616 991	532 857	487 785	459 740	440 709	426 687	416 670	408 656	401 646
			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

TABLE 18d: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and HILTI X-HSN 24 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1901 3061	1883 3031	1871 3012	1863 2999	1857 2990	1853 2983	1849 2969	1503 2405
			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 q_f	1762 3070	1622 2611	1679 2703	1606 2586	1553 2500	1599 2575	1560 2512	1528 2460	1503 2405
			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 q_f	1491 2400	1407 2266	1362 2193	1334 2148	1315 2117	1301 2095	1291 2078	1282 2064	1276 2054
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1453 2339	1412 2273	1390 2238	1376 2216	1367 2201	1360 2190	1355 2181	1339 2142	1084 1735
			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 q_f	1299 2339	1170 1884	1210 1949	1145 1844	1099 1769	1135 1827	1101 1772	1073 1728	1084 1735
			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 q_f	1082 1742	1001 1612	958 1542	931 1499	913 1470	899 1448	889 1432	881 1419	875 1409
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	983 1583	939 1512	915 1473	900 1449	890 1433	882 1421	877 1411	872 1404	712 1139
			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 q_f	865 1583	757 1218	777 1251	726 1168	689 1109	712 1146	686 1104	665 1071	684 1101
			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 q_f	714 1149	642 1033	604 972	580 934	564 908	552 889	544 875	537 864	531 855
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	758 1221	714 1150	690 1111	675 1087	665 1071	658 1059	652 1050	648 1043	545 872
			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 q_f	663 1221	569 917	580 934	537 864	507 816	523 841	501 807	485 780	498 802
			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 q_f	547 881	483 777	449 722	427 688	413 665	403 648	395 636	389 626	384 618
			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

TABLE 18e: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and HILTI X HSN-24 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405
			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 q_f	1907 3070	1907 3070	1907 3070	1907 3070	1824 2937	1877 3022	1815 2922	1764 2841	1503 2405
			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 q_f	1897 3054	1720 2769	1623 2613	1562 2516	1521 2448	1490 2400	1467 2363	1449 2333	1435 2310
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1339 2142	1084 1735
			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 q_f	1544 2485	1429 2301	1447 2330	1345 2166	1273 2049	1307 2105	1257 2024	1216 1958	1084 1735
			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 q_f	1393 2243	1232 1984	1145 1843	1090 1755	1052 1694	1025 1651	1005 1617	988 1591	975 1570
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1060 1706	1036 1668	1019 1641	1006 1620	879 1406	712 1139
			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 q_f	1080 1728	932 1500	926 1492	849 1366	794 1279	812 1307	775 1247	746 1200	712 1139
			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 q_f	942 1516	806 1297	732 1179	687 1106	656 1056	633 1020	616 992	603 971	592 953
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	769 1233	753 1212	741 1192	673 1076	545 872
			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 q_f	771 1233	709 1142	695 1119	631 1016	587 945	596 960	567 912	543 875	545 872
			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 q_f	736 1186	617 993	551 887	511 823	485 780	466 750	452 727	440 709	431 694
			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

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

TABLE 18f: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and HILTI X-ENP-19 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2040 3284	1997 3215	1974 3179	1960 3156	1950 3140	1943 3128	1938 3120	1856 2969	1503 2405
			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 q_f	1845 3284	1687 2717	1747 2813	1666 2682	1606 2586	1656 2667	1613 2597	1577 2540	1503 2405
			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 q_f	1552 2499	1457 2346	1405 2263	1373 2211	1351 2176	1336 2150	1324 2131	1314 2116	1306 2103
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1339 2142	1084 1735
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1339 2142	1084 1735
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1339 2142	1084 1735
			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 q_f	1523 2452	1475 2374	1448 2332	1432 2306	1421 2288	1413 2274	1406 2264	1339 2142	1084 1735
			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 q_f	1355 2452	1212 1951	1252 2016	1181 1902	1130 1819	1168 1880	1131 1820	1101 1772	1084 1735
			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 q_f	1125 1811	1034 1665	985 1586	955 1538	935 1505	920 1481	908 1462	900 1448	892 1437
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1026 1651	974 1569	947 1524	929 1496	917 1477	909 1463	902 1453	879 1406	712 1139
			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 q_f	900 1651	781 1258	800 1289	745 1199	705 1136	728 1173	701 1128	678 1092	698 1123
			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 q_f	742 1194	662 1066	620 998	594 956	576 928	563 907	554 891	546 879	540 869
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	739 1190	712 1146	695 1119	683 1100	675 1087	669 1076	664 1068	545 872
			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 q_f	689 1233	587 946	596 960	550 886	518 834	534 859	511 823	493 795	507 817
			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 q_f	570 917	498 803	461 742	438 705	422 679	411 661	402 647	395 637	390 628
			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

TABLE 18g: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and HILTI X-ENP-19 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	2053 3306	1856 2969	1503 2405
			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 q_f	2053 3306	2053 3306	2053 3306	1973 3176	1877 3022	1931 3109	1864 3001	1809 2913	1503 2405
			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 q_f	1981 3190	1783 2870	1674 2696	1606 2586	1560 2511	1526 2457	1500 2415	1480 2383	1464 2357
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1339 2142	1084 1735
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1339 2142	1084 1735
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1339 2142	1084 1735
			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 q_f	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1662 2676	1646 2651	1339 2142	1084 1735
			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 q_f	1662 2676	1482 2386	1494 2406	1384 2228	1306 2103	1340 2158	1286 2071	1243 2001	1084 1735
			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 q_f	1456 2344	1277 2056	1180 1900	1120 1803	1078 1736	1048 1688	1026 1651	1008 1623	993 1600
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1064 1714	1045 1683	1031 1659	879 1406	712 1139
			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 q_f	1080 1728	966 1555	955 1538	872 1404	814 1311	830 1337	791 1274	760 1224	712 1139
			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 q_f	987 1588	837 1348	757 1218	707 1138	673 1083	648 1043	629 1013	615 990	603 971
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	757 1219	673 1076	545 872
			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 q_f	771 1233	736 1185	717 1155	649 1045	602 968	610 982	579 932	554 892	545 872
			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 q_f	771 1233	637 1026	566 911	523 843	495 797	475 764	459 739	447 720	438 705
			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

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

TABLE 18h: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek K66 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2349 3758	1856 2969	1503 2405
			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 q_f	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2349 3758	1856 2969	1503 2405
			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 q_f	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2658 4279	2349 3758	1856 2969	1503 2405
			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 q_f	2416 3889	2336 3761	2293 3692	2266 3649	2248 3619	2234 3598	2224 3581	1856 2969	1503 2405
			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 q_f	2147 3889	1916 3085	1979 3186	1865 3002	1783 2870	1842 2966	1783 2871	1735 2794	1503 2405
			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 q_f	1780 2866	1633 2630	1555 2503	1506 2424	1473 2371	1448 2332	1430 2303	1416 2279	1404 2261
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1724 2776	1649 2654	1608 2589	1582 2547	1565 2519	1552 2499	1542 2483	1339 2142	1084 1735
			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 q_f	1518 2776	1330 2142	1368 2202	1278 2057	1214 1954	1254 2020	1209 1947	1173 1888	1084 1735
			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 q_f	1253 2017	1129 1817	1063 1711	1022 1646	994 1601	974 1569	959 1544	947 1525	938 1510
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1048 1687	1011 1628	988 1591	972 1566	961 1547	952 1533	879 1406	712 1139
			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 q_f	975 1728	834 1343	848 1366	784 1262	739 1189	762 1226	730 1176	705 1135	712 1139
			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 q_f	805 1296	707 1139	656 1056	624 1004	602 969	586 944	575 925	565 910	558 898
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	748 1204	727 1171	713 1148	703 1131	695 1119	673 1076	545 872
			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 q_f	736 1233	620 998	624 1005	573 922	537 865	552 889	528 849	508 818	522 840
			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 q_f	610 983	527 848	483 778	456 734	438 705	425 684	415 667	407 655	400 645
			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

TABLE 18i: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek K66 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2349 3758	1856 2969	1503 2405
			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 q_f	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2349 3758	1856 2969	1503 2405
			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 q_f	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2658 4280	2349 3758	1856 2969	1503 2405
			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 q_f	2658 4280	2658 4280	2658 4280	2658 4280	2656 4277	2623 4223	2349 3758	1856 2969	1503 2405
			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 q_f	2658 4280	2343 3773	2360 3800	2184 3516	2059 3315	2112 3401	2026 3262	1856 2969	1503 2405
			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 q_f	2309 3717	2020 3252	1864 3001	1767 2844	1700 2737	1652 2659	1615 2600	1586 2554	1503 2405
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1795 2890	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1637 2635	1630 2624	1494 2406	1400 2253	1431 2303	1366 2200	1315 2117	1084 1735
			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 q_f	1650 2657	1415 2278	1288 2074	1209 1947	1155 1860	1116 1797	1087 1750	1064 1712	1045 1682
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1042 1677	1018 1639	923 1486	857 1379	869 1400	826 1329	791 1274	712 1139
			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 q_f	1080 1728	904 1456	805 1296	746 1201	706 1137	678 1091	657 1057	640 1031	627 1009
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	757 1218	680 1096	628 1011	634 1020	600 966	573 922	545 872
			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 q_f	771 1233	675 1087	595 957	546 879	514 827	491 790	474 762	460 741	449 723
			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

TABLE 18j: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek K64 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2259 3638	2197 3538	2164 3484	2143 3450	2128 3427	2118 3410	2110 3397	1856 2969	1503 2405
			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 q_f	2022 3638	1823 2935	1886 3036	1785 2874	1713 2758	1769 2848	1716 2763	1674 2695	1503 2405
			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 q_f	1684 2712	1560 2512	1494 2405	1452 2338	1424 2293	1404 2260	1388 2235	1376 2215	1366 2199
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1680 2704	1611 2593	1574 2533	1550 2496	1534 2470	1523 2452	1514 2437	1339 2142	1084 1735
			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 q_f	1482 2704	1304 2100	1343 2162	1257 2024	1196 1926	1236 1990	1193 1920	1158 1864	1084 1735
			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 q_f	1224 1970	1108 1783	1046 1684	1007 1622	981 1580	963 1550	948 1527	937 1509	928 1494
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1036 1669	1001 1612	979 1576	964 1552	953 1535	945 1521	879 1406	712 1139
			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 q_f	963 1728	826 1329	841 1354	778 1252	734 1181	756 1218	726 1168	701 1129	712 1139
			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 q_f	795 1280	700 1127	650 1046	619 997	598 963	583 938	571 920	562 905	555 894
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	760 1223	729 1174	711 1144	698 1123	689 1109	681 1097	673 1076	545 872
			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 q_f	711 1233	603 971	610 982	561 903	527 849	543 874	519 836	501 806	514 828
			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 q_f	589 948	512 824	471 759	446 719	430 692	417 672	408 657	401 645	395 636
			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

TABLE 18k: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek K64

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2393 3852	2349 3758	1856 2969	1503 2405
			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 q_f	2393 3852	2227 3585	2255 3631	2098 3377	1985 3196	2040 3284	1961 3157	1856 2969	1503 2405
			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 q_f	2168 3491	1919 3090	1784 2872	1700 2736	1642 2643	1600 2576	1568 2524	1543 2484	1503 2405
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1794 2888	1767 2844	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1602 2579	1600 2575	1470 2367	1379 2220	1411 2272	1349 2172	1300 2092	1084 1735
			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 q_f	1606 2585	1383 2227	1263 2034	1189 1914	1138 1832	1101 1773	1073 1728	1051 1692	1034 1664
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1072 1726	879 1406	712 1139
			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 q_f	1080 1728	1030 1658	1008 1623	915 1473	850 1368	863 1390	820 1321	786 1266	712 1139
			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 q_f	1072 1725	895 1441	798 1285	740 1192	701 1129	674 1085	653 1052	637 1025	623 1003
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	759 1222	736 1185	664 1069	614 989	621 1000	589 948	563 906	545 872
			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 q_f	771 1233	655 1055	580 933	534 860	504 811	482 776	466 750	453 730	443 714
			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 K64 PAF Side Seam Attachment: DeltaGrip

TABLE 18I: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek K63 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1819 2928	1812 2917	1806 2908	1803 2902	1799 2897	1503 2405
			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 q_f	1713 2939	1584 2550	1639 2638	1571 2529	1521 2448	1565 2520	1528 2461	1498 2412	1503 2405
			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 q_f	1455 2343	1378 2219	1337 2152	1311 2111	1293 2082	1280 2061	1271 2046	1263 2033	1257 2023
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1468 2364	1426 2296	1403 2259	1389 2236	1379 2220	1372 2209	1366 2200	1339 2142	1084 1735
			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 q_f	1311 2364	1179 1899	1220 1964	1153 1857	1106 1780	1142 1839	1107 1783	1079 1738	1084 1735
			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 q_f	1091 1757	1008 1623	964 1552	936 1508	918 1477	904 1455	894 1439	885 1426	879 1415
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1034 1665	982 1580	953 1534	935 1506	923 1486	914 1472	907 1461	879 1406	712 1139
			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 q_f	907 1665	786 1266	805 1296	748 1205	709 1141	732 1178	704 1133	681 1097	701 1128
			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 q_f	748 1204	667 1073	624 1004	597 961	579 932	566 911	556 895	548 882	542 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	758 1221	728 1173	710 1143	697 1122	688 1107	681 1096	673 1076	545 872
			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 q_f	710 1233	602 969	609 981	560 902	527 848	542 873	519 835	500 805	514 827
			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 q_f	588 946	511 823	471 758	446 718	429 691	417 671	408 656	401 645	395 636
			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

TABLE 18m: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek K63 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1826 2939	1503 2405
			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 q_f	1826 2939	1826 2939	1826 2939	1826 2939	1793 2886	1826 2939	1785 2874	1737 2797	1503 2405
			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 q_f	1826 2939	1684 2711	1594 2566	1537 2474	1498 2412	1469 2366	1448 2331	1431 2304	1417 2282
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1569 2526	1339 2142	1084 1735
			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 q_f	1569 2526	1441 2320	1458 2347	1354 2180	1280 2061	1315 2117	1263 2034	1222 1968	1084 1735
			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 q_f	1407 2265	1242 1999	1152 1855	1096 1765	1058 1703	1030 1659	1009 1625	993 1598	979 1577
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1070 1723	1050 1691	1036 1667	879 1406	712 1139
			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 q_f	1080 1728	973 1567	961 1548	877 1412	818 1317	834 1343	794 1279	763 1229	712 1139
			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 q_f	996 1604	844 1358	762 1226	711 1144	676 1089	651 1048	632 1018	617 994	605 975
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	770 1233	673 1076	545 872
			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 q_f	771 1233	758 1220	735 1183	663 1067	613 988	621 999	588 947	563 906	545 872
			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 q_f	771 1233	654 1053	579 932	533 859	503 810	482 776	466 750	453 729	443 713
			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 SDK63 PAF Side Seam Attachment: DeltaGrip

TABLE 18n: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek SDK61 Pins

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1871 3012	1859 2994	1852 2981	1846 2972	1842 2965	1838 2959	1503 2405
			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 q_f	1751 3040	1614 2598	1670 2689	1598 2574	1546 2489	1592 2563	1553 2501	1522 2450	1503 2405
			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 q_f	1483 2388	1401 2256	1357 2184	1329 2140	1310 2110	1297 2088	1286 2071	1278 2058	1271 2047
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1457 2346	1416 2280	1394 2244	1380 2221	1370 2206	1363 2195	1358 2187	1339 2142	1084 1735
			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 q_f	1302 2346	1173 1888	1213 1953	1148 1848	1100 1772	1137 1830	1102 1775	1075 1730	1084 1735
			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 q_f	1084 1746	1003 1615	960 1545	933 1501	914 1472	901 1450	891 1434	883 1421	876 1411
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	994 1600	948 1526	923 1486	907 1461	897 1444	889 1431	883 1422	878 1406	712 1139
			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 q_f	873 1600	763 1228	783 1260	730 1176	693 1116	716 1153	689 1110	668 1076	687 1107
			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 q_f	720 1160	647 1041	608 978	583 939	567 913	555 894	546 879	539 868	533 859
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	769 1233	722 1163	698 1123	682 1098	671 1081	664 1068	658 1059	653 1052	545 872
			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 q_f	672 1233	575 926	586 943	541 872	510 822	526 847	505 813	488 785	501 807
			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 q_f	554 893	488 785	453 729	431 694	416 670	405 653	397 640	391 630	386 621
			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 SDK61 PAF Side Seam Attachment: DeltaGrip

TABLE 18o: DGN-32 and DGNF-32 Shear and Flexibility (continued)
DGN-32 and DGNF-32 with DeltaGrip and Pneutek SDK61

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1888 3040	1856 2969	1503 2405
			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 q_f	1888 3040	1888 3040	1888 3040	1888 3040	1817 2926	1870 3010	1808 2911	1759 2831	1503 2405
			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 q_f	1886 3037	1712 2756	1617 2603	1557 2506	1516 2440	1486 2392	1463 2356	1445 2327	1431 2304
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1551 2497	1339 2142	1084 1735
			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 q_f	1551 2497	1433 2307	1450 2335	1348 2170	1275 2052	1309 2108	1259 2026	1218 1961	1084 1735
			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 q_f	1397 2249	1235 1988	1147 1846	1092 1757	1054 1697	1027 1653	1006 1619	990 1593	976 1572
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1067 1718	1043 1679	1026 1651	1012 1630	879 1406	712 1139
			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 q_f	1080 1728	940 1513	933 1503	854 1376	799 1287	816 1314	779 1254	749 1206	712 1139
			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 q_f	953 1534	813 1309	738 1189	692 1113	660 1062	637 1025	619 997	606 975	595 958
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	759 1221	746 1201	673 1076	545 872
			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 q_f	771 1233	718 1156	702 1131	637 1026	592 952	601 967	571 919	547 881	545 872
			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 q_f	748 1205	624 1004	556 895	515 829	488 786	469 755	454 731	443 713	434 698
			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 SDK61 PAF Side Seam Attachment: DeltaGrip												

TABLE 19a: NN-32 Shear and Flexibility
N-32 Arc Spot/Seam Welds to Supports with Top Seam Welded Side Seam Attachment

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
		Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2349 3758	1856 2969	1503 2405
			F	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R
		6"	q_a q_f	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2349 3758	1856 2969	1503 2405
			F	3.1+-0.1R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R	3.1+0R
		8"	q_a q_f	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2742 4387	2349 3758	1856 2969	1503 2405
			F	3.3+-0.1R	3.3+-0.1R	3.4+-0.1R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R
		12"	q_a q_f	2742 4387	2584 4263	2488 4105	2428 4006	2387 3938	2357 3889	2334 3758	1856 2969	1503 2405
			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 q_f	2420 4387	2065 3407	2092 3451	1930 3184	1817 2998	1870 3085	1792 2956	1729 2854	1503 2405
			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 q_f	2011 3319	1758 2901	1624 2680	1541 2543	1485 2450	1444 2382	1413 2332	1389 2292	1370 2260
			F	4.8+-0.5R	5+-0.4R	5.2+-0.4R	5.3+-0.3R	5.3+-0.3R	5.4+-0.3R	5.4+-0.2R	5.5+-0.2R	5.5+-0.2R
	18 ga	4"	q_a q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			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 q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			F	3.7+-0.1R	3.8+0R	3.8+0R	3.8+0R	3.8+0R	3.8+0R	3.8+0R	3.8+0R	3.8+0R
		8"	q_a q_f	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1824 2918	1694 2711	1339 2142	1084 1735
			F	4+-0.1R	4+-0.1R	4.1+-0.1R	4.1+-0.1R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
		12"	q_a q_f	1824 2918	1824 2918	1824 2918	1824 2918	1808 2918	1783 2918	1694 2711	1339 2142	1084 1735
			F	4.5+-0.2R	4.6+-0.2R	4.6+-0.1R	4.6+-0.1R	4.7+-0.1R	4.7+-0.1R	4.7+-0.1R	4.7+-0.1R	4.7+-0.1R
		18"	q_a q_f	1824 2918	1571 2592	1586 2617	1460 2409	1372 2263	1410 2327	1350 2227	1302 2142	1084 1735
			F	5.1+-0.4R	5.3+-0.3R	5.4+-0.3R	5.4+-0.2R	5.5+-0.2R	5.5+-0.2R	5.5+-0.2R	5.6+-0.1R	5.6+-0.1R
		24"	q_a q_f	1541 2542	1339 2209	1232 2032	1166 1923	1121 1849	1088 1796	1064 1755	1045 1724	1029 1698
			F	5.6+-0.6R	5.9+-0.5R	6.1+-0.4R	6.2+-0.4R	6.3+-0.3R	6.3+-0.3R	6.4+-0.3R	6.4+-0.2R	6.4+-0.2R
	20 ga	4"	q_a q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			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 q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			F	5.1+-0.1R	5.2+-0.1R	5.2+-0.1R	5.2+-0.1R	5.2+-0.1R	5.2+0R	5.2+0R	5.2+0R	5.2+0R
		12"	q_a q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
			F	5.7+-0.2R	5.8+-0.2R	5.8+-0.2R	5.9+-0.1R	5.9+-0.1R	5.9+-0.1R	5.9+-0.1R	5.9+-0.1R	5.9+-0.1R
		18"	q_a q_f	1080 1728	1007 1661	1025 1690	949 1566	896 1479	924 1524	887 1463	857 1406	712 1139
			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 q_f	970 1601	857 1413	796 1313	759 1252	733 1210	715 1179	701 1156	690 1138	681 1124
			F	7+-0.7R	7.3+-0.6R	7.5+-0.5R	7.7+-0.4R	7.7+-0.4R	7.8+-0.3R	7.9+-0.3R	7.9+-0.3R	7.9+-0.3R
	22 ga	4"	q_a q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			F	6+-0.1R	6.1+-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
		12"	q_a q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	771 1233	759 1233	771 1233	722 1191	684 1128	705 1164	678 1119	657 1076	545 872
			F	7.4+-0.5R	7.6+-0.4R	7.8+-0.3R	7.8+-0.3R	7.9+-0.3R	7.9+-0.2R	8+-0.2R	8+-0.2R	8+-0.2R
		24"	q_a q_f	725 1197	646 1066	604 997	578 953	560 924	547 903	537 887	530 874	524 864
			F	8.1+-0.7R	8.4+-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

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

TABLE 19b: NN-32 Shear and Flexibility (continued)
N-32 Arc Spot/Seam Welds to Supports with Button Punch Side Seam Attachment

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1026 1693	692 1141	544 897	455 751	396 653	354 583	322 531	297 490	278 458
			F	7.8+-2R	9.4+-2.3R	10.5+-2.4R	11.3+-2.4R	12+-2.4R	12.6+-2.4R	13+-2.3R	13.4+-2.3R	13.7+-2.2R
		6"	q_a q_f	993 1638	658 1086	510 842	422 696	363 598	320 528	289 476	264 435	244 403
			F	8.6+-2.4R	10.6+-3R	12.2+-3.3R	13.5+-3.5R	14.6+-3.6R	15.5+-3.7R	16.2+-3.7R	16.9+-3.6R	17.5+-3.6R
		8"	q_a q_f	976 1611	642 1059	494 815	405 668	346 571	304 501	272 449	247 408	228 375
			F	9+-2.7R	11.4+-3.5R	13.4+-4R	15+-4.4R	16.4+-4.6R	17.6+-4.7R	18.7+-4.8R	19.6+-4.9R	20.4+-4.9R
		12"	q_a q_f	960 1583	625 1031	477 787	388 641	329 543	287 473	255 421	231 380	211 348
			F	9.5+-3.1R	12.4+-4.1R	14.9+-4.9R	17+-5.5R	18.9+-6R	20.6+-6.4R	22.1+-6.7R	23.5+-6.9R	24.7+-7R
		18"	q_a q_f	951 1583	614 1013	469 774	378 624	318 525	277 458	245 404	219 362	201 331
			F	9.9+-3.3R	13.1+-4.6R	16.1+-5.7R	18.7+-6.6R	21.1+-7.3R	23.4+-8R	25.4+-8.5R	27.3+-9R	29+-9.4R
		24"	q_a q_f	943 1556	608 1004	460 760	372 613	313 516	270 446	239 394	214 353	194 320
			F	10.1+-3.5R	13.6+-4.9R	16.8+-6.1R	19.7+-7.2R	22.5+-8.2R	25+-9R	27.4+-9.8R	29.7+-10.4R	31.8+-11R
	18 ga	4"	q_a q_f	819 1352	565 932	448 740	379 625	332 548	299 494	274 452	255 421	239 395
			F	9.1+-2.2R	10.8+-2.6R	12+-2.7R	13+-2.7R	13.7+-2.7R	14.4+-2.7R	14.9+-2.6R	15.3+-2.5R	15.7+-2.4R
		6"	q_a q_f	786 1297	531 877	415 685	345 570	299 493	266 439	241 397	222 366	206 340
			F	9.9+-2.7R	12.2+-3.4R	14+-3.7R	15.4+-3.9R	16.6+-4.1R	17.6+-4.1R	18.5+-4.1R	19.2+-4.1R	19.8+-4R
		8"	q_a q_f	769 1270	515 849	398 657	329 542	282 466	249 411	224 370	205 338	189 312
			F	10.4+-3.1R	13.1+-3.9R	15.3+-4.5R	17.1+-4.9R	18.7+-5.1R	20+-5.3R	21.2+-5.4R	22.2+-5.5R	23.1+-5.5R
		12"	q_a q_f	753 1242	498 822	382 630	312 515	266 438	232 384	208 342	188 311	173 285
			F	11+-3.4R	14.1+-4.6R	16.9+-5.5R	19.3+-6.2R	21.5+-6.7R	23.4+-7.1R	25.1+-7.5R	26.6+-7.7R	28+-7.9R
		18"	q_a q_f	744 1242	487 803	373 616	302 498	255 420	223 368	197 325	177 292	163 268
			F	11.4+-3.7R	15+-5.1R	18.3+-6.3R	21.2+-7.4R	23.9+-8.2R	26.4+-8.9R	28.7+-9.5R	30.8+-10.1R	32.7+-10.5R
		24"	q_a q_f	736 1215	481 794	365 602	295 487	249 411	216 356	191 315	172 283	156 257
			F	11.6+-3.9R	15.5+-5.5R	19+-6.9R	22.4+-8.1R	25.4+-9.2R	28.3+-10.1R	31+-10.9R	33.5+-11.7R	35.8+-12.3R
	20 ga	4"	q_a q_f	518 855	374 617	306 504	264 436	237 391	217 359	203 335	191 316	182 301
			F	11+-2.6R	12.9+-3R	14.4+-3.1R	15.5+-3.2R	16.4+-3.1R	17.1+-3.1R	17.7+-3R	18.2+-2.9R	18.6+-2.8R
		6"	q_a q_f	485 800	341 562	272 449	231 381	204 336	184 304	169 280	158 261	149 246
			F	11.9+-3.2R	14.5+-3.9R	16.6+-4.3R	18.3+-4.5R	19.7+-4.7R	20.8+-4.7R	21.8+-4.7R	22.7+-4.7R	23.4+-4.6R
		8"	q_a q_f	468 772	324 535	256 422	214 354	187 309	167 276	153 252	141 233	132 218
			F	12.5+-3.5R	15.6+-4.5R	18.1+-5.2R	20.3+-5.6R	22.1+-5.9R	23.6+-6.1R	25+-6.2R	26.1+-6.3R	27.2+-6.3R
		12"	q_a q_f	451 745	307 507	239 394	198 326	170 281	151 249	136 225	125 206	116 191
			F	13.1+-4R	16.8+-5.3R	20+-6.3R	22.8+-7.1R	25.3+-7.7R	27.5+-8.2R	29.4+-8.6R	31.2+-8.9R	32.8+-9.1R
		18"	q_a q_f	443 745	296 489	231 380	188 310	159 263	141 233	126 207	114 187	106 174
			F	13.6+-4.3R	17.8+-5.9R	21.6+-7.3R	25+-8.5R	28.1+-9.5R	31+-10.3R	33.6+-11R	36+-11.6R	38.3+-12.1R
		24"	q_a q_f	435 717	291 480	222 367	181 299	154 254	134 221	119 197	108 178	99 163
			F	13.9+-4.5R	18.4+-6.3R	22.5+-7.9R	26.3+-9.3R	29.9+-10.6R	33.2+-11.7R	36.2+-12.6R	39.1+-13.5R	41.8+-14.2R
	22 ga	4"	q_a q_f	397 655	297 490	248 409	218 360	198 327	184 304	174 287	166 273	159 262
			F	12.4+-2.8R	14.6+-3.2R	16.2+-3.4R	17.4+-3.5R	18.3+-3.4R	19.1+-3.4R	19.8+-3.3R	20.3+-3.2R	20.7+-3.1R
		6"	q_a q_f	363 600	264 435	214 354	185 305	165 272	151 249	140 232	132 218	126 207
			F	13.5+-3.5R	16.3+-4.2R	18.6+-4.7R	20.4+-5R	22+-5.1R	23.2+-5.2R	24.3+-5.2R	25.2+-5.2R	26+-5.1R
		8"	q_a q_f	347 572	247 407	198 326	168 277	148 245	134 222	124 204	116 191	109 180
			F	14.1+-3.9R	17.5+-4.9R	20.3+-5.7R	22.6+-6.2R	24.6+-6.5R	26.3+-6.7R	27.8+-6.8R	29.1+-6.9R	30.2+-6.9R
		12"	q_a q_f	330 545	230 380	181 299	151 250	132 217	118 194	107 177	99 163	92 152
			F	14.8+-4.3R	18.8+-5.8R	22.3+-6.9R	25.4+-7.8R	28.1+-8.5R	30.5+-9R	32.7+-9.4R	34.6+-9.7R	36.3+-10R
		18"	q_a q_f	322 545	219 361	173 285	141 233	121 199	108 178	97 160	88 145	82 136
			F	15.3+-4.7R	19.9+-6.5R	24.1+-8R	27.8+-9.3R	31.2+-10.4R	34.4+-11.3R	37.2+-12.1R	39.9+-12.7R	42.3+-13.3R
		24"	q_a q_f	313 517	214 352	164 271	135 222	115 190	101 167	90 149	82 136	76 125
			F	15.6+-4.9R	20.5+-6.9R	25+-8.7R	29.2+-10.2R	33.1+-11.6R	36.7+-12.8R	40.1+-13.8R	43.3+-14.8R	46.2+-15.6R

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

TABLE 19c: NN-32 Shear and Flexibility (continued)
Arc Spot/Seam Welds to Supports 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2422 3997	2208 3644	2094 3455	2022 3337	1974 3256	1938 3198	1912 3154	1856 2969	1503 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 q_f	2013 3321	1760 2904	1626 2683	1543 2546	1486 2453	1446 2385	1415 2335	1391 2295	1371 2263
			F	4.1+-0.3R	4.3+-0.2R	4.3+-0.2R	4.4+-0.2R	4.4+-0.1R	4.4+-0.1R	4.4+-0.1R	4.5+-0.1R	4.5+-0.1R
		8"	q_a q_f	1781 2939	1509 2490	1366 2253	1277 2108	1218 2009	1174 1938	1142 1884	1116 1842	1096 1808
			F	4.6+-0.4R	4.8+-0.4R	4.9+-0.3R	5+-0.3R	5+-0.2R	5.1+-0.2R	5.1+-0.2R	5.1+-0.2R	5.2+-0.2R
		12"	q_a q_f	1532 2527	1210 1997	1062 1753	974 1606	914 1509	872 1439	840 1387	816 1346	796 1313
			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 q_f	1390 2527	1004 1657	908 1498	788 1300	708 1169	695 1147	647 1068	610 1006	610 1007
			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 q_f	1235 2038	901 1487	753 1243	664 1096	605 998	563 929	531 876	506 836	487 803
			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 q_f	1821 2918	1645 2714	1550 2558	1492 2462	1452 2396	1423 2348	1401 2312	1339 2142	1084 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+-0.1R
		6"	q_a q_f	1517 2502	1313 2166	1205 1988	1138 1877	1093 1803	1060 1749	1035 1708	1016 1676	1000 1651
			F	4.9+-0.3R	5.1+-0.3R	5.1+-0.2R	5.2+-0.2R	5.2+-0.2R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R
		8"	q_a q_f	1347 2222	1128 1860	1011 1669	942 1554	895 1477	862 1422	837 1381	817 1347	800 1321
			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 q_f	1161 1916	907 1496	790 1304	721 1189	674 1113	641 1058	616 1017	597 985	581 959
			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 q_f	1051 1916	759 1253	680 1122	588 970	527 869	515 849	478 789	450 742	449 740
			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 q_f	940 1552	686 1131	569 940	500 825	453 748	420 693	395 652	376 620	360 595
			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 q_f	1080 1728	1025 1692	972 1604	939 1550	917 1513	900 1486	888 1465	878 1406	712 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 q_f	934 1541	817 1348	755 1246	717 1182	691 1139	672 1108	657 1085	646 1066	637 1052
			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 q_f	826 1364	701 1156	634 1046	593 979	566 933	546 900	531 875	519 856	509 840
			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 q_f	706 1164	562 927	493 814	452 746	425 701	405 668	390 644	379 625	370 610
			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 q_f	634 1164	466 769	421 695	366 604	329 543	323 533	301 496	283 467	284 468
			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 q_f	562 927	418 690	349 577	308 509	281 463	261 431	247 407	235 388	226 373
			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 q_f	771 1233	760 1233	723 1193	700 1155	684 1129	673 1111	664 1096	658 1076	545 872
			F	6.4+-0.2R	6.5+-0.2R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.7+-0.1R	6.7+-0.1R
		6"	q_a q_f	688 1135	606 999	562 927	535 882	516 852	503 830	493 813	485 800	478 789
			F	7.2+-0.4R	7.4+-0.3R	7.5+-0.3R	7.5+-0.2R	7.6+-0.2R	7.6+-0.2R	7.6+-0.2R	7.6+-0.1R	7.7+-0.1R
		8"	q_a q_f	607 1002	518 855	471 777	442 729	422 697	408 673	397 656	389 642	382 631
			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 q_f	515 850	416 686	366 604	337 556	317 523	303 500	292 483	284 469	278 458
			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 q_f	461 850	343 565	312 514	271 447	244 403	241 397	224 370	211 349	212 350
			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 q_f	406 670	306 505	257 424	227 375	208 343	194 320	183 302	175 289	168 278
			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

TABLE 19d: NN-32 Shear and Flexibility (continued)
Arc Spot/Seam Welds to Supports 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	2742 4387	2742 4387	2534 4181	2392 3947	2295 3786	2224 3670	2170 3581	1856 2969	1503 2405
			F	3.5+-0.2R	3.6+-0.2R	3.6+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R
		6"	q_a q_f	2742 4387	2284 3768	2032 3353	1876 3095	1769 2919	1692 2792	1634 2696	1588 2621	1503 2405
			F	3.9+-0.3R	4.1+-0.3R	4.2+-0.3R	4.3+-0.2R	4.3+-0.2R	4.3+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.1R
		8"	q_a q_f	2519 4156	2027 3344	1763 2910	1601 2641	1490 2459	1410 2327	1350 2228	1303 2150	1265 2087
			F	4.2+-0.5R	4.5+-0.5R	4.7+-0.4R	4.8+-0.4R	4.9+-0.3R	4.9+-0.3R	5+-0.3R	5+-0.3R	5+-0.2R
		12"	q_a q_f	2273 3751	1748 2885	1466 2419	1296 2139	1183 1953	1103 1819	1042 1720	995 1642	957 1580
			F	4.7+-0.7R	5.2+-0.7R	5.5+-0.7R	5.7+-0.7R	5.9+-0.6R	6+-0.6R	6.1+-0.5R	6.2+-0.5R	6.2+-0.5R
		18"	q_a q_f	2146 3751	1542 2544	1311 2163	1111 1833	977 1612	926 1528	849 1401	789 1302	772 1274
			F	5.3+-1R	6+-1.1R	6.5+-1.1R	6.8+-1.1R	7.1+-1R	7.3+-1R	7.5+-1R	7.7+-0.9R	7.8+-0.9R
		24"	q_a q_f	2015 3325	1439 2374	1157 1908	987 1629	874 1442	793 1309	733 1209	686 1132	648 1069
			F	5.6+-1.2R	6.5+-1.4R	7.2+-1.4R	7.7+-1.5R	8.1+-1.5R	8.5+-1.4R	8.7+-1.4R	9+-1.4R	9.1+-1.3R
	18 ga	4"	q_a q_f	1824 2918	1824 2918	1824 2918	1772 2918	1694 2795	1637 2701	1594 2630	1339 2142	1084 1735
			F	4.2+-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	4.5+-0.1R
		6"	q_a q_f	1824 2918	1722 2841	1521 2509	1396 2303	1311 2164	1250 2063	1204 1986	1167 1926	1084 1735
			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 q_f	1824 2918	1535 2533	1326 2188	1195 1972	1106 1826	1043 1721	996 1643	959 1582	929 1533
			F	5+-0.5R	5.3+-0.5R	5.5+-0.5R	5.7+-0.4R	5.7+-0.4R	5.8+-0.3R	5.9+-0.3R	5.9+-0.3R	5.9+-0.3R
		12"	q_a q_f	1749 2886	1329 2193	1107 1827	974 1607	885 1461	822 1356	775 1278	738 1217	708 1168
			F	5.6+-0.8R	6.1+-0.8R	6.5+-0.8R	6.7+-0.7R	6.9+-0.7R	7+-0.6R	7.1+-0.6R	7.2+-0.6R	7.3+-0.5R
		18"	q_a q_f	1657 2886	1182 1950	997 1644	842 1389	738 1218	696 1148	636 1050	590 974	575 950
			F	6.2+-1.1R	7+-1.2R	7.5+-1.2R	7.9+-1.2R	8.3+-1.2R	8.5+-1.1R	8.7+-1.1R	8.9+-1R	9+-1R
		24"	q_a q_f	1563 2580	1108 1828	886 1462	753 1243	664 1096	601 992	554 913	517 852	487 804
			F	6.6+-1.3R	7.6+-1.5R	8.4+-1.6R	8.9+-1.6R	9.4+-1.6R	9.8+-1.6R	10.1+-1.6R	10.3+-1.5R	10.5+-1.5R
	20 ga	4"	q_a q_f	1080 1728	1080 1728	1080 1728	1080 1728	1066 1728	1033 1705	1008 1664	879 1406	712 1139
			F	5.3+-0.3R	5.5+-0.2R	5.5+-0.2R	5.6+-0.2R	5.6+-0.1R	5.6+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R
		6"	q_a q_f	1080 1728	1060 1728	943 1556	871 1437	822 1356	786 1297	759 1252	738 1218	712 1139
			F	5.9+-0.4R	6.1+-0.4R	6.3+-0.3R	6.3+-0.3R	6.4+-0.3R	6.5+-0.2R	6.5+-0.2R	6.5+-0.2R	6.5+-0.2R
		8"	q_a q_f	1080 1728	940 1551	818 1350	743 1226	692 1142	655 1081	627 1035	605 999	588 970
			F	6.3+-0.6R	6.7+-0.6R	6.9+-0.5R	7+-0.5R	7.1+-0.4R	7.2+-0.4R	7.3+-0.4R	7.3+-0.3R	7.4+-0.3R
		12"	q_a q_f	1054 1728	811 1338	680 1122	602 993	549 906	512 845	484 798	462 762	445 734
			F	7+-0.9R	7.6+-0.9R	8+-0.9R	8.2+-0.8R	8.4+-0.8R	8.6+-0.7R	8.7+-0.7R	8.8+-0.7R	8.9+-0.6R
		18"	q_a q_f	995 1728	715 1180	608 1004	515 850	453 748	430 709	394 650	366 604	358 591
			F	7.6+-1.3R	8.6+-1.4R	9.2+-1.4R	9.7+-1.4R	10+-1.3R	10.3+-1.3R	10.6+-1.2R	10.7+-1.2R	10.9+-1.1R
		24"	q_a q_f	934 1541	667 1101	536 885	458 755	405 669	368 607	340 561	318 525	301 496
			F	8.1+-1.5R	9.3+-1.8R	10.2+-1.9R	10.8+-1.9R	11.3+-1.9R	11.8+-1.8R	12.1+-1.8R	12.4+-1.7R	12.7+-1.7R
	22 ga	4"	q_a q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	754 1233	673 1076	545 872
			F	6.3+-0.3R	6.4+-0.2R	6.5+-0.2R	6.5+-0.2R	6.6+-0.2R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R
		6"	q_a q_f	771 1233	771 1233	698 1152	646 1067	611 1009	586 967	567 935	552 910	540 872
			F	6.8+-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	7.5+-0.2R	7.6+-0.2R
		8"	q_a q_f	771 1233	691 1139	604 996	550 907	513 847	487 804	467 771	452 745	439 724
			F	7.3+-0.7R	7.7+-0.6R	7.9+-0.6R	8.1+-0.5R	8.2+-0.5R	8.3+-0.4R	8.4+-0.4R	8.4+-0.4R	8.5+-0.3R
		12"	q_a q_f	767 1233	595 981	501 826	444 733	407 671	380 627	360 593	344 568	331 547
			F	8+-1R	8.7+-1R	9.1+-1R	9.4+-0.9R	9.6+-0.9R	9.8+-0.8R	9.9+-0.8R	10+-0.7R	10.1+-0.7R
		18"	q_a q_f	722 1233	522 861	446 736	379 625	334 551	317 523	291 481	271 447	266 439
			F	8.8+-1.4R	9.8+-1.5R	10.5+-1.6R	11+-1.5R	11.4+-1.5R	11.7+-1.4R	12+-1.4R	12.2+-1.3R	12.3+-1.2R
		24"	q_a q_f	675 1113	485 801	391 645	335 552	297 490	270 446	250 413	235 387	222 366
			F	9.3+-1.7R	10.6+-1.9R	11.5+-2.1R	12.3+-2.1R	12.8+-2.1R	13.3+-2R	13.7+-2R	14+-1.9R	14.3+-1.9R

NN-32 32/7 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: #12 SD HWH Screw

TABLE 20a: NN-32 Shear and Flexibility
No.12 Self-Drilling HWH to Supports 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1478 2380	1478 2380	1478 2380	1472 2370	1466 2360	1461 2353	1458 2347	1455 2343	1453 2339
			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 q_f	1333 2146	1285 2068	1258 2026	1242 2000	1231 1982	1223 1968	1216 1958	1212 1951	1208 1944
			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 q_f	1186 1909	1120 1804	1085 1747	1063 1711	1048 1687	1037 1669	1028 1656	1022 1645	1016 1636
			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 q_f	987 1589	900 1449	853 1374	824 1327	804 1295	790 1272	779 1254	771 1241	764 1230
			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 q_f	864 1589	717 1155	713 1148	650 1046	606 975	620 998	590 950	567 913	581 935
			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 q_f	726 1168	615 990	557 896	521 838	496 799	479 771	465 749	455 733	447 719
			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 q_f	1178 1896	1152 1855	1138 1833	1130 1819	1124 1809	1119 1802	1116 1797	1114 1793	1084 1735
			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 q_f	1020 1642	976 1571	952 1533	937 1509	927 1493	920 1481	914 1472	910 1464	906 1459
			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 q_f	902 1452	845 1360	814 1310	794 1279	781 1258	772 1242	764 1230	759 1221	754 1214
			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 q_f	749 1206	675 1088	636 1024	612 985	595 958	583 939	574 924	567 912	561 903
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		18"	q_a q_f	657 1206	539 868	532 856	482 776	448 721	457 735	434 698	416 670	425 685
			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 q_f	555 893	463 745	415 668	386 621	367 590	353 568	343 552	334 538	328 527
			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 q_f	845 1360	821 1322	808 1301	800 1288	794 1279	790 1272	787 1268	785 1264	712 1139
			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 q_f	722 1162	684 1101	663 1068	650 1047	641 1033	635 1022	630 1014	626 1008	623 1003
			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 q_f	635 1022	587 946	562 904	546 878	535 861	527 848	521 838	516 831	512 824
			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 q_f	527 848	468 754	437 703	417 672	404 651	395 636	388 624	382 615	377 607
			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 q_f	464 848	375 604	366 589	329 530	305 490	309 498	293 471	280 451	286 460
			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 q_f	395 636	321 516	284 458	263 423	248 400	238 383	230 371	224 361	219 353
			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 q_f	681 1097	659 1061	647 1041	639 1029	634 1020	630 1014	627 1010	625 1006	545 872
			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 q_f	578 930	543 875	525 845	513 826	505 813	499 804	495 797	492 792	489 787
			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 q_f	507 816	465 749	442 712	428 690	419 674	412 663	406 654	402 648	399 642
			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 q_f	421 678	370 596	344 553	327 526	316 508	308 495	301 485	297 477	293 471
			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 q_f	372 678	298 480	288 464	259 416	238 384	241 388	228 367	218 350	222 357
			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 q_f	315 508	254 409	224 361	206 332	194 312	185 298	179 288	174 280	170 274
			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

TABLE 20b: NN-32 Shear and Flexibility (continued)
No.12 Self-Drilling HWH to Supports 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/7	16 ga	4"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	3.8+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 q_f	1478 2380	1478 2380	1478 2380	1478 2380	1455 2343	1435 2310	1420 2286	1408 2266	1398 2250
			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 q_f	1478 2380	1378 2218	1301 2094	1252 2016	1219 1962	1194 1923	1176 1893	1161 1869	1149 1850
			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 q_f	1295 2085	1125 1811	1033 1663	975 1569	935 1506	906 1459	885 1424	868 1397	854 1375
			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 q_f	1166 2085	930 1498	881 1418	786 1266	721 1161	722 1162	680 1095	647 1042	655 1055
			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 q_f	1026 1652	826 1329	718 1157	652 1050	607 978	575 925	550 886	531 855	516 830
			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 q_f	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1182 1903	1084 1735
			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 q_f	1182 1903	1182 1903	1146 1845	1111 1789	1087 1751	1070 1723	1057 1701	1046 1684	1038 1671
			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 q_f	1160 1868	1041 1676	976 1571	934 1504	906 1459	885 1426	870 1400	858 1381	848 1365
			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 q_f	993 1598	852 1371	775 1248	727 1171	695 1119	671 1080	653 1052	639 1029	628 1011
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		18"	q_a q_f	898 1598	709 1141	664 1069	589 949	538 867	536 863	504 811	478 770	483 778
			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 q_f	795 1280	632 1018	546 879	491 790	454 731	428 689	408 657	393 633	381 613
			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 q_f	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	888 1429	879 1406	712 1139
			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 q_f	888 1429	841 1353	795 1280	767 1234	747 1202	732 1179	722 1162	713 1148	706 1137
			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 q_f	824 1326	728 1172	675 1087	642 1034	620 998	603 971	591 951	581 935	573 923
			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 q_f	708 1140	598 963	538 867	501 807	476 766	457 737	444 714	433 697	424 683
			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 q_f	644 1140	502 808	464 747	409 658	371 598	367 592	344 554	326 525	328 527
			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 q_f	576 927	451 727	383 617	342 550	314 506	294 474	280 450	268 431	259 417
			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 q_f	739 1190	739 1190	739 1190	739 1190	739 1190	739 1190	736 1185	673 1076	545 872
			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 q_f	739 1190	669 1077	629 1013	604 972	587 944	574 924	565 909	557 897	545 872
			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 q_f	662 1066	579 932	534 859	505 814	486 782	472 760	461 743	453 729	446 718
			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 q_f	572 920	478 769	427 687	395 637	374 602	358 577	347 558	338 543	330 531
			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 q_f	522 920	404 650	369 595	324 522	293 472	289 466	270 435	255 411	256 412
			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 q_f	469 755	364 586	306 493	272 437	249 400	232 374	220 354	210 339	203 326
			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

TABLE 20c: NN-32 Shear and Flexibility (continued)
No.12 Self-Drilling HWH to Supports 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380	1478 2380
			F	3.8+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 q_f	1365 2197	1320 2126	1296 2087	1281 2063	1271 2046	1263 2034	1258 2025	1253 2017	1249 2011
			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 q_f	1219 1962	1157 1863	1124 1809	1103 1776	1088 1752	1078 1736	1070 1723	1064 1713	1059 1705
			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 q_f	1017 1637	933 1502	888 1429	860 1384	840 1353	826 1331	816 1314	808 1300	801 1290
			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 q_f	890 1637	743 1196	742 1195	678 1092	634 1020	649 1045	619 997	596 959	611 983
			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 q_f	745 1199	636 1024	578 931	543 874	519 835	501 807	488 786	478 769	470 756
			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 q_f	1182 1903	1177 1895	1165 1875	1157 1863	1152 1854	1148 1848	1145 1843	1143 1839	1084 1735
			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 q_f	1046 1684	1005 1618	983 1583	969 1560	960 1545	953 1534	948 1526	943 1519	940 1513
			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 q_f	928 1494	874 1407	844 1359	826 1330	813 1309	804 1295	797 1283	792 1275	787 1267
			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 q_f	772 1242	700 1127	662 1066	638 1028	622 1002	610 983	601 968	595 957	589 948
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		18"	q_a q_f	676 1242	558 899	553 891	503 810	468 754	478 770	455 733	437 703	447 720
			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 q_f	569 916	480 772	433 696	404 650	384 618	370 595	359 578	351 565	344 554
			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 q_f	863 1389	841 1354	829 1335	822 1324	817 1315	813 1310	811 1305	808 1302	712 1139
			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 q_f	742 1194	706 1136	686 1105	674 1086	666 1072	660 1062	655 1055	652 1049	649 1045
			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 q_f	654 1053	608 979	584 940	568 915	558 898	550 885	544 876	540 869	536 863
			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 q_f	542 873	485 781	455 732	436 702	423 681	414 666	406 654	401 646	397 638
			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 q_f	477 873	388 625	380 612	344 553	318 513	324 521	307 494	294 473	300 484
			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 q_f	404 651	332 535	296 477	274 442	260 418	250 402	242 389	236 380	231 372
			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 q_f	697 1122	676 1089	665 1071	658 1060	653 1052	650 1046	647 1042	645 1039	545 872
			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 q_f	594 957	562 904	544 876	533 858	525 846	520 837	516 831	513 825	510 821
			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 q_f	522 841	482 776	460 741	446 719	437 704	430 693	425 685	421 678	418 673
			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 q_f	433 698	384 618	358 576	341 550	330 532	322 519	316 509	311 501	308 495
			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 q_f	382 698	308 496	299 482	270 434	249 401	252 406	239 385	228 368	233 375
			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 q_f	324 522	263 424	233 375	215 346	203 327	194 313	188 302	183 294	179 288
			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

