



EVALUATION REPORT

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ASC STEEL DECK
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STEEL ROOF DECK

CSI Section:

- 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)
- 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.

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.

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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.

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:

- 45 pounds per square foot (2.15 kPa) for eave overhang.
- 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:

- Allowable Strength Design

$$W_{dd} + P_{lc}$$
 (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)

- Load and Resistance Factor Design

$$1.2 W_{dd} + 1.4 P_{lc}$$
 (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:

- 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

- 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.



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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 and C1.4-32/CP-32 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., DGBF-36). The cellular profiles included in this report are DGBF-36, DGNF-32, BF-36, DG2WHF-36, and DG3WxHF-36. 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-36AW, DGBF-36A, and N-32AT). 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, and 3WxH-36A. 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.

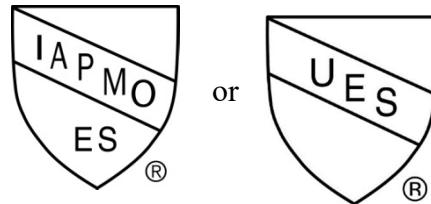
4.5.2 Self-Drilling Screws: Self-drilling screws may be used to attach steel deck panels to supporting members and to attach the side laps of the nestable steel deck. The screws shall be in conformance with Table 3 of this report and manufactured in accordance with ASME J78 and have a galvanized finish. 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, IAPMO Uniform ES Mark of Conformity, and the evaluation report number (ER-161). Either Mark of Conformity may 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.



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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 us info@uniform-es.org

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General Notes

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

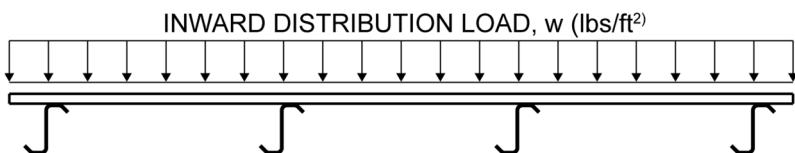
For SI: 1 inch = 25.4 mm; 1 foot = 305 mm; 1 lbf = 4.448 N; 1 psi = 6.895 MPa; 1 psf = 47.88 N/m²; 1 plf = 14.5939 N/m; 1 in²/ft = 2117 mm²/m; 1 in³/ft = 53773 mm³/m; 1 in⁴/ft = 1365833 mm⁴/m

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 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.



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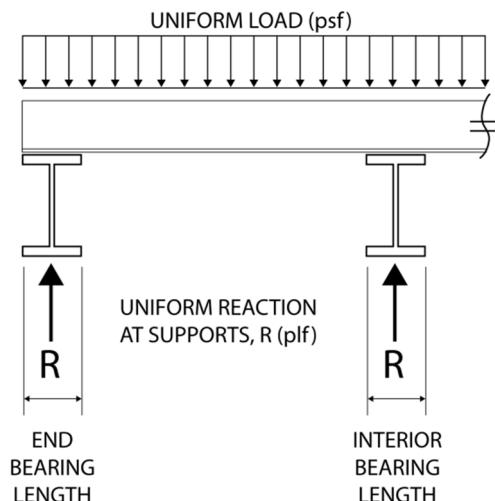
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Allowable and Factored Reactions Tables

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 resistance-welded cellular deck. Cellular deck designations "F" (welded) and "Fr" (riveted) can be used interchangeably.



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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:

$$ASD \quad S_a = \frac{S_n}{\Omega} \quad (Eq-1)$$

$$LRFD \quad S_f = \phi S_n \quad (Eq-2)$$

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		
		Ω_d (ASD)	ϕ_d (LRFD)	ϕ_d (LSD)	Ω_d (ASD)	ϕ_d (LRFD)	ϕ_d (LSD)
Wind	Welds	2.15	0.75	0.60	2.00	0.80	0.75
	Screws	2.00	0.80	0.75			
Earthquake and All Others	Welds	3.00	0.55	0.40			
	Screws	2.30	0.70	0.55			

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.



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ASD	LRFD
$Q_a = \frac{Q_s}{\Omega}$	$Q_f = \phi Q_s$
$s = \frac{Q_a}{S_a} (12 \text{ in}/\text{ft})$	$s = \frac{Q_f}{S_f} (12 \text{ in}/\text{ft})$

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 can 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:

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



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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.

$$Q_f = 78 t_{deck} (t_{support})^{0.15} \leq P_{nvs} \quad (\text{Eq-11})$$

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

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

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

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

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

The nominal shear strength for Simpson X1S1016 or XQ1S1016 Screw shall be determined by Eq-16.
 $P_{nf} = 20 * t \leq 1.625$ (Eq-16)

The nominal shear Strength for Simpson XU34B1016 Screw shall be determined by Eq-17.
 $P_{nf} = 25.2 * t \leq 1.735$ (Eq-17)

S_s = Table 1B for the selected fastener

TABLE 1B: Side-lap Connection Flexibilities, S_s

TYPE OF SIDE-LAP FASTENER	SIDE-LAP FASTENER FLEXIBILITY						
	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



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Perforated Profiles:

Reduction factors for perforated webs.

The reduction factor is calculated as follows:

$$q_s = 1 - (1-k) \left(\frac{W_p}{h_w} \right) \quad (\text{Eq-19})$$

$$p_o = 0.9069 \left(\frac{D_p^2}{C_p^2} \right) \quad (\text{Eq-20})$$

$$k = 1 - 2.17 p_o \text{ for } p_o < 0.20$$

$$k = 0.9 + p_o^2 - 1.875 p_o \text{ for } 0.20 \leq p_o \leq 0.58$$

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



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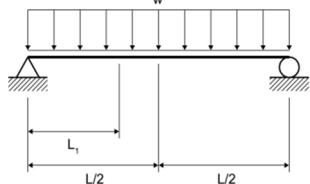
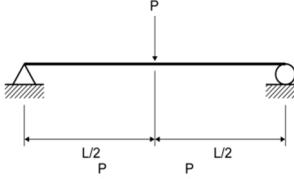
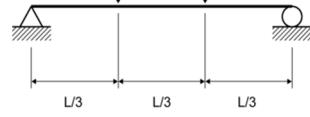
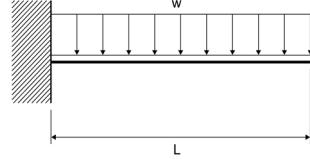
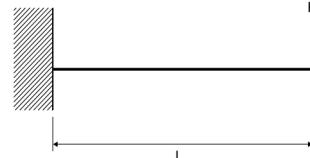
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FIGURE 2B: Diaphragm Shear Deflection Equations Diaphragm In-Plane Shear (Web) Deflection Equations

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	$\Delta_w = \frac{PL}{bG'}$	
Relationship 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)

L₁ = 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.)



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Deck Sheet End Details

FIGURE 3: Butted Deck Condition

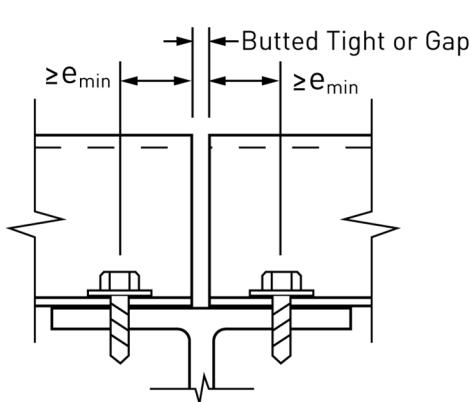
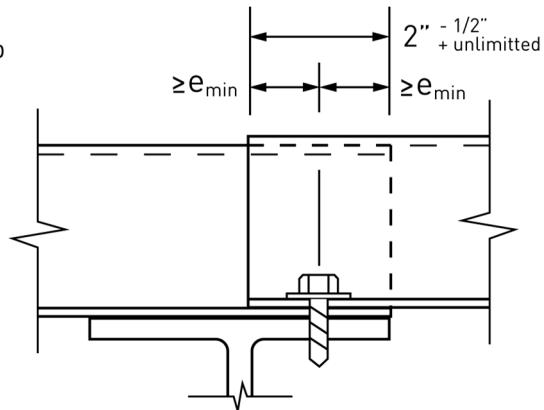


FIGURE 4: End Lapped Deck Condition

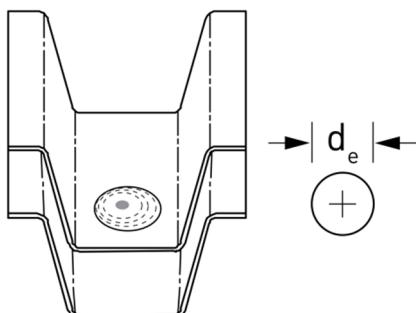


1. Steel decks may be butted at supports or end-lapped. The standard end lap is a 2-inch overlap with a tolerance of $\pm\frac{1}{2}$ inch. A minimum 1½-inch overlap (2-inch standard less ½-inch tolerance) is required. Overlaps greater than 2½ inches do not affect diaphragm performance but are more difficult 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 based on end-lapped condition.

Arc Spot and Seam Welds to Supports

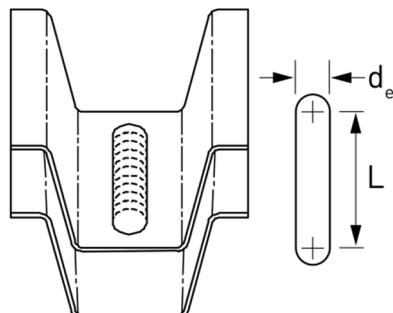
1. Arc spot and arc seam welds to supporting members are shown in Figures 5 and 6 of this report, respectively.

**FIGURE 5: Arc Spot Weld
(weld to support)**



d_e = Effective Diameter

**FIGURE 6: Arc Seam Weld
(weld to support)**



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.



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TABLE 2: Weld Nominal Strength

Deck Profile	Gauge	Nominal Weld Strength, per AISI S100-16 w/S2-20		Arc Seam Weld (3/8 in x 1 in effective width and length)	
		Arc Spot (puddle Weld (1/2 inch effective diameter)	Shear (lbs)	Tensile (lbs)	Shear (lbs)
B-36, N-32, 3WxH-36	22	2416	2310		3873
	21	2886	2541		4293
	20	3364	2755		4688
	19	4486	3200		5531
	18	5701	3618		6344
	16	7263	4056		8065
2WH-36	22	2323	2243		3752
	21	2886	2541		4293
	20	3364	2755		4688
	19	4486	3200		5531
	18	5613	3618		6344
	16	7263	4056		8065
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
	20/20	8608	4056		9851
2WH-36	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



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**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.

- Approved mechanical fasteners including self-drilling screws and power-actuated fasteners (nails) are described in Table 3 of this report.
- 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 supporting member as shown in Figure 8 of this report.
- 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 supporting member as shown in Figure 7 of this report.
- 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.

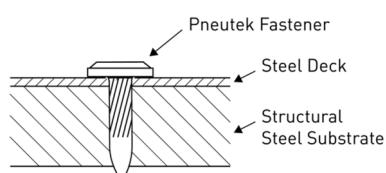


FIGURE 7: Pneutek Fastener

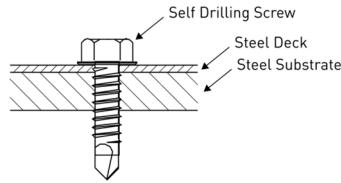


FIGURE 8: Self Drilling Screw



FIGURE 9: Drive Heights for Hilti Nails

- 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.



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TABLE 4: Mechanical Fastener Nominal Shear Strength

		Nominal Shear Strength (lbs)								
		Screws	Hilti		Pneutek			Simpson Strong-Tie		
Supporting Framing Steel Thickness (in)	Min	0.036	0.250	0.125	0.312	0.232	0.155	0.113	0.125	
	Max	unlimited	unlimited	0.375	unlimited	0.312	0.232	0.155	0.1875	0.247
Deck Profile	Deck Gauge	# 12 Self Drill	X-ENP-19 L15	X-HSN 24	K66062 K66075	K64062 K64075	SDK63075	SDK61075	XM Screw	XL Screw
B-36, N-32, 3WxH36	22	1402	1624	1508	1841	1735	1728	1546	1241	1707
	21	1547	1787	1659	2055	1993	1860	1695	1439	1884
	20	1683	1938	1800	2258	2216	1977	1833	1632	2050
	19	1969	2253	2092	2698	2642	2210	2116	2066	2398
	18	2241	2549	2367	3132	3009	2417	2378	2508	2729
	16	2803	3149	2924	4076	3686	2812	2896	3510	3415
2WH-36	22	1359	1577	1464	1780	1655	1689	1502	1185	1656
	21	1547	1787	1659	2055	1993	1860	1695	1439	1884
	20	1683	1938	1800	2258	2216	1977	1833	1632	2050
	19	1969	2253	2092	2698	2642	2210	2116	2066	2398
	18	2222	2529	2348	3101	2985	2403	2360	2477	2707
	16	2803	3149	2924	4076	3686	2812	2896	3510	3415
BF-36, NF-36, 3WxHF-36	20/20	3370	3737	3470	5092	4294	3176	3386	1632	2050
	20/18	3886	4258	3953	6071	4800	3485	3804	1632	2050
	20/16	4448	4810	4466	7201	5314	3801	4229	1632	2050
	18/20	3928	4300	3992	6154	4840	3509	3837	2508	2729
	18/18	4444	4806	4462	7191	5310	3799	4225	2508	2729
	18/16	5006	5342	4960	8383	5793	4099	4619	2508	2729
	16/20	4491	4851	4504	7288	5351	3824	4259	3510	3415
	16/18	5006	5342	4960	8383	5793	4099	4619	3510	3415
	16/16	5569	5862	5444	9639	6251	4385	4982	3510	3415
	20/20	3370	3737	3470	5092	4292	3176	3386	1632	2050
2WHF-36	20/18	3886	4258	3953	6071	4800	3485	3804	1632	2050
	20/16	4448	4810	4466	7201	5314	3801	4229	1632	2050
	18/20	3909	4281	3975	6117	4822	3498	3822	2477	2707
	18/18	4425	4787	4445	7152	5293	3789	4212	2477	2707
	18/16	4988	5324	4944	8343	5777	4089	4607	2477	2707
	16/20	4491	4851	4504	7288	5351	3824	4259	3510	3415
	16/18	5006	5342	4960	8383	5793	4099	4619	3510	3415
	16/16	5569	5862	5444	9639	6251	4385	4982	3510	3415
	26	1170	1099	994	870	1022	1016	900	654	1113
	24	1524	1394	1287	1230	1444	1436	1272	972	1450
C0.9-32, C1.4-32/CP-32	22	1884	1703	1582	1944	1863	1793	1619	1335	1793
	20	2244	2016	1872	2365	2326	2036	1903	1736	2136
	18	2880	2559	2376	3147	3021	2424	2387	2524	2741

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



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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 punch out the minimum distance as shown in Figure 12 of this report.

FIGURE 10: Side Lap Connection Spacing

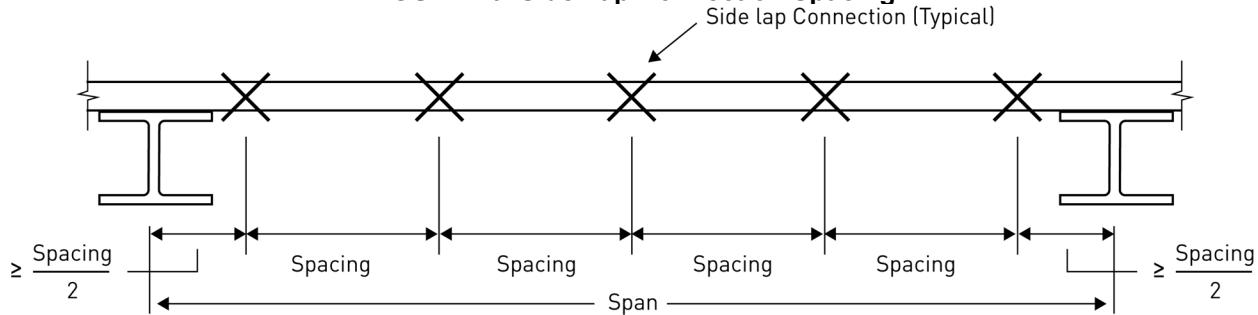
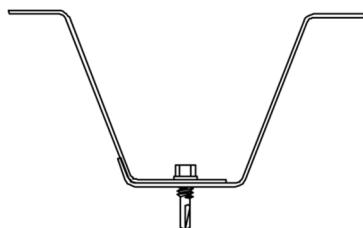


FIGURE 11: Side Lap Screw





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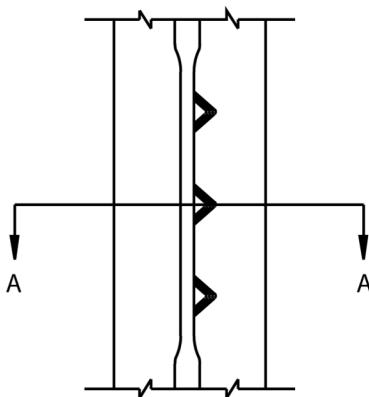
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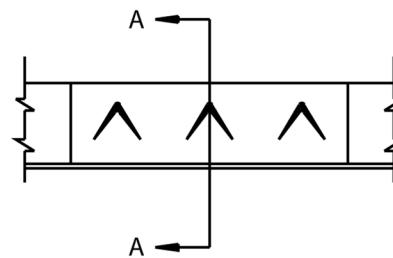
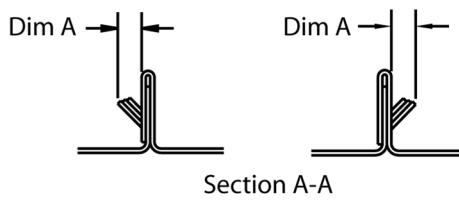
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FIGURE 12: DeltaGrip™ Side Lap Detail



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.