TABLE 20d: NN-32 Shear and Flexibility (continued)
Hilti X-HSN 24 Pins at Supports with No. 12 SD HWH Screws or Hilti 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1854 2985	1808 2910	1782 2870	1767 2844	1756 2827	1748 2814	1742 2805	1737 2797	1503 2405
			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 q_f	1594 2566	1517 2442	1475 2375	1449 2333	1431 2304	1418 2283	1408 2268	1401 2255	1394 2245
			F	4.1+-0.3R	4.3+-0.2R	4.3+-0.2R	4.4+-0.2R	4.4+-0.1R	4.4+-0.1R	4.5+-0.1R	4.5+-0.1R	4.5+-0.1R
		8"	q_a q_f	1405 2262	1307 2104	1254 2019	1221 1966	1199 1930	1182 1903	1170 1883	1160 1867	1152 1855
			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 q_f	1166 1877	1043 1679	977 1573	937 1508	909 1463	889 1431	874 1407	862 1388	852 1372
			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 q_f	1024 1877	835 1344	817 1316	738 1189	684 1102	696 1120	660 1063	632 1018	646 1039
			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 q_f	869 1399	714 1150	636 1025	590 950	559 900	537 864	520 837	507 816	497 799
			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 q_f	1438 2316	1394 2244	1369 2205	1354 2180	1344 2163	1336 2151	1330 2142	1326 2135	1084 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 q_f	1223 1969	1153 1857	1116 1796	1092 1758	1076 1732	1064 1713	1055 1699	1048 1687	1042 1678
			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 q_f	1074 1730	988 1591	942 1516	913 1470	893 1438	879 1415	868 1398	860 1384	853 1373
			F	5.5+-0.5R	5.7+-0.4R	5.8+-0.3R	5.9+-0.3R	6+-0.3R	6+-0.2R	6+-0.2R	6.1+-0.2R	6.1+-0.2R
		12"	q_a q_f	892 1435	787 1268	732 1178	697 1123	674 1085	657 1058	644 1038	634 1021	626 1008
			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 q_f	786 1435	633 1019	613 987	551 887	509 819	515 829	487 784	465 749	474 764
			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 q_f	672 1082	540 869	477 768	439 707	414 667	396 638	383 616	372 599	364 586
			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 q_f	1032 1661	991 1595	968 1559	954 1536	945 1521	938 1509	932 1501	879 1406	712 1139
			F	5.5+-0.2R	5.6+-0.1R	5.6+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R
		6"	q_a q_f	868 1397	808 1301	775 1249	755 1216	741 1194	731 1177	724 1165	718 1156	712 1139
			F	6.2+-0.4R	6.4+-0.3R	6.5+-0.2R	6.5+-0.2R	6.6+-0.2R	6.6+-0.2R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R
		8"	q_a q_f	760 1224	689 1109	651 1047	627 1009	611 983	599 964	590 950	583 939	577 930
			F	6.8+-0.5R	7.1+-0.5R	7.2+-0.4R	7.3+-0.3R	7.4+-0.3R	7.4+-0.3R	7.5+-0.2R	7.5+-0.2R	7.5+-0.2R
		12"	q_a q_f	633 1019	549 885	505 814	478 770	460 740	446 718	436 702	428 689	422 679
			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 q_f	561 1019	441 711	425 684	377 608	346 557	350 564	330 531	314 505	320 515
			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 q_f	479 772	379 610	331 533	302 487	283 456	270 434	259 418	251 405	245 394
			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 q_f	771 1233	771 1233	771 1233	759 1222	750 1208	744 1197	739 1189	673 1076	545 872
			F	6.4+-0.2R	6.5+-0.2R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.7+-0.1R	6.7+-0.1R	6.7+-0.1R
		6"	q_a q_f	696 1120	642 1033	613 987	595 958	583 938	574 924	567 913	561 904	545 872
			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 q_f	609 981	546 880	513 826	492 792	478 770	468 753	460 741	454 731	449 723
			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 q_f	508 819	437 703	399 642	376 605	360 579	348 561	340 547	333 536	328 527
			F	9+-1R	9.5+-0.9R	9.8+-0.8R	10.1+-0.7R	10.2+-0.6R	10.3+-0.6R	10.4+-0.5R	10.5+-0.5R	10.5+-0.4R
		18"	q_a q_f	453 819	350 564	334 538	296 476	270 435	272 439	256 412	244 392	248 399
			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 q_f	384 619	303 488	263 423	239 384	223 359	211 340	203 326	196 316	191 307
			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

TABLE 20e: NN-32 Shear and Flexibility (continued)
Pneutek SDK66 Pins at Supports with #12 SD HWH Screw 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 →	4' - 0"		6' - 0"		8' - 0"		10' - 0"		12' - 0"		14' - 0"		16' - 0"		18' - 0"		20' - 0"	
32/5	16 ga	4"	q_a q_f	2289	3686	2190	3526	2136	3439	2103	3385	2079	3348	2063	3321	2050	3300	1856	2969	1503	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 q_f	1920	3091	1779	2863	1703	2741	1655	2665	1623	2613	1599	2575	1581	2546	1567	2523	1503	2405
			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 q_f	1681	2706	1515	2439	1426	2296	1371	2208	1334	2147	1307	2104	1286	2070	1270	2044	1257	2024
			F	5+-0.3R		5.1+-0.2R		5.2+-0.2R		5.2+-0.1R		5.2+-0.1R		5.2+-0.1R		5.3+-0.1R		5.3+-0.1R		5.3+-0.1R	
		12"	q_a q_f	1401	2256	1210	1948	1109	1785	1046	1684	1004	1616	973	1567	950	1529	932	1500	917	1477
			F	6.1+-0.5R		6.4+-0.4R		6.5+-0.3R		6.6+-0.3R		6.6+-0.2R		6.6+-0.2R		6.7+-0.2R		6.7+-0.2R		6.7+-0.2R	
		18"	q_a q_f	1245	2256	971	1563	930	1497	825	1328	754	1215	762	1227	717	1154	682	1098	695	1118
			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 q_f	1080	1738	837	1347	728	1172	663	1068	620	998	589	948	566	911	548	882	533	859
			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 q_f	1708	2749	1625	2617	1581	2545	1553	2500	1534	2469	1520	2447	1509	2430	1339	2142	1084	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 q_f	1427	2297	1313	2114	1252	2016	1214	1954	1188	1913	1169	1882	1155	1859	1144	1841	1084	1735
			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 q_f	1249	2011	1118	1799	1047	1686	1004	1616	974	1568	953	1534	936	1508	924	1487	913	1471
			F	5.9+-0.3R		6+-0.2R		6.1+-0.2R		6.1+-0.1R		6.1+-0.1R		6.2+-0.1R		6.2+-0.1R		6.2+-0.1R		6.2+-0.1R	
		12"	q_a q_f	1044	1681	894	1440	815	1312	766	1234	733	1181	710	1142	691	1113	677	1091	666	1072
			F	7.2+-0.6R		7.4+-0.4R		7.6+-0.4R		7.6+-0.3R		7.7+-0.3R		7.7+-0.2R		7.8+-0.2R		7.8+-0.2R		7.8+-0.2R	
		18"	q_a q_f	931	1681	717	1155	682	1098	603	971	551	887	554	893	521	839	495	797	503	810
			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 q_f	804	1294	621	1000	538	866	488	786	455	732	431	694	413	665	399	643	388	625
			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 q_f	1080	1728	1080	1728	1078	1728	1056	1700	1041	1676	1030	1658	1022	1645	879	1406	712	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 q_f	981	1580	894	1440	848	1365	819	1318	799	1286	785	1263	774	1246	765	1232	712	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 q_f	859	1384	761	1225	708	1140	676	1088	654	1052	638	1027	626	1007	616	992	608	980
			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 q_f	722	1162	611	984	553	890	517	833	493	794	475	765	462	744	452	728	444	714
			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 q_f	647	1162	490	789	461	743	407	655	370	596	371	597	348	560	330	532	335	539
			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 q_f	554	891	428	688	368	592	332	534	308	495	290	468	278	447	268	431	260	418
			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 q_f	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	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 q_f	771	1233	701	1129	662	1065	637	1026	621	999	609	980	599	965	592	954	545	872
			F	7.5+-0.2R		7.6+-0.2R		7.7+-0.1R		7.7+-0.1R		7.7+-0.1R		7.7+-0.1R		7.7+-0.1R		7.8+-0.1R		7.8+-0.1R	
		8"	q_a q_f	679	1093	597	961	553	890	526	846	507	817	494	795	484	779	476	766	470	756
			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 q_f	572	921	481	774	432	695	403	648	383	617	369	594	358	576	349	563	343	552
			F	10+-0.7R		10.3+-0.6R		10.5+-0.5R		10.6+-0.4R		10.7+-0.3R		10.7+-0.3R		10.8+-0.3R		10.8+-0.2R		10.8+-0.2R	
		18"	q_a q_f	509	921	386	621	361	581	317	510	288	464	288	463	269	434	255	411	258	416
			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 q_f	438	704	338	545	289	466	260	419	240	387	226	365	216	348	208	335	201	324
			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

TABLE 20f: NN-32 Shear and Flexibility (continued)
Pneutek SDK64 Pins at Supports with #12 SD HWH Screw 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	2147 3457	2068 3330	2025 3261	1998 3217	1980 3188	1966 3166	1956 3150	1856 2969	1503 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 q_f	1812 2918	1695 2728	1631 2626	1591 2562	1564 2518	1544 2486	1529 2462	1518 2443	1503 2405
			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 q_f	1588 2557	1447 2329	1371 2207	1324 2131	1291 2079	1268 2041	1250 2013	1236 1990	1225 1972
			F	5+-0.3R	5.1+-0.2R	5.2+-0.2R	5.2+-0.1R	5.2+-0.1R	5.2+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R
		12"	q_a q_f	1320 2126	1153 1857	1064 1714	1010 1625	972 1566	945 1522	925 1489	909 1464	896 1443
			F	6.1+-0.5R	6.4+-0.4R	6.5+-0.3R	6.6+-0.3R	6.6+-0.2R	6.6+-0.2R	6.7+-0.2R	6.7+-0.2R	6.7+-0.2R
		18"	q_a q_f	1169 2126	928 1494	894 1440	799 1286	733 1180	742 1195	701 1128	668 1075	679 1094
			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 q_f	1006 1619	793 1277	696 1120	637 1026	598 963	570 918	550 885	533 859	520 838
			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 q_f	1663 2678	1588 2557	1547 2491	1522 2450	1504 2422	1492 2402	1482 2386	1339 2142	1084 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 q_f	1393 2242	1287 2072	1230 1981	1195 1924	1171 1885	1153 1856	1140 1835	1129 1818	1084 1735
			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 q_f	1219 1963	1096 1764	1030 1658	989 1592	961 1547	941 1515	926 1490	914 1471	904 1456
			F	5.9+-0.3R	6+-0.2R	6.1+-0.2R	6.1+-0.1R	6.1+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R
		12"	q_a q_f	1017 1638	876 1410	801 1289	755 1215	723 1165	701 1128	684 1101	670 1079	660 1062
			F	7.2+-0.6R	7.4+-0.4R	7.6+-0.4R	7.6+-0.3R	7.7+-0.3R	7.7+-0.2R	7.8+-0.2R	7.8+-0.2R	7.8+-0.2R
		18"	q_a q_f	905 1638	703 1131	671 1080	595 957	543 875	548 883	516 830	490 790	499 803
			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 q_f	781 1258	607 977	527 848	479 772	447 720	425 684	408 656	394 635	384 618
			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 q_f	1080 1728	1080 1728	1067 1718	1046 1684	1031 1660	1021 1643	1013 1630	879 1406	712 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 q_f	969 1560	885 1425	840 1353	812 1308	793 1277	779 1255	769 1238	760 1224	712 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 q_f	849 1366	753 1212	702 1130	671 1080	649 1045	634 1020	622 1001	613 986	605 974
			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 q_f	712 1146	604 973	548 882	513 826	489 788	472 760	459 740	449 723	441 710
			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 q_f	637 1146	485 780	457 736	403 649	367 591	368 593	346 557	328 529	333 536
			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 q_f	545 877	422 679	363 585	328 529	305 491	288 464	276 444	266 428	258 415
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	748 1204	682 1097	646 1040	624 1004	608 979	597 962	589 948	583 938	545 872
			F	7.5+-0.2R	7.6+-0.2R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.8+-0.1R	7.8+-0.1R
		8"	q_a q_f	655 1055	580 933	540 869	515 829	498 801	485 782	476 767	469 755	463 746
			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 q_f	550 886	466 750	421 678	394 634	375 604	362 583	352 566	344 554	338 544
			F	10+-0.7R	10.3+-0.6R	10.5+-0.5R	10.6+-0.4R	10.7+-0.3R	10.7+-0.3R	10.8+-0.3R	10.8+-0.2R	10.8+-0.2R
		18"	q_a q_f	490 886	374 602	352 566	310 499	282 454	282 455	265 426	251 405	255 410
			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 q_f	419 675	326 525	280 451	253 407	234 377	221 356	211 340	204 328	198 318
			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

TABLE 20g: NN-32 Shear and Flexibility (continued)
Pneutek SDK63 Pins at Supports with #12 SD HWH Screw 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1800 2897	1758 2831	1736 2794	1722 2772	1712 2756	1705 2745	1700 2736	1695 2729	1503 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 q_f	1553 2501	1483 2388	1445 2326	1421 2288	1405 2262	1393 2242	1384 2228	1377 2216	1371 2207
			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 q_f	1372 2209	1281 2063	1232 1983	1201 1934	1180 1900	1165 1876	1153 1857	1144 1842	1137 1831
			F	5+-0.3R	5.1+-0.2R	5.2+-0.2R	5.2+-0.1R	5.2+-0.1R	5.2+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R
		12"	q_a q_f	1139 1833	1023 1647	962 1548	923 1486	897 1444	878 1414	864 1391	853 1373	844 1358
			F	6.1+-0.5R	6.4+-0.4R	6.5+-0.3R	6.6+-0.3R	6.6+-0.2R	6.6+-0.2R	6.7+-0.2R	6.7+-0.2R	6.7+-0.2R
		18"	q_a q_f	1000 1833	818 1316	804 1294	727 1171	675 1087	688 1107	653 1051	626 1007	639 1029
			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 q_f	846 1361	701 1128	626 1009	582 937	552 889	531 855	515 829	503 809	493 793
			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 q_f	1454 2340	1407 2265	1382 2225	1366 2199	1355 2182	1347 2169	1341 2159	1337 2142	1084 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 q_f	1235 1988	1163 1872	1124 1809	1099 1770	1083 1743	1070 1723	1061 1709	1054 1697	1048 1688
			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 q_f	1084 1745	995 1603	948 1526	918 1478	898 1446	883 1422	872 1404	863 1390	856 1379
			F	5.9+-0.3R	6+-0.2R	6.1+-0.2R	6.1+-0.1R	6.1+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R
		12"	q_a q_f	900 1448	793 1277	736 1185	701 1129	677 1091	660 1063	647 1042	637 1025	629 1012
			F	7.2+-0.6R	7.4+-0.4R	7.6+-0.4R	7.6+-0.3R	7.7+-0.3R	7.7+-0.2R	7.8+-0.2R	7.8+-0.2R	7.8+-0.2R
		18"	q_a q_f	794 1448	638 1027	617 994	554 892	511 823	517 833	489 788	467 752	476 766
			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 q_f	679 1094	544 876	480 773	442 711	416 670	398 641	384 618	373 601	365 588
			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 q_f	1080 1728	1039 1673	1012 1629	995 1602	983 1583	975 1570	968 1559	879 1406	712 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 q_f	911 1467	841 1354	804 1294	780 1256	764 1230	753 1212	744 1198	737 1186	712 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 q_f	798 1284	716 1153	673 1083	646 1040	627 1010	614 989	604 972	596 960	590 949
			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 q_f	666 1072	573 922	523 842	493 793	472 760	457 736	446 718	437 704	430 693
			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 q_f	593 1072	459 739	438 706	388 625	355 571	358 576	336 542	320 515	325 524
			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 q_f	506 815	397 639	344 555	313 504	292 470	277 446	266 428	257 414	250 403
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
			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 q_f	747 1202	680 1096	645 1038	623 1003	608 978	597 961	588 947	582 937	545 872
			F	7.5+-0.2R	7.6+-0.2R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.8+-0.1R	7.8+-0.1R
		8"	q_a q_f	654 1053	579 932	539 868	514 828	497 800	485 781	476 766	469 754	463 745
			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 q_f	549 884	465 749	421 677	393 633	375 604	362 582	352 566	344 553	337 543
			F	10+-0.7R	10.3+-0.6R	10.5+-0.5R	10.6+-0.4R	10.7+-0.3R	10.7+-0.3R	10.8+-0.3R	10.8+-0.2R	10.8+-0.2R
		18"	q_a q_f	490 884	373 600	351 565	309 498	282 453	282 454	265 426	251 404	254 410
			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 q_f	418 673	325 524	280 450	252 406	234 377	221 356	211 340	204 328	197 318
			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

TABLE 20h: NN-32 Shear and Flexibility (continued)
Pneutek SDK61 Pins at Supports with #12 SD HWH Screw 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1842 2965	1797 2893	1772 2853	1757 2828	1746 2811	1739 2799	1733 2790	1728 2782	1503 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 q_f	1585 2551	1509 2430	1469 2364	1443 2323	1425 2295	1413 2274	1403 2259	1395 2247	1389 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 q_f	1398 2250	1301 2095	1249 2011	1217 1959	1195 1923	1178 1897	1166 1877	1157 1862	1149 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 q_f	1160 1867	1038 1672	974 1568	934 1503	906 1459	887 1427	872 1403	860 1384	850 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 q_f	1019 1867	831 1337	814 1311	736 1185	682 1098	694 1117	659 1060	631 1015	644 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 q_f	864 1390	711 1145	634 1021	588 947	557 897	535 862	519 835	506 815	496 798
			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 q_f	1443 2323	1397 2250	1373 2210	1358 2186	1347 2169	1339 2156	1333 2147	1329 2139	1084 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 q_f	1226 1975	1156 1861	1118 1800	1094 1761	1078 1735	1066 1716	1057 1701	1050 1690	1044 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 q_f	1077 1734	990 1594	944 1519	914 1472	895 1440	880 1417	869 1399	861 1386	854 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 q_f	894 1439	789 1270	733 1180	698 1125	675 1087	658 1059	645 1039	635 1023	627 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 q_f	788 1439	634 1022	614 989	552 889	509 820	516 830	488 785	466 750	475 764
			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 q_f	674 1085	541 871	478 769	440 708	415 668	397 638	383 617	372 600	364 586
			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 q_f	1043 1680	1000 1611	977 1573	963 1550	953 1534	945 1522	940 1513	879 1406	712 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 q_f	877 1411	815 1312	781 1258	760 1224	746 1201	736 1185	728 1172	722 1162	712 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 q_f	768 1236	694 1118	655 1055	631 1015	614 989	602 969	593 954	586 943	580 934
			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 q_f	639 1029	554 892	509 819	481 774	462 744	448 722	438 705	430 692	424 682
			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 q_f	567 1029	445 716	428 688	380 611	348 560	352 566	331 533	315 507	321 517
			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 q_f	485 780	382 616	334 537	304 490	285 459	271 436	261 420	253 407	246 396
			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 q_f	771 1233	771 1233	771 1233	768 1233	758 1221	751 1210	746 1201	673 1076	545 872
			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 q_f	705 1135	649 1045	619 996	600 966	587 946	578 931	571 919	565 910	545 872
			F	7.5+-0.2R	7.6+-0.2R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R	7.8+-0.1R	7.8+-0.1R
		8"	q_a q_f	617 994	552 889	518 834	496 799	482 775	471 758	463 745	457 735	452 727
			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 q_f	516 830	442 712	403 649	379 610	363 584	351 565	342 550	335 539	329 530
			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 q_f	460 830	354 571	337 543	298 480	272 438	274 441	258 415	245 394	249 401
			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 q_f	390 628	307 494	266 428	241 388	225 362	213 343	204 329	197 318	192 309
			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

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

TABLE 20i: NN-32 Shear and Flexibility (continued)
Hilti X-ENP-19 at Supports with No. 12 SD HWH Screw 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 →	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
32/5	16 ga	4"	q_a q_f	1948 3136	1892 3046	1862 2998	1843 2967	1830 2947	1821 2931	1814 2920	1808 2911	1503 2405
			F	3.5+-0.2R	3.6+-0.2R	3.6+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R	3.7+-0.1R
		6"	q_a q_f	1663 2678	1575 2535	1526 2458	1496 2409	1476 2376	1461 2352	1449 2333	1440 2319	1433 2307
			F	3.9+-0.3R	4.1+-0.3R	4.2+-0.3R	4.3+-0.2R	4.3+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.1R	4.4+-0.1R
		8"	q_a q_f	1463 2355	1352 2176	1292 2080	1255 2020	1229 1979	1211 1949	1197 1927	1186 1909	1177 1895
			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 q_f	1213 1954	1077 1735	1005 1618	960 1545	929 1496	907 1460	890 1433	877 1412	867 1395
			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 q_f	1069 1954	864 1392	841 1354	758 1220	700 1128	710 1144	673 1083	643 1036	656 1057
			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 q_f	910 1466	738 1188	654 1053	604 973	571 919	547 880	529 851	515 829	504 811
			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 q_f	1508 2428	1455 2342	1426 2296	1408 2267	1395 2247	1386 2232	1380 2221	1339 2142	1084 1735
			F	4.2+-0.2R	4.3+-0.2R	4.4+-0.1R	4.4+-0.1R	4.4+-0.1R	4.5+-0.1R	4.5+-0.1R	4.5+-0.1R	4.5+-0.1R
		6"	q_a q_f	1275 2053	1195 1924	1152 1854	1125 1811	1106 1781	1093 1760	1083 1743	1075 1730	1068 1720
			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 q_f	1118 1800	1021 1644	969 1560	937 1508	915 1473	899 1447	887 1427	877 1412	869 1400
			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 q_f	929 1495	814 1310	753 1212	715 1151	689 1109	671 1080	656 1057	646 1039	637 1025
			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 q_f	821 1495	655 1055	632 1017	566 911	520 837	526 847	497 800	474 763	482 777
			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 q_f	705 1136	559 900	491 791	451 726	424 682	404 651	390 628	379 609	370 595
			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 q_f	1079 1728	1031 1659	1004 1617	988 1591	977 1573	969 1560	962 1549	879 1406	712 1139
			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 q_f	904 1455	836 1345	799 1286	776 1249	760 1224	749 1206	740 1192	734 1181	712 1139
			F	5.9+-0.4R	6.2+-0.4R	6.3+-0.3R	6.4+-0.3R	6.4+-0.3R	6.5+-0.2R	6.5+-0.2R	6.5+-0.2R	6.6+-0.2R
		8"	q_a q_f	791 1274	712 1146	669 1077	643 1034	625 1005	611 985	602 969	594 956	588 946
			F	6.4+-0.6R	6.7+-0.6R	6.9+-0.5R	7.1+-0.5R	7.2+-0.4R	7.3+-0.4R	7.3+-0.3R	7.4+-0.3R	7.4+-0.3R
		12"	q_a q_f	660 1063	569 915	520 837	490 789	470 757	455 733	444 715	436 701	429 690
			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 q_f	587 1063	456 734	436 702	386 622	353 569	356 574	335 540	319 513	324 522
			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 q_f	502 808	394 634	342 551	311 501	291 468	276 444	265 426	256 413	249 402
			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 q_f	771 1233	771 1233	771 1233	771 1233	771 1233	766 1233	761 1225	673 1076	545 872
			F	6.3+-0.3R	6.4+-0.2R	6.5+-0.2R	6.5+-0.2R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R
		6"	q_a q_f	724 1166	663 1068	631 1016	611 983	597 961	587 945	579 932	573 923	545 872
			F	6.9+-0.5R	7.1+-0.4R	7.3+-0.4R	7.4+-0.3R	7.4+-0.3R	7.5+-0.3R	7.5+-0.2R	7.6+-0.2R	7.6+-0.2R
		8"	q_a q_f	634 1021	564 909	527 849	504 812	489 787	477 769	469 755	462 744	457 735
			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 q_f	531 855	452 728	411 662	385 621	368 593	356 573	346 558	339 546	333 536
			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 q_f	474 855	363 584	343 553	303 488	276 445	278 447	261 420	248 399	251 405
			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 q_f	403 649	315 508	272 438	246 396	229 369	217 349	207 334	200 322	194 313
			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

FIGURE 21 DG2WH-36

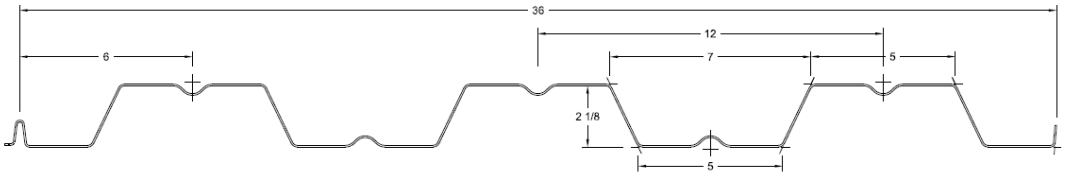


FIGURE 22 DG2WHF-36

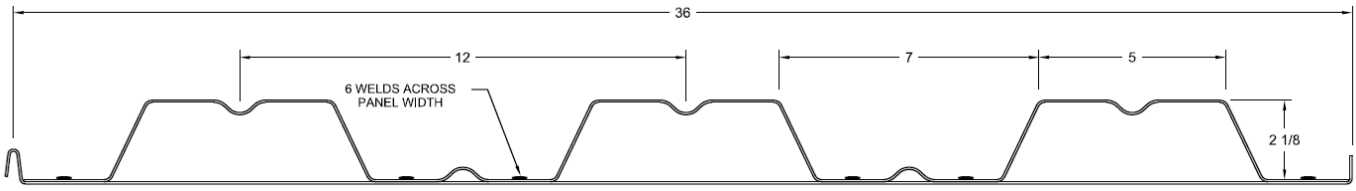


FIGURE 23: 36/4 Attachment Pattern

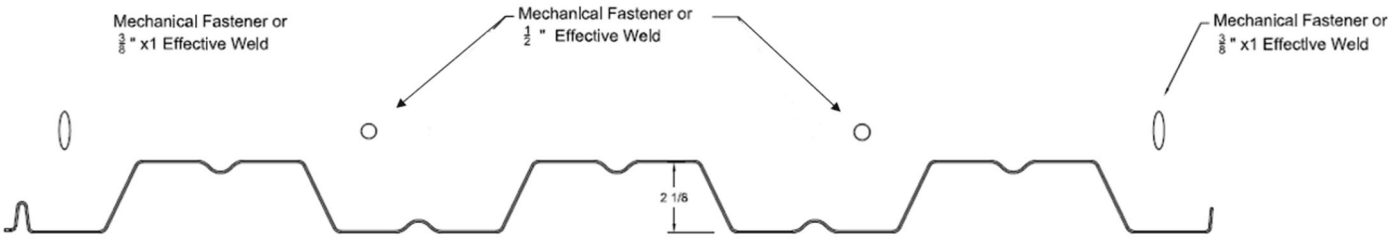


TABLE 21: DG2WH-36 Panel Properties

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 (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_g (in^3/ft)	r (in)
22	1.57	0.0290	50	65	0.449	0.353	1.04	0.340	0.890
21	1.78	0.0330	50	65	0.509	0.403	1.04	0.385	0.889
20	1.89	0.0359	50	65	0.554	0.437	1.05	0.418	0.888
19	2.25	0.0420	50	65	0.646	0.507	1.05	0.486	0.887
18	2.51	0.0474	50	65	0.728	0.570	1.05	0.545	0.885
16	3.14	0.0598	50	65	0.915	0.713	1.05	0.679	0.883

Gauge	Effective Section Modulus for Bending at Fy					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_{e+} (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	0.252	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

TABLE 22: DG2WH-36 & DG2WHF-36 Reactions at Supports (plf) Based Web Crippling

Gauge	Condition	Bearing Length of Webs							
		Allowable				Factored			
		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	472	583	740	860	721	891	1132	1316
	Interior	792	947	1166	1335	1178	1409	1735	1985
19	End	633	777	980	1137	968	1188	1500	1739
	Interior	1066	1266	1549	1766	1585	1883	2304	2627
18	End	793	969	1217	1408	1214	1483	1863	2154
	Interior	1340	1583	1927	2191	1993	2355	2867	3260
16	End	1224	1481	1843	2122	1873	2266	2820	3246
	Interior	2079	2433	2932	3315	3093	3619	4362	4932
Constants		h = 2.16"	w_{tf} = 5.016"	r = 0.125"	w_{bf} = 5.016"		θ = 64° K=1		

TABLE 23: DG2WH-36 Out-of-Plane Capacities

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

TABLE 23: DG2WH-36, Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20	Single Span	f_b / Ω	420	187	105	67	47	34	26	21	17
		Φf_b	631	281	158	101	70	52	39	31	25
		L/360	295	87	37	19	11	7	5	3	2
		L/240	443	131	55	28	16	10	7	5	4
		L/180	590	175	74	38	22	14	9	6	5
		L/120	885	262	111	57	33	21	14	10	7
	Double Span	f_b / Ω	431	191	108	69	48	35	27	21	17
		Φf_b	648	288	162	104	72	53	40	32	26
		L/360	700	207	88	45	26	16	11	8	6
		L/240	1050	311	131	67	39	24	16	12	8
		L/180	1400	415	175	90	52	33	22	15	11
		L/120	2100	622	263	134	78	49	33	23	17
	Triple Span	f_b / Ω	539	239	135	86	60	44	34	27	22
		Φf_b	809	360	202	130	90	66	51	40	32
		L/360	548	162	69	35	20	13	9	6	4
		L/240	823	244	103	53	30	19	13	9	7
		L/180	1097	325	137	70	41	26	17	12	9
		L/120	1645	487	206	105	61	38	26	18	13
19	Single Span	f_b / Ω	509	226	127	81	57	42	32	25	20
		Φf_b	765	340	191	122	85	62	48	38	31
		L/360	346	103	43	22	13	8	5	4	3
		L/240	519	154	65	33	19	12	8	6	4
		L/180	692	205	86	44	26	16	11	8	6
		L/120	1038	308	130	66	38	24	16	11	8
	Double Span	f_b / Ω	530	236	133	85	59	43	33	26	21
		Φf_b	797	354	199	128	89	65	50	39	32
		L/360	830	246	104	53	31	19	13	9	7
		L/240	1245	369	156	80	46	29	19	14	10
		L/180	1660	492	207	106	61	39	26	18	13
		L/120	2489	738	311	159	92	58	39	27	20
	Triple Span	f_b / Ω	663	295	166	106	74	54	41	33	27
		Φf_b	996	443	249	159	111	81	62	49	40
		L/360	650	193	81	42	24	15	10	7	5
		L/240	975	289	122	62	36	23	15	11	8
		L/180	1300	385	163	83	48	30	20	14	10
		L/120	1950	578	244	125	72	45	30	21	16

TABLE 23: DG2WH-36, Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18	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

TABLE 24: DG2WHF-36 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 (in)	F_y (ksi)	F_u (ksi)	A_g (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_{gtop} (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 Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_{e+} (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	0.908
18/16	0.897	0.607	0.57	0.639	0.83	1.081	0.948	1.082	0.993
16/20	0.939	0.779	0.77	0.740	1.10	1.156	0.905	1.157	0.990
16/18	1.020	0.792	0.71	0.766	1.01	1.232	1.017	1.233	1.090
16/16	1.121	0.803	0.66	0.792	0.91	1.303	1.132	1.304	1.190

TABLE 25: DG2WHF-36 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	487	217	122	78	54	40	30	24	19
		Φf_b	733	326	183	117	81	60	46	36	29
		L/360	509	151	64	33	19	12	8	6	4
		L/240	763	226	95	49	28	18	12	8	6
		L/180	1017	301	127	65	38	24	16	11	8
		L/120	1526	452	191	98	57	36	24	17	12
	Double Span	f_b/Ω	570	253	143	91	63	47	36	28	23
		Φf_b	857	381	214	137	95	70	54	42	34
		L/360	1084	321	136	69	40	25	17	12	9
		L/240	1626	482	203	104	60	38	25	18	13
		L/180	2168	642	271	139	80	51	34	24	17
		L/120	3252	964	407	208	120	76	51	36	26
	Triple Span	f_b/Ω	713	317	178	114	79	58	45	35	29
		Φf_b	1071	476	268	171	119	87	67	53	43
		L/360	849	252	106	54	31	20	13	9	7
		L/240	1274	377	159	82	47	30	20	14	10
		L/180	1698	503	212	109	63	40	27	19	14
		L/120	2548	755	318	163	94	59	40	28	20
20/18	Single Span	f_b/Ω	500	222	125	80	56	41	31	25	20
		Φf_b	752	334	188	120	84	61	47	37	30
		L/360	540	160	67	35	20	13	8	6	4
		L/240	810	240	101	52	30	19	13	9	6
		L/180	1080	320	135	69	40	25	17	12	9
		L/120	1619	480	202	104	60	38	25	18	13
	Double Span	f_b/Ω	593	264	148	95	66	48	37	29	24
		Φf_b	892	396	223	143	99	73	56	44	36
		L/360	1206	357	151	77	45	28	19	13	10
		L/240	1809	536	226	116	67	42	28	20	14
		L/180	2412	715	302	154	89	56	38	26	19
		L/120	3618	1072	452	232	134	84	57	40	29
	Triple Span	f_b/Ω	742	330	185	119	82	61	46	37	30
		Φf_b	1115	496	279	178	124	91	70	55	45
		L/360	945	280	118	60	35	22	15	10	8
		L/240	1417	420	177	91	52	33	22	16	11
		L/180	1890	560	236	121	70	44	30	21	15
		L/120	2835	840	354	181	105	66	44	31	23

TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/16	Single Span	f_b/Ω	507	225	127	81	56	41	32	25	20
		Φf_b	762	339	191	122	85	62	48	38	30
		L/360	568	168	71	36	21	13	9	6	5
		L/240	852	253	107	55	32	20	13	9	7
		L/180	1136	337	142	73	42	27	18	12	9
		L/120	1705	505	213	109	63	40	27	19	14
	Double Span	f_b/Ω	614	273	154	98	68	50	38	30	25
		Φf_b	923	410	231	148	103	75	58	46	37
		L/360	1319	391	165	84	49	31	21	14	11
		L/240	1978	586	247	127	73	46	31	22	16
		L/180	2638	782	330	169	98	62	41	29	21
		L/120	3957	1172	495	253	147	92	62	43	32
	Triple Span	f_b/Ω	768	341	192	123	85	63	48	38	31
		Φf_b	1154	513	289	185	128	94	72	57	46
		L/360	1033	306	129	66	38	24	16	11	8
		L/240	1550	459	194	99	57	36	24	17	12
		L/180	2067	612	258	132	77	48	32	23	17
		L/120	3100	918	387	198	115	72	48	34	25
18/20	Single Span	f_b/Ω	736	327	184	118	82	60	46	36	29
		Φf_b	1106	491	276	177	123	90	69	55	44
		L/360	656	194	82	42	24	15	10	7	5
		L/240	983	291	123	63	36	23	15	11	8
		L/180	1311	389	164	84	49	31	20	14	10
		L/120	1967	583	246	126	73	46	31	22	16
	Double Span	f_b/Ω	740	329	185	118	82	60	46	37	30
		Φf_b	1112	494	278	178	124	91	70	55	44
		L/360	1349	400	169	86	50	31	21	15	11
		L/240	2023	599	253	129	75	47	32	22	16
		L/180	2697	799	337	173	100	63	42	30	22
		L/120	4046	1199	506	259	150	94	63	44	32
	Triple Span	f_b/Ω	925	411	231	148	103	76	58	46	37
		Φf_b	1390	618	348	222	154	113	87	69	56
		L/360	1056	313	132	68	39	25	17	12	8
		L/240	1585	470	198	101	59	37	25	17	13
		L/180	2113	626	264	135	78	49	33	23	17
		L/120	3169	939	396	203	117	74	50	35	25

TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/18	Single Span	f_b/Ω	747	332	187	120	83	61	47	37	30
		Φf_b	1123	499	281	180	125	92	70	55	45
		L/360	699	207	87	45	26	16	11	8	6
		L/240	1048	311	131	67	39	24	16	12	8
		L/180	1398	414	175	89	52	33	22	15	11
		L/120	2097	621	262	134	78	49	33	23	17
	Double Span	f_b/Ω	768	341	192	123	85	63	48	38	31
		Φf_b	1155	513	289	185	128	94	72	57	46
		L/360	1493	442	187	96	55	35	23	16	12
		L/240	2239	663	280	143	83	52	35	25	18
		L/180	2985	884	373	191	111	70	47	33	24
		L/120	4478	1327	560	287	166	104	70	49	36
	Triple Span	f_b/Ω	960	427	240	154	107	78	60	47	38
		Φf_b	1443	641	361	231	160	118	90	71	58
		L/360	1169	346	146	75	43	27	18	13	9
		L/240	1754	520	219	112	65	41	27	19	14
		L/180	2338	693	292	150	87	55	37	26	19
		L/120	3508	1039	438	224	130	82	55	38	28
18/16	Single Span	f_b/Ω	758	337	189	121	84	62	47	37	30
		Φf_b	1139	506	285	182	127	93	71	56	46
		L/360	738	219	92	47	27	17	12	8	6
		L/240	1108	328	138	71	41	26	17	12	9
		L/180	1477	438	185	95	55	34	23	16	12
		L/120	2215	656	277	142	82	52	35	24	18
	Double Span	f_b/Ω	797	354	199	128	89	65	50	39	32
		Φf_b	1198	532	299	192	133	98	75	59	48
		L/360	1634	484	204	105	61	38	26	18	13
		L/240	2451	726	306	157	91	57	38	27	20
		L/180	3267	968	408	209	121	76	51	36	26
		L/120	4901	1452	613	314	182	114	77	54	39
	Triple Span	f_b/Ω	996	443	249	159	111	81	62	49	40
		Φf_b	1497	665	374	240	166	122	94	74	60
		L/360	1280	379	160	82	47	30	20	14	10
		L/240	1920	569	240	123	71	45	30	21	15
		L/180	2560	758	320	164	95	60	40	28	20
		L/120	3839	1138	480	246	142	90	60	42	31

TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	972	432	243	155	108	79	61	48	39
		Φf_b	1460	649	365	234	162	119	91	72	58
		L/360	790	234	99	51	29	18	12	9	6
		L/240	1185	351	148	76	44	28	19	13	9
		L/180	1580	468	197	101	59	37	25	17	13
		L/120	2370	702	296	152	88	55	37	26	19
	Double Span	f_b/Ω	923	410	231	148	103	75	58	46	37
		Φf_b	1388	617	347	222	154	113	87	69	56
		L/360	1627	482	203	104	60	38	25	18	13
		L/240	2441	723	305	156	90	57	38	27	20
		L/180	3255	964	407	208	121	76	51	36	26
		L/120	4882	1447	610	312	181	114	76	54	39
	Triple Span	f_b/Ω	1154	513	288	185	128	94	72	57	46
		Φf_b	1734	771	434	278	193	142	108	86	69
		L/360	1275	378	159	82	47	30	20	14	10
		L/240	1912	567	239	122	71	45	30	21	15
		L/180	2550	756	319	163	94	59	40	28	20
		L/120	3825	1133	478	245	142	89	60	42	31
16/18	Single Span	f_b/Ω	988	439	247	158	110	81	62	49	40
		Φf_b	1484	660	371	237	165	121	93	73	59
		L/360	842	249	105	54	31	20	13	9	7
		L/240	1263	374	158	81	47	29	20	14	10
		L/180	1684	499	210	108	62	39	26	18	13
		L/120	2526	748	316	162	94	59	39	28	20
	Double Span	f_b/Ω	955	424	239	153	106	78	60	47	38
		Φf_b	1435	638	359	230	159	117	90	71	57
		L/360	1792	531	224	115	66	42	28	20	14
		L/240	2688	796	336	172	100	63	42	29	22
		L/180	3584	1062	448	229	133	84	56	39	29
		L/120	5376	1593	672	344	199	125	84	59	43
	Triple Span	f_b/Ω	1194	531	298	191	133	97	75	59	48
		Φf_b	1794	797	449	287	199	146	112	89	72
		L/360	1404	416	175	90	52	33	22	15	11
		L/240	2106	624	263	135	78	49	33	23	17
		L/180	2808	832	351	180	104	65	44	31	22
		L/120	4211	1248	526	270	156	98	66	46	34

TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/16	Single Span	f_b/Ω	1002	445	250	160	111	82	63	49	40
		Φf_b	1506	669	376	241	167	123	94	74	60
		L/360	891	264	111	57	33	21	14	10	7
		L/240	1336	396	167	85	49	31	21	15	11
		L/180	1781	528	223	114	66	42	28	20	14
		L/120	2672	792	334	171	99	62	42	29	21
	Double Span	f_b/Ω	989	439	247	158	110	81	62	49	40
		Φf_b	1486	660	371	238	165	121	93	73	59
		L/360	1957	580	245	125	72	46	31	21	16
		L/240	2936	870	367	188	109	68	46	32	23
		L/180	3915	1160	489	251	145	91	61	43	31
		L/120	5872	1740	734	376	217	137	92	64	47
	Triple Span	f_b/Ω	1236	549	309	198	137	101	77	61	49
		Φf_b	1857	825	464	297	206	152	116	92	74
		L/360	1533	454	192	98	57	36	24	17	12
		L/240	2300	681	287	147	85	54	36	25	18
		L/180	3067	909	383	196	114	72	48	34	25
		L/120	4600	1363	575	294	170	107	72	50	37

Originally Issued: 06/24/2010 Revised: 04/19/2024 Valid Through: 06/30/2025

TABLE 26a: DG2WH-36 and DG2WHF-36 Shear and Flexibility with DeltaGrip** at side seams and 0.5 in Effective Diameter Arc Spot Weld at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3906	2080 3328	1794 2870
			F	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 q_f	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3994	2421 3906	2080 3328	1794 2870
			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 q_f	2421 3994	2421 3994	2420 3993	2421 3994	2396 3953	2416 3986	2379 3906	2080 3328	1794 2870
			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 q_f	2077 3428	2041 3368	2014 3322	1991 3286	1973 3256	1958 3231	1945 3210	1935 3192	1794 2870
			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 q_f	1696 3428	1711 2823	1722 2841	1578 2604	1602 2643	1620 2674	1516 2502	1540 2540	1559 2573
			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 q_f	1458 2405	1510 2492	1357 2239	1411 2329	1294 2135	1346 2220	1251 2064	1299 2143	1220 2013
			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 q_f	1871 3087	1871 3087	1871 3087	1871 3087	1871 3087	1871 3087	1734 2774	1477 2364	1274 2038
			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 q_f	1871 3087	1871 3087	1871 3087	1871 3087	1871 3087	1871 3087	1734 2774	1477 2364	1274 2038
			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 q_f	1753 2893	1766 2914	1713 2827	1729 2852	1688 2786	1704 2811	1671 2757	1477 2364	1274 2038
			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 q_f	1452 2396	1418 2340	1393 2298	1372 2264	1355 2236	1342 2213	1330 2194	1320 2178	1274 2038
			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 q_f	1175 2396	1178 1944	1180 1947	1074 1772	1087 1793	1096 1809	1021 1685	1035 1708	1047 1727
			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 q_f	1011 1669	1039 1714	928 1531	959 1583	876 1445	907 1497	840 1387	870 1436	815 1345
			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 q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1845	983 1572	847 1356
			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 q_f	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1121 1850	1119 1845	983 1572	847 1356
			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 q_f	1031 1702	1039 1714	1006 1660	1015 1675	990 1634	999 1649	980 1616	983 1572	847 1356
			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 q_f	851 1404	830 1370	814 1344	802 1323	791 1306	783 1292	776 1280	769 1269	764 1261
			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 q_f	688 1404	689 1136	689 1137	627 1034	633 1045	639 1054	594 980	602 993	609 1004
			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 q_f	593 978	607 1002	542 894	560 923	510 842	528 871	489 807	506 835	474 781
			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 q_f	774 1277	774 1277	774 1277	774 1277	774 1277	774 1277	774 1277	714 1142	615 984
			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 q_f	774 1277	774 1276	768 1267	764 1260	760 1254	757 1249	754 1245	714 1142	615 984
			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 q_f	695 1146	699 1154	676 1116	682 1125	665 1097	671 1106	657 1083	662 1093	615 984
			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 q_f	571 942	556 917	545 898	535 883	528 871	522 861	517 852	512 845	508 839
			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 q_f	461 942	461 760	460 759	418 689	422 696	425 701	395 651	400 660	404 666
			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 q_f	398 656	406 670	362 598	373 616	340 561	351 580	325 536	336 554	314 519
			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

TABLE 26b: DG2WH-36 and DG2WHF-36 Shear and Flexibility (continued) with DeltaGrip** at side seams and Hilti X-HSN 24 fasteners at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1200 1932	1253 2017	1174 1890	1221 1965	1157 1863	1199 1930	1146 1845	1183 1905	1137 1831
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	981 1644	997 1606	1009 1625	954 1535	969 1560	981 1580	939 1512	953 1534	964 1552
			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 q_f	864 1392	905 1457	837 1347	874 1407	819 1319	852 1372	807 1299	837 1348	798 1285
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	779 1253	773 1244	768 1237	764 1231	761 1226	759 1222	757 1218	755 1215
			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 q_f	662 1260	672 1082	680 1094	633 1019	644 1037	653 1051	618 995	628 1011	636 1024
			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 q_f	574 924	600 966	547 880	572 921	530 853	553 890	518 835	539 868	510 821
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	585 943	577 930	571 920	566 912	562 905	559 900	556 895	554 891	551 888
			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 q_f	483 943	489 787	493 794	455 733	462 744	468 754	440 709	447 720	453 730
			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 q_f	416 669	433 697	391 630	408 657	376 605	391 630	365 588	379 611	357 575
			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

TABLE 26c: DG2WH-36 and DG2WHF-36 Shear and Flexibility (continued) with DeltaGrip** at side seams and Hilti X-HSN 24 fasteners at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/3	16 ga	4"	q_a q_f	1258 2025	1258 2025	1257 2024	1257 2024	1257 2024	1257 2024	1257 2024	1257 2024	1257 2024
			F	3+-0.1R	3+0R	3+0R	3+0R	3+0R	3+0R	3+0R	3+0R	3+0R
		6"	q_a q_f	1242 1999	1242 1999	1241 1999	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 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 q_f	1221 1966	1225 1972	1220 1965	1223 1969	1220 1964	1222 1968	1219 1963	1222 1967	1219 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 q_f	1170 1883	1168 1881	1167 1879	1166 1878	1166 1877	1165 1876	1165 1875	1164 1874	1164 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 q_f	1080 1883	1095 1764	1106 1780	1072 1725	1084 1745	1093 1760	1067 1718	1077 1735	1086 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 q_f	990 1594	1030 1658	980 1577	1014 1632	973 1566	1003 1614	968 1559	994 1601	965 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 q_f	1003 1615	1003 1615	1003 1615	1003 1615	1003 1615	1003 1615	1003 1615	1003 1615	1003 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 q_f	984 1584	983 1583	983 1583	983 1582	983 1582	982 1582	982 1582	982 1581	982 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 q_f	959 1544	963 1550	957 1541	961 1547	957 1540	960 1545	956 1539	959 1543	956 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 q_f	900 1449	898 1446	896 1443	895 1441	894 1440	893 1438	893 1437	892 1436	892 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 q_f	807 1449	821 1322	831 1338	796 1282	808 1301	817 1315	790 1273	800 1289	808 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 q_f	722 1163	757 1219	710 1143	740 1192	702 1131	729 1173	697 1122	720 1160	693 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 q_f	759 1223	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1221	759 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 q_f	735 1183	734 1182	734 1181	733 1181	733 1180	733 1180	733 1179	732 1179	732 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 q_f	705 1136	710 1143	703 1132	707 1138	702 1130	705 1135	701 1128	704 1133	700 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 q_f	642 1033	639 1028	637 1025	635 1022	633 1020	632 1018	631 1016	630 1015	630 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 q_f	553 1033	565 909	573 922	540 870	550 886	558 898	534 859	542 873	549 884
			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 q_f	482 777	509 820	469 756	493 793	461 742	482 776	456 734	474 763	452 727
			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 q_f	609 980	608 979	608 979	608 979	608 978	608 978	608 978	607 978	607 978
			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 q_f	580 934	579 933	579 932	578 931	578 930	578 930	577 929	577 929	577 929
			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 q_f	548 883	553 890	546 878	550 885	544 875	547 881	543 874	546 879	542 872
			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 q_f	485 781	481 775	479 771	477 768	475 765	474 763	473 761	472 759	471 758
			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 q_f	406 781	415 668	421 678	393 632	400 645	407 655	386 621	392 632	398 641
			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 q_f	349 561	368 593	336 541	354 569	328 528	344 553	323 519	336 542	319 513
			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

TABLE 26d: DG2WH-36 and DG2WHF-36 Shear and Flexibility (continued) with DeltaGrip** at side seams and Hilti X-HSN 24 fasteners at supports

Support Fastener 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	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	2.9+-0.1R	2.9+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+0R
		6"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	3.4+-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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644	1021 1644
			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 q_f	1008 1622	1021 1644	962 1548	1013 1630	933 1503	979 1576	914 1472	954 1537	900 1449
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	771 1260	783 1260	783 1260	724 1166	738 1188	749 1206	700 1126	712 1147	723 1164
			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 q_f	652 1050	684 1101	612 985	642 1034	587 945	615 990	570 918	595 958	558 899
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	637 1025	615 984
			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 q_f	552 1025	557 897	561 903	509 820	517 833	524 844	487 784	495 797	502 809
			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 q_f	459 739	485 781	427 688	451 725	408 657	428 689	395 637	412 663	385 621
			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

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

FIGURE 24: DG3WxH-36 Profile

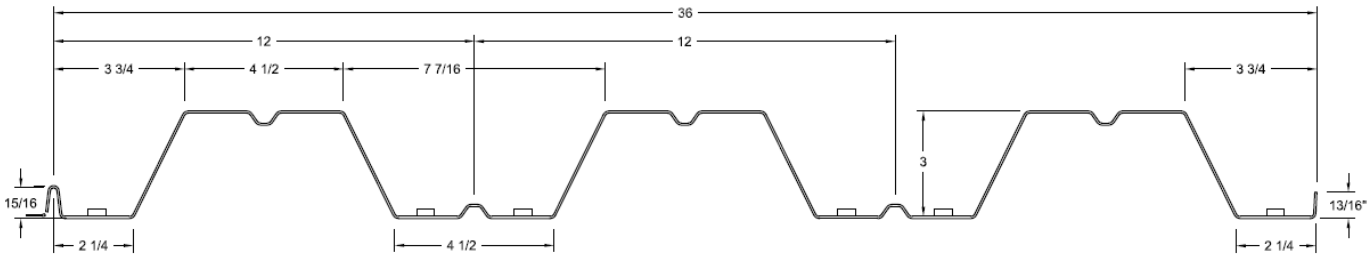


FIGURE 25 DG3WxHF-36

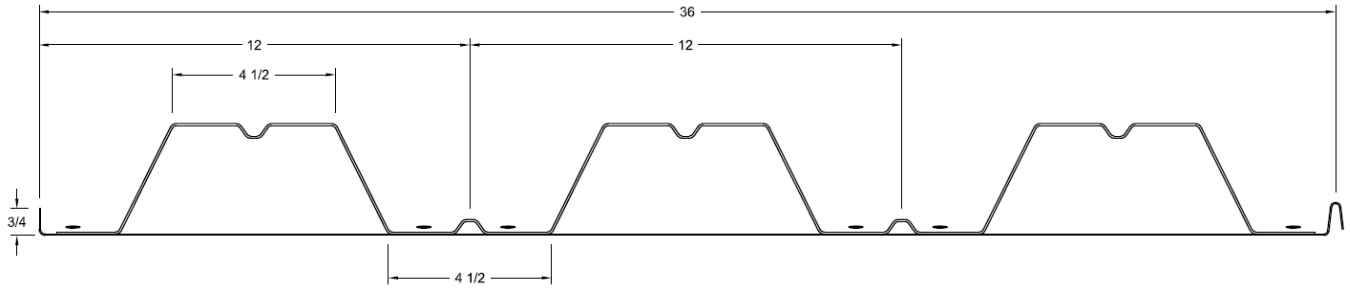


FIGURE 26: 36/4 Attachment Pattern

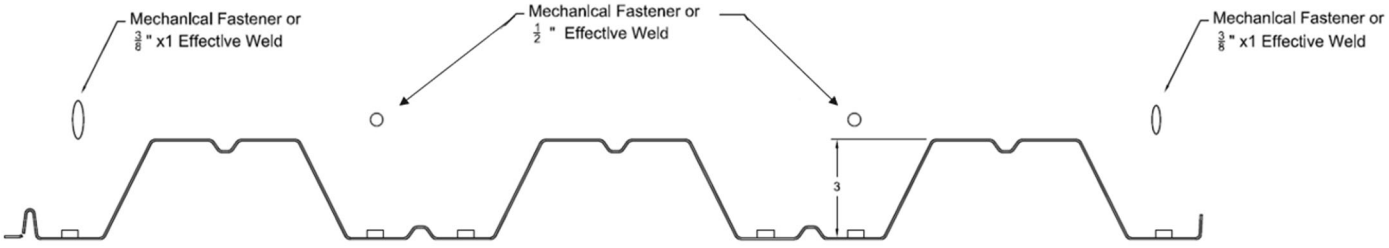


TABLE 27: DG3WxH-36 Panel Properties

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 (in)	F_y (ksi)	F_u (ksi)	A_g (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_{gtop} (in^3/ft)	r (in)
22	1.70	0.0299	50	65	0.504	0.770	1.48	0.497	1.236
21	1.92	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	3.43	0.0598	50	65	1.008	1.540	1.49	0.984	1.236

Gauge	Effective Section Modulus for Bending at Fy					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_{e+} (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	0.309	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

TABLE 28: DG3WxH-36 & DG3WxHF-36 Reactions at Supports (plf) Based Web Crippling

Gauge No.	Condition	Bearing Length of Webs							
		Allowable				Factored			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	296	368	471	550	452	564	721	842
	Interior	522	630	783	900	776	937	1164	1338
21	End	379	470	598	697	580	719	915	1066
	Interior	667	801	990	1135	993	1191	1472	1688
20	End	424	524	666	775	649	802	1020	1186
	Interior	746	893	1101	1261	1110	1329	1638	1876
19	End	600	737	930	1078	918	1127	1423	1650
	Interior	1054	1252	1532	1747	1568	1863	2280	2599
18	End	743	908	1141	1320	1137	1389	1746	2020
	Interior	1305	1542	1878	2136	1941	2294	2794	3178
16	End	1143	1383	1723	1983	1749	2116	2636	3034
	Interior	2008	2350	2834	3206	2986	3495	4216	4768
Constants		h = 3.2"	w_{tf} = 4.5"	r = 0.125"	w_{bf} = 4.5"	θ = 63.5°			

TABLE 29: DG3WxH-36 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b/Ω	490	218	122	78	54	40	31	24	20
		Φf_b	736	327	184	118	82	60	46	36	29
		L/360	506	150	63	32	19	12	8	6	4
		L/240	759	225	95	49	28	18	12	8	6
		L/180	1012	300	127	65	37	24	16	11	8
		L/120	1518	450	190	97	56	35	24	17	12
	Double Span	f_b/Ω	504	224	126	81	56	41	31	25	20
		Φf_b	758	337	189	121	84	62	47	37	30
		L/360	1212	359	151	78	45	28	19	13	10
		L/240	1818	539	227	116	67	42	28	20	15
		L/180	2424	718	303	155	90	57	38	27	19
		L/120	3635	1077	454	233	135	85	57	40	29
	Triple Span	f_b/Ω	630	280	157	101	70	51	39	31	25
		Φf_b	947	421	237	152	105	77	59	47	38
		L/360	949	281	119	61	35	22	15	10	8
		L/240	1424	422	178	91	53	33	22	16	11
		L/180	1899	563	237	122	70	44	30	21	15
		L/120	2848	844	356	182	105	66	44	31	23
21	Single Span	f_b/Ω	564	251	141	90	63	46	35	28	23
		Φf_b	847	377	212	136	94	69	53	42	34
		L/360	568	168	71	36	21	13	9	6	5
		L/240	852	253	107	55	32	20	13	9	7
		L/180	1137	337	142	73	42	27	18	12	9
		L/120	1705	505	213	109	63	40	27	19	14
	Double Span	f_b/Ω	580	258	145	93	64	47	36	29	23
		Φf_b	872	388	218	140	97	71	54	43	35
		L/360	1358	402	170	87	50	32	21	15	11
		L/240	2037	604	255	130	75	48	32	22	16
		L/180	2716	805	339	174	101	63	42	30	22
		L/120	4074	1207	509	261	151	95	64	45	33
	Triple Span	f_b/Ω	725	322	181	116	81	59	45	36	29
		Φf_b	1090	484	272	174	121	89	68	54	44
		L/360	1064	315	133	68	39	25	17	12	9
		L/240	1596	473	199	102	59	37	25	18	13
		L/180	2128	630	266	136	79	50	33	23	17
		L/120	3192	946	399	204	118	74	50	35	26

TABLE 29: DG3WxH-36, Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20	Single Span	f_b / Ω	636	283	159	102	71	52	40	31	25
		Φf_b	956	425	239	153	106	78	60	47	38
		L/360	625	185	78	40	23	15	10	7	5
		L/240	938	278	117	60	35	22	15	10	8
		L/180	1250	370	156	80	46	29	20	14	10
		L/120	1876	556	234	120	69	44	29	21	15
	Double Span	f_b / Ω	654	291	163	105	73	53	41	32	26
		Φf_b	983	437	246	157	109	80	61	49	39
		L/360	1495	443	187	96	55	35	23	16	12
		L/240	2243	664	280	144	83	52	35	25	18
		L/180	2990	886	374	191	111	70	47	33	24
		L/120	4485	1329	561	287	166	105	70	49	36
	Triple Span	f_b / Ω	817	363	204	131	91	67	51	40	33
		Φf_b	1228	546	307	197	136	100	77	61	49
		L/360	1171	347	146	75	43	27	18	13	9
		L/240	1757	521	220	112	65	41	27	19	14
		L/180	2342	694	293	150	87	55	37	26	19
		L/120	3514	1041	439	225	130	82	55	39	28
19	Single Span	f_b / Ω	793	353	198	127	88	65	50	39	32
		Φf_b	1193	530	298	191	133	97	75	59	48
		L/360	740	219	92	47	27	17	12	8	6
		L/240	1110	329	139	71	41	26	17	12	9
		L/180	1480	438	185	95	55	35	23	16	12
		L/120	2219	658	277	142	82	52	35	24	18
	Double Span	f_b / Ω	815	362	204	130	91	67	51	40	33
		Φf_b	1226	545	306	196	136	100	77	61	49
		L/360	1771	525	221	113	66	41	28	19	14
		L/240	2657	787	332	170	98	62	42	29	21
		L/180	3542	1050	443	227	131	83	55	39	28
		L/120	5313	1574	664	340	197	124	83	58	43
	Triple Span	f_b / Ω	1019	453	255	163	113	83	64	50	41
		Φf_b	1532	681	383	245	170	125	96	76	61
		L/360	1387	411	173	89	51	32	22	15	11
		L/240	2081	617	260	133	77	49	33	23	17
		L/180	2775	822	347	178	103	65	43	30	22
		L/120	4162	1233	520	266	154	97	65	46	33

TABLE 29: DG3WxH-36, Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18	Single Span	f_b/Ω	949	422	237	152	105	77	59	47	38
		Φf_b	1426	634	357	228	158	116	89	70	57
		L/360	842	250	105	54	31	20	13	9	7
		L/240	1263	374	158	81	47	29	20	14	10
		L/180	1684	499	211	108	62	39	26	18	13
		L/120	2527	749	316	162	94	59	39	28	20
	Double Span	f_b/Ω	974	433	244	156	108	80	61	48	39
		Φf_b	1464	651	366	234	163	120	92	72	59
		L/360	2025	600	253	130	75	47	32	22	16
		L/240	3038	900	380	194	113	71	47	33	24
		L/180	4050	1200	506	259	150	94	63	44	32
		L/120	6075	1800	759	389	225	142	95	67	49
	Triple Span	f_b/Ω	1218	541	304	195	135	99	76	60	49
		Φf_b	1830	814	458	293	203	149	114	90	73
		L/360	1586	470	198	102	59	37	25	17	13
		L/240	2380	705	297	152	88	56	37	26	19
		L/180	3173	940	397	203	118	74	50	35	25
		L/120	4759	1410	595	305	176	111	74	52	38
16	Single Span	f_b/Ω	1228	546	307	196	136	100	77	61	49
		Φf_b	1845	820	461	295	205	151	115	91	74
		L/360	1052	312	131	67	39	25	16	12	8
		L/240	1577	467	197	101	58	37	25	17	13
		L/180	2103	623	263	135	78	49	33	23	17
		L/120	3155	935	394	202	117	74	49	35	25
	Double Span	f_b/Ω	1225	545	306	196	136	100	77	61	49
		Φf_b	1842	819	460	295	205	150	115	91	74
		L/360	2533	751	317	162	94	59	40	28	20
		L/240	3800	1126	475	243	141	89	59	42	30
		L/180	5066	1501	633	324	188	118	79	56	41
		L/120	7600	2252	950	486	281	177	119	83	61
	Triple Span	f_b/Ω	1532	681	383	245	170	125	96	76	61
		Φf_b	2302	1023	576	368	256	188	144	114	92
		L/360	1984	588	248	127	73	46	31	22	16
		L/240	2977	882	372	191	110	69	47	33	24
		L/180	3969	1176	496	254	147	93	62	44	32
		L/120	5953	1764	744	381	220	139	93	65	48

TABLE 30: DG3WxHF-36 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 (in)	F_y (ksi)	F_u (ksi)	A_g (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_{gtop} (in^3/ft)	r (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 Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_{e+} (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	0.481	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

TABLE 31: DG3WxHF-36 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b/Ω	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	2146	636	268	137	79	50	34	24	17
		L/240	3219	954	402	206	119	75	50	35	26
		L/180	4292	1272	537	275	159	100	67	47	34
		L/120	6438	1908	805	412	238	150	101	71	52
	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	1681	498	210	108	62	39	26	18	13
		L/240	2522	747	315	161	93	59	39	28	20
		L/180	3362	996	420	215	125	78	53	37	27
		L/120	5044	1494	630	323	187	118	79	55	40
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	2394	709	299	153	89	56	37	26	19
		L/240	3591	1064	449	230	133	84	56	39	29
		L/180	4788	1419	598	306	177	112	75	53	38
		L/120	7182	2128	898	460	266	168	112	79	57
	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	1875	556	234	120	69	44	29	21	15
		L/240	2813	834	352	180	104	66	44	31	23
		L/180	3751	1111	469	240	139	87	59	41	30
		L/120	5626	1667	703	360	208	131	88	62	45

TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/16	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	2605	772	326	167	96	61	41	29	21
		L/240	3908	1158	488	250	145	91	61	43	31
		L/180	5210	1544	651	333	193	122	81	57	42
		L/120	7815	2316	977	500	289	182	122	86	63
	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	2041	605	255	131	76	48	32	22	16
		L/240	3061	907	383	196	113	71	48	34	24
		L/180	4082	1209	510	261	151	95	64	45	33
		L/120	6122	1814	765	392	227	143	96	67	49
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	2687	796	336	172	100	63	42	29	21
		L/240	4030	1194	504	258	149	94	63	44	32
		L/180	5373	1592	672	344	199	125	84	59	43
		L/120	8060	2388	1008	516	299	188	126	88	64
	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	2105	624	263	135	78	49	33	23	17
		L/240	3157	935	395	202	117	74	49	35	25
		L/180	4210	1247	526	269	156	98	66	46	34
		L/120	6314	1871	789	404	234	147	99	69	51

TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/18	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	2985	884	373	191	111	70	47	33	24
		L/240	4478	1327	560	287	166	104	70	49	36
		L/180	5970	1769	746	382	221	139	93	66	48
		L/120	8955	2653	1119	573	332	209	140	98	72
	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	2338	693	292	150	87	55	37	26	19
		L/240	3508	1039	438	224	130	82	55	38	28
		L/180	4677	1386	585	299	173	109	73	51	37
		L/120	7015	2079	877	449	260	164	110	77	56
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	3239	960	405	207	120	76	51	36	26
		L/240	4859	1440	607	311	180	113	76	53	39
		L/180	6479	1920	810	415	240	151	101	71	52
		L/120	9718	2879	1215	622	360	227	152	107	78
	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	2538	752	317	162	94	59	40	28	20
		L/240	3807	1128	476	244	141	89	59	42	30
		L/180	5075	1504	634	325	188	118	79	56	41
		L/120	7613	2256	952	487	282	178	119	84	61

TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	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	3229	957	404	207	120	75	50	35	26
		L/240	4844	1435	605	310	179	113	76	53	39
		L/180	6458	1913	807	413	239	151	101	71	52
		L/120	9687	2870	1211	620	359	226	151	106	77
	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	2530	750	316	162	94	59	40	28	20
		L/240	3794	1124	474	243	141	88	59	42	30
		L/180	5059	1499	632	324	187	118	79	56	40
		L/120	7589	2249	949	486	281	177	119	83	61
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	3554	1053	444	227	132	83	56	39	28
		L/240	5330	1579	666	341	197	124	83	58	43
		L/180	7107	2106	888	455	263	166	111	78	57
		L/120	10661	3159	1333	682	395	249	167	117	85
	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	2784	825	348	178	103	65	43	31	22
		L/240	4176	1237	522	267	155	97	65	46	33
		L/180	5568	1650	696	356	206	130	87	61	45
		L/120	8352	2475	1044	535	309	195	130	92	67

TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/16	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	3851	1141	481	246	143	90	60	42	31
		L/240	5776	1711	722	370	214	135	90	63	46
		L/180	7702	2282	963	493	285	180	120	85	62
		L/120	11552	3423	1444	739	428	269	181	127	92
	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	3017	894	377	193	112	70	47	33	24
		L/240	4525	1341	566	290	168	106	71	50	36
		L/180	6033	1788	754	386	223	141	94	66	48
		L/120	9050	2681	1131	579	335	211	141	99	72

TABLE 32a: DG3WxH-36 and DG3WxHF-36 Shear and Flexibility with 0.5 in arc spot welds at supports and Delta Grip at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875
			F	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 q_f	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875	2421 3875
			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 q_f	2421 3875	2421 3875	2421 3875	2421 3875	2397 3875	2417 3875	2380 3875	2399 3875	2367 3875
			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 q_f	2081 3433	2044 3373	2016 3327	1994 3290	1975 3259	1960 3234	1947 3213	1936 3195	1927 3179
			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 q_f	1701 3433	1715 2829	1725 2847	1582 2610	1605 2647	1623 2678	1519 2506	1542 2544	1561 2576
			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 q_f	1463 2413	1515 2499	1361 2245	1415 2335	1297 2141	1349 2225	1254 2069	1302 2148	1222 2017
			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 q_f	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575
			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 q_f	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575
			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 q_f	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575	1609 2575
			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 q_f	1479 2440	1444 2383	1418 2340	1397 2305	1380 2277	1365 2253	1353 2233	1343 2216	1334 2202
			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 q_f	1199 2440	1201 1981	1202 1984	1095 1806	1107 1826	1117 1843	1040 1716	1054 1739	1066 1759
			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 q_f	1032 1703	1059 1748	946 1562	978 1614	893 1474	925 1526	857 1414	887 1463	830 1370
			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 q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			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 q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			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 q_f	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522	952 1522
			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 q_f	853 1407	832 1373	816 1346	803 1325	793 1308	784 1293	777 1281	770 1271	765 1262
			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 q_f	691 1407	691 1140	691 1140	628 1037	635 1047	640 1056	595 982	603 995	610 1006
			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 q_f	595 982	610 1006	544 898	561 926	512 845	530 874	490 809	507 837	475 783
			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 q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			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 q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			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 q_f	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085	678 1085
			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 q_f	602 993	586 968	575 948	565 932	557 920	551 909	546 900	541 893	537 886
			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 q_f	487 993	486 803	486 802	442 729	446 736	449 741	418 689	423 698	427 705
			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 q_f	420 693	429 709	383 632	395 651	360 594	372 614	344 568	356 587	333 549
			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

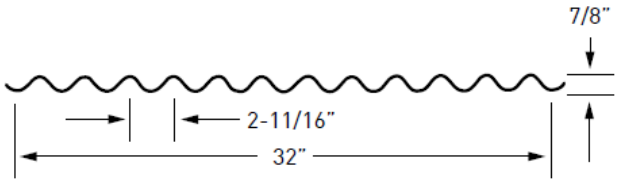
3Wx H-36 36/4 Support Attachment: 0.5" Effectiv e Dia. Arc Spot Weld Side Seam Attachment: DeltaGrip

TABLE 32b: DG3WxH-36 and DG3WxHF-36 Shear and Flexibility (continued) with Hilti EDN-19 /HSN-24 at supports and Delta Grip at side seams

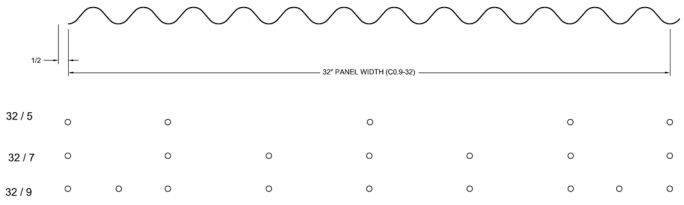
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"
36/4	16 ga	4"	q_a q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			F	3.6+-0.2R	3.6+-0.1R	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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047	1271 2047
			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 q_f	1202 1935	1254 2019	1175 1892	1222 1967	1158 1865	1200 1931	1147 1846	1184 1906	1138 1832
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657	1029 1657
			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 q_f	993 1657	1010 1625	1021 1644	966 1555	981 1580	993 1599	951 1532	965 1553	976 1571
			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 q_f	876 1411	917 1477	848 1366	886 1426	831 1337	864 1391	818 1318	849 1366	810 1303
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260	783 1260
			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 q_f	783 1260	779 1254	773 1245	769 1238	765 1232	762 1227	759 1222	757 1219	755 1215
			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 q_f	663 1260	673 1084	681 1096	634 1021	645 1038	653 1052	618 996	628 1012	637 1025
			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 q_f	575 926	601 968	548 882	573 922	531 855	554 891	519 836	540 869	511 822
			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 q_f	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056
			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 q_f	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056
			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 q_f	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056	656 1056
			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 q_f	612 985	604 972	598 962	593 954	589 948	585 942	582 938	580 934	578 930
			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 q_f	507 985	513 826	518 834	478 770	486 782	492 792	463 745	470 757	477 767
			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 q_f	437 703	455 733	411 662	429 691	396 637	412 663	385 619	400 644	377 607
			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

FIGURE 27: C 0.9-32



C 0.9 -32 PROFILE



32/5, 32/7 & 32/9 ATTACHMENT PATTERNS

TABLE 33: C 0.9-32 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 (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_{gbot} (in^3/ft)	r (in)
26	1.07	0.0195	80	82	0.299	0.028	0.44	0.062	0.306
24	1.38	0.0254	80	82	0.390	0.036	0.44	0.080	0.306
22	1.69	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					Effective Section Properties at Service Load			
	Comp-ression Area	for Bending Strength				Effective Moment of Inertia for Deflection			
		Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ (in^2/ft)	S_e+ (in^3/ft)	y_b (in)	S_e- (in^3/ft)	y_b (in)	I_e+ (in^4/ft)	I_e- (in^4/ft)	I+ (in^4/ft)	I- (in^4/ft)
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

TABLE 34: C 0.9-32 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports (plf) Based on Web Crippling			
Gauge	Condition	Bearing Length of Webs	
		Allowable	Factored
		1.5"	1.5"
26	End	551.4	883
	Interior	770.1	1233.0
24	End	584.8	936.1
	Interior	952.6	1525.5
22	End	906.1	1450.7
	Interior	1523.5	2439
20	End	1211.0	1940
	Interior	2233.7	3576

TABLE 35: C 0.9-32 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	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

TABLE 35: C 0.9-32 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
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

TABLE 36a: C 0.9-32 DIAPHRAGM SHEAR CAPACITY TABLE with No. 12 SD HWH Screw at supports and No. 10 SD HWH Screw

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)											
			Span →	12"	18"	2' - 0"	2' - 6"	3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"		
32/5	20 ga	4"	q_a q_f	1166 1878	1166 1878	1166 1878	1166 1878	1145 1844	1147 1846	1118 1800	1122 1807	1100 1772		
			F	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R		
		6"	q_a q_f	1166 1878	1136 1830	1077 1733	1034 1665	1002 1613	977 1574	958 1542	942 1517	929 1496		
			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 q_f	1166 1878	1136 1830	995 1602	961 1547	936 1508	918 1478	844 1358	838 1349	834 1342		
			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 q_f	1127 1815	1045 1683	890 1434	872 1404	770 1240	773 1245	700 1127	711 1145	655 1054		
			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 q_f	1127 1815	919 1480	890 1434	766 1233	667 1073	686 1105	617 993	559 899	585 942		
			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 q_f	1127 1815	919 1480	759 1222	766 1233	667 1073	588 947	525 845	559 899	510 821		
			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 q_f	979 1577	979 1577	979 1577	972 1565	937 1508	937 1508	911 1467	914 1471	894 1439		
			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 q_f	979 1577	937 1509	883 1421	844 1358	815 1312	792 1276	775 1247	760 1224	748 1205		
			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 q_f	979 1577	937 1509	815 1312	783 1261	760 1224	743 1197	681 1096	675 1086	670 1078		
			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 q_f	938 1510	862 1388	731 1177	711 1145	626 1008	626 1007	565 910	572 921	526 847		
			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 q_f	938 1510	761 1226	731 1177	626 1008	544 876	556 895	499 803	451 727	471 758		
			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 q_f	938 1510	761 1226	627 1009	626 1008	544 876	479 771	427 687	451 727	412 663		
			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 q_f	792 1275	792 1275	773 1244	764 1230	732 1179	731 1177	709 1141	710 1143	693 1116		
			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 q_f	792 1275	742 1194	694 1117	659 1061	633 1020	614 988	598 963	585 942	575 925		
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R		
		8"	q_a q_f	792 1275	742 1194	640 1031	611 984	591 951	575 926	524 844	518 834	513 826		
			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 q_f	751 1208	683 1100	576 927	556 895	487 784	484 780	436 702	440 708	403 649		
			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 q_f	751 1208	606 976	576 927	491 791	426 685	432 695	386 622	349 562	362 582		
			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 q_f	751 1208	606 976	497 801	491 791	426 685	374 603	333 536	349 562	318 512		
			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 q_f	608 979	608 979	573 923	564 908	537 865	535 861	516 831	517 832	502 809		
			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 q_f	608 979	554 892	513 826	484 779	462 744	446 717	432 696	422 679	413 665		
			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 q_f	608 979	554 892	474 764	449 723	431 694	417 672	379 610	373 600	368 592		
			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 q_f	569 916	511 823	428 689	409 659	357 575	352 567	316 509	317 510	290 467		
			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 q_f	569 916	457 736	428 689	364 586	314 506	315 508	282 454	254 409	261 421		
			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 q_f	569 916	457 736	374 602	364 586	314 506	276 444	245 395	254 409	231 372		
			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

TABLE 36b: C 0.9-32 DIAPHRAGM SHEAR CAPACITY TABLE (continued)
with No. 12 SD HWH Screw at supports and No. 10 SD HWH Screw at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	12"	18"	2' - 0"	2' - 6"	3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	
32/7	20 ga	4"	q_a / q_f	1693 / 2725	1617 / 2603	1503 / 2421	1482 / 2386	1411 / 2272	1408 / 2267	1358 / 2187	1361 / 2192	1324 / 2131
			F	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R
		6"	q_a / q_f	1595 / 2568	1436 / 2311	1329 / 2139	1254 / 2019	1199 / 1931	1157 / 1863	1124 / 1810	1098 / 1768	1076 / 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 / q_f	1595 / 2568	1436 / 2311	1216 / 1958	1155 / 1859	1111 / 1789	1078 / 1736	976 / 1571	963 / 1551	953 / 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 / q_f	1459 / 2348	1308 / 2107	1084 / 1744	1042 / 1677	905 / 1457	898 / 1446	804 / 1295	810 / 1305	741 / 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 / q_f	1459 / 2348	1149 / 1850	1084 / 1744	914 / 1472	787 / 1266	797 / 1283	710 / 1143	639 / 1029	662 / 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 / q_f	1459 / 2348	1149 / 1850	928 / 1495	914 / 1472	787 / 1266	688 / 1107	610 / 982	639 / 1029	581 / 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 / q_f	1403 / 2259	1331 / 2143	1230 / 1980	1208 / 1945	1146 / 1845	1141 / 1836	1097 / 1766	1098 / 1768	1065 / 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 / q_f	1323 / 2130	1181 / 1901	1086 / 1748	1019 / 1641	971 / 1563	934 / 1503	904 / 1456	881 / 1419	862 / 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 / q_f	1323 / 2130	1181 / 1901	995 / 1602	939 / 1512	899 / 1448	870 / 1400	785 / 1264	773 / 1244	763 / 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 / q_f	1213 / 1953	1078 / 1736	889 / 1432	849 / 1367	736 / 1184	726 / 1169	649 / 1045	652 / 1049	595 / 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 / q_f	1213 / 1953	952 / 1533	889 / 1432	749 / 1205	643 / 1035	647 / 1041	575 / 926	518 / 833	533 / 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 / q_f	1213 / 1953	952 / 1533	768 / 1236	749 / 1205	643 / 1035	562 / 904	498 / 801	518 / 833	470 / 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 / q_f	1117 / 1799	1051 / 1692	964 / 1551	942 / 1516	889 / 1431	882 / 1420	845 / 1361	845 / 1360	780 / 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 / q_f	1054 / 1697	932 / 1500	850 / 1369	793 / 1277	751 / 1209	719 / 1158	694 / 1118	674 / 1086	658 / 1059
			F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		8"	q_a / q_f	1054 / 1697	932 / 1500	780 / 1256	731 / 1177	696 / 1121	670 / 1079	603 / 971	592 / 953	582 / 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 / q_f	971 / 1563	853 / 1374	701 / 1128	663 / 1068	573 / 923	562 / 905	502 / 808	501 / 806	456 / 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 / q_f	971 / 1563	759 / 1221	701 / 1128	588 / 947	504 / 812	503 / 809	447 / 719	402 / 647	411 / 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 / q_f	971 / 1563	759 / 1221	610 / 983	588 / 947	504 / 812	440 / 708	390 / 627	402 / 647	364 / 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 / q_f	841 / 1355	782 / 1259	710 / 1143	689 / 1110	646 / 1041	639 / 1029	609 / 981	607 / 978	530 / 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 / q_f	795 / 1280	694 / 1118	627 / 1009	580 / 934	546 / 879	520 / 837	500 / 804	483 / 778	470 / 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 / q_f	795 / 1280	694 / 1118	577 / 929	536 / 863	507 / 816	485 / 781	435 / 701	425 / 684	416 / 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 / q_f	736 / 1185	638 / 1028	521 / 840	488 / 786	421 / 677	409 / 659	364 / 587	361 / 582	329 / 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 / q_f	736 / 1185	572 / 922	521 / 840	436 / 703	373 / 601	368 / 593	327 / 526	294 / 473	298 / 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 / q_f	736 / 1185	572 / 922	459 / 740	436 / 703	373 / 601	325 / 524	288 / 464	294 / 473	266 / 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

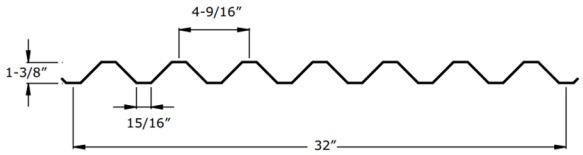
C 0.9-32 32/7 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

TABLE 36c: C 0.9-32 DIAPHRAGM SHEAR CAPACITY TABLE (continued)
No. 12 SD HWH Screw at supports and No. 10 SD HWH Screw at side seams

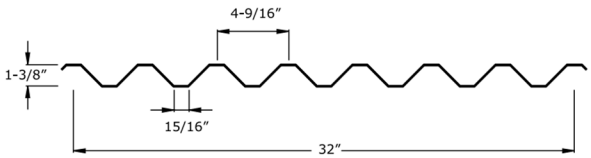
Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
		Span →	12"	18"	2' - 0"	2' - 6"	3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	
32/9	20 ga	4"	q_a q_f	1750 2817	1750 2817	1750 2817	1750 2817	1683 2710	1663 2678	1590 2561	1584 2551	1393 2229
			F	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R	5+0R
		6"	q_a q_f	1750 2817	1750 2817	1645 2648	1527 2458	1440 2318	1373 2210	1320 2125	1278 2057	1243 2001
			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 q_f	1750 2817	1750 2817	1525 2456	1420 2286	1344 2163	1286 2071	1159 1865	1131 1820	1108 1783
			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 q_f	1750 2817	1679 2703	1390 2238	1302 2096	1128 1817	1096 1764	979 1576	969 1560	884 1423
			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 q_f	1750 2817	1523 2452	1390 2238	1173 1888	1008 1624	992 1597	883 1421	794 1278	804 1294
			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 q_f	1750 2817	1523 2452	1237 1991	1173 1888	1008 1624	882 1420	782 1259	794 1278	721 1161
			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 q_f	1469 2365	1469 2365	1469 2365	1458 2348	1367 2200	1346 2168	1284 2067	1276 2054	1081 1729
			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 q_f	1469 2365	1469 2365	1349 2171	1245 2005	1169 1882	1111 1788	1065 1714	1028 1654	997 1605
			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 q_f	1469 2365	1469 2365	1253 2018	1160 1868	1093 1759	1042 1677	936 1508	911 1466	890 1433
			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 q_f	1469 2365	1389 2237	1146 1846	1067 1718	923 1485	891 1435	795 1280	784 1262	714 1150
			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 q_f	1469 2365	1267 2039	1146 1846	965 1554	829 1335	810 1304	720 1159	647 1042	652 1049
			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 q_f	1469 2365	1267 2039	1027 1654	965 1554	829 1335	724 1166	642 1034	647 1042	588 946
			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 q_f	1188 1913	1188 1913	1184 1907	1138 1833	1061 1708	1041 1677	989 1592	963 1540	780 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 q_f	1188 1913	1184 1907	1061 1708	974 1567	909 1463	859 1384	821 1321	789 1271	764 1230
			F	7.9+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
		8"	q_a q_f	1188 1913	1184 1907	989 1592	909 1463	851 1370	807 1300	724 1166	701 1129	683 1100
			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 q_f	1188 1913	1105 1779	909 1463	839 1351	724 1166	695 1119	619 997	607 977	552 889
			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 q_f	1188 1913	1014 1632	909 1463	764 1229	655 1055	635 1022	564 908	506 815	506 815
			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 q_f	1188 1913	1014 1632	821 1321	764 1229	655 1055	572 921	506 815	506 815	459 740
			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 q_f	912 1469	912 1469	876 1411	836 1345	774 1246	755 1216	714 1150	654 1046	530 847
			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 q_f	912 1469	888 1429	788 1268	717 1155	665 1071	625 1007	594 957	569 916	530 847
			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 q_f	912 1469	888 1429	737 1187	672 1081	624 1005	589 948	527 848	508 817	492 793
			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 q_f	912 1469	832 1339	681 1097	623 1003	536 864	511 822	454 732	443 713	402 648
			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 q_f	912 1469	769 1238	681 1097	571 920	489 788	470 756	417 671	374 602	371 597
			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 q_f	912 1469	769 1238	621 1000	571 920	489 788	427 687	378 608	374 602	339 546
			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

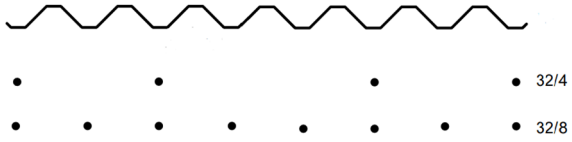
FIGURE 28 – C 1.4-32 and C 1.4R-32



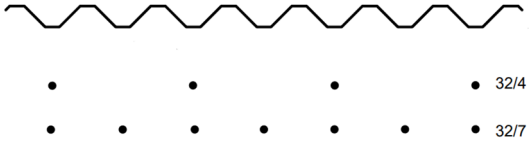
C 1.4-32 PROFILE



C 1.4R-32 (Reversed) PROFILE



C 1.4-32 ATTACH. PATTERNS (32/4 & 32/8)



C 1.4R-32 (Reversed) ATTACH. PATTERN (32/4 & 32/7)

TABLE 37: C 1.4-32 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)
26	1.1	0.0195	80	82	0.303	0.080	0.72	0.111	0.514
24	1.4	0.0254	80	82	0.394	0.104	0.73	0.143	0.513
22	1.7	0.0314	80	82	0.486	0.128	0.73	0.175	0.513
20	2.0	0.0374	80	82	0.577	0.150	0.73	0.207	0.512
18	2.6	0.048	40	55	0.738	0.191	0.73	0.262	0.510

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load			
	Compression Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Effective Moment of Inertia for Deflection: Moment of Inertia	Effective Moment of Inertia for Deflection: Moment of Inertia	Uniform Load Only: $I_d = (2I_e+I_g)/3$	
	A_e+ (in²/ft)	S_e+ (in³/ft)	y_b (in)	S_e- (in³/ft)	y_b (in)	I_e+ (in⁴/ft)	I_e- (in⁴/ft)	I+ (in⁴/ft)	I- (in⁴/ft)
26	0.172	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	0.672	0.262	0.73	0.262	0.73	0.191	0.191	0.191	0.191

TABLE 38: C 1.4 -32 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Gauge	Condition	Bearing Length of Webs							
		Allowable				Factored			
		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°		

TABLE 39: C 1.4 -32 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	269	198	151	120	97	80	67	49	38
		Φf_b	405	297	228	180	146	120	101	74	57
		L/360	129	81	55	38	28	21	16	10	7
		L/240	194	122	82	57	42	31	24	15	10
		L/180	259	163	109	77	56	42	32	20	14
		L/120	388	244	164	115	84	63	48	31	20
	Double Span	f_b/Ω	283	208	159	126	102	84	71	52	40
		Φf_b	426	313	240	189	153	127	107	78	60
		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	354	260	199	157	128	105	89	65	50
		Φf_b	533	391	300	237	192	158	133	98	75
		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	371	273	209	165	134	111	93	68	52
		Φf_b	558	410	314	248	201	166	140	103	79
		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	376	276	212	167	135	112	94	69	53
		Φf_b	566	415	318	251	204	168	141	104	80
		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	470	346	265	209	169	140	118	86	66
		Φf_b	707	519	398	314	254	210	177	130	99
		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

TABLE 39: C 1.4 -32 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
22	Single 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	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	342	262	207	168	139	116	86	65
		Φf_b	700	514	394	311	252	208	175	129	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	582	428	327	259	210	173	145	107	82
		Φf_b	875	643	492	389	315	260	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
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

TABLE 39: C 1.4 -32 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
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

TABLE 40a: C 1.4-32 DIAPHRAGM SHEAR CAPACITY TABLE
with No. 10 SD HWH Screw side seam and No. 12 SD HWH Screw at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"
32/4	20 ga	4"	q_a q_f	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	818 1317	764 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
		6"	q_a q_f	818 1317	818 1317	818 1317	818 1317	818 1317	808 1300	799 1287	793 1276	764 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
		8"	q_a q_f	818 1317	818 1317	765 1232	759 1222	719 1157	721 1160	693 1115	698 1123	677 1089
			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 q_f	794 1278	703 1131	647 1042	611 983	585 942	566 911	551 887	539 868	530 853
			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 q_f	794 1278	614 989	574 925	549 884	474 763	469 755	465 749	420 677	422 680
			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
		24"	q_a q_f	686 1104	614 989	492 791	481 774	412 663	415 669	369 594	377 607	343 552
			F	14.5+-0.1R	14.5+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 q_f	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	595 952
			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
		6"	q_a q_f	687 1106	687 1106	687 1106	675 1087	662 1065	652 1049	644 1037	638 1027	595 952
			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
		8"	q_a q_f	687 1106	681 1096	620 999	613 987	578 931	579 932	555 893	558 898	540 870
			F	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
		12"	q_a q_f	653 1052	573 922	524 843	492 792	469 755	452 728	439 707	429 691	421 677
			F	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
		18"	q_a q_f	653 1052	502 808	466 750	442 712	381 613	375 604	371 597	335 539	335 540
			F	13+-0.1R	13+0R	13+0R	13+0R	13+0R	13+0R	13+0R	13+0R	13+0R
		24"	q_a q_f	567 913	502 808	400 644	389 626	332 534	333 536	296 476	301 484	271 437
			F	16.1+-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
	24 ga	4"	q_a q_f	556 895	556 895	556 895	556 895	556 895	556 895	556 895	536 858	434 695
			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"	q_a q_f	556 895	556 895	539 868	522 841	510 821	501 807	494 796	489 787	434 695
			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
		8"	q_a q_f	556 895	532 856	480 773	473 761	443 714	443 713	423 681	425 684	410 660
			F	9+0R	9+0R	9+0R	9.1+0R	9.1+0R	9.1+0R	9.1+0R	9.1+0R	9.1+0R
		12"	q_a q_f	516 831	447 720	405 653	378 609	359 578	345 555	334 537	325 523	318 512
			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
		18"	q_a q_f	516 831	393 633	361 582	341 549	292 471	287 461	282 454	254 409	254 409
			F	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
		24"	q_a q_f	450 725	393 633	312 503	300 484	256 412	255 411	223 360	227 366	205 329
			F	18.3+-0.2R	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
	26 ga	4"	q_a q_f	427 687	427 687	427 687	427 687	427 687	427 687	427 687	361 578	293 468
			F	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
		6"	q_a q_f	427 687	415 668	393 633	378 609	368 592	360 580	354 570	349 562	293 468
			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
		8"	q_a q_f	422 679	390 628	349 562	341 549	318 512	316 509	301 485	302 486	290 467
			F	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R
		12"	q_a q_f	385 619	329 529	295 475	273 439	257 414	246 396	237 382	230 371	224 361
			F	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
		18"	q_a q_f	385 619	291 468	264 425	247 397	211 340	205 331	201 324	180 290	180 289
			F	17.6+-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
		24"	q_a q_f	339 545	291 468	230 370	219 352	184 296	182 292	158 255	161 259	145 233
			F	21.5+-0.3R	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

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

TABLE 40b: C 1.4-32 DIAPHRAGM SHEAR CAPACITY TABLE (continued)
with No. 10 SD HWH Screw side seam and No. 12 SD HWH Screw at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"
32/8	20 ga	4"	q_a q_f	1639 2638	1521 2449	1454 2341	1410 2271	1380 2222	1358 2186	1194 1910	943 1509	764 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
		6"	q_a q_f	1440 2318	1282 2064	1192 1920	1135 1827	1095 1762	1065 1715	1043 1679	943 1509	764 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
		8"	q_a q_f	1316 2119	1186 1910	1032 1662	1002 1613	922 1484	915 1474	864 1390	865 1392	764 1223
			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 q_f	1174 1890	967 1557	852 1372	779 1254	729 1174	693 1115	665 1070	643 1035	626 1007
			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 q_f	1174 1890	844 1359	754 1214	698 1125	590 950	572 921	559 900	496 799	492 793
			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 q_f	1011 1628	844 1359	652 1050	615 990	516 831	508 817	442 712	444 715	398 641
			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 q_f	1338 2155	1232 1984	1171 1886	1132 1822	1105 1778	1084 1746	930 1488	735 1175	595 952
			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
		6"	q_a q_f	1176 1893	1037 1669	958 1542	907 1461	872 1404	847 1363	827 1331	735 1175	595 952
			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
		8"	q_a q_f	1077 1733	960 1545	830 1337	802 1291	735 1183	727 1171	685 1102	684 1102	595 952
			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 q_f	964 1552	787 1267	688 1108	626 1008	583 939	552 889	529 851	510 821	495 797
			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 q_f	964 1552	691 1112	612 985	563 907	475 765	458 737	444 715	393 633	390 628
			F	13+-0.1R	13+-0.1R	13+0R	13+0R	13+0R	13+0R	13+0R	13+0R	13+0R
		24"	q_a q_f	837 1347	691 1112	533 858	498 803	415 669	406 654	353 569	353 568	317 511
			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 q_f	1047 1685	953 1535	900 1449	866 1394	842 1355	824 1326	679 1086	536 858	434 695
			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"	q_a q_f	920 1481	802 1291	735 1183	692 1114	662 1066	641 1031	624 1005	536 858	434 695
			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
		8"	q_a q_f	844 1360	743 1197	638 1027	612 985	559 899	551 886	517 832	515 829	434 695
			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 q_f	760 1223	613 988	532 857	481 775	446 718	421 677	401 646	386 621	374 602
			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 q_f	760 1223	542 873	476 766	435 700	364 586	348 560	336 541	298 480	295 475
			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 q_f	666 1072	542 873	418 672	387 622	320 515	310 500	270 435	269 433	242 389
			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 q_f	770 1240	692 1114	647 1042	618 995	598 963	584 940	457 732	361 578	293 468
			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 q_f	678 1092	582 938	528 850	494 795	470 757	452 728	439 707	361 578	293 468
			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
		8"	q_a q_f	625 1006	541 871	461 741	438 705	397 640	390 627	365 587	361 578	293 468
			F	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R
		12"	q_a q_f	566 912	451 726	387 624	347 559	320 515	299 481	283 456	271 437	262 422
			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 q_f	566 912	402 648	349 562	316 508	261 421	248 399	239 384	212 342	209 336
			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 q_f	502 808	402 648	309 497	280 451	232 373	222 358	194 313	192 310	173 279
			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: #10 SD HWH Screw

TABLE 40c: C 1.4R-32 (Reversed C 1.4) DIAPHRAGM SHEAR CAPACITY TABLE (continued) with No. 12 SD HWH Screw side seam and No. 12 SD HWH Screw at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"
32/4	20 ga	4"	q_a q_f	999 1608	977 1574	966 1555	958 1542	953 1534	949 1527	946 1523	943 1509	764 1223
			F	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R
		6"	q_a q_f	903 1455	865 1392	842 1356	828 1333	818 1317	811 1305	805 1296	800 1289	764 1223
			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 q_f	828 1334	808 1301	744 1198	748 1204	710 1144	718 1156	692 1115	701 1128	681 1097
			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 q_f	725 1167	651 1048	609 981	582 937	564 908	550 886	540 869	531 856	525 845
			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 q_f	725 1167	545 878	525 846	513 826	441 710	444 715	446 718	403 649	409 658
			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 q_f	583 939	545 878	430 692	436 703	372 599	385 620	341 550	356 572	321 516
			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 q_f	823 1324	802 1291	790 1273	783 1260	778 1252	774 1246	771 1241	735 1175	595 952
			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 q_f	740 1191	703 1132	682 1099	669 1077	660 1062	653 1051	647 1042	643 1036	595 952
			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 q_f	676 1089	655 1055	599 965	601 968	569 916	575 925	553 890	559 900	543 873
			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 q_f	591 952	526 847	489 787	465 749	449 723	437 704	428 689	421 677	415 668
			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 q_f	591 952	441 710	422 679	410 660	351 565	352 567	353 569	319 513	323 520
			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 q_f	478 770	441 710	347 558	349 562	297 478	306 493	268 432	280 450	251 405
			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 q_f	649 1045	629 1013	618 995	611 984	606 976	602 970	599 965	536 858	434 695
			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 q_f	579 933	546 880	527 849	515 829	507 816	500 805	495 798	492 792	434 695
			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 q_f	528 851	507 817	460 741	460 741	434 698	437 704	419 675	424 683	410 661
			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 q_f	462 743	406 653	374 603	354 571	341 548	330 532	323 519	317 510	312 502
			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 q_f	462 743	342 550	324 521	312 503	267 429	267 429	266 429	240 386	242 390
			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 q_f	376 605	342 550	267 430	267 430	224 360	230 371	200 322	208 336	188 302
			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 q_f	482 775	463 746	453 729	446 718	441 711	438 705	435 701	361 578	293 468
			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 q_f	427 687	398 640	381 614	370 596	363 584	357 575	353 569	350 563	293 468
			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 q_f	388 625	368 593	331 533	329 530	308 496	310 499	296 477	299 482	289 465
			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 q_f	340 547	294 474	269 432	252 406	241 388	233 375	227 365	222 357	218 351
			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 q_f	340 547	249 401	233 375	223 359	189 304	187 301	187 301	166 268	169 271
			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 q_f	279 450	249 401	194 312	191 307	157 253	160 258	140 225	145 234	131 210
			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: #12 SD HWH Screw

TABLE 40d: C 1.4R-32 (Reversed C 1.4) DIAPHRAGM SHEAR CAPACITY TABLE (continued) with No. 12 SD HWH Screw side seam and No. 12 SD HWH Screw at supports

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"
32/7	20 ga	4"	q_a / q_f	1464 / 2357	1392 / 2241	1352 / 2177	1327 / 2136	1309 / 2108	1297 / 2088	1194 / 1910	943 / 1509	764 / 1223
			F	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R	0+0R
		6"	q_a / q_f	1258 / 2025	1155 / 1859	1098 / 1767	1062 / 1709	1037 / 1669	1019 / 1640	1005 / 1618	943 / 1509	764 / 1223
			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 / q_f	1123 / 1809	1055 / 1699	934 / 1504	928 / 1494	863 / 1389	868 / 1398	826 / 1329	834 / 1343	764 / 1223
			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 / q_f	964 / 1552	821 / 1322	744 / 1197	695 / 1119	662 / 1066	638 / 1028	620 / 999	606 / 976	595 / 957
			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 / q_f	964 / 1552	687 / 1106	639 / 1029	610 / 982	515 / 829	511 / 823	509 / 819	451 / 727	455 / 733
			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 / q_f	778 / 1253	687 / 1106	528 / 851	520 / 838	433 / 697	441 / 710	384 / 618	395 / 637	354 / 571
			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 / q_f	1191 / 1918	1125 / 1812	1089 / 1753	1065 / 1715	1049 / 1689	1037 / 1670	930 / 1488	735 / 1175	595 / 952
			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 / q_f	1020 / 1643	929 / 1495	878 / 1414	846 / 1362	824 / 1327	808 / 1301	796 / 1281	735 / 1175	595 / 952
			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 / q_f	912 / 1468	848 / 1365	746 / 1201	738 / 1188	684 / 1101	687 / 1106	652 / 1049	658 / 1059	595 / 952
			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 / q_f	785 / 1264	662 / 1066	596 / 959	554 / 892	526 / 847	505 / 814	490 / 789	478 / 769	468 / 753
			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 / q_f	785 / 1264	557 / 896	514 / 827	487 / 784	409 / 659	404 / 651	400 / 644	354 / 570	357 / 575
			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 / q_f	640 / 1030	557 / 896	427 / 688	417 / 671	345 / 555	349 / 562	303 / 489	311 / 501	280 / 450
			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 / q_f	927 / 1492	868 / 1397	835 / 1344	814 / 1311	800 / 1287	789 / 1270	679 / 1086	536 / 858	434 / 695
			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 / q_f	792 / 1275	713 / 1147	669 / 1077	642 / 1033	623 / 1003	609 / 981	599 / 964	536 / 858	434 / 695
			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 / q_f	708 / 1140	651 / 1048	568 / 915	559 / 900	516 / 831	517 / 832	489 / 788	493 / 794	434 / 695
			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 / q_f	612 / 986	510 / 822	455 / 733	421 / 678	398 / 641	381 / 613	368 / 593	358 / 577	350 / 564
			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 / q_f	612 / 986	432 / 696	395 / 636	372 / 598	309 / 497	303 / 488	299 / 481	265 / 427	267 / 430
			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 / q_f	505 / 813	432 / 696	329 / 529	317 / 510	262 / 422	263 / 423	228 / 368	234 / 377	210 / 339
			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 / q_f	677 / 1089	626 / 1008	598 / 962	580 / 934	568 / 914	559 / 900	457 / 732	361 / 578	293 / 468
			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 / q_f	577 / 929	512 / 825	477 / 767	454 / 731	439 / 706	428 / 688	419 / 675	361 / 578	293 / 468
			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 / q_f	517 / 833	468 / 753	405 / 652	396 / 637	364 / 585	363 / 584	342 / 551	344 / 553	293 / 468
			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 / q_f	451 / 725	370 / 596	327 / 526	300 / 483	281 / 452	266 / 429	256 / 413	249 / 401	243 / 391
			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 / q_f	451 / 725	317 / 510	285 / 459	264 / 424	218 / 351	212 / 342	209 / 336	186 / 299	186 / 300
			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 / q_f	377 / 606	317 / 510	238 / 383	226 / 363	186 / 300	185 / 298	162 / 260	165 / 265	148 / 239
			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: #12 SD HWH Screw

FIGURE 29: DGB-36AW & B-36AW Perforation Locations

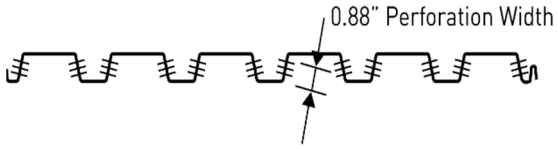


FIGURE 30: Perforation Pattern

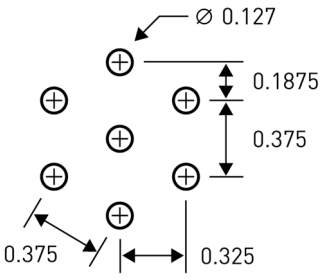


TABLE 41: DGB-36AW & B-36AW Panel Properties

Gauge No.	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 (in^2/ft)	I_g (in^4/ft)	y_b (in)	S_g (in^3/ft)	r (in)
22	1.59	0.0299	50	65	0.468	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

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_{e+} (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	0.177	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

TABLE 42: DGB-36AW & B-36AW Out-of-Plane Capacities

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

Gauge No.	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

TABLE 42: DGB-36AW & B-36AW Out-of-Plane Capacities (continued)

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

Gauge No.	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	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

FIGURE 31: DGB-36AT & B-36AT Perforation Locations

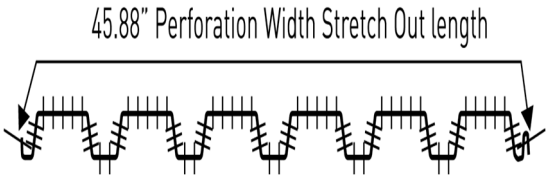


FIGURE 32: Perforation Pattern

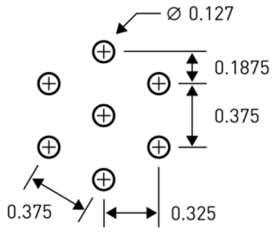


TABLE 43: DGB-36AT & B-36AT Panel Properties

Gauge No.	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	F_y	F_u	A_g	I_g	y_b	S_{gtop}	r
	psf	In	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	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

Gauge No.	Effective Section Modulus for Bending at Fy					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_{e+}	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
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

TABLE 44: DGB-36AT & B-36AT Out-of-Plane Capacities

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

Gauge No.	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

TABLE 44: DGB-36AT & B-36AT Out-of-Plane Capacities (continued)