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

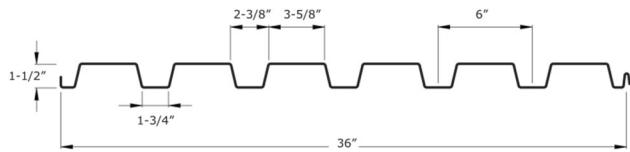


FIGURE 14a: DGBF-36 & BF-36 Profile

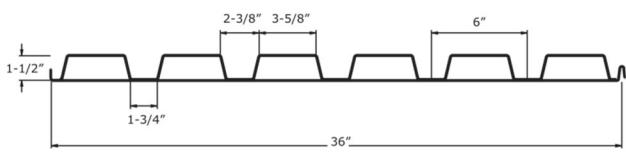


FIGURE 13b: BN-36 Profile

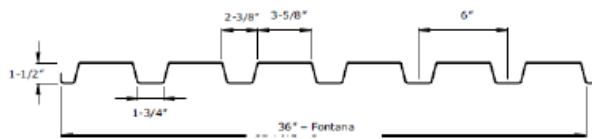
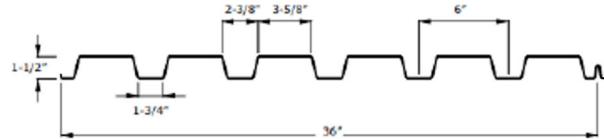


FIGURE 14b: BS-36 Profile



BN-36 NESTABLE PROFILE

BS-36 SCREWABLE SIDELAP PROFILE

FIGURE 15: B-36 Attachment Patterns

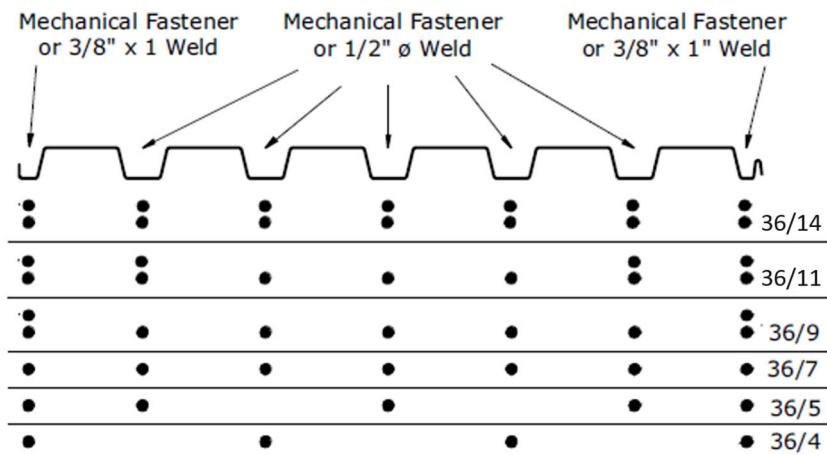
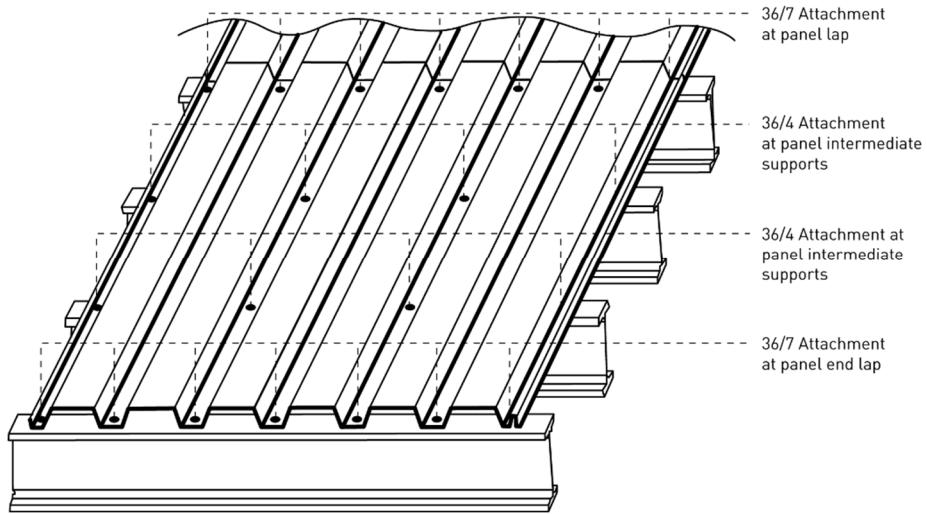


FIGURE 16: 36/7/4 Attachment Pattern





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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	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	1.73	0.0299	50	65	0.514	0.200	0.94	0.213	0.625
21	1.91	0.0330	50	65	0.566	0.220	0.94	0.253	0.624
20	2.07	0.0359	50	65	0.615	0.240	0.94	0.253	0.623
19	2.42	0.0420	50	65	0.717	0.277	0.95	0.253	0.621
18	2.75	0.0478	50	65	0.814	0.313	0.95	0.330	0.619
16	3.43	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	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	0.179	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 Interior	772	874	960	1105	1180	1337	1469	1691
		1229	1366	1482	1675	1828	2032	2204	2492
20	End Interior	1081	1220	1336	1532	1655	1866	2045	2344
		1737	1922	2078	2339	2584	2859	3091	3479
18	End Interior	1834	2053	2239	2550	2805	3142	3425	3901
		2984	3277	3525	3940	4439	4875	5243	5860
16	End Interior	2771	3086	3351	3796	4240	4721	5127	5809
		4555	4975	5329	5923	6776	7401	7927	8810
Constants		h = 1.32"				r = 0.125"		θ = 78.3°	

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



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**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 (lbf/ft²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"
22	Single Span	f_b / Ω	218	140	97	71	55	43	35	29	24
		Φf_b	328	210	146	107	82	65	52	43	36
		L/360	117	60	35	22	15	10	7	6	4
		L/240	175	90	52	33	22	15	11	8	6
		L/180	234	120	69	44	29	21	15	11	9
		L/120	351	179	104	65	44	31	22	17	13
	Double Span	f_b / Ω	234	149	104	76	58	46	37	31	26
		Φf_b	351	225	156	115	88	69	56	46	39
		L/360	281	144	83	53	35	25	18	14	10
		L/240	422	216	125	79	53	37	27	20	16
		L/180	563	288	167	105	70	49	36	27	21
		L/120	844	432	250	158	106	74	54	41	31
20	Single Span	f_b / Ω	292	187	130	95	73	58	47	39	32
		Φf_b	439	281	195	143	110	87	70	58	49
		L/360	220	113	65	41	28	19	14	11	8
		L/240	331	169	98	62	41	29	21	16	12
		L/180	441	226	131	82	55	39	28	21	16
		L/120	661	339	196	123	83	58	42	32	24
	Double 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
	Triple Span	f_b / Ω	295	189	131	96	74	58	47	39	33
		Φf_b	443	284	197	145	111	88	71	59	49
		L/360	347	178	103	65	43	30	22	17	13
		L/240	521	267	154	97	65	46	33	25	19
		L/180	695	356	206	130	87	61	44	33	26
		L/120	1042	533	309	194	130	91	67	50	39



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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 (lbf/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	486	249	144	91	61	43	31	23	18	
		L/240	729	373	216	136	91	64	47	35	27	
		L/180	972	498-	288	181	122	85	62	47	36	
		L/120	1459	747	432	272	182	128	93	70	54	
16	Triple Span	f_b / Ω	514	329	228	168	128	101	82	68	57	
		Φf_b	772	494	343	252	193	152	124	102	86	
		L/360	381	195	113	71	48	33	24	18	14	
		L/240	571	293	169	107	71	50	37	27	21	
		L/180	762	390	226	142	95	67	49	37	28	
		L/120	1143	585	339	213	143	100	73	55	42	
	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	
16	Double Span	f_b / Ω	504	323	224	165	126	100	81	67	56	
		Φf_b	758	485	337	248	190	150	121	100	84	
		L/360	623	319	185	116	78	55	40	30	23	
		L/240	935	479	277	174	117	82	60	45	35	
		L/180	1246	638	369	233	156	109	80	60	46	
		L/120	1870	957	554	349	234	164	120	90	69	
	Triple Span	f_b / Ω	631	404	280	206	158	125	101	83	70	
		Φf_b	948	607	421	309	237	187	152	125	105	
		L/360	488	250	145	91	61	43	31	23	18	
		L/240	732	375	217	137	92	64	47	35	27	
		L/180	976	500	289	182	122	86	62	47	36	
		L/120	1465	750	434	273	183	129	94	70	54	



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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			
	Compression	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	
	Area							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



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

Gauge No.			Span	Limit Condition	Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft ²)									
		20/20			Panel Span (Support Spacing)	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
Single Span			f_b / Ω	340	151	85	54	38	28	21	17	14		
			Φf_b	510	227	128	82	57	42	32	25	20		
			L/360	266	79	33	17	10	6	4	3	2		
			L/240	399	118	50	26	15	9	6	4	3		
			L/180	532	158	66	34	20	12	8	6	4		
			L/120	798	236	100	51	30	19	12	9	6		
Double Span			f_b / Ω	547	243	137	87	61	45	34	27	22		
			Φf_b	822	365	205	131	91	67	51	41	33		
			L/360	640	190	80	41	24	15	10	7	5		
			L/240	961	285	120	61	36	22	15	11	8		
			L/180	1281	380	160	82	47	30	20	14	10		
			L/120	1921	569	240	123	71	45	30	22	15		
Triple Span			f_b / Ω	531	236	133	85	59	43	33	26	21		
			Φf_b	797	354	199	128	89	65	50	39	32		
			L/360	502	149	63	32	19	12	8	6	4		
			L/240	753	223	94	48	28	18	12	8	6		
			L/180	1003	297	125	64	37	23	16	11	8		
			L/120	1505	446	188	96	56	35	24	17	12		
20/18	Single Span		f_b / Ω	347	154	87	56	39	28	22	17	14		
			Φf_b	522	232	130	83	58	43	33	26	21		
			L/360	287	85	36	18	11	7	4	3	2		
			L/240	430	128	54	28	16	10	7	5	3		
			L/180	574	170	72	37	21	13	9	6	5		
			L/120	861	255	108	55	32	20	13	9	7		
	Double Span		f_b / Ω	563	250	141	90	63	46	35	28	23		
			Φf_b	847	376	212	135	94	69	53	42	34		
			L/360	691	205	86	44	26	16	11	8	6		
			L/240	1037	307	130	66	38	24	16	11	8		
			L/180	1383	410	173	88	51	32	22	15	11		
			L/120	2074	615	259	133	77	48	32	23	17		
	Triple Span		f_b / Ω	542	241	136	87	60	44	34	27	22		
			Φf_b	815	362	204	130	91	67	51	40	33		
			L/360	542	1160	68	35	20	13	8	6	4		
			L/240	812	241	102	52	30	19	13	9	6		
			L/180	1083	321	135	69	40	25	17	12	9		
			L/120	1625	481	203	104	60	38	25	18	13		



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

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	354	157	88	57	39	29	22	17	14
		Φf_b	532	236	133	85	59	43	33	26	21
		L/360	306	91	38	20	11	7	5	3	2
		L/240	459	136	57	29	17	11	7	5	4
		L/180	612	181	76	39	23	14	10	7	5
		L/120	918	272	115	59	34	21	14	10	7
	Double Span	f_b / Ω	580	258	145	93	64	47	36	29	23
		Φf_b	872	388	218	140	97	71	55	43	35
		L/360	737	218	92	47	27	17	12	8	6
		L/240	1105	327	138	71	41	26	17	12	9
		L/180	1474	437	184	94	55	34	23	16	12
		L/120	2210	655	276	141	82	52	35	24	18
18/20	Single Span	f_b / Ω	553	246	138	88	61	45	35	27	22
		Φf_b	831	369	208	133	92	68	52	41	33
		L/360	577	171	72	37	21	13	9	6	5
		L/240	866	257	108	55	32	20	14	10	7
		L/180	1154	342	144	74	43	27	18	13	9
		L/120	1732	513	216	111	64	40	27	19	14
	Double 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
18/20	Triple Span	f_b / Ω	710	316	178	114	79	58	44	35	28
		Φf_b	1068	474	267	171	119	87	67	53	43
		L/360	845	250	106	54	31	20	13	9	7
		L/240	1268	376	159	81	47	30	20	14	10
		L/180	1691	501	211	108	63	39	26	19	14
		L/120	2536	751	317	162	94	59	40	28	20
	Triple Span	f_b / Ω	798	355	199	128	89	65	50	39	32
		Φf_b	1199	533	300	192	133	98	75	59	48
		L/360	662	196	83	42	25	15	10	7	5
		L/240	993	294	124	64	37	23	16	11	8
		L/180	1325	392	166	85	49	31	21	15	11
		L/120	1987	589	248	127	74	46	31	22	16



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

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	522	232	131	84	58	43	33	26	21
		Φf_b	785	349	196	126	87	64	49	39	31
		L/360	381	113	48	24	14	9	6	4	3
		L/240	571	169	71	37	21	13	9	6	5
		L/180	762	226	95	49	28	18	12	8	6
		L/120	1142	339	143	73	42	27	18	13	9
	Double Span	f_b / Ω	732	325	183	117	81	60	46	36	29
		Φf_b	1100	489	275	176	122	90	69	54	44
		L/360	917	272	115	59	34	21	14	10	7
		L/240	1376	408	172	88	51	32	22	15	11
		L/180	1835	544	229	117	68	43	29	20	15
		L/120	2752	815	344	176	102	64	43	30	22
18/16	Single Span	f_b / Ω	816	363	204	131	91	67	51	40	33
		Φf_b	1226	545	307	196	136	100	77	61	49
		L/360	719	213	90	46	27	17	11	8	6
		L/240	1078	319	135	69	40	25	17	12	9
		L/180	1437	426	180	92	53	34	22	16	11
		L/120	2156	639	269	138	80	50	34	24	17
	Double 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
	Triple Span	f_b / Ω	753	335	188	121	84	61	47	37	30
		Φf_b	1132	503	283	181	126	92	71	56	45
		L/360	983	291	123	63	36	23	15	11	8
		L/240	1475	437	184	94	55	34	23	16	12
		L/180	1967	583	246	126	73	46	31	22	16
		L/120	2950	874	369	189	109	69	46	32	24



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TABLE 9: DGBF-36 & BF-36 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	703	313	176	113	78	57	44	35	28
		Φf_b	1057	470	264	169	117	86	66	52	42
		L/360	433	128	54	28	16	10	7	5	3
		L/240	649	192	81	42	24	15	10	7	5
		L/180	865	256	108	55	32	20	14	9	7
		L/120	1298	384	162	83	48	30	20	14	10
	Double Span	f_b / Ω	871	387	218	139	97	71	54	43	35
		Φf_b	1309	582	327	209	145	107	82	65	52
		L/360	1042	309	130	67	39	24	16	11	8
		L/240	1563	463	195	100	58	36	24	17	13
		L/180	2084	617	260	133	77	49	33	23	17
		L/120	3126	926	391	200	116	73	49	34	25
16/18	Single Span	f_b / Ω	1088	484	272	174	121	89	68	54	44
		Φf_b	1636	727	409	262	182	134	102	81	65
		L/360	816	242	102	52	30	19	13	9	7
		L/240	1224	363	153	78	45	29	19	13	10
		L/180	1632	484	204	104	60	38	26	18	13
		L/120	2449	726	306	157	91	57	38	27	20
	Double 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
16/18	Triple Span	f_b / Ω	897	399	224	144	100	73	56	44	36
		Φf_b	1349	599	337	216	150	110	84	67	54
		L/360	1134	336	142	73	42	26	18	12	9
		L/240	1701	504	213	109	63	40	27	19	14
		L/180	2268	672	283	145	84	53	35	25	18
		L/120	3401	1008	425	218	126	79	53	37	27
	Triple Span	f_b / Ω	1122	498	280	179	125	92	70	55	45
		Φf_b	1686	749	421	270	187	138	105	83	67
		L/360	888	263	111	57	33	20	14	9	7
		L/240	1332	395	167	85	49	30	20	14	10
		L/180	1776	526	222	114	66	40	27	19	14
		L/120	2665	790	333	171	99	60	41	28	21