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

Gauge No.	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	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
		L/120	1069	547	317	200	134	68	40	25	17
16	Single Span	f_b/Ω	345	221	154	113	86	55	38	28	22
		Φf_b	519	332	231	170	130	83	58	42	32
		L/360	228	117	67	42	28	15	8	5	4
		L/240	341	175	101	64	43	22	13	8	5
		L/180	455	233	135	85	57	29	17	11	7
		L/120	683	350	202	127	85	44	25	16	11
	Double Span	f_b/Ω	353	226	157	115	88	57	39	29	22
		Φf_b	531	340	236	173	133	85	59	43	33
		L/360	548	281	162	102	69	35	20	13	9
		L/240	822	421	244	153	103	53	30	19	13
		L/180	1097	561	325	205	137	70	41	26	17
		L/120	1645	842	487	307	206	105	61	38	26
	Triple Span	f_b/Ω	442	283	196	144	110	71	49	36	28
		Φf_b	664	425	295	217	166	106	74	54	41
		L/360	430	220	127	80	54	27	16	10	7
		L/240	644	330	191	120	81	41	24	15	10
		L/180	859	440	255	160	107	55	32	20	13
		L/120	1289	660	382	240	161	82	48	30	20

FIGURE 33: DGBF-36A & BF-36A Pan Perforation Locations

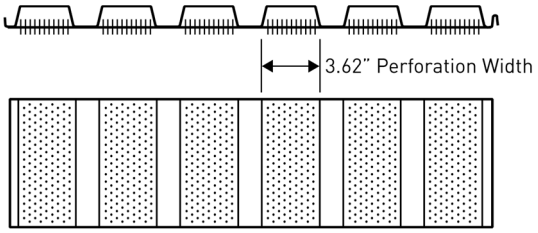


FIGURE 34: DGBF-36A Perforation Pattern

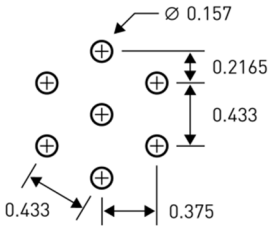


TABLE 45: DGBF-36A & BF-36A Panel Properties

Gauge No.	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	F_y	F_u	A_g	I_g	y_b	S_{gtop}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	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

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
								Uniform Load Only	
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	$I_d = (2I_e+I_g)/3$	
	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	0.618	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

Deck Profile	Flat width of top flange	Flat width of bottom flange	Coefficient for composite deck	Width of perforated band in the bottom pan of the cellular deck	Center to center spacing of perforation holes	diameter of perforated hole
	w_{tf}	w_{bf}	K	P_p	C_p	dp
DGBF-36A & BF-36A	3.624	1.66	1	3.62	0.433	0.157

TABLE 46: DGBF-36A & BF-36A Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	Single Span	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
	Double Span	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	23	15
		L/180	1244	637	369	232	156	80	46	29	19
		L/120	1866	956	553	348	233	119	69	44	29
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 46: DGBF-36A & BF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge No.	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"
20/16	Single Span	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
	Double Span	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
	Triple Span	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
18/20	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 46: DGBF-36A & BF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge No.	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"
18/18	Single Span	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 46: DGBF-36A & BF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	Single Span	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 46: DGBF-36A & BF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
16/16	Single Span	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
	Double Span	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
	Triple Span	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

FIGURE 35: DGN-32AW Perforation Locations

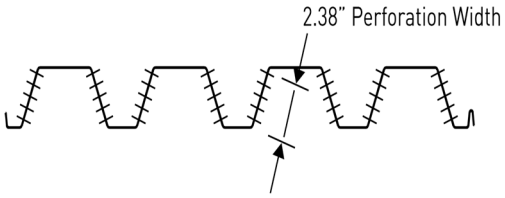


FIGURE 36: DGN-32AW Perforation Pattern

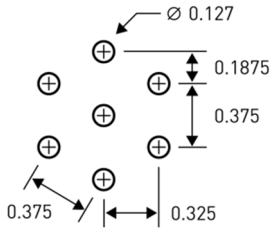


TABLE 47: DGN-32AW Panel Properties

Gauge No.	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	t	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
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

Gauge No.	Effective Section Modulus for Bending at Fy					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	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
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

TABLE 48: DGN-32AW Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge No.	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	46	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

TABLE 48: DGN-32AW Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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

FIGURE 37: DGN-32AT Perforation Locations

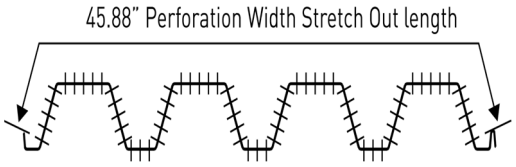


FIGURE 38: DGN-32AT Perforation Pattern

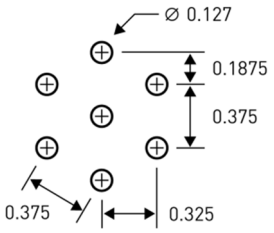


TABLE 49: DGN-32AT Panel Properties

Gauge No.	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	F_y	F_u	A_g	I_g	y_b	S_{gtop}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	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	1.61	0.530	1.189
16	2.63	0.0598	50	65	0.772	1.386	1.61	0.650	1.185

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	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
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

TABLE 50: DGN-32AT Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	64	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	256	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

TABLE 50: DGN-32AT Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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	2531	1046	441	226	131	82	55	39	28
		L/120	5296	1569	662	339	196	124	83	58	42

FIGURE 39: DGNF-32A Pan Perforation Locations

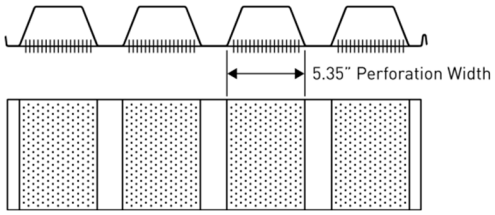


FIGURE 40: DGNF-32A Perforation Pattern

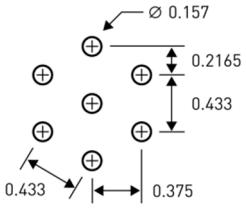


TABLE 51: DGNF-32A Panel Properties

Gauge No.	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	F_y	F_u	A_g	I_g	y_b	S_{gtop}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	in
20/20	3.42	.0359/.036	50	65	1.004	1.687	1.18	0.849	1.250
20/18	3.78	.0359/.047	50	65	1.111	1.820	1.08	0.867	1.223
20/16	4.17	.0359/.059	50	65	1.226	1.939	1.00	0.881	1.192
18/20	4.15	.0478/.036	50	65	1.220	2.077	1.29	1.103	1.269
18/18	4.51	.0478/.047	50	65	1.326	2.244	1.20	1.128	1.255
18/16	4.91	.0478/.059	50	65	1.442	2.397	1.12	1.149	1.235
16/20	4.89	.0598/.036	50	65	1.437	2.447	1.37	1.354	1.277
16/18	5.25	.0598/.047	50	65	1.543	2.640	1.29	1.382	1.271
16/16	5.64	.0598/.059	50	65	1.659	2.823	1.21	1.410	1.259

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_{e+}	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	0.525	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

Deck Profile	Flat width of the top flange	Flat width of the bottom flange	Coefficient for composite deck	Width of the perforated band in the bottom pan of the cellular deck	Center to center spacing of perforation holes	diameter of perforated hole
	wtf	wbf	K	Pp	Cp	dp
DGNF-32A & NF-32A	3.875	2.157	1	5.35	0.433	0.157

TABLE 52: DGNF-32A Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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
	Double 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	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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	4	33	24
		L/180	4036	1196	504	258	149	94	63	44	32
		L/120	6054	1794	757	387	224	141	95	66	48

TABLE 52: DGNF-32A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
20/16	Single Span	f_b/Ω	640	284	160	102	71	52	40	32	26
		Φf_b	961	427		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
	Double Span	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
	Triple Span	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
18/20	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	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
	Double Span	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
	Triple Span	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

TABLE 52: DGNF-32A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
18/18	Single Span	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 52: DGNF-32A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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
	Double Span	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	2809	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 52: DGNF-32A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
16/16	Single SpanSS	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
	Double SpanDS	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	840	486	306	205	144	105
	Triple SpanTS	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

FIGURE 41: 2WHF-36A Pan Perforation Locations

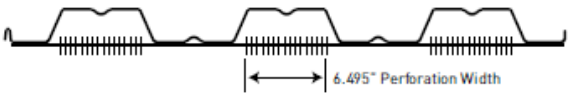


FIGURE 42: 2WHF-36A Perforation Pattern

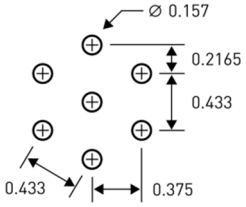


TABLE 53: 2WHF-36A Panel Properties

Gauge No.	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	F_y	F_u	A_g	I_g	y_b	S_{gtop}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	in
20/20	3.08	0.0359/0.036	50	65	0.906	0.749	0.72	0.537	0.874
20/18	3.45	0.0359/0.047	50	65	1.014	0.799	0.65	0.541	0.845
20/16	3.85	0.0359/0.059	50	65	1.132	0.841	0.60	0.547	0.815
18/20	3.69	0.0474/0.036	50	65	1.085	0.936	0.79	0.698	0.900
18/18	4.06	0.0474/0.047	50	65	1.193	0.998	0.73	0.708	0.879
18/16	4.46	0.0474/0.059	50	65	1.310	1.053	0.68	0.716	0.856
16/20	4.35	0.0598/0.036	50	65	1.279	1.129	0.85	0.864	0.916
16/18	4.72	0.0598/0.047	50	65	1.387	1.202	0.80	0.881	0.901
16/16	5.12	0.0598/0.059	50	65	1.504	1.270	0.75	0.898	0.884

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_{e+}	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	0.408	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

Deck Profile	Flat width of the top flange	Flat width of the bottom flange	Coefficient for composite deck	Width of the perforated band in the bottom pan of the cellular deck	Center-to-center spacing of perforation holes	diameter of perforated hole
	wtf	wbf	K	Pp	Cp	dp
2WHF-36A	5.016	5.016	1	6.495	0.433	0.157

TABLE 54: 2WHF-36A Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 54: 2WHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
20/16	Single Span	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
	Double Span	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
	Triple Span	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
18/20	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 54: 2WHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
18/18	Single Span	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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	193	193	121	81	57	42
	Triple Span	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

TABLE 54: 2WHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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	13	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

TABLE 54: 2WHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
16/16	Single Span	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
	Double Span	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	927	200	116	73	49	34	25
		L/180	4173	1236	1236	267	155	97	65	46	33
		L/120	6259	1855	1855	401	232	146	98	69	50
	Triple Span	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

FIGURE 43: 3WxHF-36A Pan Perforation Locations

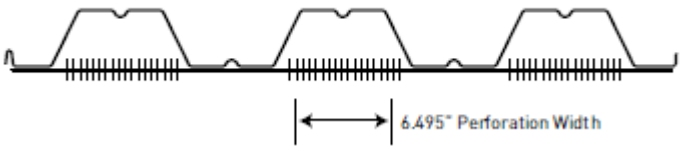


FIGURE 44: 3WxHF-36A Perforation Pattern

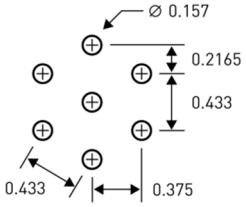


TABLE 55: 3WxHF-36A Panel Properties

Gauge No.	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	F_y	F_u	A_g	I_g	y_b	S_{gtop}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in^3/ft	in
20/20	3.24	0.0359/0.036	50	65	0.952	1.501	1.01	0.703	1.209
20/18	3.61	0.0359/0.047	50	65	1.060	1.598	0.91	0.712	1.172
20/16	4.01	0.0359/0.059	50	65	1.177	1.682	0.84	0.723	1.133
18/20	3.92	0.0478/0.036	50	65	1.151	1.881	1.11	0.922	1.242
18/18	4.28	0.0478/0.047	50	65	1.259	2.003	1.03	0.937	1.216
18/16	4.68	0.0478/0.059	50	65	1.376	2.114	0.95	0.948	1.186
16/20	4.59	0.0598/0.036	50	65	1.348	2.250	1.18	1.125	1.262
16/18	4.97	0.0598/0.047	50	65	1.460	2.393	1.10	1.147	1.242
16/16	5.37	0.0598/0.059	50	65	1.577	2.525	1.04	1.173	1.220

Gauge No.	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	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	0.379	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

Deck profile	Flat width of the top flange	Flat width of the bottom flange	Coefficient for composite deck	Width of the perforated band in the bottom pan of the cellular deck	Center-to-center spacing of perforation holes	diameter of perforated hole
	wtf	wbf	K	Pp	Cp	dp
3WxHF-36A	4.5	4.5	1	6.495	0.433	0.157

TABLE 56: 3WxHF-36A Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 56: 3WxHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
20/16	Single Span	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
	Double Span	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
	Triple Span	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
18/20	Single Span	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	50	20	14	10
		L/240	1926	571	241	123	71	74	30	21	15
		L/180	2569	761	321	164	95	99	40	28	21
		L/120	3853	1142	482	247	143	149	60	42	31
	Double Span	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
	Triple Span	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

TABLE 56: 3WxHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
18/18	Single Span	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 56: 3WxHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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	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
	Double Span	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
	Triple Span	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	Single Span	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
	Double Span	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
	Triple Span	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

TABLE 56: 3WxHF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft^2)

Gauge No.	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"
16/16	Single Span	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
	Double Span	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
	Triple Span	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

FIGURE 45: 4.5D-12 Profile

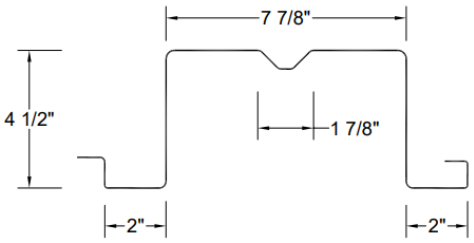


TABLE 57: 4.5D-12 Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	2.88	0.0359	40	55	0.868	2.817	2.40	2.100	1.174	1.802
18	3.87	0.0478	40	55	1.154	3.727	2.40	2.100	1.553	1.797
16	4.86	0.0598	40	55	1.442	4.634	2.40	2.100	1.931	1.792
14	6.14	0.0750	40	55	1.807	5.767	2.40	2.100	2.403	1.787

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	0.798	1.108	2.27	1.156	2.42	2.519	2.792	2.618	2.800
18	1.154	1.535	2.34	1.551	2.40	3.591	3.725	3.636	3.726
16	1.442	1.931	2.40	1.931	2.40	4.634	4.634	4.634	4.634
14	1.807	2.403	2.40	2.403	2.40	5.767	5.767	5.767	5.767

TABLE 58: 4.5D-12 Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
18	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
16	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
14	End	1514	1813	2236	2835	2316	2774	3422	4337
	Interior	2641	3060	3652	4490	3928	4552	5433	6679
Constants		h = 4.5"		r = 0.25"		θ = 90°			

TABLE 59: 4.5D-12 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	177	123	90	69	55	44	37	31	26	23	20
		Φf_b	281	195	143	110	87	70	58	49	42	36	31
		L/360	114	66	42	28	20	14	11	8	7	5	4
		L/240	172	99	63	42	29	21	16	12	10	8	6
		L/180	-	-	83	56	39	29	21	17	13	10	8
		L/120	-	-	-	-	-	43	32	25	20	16	13
	DS	f_b/Ω	185	128	94	72	57	46	38	32	27	24	21
		Φf_b	293	203	149	114	90	73	61	51	43	37	33
		L/360	-	-	-	72	51	37	28	21	17	13	11
		L/240	-	-	-	-	-	-	-	32	25	20	16
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	231	160	118	90	71	58	48	40	34	29	26
		Φf_b	366	254	187	143	113	92	76	64	54	47	41
		L/360	-	156	98	66	46	34	25	20	15	12	10
		L/240	-	-	-	-	69	51	38	29	23	18	15
		L/180	-	-	-	-	-	-	-	39	31	25	20
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	245	170	125	96	76	61	51	43	36	31	27
		Φf_b	389	270	198	152	120	97	80	67	58	50	43
		L/360	159	92	58	39	27	20	15	11	9	7	6
		L/240	238	138	87	58	41	30	22	17	14	11	9
		L/180	-	-	116	78	54	40	30	23	18	14	12
		L/120	-	-	-	-	-	60	45	34	27	22	18
	DS	f_b/Ω	248	172	126	97	76	62	51	43	37	32	28
		Φf_b	393	273	201	154	121	98	81	68	58	50	44
		L/360	-	-	-	96	67	49	37	28	22	18	15
		L/240	-	-	-	-	-	-	-	43	33	27	22
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	310	215	158	121	96	77	64	54	46	39	34
		Φf_b	491	341	251	192	152	123	102	85	73	63	55
		L/360	-	208	131	88	62	45	34	26	20	16	13
		L/240	-	-	-	-	92	67	51	39	31	25	20
		L/180	-	-	-	-	-	-	-	52	41	33	27
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 59: 4.5D-12 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	308	214	157	120	95	77	64	54	46	39	34
		Φf_b	489	340	250	191	151	122	101	85	72	62	54
		L/360	203	117	74	49	35	25	19	15	12	9	8
		L/240	304	176	111	74	52	38	29	22	17	14	11
		L/180	-	-	148	99	69	51	38	29	23	18	15
		L/120	-	-	-	-	-	76	57	44	35	28	23
	DS	f_b/Ω	308	214	157	120	95	77	64	54	46	39	34
		Φf_b	489	340	250	191	151	122	101	85	72	62	54
		L/360	-	-	-	119	84	61	46	35	28	22	18
		L/240	-	-	-	-	-	-	-	53	42	33	27
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	385	268	197	151	119	96	80	67	57	49	43
		Φf_b	611	425	312	239	189	153	126	106	90	78	68
		L/360	-	259	163	109	77	56	42	32	25	20	17
		L/240	-	-	-	-	115	84	63	48	38	31	25
		L/180	-	-	-	-	-	-	-	65	51	41	33
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	384	266	196	150	118	96	79	67	57	49	43
		Φf_b	609	423	311	238	188	152	126	106	90	78	68
		L/360	252	146	92	62	43	32	24	18	14	11	9
		L/240	378	219	138	92	65	47	36	27	22	17	14
		L/180	-	-	184	123	86	63	47	36	29	23	19
		L/120	-	-	-	-	-	95	71	55	43	34	28
	DS	f_b/Ω	384	266	196	150	118	96	79	67	57	49	43
		Φf_b	609	423	311	238	188	152	126	106	90	78	68
		L/360	-	-	-	148	104	76	57	44	35	28	22
		L/240	-	-	-	-	-	-	-	66	52	41	34
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	480	333	245	187	148	120	99	83	71	61	53
		Φf_b	761	528	388	297	235	190	157	132	113	97	85
		L/360	-	322	203	136	95	70	52	40	32	25	21
		L/240	-	-	-	-	143	104	78	60	47	38	31
		L/180	-	-	-	-	-	-	-	80	63	51	41
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 60a: 4.5D-12 Shear and Flexibility
4.5D-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	2019 3331	2019 3331	1967 3245	1721 2839	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	2 +18.8R	2.2 +15.7R	2.3 +13.4R	2.4 +11.8R	2.5 +10.5R	2.5 +9.4R	2.6 +8.6R	2.6 +7.8R	2.7 +7.2R
		6"	q_a q_f	2019 3331	2019 3331	1967 3245	1721 2839	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	2.6 +18.8R	2.8 +15.7R	2.9 +13.4R	3 +11.8R	3.1 +10.4R	3.2 +9.4R	3.2 +8.5R	3.3 +7.8R	3.3 +7.2R
		8"	q_a q_f	2019 3331	2019 3331	1967 3245	1721 2839	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	3.2 +18.8R	3.4 +15.6R	3.6 +13.4R	3.7 +11.7R	3.8 +10.4R	3.8 +9.4R	3.9 +8.5R	3.9 +7.8R	4 +7.2R
		12"	q_a q_f	2019 3331	2019 3331	1967 3245	1721 2839	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	4.5 +18.7R	4.7 +15.6R	4.9 +13.4R	5 +11.7R	5.1 +10.4R	5.1 +9.3R	5.2 +8.5R	5.2 +7.8R	5.3 +7.2R
		18"	q_a q_f	2019 3331	2013 3322	1967 3245	1721 2839	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	6.3 +18.5R	6.5 +15.4R	6.7 +13.2R	6.8 +11.6R	6.9 +10.3R	7 +9.3R	7.1 +8.4R	7.1 +7.7R	7.2 +7.1R
		24"	q_a q_f	1626 2684	1599 2639	1580 2607	1565 2583	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	8 +18.3R	8.3 +15.3R	8.5 +13.1R	8.7 +11.4R	8.8 +10.2R	8.9 +9.1R	9 +8.3R	9 +7.6R	9.1 +7R
	16 ga	4"	q_a q_f	1547 2475	1547 2475	1547 2475	1397 2305	1242 2049	1118 1844	1016 1676	931 1537	860 1419
			F	1.7 +33.2R	2.1 +27.6R	2.3 +23.7R	2.5 +20.7R	2.6 +18.4R	2.7 +16.6R	2.8 +15.1R	2.9 +13.8R	3 +12.8R
		6"	q_a q_f	1547 2475	1547 2475	1547 2475	1397 2305	1242 2049	1118 1844	1016 1676	931 1537	860 1419
			F	2.4 +33.2R	2.8 +27.6R	3 +23.7R	3.2 +20.7R	3.3 +18.4R	3.5 +16.6R	3.5 +15.1R	3.6 +13.8R	3.7 +12.8R
		8"	q_a q_f	1547 2475	1547 2475	1547 2475	1397 2305	1242 2049	1118 1844	1016 1676	931 1537	860 1419
			F	3.2 +33.1R	3.5 +27.6R	3.7 +23.7R	3.9 +20.7R	4.1 +18.4R	4.2 +16.6R	4.3 +15.1R	4.4 +13.8R	4.4 +12.7R
		12"	q_a q_f	1547 2475	1547 2475	1547 2475	1397 2305	1242 2049	1118 1844	1016 1676	931 1537	860 1419
			F	4.5 +33R	4.9 +27.5R	5.2 +23.6R	5.3 +20.6R	5.5 +18.3R	5.6 +16.5R	5.7 +15R	5.8 +13.8R	5.9 +12.7R
		18"	q_a q_f	1547 2475	1519 2475	1547 2475	1397 2305	1242 2049	1118 1844	1016 1676	931 1537	860 1419
			F	6.6 +32.9R	7 +27.4R	7.2 +23.5R	7.4 +20.5R	7.6 +18.2R	7.7 +16.4R	7.8 +14.9R	7.9 +13.7R	8 +12.6R
		24"	q_a q_f	1226 2023	1204 1986	1187 1959	1175 1939	1166 1924	1118 1844	1016 1676	931 1537	860 1419
			F	8.5 +32.6R	8.9 +27.2R	9.3 +23.3R	9.5 +20.4R	9.7 +18.1R	9.8 +16.3R	9.9 +14.8R	10 +13.6R	10.1 +12.5R
	18 ga	4"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1007 1632	906 1495	824 1359	755 1246	697 1150
			F	1 +58.1R	1.6 +48.4R	2 +41.5R	2.3 +36.3R	2.5 +32.3R	2.7 +29R	2.9 +26.4R	3 +24.2R	3.1 +22.3R
		6"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1007 1632	906 1495	824 1359	755 1246	697 1150
			F	1.8 +58.1R	2.4 +48.4R	2.8 +41.5R	3.1 +36.3R	3.3 +32.3R	3.5 +29R	3.7 +26.4R	3.8 +24.2R	3.9 +22.3R
		8"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1007 1632	906 1495	824 1359	755 1246	697 1150
			F	2.6 +58R	3.2 +48.4R	3.6 +41.4R	3.9 +36.3R	4.1 +32.2R	4.3 +29R	4.5 +26.4R	4.6 +24.2R	4.8 +22.3R
		12"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1007 1632	906 1495	824 1359	755 1246	697 1150
			F	4.1 +57.9R	4.7 +48.3R	5.2 +41.4R	5.5 +36.2R	5.8 +32.2R	6 +29R	6.1 +26.3R	6.3 +24.1R	6.4 +22.3R
		18"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1007 1632	906 1495	824 1359	755 1246	697 1150
			F	6.4 +57.7R	7 +48.1R	7.5 +41.2R	7.8 +36.1R	8.1 +32.1R	8.3 +28.8R	8.5 +26.2R	8.7 +24R	8.8 +22.2R
		24"	q_a q_f	926 1528	908 1498	894 1476	884 1459	876 1446	870 1436	824 1359	755 1246	697 1150
			F	8.5 +57.5R	9.2 +47.9R	9.7 +41R	10.1 +35.9R	10.4 +31.9R	10.7 +28.7R	10.8 +26.1R	11 +23.9R	11.1 +22.1R
	20 ga	4"	q_a q_f	596 953	596 953	596 953	596 953	596 953	555 916	505 833	463 763	427 705
			F	-1.5 +118.9R	-0.3 +99R	0.6 +84.9R	1.2 +74.3R	1.7 +66R	2.1 +59.4R	2.4 +54R	2.7 +49.5R	2.9 +45.7R
		6"	q_a q_f	596 953	596 953	596 953	596 953	596 953	555 916	505 833	463 763	427 705
			F	-0.6 +118.8R	0.6 +99R	1.5 +84.9R	2.1 +74.3R	2.6 +66R	3 +59.4R	3.4 +54R	3.6 +49.5R	3.9 +45.7R
		8"	q_a q_f	596 953	596 953	596 953	596 953	596 953	555 916	505 833	463 763	427 705
			F	0.4 +118.8R	1.6 +99R	2.4 +84.8R	3.1 +74.2R	3.6 +66R	4 +59.4R	4.3 +54R	4.6 +49.5R	4.8 +45.7R
		12"	q_a q_f	596 953	596 953	596 953	596 953	596 953	555 916	505 833	463 763	427 705
			F	2.2 +118.7R	3.4 +98.9R	4.2 +84.8R	4.9 +74.2R	5.4 +65.9R	5.8 +59.3R	6.2 +53.9R	6.4 +49.4R	6.7 +45.6R
		18"	q_a q_f	596 953	596 953	596 953	596 953	596 953	555 916	505 833	463 763	427 705
			F	4.8 +118.4R	6 +98.7R	6.9 +84.6R	7.6 +74R	8.1 +65.8R	8.6 +59.2R	8.9 +53.8R	9.2 +49.3R	9.4 +45.5R
		24"	q_a q_f	596 953	596 953	596 953	594 953	590 953	555 916	505 833	463 763	427 705
			F	7.3 +118.1R	8.6 +98.4R	9.5 +84.4R	10.2 +73.8R	10.8 +65.6R	11.2 +59R	11.6 +53.7R	11.9 +49.2R	12.2 +45.4R

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

TABLE 60b: 4.5D-12 Shear and Flexibility (continued)
4.5D-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	2019 3331	2019 3331	2019 3331	1865 3077	1657 2735	1492 2461	1356 2238	1243 2051	1147 1893
			F	2 +18.8R	2.1 +15.7R	2.3 +13.4R	2.4 +11.8R	2.5 +10.5R	2.5 +9.4R	2.6 +8.5R	2.6 +7.8R	2.7 +7.2R
		6"	q_a q_f	2019 3331	2019 3331	2019 3331	1865 3077	1657 2735	1492 2461	1356 2238	1243 2051	1147 1893
			F	2.6 +18.8R	2.8 +15.6R	2.9 +13.4R	3 +11.7R	3.1 +10.4R	3.2 +9.4R	3.2 +8.5R	3.3 +7.8R	3.3 +7.2R
		8"	q_a q_f	2019 3331	2019 3331	2019 3331	1865 3077	1657 2735	1492 2461	1356 2238	1243 2051	1147 1893
			F	3.2 +18.7R	3.4 +15.6R	3.5 +13.4R	3.7 +11.7R	3.7 +10.4R	3.8 +9.4R	3.9 +8.5R	3.9 +7.8R	4 +7.2R
		12"	q_a q_f	2019 3331	2019 3331	2019 3331	1865 3077	1657 2735	1492 2461	1356 2238	1243 2051	1147 1893
			F	4.3 +18.6R	4.6 +15.5R	4.7 +13.3R	4.9 +11.6R	5 +10.3R	5 +9.3R	5.1 +8.4R	5.2 +7.7R	5.2 +7.1R
		18"	q_a q_f	2019 3331	2019 3331	2019 3331	1865 3077	1657 2735	1492 2461	1356 2238	1243 2051	1147 1893
			F	6 +18.3R	6.3 +15.3R	6.5 +13.1R	6.6 +11.4R	6.8 +10.1R	6.9 +9.1R	6.9 +8.3R	7 +7.6R	7.1 +7R
		24"	q_a q_f	1877 3098	1817 2997	1773 2926	1740 2872	1657 2735	1492 2461	1356 2238	1243 2051	1147 1893
			F	7.5 +18R	7.8 +15R	8.1 +12.8R	8.3 +11.2R	8.5 +9.9R	8.6 +8.9R	8.7 +8.1R	8.8 +7.4R	8.8 +6.8R
	16 ga	4"	q_a q_f	1547 2475	1547 2475	1547 2475	1514 2475	1346 2220	1211 1998	1101 1817	1009 1665	932 1537
			F	1.7 +33.2R	2 +27.6R	2.3 +23.7R	2.5 +20.7R	2.6 +18.4R	2.7 +16.6R	2.8 +15.1R	2.9 +13.8R	2.9 +12.8R
		6"	q_a q_f	1547 2475	1547 2475	1547 2475	1514 2475	1346 2220	1211 1998	1101 1817	1009 1665	932 1537
			F	2.4 +33.1R	2.7 +27.6R	3 +23.7R	3.2 +20.7R	3.3 +18.4R	3.4 +16.6R	3.5 +15.1R	3.6 +13.8R	3.7 +12.7R
		8"	q_a q_f	1547 2475	1547 2475	1547 2475	1514 2475	1346 2220	1211 1998	1101 1817	1009 1665	932 1537
			F	3.1 +33.1R	3.4 +27.5R	3.7 +23.6R	3.9 +20.7R	4 +18.4R	4.1 +16.5R	4.2 +15R	4.3 +13.8R	4.4 +12.7R
		12"	q_a q_f	1547 2475	1547 2475	1547 2475	1514 2475	1346 2220	1211 1998	1101 1817	1009 1665	932 1537
			F	4.4 +32.9R	4.8 +27.4R	5 +23.5R	5.2 +20.6R	5.4 +18.3R	5.5 +16.4R	5.6 +14.9R	5.7 +13.7R	5.8 +12.6R
		18"	q_a q_f	1547 2475	1547 2475	1547 2475	1514 2475	1346 2220	1211 1998	1101 1817	1009 1665	932 1537
			F	6.2 +32.6R	6.7 +27.2R	7 +23.3R	7.2 +20.3R	7.4 +18.1R	7.6 +16.3R	7.7 +14.8R	7.8 +13.5R	7.9 +12.5R
		24"	q_a q_f	1420 2342	1370 2260	1334 2202	1308 2158	1287 2123	1211 1998	1101 1817	1009 1665	932 1537
			F	7.9 +32.3R	8.4 +26.8R	8.8 +23R	9.1 +20.1R	9.3 +17.8R	9.5 +16R	9.6 +14.6R	9.8 +13.3R	9.9 +12.3R
	18 ga	4"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1020 1632	982 1620	892 1473	818 1350	755 1246
			F	0.9 +58.1R	1.5 +48.4R	2 +41.5R	2.3 +36.3R	2.5 +32.3R	2.7 +29R	2.9 +26.4R	3 +24.2R	3.1 +22.3R
		6"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1020 1632	982 1620	892 1473	818 1350	755 1246
			F	1.7 +58R	2.3 +48.4R	2.7 +41.4R	3.1 +36.3R	3.3 +32.2R	3.5 +29R	3.7 +26.4R	3.8 +24.2R	3.9 +22.3R
		8"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1020 1632	982 1620	892 1473	818 1350	755 1246
			F	2.5 +58R	3.1 +48.3R	3.5 +41.4R	3.8 +36.2R	4.1 +32.2R	4.3 +29R	4.5 +26.3R	4.6 +24.1R	4.7 +22.3R
		12"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1020 1632	982 1620	892 1473	818 1350	755 1246
			F	3.9 +57.8R	4.6 +48.2R	5 +41.3R	5.4 +36.1R	5.6 +32.1R	5.9 +28.9R	6 +26.3R	6.2 +24.1R	6.3 +22.2R
		18"	q_a q_f	1020 1632	1020 1632	1020 1632	1020 1632	1020 1632	982 1620	892 1473	818 1350	755 1246
			F	6 +57.5R	6.7 +47.9R	7.2 +41R	7.6 +35.9R	7.9 +31.9R	8.1 +28.7R	8.3 +26.1R	8.5 +23.9R	8.6 +22R
		24"	q_a q_f	1020 1632	1020 1632	1007 1632	986 1626	969 1598	955 1576	892 1473	818 1350	755 1246
			F	7.9 +57.1R	8.7 +47.5R	9.2 +40.7R	9.7 +35.6R	10 +31.6R	10.3 +28.4R	10.5 +25.8R	10.7 +23.7R	10.9 +21.8R
	20 ga	4"	q_a q_f	596 953	596 953	596 953	596 953	596 953	596 953	547 902	501 827	463 763
			F	-1.5 +118.8R	-0.3 +99R	0.5 +84.9R	1.2 +74.3R	1.7 +66R	2.1 +59.4R	2.4 +54R	2.7 +49.5R	2.9 +45.7R
		6"	q_a q_f	596 953	596 953	596 953	596 953	596 953	596 953	547 902	501 827	463 763
			F	-0.6 +118.8R	0.6 +99R	1.4 +84.8R	2.1 +74.2R	2.6 +66R	3 +59.4R	3.3 +54R	3.6 +49.5R	3.8 +45.7R
		8"	q_a q_f	596 953	596 953	596 953	596 953	596 953	596 953	547 902	501 827	463 763
			F	0.3 +118.7R	1.5 +98.9R	2.3 +84.8R	3 +74.2R	3.5 +65.9R	3.9 +59.3R	4.2 +53.9R	4.5 +49.5R	4.8 +45.6R
		12"	q_a q_f	596 953	596 953	596 953	596 953	596 953	596 953	547 902	501 827	463 763
			F	1.9 +118.5R	3.2 +98.7R	4.1 +84.6R	4.8 +74R	5.3 +65.8R	5.7 +59.2R	6.1 +53.8R	6.3 +49.4R	6.6 +45.6R
		18"	q_a q_f	596 953	596 953	596 953	596 953	596 953	596 953	547 902	501 827	463 763
			F	4.3 +118.1R	5.6 +98.4R	6.6 +84.3R	7.3 +73.8R	7.9 +65.6R	8.3 +59R	8.7 +53.6R	9 +49.2R	9.2 +45.4R
		24"	q_a q_f	596 953	596 953	596 953	596 953	596 953	596 953	547 902	501 827	463 763
			F	6.5 +117.7R	7.9 +98R	9 +84R	9.7 +73.4R	10.3 +65.3R	10.8 +58.7R	11.2 +53.4R	11.5 +48.9R	11.8 +45.1R

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

TABLE 61a: 4.5D-12 Shear and Flexibility
4.5D-12 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)										
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	
12/2	14 ga	4"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707	
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	
		6"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707	
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	
		8"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707	
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	
		12"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707	
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	
		18"	q_a q_f	671 1347	634 1021	663 1067	636 1024	615 990	571 919	519 835	476 766	439 707	
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	
		24"	q_a q_f	513 825	501 806	492 792	485 782	480 773	476 767	473 762	470 757	439 707	
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	
	16 ga	4"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564	
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	
		6"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564	
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	
		8"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564	
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	
		12"	q_a q_f	648 1043	640 1030	634 1021	569 916	506 814	455 733	414 666	379 610	350 564	
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	
		18"	q_a q_f	489 1043	461 742	481 774	461 742	445 717	455 733	414 666	379 610	350 564	
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	
		24"	q_a q_f	373 601	364 586	357 574	351 566	347 559	344 554	341 550	339 546	337 543	
			F	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	
	18 ga	4"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450	
			F	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		6"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450	
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		8"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450	
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		12"	q_a q_f	475 764	468 753	463 745	455 732	404 651	364 586	331 532	303 488	280 450	
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		18"	q_a q_f	357 764	336 541	350 564	335 539	323 520	334 538	325 523	303 488	280 450	
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	
		24"	q_a q_f	273 440	265 427	260 418	255 411	252 406	249 402	247 398	245 395	244 393	
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.3 +0.3R	0.3 +0.3R	0.3 +0.3R	0.3 +0.2R	0.3 +0.2R	0.3 +0.2R	
	20 ga	4"	q_a q_f	401 645	401 645	390 628	341 550	304 489	273 440	248 400	228 367	210 338	
			F	0 +1.7R	0 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R	
		6"	q_a q_f	401 645	401 645	390 628	341 550	304 489	273 440	248 400	228 367	210 338	
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R	
		8"	q_a q_f	401 645	401 645	390 628	341 550	304 489	273 440	248 400	228 367	210 338	
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R	
		12"	q_a q_f	318 512	313 504	309 497	306 493	304 489	273 440	248 400	228 367	210 338	
			F	0.2 +1.7R	0.2 +1.4R	0.2 +1.2R	0.2 +1R	0.2 +0.9R	0.2 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R	
		18"	q_a q_f	239 512	224 361	233 375	223 359	214 345	222 357	215 346	210 337	210 338	
			F	0.3 +1.7R	0.3 +1.4R	0.3 +1.2R	0.3 +1R	0.3 +0.9R	0.3 +0.8R	0.3 +0.8R	0.3 +0.7R	0.3 +0.6R	
		24"	q_a q_f	184 296	178 286	173 279	170 274	168 270	166 266	164 264	162 262	161 260	
			F	0.4 +1.7R	0.4 +1.4R	0.4 +1.2R	0.4 +1R	0.4 +0.9R	0.4 +0.8R	0.4 +0.8R	0.4 +0.7R	0.4 +0.6R	

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

TABLE 61b: 4.5D-12 Shear and Flexibility (continued)
4.5D-12 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)										
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	
12/4	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766	
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	
		6"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766	
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	
		8"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766	
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	
		12"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766	
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	
		18"	q_a q_f	775 1347	721 1161	744 1197	707 1139	679 1093	618 996	562 905	515 830	476 766	
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	
		24"	q_a q_f	602 970	576 928	558 899	544 876	534 859	525 845	518 834	512 824	476 766	
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611	
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	
		6"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611	
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	
		8"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611	
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	
		12"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611	
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	
		18"	q_a q_f	567 1074	526 846	541 870	513 826	492 792	493 794	448 722	411 662	379 611	
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	
		24"	q_a q_f	442 711	422 679	407 655	396 638	388 624	381 613	375 604	371 597	367 590	
			F	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	
	18 ga	4"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488	
			F	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		6"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488	
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		8"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488	
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		12"	q_a q_f	533 859	531 855	520 837	493 793	438 705	394 635	358 577	328 529	303 488	
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	
		18"	q_a q_f	416 859	385 620	395 636	374 602	358 576	367 591	355 571	328 529	303 488	
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	
		24"	q_a q_f	326 525	310 499	298 480	290 466	283 455	277 447	273 440	269 434	266 429	
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.3 +0.3R	0.3 +0.3R	0.3 +0.3R	0.3 +0.2R	0.3 +0.2R	0.3 +0.2R	
	20 ga	4"	q_a q_f	401 645	401 645	401 645	370 596	329 530	296 477	269 433	247 397	228 367	
			F	0 +1.7R	0 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R	
		6"	q_a q_f	401 645	401 645	401 645	370 596	329 530	296 477	269 433	247 397	228 367	
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R	
		8"	q_a q_f	401 645	401 645	401 645	370 596	329 530	296 477	269 433	247 397	228 367	
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R	
		12"	q_a q_f	368 592	355 572	347 558	340 548	329 530	296 477	269 433	247 397	228 367	
			F	0.2 +1.7R	0.2 +1.4R	0.2 +1.2R	0.2 +1R	0.2 +0.9R	0.2 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R	
		18"	q_a q_f	282 592	259 418	265 426	250 403	239 385	245 394	236 380	229 368	228 367	
			F	0.3 +1.7R	0.3 +1.4R	0.3 +1.2R	0.3 +1R	0.3 +0.9R	0.3 +0.8R	0.3 +0.8R	0.3 +0.7R	0.3 +0.6R	
		24"	q_a q_f	222 357	210 338	201 324	195 313	189 305	185 299	182 293	179 289	177 285	
			F	0.4 +1.7R	0.4 +1.4R	0.4 +1.2R	0.4 +1R	0.4 +0.9R	0.4 +0.8R	0.4 +0.8R	0.4 +0.7R	0.4 +0.6R	
4.5D-12 12/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw													

FIGURE 46: 6D-12 Profile

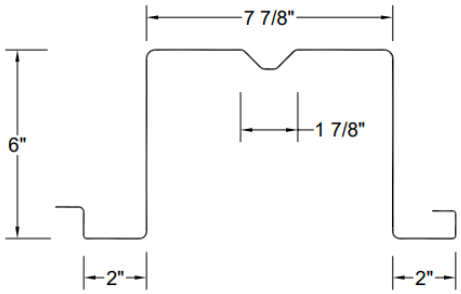


TABLE 62: 6D-12 Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	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	y_t in	S_{gbot} in^3/ft	r in
20	3.25	0.0359	40	55	0.975	5.518	3.16	2.841	1.747	2.379
18	4.37	0.0478	40	55	1.298	7.313	3.16	2.841	2.315	2.374
16	5.41	0.0598	40	55	1.622	9.107	3.16	2.841	2.883	2.370
14	6.86	0.0750	40	55	2.032	11.355	3.16	2.841	3.594	2.364

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20	0.906	1.631	3.05	1.701	3.20	4.969	5.441	5.152	5.467
18	1.262	2.285	3.08	2.313	3.16	7.044	7.309	7.134	7.310
16	1.622	2.883	3.16	2.883	3.16	9.107	9.107	9.107	9.107
14	2.032	3.595	3.16	3.595	3.16	11.355	11.355	11.355	11.355

TABLE 63: 6D-12 Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
18	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
16	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
14	End	1458	1746	2153	2730	2230	2671	3295	4176
	Interior	2628	3045	3634	4468	3909	4529	5406	6646
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 64: 6D-12 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)													
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	260	181	133	102	80	65	54	45	39	33	29
		Φf_b	413	287	211	161	128	103	85	72	61	53	46
		L/360	225	130	82	55	39	28	21	16	13	10	8
		L/240	-	-	123	82	58	42	32	24	19	15	13
		L/180	-	-	-	-	77	56	42	33	26	21	17
		L/120	-	-	-	-	-	-	-	-	38	31	25
	DS	f_b/Ω	272	189	139	106	84	68	56	47	40	35	30
		Φf_b	431	299	220	168	133	108	89	75	64	55	48
		L/360	-	-	-	-	-	-	54	42	33	26	21
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	340	236	173	133	105	85	70	59	50	43	38
		Φf_b	539	374	275	210	166	135	111	94	80	69	60
		L/360	-	-	-	129	90	66	50	38	30	24	20
		L/240	-	-	-	-	-	-	-	57	45	36	29
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	365	253	186	143	113	91	75	63	54	47	41
		Φf_b	579	402	295	226	179	145	120	100	86	74	64
		L/360	312	180	114	76	53	39	29	23	18	14	12
		L/240	-	-	170	114	80	58	44	34	27	21	17
		L/180	-	-	-	-	107	78	59	45	35	28	23
		L/120	-	-	-	-	-	-	-	-	53	43	35
	DS	f_b/Ω	369	256	188	144	114	92	76	64	55	47	41
		Φf_b	586	407	299	229	181	146	121	102	87	75	65
		L/360	-	-	-	-	-	-	72	56	44	35	29
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	462	321	236	180	142	115	95	80	68	59	51
		Φf_b	732	509	374	286	226	183	151	127	108	93	81
		L/360	-	-	-	172	121	88	66	51	40	32	26
		L/240	-	-	-	-	-	-	-	77	60	48	39
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 64: 6D-12 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	398	230	145	97	68	50	37	29	23	18	15
		L/240	-	-	218	146	102	75	56	43	34	27	22
		L/180	-	-	-	-	136	100	75	58	45	36	29
		L/120	-	-	-	-	-	-	-	-	68	54	44
	DS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	-	-	-	-	-	-	90	69	55	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	575	400	294	225	178	144	119	100	85	73	64
		Φf_b	913	634	466	357	282	228	189	158	135	116	101
		L/360	-	-	-	214	151	110	82	64	50	40	33
		L/240	-	-	-	-	-	-	-	95	75	60	49
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	574	399	293	224	177	143	119	100	85	73	64
		Φf_b	911	632	465	356	281	228	188	158	135	116	101
		L/360	496	287	181	121	85	62	47	36	28	23	18
		L/240	-	-	271	182	128	93	70	54	42	34	28
		L/180	-	-	-	-	170	124	93	72	56	45	37
		L/120	-	-	-	-	-	-	-	-	85	68	55
	DS	f_b/Ω	574	399	293	224	177	143	119	100	85	73	64
		Φf_b	911	632	465	356	281	228	188	158	135	116	101
		L/360	-	-	-	-	-	-	112	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	717	498	366	280	221	179	148	125	106	92	80
		Φf_b	1138	790	581	445	351	285	235	198	168	145	126
		L/360	-	-	-	267	188	137	103	79	62	50	41
		L/240	-	-	-	-	-	-	-	119	93	75	61
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 65a: 6D-12 Shear and Flexibility
6D-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	1.5 +31.5R	1.8 +26.2R	2 +22.5R	2.2 +19.7R	2.3 +17.5R	2.4 +15.7R	2.5 +14.3R	2.6 +13.1R	2.7 +12.1R
		6"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	2.1 +31.5R	2.5 +26.2R	2.7 +22.5R	2.9 +19.7R	3 +17.5R	3.1 +15.7R	3.2 +14.3R	3.3 +13.1R	3.3 +12.1R
		8"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	2.8 +31.4R	3.1 +26.2R	3.3 +22.5R	3.5 +19.7R	3.6 +17.5R	3.7 +15.7R	3.8 +14.3R	3.9 +13.1R	4 +12.1R
		12"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	4 +31.4R	4.4 +26.1R	4.6 +22.4R	4.8 +19.6R	4.9 +17.4R	5 +15.7R	5.1 +14.3R	5.2 +13.1R	5.3 +12.1R
		18"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	5.8 +31.2R	6.2 +26R	6.5 +22.3R	6.6 +19.5R	6.8 +17.3R	6.9 +15.6R	7 +14.2R	7.1 +13R	7.2 +12R
		24"	q_a q_f	1626 2684	1599 2639	1580 2607	1565 2583	1530 2524	1377 2271	1252 2065	1147 1893	1059 1747
			F	7.5 +31R	8 +25.8R	8.3 +22.1R	8.5 +19.4R	8.6 +17.2R	8.8 +15.5R	8.9 +14.1R	9 +12.9R	9.1 +11.9R
	16 ga	4"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1016 1676	931 1537	860 1419
			F	0.7 +55.5R	1.3 +46.2R	1.7 +39.6R	2 +34.7R	2.2 +30.8R	2.4 +27.7R	2.6 +25.2R	2.7 +23.1R	2.8 +21.3R
		6"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1016 1676	931 1537	860 1419
			F	1.5 +55.5R	2 +46.2R	2.4 +39.6R	2.7 +34.7R	3 +30.8R	3.1 +27.7R	3.3 +25.2R	3.4 +23.1R	3.5 +21.3R
		8"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1016 1676	931 1537	860 1419
			F	2.2 +55.4R	2.7 +46.2R	3.1 +39.6R	3.4 +34.6R	3.7 +30.8R	3.9 +27.7R	4 +25.2R	4.2 +23.1R	4.3 +21.3R
		12"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1016 1676	931 1537	860 1419
			F	3.6 +55.4R	4.1 +46.1R	4.6 +39.5R	4.9 +34.6R	5.1 +30.7R	5.3 +27.7R	5.5 +25.2R	5.6 +23.1R	5.7 +21.3R
		18"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1016 1676	931 1537	860 1419
			F	5.6 +55.2R	6.2 +46R	6.6 +39.4R	7 +34.5R	7.2 +30.6R	7.4 +27.6R	7.6 +25.1R	7.7 +23R	7.9 +21.2R
		24"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1016 1676	931 1537	860 1419
			F	7.5 +54.9R	8.2 +45.8R	8.7 +39.2R	9 +34.3R	9.3 +30.5R	9.5 +27.4R	9.7 +24.9R	9.8 +22.9R	10 +21.1R
	18 ga	4"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	697 1150
			F	-0.9 +97.2R	0.1 +81R	0.7 +69.4R	1.3 +60.7R	1.7 +54R	2 +48.6R	2.3 +44.2R	2.5 +40.5R	2.7 +37.4R
		6"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	697 1150
			F	-0.1 +97.1R	0.9 +80.9R	1.6 +69.4R	2.1 +60.7R	2.5 +54R	2.8 +48.6R	3.1 +44.1R	3.3 +40.5R	3.5 +37.4R
		8"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	697 1150
			F	0.7 +97.1R	1.7 +80.9R	2.4 +69.4R	2.9 +60.7R	3.3 +53.9R	3.6 +48.5R	3.9 +44.1R	4.1 +40.5R	4.3 +37.3R
		12"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	697 1150
			F	2.2 +97R	3.2 +80.8R	3.9 +69.3R	4.5 +60.6R	4.9 +53.9R	5.2 +48.5R	5.5 +44.1R	5.7 +40.4R	5.9 +37.3R
		18"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	697 1150
			F	4.5 +96.8R	5.5 +80.7R	6.3 +69.1R	6.8 +60.5R	7.3 +53.8R	7.6 +48.4R	7.9 +44R	8.1 +40.3R	8.3 +37.2R
		24"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	697 1150
			F	6.7 +96.5R	7.7 +80.4R	8.5 +68.9R	9.1 +60.3R	9.6 +53.6R	9.9 +48.2R	10.2 +43.8R	10.5 +40.2R	10.7 +37.1R
	20 ga	4"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-5.7 +198.8R	-3.7 +165.6R	-2.3 +142R	-1.2 +124.2R	-0.4 +110.4R	0.3 +99.4R	0.8 +90.3R	1.3 +82.8R	1.7 +76.4R
		6"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-4.7 +198.7R	-2.7 +165.6R	-1.3 +142R	-0.3 +124.2R	0.6 +110.4R	1.2 +99.4R	1.8 +90.3R	2.2 +82.8R	2.6 +76.4R
		8"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-3.8 +198.7R	-1.8 +165.6R	-0.4 +141.9R	0.7 +124.2R	1.5 +110.4R	2.2 +99.3R	2.7 +90.3R	3.2 +82.8R	3.6 +76.4R
		12"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-2 +198.6R	0 +165.5R	1.4 +141.8R	2.5 +124.1R	3.4 +110.3R	4 +99.3R	4.6 +90.3R	5 +82.7R	5.4 +76.4R
		18"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	0.6 +198.4R	2.6 +165.3R	4.1 +141.7R	5.2 +124R	6.1 +110.2R	6.8 +99.2R	7.3 +90.1R	7.8 +82.6R	8.2 +76.3R
		24"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	3.1 +198.1R	5.2 +165R	6.7 +141.4R	7.9 +123.7R	8.7 +110R	9.4 +99R	10 +90R	10.5 +82.5R	10.9 +76.1R

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

TABLE 65b: 6D-12 Shear and Flexibility (continued)
6D-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)							
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1657 2713	1492 2461	1356 2238	1243 2051	1147 1893
			F	1.5 +31.5R	1.8 +26.2R	2 +22.5R	2.2 +19.7R	2.3 +17.5R	2.4 +15.7R	2.5 +14.3R	2.6 +13.1R	2.7 +12.1R
		6"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1657 2713	1492 2461	1356 2238	1243 2051	1147 1893
			F	2.1 +31.4R	2.4 +26.2R	2.7 +22.5R	2.8 +19.6R	3 +17.5R	3.1 +15.7R	3.2 +14.3R	3.2 +13.1R	3.3 +12.1R
		8"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1657 2713	1492 2461	1356 2238	1243 2051	1147 1893
			F	2.7 +31.4R	3 +26.2R	3.3 +22.4R	3.5 +19.6R	3.6 +17.4R	3.7 +15.7R	3.8 +14.3R	3.9 +13.1R	3.9 +12.1R
		12"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1657 2713	1492 2461	1356 2238	1243 2051	1147 1893
			F	3.9 +31.3R	4.2 +26R	4.5 +22.3R	4.7 +19.5R	4.8 +17.4R	5 +15.6R	5.1 +14.2R	5.1 +13R	5.2 +12R
		18"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1657 2713	1492 2461	1356 2238	1243 2051	1147 1893
			F	5.5 +31R	5.9 +25.8R	6.2 +22.1R	6.4 +19.3R	6.6 +17.2R	6.8 +15.5R	6.9 +14R	7 +12.9R	7.1 +11.9R
		24"	q_a q_f	1696 2713	1696 2713	1696 2713	1696 2713	1657 2713	1492 2461	1356 2238	1243 2051	1147 1893
			F	7 +30.7R	7.5 +25.5R	7.9 +21.9R	8.1 +19.1R	8.3 +17R	8.5 +15.3R	8.6 +13.9R	8.7 +12.7R	8.8 +11.7R
	16 ga	4"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1101 1774	1009 1665	932 1537
			F	0.7 +55.5R	1.3 +46.2R	1.7 +39.6R	2 +34.7R	2.2 +30.8R	2.4 +27.7R	2.6 +25.2R	2.7 +23.1R	2.8 +21.3R
		6"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1101 1774	1009 1665	932 1537
			F	1.4 +55.4R	2 +46.2R	2.4 +39.6R	2.7 +34.6R	2.9 +30.8R	3.1 +27.7R	3.3 +25.2R	3.4 +23.1R	3.5 +21.3R
		8"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1101 1774	1009 1665	932 1537
			F	2.1 +55.4R	2.7 +46.1R	3.1 +39.5R	3.4 +34.6R	3.6 +30.8R	3.8 +27.7R	4 +25.2R	4.1 +23.1R	4.2 +21.3R
		12"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1101 1774	1009 1665	932 1537
			F	3.4 +55.2R	4 +46R	4.4 +39.4R	4.8 +34.5R	5 +30.7R	5.2 +27.6R	5.4 +25.1R	5.5 +23R	5.6 +21.2R
		18"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1101 1774	1009 1665	932 1537
			F	5.2 +54.9R	5.9 +45.8R	6.4 +39.2R	6.7 +34.3R	7 +30.5R	7.2 +27.4R	7.4 +24.9R	7.6 +22.8R	7.7 +21.1R
		24"	q_a q_f	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1109 1774	1101 1774	1009 1665	932 1537
			F	6.9 +54.6R	7.7 +45.4R	8.2 +38.9R	8.6 +34R	8.9 +30.2R	9.2 +27.2R	9.4 +24.7R	9.6 +22.6R	9.7 +20.9R
	18 ga	4"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161
			F	-0.9 +97.1R	0 +80.9R	0.7 +69.4R	1.3 +60.7R	1.7 +54R	2 +48.6R	2.3 +44.2R	2.5 +40.5R	2.7 +37.4R
		6"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161
			F	-0.2 +97.1R	0.8 +80.9R	1.5 +69.3R	2.1 +60.7R	2.5 +53.9R	2.8 +48.5R	3.1 +44.1R	3.3 +40.5R	3.5 +37.3R
		8"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161
			F	0.6 +97R	1.6 +80.9R	2.3 +69.3R	2.8 +60.6R	3.3 +53.9R	3.6 +48.5R	3.9 +44.1R	4.1 +40.4R	4.3 +37.3R
		12"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161
			F	2 +96.9R	3.1 +80.7R	3.8 +69.2R	4.4 +60.5R	4.8 +53.8R	5.1 +48.4R	5.4 +44R	5.7 +40.3R	5.9 +37.2R
		18"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161
			F	4.1 +96.5R	5.2 +80.4R	6 +68.9R	6.6 +60.3R	7 +53.6R	7.4 +48.2R	7.7 +43.8R	8 +40.2R	8.2 +37.1R
		24"	q_a q_f	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161	726 1161
			F	6 +96.2R	7.2 +80.1R	8 +68.6R	8.7 +60R	9.2 +53.3R	9.6 +48R	9.9 +43.6R	10.2 +39.9R	10.4 +36.9R
	20 ga	4"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-5.7 +198.7R	-3.7 +165.6R	-2.3 +142R	-1.2 +124.2R	-0.4 +110.4R	0.3 +99.4R	0.8 +90.3R	1.3 +82.8R	1.7 +76.4R
		6"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-4.8 +198.7R	-2.8 +165.6R	-1.4 +141.9R	-0.3 +124.2R	0.5 +110.4R	1.2 +99.3R	1.8 +90.3R	2.2 +82.8R	2.6 +76.4R
		8"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-3.9 +198.6R	-1.9 +165.5R	-0.5 +141.9R	0.6 +124.1R	1.4 +110.3R	2.1 +99.3R	2.7 +90.3R	3.1 +82.7R	3.5 +76.4R
		12"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	-2.2 +198.4R	-0.2 +165.3R	1.3 +141.7R	2.4 +124R	3.2 +110.2R	3.9 +99.2R	4.5 +90.2R	4.9 +82.7R	5.3 +76.3R
		18"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	0.1 +198.1R	2.2 +165R	3.8 +141.4R	4.9 +123.7R	5.8 +110R	6.5 +99R	7.1 +90R	7.6 +82.5R	8 +76.1R
		24"	q_a q_f	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671	419 671
			F	2.3 +197.6R	4.5 +164.6R	6.1 +141R	7.3 +123.4R	8.3 +109.6R	9 +98.7R	9.6 +89.7R	10.2 +82.2R	10.6 +75.9R

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

TABLE 66a: 6D-12 Shear and Flexibility
6D-12 with No. 12 Self Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	671 1347	634 1021	663 1067	636 1024	615 990	571 919	519 835	476 766	439 707
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	513 825	501 806	492 792	485 782	480 773	476 767	473 762	470 757	439 707
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564
			F	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		12"	q_a q_f	648 1043	640 1030	634 1021	569 916	506 814	455 733	414 666	379 610	350 564
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		18"	q_a q_f	489 1043	461 742	481 774	461 742	445 717	455 733	414 666	379 610	350 564
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		24"	q_a q_f	373 601	364 586	357 574	351 566	347 559	344 554	341 550	339 546	337 543
			F	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450
			F	0 +0.9R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.4R	0.1 +0.3R
		6"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450
			F	0 +0.9R	0 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		8"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		12"	q_a q_f	475 764	468 753	463 745	455 732	404 651	364 586	331 532	303 488	280 450
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		18"	q_a q_f	357 764	336 541	350 564	335 539	323 520	334 538	325 523	303 488	280 450
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R
		24"	q_a q_f	273 440	265 427	260 418	255 411	252 406	249 402	247 398	245 395	244 393
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.3 +0.4R	0.3 +0.4R	0.3 +0.3R
	20 ga	4"	q_a q_f	401 645	401 645	390 628	341 550	304 489	273 440	248 400	228 367	210 338
			F	0 +2.8R	0 +2.3R	0 +2R	0 +1.8R	0 +1.6R	0 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		6"	q_a q_f	401 645	401 645	390 628	341 550	304 489	273 440	248 400	228 367	210 338
			F	0 +2.8R	0 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		8"	q_a q_f	401 645	401 645	390 628	341 550	304 489	273 440	248 400	228 367	210 338
			F	0 +2.8R	0.1 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		12"	q_a q_f	318 512	313 504	309 497	306 493	304 489	273 440	248 400	228 367	210 338
			F	0.1 +2.8R	0.1 +2.3R	0.2 +2R	0.2 +1.8R	0.2 +1.6R	0.2 +1.4R	0.2 +1.3R	0.2 +1.2R	0.2 +1.1R
		18"	q_a q_f	239 512	224 361	233 375	223 359	214 345	222 357	215 346	210 337	210 338
			F	0.2 +2.8R	0.2 +2.3R	0.3 +2R	0.3 +1.8R	0.3 +1.6R	0.3 +1.4R	0.3 +1.3R	0.3 +1.2R	0.3 +1.1R
		24"	q_a q_f	184 296	178 286	173 279	170 274	168 270	166 266	164 264	162 262	161 260
			F	0.3 +2.8R	0.4 +2.3R	0.4 +2R	0.4 +1.8R	0.4 +1.6R	0.4 +1.4R	0.4 +1.3R	0.4 +1.2R	0.4 +1.1R
6D-12 12/2			Support Attachment: #12 SD HWH Screw			Side Seam Attachment: #10 SD HWH Screw						

TABLE 66b: 6D-12 Shear and Flexibility (continued)
6D-12 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	775 1347	721 1161	744 1197	707 1139	679 1093	618 996	562 905	515 830	476 766
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	602 970	576 928	558 899	544 876	534 859	525 845	518 834	512 824	476 766
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		12"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		18"	q_a q_f	567 1074	526 846	541 870	513 826	492 792	493 794	448 722	411 662	379 611
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		24"	q_a q_f	442 711	422 679	407 655	396 638	388 624	381 613	375 604	371 597	367 590
			F	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488
			F	0 +0.9R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.4R	0.1 +0.3R
		6"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488
			F	0 +0.9R	0 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		8"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		12"	q_a q_f	533 859	531 855	520 837	493 793	438 705	394 635	358 577	328 529	303 488
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		18"	q_a q_f	416 859	385 620	395 636	374 602	358 576	367 591	355 571	328 529	303 488
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R
		24"	q_a q_f	326 525	310 499	298 480	290 466	283 455	277 447	273 440	269 434	266 429
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.3 +0.4R	0.3 +0.4R	0.3 +0.3R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	370 596	329 530	296 477	269 433	247 397	228 367
			F	0 +2.8R	0 +2.3R	0 +2R	0 +1.8R	0 +1.6R	0 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		6"	q_a q_f	401 645	401 645	401 645	370 596	329 530	296 477	269 433	247 397	228 367
			F	0 +2.8R	0 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		8"	q_a q_f	401 645	401 645	401 645	370 596	329 530	296 477	269 433	247 397	228 367
			F	0 +2.8R	0.1 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		12"	q_a q_f	368 592	355 572	347 558	340 548	329 530	296 477	269 433	247 397	228 367
			F	0.1 +2.8R	0.1 +2.3R	0.2 +2R	0.2 +1.8R	0.2 +1.6R	0.2 +1.4R	0.2 +1.3R	0.2 +1.2R	0.2 +1.1R
		18"	q_a q_f	282 592	259 418	265 426	250 403	239 385	245 394	236 380	229 368	228 367
			F	0.2 +2.8R	0.2 +2.3R	0.3 +2R	0.3 +1.8R	0.3 +1.6R	0.3 +1.4R	0.3 +1.3R	0.3 +1.2R	0.3 +1.1R
		24"	q_a q_f	222 357	210 338	201 324	195 313	189 305	185 299	182 293	179 289	177 285
			F	0.3 +2.8R	0.4 +2.3R	0.4 +2R	0.4 +1.8R	0.4 +1.6R	0.4 +1.4R	0.4 +1.3R	0.4 +1.2R	0.4 +1.1R
6D-12 12/4			Support Attachment: #12 SD HWH Screw				Side Seam Attachment: #10 SD HWH Screw					

FIGURE 47: 7.5D-12 Profile

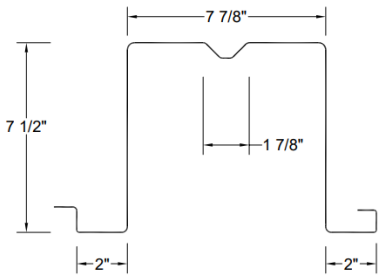


TABLE 67: 7.5D-12 Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_{gbot}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	3.61	0.0359	40	45	1.083	9.317	3.92	3.583	2.379	2.933
18	4.84	0.0478	40	45	1.441	12.359	3.92	3.583	3.156	2.929
16	6.08	0.0598	40	45	1.801	15.400	3.92	3.584	3.932	2.924
14	6.86	0.0750	40	55	2.249	18.920	3.94	3.559	4.800	2.900

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	1.021	2.248	3.79	2.281	4.00	8.529	9.120	8.792	9.186
18	1.404	3.112	3.83	3.112	3.95	11.905	12.279	12.056	12.306
16	1.799	3.933	3.92	3.929	3.92	15.404	15.396	15.403	15.397
14	2.249	4.802	3.94	4.802	3.94	18.925	18.925	18.923	18.923

TABLE 68: 7.5D-12 Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
18	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
16	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
14	End	1408	1686	2080	2637	2154	2580	3183	4034
	Interior	2616	3031	3618	4449	3892	4509	5382	6617
Constants		h = 7.5"		r = 0.25"		θ = 90°			

TABLE 69: 7.5D-12 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	359	249	183	140	111	90	74	62	53	46	40
		Φf_b	570	396	291	222	176	142	118	99	84	73	63
		L/360	-	222	140	94	66	48	36	28	22	18	14
		L/240	-	-	-	-	99	72	54	42	33	26	21
		L/180	-	-	-	-	-	-	72	56	44	35	28
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	364	253	186	142	112	91	75	63	54	46	40
		Φf_b	578	401	295	226	178	144	119	100	85	74	64
		L/360	-	-	-	-	-	-	-	-	-	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	455	316	232	178	141	114	94	79	67	58	51
		Φf_b	722	502	369	282	223	181	149	125	107	92	80
		L/360	-	-	-	-	-	111	83	64	50	40	33
		L/240	-	-	-	-	-	-	-	-	-	-	49
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	497	345	254	194	153	124	103	86	74	63	55
		Φf_b	788	547	402	308	243	197	163	137	117	101	88
		L/360	-	305	192	129	90	66	49	38	30	24	20
		L/240	-	-	-	193	136	99	74	57	45	36	29
		L/180	-	-	-	-	-	-	99	76	60	48	39
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	497	345	254	194	153	124	103	86	74	63	55
		Φf_b	788	547	402	308	243	197	163	137	117	101	88
		L/360	-	-	-	-	-	-	-	-	-	59	48
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	621	431	317	243	192	155	128	108	92	79	69
		Φf_b	985	684	503	385	304	246	204	171	146	126	109
		L/360	-	-	-	-	-	148	111	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	66
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 69: 7.5D-12 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	628	436	320	245	194	157	130	109	93	80	70
		Φf_b	996	692	508	389	308	249	206	173	147	127	111
		L/360	-	390	245	164	115	84	63	49	38	31	25
		L/240	-	-	-	-	173	126	95	73	57	46	37
		L/180	-	-	-	-	-	-	126	97	77	61	50
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	627	436	320	245	194	157	130	109	93	80	70
		Φf_b	995	691	508	389	307	249	206	173	147	127	111
		L/360	-	-	-	-	-	-	-	-	92	74	60
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	784	545	400	306	242	196	162	136	116	100	87
		Φf_b	1244	864	635	486	384	311	257	216	184	159	138
		L/360	-	-	-	-	-	186	139	107	84	68	55
		L/240	-	-	-	-	-	-	-	-	-	-	83
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	767	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	845	621	475	375	304	251	211	180	155	135
		L/360	-	479	301	202	142	103	78	60	47	38	31
		L/240	-	-	-	-	213	155	117	90	71	57	46
		L/180	-	-	-	-	-	-	155	120	94	75	61
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	767	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	845	621	475	375	304	251	211	180	155	135
		L/360	-	-	-	-	-	-	-	-	113	91	74
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	958	666	489	374	296	240	198	166	142	122	106
		Φf_b	1520	1056	776	594	469	380	314	264	225	194	169
		L/360	-	-	-	-	-	228	171	132	104	83	68
		L/240	-	-	-	-	-	-	-	-	-	-	101
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 70a: 7.5D-12 Shear and Flexibility

7.5D-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1252 2065	1147 1893	1059 1747
			F	0.8 +47.3R	1.3 +39.4R	1.7 +33.8R	1.9 +29.5R	2.1 +26.3R	2.3 +23.6R	2.4 +21.5R	2.5 +19.7R	2.6 +18.2R
		6"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1252 2065	1147 1893	1059 1747
			F	1.5 +47.3R	2 +39.4R	2.3 +33.7R	2.6 +29.5R	2.8 +26.2R	2.9 +23.6R	3 +21.5R	3.2 +19.7R	3.2 +18.2R
		8"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1252 2065	1147 1893	1059 1747
			F	2.1 +47.2R	2.6 +39.4R	2.9 +33.7R	3.2 +29.5R	3.4 +26.2R	3.6 +23.6R	3.7 +21.5R	3.8 +19.7R	3.9 +18.2R
		12"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1252 2065	1147 1893	1059 1747
			F	3.4 +47.1R	3.9 +39.3R	4.2 +33.7R	4.5 +29.5R	4.7 +26.2R	4.8 +23.6R	5 +21.4R	5.1 +19.6R	5.2 +18.1R
		18"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1252 2065	1147 1893	1059 1747
			F	5.2 +47R	5.7 +39.1R	6.1 +33.6R	6.3 +29.4R	6.6 +26.1R	6.7 +23.5R	6.9 +21.3R	7 +19.6R	7.1 +18.1R
		24"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1252 2065	1147 1893	1059 1747
			F	6.9 +46.8R	7.5 +39R	7.9 +33.4R	8.2 +29.2R	8.4 +26R	8.6 +23.4R	8.8 +21.2R	8.9 +19.5R	9 +18R
	16 ga	4"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	-0.6 +83.3R	0.3 +69.4R	0.9 +59.5R	1.3 +52.1R	1.7 +46.3R	1.9 +41.6R	2.2 +37.9R	2.4 +34.7R	2.5 +32R
		6"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	0.2 +83.3R	1 +69.4R	1.6 +59.5R	2 +52R	2.4 +46.3R	2.7 +41.6R	2.9 +37.8R	3.1 +34.7R	3.3 +32R
		8"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	0.9 +83.2R	1.7 +69.4R	2.3 +59.4R	2.8 +52R	3.1 +46.2R	3.4 +41.6R	3.6 +37.8R	3.8 +34.7R	4 +32R
		12"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	2.3 +83.1R	3.1 +69.3R	3.7 +59.4R	4.2 +52R	4.6 +46.2R	4.8 +41.6R	5.1 +37.8R	5.3 +34.6R	5.4 +32R
		18"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	4.3 +83R	5.2 +69.1R	5.8 +59.2R	6.3 +51.8R	6.7 +46.1R	7 +41.5R	7.2 +37.7R	7.4 +34.6R	7.6 +31.9R
		24"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	6.2 +82.7R	7.2 +68.9R	7.8 +59.1R	8.3 +51.7R	8.7 +45.9R	9 +41.3R	9.3 +37.6R	9.5 +34.4R	9.7 +31.8R
	18 ga	4"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-3.4 +145.8R	-1.9 +121.5R	-0.9 +104.1R	-0.1 +91.1R	0.5 +81R	1 +72.9R	1.4 +66.3R	1.7 +60.8R	2 +56.1R
		6"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-2.6 +145.8R	-1.1 +121.5R	-0.1 +104.1R	0.7 +91.1R	1.3 +81R	1.8 +72.9R	2.2 +66.3R	2.5 +60.7R	2.8 +56.1R
		8"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-1.8 +145.7R	-0.3 +121.5R	0.7 +104.1R	1.5 +91.1R	2.1 +81R	2.6 +72.9R	3 +66.2R	3.4 +60.7R	3.6 +56.1R
		12"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-0.2 +145.6R	1.3 +121.4R	2.3 +104R	3.1 +91R	3.7 +80.9R	4.2 +72.8R	4.6 +66.2R	5 +60.7R	5.3 +56R
		18"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	2 +145.4R	3.6 +121.2R	4.6 +103.9R	5.5 +90.9R	6.1 +80.8R	6.6 +72.7R	7 +66.1R	7.4 +60.6R	7.7 +55.9R
		24"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	4.2 +145.2R	5.8 +121R	6.9 +103.7R	7.7 +90.7R	8.4 +80.6R	8.9 +72.6R	9.4 +66R	9.7 +60.5R	10 +55.8R
	20 ga	4"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-11 +298.3R	-8 +248.6R	-5.9 +213.1R	-4.3 +186.4R	-3.1 +165.7R	-2.1 +149.1R	-1.3 +135.6R	-0.6 +124.3R	0 +114.7R
		6"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-10.1 +298.3R	-7.1 +248.5R	-5 +213R	-3.4 +186.4R	-2.1 +165.7R	-1.1 +149.1R	-0.3 +135.6R	0.3 +124.3R	0.9 +114.7R
		8"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-9.2 +298.2R	-6.2 +248.5R	-4.1 +213R	-2.5 +186.4R	-1.2 +165.7R	-0.2 +149.1R	0.6 +135.6R	1.3 +124.3R	1.9 +114.7R
		12"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-7.4 +298.1R	-4.4 +248.4R	-2.2 +212.9R	-0.6 +186.3R	0.6 +165.6R	1.6 +149R	2.5 +135.5R	3.2 +124.2R	3.7 +114.7R
		18"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-4.8 +297.9R	-1.7 +248.2R	0.5 +212.8R	2.1 +186.2R	3.4 +165.5R	4.4 +148.9R	5.2 +135.4R	5.9 +124.1R	6.5 +114.5R
		24"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-2.3 +297.6R	0.8 +248R	3.1 +212.5R	4.7 +185.9R	6 +165.3R	7.1 +148.7R	7.9 +135.2R	8.6 +123.9R	9.2 +114.4R

7.5D-12 12/2 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

TABLE 70b: 7.5D-12 Shear and Flexibility (continued)
7.5D-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1243 2051	1147 1893
			F	0.8 +47.3R	1.3 +39.4R	1.6 +33.8R	1.9 +29.5R	2.1 +26.3R	2.3 +23.6R	2.4 +21.5R	2.5 +19.7R	2.6 +18.2R
		6"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1243 2051	1147 1893
			F	1.4 +47.2R	1.9 +39.3R	2.3 +33.7R	2.5 +29.5R	2.7 +26.2R	2.9 +23.6R	3 +21.5R	3.1 +19.7R	3.2 +18.2R
		8"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1243 2051	1147 1893
			F	2 +47.2R	2.5 +39.3R	2.9 +33.7R	3.2 +29.5R	3.4 +26.2R	3.5 +23.6R	3.7 +21.4R	3.8 +19.6R	3.9 +18.1R
		12"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1243 2051	1147 1893
			F	3.2 +47R	3.7 +39.2R	4.1 +33.6R	4.4 +29.4R	4.6 +26.1R	4.8 +23.5R	4.9 +21.4R	5 +19.6R	5.1 +18.1R
		18"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1243 2051	1147 1893
			F	4.8 +46.8R	5.4 +39R	5.8 +33.4R	6.1 +29.2R	6.4 +25.9R	6.6 +23.3R	6.7 +21.2R	6.9 +19.4R	7 +17.9R
		24"	q_a q_f	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1309 2095	1243 2051	1147 1893
			F	6.4 +46.5R	7 +38.7R	7.5 +33.1R	7.8 +29R	8.1 +25.7R	8.3 +23.1R	8.5 +21R	8.6 +19.3R	8.8 +17.8R
	16 ga	4"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	-0.6 +83.3R	0.3 +69.4R	0.9 +59.5R	1.3 +52R	1.7 +46.3R	1.9 +41.6R	2.2 +37.8R	2.4 +34.7R	2.5 +32R
		6"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	0.1 +83.2R	1 +69.4R	1.6 +59.4R	2 +52R	2.4 +46.2R	2.7 +41.6R	2.9 +37.8R	3.1 +34.7R	3.2 +32R
		8"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	0.8 +83.2R	1.7 +69.3R	2.3 +59.4R	2.7 +52R	3.1 +46.2R	3.4 +41.6R	3.6 +37.8R	3.8 +34.6R	4 +32R
		12"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	2.1 +83R	3 +69.2R	3.6 +59.3R	4.1 +51.9R	4.5 +46.1R	4.8 +41.5R	5 +37.7R	5.2 +34.6R	5.4 +31.9R
		18"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	3.9 +82.7R	4.9 +68.9R	5.5 +59.1R	6.1 +51.7R	6.5 +45.9R	6.8 +41.3R	7 +37.6R	7.2 +34.4R	7.4 +31.8R
		24"	q_a q_f	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362	851 1362
			F	5.6 +82.4R	6.6 +68.6R	7.4 +58.8R	7.9 +51.4R	8.4 +45.7R	8.7 +41.1R	9 +37.3R	9.2 +34.2R	9.4 +31.6R
	18 ga	4"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-3.4 +145.8R	-1.9 +121.5R	-0.9 +104.1R	-0.1 +91.1R	0.5 +81R	1 +72.9R	1.4 +66.3R	1.7 +60.7R	2 +56.1R
		6"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-2.6 +145.7R	-1.2 +121.4R	-0.1 +104.1R	0.7 +91.1R	1.3 +81R	1.8 +72.9R	2.2 +66.2R	2.5 +60.7R	2.8 +56.1R
		8"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-1.9 +145.7R	-0.4 +121.4R	0.7 +104R	1.5 +91R	2.1 +80.9R	2.6 +72.8R	3 +66.2R	3.3 +60.7R	3.6 +56R
		12"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	-0.4 +145.5R	1.1 +121.2R	2.2 +103.9R	3 +90.9R	3.6 +80.8R	4.1 +72.7R	4.5 +66.1R	4.9 +60.6R	5.2 +55.9R
		18"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	1.6 +145.2R	3.2 +121R	4.3 +103.7R	5.2 +90.7R	5.9 +80.6R	6.4 +72.5R	6.8 +65.9R	7.2 +60.4R	7.5 +55.8R
		24"	q_a q_f	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886	553 886
			F	3.5 +144.8R	5.2 +120.6R	6.4 +103.3R	7.3 +90.4R	8 +80.3R	8.6 +72.3R	9 +65.7R	9.4 +60.2R	9.7 +55.6R
	20 ga	4"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-11 +298.3R	-8.1 +248.6R	-5.9 +213R	-4.3 +186.4R	-3.1 +165.7R	-2.1 +149.1R	-1.3 +135.6R	-0.6 +124.3R	0 +114.7R
		6"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-10.2 +298.2R	-7.2 +248.5R	-5 +213R	-3.4 +186.4R	-2.2 +165.7R	-1.2 +149.1R	-0.4 +135.5R	0.3 +124.3R	0.9 +114.7R
		8"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-9.3 +298.1R	-6.3 +248.4R	-4.1 +212.9R	-2.5 +186.3R	-1.3 +165.6R	-0.3 +149.1R	0.6 +135.5R	1.2 +124.2R	1.8 +114.7R
		12"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-7.6 +297.9R	-4.6 +248.3R	-2.4 +212.8R	-0.7 +186.2R	0.5 +165.5R	1.5 +149R	2.4 +135.4R	3.1 +124.1R	3.6 +114.6R
		18"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-5.2 +297.6R	-2.1 +247.9R	0.1 +212.5R	1.8 +185.9R	3.1 +165.3R	4.1 +148.7R	5 +135.2R	5.7 +123.9R	6.3 +114.4R
		24"	q_a q_f	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506	316 506
			F	-3 +297.1R	0.2 +247.5R	2.5 +212.1R	4.2 +185.6R	5.6 +164.9R	6.6 +148.4R	7.5 +134.9R	8.3 +123.7R	8.9 +114.1R

7.5D-12 12/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

TABLE 71a: 7.5D-12 Shear and Flexibility
7.5D-12 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	815 1313	713 1149	634 1021	571 919	519 835	476 766	439 707
			F	0 +0.2R	0 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	671 1347	634 1021	663 1067	636 1024	615 990	571 919	519 835	476 766	439 707
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	513 825	501 806	492 792	485 782	480 773	476 767	473 762	470 757	439 707
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		6"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		8"	q_a q_f	667 1074	667 1074	650 1047	569 916	506 814	455 733	414 666	379 610	350 564
			F	0 +0.5R	0 +0.5R	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	648 1043	640 1030	634 1021	569 916	506 814	455 733	414 666	379 610	350 564
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	489 1043	461 742	481 774	461 742	445 717	455 733	414 666	379 610	350 564
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		24"	q_a q_f	373 601	364 586	357 574	351 566	347 559	344 554	341 550	339 546	337 543
			F	0.1 +0.5R	0.1 +0.5R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
	18 ga	4"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0 +0.7R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R
		6"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		8"	q_a q_f	533 859	533 859	520 837	455 732	404 651	364 586	331 532	303 488	280 450
			F	0 +1.3R	0 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		12"	q_a q_f	475 764	468 753	463 745	455 732	404 651	364 586	331 532	303 488	280 450
			F	0.1 +1.3R	0.1 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		18"	q_a q_f	357 764	336 541	350 564	335 539	323 520	334 538	325 523	303 488	280 450
			F	0.1 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
		24"	q_a q_f	273 440	265 427	260 418	255 411	252 406	249 402	247 398	245 395	244 393
			F	0.2 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
	20 ga	4"	q_a q_f	316 506	316 506	316 506	316 506	304 489	273 440	248 400	228 367	210 338
			F	-0.1 +4.2R	-0.1 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0 +2.1R	0 +1.9R	0 +1.8R	0 +1.6R
		6"	q_a q_f	316 506	316 506	316 506	316 506	304 489	273 440	248 400	228 367	210 338
			F	-0.1 +4.2R	0 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		8"	q_a q_f	316 506	316 506	316 506	316 506	304 489	273 440	248 400	228 367	210 338
			F	0 +4.2R	0 +3.5R	0 +3R	0.1 +2.6R	0.1 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		12"	q_a q_f	316 506	313 504	309 497	306 493	304 489	273 440	248 400	228 367	210 338
			F	0 +4.2R	0.1 +3.5R	0.1 +3R	0.1 +2.6R	0.1 +2.3R	0.2 +2.1R	0.2 +1.9R	0.2 +1.8R	0.2 +1.6R
		18"	q_a q_f	239 506	224 361	233 375	223 359	214 345	222 357	215 346	210 337	210 338
			F	0.1 +4.2R	0.2 +3.5R	0.2 +3R	0.2 +2.6R	0.3 +2.3R	0.3 +2.1R	0.3 +1.9R	0.3 +1.8R	0.3 +1.6R
		24"	q_a q_f	184 296	178 286	173 279	170 274	168 270	166 266	164 264	162 262	161 260
			F	0.3 +4.2R	0.3 +3.5R	0.3 +3R	0.3 +2.6R	0.4 +2.3R	0.4 +2.1R	0.4 +1.9R	0.4 +1.8R	0.4 +1.6R

7.5D-12 12/2 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

TABLE 71b: 7.5D-12 Shear and Flexibility (continued)
7.5D-12 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	837 1347	773 1245	687 1106	618 996	562 905	515 830	476 766
			F	0 +0.2R	0 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	775 1347	721 1161	744 1197	707 1139	679 1093	618 996	562 905	515 830	476 766
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	602 970	576 928	558 899	544 876	534 859	525 845	518 834	512 824	476 766
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		6"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		8"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0 +0.5R	0 +0.5R	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	667 1074	667 1074	667 1074	616 992	548 882	493 794	448 722	411 662	379 611
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	567 1074	526 846	541 870	513 826	492 792	493 794	448 722	411 662	379 611
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		24"	q_a q_f	442 711	422 679	407 655	396 638	388 624	381 613	375 604	371 597	367 590
			F	0.1 +0.5R	0.1 +0.5R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0 +0.7R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R
		6"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		8"	q_a q_f	533 859	533 859	533 859	493 793	438 705	394 635	358 577	328 529	303 488
			F	0 +1.3R	0 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		12"	q_a q_f	533 859	531 855	520 837	493 793	438 705	394 635	358 577	328 529	303 488
			F	0.1 +1.3R	0.1 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		18"	q_a q_f	416 859	385 620	395 636	374 602	358 576	367 591	355 571	328 529	303 488
			F	0.1 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
		24"	q_a q_f	326 525	310 499	298 480	290 466	283 455	277 447	273 440	269 434	266 429
			F	0.2 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
	20 ga	4"	q_a q_f	316 506	316 506	316 506	316 506	316 506	296 477	269 433	247 397	228 367
			F	-0.1 +4.2R	-0.1 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0 +2.1R	0 +1.9R	0 +1.8R	0 +1.6R
		6"	q_a q_f	316 506	316 506	316 506	316 506	316 506	296 477	269 433	247 397	228 367
			F	-0.1 +4.2R	0 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		8"	q_a q_f	316 506	316 506	316 506	316 506	316 506	296 477	269 433	247 397	228 367
			F	0 +4.2R	0 +3.5R	0 +3R	0.1 +2.6R	0.1 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		12"	q_a q_f	316 506	316 506	316 506	316 506	316 506	296 477	269 433	247 397	228 367
			F	0 +4.2R	0.1 +3.5R	0.1 +3R	0.1 +2.6R	0.1 +2.3R	0.2 +2.1R	0.2 +1.9R	0.2 +1.8R	0.2 +1.6R
		18"	q_a q_f	282 506	259 418	265 426	250 403	239 385	245 394	236 380	229 368	228 367
			F	0.1 +4.2R	0.2 +3.5R	0.2 +3R	0.2 +2.6R	0.3 +2.3R	0.3 +2.1R	0.3 +1.9R	0.3 +1.8R	0.3 +1.6R
		24"	q_a q_f	222 357	210 338	201 324	195 313	189 305	185 299	182 293	179 289	177 285
			F	0.3 +4.2R	0.3 +3.5R	0.3 +3R	0.3 +2.6R	0.4 +2.3R	0.4 +2.1R	0.4 +1.9R	0.4 +1.8R	0.4 +1.6R

7.5D-12 12/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

FIGURE 48: 4.5DF-24 Profile

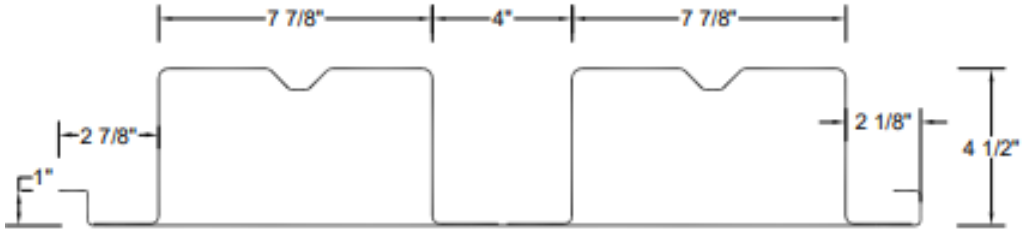


TABLE 72: 4.5DF-24 Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	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	y_t in	S_g in^3/ft	r in
20/20	4.20	0.0359/0.036	40.00	55.00	1.235	4.515	1.706	2.871	1.573	0.956
20/18	4.75	0.0359/0.047	40.00	55.00	1.396	4.890	1.528	3.055	1.601	0.936
20/16	5.27	0.0359/0.059	40.00	55.00	1.549	5.175	1.394	3.194	1.620	0.914
18/20	5.03	0.0478/0.036	40.00	55.00	1.480	5.535	1.882	2.701	2.049	0.967
18/18	5.97	0.0478/0.047	40.00	55.00	1.631	5.970	1.724	2.864	2.084	0.957
18/16	6.10	0.0478/0.059	40.00	55.00	1.794	6.370	1.583	3.011	2.116	0.942
16/20	5.87	0.0598/0.036	40.00	55.00	1.728	6.495	2.009	2.580	2.517	0.969
16/18	6.37	0.0598/0.047	40.00	55.00	1.873	7.020	1.874	2.733	2.569	0.968
16/16	6.94	0.0598/0.059	40.00	55.00	2.042	7.525	1.740	2.880	2.613	0.960

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ 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	0.898	1.316	1.513	1.375	1.168	3.980	3.210	4.158	3.645
20/18	1.029	1.338	1.601	1.496	1.261	4.285	3.775	4.487	4.147
20/16	1.176	1.306	1.685	1.500	1.422	4.400	4.265	4.658	4.568
18/20	1.141	1.900	1.386	1.653	1.216	5.265	4.020	5.355	4.525
18/18	1.261	1.936	1.466	1.943	1.184	5.675	4.600	5.773	5.057
18/16	1.403	1.974	1.535	2.005	1.290	6.060	5.170	6.163	5.570
16/20	1.728	2.517	1.290	1.961	1.242	6.495	4.870	6.495	5.412
16/18	1.506	2.569	1.366	2.355	1.161	7.020	5.470	7.020	5.987
16/16	2.042	2.613	1.440	2.476	1.242	7.525	6.150	7.525	6.608

TABLE 73: 4.5DF-24 Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) (lbs/ft width)				LRFD (φPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20/20	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
20/18	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
20/16	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
18/20	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
18/18	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
18/16	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
16/20	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
16/18	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
16/16	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
	Constants		h = 4.5"		r = 0.25"		θ = 90°		

TABLE 74: 4.5DF-24 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	210	146	107	82	65	53	43	36	31	27	23
		Φf_b	333	231	170	130	103	83	69	58	49	43	37
		L/360	182	105	66	44	31	23	17	13	10	8	7
		L/240	-	-	99	67	47	34	26	20	16	12	10
		L/180	-	-	-	-	62	45	34	26	21	17	13
		L/120	-	-	-	-	-	-	-	-	31	25	20
	DS	f_b/Ω	219	152	112	86	68	55	45	38	32	28	24
		Φf_b	348	242	178	136	107	87	72	60	52	44	39
		L/360	-	-	-	-	66	48	36	28	22	17	14
		L/240	-	-	-	-	-	-	-	-	-	26	21
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	274	191	140	107	85	69	57	48	41	35	30
		Φf_b	435	302	222	170	134	109	90	76	64	56	48
		L/360	-	-	128	86	60	44	33	25	20	16	13
		L/240	-	-	-	-	-	66	50	38	30	24	20
		L/180	-	-	-	-	-	-	-	-	40	32	26
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/18	SS	f_b/Ω	214	148	109	83	66	53	44	37	32	27	24
		Φf_b	339	235	173	132	105	85	70	59	50	43	38
		L/360	196	113	71	48	34	25	18	14	11	9	7
		L/240	-	-	107	72	50	37	28	21	17	13	11
		L/180	-	-	-	-	-	49	37	28	22	18	15
		L/120	-	-	-	-	-	-	-	-	-	27	22
	DS	f_b/Ω	239	166	122	93	74	60	49	41	35	30	27
		Φf_b	379	263	193	148	117	95	78	66	56	48	42
		L/360	-	-	-	-	-	55	41	32	25	20	16
		L/240	-	-	-	-	-	-	-	-	-	30	24
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	299	207	152	117	92	75	62	52	44	38	33
		Φf_b	474	329	242	185	146	118	98	82	70	60	53
		L/360	-	-	146	98	69	50	38	29	23	18	15
		L/240	-	-	-	-	-	-	56	43	34	27	22
		L/180	-	-	-	-	-	-	-	-	-	36	30
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/16	SS	f_b/Ω	209	145	106	81	64	52	43	36	31	27	23
		Φf_b	331	230	169	129	102	83	68	57	49	42	37
		L/360	204	118	74	50	35	25	19	15	12	9	8
		L/240	-	-	-	75	52	38	29	22	17	14	11
		L/180	-	-	-	-	-	51	38	29	23	19	15
		L/120	-	-	-	-	-	-	-	-	-	-	23
	DS	f_b/Ω	239	166	122	94	74	60	49	42	35	31	27
		Φf_b	380	264	194	148	117	95	78	66	56	48	42
		L/360	-	-	-	-	-	-	45	35	27	22	18
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	299	208	153	117	92	75	62	52	44	38	33
		Φf_b	475	330	242	185	147	119	98	82	70	61	53
		L/360	-	-	-	108	76	55	41	32	25	20	16
		L/240	-	-	-	-	-	-	-	48	38	30	24
		L/180	-	-	-	-	-	-	-	-	-	-	33
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 74: 4.5DF-24 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
18/20	SS	f_b/Ω	303	211	155	119	94	76	63	53	45	39	34
		Φf_b	481	334	246	188	149	120	99	84	71	61	53
		L/360	234	135	85	57	40	29	22	17	13	11	9
		L/240	-	203	128	86	60	44	33	25	20	16	13
		L/180	-	-	-	114	80	59	44	34	27	21	17
		L/120	-	-	-	-	-	-	-	51	40	32	26
	DS	f_b/Ω	264	183	135	103	81	66	55	46	39	34	29
		Φf_b	419	291	214	164	129	105	86	73	62	53	47
		L/360	-	-	-	-	-	60	45	34	27	22	18
		L/240	-	-	-	-	-	-	-	-	-	33	26
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	330	229	168	129	102	82	68	57	49	42	37
		Φf_b	523	363	267	204	162	131	108	91	77	67	58
		L/360	-	-	159	107	75	55	41	32	25	20	16
		L/240	-	-	-	-	-	82	61	47	37	30	24
		L/180	-	-	-	-	-	-	-	-	-	40	32
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/18	SS	f_b/Ω	309	215	158	121	95	77	64	54	46	39	34
		Φf_b	490	341	250	192	151	123	101	85	73	63	54
		L/360	252	146	92	62	43	32	24	18	14	11	9
		L/240	-	-	138	92	65	47	36	27	22	17	14
		L/180	-	-	-	-	87	63	47	37	29	23	19
		L/120	-	-	-	-	-	-	-	-	43	34	28
	DS	f_b/Ω	310	215	158	121	96	78	64	54	46	40	34
		Φf_b	492	342	251	192	152	123	102	85	73	63	55
		L/360	-	-	-	-	91	67	50	39	30	24	20
		L/240	-	-	-	-	-	-	-	-	45	36	30
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	388	269	198	151	120	97	80	67	57	49	43
		Φf_b	615	427	314	240	190	154	127	107	91	78	68
		L/360	-	-	178	119	84	61	46	35	28	22	18
		L/240	-	-	-	-	-	91	69	53	42	33	27
		L/180	-	-	-	-	-	-	-	-	55	44	36
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/16	SS	f_b/Ω	315	219	161	123	97	79	65	55	47	40	35
		Φf_b	500	347	255	195	154	125	103	87	74	64	56
		L/360	269	156	98	66	46	34	25	19	15	12	10
		L/240	-	-	147	99	69	51	38	29	23	18	15
		L/180	-	-	-	-	92	67	51	39	31	25	20
		L/120	-	-	-	-	-	-	-	-	46	37	30
	DS	f_b/Ω	320	222	163	125	99	80	66	56	47	41	36
		Φf_b	508	353	259	198	157	127	105	88	75	65	56
		L/360	-	-	-	-	-	73	55	42	33	27	22
		L/240	-	-	-	-	-	-	-	-	-	40	33
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	400	278	204	156	123	100	83	69	59	51	44
		Φf_b	635	441	324	248	196	159	131	110	94	81	71
		L/360	-	-	196	131	92	67	50	39	31	24	20
		L/240	-	-	-	-	-	-	76	58	46	37	30
		L/180	-	-	-	-	-	-	-	-	-	49	40
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 74: 4.5DF-24 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	402	279	205	157	124	100	83	70	59	51	45
		Φf_b	638	443	325	249	197	159	132	111	94	81	71
		L/360	284	164	103	69	49	35	27	21	16	13	11
		L/240	-	246	155	104	73	53	40	31	24	19	16
		L/180	-	-	-	139	97	71	53	41	32	26	21
		L/120	-	-	-	-	-	-	80	62	48	39	32
	DS	f_b/Ω	313	217	160	122	97	78	65	54	46	40	35
		Φf_b	497	345	253	194	153	124	103	86	73	63	55
		L/360	-	-	-	-	-	71	54	41	32	26	21
		L/240	-	-	-	-	-	-	-	-	-	39	32
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	391	272	200	153	121	98	81	68	58	50	43
		Φf_b	621	431	317	243	192	155	128	108	92	79	69
		L/360	-	-	190	127	89	65	49	38	30	24	19
		L/240	-	-	-	-	-	-	74	57	45	36	29
		L/180	-	-	-	-	-	-	-	-	-	48	39
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/18	SS	f_b/Ω	410	285	209	160	127	103	85	71	61	52	46
		Φf_b	651	452	332	254	201	163	134	113	96	83	72
		L/360	307	178	112	75	53	38	29	22	17	14	11
		L/240	-	266	168	112	79	58	43	33	26	21	17
		L/180	-	-	-	150	105	77	58	44	35	28	23
		L/120	-	-	-	-	-	-	-	67	52	42	34
	DS	f_b/Ω	376	261	192	147	116	94	78	65	56	48	42
		Φf_b	597	414	304	233	184	149	123	104	88	76	66
		L/360	-	-	-	-	108	79	59	46	36	29	23
		L/240	-	-	-	-	-	-	-	-	54	43	35
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	470	326	240	184	145	118	97	82	70	60	52
		Φf_b	746	518	380	291	230	186	154	129	110	95	83
		L/360	-	-	210	141	99	72	54	42	33	26	21
		L/240	-	-	-	-	-	108	81	63	49	39	32
		L/180	-	-	-	-	-	-	-	-	66	53	43
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/16	SS	f_b/Ω	417	290	213	163	129	104	86	72	62	53	46
		Φf_b	662	460	338	259	204	165	137	115	98	84	74
		L/360	329	190	120	80	56	41	31	24	19	15	12
		L/240	-	285	180	120	85	62	46	36	28	22	18
		L/180	-	-	-	161	113	82	62	48	37	30	24
		L/120	-	-	-	-	-	-	-	71	56	45	37
	DS	f_b/Ω	395	275	202	154	122	99	82	69	58	50	44
		Φf_b	627	436	320	245	194	157	130	109	93	80	70
		L/360	-	-	-	-	119	87	65	50	40	32	26
		L/240	-	-	-	-	-	-	-	-	-	48	39
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	494	343	252	193	153	124	102	86	73	63	55
		Φf_b	784	544	400	306	242	196	162	136	116	100	87
		L/360	-	-	232	156	109	80	60	46	36	29	24
		L/240	-	-	-	-	-	120	90	69	54	44	35
		L/180	-	-	-	-	-	-	-	-	73	58	47
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 75: 4.5DF-24 Shear and Flexibility
4.5DF-24 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	1.5 +10.2R	1.6 +8.5R	1.7 +7.3R	1.7 +6.4R	1.8 +5.7R	1.8 +5.1R	1.9 +4.6R	1.9 +4.2R	1.9 +3.9R
		6"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	1.9 +10.2R	2 +8.5R	2 +7.3R	2.1 +6.4R	2.1 +5.7R	2.2 +5.1R	2.2 +4.6R	2.2 +4.2R	2.3 +3.9R
		8"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	2.2 +10.1R	2.3 +8.5R	2.4 +7.2R	2.4 +6.3R	2.5 +5.6R	2.5 +5.1R	2.6 +4.6R	2.6 +4.2R	2.6 +3.9R
		12"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	2.8 +10.1R	3 +8.4R	3.1 +7.2R	3.1 +6.3R	3.2 +5.6R	3.2 +5R	3.3 +4.6R	3.3 +4.2R	3.3 +3.9R
		18"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	3.7 +9.9R	3.9 +8.2R	4 +7.1R	4.1 +6.2R	4.2 +5.5R	4.2 +4.9R	4.3 +4.5R	4.3 +4.1R	4.3 +3.8R
		24"	q_a q_f	1506 2485	1440 2376	1392 2296	1355 2236	1327 2189	1230 2030	1118 1845	1025 1692	946 1562
			F	4.6 +9.7R	4.8 +8.1R	4.9 +6.9R	5 +6R	5.1 +5.3R	5.2 +4.8R	5.2 +4.4R	5.3 +4R	5.3 +3.7R
	18 ga	4"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	1.6 +14.3R	1.7 +11.9R	1.8 +10.2R	1.9 +8.9R	1.9 +7.9R	2 +7.1R	2 +6.5R	2.1 +5.9R	2.1 +5.5R
		6"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	1.9 +14.2R	2.1 +11.9R	2.2 +10.2R	2.3 +8.9R	2.3 +7.9R	2.4 +7.1R	2.4 +6.5R	2.5 +5.9R	2.5 +5.5R
		8"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	2.3 +14.2R	2.5 +11.8R	2.6 +10.1R	2.7 +8.9R	2.7 +7.9R	2.8 +7.1R	2.8 +6.4R	2.9 +5.9R	2.9 +5.5R
		12"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	3 +14.1R	3.2 +11.8R	3.3 +10.1R	3.4 +8.8R	3.5 +7.8R	3.6 +7R	3.6 +6.4R	3.6 +5.9R	3.7 +5.4R
		18"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	4 +13.9R	4.2 +11.6R	4.4 +9.9R	4.5 +8.7R	4.6 +7.7R	4.7 +6.9R	4.7 +6.3R	4.8 +5.8R	4.8 +5.3R
		24"	q_a q_f	1158 1911	1103 1820	1063 1755	1033 1705	1009 1665	990 1634	907 1496	831 1371	767 1266
			F	5 +13.7R	5.2 +11.4R	5.4 +9.8R	5.5 +8.5R	5.7 +7.6R	5.7 +6.8R	5.8 +6.2R	5.9 +5.7R	5.9 +5.2R
	20 ga	4"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	1.5 +20.9R	1.8 +17.4R	1.9 +14.9R	2 +13.1R	2.1 +11.6R	2.2 +10.5R	2.2 +9.5R	2.3 +8.7R	2.3 +8R
		6"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	2 +20.9R	2.2 +17.4R	2.4 +14.9R	2.5 +13.1R	2.6 +11.6R	2.6 +10.4R	2.7 +9.5R	2.8 +8.7R	2.8 +8R
		8"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	2.4 +20.8R	2.6 +17.4R	2.8 +14.9R	2.9 +13R	3 +11.6R	3.1 +10.4R	3.2 +9.5R	3.2 +8.7R	3.3 +8R
		12"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	3.2 +20.7R	3.5 +17.3R	3.7 +14.8R	3.8 +13R	3.9 +11.5R	4 +10.4R	4.1 +9.4R	4.1 +8.6R	4.2 +8R
		18"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	4.4 +20.5R	4.7 +17.1R	4.9 +14.6R	5.1 +12.8R	5.2 +11.4R	5.3 +10.2R	5.4 +9.3R	5.4 +8.5R	5.5 +7.9R
		24"	q_a q_f	758 1250	725 1196	701 1157	683 1127	669 1104	611 1008	556 917	509 840	470 776
			F	5.5 +20.3R	5.8 +16.9R	6.1 +14.5R	6.2 +12.6R	6.4 +11.2R	6.5 +10.1R	6.6 +9.2R	6.7 +8.4R	6.8 +7.7R
4.5DF-24 24/4			Support Attachment: 0.5" Effective Dia. Arc Spot Weld					Side Seam Attachment: Top Seam Side-Lap Weld				

TABLE 76: 4.5DF-24 Shear and Flexibility (continued)
4.5DF-24 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		6"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		8"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		12"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		18"	q_a q_f	604 1074	559 899	564 909	535 861	512 824	501 806	455 733	417 672	385 620
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
		24"	q_a q_f	496 799	467 752	446 718	430 692	417 672	407 655	399 642	392 631	385 620
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.1R	0 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	533 859	533 859	525 845	500 806	445 716	400 645	364 586	334 537	308 496
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	451 859	416 670	418 674	395 637	377 608	383 617	364 586	334 537	308 496
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	373 600	349 562	332 534	319 513	309 497	300 484	294 473	288 464	283 456
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0 +0.3R	0 +0.2R	0 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		6"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		8"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	385 620	369 595	358 576	349 562	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	312 620	286 460	286 460	269 433	256 412	259 417	249 401	241 388	231 372
			F	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R
		24"	q_a q_f	259 418	241 388	228 367	218 351	211 339	204 329	199 321	195 314	191 308
			F	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R