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TABLE 9: DGBF-36 & BF-36 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"		
16/16	Single Span	f_b / Ω	734	326	183	117	82	60	46	36	29
		Φf_b	1103	490	276	176	123	90	69	54	44
		L/360	507	150	63	32	19	12	8	6	4
		L/240	760	225	95	49	28	18	12	8	6
		L/180	1013	300	127	65	38	24	16	11	8
		L/120	1520	450	190	97	56	35	24	17	12
	Double Span	f_b / Ω	922	410	231	148	102	75	58	46	37
		Φf_b	1386	616	347	222	154	113	87	68	55
		L/360	1220	362	153	78	45	28	19	13	10
		L/240	1830	542	229	117	68	43	29	20	15
		L/180	2440	723	305	156	90	57	38	27	20
		L/120	3660	1085	458	234	136	85	57	40	29
	Triple Span	f_b / Ω	1147	510	287	183	127	94	72	57	46
		Φf_b	1723	766	431	276	191	141	108	85	69
		L/360	956	283	119	61	35	22	15	10	8
		L/240	1434	425	179	92	53	33	22	16	11
		L/180	1912	566	239	122	71	45	30	21	15
		L/120	2868	850	358	184	106	67	45	31	23



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**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"								
16 ga	4"	q_a q_f	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	3.2+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	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	3.8+0.1R	3.8+0.1R							
	8"	q_a q_f	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	4.3+0.2R	4.3+0.2R	4.4+0.2R							
36/4	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	5.3+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+0.7R	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	7.9+1R								
18 ga	4"	q_a q_f	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	4.4+0.1R	4.4+0.1R							
	6"	q_a q_f	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	5.2+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+0.4R	6+0.4R	6.1+0.3R							
36/4	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	7.4+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	9.1+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	10.8+1.8R	11+1.7R								
20 ga	4"	q_a q_f	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	6.6+0.3R	6.6+0.3R	6.6+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	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	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	9.2+0.8R								
22 ga	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	13.6+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									
	4"	q_a q_f	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	8.5+0.5R	8.6+0.4R								
	6"	q_a q_f	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									



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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"			
16 ga	4"	q_a	q_f	4518	7454	4471	7378	4439	7325	4354	6967	3334	5334	2634	4215
		F		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	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
		F		3.6+0.4R	3.7+0.3R	3.7+0.3R	3.7+0.3R	3.8+0.2R							
	8"	q_a	q_f	3413	5631	3417	5638	3229	5329	3260	5379	3132	5167	2634	4215
		F		4+0.5R	4.1+0.5R	4.2+0.5R	4.2+0.4R	4.2+0.4R	4.2+0.4R	4.3+0.4R	4.3+0.3R	4.3+0.3R	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
		F		4.6+0.9R	4.8+0.8R	5+0.8R	5.1+0.8R	5.1+0.7R	5.1+0.7R	5.2+0.7R	5.3+0.7R	5.3+0.6R	5.3+0.6R	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
		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	6.7+1.1R	6.7+1.1R	6.7+1.1R
	24"	q_a	q_f	1986	3277	1993	3288	1693	2793	1741	2872	1540	2542	1596	2633
		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	7.8+1.6R	7.8+1.6R	7.8+1.6R
36/7/4	4"	q_a	q_f	3306	5455	3256	5373	3222	5316	3164	5062	2422	3876	1914	3062
		F		4.2+0.4R	4.3+0.3R	4.3+0.3R	4.3+0.3R	4.3+0.2R	4.4+0.2R						
	6"	q_a	q_f	2785	4596	2706	4465	2651	4374	2610	4307	2422	3876	1914	3062
		F		4.8+0.6R	4.9+0.6R	5+0.6R	5.1+0.5R	5.1+0.5R	5.2+0.4R						
	8"	q_a	q_f	2420	3994	2405	3969	2253	3718	2267	3740	2165	3572	1914	3062
		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	6+0.6R	6+0.6R	6+0.6R
	12"	q_a	q_f	1969	3249	1849	3051	1766	2914	1706	2814	1660	2738	1623	2678
		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	7.4+1.1R	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
		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	9.3+1.9R	9.3+1.9R	9.3+1.9R
	24"	q_a	q_f	1427	2355	1406	2319	1190	1963	1208	1994	1063	1754	1094	1805
		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	10.8+2.7R	10.8+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
		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	6.6+0.4R	6.6+0.4R	6.6+0.4R
	6"	q_a	q_f	1609	2655	1560	2574	1526	2519	1502	2478	1482	2446	1265	2024
		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	7.9+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
		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	9.2+1.3R	9.2+1.3R	9.2+1.3R
	12"	q_a	q_f	1136	1874	1064	1756	1014	1674	978	1614	950	1568	929	1532
		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	11.3+2.3R	11.3+2.3R	11.3+2.3R
	18"	q_a	q_f	987	1874	941	1553	800	1321	793	1308	787	1299	706	1165
		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	13.9+3.7R	13.9+3.7R	13.9+3.7R
	24"	q_a	q_f	827	1364	811	1338	686	1132	695	1146	606	1000	622	1027
		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	15.9+4.9R	15.9+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
		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	8.5+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
		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	10.3+1.4R	10.3+1.4R	10.3+1.4R
	8"	q_a	q_f	985	1625	976	1610	911	1503	915	1509	872	1438	879	1450
		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	11.9+2.1R	11.9+2.1R	11.9+2.1R
	12"	q_a	q_f	802	1323	750	1237	713	1177	687	1134	667	1101	651	1075
		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	14.6+3.5R	14.6+3.5R	14.6+3.5R
	18"	q_a	q_f	698	1323	664	1095	564	930	558	920	553	912	496	818
		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	17.7+5.3R	17.7+5.3R	17.7+5.3R
	24"	q_a	q_f	586	966	573	945	482	795	487	804	424	699	436	720
		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	20+6.8R	20+6.8R	20+6.8R



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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"		
16 ga	4"	q_a	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	3.3+0R	3.3+0R	
	6"	q_a	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	3.9+0R	3.9+0R	
	8"	q_a	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	4.6+0R	4.6+0R	
	12"	q_a	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	5.8+0R	5.8+0R	
	18"	q_a	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	7.7+0R	7.7+0R	
	24"	q_a	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	9.5+0R	9.5+0R	
36/4	4"	q_a	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	4.5+0R	4.5+0R	
	6"	q_a	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	5.5+0R	5.5+0R	
	8"	q_a	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	6.5+0R	6.5+0R	
	12"	q_a	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	8.4+0R	8.4+0R	
	18"	q_a	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	11.3+0R	11.3+0R	
	24"	q_a	785	1264	788	1268	756	1216	787	1268	739	1190	768	1236
		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	14.2+0R	14.2+0R	
20 ga	4"	q_a	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	6.9+0R	6.9+0R	
	6"	q_a	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	8.6+0R	8.6+0R	
	8"	q_a	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	10.3+0R	10.3+0R	
	12"	q_a	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	13.8+0R	13.8+0R	
	18"	q_a	592	953	592	953	568	914	577	929	584	940	551	888
		F	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	18.9+0.1R	18.9+0.1R	18.9+0.1R	
	24"	q_a	531	855	554	892	501	807	524	844	484	780	505	814
		F	24+0.2R	24+0.1R										
22 ga	4"	q_a	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	9.1+0R	9.1+0R	
	6"	q_a	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	11.6+0R	11.6+0R	
	8"	q_a	493	793	493	793	493	793	493	793	493	793	493	793
		F	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	
	12"	q_a	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+0.1R	19+0.1R	19+0.1R	19+0.1R	19+0.1R	19+0.1R	19+0.1R	
	18"	q_a	480	793	480	773	438	705	445	716	450	724	421	677
		F	26.3+0.2R	26.3+0.2R	26.4+0.1R									
	24"	q_a	411	662	428	688	382	615	399	643	366	589	382	615
		F	33.6+0.4R	33.7+0.3R	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+0.2R	33.8+0.1R	33.8+0.1R	



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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"					
16 ga	4"	q_a q_f	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	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	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	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	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	4.6+0R	4.6+0R	4.6+0R	4.6+0R		
18 ga	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	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	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	9.5+0R	9.5+0R	9.5+0R	9.5+0R	9.5+0R	
36/7/4	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	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	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	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	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	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+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	14.2+-0.1R	
36/7/4	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	6.9+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	8.6+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	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+-0.1R	13.8+-0.1R	13.8+-0.1R	13.8+-0.1R	13.8+-0.1R	13.8+-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	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+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	18.9+-0.2R	
	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+-0.2R	24+-0.2R	24.1+-0.2R								
22 ga	4"	q_a q_f	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	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	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												
	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+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	19+-0.2R	
	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+-0.3R	26.4+-0.2R										
	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+-0.5R	33.7+-0.4R	33.8+-0.4R	33.8+-0.4R	33.8+-0.3R							



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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"			
16 ga	4"	q_a	q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821
		F		3.3+0R	1482	2371									
	6"	q_a	q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821
		F		3.9+0R	1482	2371									
	8"	q_a	q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821
		F		4.6+0R	1482	2371									
18 ga	12"	q_a	q_f	1971	3174	1971	3174	1971	3174	1971	3174	1971	3174	1763	2821
		F		5.8+0R	1482	2371									
	18"	q_a	q_f	1971	3174	1971	3174	1873	3015	1899	3057	1918	3088	1786	2875
		F		7.6+0R	7.7+0R	1482	2371								
	24"	q_a	q_f	1776	2859	1835	2954	1628	2621	1698	2734	1547	2491	1614	2599
		F		9.5+0R	1461	2352									
36/9	4"	q_a	q_f	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481
		F		4.5+0R	1077	1723									
	6"	q_a	q_f	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481
		F		5.5+0R	1077	1723									
	8"	q_a	q_f	1576	2537	1576	2537	1576	2537	1576	2537	1576	2537	1550	2481
		F		6.5+0R	1077	1723									
20 ga	12"	q_a	q_f	1576	2537	1576	2537	1576	2537	1576	2537	1565	2520	1550	2481
		F		8.4+0R	1077	1723									
	18"	q_a	q_f	1526	2537	1509	2429	1344	2163	1357	2185	1367	2200	1260	2028
		F		11.3+0R	1077	1723									
	24"	q_a	q_f	1295	2086	1325	2133	1161	1869	1204	1939	1087	1751	1132	1822
		F		14.2+-0.1R	1010	1626									
22 ga	4"	q_a	q_f	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640
		F		6.9+0R	712	1139									
	6"	q_a	q_f	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640
		F		8.6+0R	712	1139									
	8"	q_a	q_f	1183	1905	1183	1905	1183	1905	1183	1905	1183	1905	1025	1640
		F		10.3+0R	712	1139									
	12"	q_a	q_f	1147	1847	1102	1774	1070	1722	1046	1684	1027	1654	1012	1630
		F		13.7+-0.1R	13.7+-0.1R	13.7+-0.1R	13.7+-0.1R	13.7+-0.1R	13.7+-0.1R	13.8+0R	13.8+0R	13.8+0R	13.8+0R	712	1139
24 ga	18"	q_a	q_f	1021	1847	995	1603	873	1405	874	1407	875	1409	798	1285
		F		18.8+-0.2R	18.8+-0.2R	18.8+-0.2R	18.8+-0.2R	18.8+-0.2R	18.8+-0.2R	18.9+-0.1R	18.9+-0.1R	18.9+-0.1R	18.9+-0.1R	712	1139
	24"	q_a	q_f	868	1397	871	1402	754	1214	773	1245	692	1114	715	1151
		F		23.8+-0.3R	23.9+-0.3R	23.9+-0.2R	23.9+-0.2R	23.9+-0.2R	24+-0.2R	24+-0.2R	24+-0.1R	24+-0.1R	24+-0.1R	627	1010
	4"	q_a	q_f	986	1587	986	1587	986	1587	986	1587	962	1539	779	1247
		F		9.1+0R	541	866									
22 ga	6"	q_a	q_f	986	1587	986	1587	986	1587	986	1587	962	1539	779	1247
		F		11.5+-0.1R	11.6+0R	541	866								
	8"	q_a	q_f	986	1587	986	1587	986	1587	959	1544	962	1539	779	1247
		F		14+-0.1R	14+-0.1R	14+-0.1R	14+-0.1R	14+-0.1R	14+0R	14+0R	14+0R	14+0R	14+0R	541	866
	12"	q_a	q_f	888	1429	845	1360	814	1311	791	1274	773	1245	759	1223
		F		18.8+-0.2R	18.9+-0.2R	18.9+-0.1R	18.9+-0.1R	18.9+-0.1R	18.9+-0.1R	19+-0.1R	19+-0.1R	19+-0.1R	19+-0.1R	541	866
24 ga	18"	q_a	q_f	790	1429	761	1226	662	1066	658	1060	656	1055	595	958
		F		26+-0.5R	26.1+-0.4R	26.2+-0.3R	26.3+-0.3R	26.3+-0.2R	26.3+-0.2R	26.3+-0.2R	26.3+-0.2R	26.3+-0.2R	26.3+-0.2R	541	866
	24"	q_a	q_f	674	1086	667	1074	574	924	583	939	520	837	533	859
		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+-0.4R	33.6+-0.3R	33.7+-0.3R	33.7+-0.3R	541	866



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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"
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		4.3+-0.2R		4.4+-0.2R	
18 ga	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	
36/4	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		6.1+-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	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	



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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"									
16 ga	16 ga	4"	q_a	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	3.2+-0.1R	3.2+-0.1R	3.3+-0.1R	3.3+-0.1R					3.3+-0.1R			
		6"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	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	3.8+-0.2R					3.8+-0.2R			
		8"	q_a	2520	4057	2542	4093	2492	4012	2515	4049	2477	3988	2497	4021	2134	3414	1763	2821	1482	2371
			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+-0.4R	4.3+-0.4R	4.3+-0.3R	4.3+-0.3R					4.4+-0.3R			
		12"	q_a	2225	3583	2193	3531	2170	3494	2154	3467	2141	3447	2131	3430	2122	3414	1763	2821	1482	2371
			F	4.7+-0.9R	4.9+-0.8R	5+-0.8R	5.1+-0.7R	5.2+-0.7R	5.2+-0.7R	5.2+-0.7R	5.3+-0.6R	5.3+-0.6R	5.4+-0.6R								
		18"	q_a	1981	3583	1994	3210	1790	2881	1830	2947	1860	2995	1726	2779	1763	2838	1763	2821	1482	2371
			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	6.7+-1.1R								
36/7/4	18 ga	24"	q_a	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	7.9+-1.6R								
		4"	q_a	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	4.4+-0.2R								
		6"	q_a	2058	3314	2053	3305	2044	3291	2038	3282	2033	3274	1914	3062	1550	2481	1281	2050	1077	1723
			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	5.2+-0.4R	5.3+-0.4R								
		8"	q_a	1908	3072	1928	3105	1874	3017	1895	3050	1855	2987	1874	3018	1550	2481	1281	2050	1077	1723
			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+-0.6R	6.1+-0.6R								
	20 ga	12"	q_a	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	7.4+-1.1R	7.5+-1.1R								
		18"	q_a	1437	2639	1438	2315	1270	2044	1296	2087	1315	2118	1208	1945	1234	1986	1254	2020	1077	1723
			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	9.4+-1.9R								
		24"	q_a	1172	1887	1232	1983	1070	1723	1131	1821	1016	1636	1072	1725	983	1583	1032	1662	961	1547
			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	11+-2.7R								
		4"	q_a	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	6.6+-0.4R								
22 ga	20 ga	6"	q_a	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	7.9+-0.9R	8+-0.8R								
		8"	q_a	1303	2098	1315	2117	1263	2033	1278	2057	1241	1998	1256	2022	1025	1640	847	1355	712	1139
			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	9.2+-1.3R								
		12"	q_a	1087	1750	1051	1692	1026	1652	1008	1622	994	1600	983	1582	974	1567	847	1355	712	1139
			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	11.5+-2.2R								
		18"	q_a	941	1750	931	1499	808	1302	820	1321	829	1335	753	1213	768	1236	779	1254	712	1139
			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	13.9+-3.7R	14.2+-3.6R								
22 ga	24"	q_a	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	16.4+-4.9R								
		4"	q_a	1290	2076	1281	2062	1274	2052	1270	2044	1218	1948	962	1539	779	1247	644	1031	541	866
	24"		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	8.5+-0.8R	8.6+-0.7R								
		6"	q_a	1135	1827	1117	1799	1105	1779	1096	1765	1089	1754	962	1539	779	1247	644	1031	541	866
			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	10.4+-1.4R								
22 ga	8"	q_a	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	12.1+-2.1R								
		12"	q_a	829	1335	795	1280	771	1242	754	1213	740	1192	730	1175	721	1161	644	1031	541	866
	18"		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	14.9+-3.4R								
		24"	q_a	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	18.2+-5.3R								
22 ga	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									