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

FIGURE 49: 6DF-24 Profile

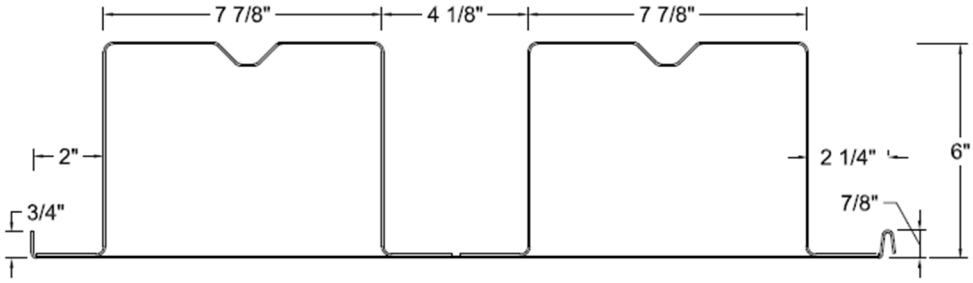


TABLE 77: 6DF-24 Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20/20	4.56	0.0359/0.036	40.00	55.00	1.342	8.475	2.318	3.754	2.258	1.256
20/18	5.11	0.0359/0.047	40.00	55.00	1.504	9.205	2.090	3.993	2.305	1.237
20/16	5.63	0.0359/0.059	40.00	55.00	1.656	9.770	1.917	4.178	2.338	1.214
18/20	5.52	0.0478/0.036	40.00	55.00	1.624	10.405	2.544	3.540	2.939	1.266
18/18	6.03	0.0478/0.047	40.00	55.00	1.774	11.245	2.347	3.748	3.000	1.259
18/16	6.59	0.0478/0.059	40.00	55.00	1.938	12.025	2.167	3.939	3.053	1.246
16/20	6.48	0.0598/0.036	40.00	55.00	1.907	12.235	2.706	3.390	3.609	1.266
16/18	6.98	0.0598/0.047	40.00	55.00	2.052	13.180	2.530	3.576	3.686	1.267
16/16	7.55	0.0598/0.059	40.00	55.00	2.221	14.120	2.357	3.761	3.754	1.261

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	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	1.009	1.863	1.996	1.999	1.537	7.435	6.145	7.782	6.922
20/18	1.130	1.379	2.853	2.142	1.655	7.865	7.090	8.312	7.795
20/16	1.281	1.810	2.241	2.221	1.813	8.110	8.055	8.663	8.627
18/20	1.280	2.760	1.808	2.374	1.609	9.980	7.640	10.122	8.562
18/18	1.397	2.835	1.907	2.197	1.657	10.815	7.280	10.958	8.602
18/16	1.549	2.898	2.000	2.884	1.703	11.590	9.820	11.735	10.555
16/20	1.568	3.610	1.695	2.827	1.642	12.235	9.285	12.235	10.268
16/18	1.678	3.686	1.788	3.341	1.544	13.180	10.320	13.180	11.273
16/16	1.835	3.754	1.881	3.545	1.636	14.120	11.600	14.120	12.440

TABLE 78: 6DF-24 Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) (lbs/ft width)				LRFD (φPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20/20	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
20/18	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
20/16	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
18/20	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
18/18	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
18/16	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
16/20	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
16/18	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
16/16	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 79: 6DF-24 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	297	207	152	116	92	74	61	52	44	38	33
		Φf_b	472	328	241	184	146	118	97	82	70	60	52
		L/360	-	197	124	83	58	43	32	25	19	15	13
		L/240	-	-	-	-	87	64	48	37	29	23	19
		L/180	-	-	-	-	-	-	-	49	39	31	25
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	319	222	163	125	99	80	66	55	47	41	35
		Φf_b	506	352	258	198	156	127	105	88	75	65	56
		L/360	-	-	-	-	-	-	-	53	41	33	27
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	399	277	204	156	123	100	82	69	59	51	44
		Φf_b	633	440	323	247	195	158	131	110	94	81	70
		L/360	-	-	-	-	114	83	63	48	38	30	25
		L/240	-	-	-	-	-	-	-	-	57	46	37
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/18	SS	f_b/Ω	220	153	112	86	68	55	45	38	33	28	24
		Φf_b	349	243	178	136	108	87	72	61	52	45	39
		L/360	-	-	-	-	62	45	34	26	21	17	13
		L/240	-	-	-	-	-	-	-	-	31	25	20
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	342	237	174	134	106	85	71	59	51	44	38
		Φf_b	543	377	277	212	167	136	112	94	80	69	60
		L/360	-	-	-	-	-	-	-	59	47	37	30
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	344	239	175	134	106	86	71	60	51	44	38
		Φf_b	546	379	278	213	168	136	113	95	81	70	61
		L/360	-	-	-	-	-	-	71	54	43	34	28
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/16	SS	f_b/Ω	289	201	147	113	89	72	60	50	43	37	32
		Φf_b	458	318	234	179	141	115	95	80	68	58	51
		L/360	-	-	138	92	65	47	36	27	22	17	14
		L/240	-	-	-	-	-	71	53	41	32	26	21
		L/180	-	-	-	-	-	-	-	-	-	34	28
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	355	246	181	139	109	89	73	62	52	45	39
		Φf_b	563	391	287	220	174	141	116	98	83	72	63
		L/360	-	-	-	-	-	-	-	-	52	41	34
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	443	308	226	173	137	111	92	77	66	57	49
		Φf_b	703	488	359	275	217	176	145	122	104	90	78
		L/360	-	-	-	-	-	104	78	60	47	38	31
		L/240	-	-	-	-	-	-	-	-	-	-	46
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 79: 6DF-24 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)													
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
18/20	SS	f_b/Ω	441	306	225	172	136	110	91	77	65	56	49
		Φf_b	699	486	357	273	216	175	144	121	103	89	78
		L/360	-	256	161	108	76	55	42	32	25	20	16
		L/240	-	-	-	162	114	83	62	48	38	30	25
		L/180	-	-	-	-	-	-	83	64	50	40	33
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	379	263	193	148	117	95	78	66	56	48	42
		Φf_b	601	418	307	235	186	150	124	104	89	77	67
		L/360	-	-	-	-	-	-	-	65	51	41	33
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	474	329	242	185	146	118	98	82	70	60	53
		Φf_b	752	522	383	294	232	188	155	130	111	96	84
		L/360	-	-	-	-	142	103	78	60	47	38	31
		L/240	-	-	-	-	-	-	-	-	-	56	46
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/18	SS	f_b/Ω	453	314	231	177	140	113	94	79	67	58	50
		Φf_b	718	499	366	281	222	180	148	125	106	92	80
		L/360	-	277	175	117	82	60	45	35	27	22	18
		L/240	-	-	-	175	123	90	67	52	41	33	27
		L/180	-	-	-	-	-	-	90	69	54	44	35
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	351	244	179	137	108	88	72	61	52	45	39
		Φf_b	556	386	284	217	172	139	115	97	82	71	62
		L/360	-	-	-	-	-	-	-	-	52	41	34
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	438	304	224	171	135	110	91	76	65	56	49
		Φf_b	696	483	355	272	215	174	144	121	103	89	77
		L/360	-	-	-	-	-	104	78	60	47	38	31
		L/240	-	-	-	-	-	-	-	-	-	-	46
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/16	SS	f_b/Ω	463	321	236	181	143	116	96	80	68	59	51
		Φf_b	734	510	375	287	227	184	152	127	109	94	82
		L/360	-	297	187	125	88	64	48	37	29	23	19
		L/240	-	-	-	-	132	96	72	56	44	35	28
		L/180	-	-	-	-	-	-	-	74	58	47	38
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	-	-	-	-	-	-	-	-	63	51	41
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	576	400	294	225	178	144	119	100	85	73	64
		Φf_b	913	634	466	357	282	228	189	159	135	116	101
		L/360	-	-	-	-	175	127	96	74	58	46	38
		L/240	-	-	-	-	-	-	-	-	-	70	57
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 79: 6DF-24 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	576	400	294	225	178	144	119	100	85	74	64
		Φf_b	914	635	467	357	282	229	189	159	135	117	102
		L/360	535	309	195	131	92	67	50	39	30	24	20
		L/240	-	-	292	196	138	100	75	58	46	37	30
		L/180	-	-	-	-	-	134	100	77	61	49	40
		L/120	-	-	-	-	-	-	-	-	-	73	59
	DS	f_b/Ω	451	313	230	176	139	113	93	78	67	58	50
		Φf_b	716	497	365	280	221	179	148	124	106	91	80
		L/360	-	-	-	-	-	-	-	78	62	49	40
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	564	392	288	220	174	141	117	98	83	72	63
		Φf_b	895	622	457	350	276	224	185	155	132	114	99
		L/360	-	-	-	-	170	124	93	72	56	45	37
		L/240	-	-	-	-	-	-	-	-	-	68	55
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/18	SS	f_b/Ω	589	409	300	230	182	147	122	102	87	75	65
		Φf_b	934	648	476	365	288	233	193	162	138	119	104
		L/360	576	333	210	141	99	72	54	42	33	26	21
		L/240	-	-	-	211	148	108	81	63	49	39	32
		L/180	-	-	-	-	-	144	108	83	66	52	43
		L/120	-	-	-	-	-	-	-	-	-	-	64
	DS	f_b/Ω	533	370	272	208	165	133	110	93	79	68	59
		Φf_b	846	588	432	331	261	212	175	147	125	108	94
		L/360	-	-	-	-	-	-	-	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	667	463	340	260	206	167	138	116	99	85	74
		Φf_b	1058	735	540	413	327	264	219	184	157	135	118
		L/360	-	-	-	-	186	136	102	79	62	50	40
		L/240	-	-	-	-	-	-	-	-	93	74	60
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/16	SS	f_b/Ω	599	416	306	234	185	150	124	104	89	76	67
		Φf_b	951	660	485	371	293	238	196	165	141	121	106
		L/360	-	357	225	151	106	77	58	45	35	28	23
		L/240	-	-	-	226	159	116	87	67	53	42	34
		L/180	-	-	-	-	-	-	116	89	70	56	46
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	566	393	289	221	175	141	117	98	84	72	63
		Φf_b	898	624	458	351	277	224	186	156	133	115	100
		L/360	-	-	-	-	-	-	-	95	75	60	49
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	707	491	361	276	218	177	146	123	105	90	79
		Φf_b	1122	779	573	438	346	281	232	195	166	143	125
		L/360	-	-	-	-	206	150	113	87	68	55	44
		L/240	-	-	-	-	-	-	-	-	102	82	67
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 80: 6DF-24 Shear and Flexibility
6DF-24 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	1.3 +17.1R	1.5 +14.2R	1.6 +12.2R	1.7 +10.7R	1.8 +9.5R	1.8 +8.5R	1.9 +7.8R	1.9 +7.1R	2 +6.6R
		6"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	1.7 +17R	1.8 +14.2R	2 +12.2R	2.1 +10.7R	2.1 +9.5R	2.2 +8.5R	2.3 +7.7R	2.3 +7.1R	2.3 +6.6R
		8"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	2 +17R	2.2 +14.2R	2.3 +12.2R	2.4 +10.6R	2.5 +9.4R	2.6 +8.5R	2.6 +7.7R	2.6 +7.1R	2.7 +6.5R
		12"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	2.6 +16.9R	2.8 +14.1R	3 +12.1R	3.1 +10.6R	3.2 +9.4R	3.2 +8.5R	3.3 +7.7R	3.3 +7R	3.4 +6.5R
		18"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	3.5 +16.8R	3.8 +14R	3.9 +12R	4.1 +10.5R	4.2 +9.3R	4.2 +8.4R	4.3 +7.6R	4.4 +7R	4.4 +6.4R
		24"	q_a q_f	1506 2485	1440 2376	1392 2296	1355 2236	1327 2189	1230 2030	1118 1845	1025 1692	946 1562
			F	4.4 +16.6R	4.6 +13.8R	4.8 +11.8R	5 +10.3R	5.1 +9.2R	5.2 +8.2R	5.3 +7.5R	5.3 +6.9R	5.4 +6.3R
	18 ga	4"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	1.2 +23.9R	1.5 +19.9R	1.6 +17R	1.8 +14.9R	1.9 +13.3R	2 +11.9R	2 +10.8R	2.1 +9.9R	2.1 +9.2R
		6"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	1.6 +23.8R	1.9 +19.9R	2 +17R	2.2 +14.9R	2.3 +13.2R	2.4 +11.9R	2.4 +10.8R	2.5 +9.9R	2.5 +9.2R
		8"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	2 +23.8R	2.2 +19.8R	2.4 +17R	2.6 +14.9R	2.7 +13.2R	2.8 +11.9R	2.8 +10.8R	2.9 +9.9R	2.9 +9.1R
		12"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	2.7 +23.7R	3 +19.8R	3.2 +16.9R	3.3 +14.8R	3.4 +13.2R	3.5 +11.8R	3.6 +10.8R	3.7 +9.9R	3.7 +9.1R
		18"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	3.7 +23.5R	4 +19.6R	4.2 +16.8R	4.4 +14.7R	4.5 +13R	4.6 +11.7R	4.7 +10.7R	4.8 +9.8R	4.9 +9R
		24"	q_a q_f	1158 1911	1103 1820	1063 1755	1033 1705	1009 1665	990 1634	907 1496	831 1371	767 1266
			F	4.6 +23.3R	5 +19.4R	5.2 +16.6R	5.4 +14.5R	5.6 +12.9R	5.7 +11.6R	5.8 +10.5R	5.9 +9.7R	6 +8.9R
	20 ga	4"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	1 +35R	1.4 +29.2R	1.6 +25R	1.8 +21.9R	1.9 +19.4R	2.1 +17.5R	2.2 +15.9R	2.2 +14.6R	2.3 +13.5R
		6"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	1.4 +35R	1.8 +29.1R	2.1 +25R	2.3 +21.9R	2.4 +19.4R	2.5 +17.5R	2.6 +15.9R	2.7 +14.6R	2.8 +13.4R
		8"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	1.9 +34.9R	2.2 +29.1R	2.5 +24.9R	2.7 +21.8R	2.9 +19.4R	3 +17.5R	3.1 +15.9R	3.2 +14.5R	3.2 +13.4R
		12"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	2.7 +34.8R	3.1 +29R	3.4 +24.9R	3.6 +21.8R	3.7 +19.3R	3.9 +17.4R	4 +15.8R	4.1 +14.5R	4.1 +13.4R
		18"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	3.9 +34.6R	4.3 +28.8R	4.6 +24.7R	4.8 +21.6R	5 +19.2R	5.2 +17.3R	5.3 +15.7R	5.4 +14.4R	5.5 +13.3R
		24"	q_a q_f	758 1250	725 1196	701 1157	683 1127	669 1104	611 1008	556 917	509 840	470 776
			F	4.9 +34.4R	5.4 +28.6R	5.8 +24.5R	6 +21.4R	6.2 +19R	6.4 +17.1R	6.5 +15.6R	6.6 +14.2R	6.7 +13.1R
6DF-24 24/4			Support Attachment: 0.5" Effective Dia. Arc Spot Weld					Side Seam Attachment: Top Seam Side-Lap Weld				

TABLE 81: 6DF-24 Shear and Flexibility (continued)

6DF-24 with No. 12 Self Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		6"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		8"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		12"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		18"	q_a q_f	604 1074	559 899	564 909	535 861	512 824	501 806	455 733	417 672	385 620
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R
		24"	q_a q_f	496 799	467 752	446 718	430 692	417 672	407 655	399 642	392 631	385 620
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	533 859	533 859	525 845	500 806	445 716	400 645	364 586	334 537	308 496
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	451 859	416 670	418 674	395 637	377 608	383 617	364 586	334 537	308 496
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	373 600	349 562	332 534	319 513	309 497	300 484	294 473	288 464	283 456
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		6"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		8"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	385 620	369 595	358 576	349 562	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	312 620	286 460	286 460	269 433	256 412	259 417	249 401	241 388	231 372
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
		24"	q_a q_f	259 418	241 388	228 367	218 351	211 339	204 329	199 321	195 314	191 308
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
6DF-24 24/4			Support Attachment: #12 SD HWH Screw					Side Seam Attachment: #10 SD HWH Screw				

FIGURE 50: 7.5DF-24 Profile

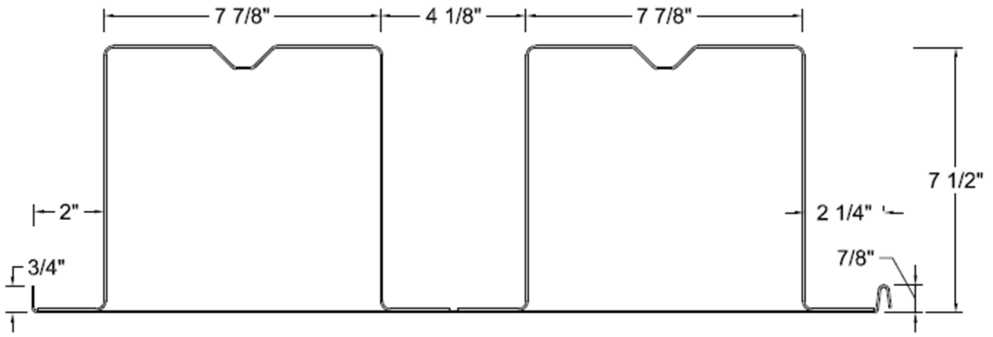


TABLE 82: 7.5DF-24 Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20/20	4.93	0.0359/0.036	40.00	55.00	1.450	13.910	2.953	4.619	3.011	1.549
20/18	5.48	0.0359/0.047	40.00	55.00	1.611	15.115	2.678	4.906	3.081	1.531
20/16	6.00	0.0359/0.059	40.00	55.00	1.764	16.065	2.464	5.131	3.131	1.509
18/20	6.01	0.0478/0.036	40.00	55.00	1.767	17.080	3.219	4.364	3.914	1.554
18/18	6.52	0.0478/0.047	40.00	55.00	1.917	18.450	2.985	4.610	4.002	1.551
18/16	7.08	0.0478/0.059	40.00	55.00	2.081	19.730	2.769	4.838	4.078	1.540
16/20	7.09	0.0598/0.036	40.00	55.00	2.086	20.100	3.408	4.188	4.799	1.552
16/18	7.59	0.0598/0.047	40.00	55.00	2.232	21.620	3.202	4.405	4.908	1.556
16/16	8.16	0.0598/0.059	40.00	55.00	2.400	23.145	2.995	4.623	5.006	1.553

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	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	1.294	2.366	2.507	2.710	1.902	11.860	10.305	12.543	11.507
20/18	1.247	2.348	2.672	2.859	2.065	12.545	11.810	13.402	12.912
20/16	1.386	2.314	2.801	2.961	2.234	12.965	13.230	13.998	14.175
18/20	1.429	3.733	2.218	3.227	1.987	16.555	12.825	16.730	14.243
18/18	1.539	3.839	2.336	3.691	1.942	17.930	14.335	18.103	15.707
18/16	1.685	3.807	2.475	3.832	2.098	18.840	16.075	19.137	17.293
16/20	1.739	4.800	2.094	3.759	2.041	20.100	15.345	20.100	16.930
16/18	1.851	4.908	2.203	4.413	1.927	21.620	17.005	21.620	18.543
16/16	2.005	5.007	2.311	4.704	2.020	23.145	19.005	23.145	20.385

TABLE 83: 7.5DF-24 Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) (lbs/ft width)				LRFD (φPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20/20	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
20/18	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
20/16	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
18/20	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
18/18	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
18/16	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
16/20	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
16/18	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
16/16	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 84: 7.5DF-24 Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	378	262	193	148	117	94	78	66	56	48	42
		Φf_b	599	416	306	234	185	150	124	104	89	76	67
		L/360	-	-	-	134	94	69	51	40	31	25	20
		L/240	-	-	-	-	-	-	77	59	47	37	30
		L/180	-	-	-	-	-	-	-	-	-	-	41
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	433	300	221	169	134	108	89	75	64	55	48
		Φf_b	686	477	350	268	212	172	142	119	102	88	76
		L/360	-	-	-	-	-	-	-	-	-	55	45
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	541	376	276	211	167	135	112	94	80	69	60
		Φf_b	858	596	438	335	265	215	177	149	127	109	95
		L/360	-	-	-	-	-	-	104	80	63	51	41
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/18	SS	f_b/Ω	375	260	191	146	116	94	77	65	55	48	42
		Φf_b	595	413	303	232	184	149	123	103	88	76	66
		L/360	-	-	-	143	100	73	55	42	33	27	22
		L/240	-	-	-	-	-	-	-	64	50	40	33
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	457	317	233	178	141	114	94	79	68	58	51
		Φf_b	724	503	370	283	224	181	150	126	107	92	80
		L/360	-	-	-	-	-	-	-	-	-	-	50
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	571	396	291	223	176	143	118	99	84	73	63
		Φf_b	905	629	462	354	279	226	187	157	134	115	101
		L/360	-	-	-	-	-	-	117	90	71	57	46
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/16	SS	f_b/Ω	370	257	189	144	114	92	76	64	55	47	41
		Φf_b	586	407	299	229	181	147	121	102	87	75	65
		L/360	-	-	-	-	105	76	57	44	35	28	23
		L/240	-	-	-	-	-	-	-	-	52	42	34
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	473	328	241	185	146	118	98	82	70	60	53
		Φf_b	750	521	383	293	231	187	155	130	111	96	83
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	577	401	295	226	178	144	119	100	85	74	64
		Φf_b	916	636	467	358	283	229	189	159	135	117	102
		L/360	-	-	-	-	-	-	-	99	78	62	51
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 84: 7.5DF-24 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
18/20	SS	f_b/Ω	596	414	304	233	184	149	123	103	88	76	66
		Φf_b	946	657	482	369	292	236	195	164	140	121	105
		L/360	-	-	266	179	125	91	69	53	42	33	27
		L/240	-	-	-	-	-	137	103	79	62	50	41
		L/180	-	-	-	-	-	-	-	-	83	67	54
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	515	358	263	201	159	129	106	89	76	66	57
		Φf_b	818	568	417	319	252	204	169	142	121	104	91
		L/360	-	-	-	-	-	-	-	-	-	-	56
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	644	447	329	252	199	161	133	112	95	82	72
		Φf_b	1022	710	521	399	315	255	211	177	151	130	114
		L/360	-	-	-	-	-	-	129	99	78	63	51
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/18	SS	f_b/Ω	613	426	313	239	189	153	127	106	91	78	68
		Φf_b	972	675	496	380	300	243	201	169	144	124	108
		L/360	-	-	288	193	136	99	74	57	45	36	29
		L/240	-	-	-	-	-	148	111	86	68	54	44
		L/180	-	-	-	-	-	-	-	-	90	72	59
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	589	409	301	230	182	147	122	102	87	75	65
		Φf_b	935	649	477	365	289	234	193	162	138	119	104
		L/360	-	-	-	-	-	-	-	-	-	-	61
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	737	512	376	288	227	184	152	128	109	94	82
		Φf_b	1169	812	596	457	361	292	241	203	173	149	130
		L/360	-	-	-	-	-	-	142	110	86	69	56
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/16	SS	f_b/Ω	608	422	310	237	188	152	126	106	90	78	68
		Φf_b	964	670	492	377	298	241	199	167	143	123	107
		L/360	-	-	305	204	143	105	79	60	48	38	31
		L/240	-	-	-	-	-	-	118	91	71	57	46
		L/180	-	-	-	-	-	-	-	-	-	76	62
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	612	425	312	239	189	153	126	106	91	78	68
		Φf_b	971	674	495	379	300	243	201	169	144	124	108
		L/360	-	-	-	-	-	-	-	-	-	-	67
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	765	531	390	299	236	191	158	133	113	98	85
		Φf_b	1213	843	619	474	374	303	251	211	179	155	135
		L/360	-	-	-	-	-	-	157	121	95	76	62
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 84: 7.5DF-24 Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	766	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	844	620	475	375	304	251	211	180	155	135
		L/360	-	508	320	214	151	110	82	64	50	40	33
		L/240	-	-	-	-	226	165	124	95	75	60	49
		L/180	-	-	-	-	-	-	-	127	100	80	65
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	600	417	306	234	185	150	124	104	89	77	67
		Φf_b	952	661	486	372	294	238	197	165	141	121	106
		L/360	-	-	-	-	-	-	-	-	-	-	66
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	750	521	383	293	232	188	155	130	111	96	83
		Φf_b	1190	827	607	465	367	298	246	207	176	152	132
		L/360	-	-	-	-	-	-	153	118	93	74	60
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/18	SS	f_b/Ω	784	544	400	306	242	196	162	136	116	100	87
		Φf_b	1243	863	634	486	384	311	257	216	184	159	138
		L/360	-	-	344	231	162	118	89	68	54	43	35
		L/240	-	-	-	-	-	177	133	103	81	65	52
		L/180	-	-	-	-	-	-	-	-	108	86	70
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	705	489	360	275	217	176	146	122	104	90	78
		Φf_b	1118	776	570	437	345	279	231	194	165	143	124
		L/360	-	-	-	-	-	-	-	-	-	89	72
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	881	612	449	344	272	220	182	153	130	112	98
		Φf_b	1397	970	713	546	431	349	289	243	207	178	155
		L/360	-	-	-	-	-	-	168	129	102	81	66
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/16	SS	f_b/Ω	799	555	408	312	247	200	165	139	118	102	89
		Φf_b	1268	881	647	495	391	317	262	220	188	162	141
		L/360	-	-	369	247	173	126	95	73	58	46	37
		L/240	-	-	-	-	-	190	142	110	86	69	56
		L/180	-	-	-	-	-	-	-	-	115	92	75
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	751	522	383	293	232	188	155	130	111	96	83
		Φf_b	1192	828	608	466	368	298	246	207	176	152	132
		L/360	-	-	-	-	-	-	-	-	-	-	79
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	939	652	479	367	290	235	194	163	139	120	104
		Φf_b	1490	1034	760	582	460	372	308	259	220	190	166
		L/360	-	-	-	-	-	-	185	142	112	90	73
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 85: 7.5DF-24 Shear and Flexibility
7.5DF-24 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	0.9 +23.9R	1.2 +19.9R	1.3 +17R	1.5 +14.9R	1.6 +13.3R	1.6 +11.9R	1.7 +10.8R	1.8 +9.9R	1.8 +9.2R
		6"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	1.3 +23.8R	1.5 +19.9R	1.7 +17R	1.8 +14.9R	1.9 +13.2R	2 +11.9R	2.1 +10.8R	2.1 +9.9R	2.2 +9.2R
		8"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	1.6 +23.8R	1.8 +19.8R	2 +17R	2.2 +14.9R	2.3 +13.2R	2.4 +11.9R	2.4 +10.8R	2.5 +9.9R	2.5 +9.2R
		12"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	2.2 +23.7R	2.5 +19.8R	2.7 +16.9R	2.8 +14.8R	3 +13.2R	3 +11.9R	3.1 +10.8R	3.2 +9.9R	3.2 +9.1R
		18"	q_a q_f	1639 2704	1639 2704	1639 2704	1538 2538	1367 2256	1230 2030	1118 1845	1025 1692	946 1562
			F	3.1 +23.6R	3.4 +19.6R	3.7 +16.8R	3.8 +14.7R	3.9 +13.1R	4 +11.8R	4.1 +10.7R	4.2 +9.8R	4.3 +9R
		24"	q_a q_f	1506 2485	1440 2376	1392 2296	1355 2236	1327 2189	1230 2030	1118 1845	1025 1692	946 1562
			F	4 +23.4R	4.3 +19.5R	4.5 +16.7R	4.7 +14.6R	4.9 +12.9R	5 +11.6R	5.1 +10.6R	5.2 +9.7R	5.2 +8.9R
	18 ga	4"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	0.7 +33.3R	1 +27.8R	1.2 +23.8R	1.4 +20.8R	1.6 +18.5R	1.7 +16.7R	1.8 +15.2R	1.8 +13.9R	1.9 +12.8R
		6"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	1.1 +33.3R	1.4 +27.8R	1.6 +23.8R	1.8 +20.8R	2 +18.5R	2.1 +16.7R	2.2 +15.1R	2.2 +13.9R	2.3 +12.8R
		8"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	1.4 +33.3R	1.8 +27.7R	2 +23.8R	2.2 +20.8R	2.4 +18.5R	2.5 +16.6R	2.6 +15.1R	2.6 +13.9R	2.7 +12.8R
		12"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	2.1 +33.2R	2.5 +27.7R	2.8 +23.7R	3 +20.7R	3.1 +18.4R	3.2 +16.6R	3.3 +15.1R	3.4 +13.8R	3.5 +12.8R
		18"	q_a q_f	1328 2192	1328 2192	1328 2192	1247 2057	1108 1828	997 1646	907 1496	831 1371	767 1266
			F	3.2 +33R	3.6 +27.5R	3.8 +23.6R	4.1 +20.6R	4.2 +18.3R	4.4 +16.5R	4.5 +15R	4.6 +13.7R	4.6 +12.7R
		24"	q_a q_f	1158 1911	1103 1820	1063 1755	1033 1705	1009 1665	990 1634	907 1496	831 1371	767 1266
			F	4.1 +32.8R	4.5 +27.3R	4.8 +23.4R	5.1 +20.5R	5.3 +18.2R	5.4 +16.3R	5.6 +14.9R	5.7 +13.6R	5.8 +12.6R
	20 ga	4"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	0.2 +48.9R	0.7 +40.8R	1 +34.9R	1.3 +30.6R	1.5 +27.2R	1.6 +24.5R	1.8 +22.2R	1.9 +20.4R	2 +18.8R
		6"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	0.6 +48.9R	1.1 +40.7R	1.5 +34.9R	1.7 +30.6R	1.9 +27.2R	2.1 +24.4R	2.2 +22.2R	2.4 +20.4R	2.5 +18.8R
		8"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	1 +48.8R	1.5 +40.7R	1.9 +34.9R	2.2 +30.5R	2.4 +27.1R	2.6 +24.4R	2.7 +22.2R	2.8 +20.3R	2.9 +18.8R
		12"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	1.9 +48.7R	2.4 +40.6R	2.8 +34.8R	3.1 +30.5R	3.3 +27.1R	3.5 +24.4R	3.6 +22.1R	3.7 +20.3R	3.8 +18.7R
		18"	q_a q_f	814 1343	814 1343	814 1343	764 1260	679 1120	611 1008	556 917	509 840	470 776
			F	3 +48.5R	3.6 +40.4R	4 +34.6R	4.3 +30.3R	4.6 +26.9R	4.7 +24.2R	4.9 +22R	5 +20.2R	5.1 +18.6R
		24"	q_a q_f	758 1250	725 1196	701 1157	683 1127	669 1104	611 1008	556 917	509 840	470 776
			F	4.1 +48.3R	4.7 +40.2R	5.2 +34.5R	5.5 +30.1R	5.8 +26.8R	6 +24.1R	6.2 +21.9R	6.3 +20R	6.4 +18.5R

7.5DF-24 24/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

TABLE 86: 7.5DF-24 Shear and Flexibility (continued)
7.5DF-24 with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	667 1074	667 1074	667 1074	626 1008	557 896	501 806	455 733	417 672	385 620
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		18"	q_a q_f	604 1074	559 899	564 909	535 861	512 824	501 806	455 733	417 672	385 620
			F	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	496 799	467 752	446 718	430 692	417 672	407 655	399 642	392 631	385 620
			F	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	533 859	533 859	533 859	500 806	445 716	400 645	364 586	334 537	308 496
			F	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	533 859	533 859	525 845	500 806	445 716	400 645	364 586	334 537	308 496
			F	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	451 859	416 670	418 674	395 637	377 608	383 617	364 586	334 537	308 496
			F	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	373 600	349 562	332 534	319 513	309 497	300 484	294 473	288 464	283 456
			F	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0 +0.7R	0 +0.6R	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0.1 +0.3R
		6"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0 +0.7R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R
		8"	q_a q_f	401 645	401 645	401 645	376 605	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.7R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R
		12"	q_a q_f	385 620	369 595	358 576	349 562	334 538	301 484	273 440	251 403	231 372
			F	0.1 +0.7R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R
		18"	q_a q_f	312 620	286 460	286 460	269 433	256 412	259 417	249 401	241 388	231 372
			F	0.2 +0.7R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R
		24"	q_a q_f	259 418	241 388	228 367	218 351	211 339	204 329	199 321	195 314	191 308
			F	0.2 +0.7R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R

7.5DF-24 24/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

FIGURE 51: 4.5D-12AW Profile

TABLE 87: 4.5D-12AW Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	2.65	0.0359	40	55	0.840	2.763	2.40	2.100	1.151	1.813
18	3.57	0.0478	40	55	1.118	3.655	2.40	2.100	1.523	1.808
16	4.48	0.0598	40	55	1.397	4.544	2.40	2.100	1.893	1.804
14	5.66	0.0750	40	55	1.750	5.654	2.40	2.100	2.356	1.798

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	0.798	1.089	2.26	1.137	2.41	2.465	2.738	2.564	2.746
18	1.154	1.509	2.33	1.526	2.39	3.519	3.653	3.564	3.653
16	1.442	1.900	2.39	1.900	2.39	4.544	4.544	4.544	4.544
14	1.807	2.364	2.39	2.364	2.39	5.654	5.654	5.654	5.654

TABLE 88: 4.5D-12AW Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	355	439	557	707	543	671	852	1082
	Interior	627	750	924	1145	933	1116	1374	1703
18	End	624	761	956	1232	954	1165	1463	1885
	Interior	1099	1298	1579	1978	1634	1931	2349	2942
16	End	965	1166	1452	1856	1476	1785	2222	2840
	Interior	1699	1988	2396	2973	2528	2957	3564	4423
14	End	1495	1790	2208	2799	2287	2739	3378	4282
	Interior	2636	3055	3646	4483	3922	4544	5424	6668
Constants		h = 4.5"		r = 0.25"		θ = 90°			

TABLE 89: 4.5D-12AW Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	174	121	89	68	54	43	36	30	26	22	19
		Φf_b	276	192	141	108	85	69	57	48	41	35	31
		L/360	112	65	41	27	19	14	11	8	6	5	4
		L/240	168	97	61	41	29	21	16	12	10	8	6
		L/180	-	-	82	55	38	28	21	16	13	10	8
		L/120	-	-	-	-	-	42	32	24	19	15	12
	DS	f_b/Ω	182	126	93	71	56	45	38	32	27	23	20
		Φf_b	288	200	147	113	89	72	60	50	43	37	32
		L/360	-	-	-	71	50	36	27	21	16	13	11
		L/240	-	-	-	-	-	-	-	31	25	20	16
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	227	158	116	89	70	57	47	39	34	29	25
		Φf_b	360	250	184	141	111	90	74	63	53	46	40
		L/360	-	153	97	65	45	33	25	19	15	12	10
		L/240	-	-	-	-	68	50	37	29	23	18	15
		L/180	-	-	-	-	-	-	-	38	30	24	20
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	241	167	123	94	74	60	50	42	36	31	27
		Φf_b	382	266	195	149	118	96	79	66	57	49	42
		L/360	156	90	57	38	27	19	15	11	9	7	6
		L/240	234	135	85	57	40	29	22	17	13	11	9
		L/180	-	-	114	76	53	39	29	23	18	14	12
		L/120	-	-	-	-	-	58	44	34	27	21	17
	DS	f_b/Ω	244	169	124	95	75	61	50	42	36	31	27
		Φf_b	387	269	197	151	119	97	80	67	57	49	43
		L/360	-	-	-	94	66	48	36	28	22	18	14
		L/240	-	-	-	-	-	-	-	42	33	26	21
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	305	212	155	119	94	76	63	53	45	39	34
		Φf_b	483	336	247	189	149	121	100	84	72	62	54
		L/360	-	204	128	86	60	44	33	25	20	16	13
		L/240	-	-	-	-	91	66	50	38	30	24	20
		L/180	-	-	-	-	-	-	-	51	40	32	26
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 89: 4.5D-12AW Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	303	211	155	118	94	76	63	53	45	39	34
		Φf_b	481	334	246	188	149	120	99	84	71	61	53
		L/360	199	115	72	48	34	25	19	14	11	9	7
		L/240	298	172	109	73	51	37	28	22	17	14	11
		L/180	-	-	145	97	68	50	37	29	23	18	15
		L/120	-	-	-	-	-	74	56	43	34	27	22
	DS	f_b/Ω	303	211	155	118	94	76	63	53	45	39	34
		Φf_b	481	334	246	188	149	120	99	84	71	61	53
		L/360	-	-	-	117	82	60	45	35	27	22	18
		L/240	-	-	-	-	-	-	-	52	41	33	27
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	379	263	193	148	117	95	78	66	56	48	42
		Φf_b	602	418	307	235	186	150	124	104	89	77	67
		L/360	-	254	160	107	75	55	41	32	25	20	16
		L/240	-	-	-	-	113	82	62	48	37	30	24
		L/180	-	-	-	-	-	-	-	63	50	40	32
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	377	262	193	147	116	94	78	66	56	48	42
		Φf_b	599	416	306	234	185	150	124	104	89	76	67
		L/360	247	143	90	60	42	31	23	18	14	11	9
		L/240	371	214	135	90	64	46	35	27	21	17	14
		L/180	-	-	180	121	85	62	46	36	28	23	18
		L/120	-	-	-	-	-	93	70	54	42	34	27
	DS	f_b/Ω	377	262	193	147	116	94	78	66	56	48	42
		Φf_b	599	416	306	234	185	150	124	104	89	76	67
		L/360	-	-	-	145	102	74	56	43	34	27	22
		L/240	-	-	-	-	-	-	-	65	51	41	33
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	472	328	241	184	146	118	97	82	70	60	52
		Φf_b	749	520	382	292	231	187	155	130	111	95	83
		L/360	-	316	199	133	94	68	51	39	31	25	20
		L/240	-	-	-	-	140	102	77	59	47	37	30
		L/180	-	-	-	-	-	-	-	79	62	50	40
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 90a: 4.5D-12AW Shear and Flexibility
4.5D-12AW with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	2 +18.8R	2.2 +15.7R	2.3 +13.4R	2.4 +11.8R	2.5 +10.5R	2.5 +9.4R	2.6 +8.6R	2.6 +7.8R	2.7 +7.2R
		6"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	2.6 +18.8R	2.8 +15.7R	2.9 +13.4R	3 +11.8R	3.1 +10.4R	3.2 +9.4R	3.2 +8.5R	3.3 +7.8R	3.3 +7.2R
		8"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	3.2 +18.8R	3.4 +15.6R	3.6 +13.4R	3.7 +11.7R	3.8 +10.4R	3.8 +9.4R	3.9 +8.5R	3.9 +7.8R	4 +7.2R
		12"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	4.5 +18.7R	4.7 +15.6R	4.9 +13.4R	5 +11.7R	5.1 +10.4R	5.1 +9.3R	5.2 +8.5R	5.2 +7.8R	5.3 +7.2R
		18"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	1990 3283	2019 3331	2007 3312	1964 3241	2019 3331
			F	6.3 +18.5R	6.5 +15.4R	6.7 +13.2R	6.8 +11.6R	6.9 +10.3R	7 +9.3R	7.1 +8.4R	7.1 +7.7R	7.2 +7.1R
		24"	q_a q_f	1661 2740	1628 2686	1605 2648	1587 2619	1573 2596	1562 2578	1553 2563	1546 2550	1539 2540
			F	8 +18.3R	8.3 +15.3R	8.5 +13.1R	8.7 +11.4R	8.8 +10.2R	8.9 +9.1R	9 +8.3R	9 +7.6R	9.1 +7R
	16 ga	4"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	1.7 +33.2R	2.1 +27.6R	2.3 +23.7R	2.5 +20.7R	2.6 +18.4R	2.7 +16.6R	2.8 +15.1R	2.9 +13.8R	3 +12.8R
		6"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	2.4 +33.2R	2.8 +27.6R	3 +23.7R	3.2 +20.7R	3.3 +18.4R	3.5 +16.6R	3.5 +15.1R	3.6 +13.8R	3.7 +12.8R
		8"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	3.2 +33.1R	3.5 +27.6R	3.7 +23.7R	3.9 +20.7R	4.1 +18.4R	4.2 +16.6R	4.3 +15.1R	4.4 +13.8R	4.4 +12.7R
		12"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	4.5 +33R	4.9 +27.5R	5.2 +23.6R	5.3 +20.6R	5.5 +18.3R	5.6 +16.5R	5.7 +15R	5.8 +13.8R	5.9 +12.7R
		18"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1499 2442	1526 2442	1512 2442	1478 2439	1520 2442
			F	6.6 +32.9R	7 +27.4R	7.2 +23.5R	7.4 +20.5R	7.6 +18.2R	7.7 +16.4R	7.8 +14.9R	7.9 +13.7R	8 +12.6R
		24"	q_a q_f	1255 2070	1227 2025	1208 1993	1193 1969	1182 1950	1173 1935	1165 1923	1159 1912	1154 1903
			F	8.5 +32.6R	8.9 +27.2R	9.3 +23.3R	9.5 +20.4R	9.7 +18.1R	9.8 +16.3R	9.9 +14.8R	10 +13.6R	10.1 +12.5R
	18 ga	4"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	1 +58.1R	1.6 +48.4R	2 +41.5R	2.3 +36.3R	2.5 +32.3R	2.7 +29R	2.9 +26.4R	3 +24.2R	3.1 +22.3R
		6"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	1.8 +58.1R	2.4 +48.4R	2.8 +41.5R	3.1 +36.3R	3.3 +32.3R	3.5 +29R	3.7 +26.4R	3.8 +24.2R	3.9 +22.3R
		8"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	2.6 +58R	3.2 +48.4R	3.6 +41.4R	3.9 +36.3R	4.1 +32.2R	4.3 +29R	4.5 +26.4R	4.6 +24.2R	4.8 +22.3R
		12"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	4.1 +57.9R	4.7 +48.3R	5.2 +41.4R	5.5 +36.2R	5.8 +32.2R	6 +29R	6.1 +26.3R	6.3 +24.1R	6.4 +22.3R
		18"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	6.4 +57.7R	7 +48.1R	7.5 +41.2R	7.8 +36.1R	8.1 +32.1R	8.3 +28.8R	8.5 +26.2R	8.7 +24R	8.8 +22.2R
		24"	q_a q_f	950 1567	927 1530	911 1504	899 1484	890 1468	882 1456	876 1445	871 1437	866 1430
			F	8.5 +57.5R	9.2 +47.9R	9.7 +41R	10.1 +35.9R	10.4 +31.9R	10.7 +28.7R	10.8 +26.1R	11 +23.9R	11.1 +22.1R
	20 ga	4"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	-1.5 +118.9R	-0.3 +99R	0.6 +84.9R	1.2 +74.3R	1.7 +66R	2.1 +59.4R	2.4 +54R	2.7 +49.5R	2.9 +45.7R
		6"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	-0.6 +118.8R	0.6 +99R	1.5 +84.9R	2.1 +74.3R	2.6 +66R	3 +59.4R	3.4 +54R	3.6 +49.5R	3.9 +45.7R
		8"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	0.4 +118.8R	1.6 +99R	2.4 +84.8R	3.1 +74.2R	3.6 +66R	4 +59.4R	4.3 +54R	4.6 +49.5R	4.8 +45.7R
		12"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	2.2 +118.7R	3.4 +98.9R	4.2 +84.8R	4.9 +74.2R	5.4 +65.9R	5.8 +59.3R	6.2 +53.9R	6.4 +49.4R	6.7 +45.6R
		18"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	4.8 +118.4R	6 +98.7R	6.9 +84.6R	7.6 +74R	8.1 +65.8R	8.6 +59.2R	8.9 +53.8R	9.2 +49.3R	9.4 +45.5R
		24"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	584 935
			F	7.3 +118.1R	8.6 +98.4R	9.5 +84.4R	10.2 +73.8R	10.8 +65.6R	11.2 +59R	11.6 +53.7R	11.9 +49.2R	12.2 +45.4R

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

TABLE 90b: 4.5D-12AW Shear and Flexibility (continued)
4.5DAW-12 with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	2 +18.8R	2.1 +15.7R	2.3 +13.4R	2.4 +11.8R	2.5 +10.5R	2.5 +9.4R	2.6 +8.5R	2.6 +7.8R	2.7 +7.2R
		6"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	2.6 +18.8R	2.8 +15.6R	2.9 +13.4R	3 +11.7R	3.1 +10.4R	3.2 +9.4R	3.2 +8.5R	3.3 +7.8R	3.3 +7.2R
		8"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	3.2 +18.7R	3.4 +15.6R	3.5 +13.4R	3.7 +11.7R	3.7 +10.4R	3.8 +9.4R	3.9 +8.5R	3.9 +7.8R	4 +7.2R
		12"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	4.3 +18.6R	4.6 +15.5R	4.7 +13.3R	4.9 +11.6R	5 +10.3R	5 +9.3R	5.1 +8.4R	5.2 +7.7R	5.2 +7.1R
		18"	q_a q_f	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331	2019 3331
			F	6 +18.3R	6.3 +15.3R	6.5 +13.1R	6.6 +11.4R	6.8 +10.1R	6.9 +9.1R	6.9 +8.3R	7 +7.6R	7.1 +7R
		24"	q_a q_f	1942 3203	1872 3090	1823 3008	1786 2947	1757 2900	1733 2860	1713 2827	1696 2799	1682 2775
			F	7.5 +18R	7.8 +15R	8.1 +12.8R	8.3 +11.2R	8.5 +9.9R	8.6 +8.9R	8.7 +8.1R	8.8 +7.4R	8.8 +6.8R
	16 ga	4"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	1.7 +33.2R	2 +27.6R	2.3 +23.7R	2.5 +20.7R	2.6 +18.4R	2.7 +16.6R	2.8 +15.1R	2.9 +13.8R	2.9 +12.8R
		6"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	2.4 +33.1R	2.7 +27.6R	3 +23.7R	3.2 +20.7R	3.3 +18.4R	3.4 +16.6R	3.5 +15.1R	3.6 +13.8R	3.7 +12.7R
		8"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	3.1 +33.1R	3.4 +27.5R	3.7 +23.6R	3.9 +20.7R	4 +18.4R	4.1 +16.5R	4.2 +15R	4.3 +13.8R	4.4 +12.7R
		12"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	4.4 +32.9R	4.8 +27.4R	5 +23.5R	5.2 +20.6R	5.4 +18.3R	5.5 +16.4R	5.6 +14.9R	5.7 +13.7R	5.8 +12.6R
		18"	q_a q_f	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442	1526 2442
			F	6.2 +32.6R	6.7 +27.2R	7 +23.3R	7.2 +20.3R	7.4 +18.1R	7.6 +16.3R	7.7 +14.8R	7.8 +13.5R	7.9 +12.5R
		24"	q_a q_f	1466 2419	1410 2327	1370 2261	1340 2211	1317 2173	1298 2142	1283 2117	1270 2096	1259 2078
			F	7.9 +32.3R	8.4 +26.8R	8.8 +23R	9.1 +20.1R	9.3 +17.8R	9.5 +16R	9.6 +14.6R	9.8 +13.3R	9.9 +12.3R
	18 ga	4"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	0.9 +58.1R	1.5 +48.4R	2 +41.5R	2.3 +36.3R	2.5 +32.3R	2.7 +29R	2.9 +26.4R	3 +24.2R	3.1 +22.3R
		6"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	1.7 +58R	2.3 +48.4R	2.7 +41.4R	3.1 +36.3R	3.3 +32.2R	3.5 +29R	3.7 +26.4R	3.8 +24.2R	3.9 +22.3R
		8"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	2.5 +58R	3.1 +48.3R	3.5 +41.4R	3.8 +36.2R	4.1 +32.2R	4.3 +29R	4.5 +26.3R	4.6 +24.1R	4.7 +22.3R
		12"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	3.9 +57.8R	4.6 +48.2R	5 +41.3R	5.4 +36.1R	5.6 +32.1R	5.9 +28.9R	6 +26.3R	6.2 +24.1R	6.3 +22.2R
		18"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606	1004 1606
			F	6 +57.5R	6.7 +47.9R	7.2 +41R	7.6 +35.9R	7.9 +31.9R	8.1 +28.7R	8.3 +26.1R	8.5 +23.9R	8.6 +22R
		24"	q_a q_f	1004 1606	1004 1606	1004 1606	1004 1606	990 1606	975 1606	963 1589	953 1572	944 1557
			F	7.9 +57.1R	8.7 +47.5R	9.2 +40.7R	9.7 +35.6R	10 +31.6R	10.3 +28.4R	10.5 +25.8R	10.7 +23.7R	10.9 +21.8R
	20 ga	4"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	-1.5 +118.8R	-0.3 +99R	0.5 +84.9R	1.2 +74.3R	1.7 +66R	2.1 +59.4R	2.4 +54R	2.7 +49.5R	2.9 +45.7R
		6"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	-0.6 +118.8R	0.6 +99R	1.4 +84.8R	2.1 +74.2R	2.6 +66R	3 +59.4R	3.3 +54R	3.6 +49.5R	3.8 +45.7R
		8"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	0.3 +118.7R	1.5 +98.9R	2.3 +84.8R	3 +74.2R	3.5 +65.9R	3.9 +59.3R	4.2 +53.9R	4.5 +49.5R	4.8 +45.6R
		12"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	1.9 +118.5R	3.2 +98.7R	4.1 +84.6R	4.8 +74R	5.3 +65.8R	5.7 +59.2R	6.1 +53.8R	6.3 +49.4R	6.6 +45.6R
		18"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	4.3 +118.1R	5.6 +98.4R	6.6 +84.3R	7.3 +73.8R	7.9 +65.6R	8.3 +59R	8.7 +53.6R	9 +49.2R	9.2 +45.4R
		24"	q_a q_f	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935	585 935
			F	6.5 +117.7R	7.9 +98R	9 +84R	9.7 +73.4R	10.3 +65.3R	10.8 +58.7R	11.2 +53.4R	11.5 +48.9R	11.8 +45.1R

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

TABLE 91a: 4.5D-12AW Shear and Flexibility
4.5D-12AW with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		6"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		8"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		12"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
		18"	q_a q_f	685 1347	646 1040	673 1084	645 1039	623 1003	644 1038	627 1009	611 985	629 1013
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
		24"	q_a q_f	525 845	512 824	503 810	495 797	489 787	484 779	480 773	477 767	474 763
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	658 1060	649 1044	641 1033	636 1024	632 1017	628 1012	626 1007	623 1004	621 1000
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	500 1060	471 758	489 788	468 754	452 727	467 752	454 730	442 712	455 732
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	380 612	370 596	363 584	357 576	353 569	350 563	347 559	344 554	342 551
			F	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	483 778	475 765	469 755	465 748	461 742	458 738	456 734	454 731	452 728
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	367 778	344 554	357 575	341 549	329 529	339 546	329 530	321 516	330 531
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
		24"	q_a q_f	277 445	269 432	263 423	259 416	255 411	253 407	250 403	249 400	247 398
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.3 +0.3R	0.3 +0.3R	0.3 +0.3R	0.3 +0.2R	0.3 +0.2R	0.3 +0.2R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +1.7R	0 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R
		12"	q_a q_f	325 523	319 513	314 505	310 500	308 495	305 492	304 489	302 486	301 484
			F	0.2 +1.7R	0.2 +1.4R	0.2 +1.2R	0.2 +1R	0.2 +0.9R	0.2 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R
		18"	q_a q_f	244 523	228 368	238 384	227 366	218 352	225 363	219 352	213 342	218 352
			F	0.3 +1.7R	0.3 +1.4R	0.3 +1.2R	0.3 +1R	0.3 +0.9R	0.3 +0.8R	0.3 +0.8R	0.3 +0.7R	0.3 +0.6R
		24"	q_a q_f	185 298	179 288	175 281	171 276	169 272	167 269	165 266	164 264	163 262
			F	0.4 +1.7R	0.4 +1.4R	0.4 +1.2R	0.4 +1R	0.4 +0.9R	0.4 +0.8R	0.4 +0.8R	0.4 +0.7R	0.4 +0.6R

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

TABLE 91b: 4.5D-12AW Shear and Flexibility (continued)
4.5D-12AW with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		6"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		8"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		12"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
		18"	q_a q_f	801 1347	743 1196	765 1232	726 1168	695 1119	715 1151	691 1113	671 1080	687 1106
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
		24"	q_a q_f	621 1000	593 954	572 921	557 897	545 877	535 862	528 850	521 839	516 830
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	585 1074	541 871	555 894	526 846	503 810	517 832	499 803	484 779	496 798
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	457 736	434 699	418 673	406 653	396 638	389 626	382 616	377 607	373 600
			F	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	533 859	533 859	533 859	524 843	516 830	509 820	504 812	500 804	496 798
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	430 859	396 638	405 652	383 617	366 589	375 604	362 582	351 564	359 578
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
		24"	q_a q_f	338 545	320 515	307 494	297 478	290 466	283 456	279 448	274 442	271 436
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.3 +0.3R	0.3 +0.3R	0.3 +0.3R	0.3 +0.2R	0.3 +0.2R	0.3 +0.2R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +1.7R	0 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.1 +0.8R	0.1 +0.7R	0.1 +0.6R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +1.7R	0.1 +1.4R	0.1 +1.2R	0.1 +1R	0.1 +0.9R	0.1 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R
		12"	q_a q_f	380 612	366 590	357 574	349 562	343 553	339 546	335 539	332 534	329 529
			F	0.2 +1.7R	0.2 +1.4R	0.2 +1.2R	0.2 +1R	0.2 +0.9R	0.2 +0.8R	0.2 +0.8R	0.2 +0.7R	0.2 +0.6R
		18"	q_a q_f	291 612	267 430	271 437	256 412	244 393	250 402	240 387	233 375	238 383
			F	0.3 +1.7R	0.3 +1.4R	0.3 +1.2R	0.3 +1R	0.3 +0.9R	0.3 +0.8R	0.3 +0.8R	0.3 +0.7R	0.3 +0.6R
		24"	q_a q_f	231 372	217 350	208 334	200 322	195 313	190 306	186 300	183 295	181 291
			F	0.4 +1.7R	0.4 +1.4R	0.4 +1.2R	0.4 +1R	0.4 +0.9R	0.4 +0.8R	0.4 +0.8R	0.4 +0.7R	0.4 +0.6R

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

FIGURE 52: 6D-12AW Profile

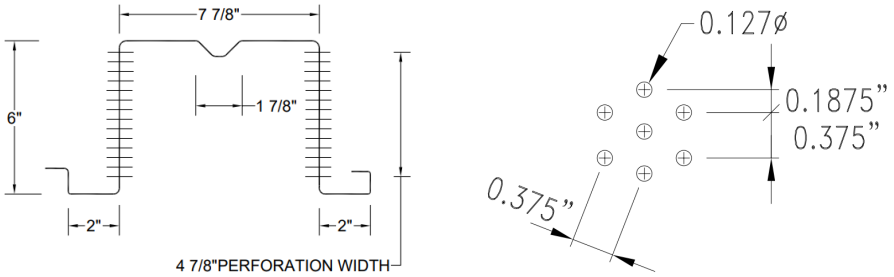


TABLE 92: 6D-12AW Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_{gbot}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	3.06	0.0359	40	55	0.948	5.391	3.16	2.841	1.706	2.385
18	4.06	0.0478	40	55	1.261	7.144	3.16	2.841	2.261	2.380
16	5.08	0.0598	40	55	1.576	8.895	3.16	2.841	2.816	2.376
14	6.37	0.0750	40	55	1.975	11.090	3.16	2.841	3.510	2.370

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A.	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	0.906	1.602	3.02	1.672	3.18	4.842	5.314	5.025	5.340
18	1.262	2.246	3.06	2.274	3.14	6.875	7.140	6.964	7.141
16	1.622	2.834	3.14	2.834	3.14	8.895	8.895	8.895	8.895
14	2.032	3.534	3.14	3.534	3.14	11.090	11.090	11.090	11.090

TABLE 93: 6D-12AW Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	332	410	521	662	508	628	797	1012
	Interior	622	744	917	1136	926	1107	1364	1690
18	End	591	721	906	1166	903	1103	1385	1785
	Interior	1092	1289	1569	1965	1624	1918	2334	2922
16	End	920	1113	1386	1771	1408	1703	2120	2710
	Interior	1689	1976	2382	2956	2513	2940	3543	4397
14	End	1435	1719	2120	2688	2196	2630	3244	4112
	Interior	2623	3039	3627	4459	3901	4520	5395	6633
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 94: 6D-12AW Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	256	178	130	100	79	64	53	44	38	33	28
		Φf_b	406	282	207	158	125	101	84	70	60	52	45
		L/360	220	127	80	54	38	27	21	16	12	10	8
		L/240	-	-	120	80	56	41	31	24	19	15	12
		L/180	-	-	-	-	75	55	41	32	25	20	16
		L/120	-	-	-	-	-	-	-	-	37	30	24
	DS	f_b/Ω	267	185	136	104	82	67	55	46	39	34	30
		Φf_b	424	294	216	165	131	106	88	74	63	54	47
		L/360	-	-	-	-	-	-	53	41	32	26	21
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	334	232	170	130	103	83	69	58	49	43	37
		Φf_b	529	368	270	207	163	132	109	92	78	68	59
		L/360	-	-	-	126	88	64	48	37	29	23	19
		L/240	-	-	-	-	-	-	-	56	44	35	29
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	359	249	183	140	111	90	74	62	53	46	40
		Φf_b	569	395	290	222	176	142	118	99	84	73	63
		L/360	304	176	111	74	52	38	29	22	17	14	11
		L/240	-	-	166	111	78	57	43	33	26	21	17
		L/180	-	-	-	-	104	76	57	44	35	28	23
		L/120	-	-	-	-	-	-	-	-	52	42	34
	DS	f_b/Ω	363	252	185	142	112	91	75	63	54	46	40
		Φf_b	576	400	294	225	178	144	119	100	85	73	64
		L/360	-	-	-	-	-	-	71	54	43	34	28
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	454	315	232	177	140	113	94	79	67	58	50
		Φf_b	720	500	367	281	222	180	149	125	107	92	80
		L/360	-	-	-	168	118	86	65	50	39	31	26
		L/240	-	-	-	-	-	-	-	75	59	47	38
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 94: 6D-12AW Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	453	314	231	177	140	113	94	79	67	58	50
		Φf_b	718	499	366	280	222	179	148	125	106	92	80
		L/360	389	225	142	95	67	49	37	28	22	18	14
		L/240	-	-	213	142	100	73	55	42	33	27	22
		L/180	-	-	-	-	133	97	73	56	44	35	29
		L/120	-	-	-	-	-	-	-	-	66	53	43
	DS	f_b/Ω	453	314	231	177	140	113	94	79	67	58	50
		Φf_b	718	499	366	280	222	179	148	125	106	92	80
		L/360	-	-	-	-	-	-	88	68	53	43	35
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	566	393	289	221	175	141	117	98	84	72	63
		Φf_b	897	623	458	351	277	224	185	156	133	114	100
		L/360	-	-	-	209	147	107	81	62	49	39	32
		L/240	-	-	-	-	-	-	-	93	73	59	48
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	564	392	288	220	174	141	117	98	83	72	63
		Φf_b	895	622	457	350	276	224	185	155	132	114	99
		L/360	485	280	177	118	83	61	46	35	28	22	18
		L/240	-	-	265	177	125	91	68	53	41	33	27
		L/180	-	-	-	-	166	121	91	70	55	44	36
		L/120	-	-	-	-	-	-	-	-	83	66	54
	DS	f_b/Ω	564	392	288	220	174	141	117	98	83	72	63
		Φf_b	895	622	457	350	276	224	185	155	132	114	99
		L/360	-	-	-	-	-	-	110	84	66	53	43
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	705	490	360	276	218	176	146	122	104	90	78
		Φf_b	1119	777	571	437	345	280	231	194	166	143	124
		L/360	-	-	-	261	183	134	100	77	61	49	40
		L/240	-	-	-	-	-	-	-	116	91	73	59
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 95a: 6D-12AW Shear and Flexibility
6D-12AW with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)								
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	1.5 +31.5R	1.8 +26.2R	2 +22.5R	2.2 +19.7R	2.3 +17.5R	2.4 +15.7R	2.5 +14.3R	2.6 +13.1R	2.7 +12.1R
		6"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	2.1 +31.5R	2.5 +26.2R	2.7 +22.5R	2.9 +19.7R	3 +17.5R	3.1 +15.7R	3.2 +14.3R	3.3 +13.1R	3.3 +12.1R
		8"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	2.8 +31.4R	3.1 +26.2R	3.3 +22.5R	3.5 +19.7R	3.6 +17.5R	3.7 +15.7R	3.8 +14.3R	3.9 +13.1R	4 +12.1R
		12"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	4 +31.4R	4.4 +26.1R	4.6 +22.4R	4.8 +19.6R	4.9 +17.4R	5 +15.7R	5.1 +14.3R	5.2 +13.1R	5.3 +12.1R
		18"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	5.8 +31.2R	6.2 +26R	6.5 +22.3R	6.6 +19.5R	6.8 +17.3R	6.9 +15.6R	7 +14.2R	7.1 +13R	7.2 +12R
		24"	q_a q_f	1661 2674	1628 2674	1605 2648	1587 2619	1573 2596	1562 2578	1553 2563	1546 2550	1539 2540
			F	7.5 +31R	8 +25.8R	8.3 +22.1R	8.5 +19.4R	8.6 +17.2R	8.8 +15.5R	8.9 +14.1R	9 +12.9R	9.1 +11.9R
	16 ga	4"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	0.7 +55.5R	1.3 +46.2R	1.7 +39.6R	2 +34.7R	2.2 +30.8R	2.4 +27.7R	2.6 +25.2R	2.7 +23.1R	2.8 +21.3R
		6"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	1.5 +55.5R	2 +46.2R	2.4 +39.6R	2.7 +34.7R	3 +30.8R	3.1 +27.7R	3.3 +25.2R	3.4 +23.1R	3.5 +21.3R
		8"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	2.2 +55.4R	2.7 +46.2R	3.1 +39.6R	3.4 +34.6R	3.7 +30.8R	3.9 +27.7R	4 +25.2R	4.2 +23.1R	4.3 +21.3R
		12"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	3.6 +55.4R	4.1 +46.1R	4.6 +39.5R	4.9 +34.6R	5.1 +30.7R	5.3 +27.7R	5.5 +25.2R	5.6 +23.1R	5.7 +21.3R
		18"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	5.6 +55.2R	6.2 +46R	6.6 +39.4R	7 +34.5R	7.2 +30.6R	7.4 +27.6R	7.6 +25.1R	7.7 +23R	7.9 +21.2R
		24"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	7.5 +54.9R	8.2 +45.8R	8.7 +39.2R	9 +34.3R	9.3 +30.5R	9.5 +27.4R	9.7 +24.9R	9.8 +22.9R	10 +21.1R
	18 ga	4"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	-0.9 +97.2R	0.1 +81R	0.7 +69.4R	1.3 +60.7R	1.7 +54R	2 +48.6R	2.3 +44.2R	2.5 +40.5R	2.7 +37.4R
		6"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	-0.1 +97.1R	0.9 +80.9R	1.6 +69.4R	2.1 +60.7R	2.5 +54R	2.8 +48.6R	3.1 +44.1R	3.3 +40.5R	3.5 +37.4R
		8"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	0.7 +97.1R	1.7 +80.9R	2.4 +69.4R	2.9 +60.7R	3.3 +53.9R	3.6 +48.5R	3.9 +44.1R	4.1 +40.5R	4.3 +37.3R
		12"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	2.2 +97R	3.2 +80.8R	3.9 +69.3R	4.5 +60.6R	4.9 +53.9R	5.2 +48.5R	5.5 +44.1R	5.7 +40.4R	5.9 +37.3R
		18"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	4.5 +96.8R	5.5 +80.7R	6.3 +69.1R	6.8 +60.5R	7.3 +53.8R	7.6 +48.4R	7.9 +44R	8.1 +40.3R	8.3 +37.2R
		24"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	6.7 +96.5R	7.7 +80.4R	8.5 +68.9R	9.1 +60.3R	9.6 +53.6R	9.9 +48.2R	10.2 +43.8R	10.5 +40.2R	10.7 +37.1R
	20 ga	4"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-5.7 +198.8R	-3.7 +165.6R	-2.3 +142R	-1.2 +124.2R	-0.4 +110.4R	0.3 +99.4R	0.8 +90.3R	1.3 +82.8R	1.7 +76.4R
		6"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-4.7 +198.7R	-2.7 +165.6R	-1.3 +142R	-0.3 +124.2R	0.6 +110.4R	1.2 +99.4R	1.8 +90.3R	2.2 +82.8R	2.6 +76.4R
		8"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-3.8 +198.7R	-1.8 +165.6R	-0.4 +141.9R	0.7 +124.2R	1.5 +110.4R	2.2 +99.3R	2.7 +90.3R	3.2 +82.8R	3.6 +76.4R
		12"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-2 +198.6R	0 +165.5R	1.4 +141.8R	2.5 +124.1R	3.4 +110.3R	4 +99.3R	4.6 +90.3R	5 +82.7R	5.4 +76.4R
		18"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	0.6 +198.4R	2.6 +165.3R	4.1 +141.7R	5.2 +124R	6.1 +110.2R	6.8 +99.2R	7.3 +90.1R	7.8 +82.6R	8.2 +76.3R
		24"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	3.1 +198.1R	5.2 +165R	6.7 +141.4R	7.9 +123.7R	8.7 +110R	9.4 +99R	10 +90R	10.5 +82.5R	10.9 +76.1R

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

TABLE 95b: 6D-12AW Shear and Flexibility (continued)
6D-12AW with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	1.5 +31.5R	1.8 +26.2R	2 +22.5R	2.2 +19.7R	2.3 +17.5R	2.4 +15.7R	2.5 +14.3R	2.6 +13.1R	2.7 +12.1R
		6"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	2.1 +31.4R	2.4 +26.2R	2.7 +22.5R	2.8 +19.6R	3 +17.5R	3.1 +15.7R	3.2 +14.3R	3.2 +13.1R	3.3 +12.1R
		8"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	2.7 +31.4R	3 +26.2R	3.3 +22.4R	3.5 +19.6R	3.6 +17.4R	3.7 +15.7R	3.8 +14.3R	3.9 +13.1R	3.9 +12.1R
		12"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	3.9 +31.3R	4.2 +26R	4.5 +22.3R	4.7 +19.5R	4.8 +17.4R	5 +15.6R	5.1 +14.2R	5.1 +13R	5.2 +12R
		18"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	5.5 +31R	5.9 +25.8R	6.2 +22.1R	6.4 +19.3R	6.6 +17.2R	6.8 +15.5R	6.9 +14R	7 +12.9R	7.1 +11.9R
		24"	q_a q_f	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674	1671 2674
			F	7 +30.7R	7.5 +25.5R	7.9 +21.9R	8.1 +19.1R	8.3 +17R	8.5 +15.3R	8.6 +13.9R	8.7 +12.7R	8.8 +11.7R
	16 ga	4"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	0.7 +55.5R	1.3 +46.2R	1.7 +39.6R	2 +34.7R	2.2 +30.8R	2.4 +27.7R	2.6 +25.2R	2.7 +23.1R	2.8 +21.3R
		6"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	1.4 +55.4R	2 +46.2R	2.4 +39.6R	2.7 +34.6R	2.9 +30.8R	3.1 +27.7R	3.3 +25.2R	3.4 +23.1R	3.5 +21.3R
		8"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	2.1 +55.4R	2.7 +46.1R	3.1 +39.5R	3.4 +34.6R	3.6 +30.8R	3.8 +27.7R	4 +25.2R	4.1 +23.1R	4.2 +21.3R
		12"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	3.4 +55.2R	4 +46R	4.4 +39.4R	4.8 +34.5R	5 +30.7R	5.2 +27.6R	5.4 +25.1R	5.5 +23R	5.6 +21.2R
		18"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	5.2 +54.9R	5.9 +45.8R	6.4 +39.2R	6.7 +34.3R	7 +30.5R	7.2 +27.4R	7.4 +24.9R	7.6 +22.8R	7.7 +21.1R
		24"	q_a q_f	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744	1090 1744
			F	6.9 +54.6R	7.7 +45.4R	8.2 +38.9R	8.6 +34R	8.9 +30.2R	9.2 +27.2R	9.4 +24.7R	9.6 +22.6R	9.7 +20.9R
	18 ga	4"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	-0.9 +97.1R	0 +80.9R	0.7 +69.4R	1.3 +60.7R	1.7 +54R	2 +48.6R	2.3 +44.2R	2.5 +40.5R	2.7 +37.4R
		6"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	-0.2 +97.1R	0.8 +80.9R	1.5 +69.3R	2.1 +60.7R	2.5 +53.9R	2.8 +48.5R	3.1 +44.1R	3.3 +40.5R	3.5 +37.3R
		8"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	0.6 +97R	1.6 +80.9R	2.3 +69.3R	2.8 +60.6R	3.3 +53.9R	3.6 +48.5R	3.9 +44.1R	4.1 +40.4R	4.3 +37.3R
		12"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	2 +96.9R	3.1 +80.7R	3.8 +69.2R	4.4 +60.5R	4.8 +53.8R	5.1 +48.4R	5.4 +44R	5.7 +40.3R	5.9 +37.2R
		18"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	4.1 +96.5R	5.2 +80.4R	6 +68.9R	6.6 +60.3R	7 +53.6R	7.4 +48.2R	7.7 +43.8R	8 +40.2R	8.2 +37.1R
		24"	q_a q_f	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139	712 1139
			F	6 +96.2R	7.2 +80.1R	8 +68.6R	8.7 +60R	9.2 +53.3R	9.6 +48R	9.9 +43.6R	10.2 +39.9R	10.4 +36.9R
	20 ga	4"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-5.7 +198.7R	-3.7 +165.6R	-2.3 +142R	-1.2 +124.2R	-0.4 +110.4R	0.3 +99.4R	0.8 +90.3R	1.3 +82.8R	1.7 +76.4R
		6"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-4.8 +198.7R	-2.8 +165.6R	-1.4 +141.9R	-0.3 +124.2R	0.5 +110.4R	1.2 +99.3R	1.8 +90.3R	2.2 +82.8R	2.6 +76.4R
		8"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-3.9 +198.6R	-1.9 +165.5R	-0.5 +141.9R	0.6 +124.1R	1.4 +110.3R	2.1 +99.3R	2.7 +90.3R	3.1 +82.7R	3.5 +76.4R
		12"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	-2.2 +198.4R	-0.2 +165.3R	1.3 +141.7R	2.4 +124R	3.2 +110.2R	3.9 +99.2R	4.5 +90.2R	4.9 +82.7R	5.3 +76.3R
		18"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	0.1 +198.1R	2.2 +165R	3.8 +141.4R	4.9 +123.7R	5.8 +110R	6.5 +99R	7.1 +90R	7.6 +82.5R	8 +76.1R
		24"	q_a q_f	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655	409 655
			F	2.3 +197.6R	4.5 +164.6R	6.1 +141R	7.3 +123.4R	8.3 +109.6R	9 +98.7R	9.6 +89.7R	10.2 +82.2R	10.6 +75.9R

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

TABLE 96a: 6D-12AW Shear and Flexibility
6D-12AW with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	685 1347	646 1040	673 1084	645 1039	623 1003	644 1038	627 1009	611 985	629 1013
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	525 845	512 824	503 810	495 797	489 787	484 779	480 773	477 767	474 763
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		12"	q_a q_f	658 1060	649 1044	641 1033	636 1024	632 1017	628 1012	626 1007	623 1004	621 1000
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		18"	q_a q_f	500 1060	471 758	489 788	468 754	452 727	467 752	454 730	442 712	455 732
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		24"	q_a q_f	380 612	370 596	363 584	357 576	353 569	350 563	347 559	344 554	342 551
			F	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.9R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.4R	0.1 +0.3R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.9R	0 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		12"	q_a q_f	483 778	475 765	469 755	465 748	461 742	458 738	456 734	454 731	452 728
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		18"	q_a q_f	367 778	344 554	357 575	341 549	329 529	339 546	329 530	321 516	330 531
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R
		24"	q_a q_f	277 445	269 432	263 423	259 416	255 411	253 407	250 403	249 400	247 398
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.3 +0.4R	0.3 +0.4R	0.3 +0.3R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +2.8R	0 +2.3R	0 +2R	0 +1.8R	0 +1.6R	0 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +2.8R	0 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +2.8R	0.1 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		12"	q_a q_f	325 523	319 513	314 505	310 500	308 495	305 492	304 489	302 486	301 484
			F	0.1 +2.8R	0.1 +2.3R	0.2 +2R	0.2 +1.8R	0.2 +1.6R	0.2 +1.4R	0.2 +1.3R	0.2 +1.2R	0.2 +1.1R
		18"	q_a q_f	244 523	228 368	238 384	227 366	218 352	225 363	219 352	213 342	218 352
			F	0.2 +2.8R	0.2 +2.3R	0.3 +2R	0.3 +1.8R	0.3 +1.6R	0.3 +1.4R	0.3 +1.3R	0.3 +1.2R	0.3 +1.1R
		24"	q_a q_f	185 298	179 288	175 281	171 276	169 272	167 269	165 266	164 264	163 262
			F	0.3 +2.8R	0.4 +2.3R	0.4 +2R	0.4 +1.8R	0.4 +1.6R	0.4 +1.4R	0.4 +1.3R	0.4 +1.2R	0.4 +1.1R
6D-12-AW 12/2			Support Attachment: #12 SD HWH Screw			Side Seam Attachment: #10 SD HWH Screw						

TABLE 96b: 6D-12AW Shear and Flexibility (continued)
6D-12AW with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	801 1347	743 1196	765 1232	726 1168	695 1119	715 1151	691 1113	671 1080	687 1106
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	621 1000	593 954	572 921	557 897	545 877	535 862	528 850	521 839	516 830
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		12"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		18"	q_a q_f	585 1074	541 871	555 894	526 846	503 810	517 832	499 803	484 779	496 798
			F	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R
		24"	q_a q_f	457 736	434 699	418 673	406 653	396 638	389 626	382 616	377 607	373 600
			F	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.9R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.4R	0.1 +0.3R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.9R	0 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		12"	q_a q_f	533 859	533 859	533 859	524 843	516 830	509 820	504 812	500 804	496 798
			F	0.1 +0.9R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R
		18"	q_a q_f	430 859	396 638	405 652	383 617	366 589	375 604	362 582	351 564	359 578
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R
		24"	q_a q_f	338 545	320 515	307 494	297 478	290 466	283 456	279 448	274 442	271 436
			F	0.2 +0.9R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.3 +0.4R	0.3 +0.4R	0.3 +0.3R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +2.8R	0 +2.3R	0 +2R	0 +1.8R	0 +1.6R	0 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +2.8R	0 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +2.8R	0.1 +2.3R	0.1 +2R	0.1 +1.8R	0.1 +1.6R	0.1 +1.4R	0.1 +1.3R	0.1 +1.2R	0.1 +1.1R
		12"	q_a q_f	380 612	366 590	357 574	349 562	343 553	339 546	335 539	332 534	329 529
			F	0.1 +2.8R	0.1 +2.3R	0.2 +2R	0.2 +1.8R	0.2 +1.6R	0.2 +1.4R	0.2 +1.3R	0.2 +1.2R	0.2 +1.1R
		18"	q_a q_f	291 612	267 430	271 437	256 412	244 393	250 402	240 387	233 375	238 383
			F	0.2 +2.8R	0.2 +2.3R	0.3 +2R	0.3 +1.8R	0.3 +1.6R	0.3 +1.4R	0.3 +1.3R	0.3 +1.2R	0.3 +1.1R
		24"	q_a q_f	231 372	217 350	208 334	200 322	195 313	190 306	186 300	183 295	181 291
			F	0.3 +2.8R	0.4 +2.3R	0.4 +2R	0.4 +1.8R	0.4 +1.6R	0.4 +1.4R	0.4 +1.3R	0.4 +1.2R	0.4 +1.1R
6D-12-AW 12/4			Support Attachment: #12 SD HWH Screw					Side Seam Attachment: #10 SD HWH Screw				

FIGURE 53: 7.5D-12AW Profile

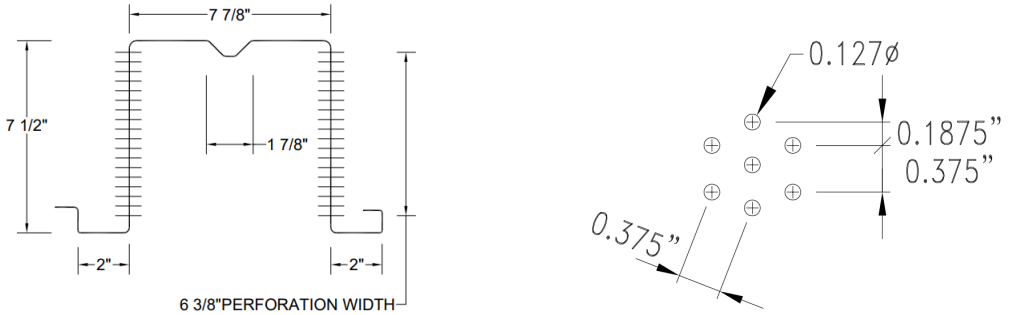


TABLE 97: 7.5D-12AW Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_{gbot}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	3.39	0.0359	33	45	1.056	9.086	3.92	3.583	2.320	2.934
18	4.51	0.0478	33	45	1.404	12.051	3.92	3.583	3.077	2.929
16	5.64	0.0598	33	45	1.756	15.015	3.92	3.584	3.834	2.924
14	7.05	0.0750	33	45	2.192	18.429	3.94	3.559	4.676	2.899

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from	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	1.021	2.209	3.76	2.242	3.97	8.298	8.889	8.560	8.954
18	1.404	3.059	3.79	3.059	3.91	11.597	11.971	11.749	11.998
16	1.799	3.867	3.88	3.863	3.89	15.019	15.011	15.018	15.012
14	2.249	4.718	3.91	4.718	3.91	18.434	18.434	18.432	18.432

TABLE 98: 7.5D-12AW Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	312	385	489	621	477	589	748	951
	Interior	618	739	911	1129	920	1100	1354	1679
18	End	561	685	861	1109	859	1049	1317	1697
	Interior	1085	1282	1560	1953	1614	1907	2320	2905
16	End	881	1066	1327	1696	1349	1631	2030	2595
	Interior	1680	1966	2370	2941	2500	2924	3525	4374
14	End	1383	1657	2043	2590	2116	2535	3126	3963
	Interior	2611	3025	3610	4439	3883	4499	5371	6603
Constants		h = 7.5"		r = 0.25"		θ = 90°			

TABLE 99: 7.5D-12AW Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	291	202	148	114	90	73	60	51	43	37	32
		Φf_b	462	321	236	180	142	115	95	80	68	59	51
		L/360	-	-	136	91	64	47	35	27	21	17	14
		L/240	-	-	-	-	-	70	53	41	32	26	21
		L/180	-	-	-	-	-	-	-	-	43	34	28
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	295	205	151	115	91	74	61	51	44	38	33
		Φf_b	469	325	239	183	145	117	97	81	69	60	52
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	369	256	188	144	114	92	76	64	55	47	41
		Φf_b	586	407	299	229	181	146	121	102	87	75	65
		L/360	-	-	-	-	-	-	-	62	49	39	32
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	403	280	206	157	124	101	83	70	60	51	45
		Φf_b	639	444	326	250	197	160	132	111	95	82	71
		L/360	-	-	187	125	88	64	48	37	29	23	19
		L/240	-	-	-	-	-	96	72	56	44	35	29
		L/180	-	-	-	-	-	-	-	-	58	47	38
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	403	280	206	157	124	101	83	70	60	51	45
		Φf_b	639	444	326	250	197	160	132	111	95	82	71
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	504	350	257	197	155	126	104	87	75	64	56
		Φf_b	799	555	408	312	247	200	165	139	118	102	89
		L/360	-	-	-	-	-	-	-	84	66	53	43
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 99: 7.5D-12AW Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	509	354	260	199	157	127	105	88	75	65	57
		Φf_b	808	561	412	316	249	202	167	140	120	103	90
		L/360	-	-	239	160	113	82	62	47	37	30	24
		L/240	-	-	-	-	-	123	92	71	56	45	36
		L/180	-	-	-	-	-	-	-	-	75	60	49
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	509	353	260	199	157	127	105	88	75	65	57
		Φf_b	807	561	412	315	249	202	167	140	119	103	90
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	636	442	325	248	196	159	131	110	94	81	71
		Φf_b	1009	701	515	394	311	252	209	175	149	129	112
		L/360	-	-	-	-	-	-	-	105	82	66	54
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	622	432	317	243	192	155	128	108	92	79	69
		Φf_b	986	685	503	385	304	247	204	171	146	126	110
		L/360	-	-	294	197	138	101	76	58	46	37	30
		L/240	-	-	-	-	-	151	113	87	69	55	45
		L/180	-	-	-	-	-	-	-	-	92	73	60
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	622	432	317	243	192	155	128	108	92	79	69
		Φf_b	986	685	503	385	304	247	204	171	146	126	110
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	777	540	396	303	240	194	161	135	115	99	86
		Φf_b	1233	856	629	481	380	308	255	214	182	157	137
		L/360	-	-	-	-	-	-	-	129	101	81	66
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 100a: 7.5D-12AW Shear and Flexibility
7.5D-12AW with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	0.8 +47.3R	1.3 +39.4R	1.7 +33.8R	1.9 +29.5R	2.1 +26.3R	2.3 +23.6R	2.4 +21.5R	2.5 +19.7R	2.6 +18.2R
		6"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	1.5 +47.3R	2 +39.4R	2.3 +33.7R	2.6 +29.5R	2.8 +26.2R	2.9 +23.6R	3 +21.5R	3.2 +19.7R	3.2 +18.2R
		8"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	2.1 +47.2R	2.6 +39.4R	2.9 +33.7R	3.2 +29.5R	3.4 +26.2R	3.6 +23.6R	3.7 +21.5R	3.8 +19.7R	3.9 +18.2R
		12"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	3.4 +47.1R	3.9 +39.3R	4.2 +33.7R	4.5 +29.5R	4.7 +26.2R	4.8 +23.6R	5 +21.4R	5.1 +19.6R	5.2 +18.1R
		18"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	5.2 +47R	5.7 +39.1R	6.1 +33.6R	6.3 +29.4R	6.6 +26.1R	6.7 +23.5R	6.9 +21.3R	7 +19.6R	7.1 +18.1R
		24"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	6.9 +46.8R	7.5 +39R	7.9 +33.4R	8.2 +29.2R	8.4 +26R	8.6 +23.4R	8.8 +21.2R	8.9 +19.5R	9 +18R
	16 ga	4"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	-0.6 +83.3R	0.3 +69.4R	0.9 +59.5R	1.3 +52.1R	1.7 +46.3R	1.9 +41.6R	2.2 +37.9R	2.4 +34.7R	2.5 +32R
		6"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	0.2 +83.3R	1 +69.4R	1.6 +59.5R	2 +52R	2.4 +46.3R	2.7 +41.6R	2.9 +37.8R	3.1 +34.7R	3.3 +32R
		8"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	0.9 +83.2R	1.7 +69.4R	2.3 +59.4R	2.8 +52R	3.1 +46.2R	3.4 +41.6R	3.6 +37.8R	3.8 +34.7R	4 +32R
		12"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	2.3 +83.1R	3.1 +69.3R	3.7 +59.4R	4.2 +52R	4.6 +46.2R	4.8 +41.6R	5.1 +37.8R	5.3 +34.6R	5.4 +32R
		18"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	4.3 +83R	5.2 +69.1R	5.8 +59.2R	6.3 +51.8R	6.7 +46.1R	7 +41.5R	7.2 +37.7R	7.4 +34.6R	7.6 +31.9R
		24"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	6.2 +82.7R	7.2 +68.9R	7.8 +59.1R	8.3 +51.7R	8.7 +45.9R	9 +41.3R	9.3 +37.6R	9.5 +34.4R	9.7 +31.8R
	18 ga	4"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-3.4 +145.8R	-1.9 +121.5R	-0.9 +104.1R	-0.1 +91.1R	0.5 +81R	1 +72.9R	1.4 +66.3R	1.7 +60.8R	2 +56.1R
		6"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-2.6 +145.8R	-1.1 +121.5R	-0.1 +104.1R	0.7 +91.1R	1.3 +81R	1.8 +72.9R	2.2 +66.3R	2.5 +60.7R	2.8 +56.1R
		8"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-1.8 +145.7R	-0.3 +121.5R	0.7 +104.1R	1.5 +91.1R	2.1 +81R	2.6 +72.9R	3 +66.2R	3.4 +60.7R	3.6 +56.1R
		12"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-0.2 +145.6R	1.3 +121.4R	2.3 +104R	3.1 +91R	3.7 +80.9R	4.2 +72.8R	4.6 +66.2R	5 +60.7R	5.3 +56R
		18"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	2 +145.4R	3.6 +121.2R	4.6 +103.9R	5.5 +90.9R	6.1 +80.8R	6.6 +72.7R	7 +66.1R	7.4 +60.6R	7.7 +55.9R
		24"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	4.2 +145.2R	5.8 +121R	6.9 +103.7R	7.7 +90.7R	8.4 +80.6R	8.9 +72.6R	9.4 +66R	9.7 +60.5R	10 +55.8R
	20 ga	4"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-11 +298.3R	-8 +248.6R	-5.9 +213.1R	-4.3 +186.4R	-3.1 +165.7R	-2.1 +149.1R	-1.3 +135.6R	-0.6 +124.3R	0 +114.7R
		6"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-10.1 +298.3R	-7.1 +248.5R	-5 +213R	-3.4 +186.4R	-2.1 +165.7R	-1.1 +149.1R	-0.3 +135.6R	0.3 +124.3R	0.9 +114.7R
		8"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-9.2 +298.2R	-6.2 +248.5R	-4.1 +213R	-2.5 +186.4R	-1.2 +165.7R	-0.2 +149.1R	0.6 +135.6R	1.3 +124.3R	1.9 +114.7R
		12"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-7.4 +298.1R	-4.4 +248.4R	-2.2 +212.9R	-0.6 +186.3R	0.6 +165.6R	1.6 +149R	2.5 +135.5R	3.2 +124.2R	3.7 +114.7R
		18"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-4.8 +297.9R	-1.7 +248.2R	0.5 +212.8R	2.1 +186.2R	3.4 +165.5R	4.4 +148.9R	5.2 +135.4R	5.9 +124.1R	6.5 +114.5R
		24"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-2.3 +297.6R	0.8 +248R	3.1 +212.5R	4.7 +185.9R	6 +165.3R	7.1 +148.7R	7.9 +135.2R	8.6 +123.9R	9.2 +114.4R

7.5D-12-AW 12/2 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

TABLE 100b: 7.5D-12AW Shear and Flexibility (continued)
7.5D-12AW with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	0.8 +47.3R	1.3 +39.4R	1.6 +33.8R	1.9 +29.5R	2.1 +26.3R	2.3 +23.6R	2.4 +21.5R	2.5 +19.7R	2.6 +18.2R
		6"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	1.4 +47.2R	1.9 +39.3R	2.3 +33.7R	2.5 +29.5R	2.7 +26.2R	2.9 +23.6R	3 +21.5R	3.1 +19.7R	3.2 +18.2R
		8"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	2 +47.2R	2.5 +39.3R	2.9 +33.7R	3.2 +29.5R	3.4 +26.2R	3.5 +23.6R	3.7 +21.4R	3.8 +19.6R	3.9 +18.1R
		12"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	3.2 +47R	3.7 +39.2R	4.1 +33.6R	4.4 +29.4R	4.6 +26.1R	4.8 +23.5R	4.9 +21.4R	5 +19.6R	5.1 +18.1R
		18"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	4.8 +46.8R	5.4 +39R	5.8 +33.4R	6.1 +29.2R	6.4 +25.9R	6.6 +23.3R	6.7 +21.2R	6.9 +19.4R	7 +17.9R
		24"	q_a q_f	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059	1287 2059
			F	6.4 +46.5R	7 +38.7R	7.5 +33.1R	7.8 +29R	8.1 +25.7R	8.3 +23.1R	8.5 +21R	8.6 +19.3R	8.8 +17.8R
	16 ga	4"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	-0.6 +83.3R	0.3 +69.4R	0.9 +59.5R	1.3 +52R	1.7 +46.3R	1.9 +41.6R	2.2 +37.8R	2.4 +34.7R	2.5 +32R
		6"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	0.1 +83.2R	1 +69.4R	1.6 +59.4R	2 +52R	2.4 +46.2R	2.7 +41.6R	2.9 +37.8R	3.1 +34.7R	3.2 +32R
		8"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	0.8 +83.2R	1.7 +69.3R	2.3 +59.4R	2.7 +52R	3.1 +46.2R	3.4 +41.6R	3.6 +37.8R	3.8 +34.6R	4 +32R
		12"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	2.1 +83R	3 +69.2R	3.6 +59.3R	4.1 +51.9R	4.5 +46.1R	4.8 +41.5R	5 +37.7R	5.2 +34.6R	5.4 +31.9R
		18"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	3.9 +82.7R	4.9 +68.9R	5.5 +59.1R	6.1 +51.7R	6.5 +45.9R	6.8 +41.3R	7 +37.6R	7.2 +34.4R	7.4 +31.8R
		24"	q_a q_f	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335	834 1335
			F	5.6 +82.4R	6.6 +68.6R	7.4 +58.8R	7.9 +51.4R	8.4 +45.7R	8.7 +41.1R	9 +37.3R	9.2 +34.2R	9.4 +31.6R
	18 ga	4"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-3.4 +145.8R	-1.9 +121.5R	-0.9 +104.1R	-0.1 +91.1R	0.5 +81R	1 +72.9R	1.4 +66.3R	1.7 +60.7R	2 +56.1R
		6"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-2.6 +145.7R	-1.2 +121.4R	-0.1 +104.1R	0.7 +91.1R	1.3 +81R	1.8 +72.9R	2.2 +66.2R	2.5 +60.7R	2.8 +56.1R
		8"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-1.9 +145.7R	-0.4 +121.4R	0.7 +104R	1.5 +91R	2.1 +80.9R	2.6 +72.8R	3 +66.2R	3.3 +60.7R	3.6 +56R
		12"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	-0.4 +145.5R	1.1 +121.2R	2.2 +103.9R	3 +90.9R	3.6 +80.8R	4.1 +72.7R	4.5 +66.1R	4.9 +60.6R	5.2 +55.9R
		18"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	1.6 +145.2R	3.2 +121R	4.3 +103.7R	5.2 +90.7R	5.9 +80.6R	6.4 +72.5R	6.8 +65.9R	7.2 +60.4R	7.5 +55.8R
		24"	q_a q_f	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865	541 865
			F	3.5 +144.8R	5.2 +120.6R	6.4 +103.3R	7.3 +90.4R	8 +80.3R	8.6 +72.3R	9 +65.7R	9.4 +60.2R	9.7 +55.6R
	20 ga	4"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-11 +298.3R	-8.1 +248.6R	-5.9 +213R	-4.3 +186.4R	-3.1 +165.7R	-2.1 +149.1R	-1.3 +135.6R	-0.6 +124.3R	0 +114.7R
		6"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-10.2 +298.2R	-7.2 +248.5R	-5 +213R	-3.4 +186.4R	-2.2 +165.7R	-1.2 +149.1R	-0.4 +135.5R	0.3 +124.3R	0.9 +114.7R
		8"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-9.3 +298.1R	-6.3 +248.4R	-4.1 +212.9R	-2.5 +186.3R	-1.3 +165.6R	-0.3 +149.1R	0.6 +135.5R	1.2 +124.2R	1.8 +114.7R
		12"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-7.6 +297.9R	-4.6 +248.3R	-2.4 +212.8R	-0.7 +186.2R	0.5 +165.5R	1.5 +149R	2.4 +135.4R	3.1 +124.1R	3.6 +114.6R
		18"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-5.2 +297.6R	-2.1 +247.9R	0.1 +212.5R	1.8 +185.9R	3.1 +165.3R	4.1 +148.7R	5 +135.2R	5.7 +123.9R	6.3 +114.4R
		24"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-3 +297.1R	0.2 +247.5R	2.5 +212.1R	4.2 +185.6R	5.6 +164.9R	6.6 +148.4R	7.5 +134.9R	8.3 +123.7R	8.9 +114.1R
7.5D-12-AW 12/4			Support Attachment: 0.5" Effective Dia. Arc Spot Weld					Side Seam Attachment: Top Seam Side-Lap Weld				

TABLE 101a: 7.5D-12AW Shear and Flexibility
7.5D-12AW with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/2	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	685 1347	646 1040	673 1084	645 1039	623 1003	644 1038	627 1009	611 985	629 1013
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	525 845	512 824	503 810	495 797	489 787	484 779	480 773	477 767	474 763
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.5R	0 +0.5R	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	658 1060	649 1044	641 1033	636 1024	632 1017	628 1012	626 1007	623 1004	621 1000
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	500 1060	471 758	489 788	468 754	452 727	467 752	454 730	442 712	455 732
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		24"	q_a q_f	380 612	370 596	363 584	357 576	353 569	350 563	347 559	344 554	342 551
			F	0.1 +0.5R	0.1 +0.5R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0 +0.7R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +1.3R	0 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		12"	q_a q_f	483 778	475 765	469 755	465 748	461 742	458 738	456 734	454 731	452 728
			F	0.1 +1.3R	0.1 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		18"	q_a q_f	367 778	344 554	357 575	341 549	329 529	339 546	329 530	321 516	330 531
			F	0.1 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
		24"	q_a q_f	277 445	269 432	263 423	259 416	255 411	253 407	250 403	249 400	247 398
			F	0.2 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
	20 ga	4"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-0.1 +4.2R	-0.1 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0 +2.1R	0 +1.9R	0 +1.8R	0 +1.6R
		6"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-0.1 +4.2R	0 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		8"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	0 +4.2R	0 +3.5R	0 +3R	0.1 +2.6R	0.1 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		12"	q_a q_f	307 491	307 491	307 491	307 491	307 491	305 491	304 489	302 486	301 484
			F	0 +4.2R	0.1 +3.5R	0.1 +3R	0.1 +2.6R	0.1 +2.3R	0.2 +2.1R	0.2 +1.9R	0.2 +1.8R	0.2 +1.6R
		18"	q_a q_f	244 491	228 368	238 384	227 366	218 352	225 363	219 352	213 342	218 352
			F	0.1 +4.2R	0.2 +3.5R	0.2 +3R	0.2 +2.6R	0.3 +2.3R	0.3 +2.1R	0.3 +1.9R	0.3 +1.8R	0.3 +1.6R
		24"	q_a q_f	185 298	179 288	175 281	171 276	169 272	167 269	165 266	164 264	163 262
			F	0.3 +4.2R	0.3 +3.5R	0.3 +3R	0.3 +2.6R	0.4 +2.3R	0.4 +2.1R	0.4 +1.9R	0.4 +1.8R	0.4 +1.6R

7.5D-12-AW 12/2 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

TABLE 101b: 7.5D-12AW Shear and Flexibility (continued)
7.5D-12AW with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
12/4	14 ga	4"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347	837 1347
			F	0 +0.2R	0 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	801 1347	743 1196	765 1232	726 1168	695 1119	715 1151	691 1113	671 1080	687 1106
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	621 1000	593 954	572 921	557 897	545 877	535 862	528 850	521 839	516 830
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.5R	0 +0.5R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.5R	0 +0.5R	0 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	585 1074	541 871	555 894	526 846	503 810	517 832	499 803	484 779	496 798
			F	0.1 +0.5R	0.1 +0.5R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		24"	q_a q_f	457 736	434 699	418 673	406 653	396 638	389 626	382 616	377 607	373 600
			F	0.1 +0.5R	0.1 +0.5R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0 +0.7R	0 +0.7R	0 +0.6R	0 +0.6R	0 +0.5R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +1.3R	0 +1.1R	0 +1R	0 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +1.3R	0 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		12"	q_a q_f	533 859	533 859	533 859	524 843	516 830	509 820	504 812	500 804	496 798
			F	0.1 +1.3R	0.1 +1.1R	0.1 +1R	0.1 +0.8R	0.1 +0.7R	0.1 +0.7R	0.1 +0.6R	0.1 +0.6R	0.1 +0.5R
		18"	q_a q_f	430 859	396 638	405 652	383 617	366 589	375 604	362 582	351 564	359 578
			F	0.1 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
		24"	q_a q_f	338 545	320 515	307 494	297 478	290 466	283 456	279 448	274 442	271 436
			F	0.2 +1.3R	0.2 +1.1R	0.2 +1R	0.2 +0.8R	0.2 +0.7R	0.2 +0.7R	0.2 +0.6R	0.2 +0.6R	0.2 +0.5R
	20 ga	4"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-0.1 +4.2R	-0.1 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0 +2.1R	0 +1.9R	0 +1.8R	0 +1.6R
		6"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	-0.1 +4.2R	0 +3.5R	0 +3R	0 +2.6R	0 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		8"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	0 +4.2R	0 +3.5R	0 +3R	0.1 +2.6R	0.1 +2.3R	0.1 +2.1R	0.1 +1.9R	0.1 +1.8R	0.1 +1.6R
		12"	q_a q_f	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491	307 491
			F	0 +4.2R	0.1 +3.5R	0.1 +3R	0.1 +2.6R	0.1 +2.3R	0.2 +2.1R	0.2 +1.9R	0.2 +1.8R	0.2 +1.6R
		18"	q_a q_f	291 491	267 430	271 437	256 412	244 393	250 402	240 387	233 375	238 383
			F	0.1 +4.2R	0.2 +3.5R	0.2 +3R	0.2 +2.6R	0.3 +2.3R	0.3 +2.1R	0.3 +1.9R	0.3 +1.8R	0.3 +1.6R
		24"	q_a q_f	231 372	217 350	208 334	200 322	195 313	190 306	186 300	183 295	181 291
			F	0.3 +4.2R	0.3 +3.5R	0.3 +3R	0.3 +2.6R	0.4 +2.3R	0.4 +2.1R	0.4 +1.9R	0.4 +1.8R	0.4 +1.6R

7.5D-12-AW 12/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

FIGURE 54: 4.5DF-24A Profile

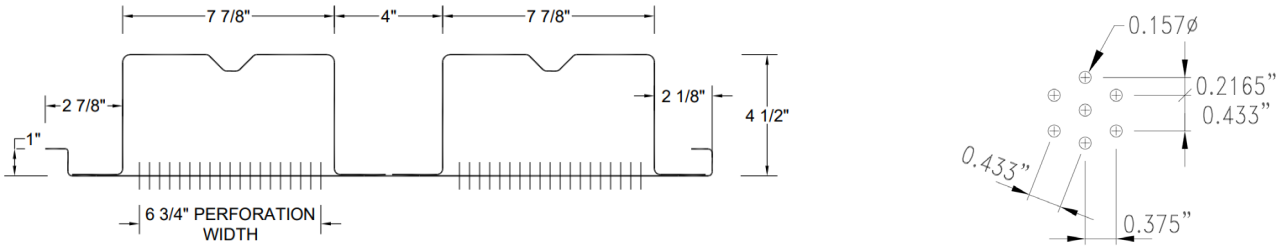


TABLE 102: 4.5DF-24A Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20/20	3.85	0.0359/0.036	40.00	55.00	1.127	4.329	1.706	2.871	2.463	0.980
20/18	4.36	0.035/0.047	40.00	55.00	1.256	4.695	1.528	3.055	2.986	0.967
20/16	4.84	0.035/0.059	40.00	55.00	1.373	4.972	1.394	3.194	3.467	0.952
18/20	4.62	0.047/0.035	40.00	55.00	1.373	5.309	1.882	2.701	2.739	0.983
18/18	5.48	0.047/0.047	40.00	55.00	1.490	5.722	1.724	2.864	3.221	0.980
18/16	5.60	0.047/0.059	40.00	55.00	1.618	6.108	1.583	3.011	3.745	0.971
16/20	5.39	0.059/0.035	40.00	55.00	1.620	6.238	2.009	2.580	3.017	0.981
16/18	5.85	0.059/0.047	40.00	55.00	1.733	6.727	1.874	2.733	3.483	0.985
16/16	6.37	0.059/0.059	40.00	55.00	1.866	7.208	1.740	2.880	4.018	0.983

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	0.820	1.132	3.351	1.191	2.539	3.794	3.024	3.973	3.459
20/18	0.926	1.071	3.820	1.282	2.793	4.090	3.580	4.292	3.952
20/16	1.042	0.938	4.473	1.254	3.240	4.197	4.062	4.455	4.365
18/20	1.058	1.734	2.906	1.450	2.616	5.039	3.794	5.129	4.299
18/18	1.152	1.699	3.195	1.701	2.559	5.427	4.352	5.526	4.809
18/16	1.266	1.650	3.515	1.726	2.844	5.798	4.908	5.901	5.308
16/20	1.620	2.361	2.642	1.745	2.644	6.238	4.613	6.238	5.154
16/18	1.393	2.351	2.861	2.092	2.475	6.727	5.177	6.727	5.694
16/16	1.866	2.318	3.109	2.169	2.689	7.208	5.833	7.208	6.292

TABLE 103: 4.5DF-24A Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) (lbs/ft width)				LRFD (φPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20/20	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
20/18	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
20/16	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
18/20	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
18/18	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
18/16	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
16/20	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
16/18	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
16/16	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
	Constants		h = 4.5"		r = 0.25"		θ = 90°		