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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"									
16 ga	16 ga	4"	q_a	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	3.2+-0.1R	3.2+-0.1R	3.2+-0.1R	3.2+-0.1R	3.2+-0.1R				
		6"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2542	4093	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	3.6+-0.2R	3.7+-0.2R										
		8"	q_a	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	4.1+-0.3R	4.1+-0.3R	4.2+-0.3R	4.2+-0.3R	4.2+-0.3R	4.2+-0.3R				
		12"	q_a	2542	4093	2542	4093	2542	4093	2542	4093	2514	4047	2489	4007	2134	3414	1763	2821	1482	2371
			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	4.9+-0.5R	4.9+-0.5R	5+-0.5R	5+-0.5R	5+-0.5R	5+-0.5R	5+-0.5R			
		18"	q_a	2433	4093	2402	3867	2135	3437	2155	3469	2169	3492	1997	3216	2026	3262	1763	2821	1482	2371
			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									
36/9	18 ga	24"	q_a	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									
		4"	q_a	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											
		6"	q_a	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	4.9+-0.4R	5+-0.4R										
		8"	q_a	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+-0.6R	5.5+-0.6R	5.5+-0.6R	5.5+-0.6R	5.6+-0.5R	5.6+-0.5R	5.6+-0.5R	5.7+-0.5R	5.7+-0.5R			
		12"	q_a	2010	3236	1933	3112	1878	3023	1837	2957	1805	2906	1780	2865	1550	2481	1281	2050	1077	1723
			F	5.2+-0.9R	5.6+-0.9R	5.8+-0.9R	6+-0.9R	6.2+-0.9R	6.4+-0.9R	6.5+-0.9R	6.7+-0.9R	6.8+-0.9R									
		18"	q_a	1790	3236	1747	2812	1532	2467	1536	2473	1538	2477	1405	2261	1420	2287	1281	2050	1077	1723
			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	7.4+-1.4R	7.7+-1.4R	7.7+-1.4R	7.7+-1.4R	7.9+-1.4R	7.9+-1.4R	8.1+-1.4R	8.1+-1.4R	8.1+-1.4R			
		24"	q_a	1521	2448	1528	2460	1324	2131	1359	2188	1217	1959	1258	2025	1150	1852	1191	1917	1077	1723
			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	8.8+-1.8R	8.8+-1.8R	9.1+-1.9R	9.1+-1.9R	9.1+-1.9R	9.1+-1.9R	9.1+-1.9R			
36/9	20 ga	4"	q_a	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"	q_a	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	6.8+-0.8R	7+-0.8R	7.1+-0.8R	7.2+-0.8R	7.3+-0.7R	7.4+-0.7R	7.4+-0.7R	7.4+-0.7R	7.4+-0.7R	7.4+-0.7R	7.4+-0.7R			
		8"	q_a	1565	2520	1565	2520	1502	2417	1507	2426	1451	2336	1265	2024	1025	1640	847	1355	712	1139
			F	6.5+-1R	6.9+-1.1R	7.2+-1.1R	7.5+-1.1R	7.7+-1.1R	7.9+-1.1R	7.9+-1.1R	8.1+-1.1R	8.2+-1.1R	8.2+-1.1R	8.4+-1R	8.4+-1R	8.4+-1R	8.4+-1R	8.4+-1R			
		12"	q_a	1355	2182	1282	2065	1231	1982	1192	1919	1162	1872	1139	1833	1025	1640	847	1355	712	1139
			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+-1.6R	9.9+-1.6R									
		18"	q_a	1206	2182	1156	1861	1001	1612	991	1596	984	1584	891	1435	896	1442	847	1355	712	1139
			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	11.3+-2.3R	11.7+-2.3R	11.7+-2.3R	11.1+-2.4R	11.5+-2.4R	11.5+-2.4R	11.5+-2.4R	11.5+-2.4R			
22 ga	22 ga	24"	q_a	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	12.7+-3R	12.4+-3R	12.4+-3R	12.4+-3R	12.4+-3R	12.4+-3R			
		4"	q_a	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	7.5+-0.8R	7.7+-0.7R	7.8+-0.7R	7.9+-0.7R	8+-0.7R	8+-0.7R	8+-0.7R	8.1+-0.6R	8.1+-0.6R	8.1+-0.6R	8.1+-0.6R	8.1+-0.6R		
		6"	q_a	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	9.3+-1.1R	9.3+-1.1R	9.5+-1.1R	9.5+-1.1R	9.5+-1.1R	9.5+-1.1R	9.5+-1.1R			
		8"	q_a	1240	1996	1222	1968	1150	1851	1149	1850	1100	1771	962	1539	779	1247	644	1031	541	866
			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	10.4+-1.6R	10.4+-1.6R	10.6+-1.6R	10.6+-1.6R	10.6+-1.6R	10.6+-1.6R	10.6+-1.6R			
22 ga	22 ga	12"	q_a	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	11.7+-2.3R	11.7+-2.3R	11.7+-2.3R	12.2+-2.3R	12.4+-2.4R	12.4+-2.4R	12.4+-2.4R	12.4+-2.4R			
		18"	q_a	939	1693	888	1430	764	1231	750	1208	740	1191	668	1075	667	1074	644	1031	541	866
			F	8.9+-1.9R	9.7+-2.2R	10.6+-2.5R	11.3+-2.7R	12+-2.9R	12.6+-3R	12.6+-3R	13.2+-3.1R	13.7+-3.2R	13.7+-3.2R	14.2+-3.3R	14.2+-3.3R	14.2+-3.3R	14.2+-3.3R	14.2+-3.3R			
		24"	q_a	812	1308	784	1262	670	1078	669	1077	591	951	601	968	542	873	557	896	510	822
B-36 36/9			Support Attachment: Hilti X-HSN 24 PAF						Side Seam Attachment: DeltaGrip												



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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"			
16 ga	16 ga	4"	q_a	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									
		6"	q_a	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	3.8+-0.1R	3.8+-0.1R						
		8"	q_a	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+-0.3R	4.2+-0.2R	4.2+-0.2R	4.3+-0.2R	4.3+-0.2R
		12"	q_a	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	5.1+-0.4R	5.2+-0.4R	5.2+-0.4R	5.2+-0.4R
		18"	q_a	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204	1369	2204
			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	6.3+-0.8R	6.3+-0.8R	6.3+-0.8R
36/4	18 ga	24"	q_a	1315	2117	1369	2204	1257	2024	1313	2114	1225	1973	1275	2053
			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	7.3+-1.1R	7.3+-1.1R	7.3+-1.1R
		4"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			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	4.3+-0.2R	4.4+-0.1R	4.4+-0.1R	4.4+-0.1R	4.4+-0.1R
		6"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			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	5.1+-0.3R	5.1+-0.3R	5.1+-0.3R
		8"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			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	5.9+-0.4R	5.9+-0.4R	5.9+-0.4R
		12"	q_a	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784	1108	1784
			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	7.1+-0.8R	7.1+-0.8R	7.1+-0.8R
20 ga	18"	18"	q_a	1108	1784	1108	1784	1040	1674	1057	1701	1069	1721	1007	1621
			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	8.7+-1.3R	8.7+-1.3R	8.7+-1.3R
		24"	q_a	974	1568	1015	1634	914	1472	956	1540	881	1419	920	1481
			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	9.9+-1.9R	9.9+-1.9R	9.9+-1.9R
		4"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1355
			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	6.5+-0.3R	6.5+-0.3R	6.5+-0.3R
		6"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1355
			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	7.7+-0.6R	7.7+-0.6R	7.7+-0.6R
		8"	q_a	843	1357	843	1357	843	1357	843	1357	843	1357	843	1355
			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	8.8+-0.9R	8.8+-0.9R	8.8+-0.9R
22 ga	12"	12"	q_a	843	1357	837	1348	825	1329	816	1314	809	1303	803	1294
			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	10.6+-1.6R	10.6+-1.6R	10.6+-1.6R
		18"	q_a	772	1357	768	1237	691	1113	701	1129	708	1140	657	1058
			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	12.7+-2.5R	12.7+-2.5R	12.7+-2.5R
		24"	q_a	656	1056	678	1091	599	964	625	1006	568	914	593	954
			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	14.3+-3.2R	14.3+-3.2R	14.3+-3.2R
		4"	q_a	706	1137	706	1137	706	1137	706	1137	706	1137	644	1031
			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	8.3+-0.6R	8.3+-0.6R	8.3+-0.6R
22 ga	6"	6"	q_a	706	1137	706	1137	706	1137	706	1137	706	1137	644	1031
			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	9.9+-1R	9.9+-1R	9.9+-1R
		8"	q_a	706	1137	706	1137	706	1137	706	1137	706	1137	644	1031
			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	11.3+-1.5R	11.3+-1.5R	11.3+-1.5R
		12"	q_a	671	1080	653	1051	640	1030	630	1015	623	1003	617	993
			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	13.5+-2.4R	13.5+-2.4R	13.5+-2.4R
22 ga	18"	18"	q_a	601	1080	594	956	528	850	533	859	537	865	495	797
			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	15.9+-3.5R	15.9+-3.5R	15.9+-3.5R
22 ga	24"	24"	q_a	508	818	520	837	455	733	473	761	426	686	444	715
			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	17.6+-4.4R	17.6+-4.4R	17.6+-4.4R



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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"									
16 ga	16 ga	4"	q_a	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+0.2R	3.2+0.2R	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	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+0.4R	3.6+0.3R	3.7+0.3R	3.8+0.3R	3.8+0.3R										
		8"	q_a	2662	4286	2689	4329	2628	4231	2654	4272	2609	4201	2632	4215	2134	3414	1763	2821	1482	2371
			F	3.8+0.6R	3.9+0.6R	4+0.5R	4.1+0.5R	4.1+0.5R	4.1+0.5R	4.1+0.5R	4.1+0.5R	4.2+0.4R	4.2+0.4R	4.2+0.4R	4.2+0.4R	4.2+0.4R	4.2+0.4R				
		12"	q_a	2331	3752	2292	3690	2265	3646	2245	3614	2230	3590	2218	3570	2134	3414	1763	2821	1482	2371
			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	4.9+0.8R	5+0.8R	5+0.8R	5.1+0.8R	5.1+0.8R	5.1+0.8R	5.1+0.8R	5.1+0.7R	5.1+0.7R			
		18"	q_a	2063	3752	2074	3339	1851	2981	1893	3048	1923	3096	1779	2864	1817	2925	1763	2821	1482	2371
			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	5.9+1.3R	6+1.3R	6.1+1.3R	6.2+1.3R	6.2+1.3R	6.2+1.3R	6.2+1.3R	6.2+1.3R	6.2+1.3R			
36/7/4	18 ga	24"	q_a	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	6.7+1.8R	6.9+1.8R	7+1.8R	7+1.8R	7+1.8R	7+1.8R	7+1.8R	7.2+1.8R	7.2+1.8R			
		4"	q_a	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	4.4+0.3R	4.4+0.3R											
		6"	q_a	2184	3516	2169	3492	2159	3475	2151	3463	2145	3454	1914	3062	1550	2481	1281	2050	1077	1723
			F	4.6+0.7R	4.7+0.7R	4.8+0.6R	4.9+0.6R	5+0.6R	5+0.6R	5+0.6R	5+0.6R	5.1+0.5R									
		8"	q_a	2006	3229	2027	3263	1964	3162	1987	3198	1942	3126	1914	3062	1550	2481	1281	2050	1077	1723
			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	5.6+0.8R	5.7+0.8R	5.8+0.8R	5.8+0.8R	5.8+0.8R	5.8+0.8R	5.8+0.7R	5.8+0.7R				
		12"	q_a	1709	2752	1668	2685	1639	2639	1618	2605	1601	2578	1589	2558	1550	2481	1281	2050	1077	1723
			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									
36/7/4	20 ga	18"	q_a	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	8.3+2.1R	8.3+2.1R	8.3+2.1R	8.3+2.1R	8.3+2.1R	8.5+2.1R	8.5+2.1R			
		24"	q_a	1215	1957	1273	2049	1102	1774	1163	1872	1042	1678	1098	1768	1005	1619	1055	1699	980	1578
			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									
		4"	q_a	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+0.7R	6.3+0.7R	6.4+0.6R									
		6"	q_a	1520	2447	1501	2416	1487	2395	1478	2379	1470	2367	1265	2024	1025	1640	847	1355	712	1139
			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+1.1R									
		8"	q_a	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	8.5+1.6R	8.7+1.6R	8.7+1.6R	8.7+1.6R	8.7+1.6R	8.7+1.6R	8.7+1.6R			
22 ga	22 ga	12"	q_a	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	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	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	22 ga	4"	q_a	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	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	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	10.4+2.4R	10.7+2.4R	10.9+2.4R	10.9+2.4R	10.9+2.4R	10.9+2.4R	10.9+2.4R	11.1+2.3R	11.1+2.3R			
22 ga	22 ga	12"	q_a	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	12.1+3.4R	12.4+3.5R	12.8+3.5R	13.1+3.5R									
		18"	q_a	743	1385	725	1167	622	1002	626	1008	629	1013	568	914	576	927	583	938	540	866
			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	13.6+4.5R	14.2+4.7R	14.7+4.8R	14.7+4.8R	14.7+4.8R	14.7+4.8R	14.7+4.8R	15.2+5R	15.2+5R			
22 ga	22 ga	24"	q_a	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	14.6+5.3R	15.4+5.6R	16.1+5.8R	16.1+5.8R	16.1+5.8R	16.1+5.8R	16.1+5.8R	16.7+6R	16.7+6R			



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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"									
16 ga	16 ga	4"	q_a	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	3.1+-0.1R	3.1+-0.1R	3.1+-0.1R	3.1+-0.1R	3.1+-0.1R	3.1+-0.1R			
		6"	q_a	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+-0.3R	3.5+-0.2R	3.6+-0.2R	3.6+-0.2R	3.6+-0.2R	3.6+-0.2R	3.6+-0.2R	3.6+-0.2R	3.6+-0.2R			
		8"	q_a	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	3.9+-0.4R	4+-0.3R								
	18 ga	12"	q_a	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	4.4+-0.6R	4.5+-0.6R	4.6+-0.6R								
		18"	q_a	2544	4408	2503	4029	2215	3566	2231	3592	2243	3611	2059	3316	2088	3361	1763	2821	1482	2371
			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	5.3+-0.9R								
		24"	q_a	2158	3474	2192	3530	1912	3078	1976	3182	1778	2863	1846	2972	1694	2728	1760	2821	1482	2371
			F	4+-0.7R	4.3+-0.9R	4.6+-0.9R	4.9+-1R	5.1+-1R	5.3+-1R	5.5+-1R	5.5+-1R	5.7+-1R	5.9+-1R								
36/9	18 ga	4"	q_a	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	4.1+-0.3R	4.2+-0.2R	4.2+-0.2R								
		6"	q_a	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	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									
	20 ga	12"	q_a	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	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	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									
22 ga	20 ga	4"	q_a	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	6.1+-0.5R									
		6"	q_a	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	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									
	22 ga	12"	q_a	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	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	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									



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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"	
16 ga	16 ga	4"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821
		4"	q_f	3.3+0.1R	3.3+0R								
		6"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821
		6"	q_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	3.9+0R
		8"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821
		8"	q_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	4.5+0.1R
		12"	q_a	1772	2853	1772	2853	1772	2853	1772	2853	1763	2821
		12"	q_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	5.6+0.2R
		18"	q_a	1772	2853	1772	2853	1648	2653	1675	2696	1694	2727
		18"	q_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	7.3+0.3R
	18 ga	24"	q_a	1544	2486	1609	2590	1447	2329	1514	2437	1393	2243
		24"	q_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	8.8+0.6R
36/4	18 ga	4"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
		4"	q_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	4.5+0R
		6"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
		6"	q_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	5.4+0.1R
		8"	q_a	1362	2192	1362	2192	1362	2192	1362	2192	1362	2192
		8"	q_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	6.3+0.2R
		12"	q_a	1362	2192	1362	2192	1362	2192	1357	2185	1349	2172
	20 ga	12"	q_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+0.4R	8+0.3R
		18"	q_a	1291	2192	1288	2074	1167	1879	1185	1907	1198	1928
		18"	q_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	10.5+0.7R
		24"	q_a	1101	1773	1142	1838	1015	1634	1060	1707	967	1557
		24"	q_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	12.8+1.1R
	22 ga	4"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581
		4"	q_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	6.8+0.1R
		6"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581
		6"	q_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	8.4+0.2R
		8"	q_a	982	1581	982	1581	982	1581	982	1581	982	1581
		8"	q_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	9.9+0.4R
		12"	q_a	945	1521	921	1483	904	1455	891	1434	881	1418
	24 ga	12"	q_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	12.8+0.8R
		18"	q_a	847	1521	839	1350	747	1203	756	1217	762	1226
		18"	q_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	16.8+1.6R
		24"	q_a	717	1155	735	1184	645	1038	670	1079	605	975
		24"	q_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	20.4+2.5R
	22 ga	4"	q_a	801	1289	801	1289	801	1289	801	1289	779	1247
		4"	q_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	8.9+0.2R
		6"	q_a	801	1289	801	1289	801	1289	801	1289	779	1247
		6"	q_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	11.1+0.4R
		8"	q_a	801	1289	801	1289	801	1289	797	1284	801	1289
		8"	q_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	13.2+0.7R
		12"	q_a	726	1168	702	1131	686	1104	673	1084	664	1068
	24 ga	12"	q_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	17.2+1.4R
		18"	q_a	647	1168	636	1024	561	904	565	910	568	915
		18"	q_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	22.5+2.7R
		24"	q_a	547	881	556	895	483	778	500	805	449	723
		24"	q_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	27.2+4R



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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"								
16 ga	4"	q_a q_f	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+-0.1R	3.3+-0.1R	3.3+-0.1R	3.3+-0.1R	3.3+-0R	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	3.8+-0.2R	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+-0.3R	4.4+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.2R	4.5+-0.2R	4.5+-0.2R	4.5+-0.2R	4.5+-0.1R	4.5+-0.1R	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	5.5+-0.4R	5.6+-0.4R	5.6+-0.4R	5.6+-0.4R	5.6+-0.4R	5.6+-0.3R	5.6+-0.3R	5.6+-0.3R	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	7.1+-0.8R	7.2+-0.7R	7.2+-0.7R	7.2+-0.7R	7.3+-0.6R	7.3+-0.6R	7.3+-0.6R	7.3+-0.6R	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	8.7+-1.1R	8.8+-1R	8.8+-1R	8.8+-1R	8.8+-1R	8.8+-1R	8.8+-1R			
36/7/4	4"	q_a q_f	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														
	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													
	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	6.2+-0.4R	6.2+-0.4R	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+-0.8R	7.9+-0.7R	7.9+-0.7R	8+-0.7R	8+-0.6R	8+-0.6R	8+-0.6R	8+-0.6R	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										
	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	12.6+-2R	12.7+-1.9R	12.7+-1.9R	12.7+-1.9R	12.7+-1.9R	12.7+-1.9R	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+-0.3R	6.7+-0.3R	6.7+-0.2R	6.8+-0.2R	6.8+-0.2R	6.8+-0.2R	6.8+-0.2R	6.8+-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	8.2+-0.6R	8.3+-0.6R	8.3+-0.5R	8.3+-0.5R	8.3+-0.4R	8.3+-0.4R	8.3+-0.4R	8.3+-0.4R	8.3+-0.4R	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	9.8+-0.8R	9.9+-0.7R	9.9+-0.7R	9.9+-0.7R	9.9+-0.7R	9.9+-0.7R	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	12.4+-1.6R	12.5+-1.6R	12.6+-1.6R	12.6+-1.6R	12.7+-1.5R	12.7+-1.5R	12.7+-1.5R	12.7+-1.5R	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	16.7+-3.3R	16.7+-3.1R	16.7+-3R	16.7+-3R	16.7+-2.9R	16.7+-2.9R	16.7+-2.9R	16.7+-2.9R	16.7+-2.9R	16.7+-2.9R			
22 ga	4"	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	18.6+-4.7R	19.1+-4.6R	19.5+-4.5R	19.8+-4.3R	19.8+-4.3R	20.1+-4.2R	20.1+-4.2R	20.1+-4.2R	20.1+-4.2R	20.1+-4.2R			
	6"	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+-0.5R	8.8+-0.4R	8.8+-0.4R	8.9+-0.4R	8.9+-0.4R	8.9+-0.4R	8.9+-0.4R	8.9+-0.4R	8.9+-0.4R			
	8"	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	10.9+-1R	11+-0.9R	11+-0.8R	11.1+-0.8R	11.1+-0.8R	11.1+-0.8R	11.1+-0.8R	11.1+-0.8R	11.1+-0.8R			
	12"	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+-1.5R	13.1+-1.4R	13.1+-1.4R	13.2+-1.3R	13.2+-1.3R	13.2+-1.3R	13.2+-1.3R	13.2+-1.3R	13.2+-1.3R			
	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	21.1+-5R	21.5+-4.8R	21.9+-4.7R	21.9+-4.7R	22.2+-4.5R	22.2+-4.5R	22.2+-4.5R	22.2+-4.5R	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	866
		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+-6.7R									



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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"								
16 ga	4"	q_a q_f	3544	5706	3544	5706	3544	5706	3544	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	3.2+-0.1R	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R							
	6"	q_a q_f	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	3.8+-0.1R	3.8+-0.1R							
	8"	q_a q_f	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	4.3+-0.2R	4.3+-0.2R	4.4+-0.2R	4.4+-0.2R							
	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	5.2+-0.4R	5.3+-0.4R	5.3+-0.3R	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	6.4+-0.8R	6.5+-0.7R	6.6+-0.7R	6.7+-0.6R	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+-1R									
36/9	4"	q_a q_f	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	4.4+-0.1R	4.4+-0.1R							
	6"	q_a q_f	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	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	5.9+-0.4R	6+-0.4R	6+-0.3R	6.1+-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	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"	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	10.9+-1.5R	11.2+-1.5R	11.4+-1.4R	11.6+-1.4R									
	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	8.4+-0.5R	8.5+-0.5R	8.5+-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	10.3+-0.9R	10.4+-0.8R	10.5+-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	17.8+-3.6R	18.1+-3.6R	18.6+-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



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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"			
16 ga	4"	q_a	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1595	2568	1482 2371
		F	3.3+0.1R	3.3+0R											
	6"	q_a	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+0.1R	3.9+0.1R	3.9+0R	3.9+0R	3.9+0R	
	8"	q_a	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	4.4+0.1R	4.5+0.1R	4.5+0.1R	4.5+0.1R	4.5+0.1R	4.5+0.1R	
18 ga	12"	q_a	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							
	18"	q_a	1595	2568	1595	2568	1548	2493	1573	2533	1591	2562	1506	2424	1529 2462
		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	7.2+0.4R	7.3+0.3R	7.3+0.3R	7.3+0.3R	
	24"	q_a	1448	2331	1511	2432	1369	2204	1431	2305	1325	2133	1382	2225	1297 2088
		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	8.8+0.6R	8.8+0.6R	8.8+0.6R	
36/4	4"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281 2050
		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+0.1R	4.5+0.1R	4.5+0R	4.5+0R	4.5+0R	4.5+0R	
	6"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281 2050
		F	5.2+0.2R	5.3+0.2R	5.3+0.2R	5.3+0.1R	5.4+0.1R								
	8"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281 2050
		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	6.3+0.2R	6.3+0.2R	6.3+0.2R	
20 ga	12"	q_a	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1302	2096	1281 2050
		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+0.4R	8+0.4R	8+0.4R	8+0.4R	
	18"	q_a	1254	2096	1253	2018	1139	1834	1157	1862	1170	1883	1093	1760	1111 1789
		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	10.4+0.7R	10.5+0.7R	10.5+0.7R	10.5+0.7R	
	24"	q_a	1073	1727	1114	1793	992	1598	1038	1670	948	1527	991	1595	921 1482
		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+1.2R	12.8+1.2R	12.8+1.2R	12.8+1.2R	
22 ga	4"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847 1355
		F	6.6+0.3R	6.6+0.2R	6.7+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	6.8+0.1R	6.8+0.1R	
	6"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847 1355
		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	8.3+0.3R	8.3+0.3R	8.4+0.2R	8.4+0.2R	
	8"	q_a	959	1544	959	1544	959	1544	959	1544	959	1544	959	1544	847 1355
		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+0.5R	9.8+0.5R	9.8+0.4R	9.9+0.4R	9.9+0.4R	
	12"	q_a	931	1498	908	1462	891	1435	879	1416	870	1400	862	1388	856 1378
		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	12.8+0.8R	12.8+0.8R	12.8+0.8R	
22 ga	18"	q_a	835	1498	828	1333	739	1189	747	1203	754	1213	696	1120	707 1138
		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	16.8+1.6R	16.8+1.6R	16.8+1.6R	
	24"	q_a	707	1139	726	1169	638	1026	663	1068	599	965	625	1006	576 927
		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	20.4+2.5R	20.4+2.5R	20.4+2.5R	
	4"	q_a	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	644 1031
		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	8.8+0.2R	8.9+0.2R	8.9+0.2R	8.9+0.2R	8.9+0.2R	
22 ga	6"	q_a	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	644 1031
		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+0.5R	11.1+0.4R	11.1+0.4R	11.1+0.4R	
	8"	q_a	751	1208	751	1208	751	1208	751	1208	751	1208	751	1208	644 1031
		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	13.1+0.8R	13.2+0.7R	13.2+0.7R	13.2+0.7R	
	12"	q_a	697	1123	677	1090	662	1066	651	1048	643	1035	636	1024	630 1015
		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	17.2+1.4R	17.2+1.4R	17.2+1.4R	
22 ga	18"	q_a	623	1123	614	989	544	876	549	883	552	889	507	817	515 829
		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	22.5+2.7R	22.5+2.7R	22.5+2.7R	
	24"	q_a	527	848	537	865	469	755	486	782	437	704	455	732	417 672
		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+4.2R	27.2+4.2R	27.2+4.2R	27.2+4.2R	

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



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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"									
16 ga	16 ga	4"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	2634	4215	2134	3414	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											
		6"	q_a	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														
		8"	q_a	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	4.4+0.2R	4.4+0.2R	4.4+0.2R	4.5+0.2R								
		12"	q_a	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+0.4R	5.6+0.4R	5.6+0.3R								
		18"	q_a	2238	4108	2240	3606	1979	3186	2020	3253	2051	3302	1884	3033	1924	3098	1763	2821	1482	2371
			F	6.5+1.2R	6.7+1.1R	6.9+1R	7+0.9R	7.1+0.8R	7.1+0.8R	7.1+0.8R	7.2+0.7R	7.2+0.7R	7.2+0.7R	7.3+0.6R							
36/7/4	18 ga	24"	q_a	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	8.7+1.1R	8.8+1R								
		4"	q_a	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														
		6"	q_a	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	5.3+0.3R	5.4+0.2R												
		8"	q_a	2223	3579	2244	3613	2161	3480	2187	3521	2128	3426	1914	3062	1550	2481	1281	2050	1077	1723
			F	6+0.6R	6.1+0.6R	6.1+0.5R	6.2+0.5R	6.2+0.4R	6.2+0.4R	6.2+0.4R	6.3+0.3R										
		12"	q_a	1864	3002	1808	2910	1768	2847	1739	2800	1717	2764	1699	2736	1550	2481	1281	2050	1077	1723
			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+0.8R	7.9+0.7R	8+0.7R									
		18"	q_a	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	10.6+1.2R	10.7+1.2R	10.8+1.2R	10.9+1.2R	10.9+1.2R	10.9+1.2R	10.9+1.2R	10.9+1.2R	
20 ga	20 ga	24"	q_a	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	12.8+1.8R	12.9+1.7R	13.0+1.6R	13.1+1.5R	13.2+1.4R	13.3+1.3R	13.4+1.2R	13.5+1.1R	
		4"	q_a	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+0.3R	6.7+0.3R	6.7+0.3R	6.7+0.2R	6.8+0.2R							
		6"	q_a	1651	2657	1624	2615	1606	2586	1593	2564	1583	2548	1265	2024	1025	1640	847	1355	712	1139
			F	7.8+0.9R	8+0.8R	8.1+0.7R	8.2+0.7R	8.2+0.6R	8.2+0.6R	8.3+0.6R	8.3+0.5R	8.3+0.5R	8.3+0.5R	8.3+0.4R							
		8"	q_a	1464	2357	1472	2371	1402	2257	1418	2282	1369	2204	1265	2024	1025	1640	847	1355	712	1139
			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									
22 ga	22 ga	12"	q_a	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	12.8+1.4R	12.9+1.3R	13.0+1.2R	13.1+1.1R	13.2+1.0R	13.3+0.9R	13.4+0.8R	13.5+0.7R	
		18"	q_a	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	15.3+3.4R	15.7+3.3R	16+3.1R	16.2+3R	16.5+2.9R	16.7+2.7R	16.9+2.6R	17.1+2.5R	17.3+2.4R	17.5+2.3R	17.7+2.2R	17.9+2.1R	18.1+2R	
		24"	q_a	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	20.4+4.1R	20.7+4.0R	21.1+3.9R	21.5+3.8R	21.9+3.7R	22.2+3.6R	22.5+3.5R	22.8+3.4R	
		4"	q_a	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	8.9+0.4R								
22 ga	22 ga	6"	q_a	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	11.1+0.8R	11.1+0.8R							
		8"	q_a	1084	1745	1087	1750	1029	1657	1040	1674	1000	1611	962	1539	779	1247	644	1031	541	866
			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+1.5R	13.1+1.4R	13.1+1.4R	13.2+1.3R								
		12"	q_a	886	1427	844	1359	814	1311	793	1277	776	1250	763	1229	753	1212	644	1031	541	866
			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	17.3+2.4R	17.5+2.3R	17.7+2.2R	17.9+2.1R	18.1+2R	18.3+1.9R	18.5+1.8R	18.7+1.7R	
		18"	q_a	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														



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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"									
16 ga	16 ga	4"	q_a	3190	5136	3190	5136	3190	5136	3190	5136	2634	4215	2134	3414	1763	2821	1482	2371		
			F	3.2+-0.1R	3.3+-0.1R	3.3+-0R	3.3+-0R	3.3+-0R	3.3+-0R	3.3+-0R											
		6"	q_a	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													
		8"	q_a	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	4.4+-0.2R	4.4+-0.1R	4.4+-0.1R											
	18 ga	12"	q_a	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	5.2+-0.4R	5.3+-0.4R	5.3+-0.3R	5.4+-0.3R	5.4+-0.3R	5.4+-0.3R	5.4+-0.3R	5.4+-0.3R	5.4+-0.3R				
		18"	q_a	2786	5035	2720	4379	2387	3843	2393	3853	2398	3860	2190	3526	2134	3414	1763	2821	1482	2371
			F	5.7+-0.9R	6+-0.8R	6.2+-0.8R	6.4+-0.8R	6.5+-0.7R	6.5+-0.7R	6.6+-0.7R	6.7+-0.6R	6.8+-0.6R	6.8+-0.6R	6.8+-0.6R	6.8+-0.6R	6.8+-0.6R					
		24"	q_a	2366	3809	2379	3830	2062	3319	2117	3409	1897	3054	1961	3157	1794	2888	1763	2821	1482	2371
			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	8.1+-0.9R	8.1+-0.9R	8.1+-0.9R	8.1+-0.9R					
36/9	18 ga	4"	q_a	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													
		6"	q_a	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	5.2+-0.2R	5.3+-0.2R	5.3+-0.2R	5.3+-0.2R	5.3+-0.2R	5.3+-0.2R	5.3+-0.2R					
		8"	q_a	2604	4192	2604	4192	2572	4140	2583	4158	2422	3876	1914	3062	1550	2481	1281	2050	1077	1723
			F	5.5+-0.5R	5.7+-0.5R	5.8+-0.5R	5.9+-0.4R	5.9+-0.4R	5.9+-0.4R	6+-0.4R	6+-0.3R	6.1+-0.3R	6.1+-0.3R	6.1+-0.3R	6.1+-0.3R	6.1+-0.3R					
	20 ga	12"	q_a	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+-0.7R	7.5+-0.6R	7.6+-0.6R	7.6+-0.6R	7.6+-0.6R	7.6+-0.6R					
		18"	q_a	2058	3726	1981	3189	1719	2768	1708	2749	1699	2735	1541	2481	1550	2481	1281	2050	1077	1723
			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	9.4+-1.2R	9.5+-1.1R	9.5+-1.1R	9.5+-1.1R	9.5+-1.1R	9.5+-1.1R					
		24"	q_a	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	11.4+-1.6R	11.4+-1.6R	11.4+-1.6R	11.4+-1.6R					
22 ga	20 ga	4"	q_a	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+-0.3R	6.6+-0.2R	6.6+-0.2R	6.6+-0.2R	6.6+-0.2R	6.6+-0.2R					
		6"	q_a	1918	3088	1918	3088	1912	3078	1880	3026	1601	2562	1265	2024	1025	1640	847	1355	712	1139
			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	8.1+-0.4R	8.1+-0.4R	8.1+-0.4R	8.1+-0.4R					
	22 ga	8"	q_a	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	9.4+-0.7R	9.4+-0.7R	9.4+-0.7R	9.4+-0.7R					
		12"	q_a	1529	2462	1429	2301	1359	2188	1307	2104	1267	2039	1235	1988	1025	1640	847	1355	712	1139
			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	11.7+-1.3R	11.7+-1.3R	11.7+-1.3R	11.7+-1.3R					
36/9	18 ga	18"	q_a	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	14.7+-2.3R	14.7+-2.3R	14.7+-2.3R	14.7+-2.3R					
		24"	q_a	1182	1904	1139	1834	973	1567	971	1563	860	1385	872	1404	785	1264	806	1298	712	1139
	22 ga		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	17.2+-3.2R	17.2+-3.2R	17.2+-3.2R	17.2+-3.2R					
		4"	q_a	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	8.6+-0.4R	8.6+-0.4R	8.6+-0.4R						
36/9	16 ga	6"	q_a	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	10.6+-0.8R	10.6+-0.8R	10.6+-0.8R						
		8"	q_a	1344	2164	1316	2119	1230	1981	1225	1973	1168	1880	962	1539	779	1247	644	1031	541	866
			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	12.3+-1.2R	12.3+-1.2R							
	20 ga	12"	q_a	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	15.3+-2.1R	15.3+-2.1R	15.3+-2.1R						
		18"	q_a	1021	1836	957	1542	821	1322	800	1289	785	1264	707	1138	703	1132	644	1031	541	866
			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	19+-3.5R	19+-3.5R	19+-3.5R						
B-36 36/9	B-36 36/9	24"	q_a	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	22+-4.8R	22+-4.8R	22+-4.8R						