TABLE 104: 4.5DF-24A Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	181	126	92	71	56	45	37	31	27	23	20
		Φf_b	287	199	146	112	89	72	59	50	42	37	32
		L/360	174	100	63	42	30	22	16	13	10	8	6
		L/240	-	-	-	64	45	33	24	19	15	12	10
		L/180	-	-	-	-	-	43	33	25	20	16	13
		L/120	-	-	-	-	-	-	-	-	-	-	19
	DS	f_b/Ω	190	132	97	74	59	48	39	33	28	24	21
		Φf_b	302	210	154	118	93	75	62	52	45	38	34
		L/360	-	-	-	-	-	46	34	26	21	17	13
		L/240	-	-	-	-	-	-	-	-	-	-	20
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	238	165	121	93	73	59	49	41	35	30	26
		Φf_b	377	262	192	147	116	94	78	65	56	48	42
		L/360	-	-	-	81	57	42	31	24	19	15	12
		L/240	-	-	-	-	-	-	47	36	28	23	19
		L/180	-	-	-	-	-	-	-	-	-	-	25
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/18	SS	f_b/Ω	171	119	87	67	53	43	35	30	25	22	19
		Φf_b	271	188	138	106	84	68	56	47	40	35	30
		L/360	-	109	68	46	32	23	18	14	11	9	7
		L/240	-	-	-	-	48	35	26	20	16	13	10
		L/180	-	-	-	-	-	-	35	27	21	17	14
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	205	142	104	80	63	51	42	36	30	26	23
		Φf_b	325	226	166	127	100	81	67	56	48	41	36
		L/360	-	-	-	-	-	-	39	30	24	19	15
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	256	178	131	100	79	64	53	44	38	33	28
		Φf_b	406	282	207	159	125	101	84	70	60	52	45
		L/360	-	-	-	93	65	48	36	28	22	17	14
		L/240	-	-	-	-	-	-	-	41	33	26	21
		L/180	-	-	-	-	-	-	-	-	-	-	28
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/16	SS	f_b/Ω	150	104	76	59	46	37	31	26	22	19	17
		Φf_b	238	165	121	93	73	59	49	41	35	30	26
		L/360	-	-	71	48	33	24	18	14	11	9	7
		L/240	-	-	-	-	-	37	27	21	17	13	11
		L/180	-	-	-	-	-	-	-	-	22	18	14
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	200	139	102	78	62	50	41	35	30	26	22
		Φf_b	318	221	162	124	98	79	66	55	47	41	35
		L/360	-	-	-	-	-	-	-	33	26	21	17
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	234	163	119	91	72	59	48	41	35	30	26
		Φf_b	371	258	189	145	115	93	77	64	55	47	41
		L/360	-	-	-	-	72	53	40	30	24	19	16
		L/240	-	-	-	-	-	-	-	-	-	29	23
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 104: 4.5DF-24A Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
18/20	SS	f_b/Ω	277	192	141	108	85	69	57	48	41	35	31
		Φf_b	439	305	224	172	136	110	91	76	65	56	49
		L/360	224	130	82	55	38	28	21	16	13	10	8
		L/240	-	-	123	82	58	42	32	24	19	15	12
		L/180	-	-	-	-	77	56	42	32	26	20	17
		L/120	-	-	-	-	-	-	-	-	38	31	25
	DS	f_b/Ω	232	161	118	90	71	58	48	40	34	30	26
		Φf_b	367	255	187	144	113	92	76	64	54	47	41
		L/360	-	-	-	-	-	57	43	33	26	21	17
		L/240	-	-	-	-	-	-	-	-	-	-	25
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	289	201	148	113	89	72	60	50	43	37	32
		Φf_b	459	319	234	179	142	115	95	80	68	59	51
		L/360	-	-	-	101	71	52	39	30	24	19	15
		L/240	-	-	-	-	-	-	58	45	35	28	23
		L/180	-	-	-	-	-	-	-	-	-	-	31
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/18	SS	f_b/Ω	271	188	138	106	84	68	56	47	40	35	30
		Φf_b	430	299	220	168	133	108	89	75	64	55	48
		L/360	241	140	88	59	41	30	23	17	14	11	9
		L/240	-	-	132	88	62	45	34	26	21	17	13
		L/180	-	-	-	-	83	60	45	35	27	22	18
		L/120	-	-	-	-	-	-	-	-	-	33	27
	DS	f_b/Ω	272	189	139	106	84	68	56	47	40	35	30
		Φf_b	431	299	220	168	133	108	89	75	64	55	48
		L/360	-	-	-	-	-	63	48	37	29	23	19
		L/240	-	-	-	-	-	-	-	-	-	35	28
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	340	236	173	133	105	85	70	59	50	43	38
		Φf_b	539	374	275	210	166	135	111	94	80	69	60
		L/360	-	-	169	113	80	58	44	34	26	21	17
		L/240	-	-	-	-	-	-	65	50	40	32	26
		L/180	-	-	-	-	-	-	-	-	-	42	34
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/16	SS	f_b/Ω	263	183	134	103	81	66	54	46	39	34	29
		Φf_b	418	290	213	163	129	104	86	73	62	53	46
		L/360	258	149	94	63	44	32	24	19	15	12	10
		L/240	-	-	-	94	66	48	36	28	22	18	14
		L/180	-	-	-	-	-	64	48	37	29	23	19
		L/120	-	-	-	-	-	-	-	-	-	-	29
	DS	f_b/Ω	276	191	141	108	85	69	57	48	41	35	31
		Φf_b	437	304	223	171	135	109	90	76	65	56	49
		L/360	-	-	-	-	-	-	52	40	32	25	21
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	344	239	176	135	106	86	71	60	51	44	38
		Φf_b	546	379	279	213	169	137	113	95	81	70	61
		L/360	-	-	-	125	88	64	48	37	29	23	19
		L/240	-	-	-	-	-	-	-	56	44	35	28
		L/180	-	-	-	-	-	-	-	-	-	-	38
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 104: 4.5DF-24A Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	377	262	192	147	116	94	78	65	56	48	42
		Φf_b	598	415	305	234	185	150	124	104	88	76	66
		L/360	273	158	99	67	47	34	26	20	16	12	10
		L/240	-	237	149	100	70	51	38	30	23	19	15
		L/180	-	-	-	133	93	68	51	39	31	25	20
		L/120	-	-	-	-	-	-	77	59	47	37	30
	DS	f_b/Ω	279	193	142	109	86	70	58	48	41	36	31
		Φf_b	442	307	226	173	136	110	91	77	65	56	49
		L/360	-	-	-	-	-	68	51	39	31	25	20
		L/240	-	-	-	-	-	-	-	-	-	-	30
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	348	242	178	136	107	87	72	60	52	44	39
		Φf_b	552	384	282	216	171	138	114	96	82	70	61
		L/360	-	-	-	121	85	62	47	36	28	23	18
		L/240	-	-	-	-	-	-	70	54	42	34	28
		L/180	-	-	-	-	-	-	-	-	-	-	37
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/18	SS	f_b/Ω	375	261	192	147	116	94	78	65	56	48	42
		Φf_b	596	414	304	233	184	149	123	103	88	76	66
		L/360	294	170	107	72	50	37	28	21	17	13	11
		L/240	-	255	161	108	76	55	41	32	25	20	16
		L/180	-	-	-	144	101	74	55	43	33	27	22
		L/120	-	-	-	-	-	-	-	64	50	40	33
	DS	f_b/Ω	334	232	170	130	103	84	69	58	49	43	37
		Φf_b	530	368	270	207	164	132	110	92	78	68	59
		L/360	-	-	-	-	103	75	56	43	34	27	22
		L/240	-	-	-	-	-	-	-	-	-	41	33
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	418	290	213	163	129	104	86	72	62	53	46
		Φf_b	662	460	338	259	204	166	137	115	98	85	74
		L/360	-	-	200	134	94	69	52	40	31	25	20
		L/240	-	-	-	-	-	103	77	60	47	38	31
		L/180	-	-	-	-	-	-	-	-	-	50	41
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/16	SS	f_b/Ω	370	257	189	145	114	93	76	64	55	47	41
		Φf_b	587	408	300	229	181	147	121	102	87	75	65
		L/360	315	182	115	77	54	39	30	23	18	14	12
		L/240	-	-	172	115	81	59	44	34	27	22	18
		L/180	-	-	-	-	108	79	59	46	36	29	23
		L/120	-	-	-	-	-	-	-	-	54	43	35
	DS	f_b/Ω	346	241	177	135	107	87	72	60	51	44	38
		Φf_b	549	382	280	215	170	137	114	95	81	70	61
		L/360	-	-	-	-	-	83	62	48	38	30	25
		L/240	-	-	-	-	-	-	-	-	-	-	37
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	433	301	221	169	134	108	89	75	64	55	48
		Φf_b	687	477	350	268	212	172	142	119	102	88	76
		L/360	-	-	-	148	104	76	57	44	35	28	22
		L/240	-	-	-	-	-	-	85	66	52	41	34
		L/180	-	-	-	-	-	-	-	-	-	-	45
		L/120	-	-	-	-	-	-	-	-	-	-	-

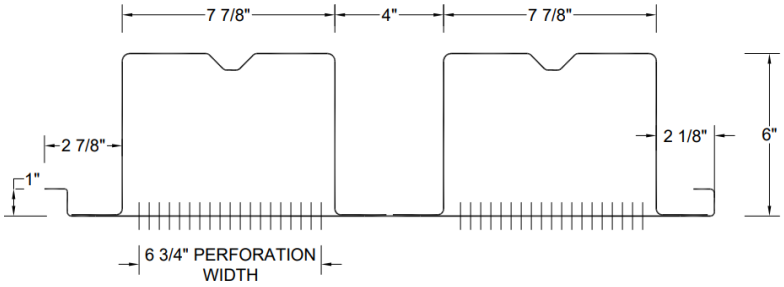
TABLE 105: 4.5DF-24A Shear and Flexibility
4.5DF-24A with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	1.5 +10.2R	1.6 +8.5R	1.7 +7.3R	1.7 +6.4R	1.8 +5.7R	1.8 +5.1R	1.9 +4.6R	1.9 +4.2R	1.9 +3.9R
		6"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	1.9 +10.2R	2 +8.5R	2 +7.3R	2.1 +6.4R	2.1 +5.7R	2.2 +5.1R	2.2 +4.6R	2.2 +4.2R	2.3 +3.9R
		8"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	2.2 +10.1R	2.3 +8.5R	2.4 +7.2R	2.4 +6.3R	2.5 +5.6R	2.5 +5.1R	2.6 +4.6R	2.6 +4.2R	2.6 +3.9R
		12"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	2.8 +10.1R	3 +8.4R	3.1 +7.2R	3.1 +6.3R	3.2 +5.6R	3.2 +5R	3.3 +4.6R	3.3 +4.2R	3.3 +3.9R
		18"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1612 2661	1639 2704
			F	3.7 +9.9R	3.9 +8.2R	4 +7.1R	4.1 +6.2R	4.2 +5.5R	4.2 +4.9R	4.3 +4.5R	4.3 +4.1R	4.3 +3.8R
		24"	q_a q_f	1589 2621	1510 2492	1453 2397	1409 2325	1375 2269	1347 2223	1325 2186	1306 2154	1289 2127
			F	4.6 +9.7R	4.8 +8.1R	4.9 +6.9R	5 +6R	5.1 +5.3R	5.2 +4.8R	5.2 +4.4R	5.3 +4R	5.3 +3.7R
	18 ga	4"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	1.6 +14.3R	1.7 +11.9R	1.8 +10.2R	1.9 +8.9R	1.9 +7.9R	2 +7.1R	2 +6.5R	2.1 +5.9R	2.1 +5.5R
		6"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	1.9 +14.2R	2.1 +11.9R	2.2 +10.2R	2.3 +8.9R	2.3 +7.9R	2.4 +7.1R	2.4 +6.5R	2.5 +5.9R	2.5 +5.5R
		8"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	2.3 +14.2R	2.5 +11.8R	2.6 +10.1R	2.7 +8.9R	2.7 +7.9R	2.8 +7.1R	2.8 +6.4R	2.9 +5.9R	2.9 +5.5R
		12"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	3 +14.1R	3.2 +11.8R	3.3 +10.1R	3.4 +8.8R	3.5 +7.8R	3.6 +7R	3.6 +6.4R	3.6 +5.9R	3.7 +5.4R
		18"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1279 2110	1302 2148	1261 2080	1226 2023	1248 2059
			F	4 +13.9R	4.2 +11.6R	4.4 +9.9R	4.5 +8.7R	4.6 +7.7R	4.7 +6.9R	4.7 +6.3R	4.8 +5.8R	4.8 +5.3R
		24"	q_a q_f	1227 2024	1162 1917	1114 1838	1078 1779	1050 1732	1027 1694	1008 1663	992 1637	979 1615
			F	5 +13.7R	5.2 +11.4R	5.4 +9.8R	5.5 +8.5R	5.7 +7.6R	5.7 +6.8R	5.8 +6.2R	5.9 +5.7R	5.9 +5.2R
	20 ga	4"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	1.5 +20.9R	1.8 +17.4R	1.9 +14.9R	2 +13.1R	2.1 +11.6R	2.2 +10.5R	2.2 +9.5R	2.3 +8.7R	2.3 +8R
		6"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	2 +20.9R	2.2 +17.4R	2.4 +14.9R	2.5 +13.1R	2.6 +11.6R	2.6 +10.4R	2.7 +9.5R	2.8 +8.7R	2.8 +8R
		8"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	2.4 +20.8R	2.6 +17.4R	2.8 +14.9R	2.9 +13R	3 +11.6R	3.1 +10.4R	3.2 +9.5R	3.2 +8.7R	3.3 +8R
		12"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	3.2 +20.7R	3.5 +17.3R	3.7 +14.8R	3.8 +13R	3.9 +11.5R	4 +10.4R	4.1 +9.4R	4.1 +8.6R	4.2 +8R
		18"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	813 1342	814 1343
			F	4.4 +20.5R	4.7 +17.1R	4.9 +14.6R	5.1 +12.8R	5.2 +11.4R	5.3 +10.2R	5.4 +9.3R	5.4 +8.5R	5.5 +7.9R
		24"	q_a q_f	798 1317	760 1254	731 1207	710 1171	693 1143	679 1121	668 1102	659 1087	651 1073
			F	5.5 +20.3R	5.8 +16.9R	6.1 +14.5R	6.2 +12.6R	6.4 +11.2R	6.5 +10.1R	6.6 +9.2R	6.7 +8.4R	6.8 +7.7R
4.5DF-24A 24/4			Support Attachment: 0.5" Effective Dia. Arc Spot Weld					Side Seam Attachment: Top Seam Side-Lap Weld				

TABLE 106: 4.5DF-24A Shear and Flexibility (continued)
4.5DF-24A with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		12"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R	0 +0R
		18"	q_a q_f	637 1074	588 946	589 949	557 897	532 856	538 867	519 836	503 810	510 822
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
		24"	q_a q_f	532 857	498 801	473 761	453 730	438 706	426 686	416 670	408 657	401 646
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R	0.1 +0R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.1R	0 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	533 859	533 859	533 859	530 854	520 837	512 824	505 813	499 803	494 795
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	479 859	440 708	439 707	414 666	394 634	398 641	383 616	370 596	375 604
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	402 648	374 602	354 569	338 544	326 525	316 509	308 496	301 485	296 476
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +0.3R	0 +0.2R	0 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	401 645	386 622	373 600	362 583	354 570	347 559	342 550	337 543	333 537
			F	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	333 645	304 490	302 486	283 456	269 433	271 436	260 418	251 404	253 408
			F	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R
		24"	q_a q_f	282 454	260 419	245 394	233 375	224 360	216 348	210 338	205 330	201 323
			F	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R	0.2 +0.1R
4.5DF-24A 24/4			Support Attachment: #12 SD HWH Screw			Side Seam Attachment: #10 SD HWH Screw						

FIGURE 55: 6DF-24A Profile



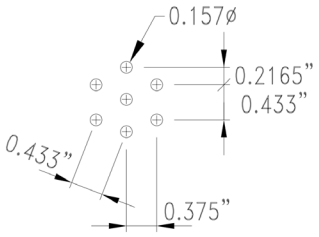


TABLE 107: 6DF-24A Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20/20	4.19	0.0359/0.036	40.00	55.00	1.235	8.132	2.318	3.754	3.407	1.283
20/18	4.69	0.035/0.047	40.00	55.00	1.363	8.841	2.090	3.993	4.111	1.273
20/16	5.17	0.035/0.059	40.00	55.00	1.480	9.386	1.917	4.178	4.759	1.259
18/20	5.07	0.047/0.035	40.00	55.00	1.516	9.992	2.544	3.540	3.817	1.284
18/18	5.54	0.047/0.047	40.00	55.00	1.634	10.786	2.347	3.748	4.462	1.285
18/16	6.05	0.047/0.059	40.00	55.00	1.762	11.534	2.167	3.939	5.167	1.279
16/20	5.95	0.059/0.035	40.00	55.00	1.800	11.768	2.706	3.390	4.231	1.279
16/18	6.41	0.059/0.047	40.00	55.00	1.912	12.647	2.530	3.576	4.855	1.286
16/16	6.93	0.059/0.059	40.00	55.00	2.045	13.539	2.357	3.761	5.576	1.287

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	0.929	1.728	4.105	1.750	3.315	7.092	5.802	7.439	6.579
20/18	1.024	1.183	6.340	1.848	3.639	7.501	6.726	7.948	7.431
20/16	1.145	1.542	5.010	1.883	4.073	7.726	7.671	8.279	8.242
18/20	1.195	2.637	3.628	2.100	3.441	9.567	7.227	9.709	8.149
18/18	1.286	2.661	3.892	1.867	3.653	10.356	6.821	10.500	8.143
18/16	1.408	2.661	4.170	2.502	3.729	11.099	9.329	11.244	10.064
16/20	1.480	3.494	3.368	2.536	3.477	11.768	8.818	11.768	9.801
16/18	1.563	3.524	3.589	2.986	3.277	12.647	9.787	12.647	10.740
16/16	1.689	3.536	3.829	3.129	3.521	13.539	11.019	13.539	11.859

TABLE 108: 6DF-24A Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) (lbs/ft width)				LRFD (φPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20/20	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
20/18	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
20/16	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
18/20	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
18/18	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
18/16	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
16/20	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
16/18	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
16/16	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 109: 6DF-24A Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	276	192	141	108	85	69	57	48	41	35	31
		Φf_b	438	304	223	171	135	109	90	76	65	56	49
		L/360	-	188	118	79	56	41	31	24	18	15	12
		L/240	-	-	-	-	84	61	46	35	28	22	18
		L/180	-	-	-	-	-	-	-	47	37	30	24
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	279	194	143	109	86	70	58	49	41	36	31
		Φf_b	443	308	226	173	137	111	92	77	66	57	49
		L/360	-	-	-	-	-	-	-	-	39	32	26
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	349	243	178	136	108	87	72	61	52	45	39
		Φf_b	554	385	283	216	171	139	115	96	82	71	62
		L/360	-	-	-	-	-	79	60	46	36	29	24
		L/240	-	-	-	-	-	-	-	-	-	43	35
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/18	SS	f_b/Ω	189	131	96	74	58	47	39	33	28	24	21
		Φf_b	300	208	153	117	93	75	62	52	44	38	33
		L/360	-	-	-	-	-	43	33	25	20	16	13
		L/240	-	-	-	-	-	-	-	-	-	24	19
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	295	205	151	115	91	74	61	51	44	38	33
		Φf_b	468	325	239	183	145	117	97	81	69	60	52
		L/360	-	-	-	-	-	-	-	-	-	36	29
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	295	205	151	115	91	74	61	51	44	38	33
		Φf_b	468	325	239	183	145	117	97	81	69	60	52
		L/360	-	-	-	-	-	-	-	-	41	33	27
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/16	SS	f_b/Ω	246	171	126	96	76	62	51	43	36	31	27
		Φf_b	391	271	199	153	121	98	81	68	58	50	43
		L/360	-	-	-	88	62	45	34	26	21	16	13
		L/240	-	-	-	-	-	-	-	39	31	25	20
		L/180	-	-	-	-	-	-	-	-	-	-	27
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	301	209	153	117	93	75	62	52	44	38	33
		Φf_b	477	331	243	186	147	119	99	83	71	61	53
		L/360	-	-	-	-	-	-	-	-	-	-	32
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	376	261	192	147	116	94	78	65	56	48	42
		Φf_b	596	414	304	233	184	149	123	104	88	76	66
		L/360	-	-	-	-	-	-	75	58	45	36	29
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 109: 6DF-24A Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
18/20	SS	f_b/Ω	421	292	215	164	130	105	87	73	62	54	47
		Φf_b	668	464	341	261	206	167	138	116	99	85	74
		L/360	-	246	155	104	73	53	40	31	24	19	16
		L/240	-	-	-	155	109	80	60	46	36	29	24
		L/180	-	-	-	-	-	-	80	61	48	39	31
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	335	233	171	131	104	84	69	58	50	43	37
		Φf_b	532	369	271	208	164	133	110	92	79	68	59
		L/360	-	-	-	-	-	-	-	-	49	39	32
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	419	291	214	164	129	105	87	73	62	53	47
		Φf_b	665	462	339	260	205	166	137	115	98	85	74
		L/360	-	-	-	-	-	98	74	57	45	36	29
		L/240	-	-	-	-	-	-	-	-	-	-	44
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/18	SS	f_b/Ω	425	295	217	166	131	106	88	74	63	54	47
		Φf_b	674	468	344	263	208	169	139	117	100	86	75
		L/360	-	266	167	112	79	57	43	33	26	21	17
		L/240	-	-	-	-	118	86	65	50	39	31	25
		L/180	-	-	-	-	-	-	86	66	52	42	34
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	298	207	152	116	92	75	62	52	44	38	33
		Φf_b	473	329	241	185	146	118	98	82	70	60	53
		L/360	-	-	-	-	-	-	-	-	-	-	32
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	373	259	190	146	115	93	77	65	55	48	41
		Φf_b	591	411	302	231	183	148	122	103	87	75	66
		L/360	-	-	-	-	-	-	74	57	45	36	29
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/16	SS	f_b/Ω	425	295	217	166	131	106	88	74	63	54	47
		Φf_b	674	468	344	263	208	169	139	117	100	86	75
		L/360	-	284	179	120	84	61	46	36	28	22	18
		L/240	-	-	-	-	126	92	69	53	42	34	27
		L/180	-	-	-	-	-	-	-	71	56	45	36
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	399	277	204	156	123	100	83	69	59	51	44
		Φf_b	634	440	323	248	196	158	131	110	94	81	70
		L/360	-	-	-	-	-	-	-	-	-	48	39
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	499	347	255	195	154	125	103	87	74	64	55
		Φf_b	792	550	404	309	245	198	164	138	117	101	88
		L/360	-	-	-	-	-	121	91	70	55	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	54
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 109: 6DF-24A Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	558	387	285	218	172	139	115	97	83	71	62
		Φf_b	885	615	452	346	273	221	183	154	131	113	98
		L/360	514	298	187	126	88	64	48	37	29	23	19
		L/240	-	-	281	188	132	96	72	56	44	35	29
		L/180	-	-	-	-	-	129	97	74	59	47	38
		L/120	-	-	-	-	-	-	-	-	-	70	57
	DS	f_b/Ω	405	281	207	158	125	101	84	70	60	52	45
		Φf_b	642	446	328	251	198	161	133	112	95	82	71
		L/360	-	-	-	-	-	-	-	-	59	47	38
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	506	351	258	198	156	127	105	88	75	65	56
		Φf_b	803	558	410	314	248	201	166	139	119	102	89
		L/360	-	-	-	-	-	118	89	68	54	43	35
		L/240	-	-	-	-	-	-	-	-	-	-	53
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/18	SS	f_b/Ω	563	391	287	220	174	141	116	98	83	72	63
		Φf_b	893	620	455	349	276	223	184	155	132	114	99
		L/360	553	320	201	135	95	69	52	40	31	25	20
		L/240	-	-	-	202	142	104	78	60	47	38	31
		L/180	-	-	-	-	-	138	104	80	63	50	41
		L/120	-	-	-	-	-	-	-	-	-	-	61
	DS	f_b/Ω	477	331	243	186	147	119	99	83	71	61	53
		Φf_b	756	525	386	296	233	189	156	131	112	96	84
		L/360	-	-	-	-	-	-	-	82	64	52	42
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	596	414	304	233	184	149	123	103	88	76	66
		Φf_b	946	657	482	369	292	236	195	164	140	121	105
		L/360	-	-	-	-	178	129	97	75	59	47	38
		L/240	-	-	-	-	-	-	-	-	-	71	58
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/16	SS	f_b/Ω	565	392	288	221	174	141	117	98	84	72	63
		Φf_b	896	622	457	350	276	224	185	156	133	114	100
		L/360	-	342	216	144	101	74	56	43	34	27	22
		L/240	-	-	-	217	152	111	83	64	50	40	33
		L/180	-	-	-	-	-	-	111	86	67	54	44
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	500	347	255	195	154	125	103	87	74	64	56
		Φf_b	793	551	404	310	245	198	164	138	117	101	88
		L/360	-	-	-	-	-	-	-	-	71	57	46
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	625	434	319	244	193	156	129	108	92	80	69
		Φf_b	991	688	506	387	306	248	205	172	147	126	110
		L/360	-	-	-	-	-	143	107	83	65	52	42
		L/240	-	-	-	-	-	-	-	-	-	78	64
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 110: 6DF-24A Shear and Flexibility
6DF-24A with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	1.3 +17.1R	1.5 +14.2R	1.6 +12.2R	1.7 +10.7R	1.8 +9.5R	1.8 +8.5R	1.9 +7.8R	1.9 +7.1R	2 +6.6R
		6"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	1.7 +17R	1.8 +14.2R	2 +12.2R	2.1 +10.7R	2.1 +9.5R	2.2 +8.5R	2.3 +7.7R	2.3 +7.1R	2.3 +6.6R
		8"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	2 +17R	2.2 +14.2R	2.3 +12.2R	2.4 +10.6R	2.5 +9.4R	2.6 +8.5R	2.6 +7.7R	2.6 +7.1R	2.7 +6.5R
		12"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	2.6 +16.9R	2.8 +14.1R	3 +12.1R	3.1 +10.6R	3.2 +9.4R	3.2 +8.5R	3.3 +7.7R	3.3 +7R	3.4 +6.5R
		18"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1612 2661	1639 2704
			F	3.5 +16.8R	3.8 +14R	3.9 +12R	4.1 +10.5R	4.2 +9.3R	4.2 +8.4R	4.3 +7.6R	4.4 +7R	4.4 +6.4R
		24"	q_a q_f	1589 2621	1510 2492	1453 2397	1409 2325	1375 2269	1347 2223	1325 2186	1306 2154	1289 2127
			F	4.4 +16.6R	4.6 +13.8R	4.8 +11.8R	5 +10.3R	5.1 +9.2R	5.2 +8.2R	5.3 +7.5R	5.3 +6.9R	5.4 +6.3R
	18 ga	4"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	1.2 +23.9R	1.5 +19.9R	1.6 +17R	1.8 +14.9R	1.9 +13.3R	2 +11.9R	2 +10.8R	2.1 +9.9R	2.1 +9.2R
		6"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	1.6 +23.8R	1.9 +19.9R	2 +17R	2.2 +14.9R	2.3 +13.2R	2.4 +11.9R	2.4 +10.8R	2.5 +9.9R	2.5 +9.2R
		8"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	2 +23.8R	2.2 +19.8R	2.4 +17R	2.6 +14.9R	2.7 +13.2R	2.8 +11.9R	2.8 +10.8R	2.9 +9.9R	2.9 +9.1R
		12"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	2.7 +23.7R	3 +19.8R	3.2 +16.9R	3.3 +14.8R	3.4 +13.2R	3.5 +11.8R	3.6 +10.8R	3.7 +9.9R	3.7 +9.1R
		18"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1279 2110	1302 2148	1261 2080	1226 2023	1248 2059
			F	3.7 +23.5R	4 +19.6R	4.2 +16.8R	4.4 +14.7R	4.5 +13R	4.6 +11.7R	4.7 +10.7R	4.8 +9.8R	4.9 +9R
		24"	q_a q_f	1227 2024	1162 1917	1114 1838	1078 1779	1050 1732	1027 1694	1008 1663	992 1637	979 1615
			F	4.6 +23.3R	5 +19.4R	5.2 +16.6R	5.4 +14.5R	5.6 +12.9R	5.7 +11.6R	5.8 +10.5R	5.9 +9.7R	6 +8.9R
	20 ga	4"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	1 +35R	1.4 +29.2R	1.6 +25R	1.8 +21.9R	1.9 +19.4R	2.1 +17.5R	2.2 +15.9R	2.2 +14.6R	2.3 +13.5R
		6"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	1.4 +35R	1.8 +29.1R	2.1 +25R	2.3 +21.9R	2.4 +19.4R	2.5 +17.5R	2.6 +15.9R	2.7 +14.6R	2.8 +13.4R
		8"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	1.9 +34.9R	2.2 +29.1R	2.5 +24.9R	2.7 +21.8R	2.9 +19.4R	3 +17.5R	3.1 +15.9R	3.2 +14.5R	3.2 +13.4R
		12"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	2.7 +34.8R	3.1 +29R	3.4 +24.9R	3.6 +21.8R	3.7 +19.3R	3.9 +17.4R	4 +15.8R	4.1 +14.5R	4.1 +13.4R
		18"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	813 1342	814 1343
			F	3.9 +34.6R	4.3 +28.8R	4.6 +24.7R	4.8 +21.6R	5 +19.2R	5.2 +17.3R	5.3 +15.7R	5.4 +14.4R	5.5 +13.3R
		24"	q_a q_f	798 1317	760 1254	731 1207	710 1171	693 1143	679 1121	668 1102	659 1087	651 1073
			F	4.9 +34.4R	5.4 +28.6R	5.8 +24.5R	6 +21.4R	6.2 +19R	6.4 +17.1R	6.5 +15.6R	6.6 +14.2R	6.7 +13.1R

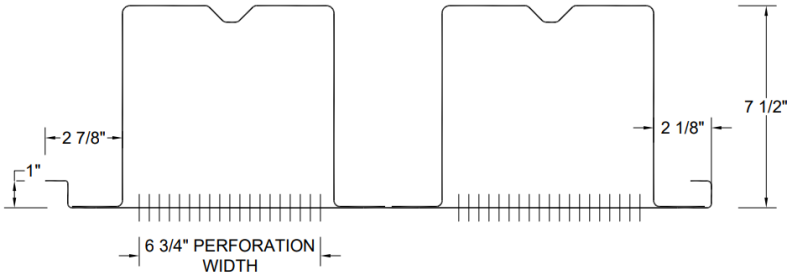
6DF-24A 24/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

TABLE 111: 6DF-24A Shear and Flexibility (continued)
6DF-24A with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		12"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0R	0 +0R
		18"	q_a q_f	637 1074	588 946	589 949	557 897	532 856	538 867	519 836	503 810	510 822
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R
		24"	q_a q_f	532 857	498 801	473 761	453 730	438 706	426 686	416 670	408 657	401 646
			F	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0R	0.1 +0R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	533 859	533 859	533 859	530 854	520 837	512 824	505 813	499 803	494 795
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	479 859	440 708	439 707	414 666	394 634	398 641	383 616	370 596	375 604
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	402 648	374 602	354 569	338 544	326 525	316 509	308 496	301 485	296 476
			F	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		12"	q_a q_f	401 645	386 622	373 600	362 583	354 570	347 559	342 550	337 543	333 537
			F	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R
		18"	q_a q_f	333 645	304 490	302 486	283 456	269 433	271 436	260 418	251 404	253 408
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R
		24"	q_a q_f	282 454	260 419	245 394	233 375	224 360	216 348	210 338	205 330	201 323
			F	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R	0.2 +0.2R

6DF-24A 24/4 Support Attachment: #12 SD HWH Screw Side Seam Attachment: #10 SD HWH Screw

FIGURE 56: 7.5DF-24A Profile



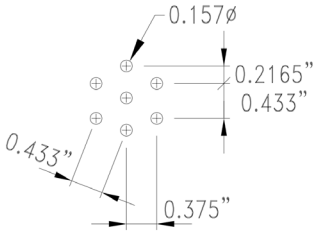


TABLE 112: 7.5DF-24A Properties

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Top Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20/20	4.53	0.0359/0.036	40.00	55.00	1.343	13.354	2.953	4.619	4.393	1.577
20/18	5.03	0.035/0.047	40.00	55.00	1.471	14.518	2.678	4.906	5.269	1.571
20/16	5.51	0.035/0.059	40.00	55.00	1.588	15.430	2.464	5.131	6.086	1.559
18/20	5.52	0.047/0.035	40.00	55.00	1.660	16.419	3.219	4.364	4.960	1.573
18/18	5.99	0.047/0.047	40.00	55.00	1.777	17.708	2.985	4.610	5.762	1.578
18/16	6.50	0.047/0.059	40.00	55.00	1.905	18.928	2.769	4.838	6.638	1.576
16/20	6.51	0.059/0.035	40.00	55.00	1.979	19.359	3.408	4.188	5.532	1.564
16/18	6.97	0.059/0.047	40.00	55.00	2.091	20.766	3.202	4.405	6.303	1.576
16/16	7.49	0.059/0.059	40.00	55.00	2.224	22.207	2.995	4.623	7.201	1.580

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	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	1.198	2.260	5.003	2.392	4.075	11.304	9.749	11.987	10.951
20/18	1.138	2.195	5.443	2.483	4.515	11.948	11.213	12.804	12.314
20/16	1.248	2.106	5.855	2.527	4.985	12.330	12.595	13.364	13.540
18/20	1.342	3.635	4.372	2.881	4.222	15.894	12.164	16.069	13.583
18/18	1.426	3.702	4.643	3.272	4.154	17.188	13.593	17.361	14.965
18/16	1.542	3.621	4.981	3.344	4.567	18.038	15.273	18.335	16.492
16/20	1.650	4.708	4.112	3.393	4.304	19.359	14.604	19.359	16.189
16/18	1.735	4.780	4.344	3.964	4.075	20.766	16.151	20.766	17.690
16/16	1.858	4.835	4.593	4.177	4.326	22.207	18.067	22.207	19.447

TABLE 113: 7.5DF-24A Reactions at Supports (plf) Based on Web Crippling

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) (lbs/ft width)				LRFD (φPn) (lbs/ft width)			
		1"	2"	4"	8"	1"	2"	4"	8"
20/20	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
20/18	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
20/16	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
18/20	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
18/18	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
18/16	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
16/20	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
16/18	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
16/16	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 114: 7.5DF-24A Out-of-Plane Capacities

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20/20	SS	f_b/Ω	361	251	184	141	111	90	75	63	53	46	40
		Φf_b	572	398	292	224	177	143	118	99	85	73	64
		L/360	-	-	-	128	90	65	49	38	30	24	19
		L/240	-	-	-	-	-	-	74	57	45	36	29
		L/180	-	-	-	-	-	-	-	-	-	-	39
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	382	265	195	149	118	96	79	66	57	49	42
		Φf_b	606	421	309	237	187	152	125	105	90	77	67
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	478	332	244	187	147	119	99	83	71	61	53
		Φf_b	758	526	387	296	234	189	157	132	112	97	84
		L/360	-	-	-	-	-	-	-	76	60	48	39
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/18	SS	f_b/Ω	351	243	179	137	108	88	72	61	52	45	39
		Φf_b	556	386	284	217	172	139	115	97	82	71	62
		L/360	-	-	-	137	96	70	53	40	32	25	21
		L/240	-	-	-	-	-	-	-	61	48	38	31
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	397	275	202	155	122	99	82	69	59	51	44
		Φf_b	629	437	321	246	194	157	130	109	93	80	70
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	496	344	253	194	153	124	102	86	73	63	55
		Φf_b	786	546	401	307	243	197	162	137	116	100	87
		L/360	-	-	-	-	-	-	-	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
20/16	SS	f_b/Ω	336	234	172	131	104	84	69	58	50	43	37
		Φf_b	533	370	272	208	165	133	110	93	79	68	59
		L/360	-	-	-	-	100	73	55	42	33	27	22
		L/240	-	-	-	-	-	-	-	-	-	40	32
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	403	280	206	158	125	101	83	70	60	51	45
		Φf_b	640	444	327	250	198	160	132	111	95	82	71
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	504	350	257	197	156	126	104	88	75	64	56
		Φf_b	800	556	408	313	247	200	165	139	118	102	89
		L/360	-	-	-	-	-	-	-	-	74	59	48
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 114: 7.5DF-24A Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing) 10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
18/20	SS	f_b/Ω	580	403	296	227	179	145	120	101	86	74	64
		Φf_b	921	640	470	360	284	230	190	160	136	117	102
		L/360	-	-	256	171	120	88	66	51	40	32	26
		L/240	-	-	-	-	-	132	99	76	60	48	39
		L/180	-	-	-	-	-	-	-	-	80	64	52
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	372	285	225	182	151	127	108	93	81
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	575	399	293	225	178	144	119	100	85	73	64
		Φf_b	912	634	466	356	282	228	189	158	135	116	101
		L/360	-	-	-	-	-	-	-	95	75	60	49
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/18	SS	f_b/Ω	591	410	302	231	182	148	122	103	87	75	66
		Φf_b	938	651	478	366	289	234	194	163	139	120	104
		L/360	-	-	277	185	130	95	71	55	43	35	28
		L/240	-	-	-	-	-	142	107	82	65	52	42
		L/180	-	-	-	-	-	-	-	-	86	69	56
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	523	363	267	204	161	131	108	91	77	67	58
		Φf_b	829	576	423	324	256	207	171	144	123	106	92
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	653	454	333	255	202	163	135	113	97	83	73
		Φf_b	1036	720	529	405	320	259	214	180	153	132	115
		L/360	-	-	-	-	-	-	-	104	82	66	53
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18/16	SS	f_b/Ω	578	402	295	226	178	145	119	100	86	74	64
		Φf_b	917	637	468	358	283	229	190	159	136	117	102
		L/360	-	-	292	196	137	100	75	58	46	37	30
		L/240	-	-	-	-	-	-	113	87	68	55	45
		L/180	-	-	-	-	-	-	-	-	-	73	59
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	534	371	272	209	165	133	110	93	79	68	59
		Φf_b	847	588	432	331	261	212	175	147	125	108	94
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	667	464	341	261	206	167	138	116	99	85	74
		Φf_b	1059	735	540	414	327	265	219	184	157	135	118
		L/360	-	-	-	-	-	-	-	115	91	72	59
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 114: 7.5DF-24A Out-of-Plane Capacities (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Condition	Panel Span (Support Spacing) 10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16/20	SS	f_b/Ω	752	522	384	294	232	188	155	131	111	96	84
		Φf_b	1193	828	609	466	368	298	246	207	176	152	133
		L/360	-	490	308	207	145	106	79	61	48	39	31
		L/240	-	-	-	-	218	159	119	92	72	58	47
		L/180	-	-	-	-	-	-	-	122	96	77	63
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	542	376	276	212	167	135	112	94	80	69	60
		Φf_b	860	597	439	336	265	215	178	149	127	110	96
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	677	470	346	265	209	169	140	118	100	86	75
		Φf_b	1074	746	548	420	332	269	222	187	159	137	119
		L/360	-	-	-	-	-	-	-	113	89	71	58
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/18	SS	f_b/Ω	763	530	389	298	236	191	158	133	113	97	85
		Φf_b	1211	841	618	473	374	303	250	210	179	154	135
		L/360	-	525	331	222	156	113	85	66	52	41	34
		L/240	-	-	-	-	233	170	128	98	77	62	50
		L/180	-	-	-	-	-	-	-	131	103	83	67
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	633	440	323	247	195	158	131	110	94	81	70
		Φf_b	1004	697	512	392	310	251	207	174	149	128	112
		L/360	-	-	-	-	-	-	-	-	-	-	69
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	791	549	404	309	244	198	163	137	117	101	88
		Φf_b	1255	872	640	490	387	314	259	218	186	160	139
		L/360	-	-	-	-	-	-	160	123	97	78	63
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
16/16	SS	f_b/Ω	772	536	394	302	238	193	160	134	114	98	86
		Φf_b	1225	851	625	478	378	306	253	213	181	156	136
		L/360	-	-	354	237	166	121	91	70	55	44	36
		L/240	-	-	-	-	-	182	137	105	83	66	54
		L/180	-	-	-	-	-	-	-	-	110	88	72
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	667	463	340	261	206	167	138	116	99	85	74
		Φf_b	1058	735	540	413	327	265	219	184	157	135	118
		L/360	-	-	-	-	-	-	-	-	-	-	-
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	834	579	425	326	257	208	172	145	123	106	93
		Φf_b	1323	918	675	517	408	331	273	230	196	169	147
		L/360	-	-	-	-	-	-	-	136	107	85	69
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 115: 7.5DF-24A Shear and Flexibility
7.5DF-24A with Arc spot welds at supports and Top Seam Welds at side seams

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	0.9 +23.9R	1.2 +19.9R	1.3 +17R	1.5 +14.9R	1.6 +13.3R	1.6 +11.9R	1.7 +10.8R	1.8 +9.9R	1.8 +9.2R
		6"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	1.3 +23.8R	1.5 +19.9R	1.7 +17R	1.8 +14.9R	1.9 +13.2R	2 +11.9R	2.1 +10.8R	2.1 +9.9R	2.2 +9.2R
		8"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	1.6 +23.8R	1.8 +19.8R	2 +17R	2.2 +14.9R	2.3 +13.2R	2.4 +11.9R	2.4 +10.8R	2.5 +9.9R	2.5 +9.2R
		12"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704
			F	2.2 +23.7R	2.5 +19.8R	2.7 +16.9R	2.8 +14.8R	3 +13.2R	3 +11.9R	3.1 +10.8R	3.2 +9.9R	3.2 +9.1R
		18"	q_a q_f	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1639 2704	1612 2661	1639 2704
			F	3.1 +23.6R	3.4 +19.6R	3.7 +16.8R	3.8 +14.7R	3.9 +13.1R	4 +11.8R	4.1 +10.7R	4.2 +9.8R	4.3 +9R
		24"	q_a q_f	1589 2621	1510 2492	1453 2397	1409 2325	1375 2269	1347 2223	1325 2186	1306 2154	1289 2127
			F	4 +23.4R	4.3 +19.5R	4.5 +16.7R	4.7 +14.6R	4.9 +12.9R	5 +11.6R	5.1 +10.6R	5.2 +9.7R	5.2 +8.9R
	18 ga	4"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	0.7 +33.3R	1 +27.8R	1.2 +23.8R	1.4 +20.8R	1.6 +18.5R	1.7 +16.7R	1.8 +15.2R	1.8 +13.9R	1.9 +12.8R
		6"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	1.1 +33.3R	1.4 +27.8R	1.6 +23.8R	1.8 +20.8R	2 +18.5R	2.1 +16.7R	2.2 +15.1R	2.2 +13.9R	2.3 +12.8R
		8"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	1.4 +33.3R	1.8 +27.7R	2 +23.8R	2.2 +20.8R	2.4 +18.5R	2.5 +16.6R	2.6 +15.1R	2.6 +13.9R	2.7 +12.8R
		12"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192	1328 2192
			F	2.1 +33.2R	2.5 +27.7R	2.8 +23.7R	3 +20.7R	3.1 +18.4R	3.2 +16.6R	3.3 +15.1R	3.4 +13.8R	3.5 +12.8R
		18"	q_a q_f	1328 2192	1328 2192	1328 2192	1328 2192	1279 2110	1302 2148	1261 2080	1226 2023	1248 2059
			F	3.2 +33R	3.6 +27.5R	3.8 +23.6R	4.1 +20.6R	4.2 +18.3R	4.4 +16.5R	4.5 +15R	4.6 +13.7R	4.6 +12.7R
		24"	q_a q_f	1227 2024	1162 1917	1114 1838	1078 1779	1050 1732	1027 1694	1008 1663	992 1637	979 1615
			F	4.1 +32.8R	4.5 +27.3R	4.8 +23.4R	5.1 +20.5R	5.3 +18.2R	5.4 +16.3R	5.6 +14.9R	5.7 +13.6R	5.8 +12.6R
	20 ga	4"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	0.2 +48.9R	0.7 +40.8R	1 +34.9R	1.3 +30.6R	1.5 +27.2R	1.6 +24.5R	1.8 +22.2R	1.9 +20.4R	2 +18.8R
		6"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	0.6 +48.9R	1.1 +40.7R	1.5 +34.9R	1.7 +30.6R	1.9 +27.2R	2.1 +24.4R	2.2 +22.2R	2.4 +20.4R	2.5 +18.8R
		8"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	1 +48.8R	1.5 +40.7R	1.9 +34.9R	2.2 +30.5R	2.4 +27.1R	2.6 +24.4R	2.7 +22.2R	2.8 +20.3R	2.9 +18.8R
		12"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343
			F	1.9 +48.7R	2.4 +40.6R	2.8 +34.8R	3.1 +30.5R	3.3 +27.1R	3.5 +24.4R	3.6 +22.1R	3.7 +20.3R	3.8 +18.7R
		18"	q_a q_f	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	814 1343	813 1342	814 1343
			F	3 +48.5R	3.6 +40.4R	4 +34.6R	4.3 +30.3R	4.6 +26.9R	4.7 +24.2R	4.9 +22R	5 +20.2R	5.1 +18.6R
		24"	q_a q_f	798 1317	760 1254	731 1207	710 1171	693 1143	679 1121	668 1102	659 1087	651 1073
			F	4.1 +48.3R	4.7 +40.2R	5.2 +34.5R	5.5 +30.1R	5.8 +26.8R	6 +24.1R	6.2 +21.9R	6.3 +20R	6.4 +18.5R

7.5DF-24A 24/4 Support Attachment: 0.5" Effective Dia. Arc Spot Weld Side Seam Attachment: Top Seam Side-Lap Weld

TABLE 116: 7.5DF-24A Shear and Flexibility (continued)
7.5DF-24A with No. 12 Self-Drilling Screws to Supports with No. 10 Screws Side Seam Attachments

Support Fastener Pattern	Gage	Seam Attach. Spacing	Allowable Shear (q_a) (plf), Factored Shear (q_f) (plf), and Flexibility Factor (F) (10^{-6} in/lbs)									
			Span →	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"
24/4	16 ga	4"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		12"	q_a q_f	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074	667 1074
			F	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R	0 +0.1R
		18"	q_a q_f	637 1074	588 946	589 949	557 897	532 856	538 867	519 836	503 810	510 822
			F	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	532 857	498 801	473 761	453 730	438 706	426 686	416 670	408 657	401 646
			F	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	18 ga	4"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R
		6"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0 +0.1R	0 +0.1R
		8"	q_a q_f	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859	533 859
			F	0 +0.3R	0 +0.3R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.2R	0 +0.1R	0.1 +0.1R	0.1 +0.1R
		12"	q_a q_f	533 859	533 859	533 859	530 854	520 837	512 824	505 813	499 803	494 795
			F	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		18"	q_a q_f	479 859	440 708	439 707	414 666	394 634	398 641	383 616	370 596	375 604
			F	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
		24"	q_a q_f	402 648	374 602	354 569	338 544	326 525	316 509	308 496	301 485	296 476
			F	0.1 +0.3R	0.1 +0.3R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.2R	0.1 +0.1R	0.1 +0.1R	0.1 +0.1R
	20 ga	4"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +0.7R	0 +0.6R	0 +0.5R	0 +0.4R	0 +0.4R	0 +0.3R	0 +0.3R	0 +0.3R	0.1 +0.3R
		6"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0 +0.7R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R
		8"	q_a q_f	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645	401 645
			F	0.1 +0.7R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R
		12"	q_a q_f	401 645	386 622	373 600	362 583	354 570	347 559	342 550	337 543	333 537
			F	0.1 +0.7R	0.1 +0.6R	0.1 +0.5R	0.1 +0.4R	0.1 +0.4R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R	0.1 +0.3R
		18"	q_a q_f	333 645	304 490	302 486	283 456	269 433	271 436	260 418	251 404	253 408
			F	0.2 +0.7R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R
		24"	q_a q_f	282 454	260 419	245 394	233 375	224 360	216 348	210 338	205 330	201 323
			F	0.2 +0.7R	0.2 +0.6R	0.2 +0.5R	0.2 +0.4R	0.2 +0.4R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R	0.2 +0.3R
7.5DF-24A 24/4			Support Attachment: #12 SD HWH Screw			Side Seam Attachment: #10 SD HWH Screw						

CALIFORNIA SUPPLEMENT

ASC STEEL DECK
A DIVISION OF ASC PROFILES, INC.
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(800) 360-2477
www.ascprofiles.com

STEEL ROOF DECK

CSI Sections:

05 30 00 Metal Decking
05 31 00 Steel Decking
05 31 23 Steel Roof Decking

1.0 RECOGNITION

ASC Profiles Steel Roof Decks described in ER-161 were evaluated for use as structural roof decking. The structural properties of the ASC Profiles Steel Roof Decks were evaluated for compliance with the following codes:

- 2022 and 2019 California Building Codes (CBC)

2.0 ADDITIONAL REQUIREMENTS

1. Special Inspections are required in accordance with CBC Section 1705.2 or 1705A.2, Steel Construction.

2. Structural Observation is required in accordance with CBC Section 1704.5 or 1705A.2.

3. Products listed in this report that are under the jurisdiction of the California Department of the State Architect (DSA) or California Department of Health Care Access and Information (HCAi) (formally OSHPD) are subject to agency-specific review by DSA or HCAi, respectively.

4. Diaphragm deflections shall not exceed the permitted relative deflection of walls between the diaphragm level and the floor below. The flexibility limitations shown in Table 1604A.4 of the California Building Code may be used as a guide in lieu of a rational analysis of the anticipated deflections.

5. For projects under the jurisdiction of DSA or OSHPD, the minimum base steel thickness shall be 0.0359 inches (0.9 mm), except for single-story open structures, where the steel deck is not used as a diaphragm and there are no suspended hangers or bracing for nonstructural components attached to the deck.

6. This supplement expires concurrently with ER-161.

CITY OF LOS ANGELES SUPPLEMENT

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STEEL ROOF DECK

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1.0 RECOGNITION

The ASC Profiles Steel Roof Decks recognized in IAPMO UES ER-161 and ER-161 California Supplement comply with the following LABC and LARC codes, subject to the limitations in Section 2.0 of this supplement.

- 2020 City of Los Angeles Building Code (LABC)

2.0 LIMITATIONS

1. Special Inspections are required in accordance with LABC Section 1705.2, Steel Construction.
2. Structural Observation is required in accordance with LABC Section 1704.6.
3. Calculations and details demonstrating that the loads applied to the decks comply with this report shall be submitted to the Department of Building and Safety for approval. In accordance with LABC Section 106.3.3.2, calculations and drawings shall be prepared and stamped by an engineer or architect licensed by the State of California for the type of service performed except as otherwise permitted by the Department of Building and Safety.

   In accordance with LABC Section 106.3.3.3, for buildings exceeding 160 feet in height, (49 m) calculations and drawings shall be prepared and stamped by a structural engineer licensed by the State of California.
4. Mill certifications or test data shall be submitted to the Department of Building and Safety when requested to verify the deck material specifications.
5. Steel Roof Decks shall be galvanized when exposed to the weather.
6. The drawings shall include deck panel length and cross-section details; fastener and weld details at supports, diaphragm boundaries, shear transfer elements, and seams, where required; and design shears.
7. Deck boundary attachment shall be as designed but shall not be less than 3 feet along sides parallel to flutes, and 4 feet along ends.
8. Any changes in design shall be approved by the building design engineer and by the Structural Plan Check of the Department of Building and Safety.
9. ASTM A653 SS Grade 33 and A1008 SS Grade 33 minimum steel yield and tensile strengths shall be 38ksi and 52 ksi, respectively.
10. In the tables in ER-161, the specified quantity of puddle welds is required for each deck panel at each support location.
11. Less-than-full-width deck panels shall be designed to transfer all shear loads in diaphragm construction.
12. In accordance with Section 1705.2 of the Los Angeles Building Code, deputy building inspectors shall perform special inspections of welding in deck panels for use in diaphragms.
13. Decks shall be welded by Los Angeles City certified light gauge welders, who shall demonstrate to the Deputy Inspectors their ability to achieve satisfactory welding results. Samples simulating the steel decks welded to framing shall be prepared for inspection. A satisfactory weld is indicated by tearing in the deck material or by proper weld fusion area being displayed, as the sample is twisted.
14. Cellular panels shall be welded in a Los Angeles City licensed fabrication facility.
15. The tables in ER-161 do not apply to loads that are predominately vibratory, such as for the operation of heavy machinery, reciprocating motors, and moving loads, and large concentrated loads shall be analyzed and designed by an engineer or architect licensed by the State of California for the type of service performed except as otherwise permitted by the Department of Building and Safety to support these loads accordingly.
16. Tabulated values for diaphragm shear shall not be increased one-third for seismic or wind loading.
17. This supplement expires concurrently with ER-161.