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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"			
16 ga	16 ga	4"	q_a	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959	1217	1959
			F	3.3+0.1R	3.3+0R	3.3+0R									
		6"	q_a	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+0.1R	3.9+0R	3.9+0R	3.9+0R	
		8"	q_a	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	4.5+0.1R	4.5+0.1R	
	18 ga	12"	q_a	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	5.6+0.2R	5.6+0.2R	
		18"	q_a	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	7.2+0.4R	7.3+0.3R		
		24"	q_a	1217	1959	1217	1959	1173	1889	1217	1959	1149	1849	1193	1920
			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	8.8+0.6R		
36/4	18 ga	4"	q_a	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+0.1R	4.5+0R	4.5+0R	4.5+0R	4.5+0R	
		6"	q_a	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	5.4+0.1R	5.4+0.1R	
		8"	q_a	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	6.3+0.2R		
	20 ga	12"	q_a	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+0.4R	8+0.3R		
		18"	q_a	1046	1684	1046	1684	1005	1618	1021	1644	1033	1663	976	1571
			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	10.4+0.7R	10.5+0.7R		
		24"	q_a	940	1514	980	1579	887	1428	928	1493	857	1380	895	1440
			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			
22 ga	20 ga	4"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	847	1355
			F	6.6+0.3R	6.6+0.2R	6.7+0.2R	6.7+0.2R	6.7+0.2R	6.7+0.2R	6.8+0.1R	6.8+0.1R	6.8+0.1R	6.8+0.1R		
		6"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	847	1355
			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	8.3+0.3R	8.4+0.2R		
		8"	q_a	856	1377	856	1377	856	1377	856	1377	856	1377	847	1355
			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			
	22 ga	12"	q_a	856	1377	846	1361	833	1341	823	1326	816	1314	810	1305
			F	11.2+1.5R	11.6+1.3R	11.9+1.2R	12.1+1.1R	12.3+1.1R	12.5+1R	12.6+0.9R	12.7+0.9R	12.8+0.8R			
		18"	q_a	779	1377	775	1248	697	1122	706	1137	713	1149	662	1066
			F	13.7+2.4R	14.5+2.3R	15.1+2.2R	15.5+2.1R	15.9+2R	16.2+1.9R	16.4+1.8R	16.6+1.7R	16.8+1.6R			
		24"	q_a	662	1065	683	1100	603	971	629	1013	571	920	596	960
			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			



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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"			
16 ga	4"	q_a q_f	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+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	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	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	4.4+0.2R	4.4+0.2R	4.5+0.2R	4.5+0.2R	4.5+0.2R		
18 ga	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+0.4R	5.6+0.3R	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	7.1+0.8R	7.2+0.7R	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				
36/7/4	4"	q_a q_f	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	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	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	6.2+0.4R	6.3+0.3R	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+0.8R	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	8.8+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				



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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"			
16 ga	4"	q_a q_f	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	3.2+-0.1R	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R		
	6"	q_a q_f	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									
	8"	q_a q_f	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	4.3+-0.2R	4.3+-0.2R	4.4+-0.2R	4.4+-0.2R		
	12"	q_a q_f	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	5.2+-0.4R	5.3+-0.4R	5.3+-0.3R	5.4+-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	6.4+-0.8R	6.5+-0.7R	6.6+-0.7R	6.7+-0.6R	6.8+-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	7.4+-1.1R	7.6+-1.1R	7.8+-1R	7.9+-1R	8+-1R	8+-1R	8.1+-0.9R		
36/9	4"	q_a q_f	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									
	6"	q_a q_f	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	5.3+-0.2R	5.3+-0.2R		
	8"	q_a q_f	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	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	7.6+-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	9.6+-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	11.4+-1.6R	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+-0.3R	6.6+-0.2R	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	8.1+-0.4R	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	9.4+-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	11.7+-1.3R	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	14.7+-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	17.2+-3.2R	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	8.5+-0.4R	8.6+-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	10.6+-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	12.3+-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	15.3+-2.1R	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	19+-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	22+-4.8R	22+-4.8R		



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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"	
16 ga	4"	q_a	q_f	1259	2027	1259	2027	1259	2027	1259	2027	1259	2027
		F		3.3+0.1R	3.3+0R								
	6"	q_a	q_f	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
		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
		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
		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
		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	
36/4	4"	q_a	q_f	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
		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
		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
		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
		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
		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
		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
		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
		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	1270	783	1260	778	1252
		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
		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
		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
		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
		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
		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
		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
		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
		F		19.8+4.7R	21.5+4.8R	22.8+4.7R	23.9+4.7R	24.8+4.6R	25.5+4.4R	26.2+4.3R	26.7+4.2R	27.2+4R	



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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"			
16 ga	16 ga	4"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821
			F	3.3+-0.1R	3.3+0R	3.3+0R	3.3+0R	3.3+0R							
		6"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821
			F	3.8+-0.2R	3.8+-0.2R	3.8+-0.2R	3.9+-0.1R								
		8"	q_a	2501	4027	2518	4054	2474	3984	2497	4020	2460	3960	2480	3993
			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	4.4+-0.2R	4.5+-0.2R	4.5+-0.2R	4.5+-0.2R	4.5+-0.1R	4.5+-0.1R
		12"	q_a	2212	3561	2180	3510	2158	3474	2142	3448	2129	3428	2119	3412
			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+-0.4R	5.6+-0.3R	5.6+-0.3R	5.6+-0.3R	5.6+-0.3R
		18"	q_a	1970	3561	1983	3193	1781	2868	1822	2934	1852	2981	1719	2768
			F	6.5+-1.2R	6.7+-1.1R	6.9+-1R	7+-0.9R	7.1+-0.8R	7.1+-0.8R	7.1+-0.8R	7.2+-0.7R	7.2+-0.7R	7.2+-0.7R	7.3+-0.6R	7.3+-0.6R
	18 ga	24"	q_a	1625	2617	1722	2772	1516	2441	1607	2588	1459	2348	1539	2478
			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	8.8+-1R	8.8+-1R	8.8+-1R
36/7/4	18 ga	4"	q_a	2068	3329	2068	3329	2068	3329	2068	3329	1914	3062	1550	2481
			F	4.4+-0.2R	4.4+-0.2R	4.4+-0.2R	4.5+-0.1R								
		6"	q_a	2068	3329	2060	3316	2051	3303	2045	3293	2040	3285	1914	3062
			F	5.2+-0.4R	5.3+-0.4R	5.3+-0.3R	5.3+-0.3R	5.3+-0.3R	5.4+-0.2R						
		8"	q_a	1914	3082	1934	3114	1879	3026	1900	3059	1861	2996	1880	3026
			F	6+-0.6R	6.1+-0.6R	6.1+-0.5R	6.2+-0.5R	6.2+-0.4R	6.2+-0.4R	6.2+-0.4R	6.3+-0.3R	6.3+-0.3R	6.3+-0.3R	6.3+-0.3R	6.3+-0.3R
		12"	q_a	1644	2646	1608	2589	1583	2548	1564	2519	1550	2496	1539	2478
			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+-0.8R	7.9+-0.7R	8+-0.7R	8+-0.6R	8+-0.6R	8+-0.6R
	20 ga	18"	q_a	1440	2646	1441	2320	1272	2048	1298	2090	1318	2122	1210	1948
			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	10.5+-1.2R	10.5+-1.2R	10.5+-1.2R
		24"	q_a	1175	1891	1234	1987	1072	1726	1133	1824	1018	1639	1073	1728
			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	12.7+-1.9R	12.7+-1.9R	12.7+-1.9R
		4"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1265	2024	1025	1640
			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	6.8+-0.2R	6.8+-0.2R	6.8+-0.2R
		6"	q_a	1464	2357	1448	2330	1436	2312	1428	2298	1421	2288	1265	2024
22 ga	20 ga	8"	q_a	1317	2121	1329	2139	1275	2053	1290	2078	1253	2017	1265	2024
			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	9.9+-0.7R	9.9+-0.7R	9.9+-0.7R
		12"	q_a	1097	1766	1060	1707	1034	1665	1015	1635	1001	1611	989	1593
			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	12.7+-1.5R	12.7+-1.5R	12.7+-1.5R
	24 ga	18"	q_a	950	1766	938	1511	814	1311	826	1329	834	1343	758	1220
			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	16.6+-2.8R	16.6+-2.8R	16.6+-2.8R
		24"	q_a	773	1245	798	1285	685	1102	716	1153	638	1027	669	1077
			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	20.1+-4.2R	20.1+-4.2R	20.1+-4.2R



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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"									
16 ga	16 ga	4"	q_a	2518	4054	2518	4054	2518	4054	2518	4054	2518	4054	2134	3414	1763	2821	1482	2371		
			F	3.2+-0.1R	3.3+-0.1R	3.3+-0R	3.3+-0R	3.3+-0R	3.3+-0R	3.3+-0R											
		6"	q_a	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														
		8"	q_a	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	4.4+-0.2R	4.4+-0.1R	4.4+-0.1R	4.4+-0.1R										
	18 ga	12"	q_a	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	5.2+-0.4R	5.3+-0.4R	5.3+-0.3R	5.4+-0.3R									
		18"	q_a	2419	4054	2389	3846	2125	3421	2145	3453	2160	3477	1989	3203	2018	3250	1763	2821	1482	2371
			F	5.7+-0.9R	6+-0.8R	6.2+-0.8R	6.4+-0.8R	6.5+-0.7R	6.6+-0.7R	6.6+-0.7R	6.7+-0.6R	6.8+-0.6R									
		24"	q_a	2053	3305	2096	3375	1836	2955	1903	3064	1717	2764	1786	2875	1643	2644	1708	2749	1482	2371
			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									
36/9	18 ga	4"	q_a	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														
		6"	q_a	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	5.2+-0.2R	5.3+-0.2R										
		8"	q_a	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										
	20 ga	12"	q_a	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	7.6+-0.6R										
		18"	q_a	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										
		24"	q_a	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									
22 ga	20 ga	4"	q_a	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+-0.3R	6.6+-0.2R									
		6"	q_a	1594	2566	1594	2566	1594	2566	1594	2566	1594	2562	1265	2024	1025	1640	847	1355	712	1139
			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+-0.5R	8+-0.5R	8+-0.5R	8.1+-0.4R	8.1+-0.4R	8.1+-0.4R	8.1+-0.4R			
		8"	q_a	1594	2566	1594	2566	1516	2441	1521	2449	1464	2357	1265	2024	1025	1640	847	1355	712	1139
			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									
	22 ga	12"	q_a	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	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										
		24"	q_a	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									



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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"									
16 ga	4"	q_a	q_f	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371				
		F		2.6+0R																	
	6"	q_a	q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2134	3414	1763	2821	1482	2371		
		F		2.8+0R																	
	8"	q_a	q_f	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	3.1+0R												
18 ga	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														
	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	4.1+-0.2R	4.1+-0.2R	4.2+-0.2R									
	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	4.7+-0.3R	4.8+-0.3R										
36/4	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																	
	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																
	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+-0.1R	3.7+-0.1R	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														
	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	5+-0.2R	5+-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+-0.4R	5.5+-0.3R	5.6+-0.3R	5.7+-0.3R	5.7+-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																	
	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															
	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+-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+-0.2R	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+-0.3R	6.1+-0.3R	6.1+-0.3R	6.1+-0.2R	6.1+-0.2R	6.1+-0.2R	6.1+-0.2R	6.2+-0.2R	6.2+-0.2R	6.2+-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	6.8+-0.4R	6.9+-0.4R	6.9+-0.4R	6.9+-0.3R	6.9+-0.3R	7+-0.3R	7+-0.3R	7+-0.3R	7+-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																	
	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															
	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																
	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+-0.2R	6.1+-0.1R	6.1+-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+-0.3R	7.1+-0.3R	7.1+-0.3R	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+-0.5R	7.8+-0.4R	7.8+-0.4R	7.9+-0.4R	8+-0.4R									

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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"								
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															
	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															
	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+-0R	3+-0R	3+-0R													
18 ga	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	3.5+-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+-0.3R	4+-0.3R	4+-0.3R	4+-0.3R	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	4.4+-0.4R	4.5+-0.4R	4.5+-0.4R	4.6+-0.4R	4.6+-0.4R	4.6+-0.3R	4.7+-0.3R							
36/7	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	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+-0.1R	3.4+-0.1R	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	3.6+-0.1R	3.6+-0.1R	3.6+-0.1R	3.7+-0.1R									
	12"	q_a q_f	2362	3897	2243	3700	2159	3562	2097	3461	2050	3383	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+-0.2R	4.1+-0.2R	4.1+-0.2R	4.1+-0.2R	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	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	4.7+-0.3R	4.7+-0.3R	4.8+-0.3R	4.8+-0.3R	4.8+-0.2R	4.8+-0.2R	4.8+-0.2R	4.9+-0.2R	4.9+-0.2R	4.9+-0.2R	4.9+-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	5.4+-0.4R	5.4+-0.4R	5.5+-0.4R								
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	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+-0.1R	4.4+-0.1R	4.4+-0.1R	4.4+-0.1R	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	4.6+-0.1R	4.6+-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	5.1+-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	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+-0.4R	5.9+-0.3R	5.9+-0.3R	5.9+-0.3R	6+-0.3R	6+-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+-0.6R	6.5+-0.5R	6.6+-0.5R	6.6+-0.5R	6.7+-0.5R	6.7+-0.5R	6.7+-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	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	5.1+-0.1R	5.1+-0.1R	5.2+-0.1R	5.2+-0.1R	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	5.4+-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+-0.2R	6+-0.2R	6.1+-0.2R											
	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	6.8+-0.4R	6.9+-0.4R	6.9+-0.4R	6.9+-0.3R	6.9+-0.3R	7+-0.3R								
	24"	q_a q_f	809	1336	822	13														



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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"	
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	
		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	
		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	
36/4	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	
		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	
		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	
	18"	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	
	24"	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	
36/4	20 ga	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	
		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	
		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	
22 ga	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	
		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	
		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	



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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"								
16 ga	4"	q_a	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	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	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			
36/7	12"	q_a	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	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	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	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	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	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			
20 ga	12"	q_a	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	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	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			
22 ga	4"	q_a	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	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	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	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			
36/7	18"	q_a	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	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			
	4"	q_a	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			
22 ga	6"	q_a	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	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	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			
36/7	18"	q_a	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	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



EVALUATION REPORT

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TABLE 12a: BN-36/ B-36S 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"	
16 ga	16 ga	4"	q_a	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	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	984	1585	986	1587	948	1526	955	1537	928	1494
			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	847	1363	814	1311	791	1273	774	1245	760	1224
			F	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	
		18"	q_a	753	1363	734	1183	644	1036	645	1039	647	1041
			F	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	
	18 ga	24"	q_a	637	1026	641	1032	555	893	570	918	510	821
			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	
		4"	q_a	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	788	1268	788	1268	788	1268	788	1268	788	1268
36/4	18 ga		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	757	1218	756	1217	723	1165	728	1172	705	1135
			F	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	
		12"	q_a	647	1041	618	996	598	963	583	939	571	920
			F	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	
		18"	q_a	574	1041	557	897	485	781	485	780	484	780
			F	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	
		24"	q_a	488	785	486	783	419	675	428	690	382	616
			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	
		4"	q_a	592	953	592	953	592	953	592	953	592	953
20 ga	20 ga		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	592	953	585	942	576	928	570	918	565	909
			F	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	
		8"	q_a	539	868	536	864	510	821	512	825	494	795
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	
		12"	q_a	458	737	434	699	418	672	405	652	396	637
			F	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	
		18"	q_a	407	737	391	629	339	545	336	541	334	538
			F	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.4+0R	11.4+0R	11.4+0R	11.4+0R	11.4+0R	
		24"	q_a	347	559	342	551	294	473	298	479	265	426
22 ga	22 ga		F	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	14+0R	
		4"	q_a	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	482	777	471	758	463	745	457	735	452	728
			F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	
		8"	q_a	433	698	430	692	407	655	408	657	392	631
24 ga	24 ga		F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	
		12"	q_a	367	591	346	558	332	534	321	517	312	503
			F	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	
		18"	q_a	326	591	312	502	269	434	266	429	264	425
			F	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	
	24"	q_a	280	450	273	440	234	377	236	380	210	337	
			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	



EVALUATION REPORT

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TABLE 12b: BN-36/ B-36S 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"	
16 ga	4"	q_a q_f	1749	2816	1725	2777	1708	2751	1696	2731	1687	2716	1679
		F	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R
	6"	q_a q_f	1481	2385	1442	2322	1415	2279	1395	2246	1380	2222	1368
		F	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
	8"	q_a q_f	1290	2077	1285	2069	1207	1943	1215	1956	1162	1871	1174
		F	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R
18 ga	12"	q_a q_f	1050	1691	989	1592	947	1524	916	1475	892	1437	874
		F	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R
	18"	q_a q_f	910	1691	873	1406	744	1199	741	1193	738	1188	663
		F	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R
	24"	q_a q_f	757	1219	750	1207	635	1022	647	1042	572	920	588
		F	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R
36/7/4	4"	q_a q_f	1341	2159	1319	2123	1303	2098	1292	2080	1283	2066	1276
		F	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
	6"	q_a q_f	1124	1809	1089	1754	1065	1715	1048	1687	1034	1665	1023
		F	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R
	8"	q_a q_f	975	1569	966	1556	903	1454	907	1461	865	1393	873
		F	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R
	12"	q_a q_f	793	1277	742	1195	707	1139	682	1098	662	1066	647
		F	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R
	18"	q_a q_f	690	1277	657	1058	558	899	553	890	549	883	492
		F	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R
	24"	q_a q_f	578	931	566	912	479	771	485	780	425	684	436
		F	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R
20 ga	4"	q_a q_f	950	1530	930	1498	916	1475	906	1459	898	1446	892
		F	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R
	6"	q_a q_f	787	1267	758	1221	738	1188	723	1165	712	1146	703
		F	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R
	8"	q_a q_f	681	1096	670	1079	623	1002	623	1003	592	953	596
		F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
	12"	q_a q_f	555	894	515	830	488	785	468	753	453	729	441
		F	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R
	18"	q_a q_f	485	894	458	737	388	624	381	614	376	606	335
		F	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.4+0R						
	24"	q_a q_f	411	661	397	639	332	535	333	537	290	467	296
		F	14+-0.1R	14+-0.1R	14+-0.1R	14+-0.1R	14+0R						
22 ga	4"	q_a q_f	761	1225	742	1195	729	1174	720	1159	713	1148	707
		F	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R
	6"	q_a q_f	626	1008	601	967	583	938	570	917	560	901	552
		F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
	8"	q_a q_f	541	871	530	854	491	790	490	789	464	747	466
		F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
	12"	q_a q_f	442	712	408	658	385	620	368	593	355	572	345
		F	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R
	18"	q_a q_f	388	712	364	586	308	495	300	483	295	474	262
		F	12.8+-0.1R	12.8+-0.1R	12.8+-0.1R	12.8+-0.1R	12.8+0R						
	24"	q_a q_f	331	533	317	511	263	424	262	422	228	367	232
		F	15.6+-0.1R	15.7+-0.1R									

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Support Attachment: #12 SD HWH Screw

Side Seam Attachment: #10 SD HWH Screw



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TABLE 12c: BN-36/ B-36S 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"	
16 ga	4"	q_a q_f	1768	2847	1742	2804	1723	2774	1709	2751	1698	2734	1690
		F	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R
	6"	q_a q_f	1513	2436	1470	2366	1439	2316	1416	2280	1398	2251	1384
		F	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
	8"	q_a q_f	1331	2142	1318	2122	1236	1990	1240	1997	1185	1908	1194
		F	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R
18 ga	12"	q_a q_f	1100	1772	1031	1660	983	1583	948	1526	921	1483	899
		F	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R	6.2+0R
	18"	q_a q_f	966	1772	919	1480	785	1264	776	1249	769	1238	692
		F	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R	8.2+0R
	24"	q_a q_f	818	1317	798	1285	678	1091	684	1101	605	973	618
		F	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R
36/7	4"	q_a q_f	1359	2188	1334	2148	1317	2120	1304	2099	1294	2083	1286
		F	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
	6"	q_a q_f	1152	1855	1113	1792	1086	1748	1066	1716	1050	1691	1038
		F	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R	4.9+0R
	8"	q_a q_f	1010	1625	995	1601	928	1495	929	1496	885	1425	890
		F	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R
	12"	q_a q_f	835	1345	778	1252	738	1188	708	1140	686	1104	668
		F	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R
20 ga	18"	q_a q_f	735	1345	695	1118	592	953	582	936	574	924	515
		F	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R
	24"	q_a q_f	627	1010	606	976	514	827	514	828	454	731	462
		F	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R
	4"	q_a q_f	967	1556	944	1520	928	1495	917	1476	908	1462	901
		F	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R	5.2+0R
22 ga	6"	q_a q_f	811	1306	778	1253	755	1216	739	1189	726	1168	715
		F	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R
	8"	q_a q_f	709	1141	693	1116	643	1035	641	1032	608	979	610
		F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
	12"	q_a q_f	588	947	543	874	511	824	489	786	471	758	457
		F	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R
22 ga	18"	q_a q_f	521	947	487	784	413	666	403	649	396	637	354
		F	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R	11.3+0R
	24"	q_a q_f	448	722	428	688	362	582	358	577	312	502	315
		F	13.9+0R	14+0R	14+0R	14+0R	14+0R						
	4"	q_a q_f	776	1249	755	1216	741	1192	730	1175	722	1162	715
		F	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R
22 ga	6"	q_a q_f	647	1042	618	996	598	963	583	939	572	921	563
		F	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R	7+0R
	8"	q_a q_f	566	911	550	886	508	818	505	813	478	769	479
		F	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R	8+0R
	12"	q_a q_f	471	758	432	696	405	652	386	621	371	597	359
		F	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R
22 ga	18"	q_a q_f	418	758	388	625	329	530	320	515	313	503	278
		F	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R	12.8+0R
	24"	q_a q_f	363	584	343	552	287	463	283	455	246	396	248
		F	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R	15.6+0R



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TABLE 12d: BN-36/ B-36S 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"								
16 ga	4"	q_a q_f	1971	3174	1971	3174	1971	3174	1971	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	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	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	4.8+0R	4.8+0R	4.8+0R	4.8+0R	4.8+0R				
18 ga	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	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	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	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R	10.2+0R		
36/9	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	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	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	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R		
20 ga	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	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	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																
22 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	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	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	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	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R	8.7+0R		
22 ga	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																
	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	13.9+-0.1R	14+-0.1R	14+-0.1R	14+-0R											
	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	6.1+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	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	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	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+-0.1R	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	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R	15.6+-0.1R		



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FIGURE 17: DGN-32 Profile

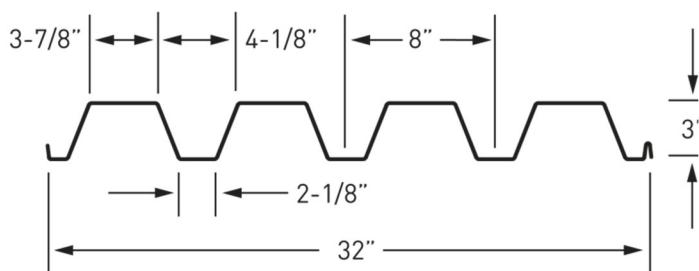


FIGURE 18 DGNF-32

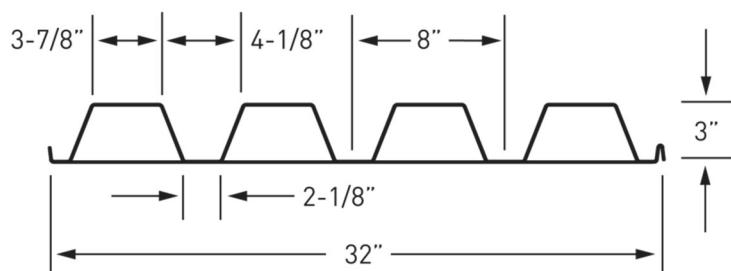


FIGURE 19: NN-32 Profile

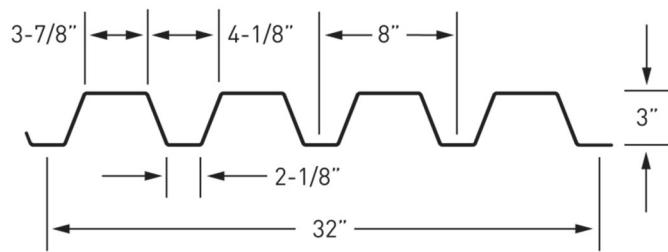
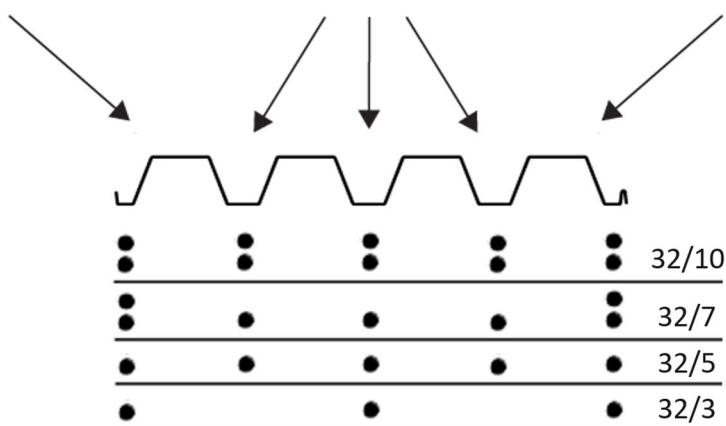


FIGURE 20: N-32 Attachment Patterns

Mechanical Fastener
or 3/8" x 1 Effective Weld

Mechanical Fastener
or 1/2" ø Effective Weld

Mechanical Fastener
or 3/8" x 1 Effective Weld





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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			
	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	
	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



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TABLE 14: DGN-32, NN-32 & DGNF-32 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		---	$h = 3.06"$		$r = 0.125"$		$\theta = 70.7^\circ$		---

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



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

Gauge No.	Span	Limit Condition	Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft ²)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b / Ω	435	193	109	70	48	36	27	21	17
		Φf_b	654	291	163	105	73	53	41	32	26
		L/360	489	145	61	31	18	11	8	5	4
		L/240	734	217	92	47	27	17	11	8	6
		L/180	978	290	122	63	36	23	15	11	8
		L/120	1467	435	183	94	54	34	23	16	12
	Double Span	f_b / Ω	502	223	125	80	56	41	31	25	20
		Φf_b	754	335	189	121	84	62	47	37	30
		L/360	1178	349	147	75	44	27	18	13	9
		L/240	1767	524	221	113	65	41	28	19	14
		L/180	2356	698	295	151	87	55	37	26	19
		L/120	3535	1047	442	226	131	82	55	39	28
	Triple Span	f_b / Ω	627	279	157	100	70	51	39	31	25
		Φf_b	943	419	236	151	105	77	59	47	38
		L/360	923	273	115	59	34	22	14	10	7
		L/240	1384	410	173	89	51	32	22	15	11
		L/180	1846	547	231	118	68	43	29	20	15
		L/120	2769	820	346	177	103	65	43	30	22
20	Single Span	f_b / Ω	557	247	139	89	62	45	35	27	22
		Φf_b	837	372	209	134	93	68	52	41	33
		L/360	606	180	76	39	22	14	9	7	5
		L/240	909	269	114	58	34	21	14	10	7
		L/180	1212	359	152	78	45	28	19	13	10
		L/120	1818	539	227	116	67	42	28	20	15
	Double Span	f_b / Ω	630	280	158	101	70	51	39	31	25
		Φf_b	947	421	237	152	105	77	59	47	38
		L/360	1460	433	182	93	54	34	23	16	12
		L/240	2190	649	274	140	81	51	34	24	18
		L/180	2920	865	365	187	108	68	46	32	23
		L/120	4380	1298	547	280	162	102	68	48	35
	Triple Span	f_b / Ω	788	350	197	126	88	64	49	39	32
		Φf_b	1184	526	296	189	132	97	74	58	47
		L/360	1144	339	143	73	42	27	18	13	9
		L/240	1715	508	214	110	64	40	27	19	14
		L/180	2287	678	286	146	85	53	36	25	18
		L/120	3431	1017	429	220	127	80	54	38	27



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TABLE 15: DGN-32, NN-32 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	825	367	206	132	92	67	52	41	33
		Φf_b	1240	551	310	198	138	101	77	61	50
		L/360	845	250	106	54	31	20	13	9	7
		L/240	1268	376	158	81	47	30	20	14	10
		L/180	1690	501	211	108	63	39	26	19	14
		L/120	2535	751	317	162	94	59	40	28	20
	Double Span	f_b / Ω	892	396	223	143	99	73	56	44	36
		Φf_b	1341	596	335	215	149	109	84	66	54
		L/360	2036	603	254	130	75	47	32	22	16
		L/240	3053	905	382	195	113	71	48	34	24
		L/180	4071	1206	509	261	151	95	64	45	33
		L/120	6107	1809	763	391	226	142	95	67	49
	Triple Span	f_b / Ω	1115	496	279	178	124	91	70	55	45
		Φf_b	1676	745	419	268	186	137	105	83	67
		L/360	1595	472	199	102	59	37	25	17	13
		L/240	2392	709	299	153	89	56	37	26	19
		L/180	3189	945	399	204	118	74	50	35	26
		L/120	4784	1417	598	306	177	112	75	52	38
16	Single Span	f_b / Ω	1097	487	274	175	122	90	69	54	44
		Φf_b	1648	733	412	264	183	135	103	81	66
		L/360	1067	316	133	68	40	25	17	12	9
		L/240	1600	474	200	102	59	37	25	18	13
		L/180	2134	632	267	137	79	50	33	23	17
		L/120	3201	948	400	205	119	75	50	35	26
	Double Span	f_b / Ω	1156	514	289	185	128	94	72	57	46
		Φf_b	1737	772	434	278	193	142	109	86	69
		L/360	2570	762	321	164	95	60	40	28	21
		L/240	3855	1142	482	247	143	90	60	42	31
		L/180	5140	1523	643	329	190	120	80	56	41
		L/120	7711	2285	964	493	286	180	120	85	62
	Triple Span	f_b / Ω	1445	642	361	231	161	118	90	71	58
		Φf_b	2172	965	543	347	241	177	136	107	87
		L/360	2013	597	252	129	75	47	31	22	16
		L/240	3020	895	378	193	112	70	47	33	24
		L/180	4027	1193	503	258	149	94	63	44	32
		L/120	6040	1790	755	387	224	141	94	66	48



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TABLE 16: DGNF-32 Properties

Gauge No.	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Panel 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



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

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	609	271	152	97	68	50	38	30	24
		Φf_b	915	407	229	146	102	75	57	45	37
		L/360	1025	304	128	66	38	24	16	11	8
		L/240	1537	455	192	98	57	36	24	17	12
		L/180	2049	607	256	131	76	48	32	22	16
		L/120	3074	911	384	197	114	72	48	34	25
	Double Span	f_b / Ω	1008	448	252	161	112	82	63	50	40
		Φf_b	1516	674	379	242	168	124	95	75	61
		L/360	2468	731	309	158	91	58	39	27	20
		L/240	3703	1097	463	237	137	86	58	41	30
		L/180	4937	1463	617	316	183	115	77	54	39
		L/120	7405	2194	926	474	274	173	116	81	59
	Triple Span	f_b / Ω	951	423	238	152	106	78	59	47	38
		Φf_b	1430	636	357	229	159	117	89	71	57
		L/360	1934	573	242	124	72	45	30	21	15
		L/240	2901	859	363	186	107	68	45	32	23
		L/180	3867	1146	483	248	143	90	60	42	31
		L/120	5801	1719	725	371	215	135	91	64	46
20/18	Single Span	f_b / Ω	611	272	153	98	68	50	38	30	24
		Φf_b	919	408	230	147	102	75	57	45	37
		L/360	1101	326	138	70	41	26	17	12	9
		L/240	1651	489	206	106	61	39	26	18	13
		L/180	2202	652	275	141	82	51	34	24	18
		L/120	3303	979	413	211	122	77	52	36	26
	Double Span	f_b / Ω	1045	464	261	167	116	85	65	52	42
		Φf_b	1571	698	393	251	175	128	98	78	63
		L/360	2652	786	331	170	98	62	41	29	21
		L/240	3978	1197	497	255	147	93	62	44	32
		L/180	5304	1571	663	339	196	124	83	58	42
		L/120	7956	2357	994	509	295	186	124	87	64
	Triple Span	f_b / Ω	955	424	239	153	106	78	60	47	38
		Φf_b	1435	638	359	230	159	117	90	71	57
		L/360	2077	616	260	133	77	48	32	23	17
		L/240	3116	923	390	199	115	73	49	34	25
		L/180	4155	1231	519	266	154	97	65	46	33
		L/120	6232	1847	779	399	231	145	97	68	50



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TABLE 17: DGNF-32 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"	
20/16	Single Span	f_b / Ω	652	290	163	104	72	53	41	32
		Φf_b	979	435	245	157	109	80	61	48
		L/360	1144	339	143	73	42	27	18	13
		L/240	1717	509	215	110	64	40	27	19
		L/180	2289	678	286	146	85	53	36	25
		L/120	3433	1017	429	220	127	80	54	38
	Double Span	f_b / Ω	1076	478	269	172	120	88	67	53
		Φf_b	1617	719	404	259	180	132	101	80
		L/360	2757	817	345	176	102	64	43	30
		L/240	4135	1225	517	265	153	96	65	45
		L/180	5514	1634	689	353	204	129	86	61
		L/120	8270	2451	1034	529	306	193	129	91
	Triple Span	f_b / Ω	1018	453	255	163	113	83	64	50
		Φf_b	1530	680	383	245	170	125	96	76
		L/360	2160	640	270	138	80	50	34	24
		L/240	3240	960	405	207	120	76	51	36
		L/180	4319	1280	540	276	160	101	67	47
		L/120	6479	1920	810	415	240	151	101	71
18/20	Single Span	f_b / Ω	995	442	249	159	111	81	62	49
		Φf_b	1495	665	374	239	166	122	93	74
		L/360	1323	392	165	85	49	31	21	15
		L/240	1985	588	248	127	74	46	31	22
		L/180	2646	784	331	169	98	62	41	29
		L/120	3969	1176	496	254	147	93	62	44
	Double Span	f_b / Ω	1319	586	330	211	147	108	82	65
		Φf_b	1983	881	496	317	220	162	124	98
		L/360	3187	944	398	204	118	74	50	35
		L/240	4781	1417	598	306	177	112	75	52
		L/180	6374	1889	797	408	236	149	100	70
		L/120	9562	2833	1195	612	354	223	149	105
	Triple Span	f_b / Ω	1555	691	389	249	173	127	97	77
		Φf_b	2336	1038	584	374	260	191	146	115
		L/360	2497	740	312	160	92	58	39	27
		L/240	3745	1110	468	240	139	87	59	41
		L/180	4994	1480	624	320	185	116	78	55
		L/120	7490	2219	936	479	277	175	117	82



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

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	1018	452	254	163	113	83	64	50	41
		Φf_b	1529	680	382	245	170	125	96	76	61
		L/360	1425	422	178	91	53	33	22	16	11
		L/240	2137	633	267	137	79	50	33	23	17
		L/180	2850	844	356	182	106	66	45	31	23
		L/120	4275	1267	534	274	158	100	67	47	34
	Double Span	f_b / Ω	1363	606	341	218	151	111	85	67	55
		Φf_b	2049	911	512	328	228	167	128	101	82
		L/360	3433	1017	429	220	127	80	54	38	27
		L/240	5149	1526	644	330	191	120	80	57	41
		L/180	6865	2034	858	439	254	160	107	75	55
		L/120	10298	3051	1287	659	381	240	161	113	82
18/16	Single Span	f_b / Ω	1590	707	397	254	177	130	99	79	64
		Φf_b	2390	1062	597	382	266	195	149	118	96
		L/360	2689	797	336	172	100	63	42	30	22
		L/240	4034	1195	504	258	149	94	63	44	32
		L/180	5378	1593	672	344	199	125	84	59	43
		L/120	8067	2390	1008	516	299	188	126	89	65
	Double 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
	Triple Span	f_b / Ω	1401	623	350	224	156	114	88	69	56
		Φf_b	2105	936	526	337	234	172	132	104	84
		L/360	3667	1087	458	235	136	86	57	40	29
		L/240	5501	1630	688	352	204	128	86	60	44
		L/180	7335	2173	917	469	272	171	115	80	59
		L/120	11002	3260	1375	704	407	257	172	121	88



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

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	1338	595	335	214	149	109	84	66	54
		Φf_b	2011	894	503	322	223	164	126	99	80
		L/360	1629	483	204	104	60	38	25	18	13
		L/240	2443	724	305	156	90	57	38	27	20
		L/180	3257	965	407	208	121	76	51	36	26
		L/120	4886	1448	611	313	181	114	76	54	39
	Double Span	f_b / Ω	1630	724	407	261	181	133	102	80	65
		Φf_b	2449	1089	612	392	272	200	153	121	98
		L/360	3923	1162	490	251	145	92	61	43	31
		L/240	5885	1744	736	377	218	137	92	65	47
		L/180	7847	2325	981	502	291	183	123	86	63
		L/120	11770	3487	1471	753	436	275	184	129	94
16/18	Single Span	f_b / Ω	2037	905	509	326	226	166	127	101	81
		Φf_b	3062	1361	765	490	340	250	191	151	122
		L/360	3073	911	384	197	114	72	48	34	25
		L/240	4610	1366	576	295	171	108	72	51	37
		L/180	6147	1821	768	393	228	143	96	67	49
		L/120	9220	2732	1153	590	341	215	144	101	74
	Double 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
	Triple Span	f_b / Ω	1679	746	420	269	187	137	105	83	67
		Φf_b	2523	1121	631	404	280	206	158	125	101
		L/360	4230	1253	529	271	157	99	66	46	34
		L/240	6345	1880	793	406	235	148	99	70	51
		L/180	8461	2507	1058	541	313	197	132	93	68
		L/120	12691	3760	1586	812	470	296	198	139	102



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

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	1396	621	349	223	155	114	87	69	56
		Φf_b	2099	933	525	336	233	171	131	104	84
		L/360	1875	556	234	120	69	44	29	21	15
		L/240	2813	833	352	180	104	66	44	31	23
		L/180	3750	1111	469	240	139	87	59	41	30
		L/120	5625	1667	703	360	208	131	88	62	45
	Double Span	f_b / Ω	1721	765	430	275	191	141	108	85	69
		Φf_b	2587	1150	647	414	287	211	162	128	103
		L/360	4517	1338	565	289	167	105	71	50	36
		L/240	6775	2007	847	434	251	158	106	74	54
		L/180	9033	2677	1129	578	335	211	141	99	72
		L/120	13550	4015	1694	867	502	316	212	149	108
	Triple Span	f_b / Ω	2152	956	538	344	239	176	134	106	86
		Φf_b	3234	1437	809	517	359	264	202	160	129
		L/360	3538	1048	442	226	131	83	55	39	28
		L/240	5307	1573	663	340	197	124	83	58	42
		L/180	7077	2097	885	453	262	164	111	78	57
		L/120	10615	3145	1327	679	393	248	166	116	85



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**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"									
16 ga	4"	q_a	q_f	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+0R	3.6+0R	3.6+0R	3.6+0R												
	6"	q_a	q_f	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	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	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+0.2R	4.9+0.1R	4.9+0.1R	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	6.1+0.3R	6.1+0.3R	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	7.8+0.6R	7.8+0.6R	7.8+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	9.4+0.9R	9.4+0.9R	9.4+0.9R	9.4+0.9R	9.4+0.9R	9.4+0.9R	9.4+0.9R		
32/5	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	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		5.3+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	5.9+0.2R	5.9+0.2R	5.9+0.2R	5.9+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+0.4R	6.7+0.4R	6.8+0.4R	6.8+0.4R	6.8+0.4R	6.9+0.3R	6.9+0.3R	6.9+0.3R	6.9+0.3R	6.9+0.3R	6.9+0.3R	6.9+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	8.7+0.6R	8.7+0.6R	8.7+0.6R	8.7+0.6R	8.7+0.6R	8.7+0.6R	8.7+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	11.1+1.1R	11.1+1.1R	11.1+1.1R	11.1+1.1R	11.1+1.1R	11.1+1.1R	11.1+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	13.3+1.7R	13.3+1.7R	13.3+1.7R	13.3+1.7R	13.3+1.7R	13.3+1.7R	13.3+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	7.4+0.2R	7.4+0.2R	7.4+0.2R	7.4+0.2R	7.4+0.2R	7.4+0.2R	7.4+0.2R	7.4+0.2R	7.4+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	9.1+0.4R	9.1+0.4R	9.1+0.4R	9.1+0.4R	9.1+0.4R	9.1+0.4R	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	10.6+0.7R	10.6+0.7R	10.6+0.7R	10.6+0.7R	10.6+0.7R	10.6+0.7R	10.6+0.7R	10.6+0.7R	10.6+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	13.6+1.3R	13.6+1.3R	13.6+1.3R	13.6+1.3R	13.6+1.3R	13.6+1.3R	13.6+1.3R	13.6+1.3R	
22 ga	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	17.1+2.4R	17.6+2.3R	17.6+2.3R	17.6+2.3R	17.6+2.3R	17.6+2.3R	17.6+2.3R	17.6+2.3R	17.6+2.3R	17.6+2.3R	
	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	18.7+3.7R	19.4+3.6R	20.7+3.7R	21.5+3.9R	20+3.5R	20+3.5R	20.5+3.5R	20.5+3.5R	20.5+3.5R	20.5+3.5R	20.5+3.5R	
	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	9.6+0.4R	9.7+0.4R	9.7+0.4R	9.7+0.4R	9.7+0.4R	9.7+0.4R	9.7+0.4R	9.7+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	11.9+0.8R	11.9+0.8R	11.9+0.8R	11.9+0.8R	11.9+0.8R	11.9+0.8R	11.9+0.8R	11.9+0.8R	11.9+0.8R	
	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	14.1+1.2R	14.1+1.2R	14.1+1.2R	14.1+1.2R	14.1+1.2R	14.1+1.2R	14.1+1.2R	14.1+1.2R	
N-32 32/5	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	17.6+2.2R	17.6+2.2R	17.6+2.2R	17.6+2.2R	17.6+2.2R	17.6+2.2R	17.6+2.2R	17.6+2.2R	17.6+2.2R	
		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	20.7+4R	21.5+3.9R	22.1+3.8R	22.1+3.8R</td								



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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"	1478	2380
16 ga	4"	q_a q_f	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	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
		F	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R	4.4+0R
	8"	q_a q_f	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	5.1+0R	5.1+0R	5.1+0R
18 ga	12"	q_a q_f	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	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
		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	8.6+0R	8.6+0R	8.6+0R
	24"	q_a q_f	1289	2075	1239	1994	1211	1950	1194	1923	1183	1904	1174	1891
		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	10.7+0R	10.7+0R	10.7+0R
32/5	4"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		F	5+0R	5+0R	5+0R	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
		F	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R	6.1+0R
	8"	q_a q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		F	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R	7.2+0R
20 ga	12"	q_a q_f	1182	1903	1182	1903	1179	1898	1172	1887	1167	1879	1164	1874
		F	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R	9.4+0R
	18"	q_a q_f	1104	1903	1019	1641	1055	1698	1010	1627	978	1574	1007	1621
		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	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
		F	15.9+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R
22 ga	4"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429
		F	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R
	6"	q_a q_f	888	1429	888	1429	888	1429	888	1429	888	1429	888	1429
		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	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
		F	11.5+0R	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	11.6+0R	11.6+0R
	12"	q_a q_f	830	1336	806	1297	793	1276	785	1263	779	1254	775	1248
		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	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
		F	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	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
		F	26.9+-0.2R	26.9+-0.1R	27+-0.1R	27+-0.1R	27+-0.1R	27+-0.1R	27+-0.1R	27+-0.1R	27+-0R	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
		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	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
		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	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
		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	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
		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	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
		F	29.5+-0.3R	29.6+-0.2R	29.6+-0.1R	29.6+0.1R	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	29.7+-0.1R
	24"	q_a q_f	471	758	427	688	404	651	390	628	380	612	373	601
		F	37.6+-0.5R	37.8+-0.3R	37.9+-0.2R	37.9+0.2R	37.9+0.2R	38+-0.2R	38+-0.2R	38+-0.1R	38+-0.1R	38+-0.1R	38+-0.1R	38+-0.1R



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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"	
16 ga	4"	q_a	q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
		F		3.7+0R									
	6"	q_a	q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
		F		4.4+0R									
	8"	q_a	q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
		F		5.1+0R									
	12"	q_a	q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
		F		6.5+0R									
	18"	q_a	q_f	1478	2380	1478	2380	1478	2380	1478	2380	1478	2380
		F		8.6+0R									
32/7	24"	q_a	q_f	1478	2380	1478	2380	1454	2340	1414	2276	1386	2232
		F		10.6+0R	10.7+0R								
	4"	q_a	q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		F		5+0R									
	6"	q_a	q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		F		6.1+0R									
	8"	q_a	q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		F		7.2+0R									
	12"	q_a	q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		F		9.4+0R									
	18"	q_a	q_f	1182	1903	1182	1903	1182	1903	1151	1854	1182	1903
		F		12.7+0R									
20 ga	24"	q_a	q_f	1182	1903	1083	1743	1024	1648	987	1589	961	1548
		F		15.9+-0.1R	15.9+-0.1R	15.9+0R	16+0R	16+0R	16+0R	16+0R	16+0R	16+0R	
	4"	q_a	q_f	888	1429	888	1429	888	1429	888	1429	888	1429
		F		7.7+0R									
	6"	q_a	q_f	888	1429	888	1429	888	1429	888	1429	888	1429
		F		9.6+0R									
	8"	q_a	q_f	888	1429	888	1429	888	1429	888	1429	888	1429
		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
		F		15.4+-0.1R	15.4+-0.1R	15.4+0R							
	18"	q_a	q_f	888	1429	814	1310	823	1325	764	1231	723	1164
		F		21.1+-0.2R	21.1+-0.1R	21.2+-0.1R							
22 ga	24"	q_a	q_f	795	1280	701	1129	651	1048	619	997	597	962
		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	
	4"	q_a	q_f	739	1190	739	1190	739	1190	739	1190	739	1190
		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
		F		12.9+0R									
	8"	q_a	q_f	739	1190	739	1190	739	1190	739	1190	739	1190
		F		15.7+-0.1R	15.7+-0.1R	15.7+0R							
	12"	q_a	q_f	739	1190	739	1190	727	1170	707	1138	693	1116
		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+-0.1R	21.3+-0.1R	21.3+0R	
	18"	q_a	q_f	725	1190	617	993	617	994	568	915	534	859
		F		29.3+-0.4R	29.4+-0.3R	29.5+-0.2R	29.6+-0.2R	29.6+-0.2R	29.6+-0.2R	29.6+-0.2R	29.6+-0.2R	29.6+-0.2R	
	24"	q_a	q_f	616	991	532	857	487	785	459	740	440	709
		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	



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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"		
16 ga	4"	q_a q_f	1907 3070	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+-0.1R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	
		q_a q_f	1907 3070	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	4.3+-0.1R	4.3+-0.1R	
		q_a q_f	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1907 3070	1856 2969	1503 2405		
	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	6.1+-0.3R	6.2+-0.3R		
		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			
		q_a q_f	1491 2400	1407 2266	1362 2193	1334 2148	1315 2117	1301 2095	1291 2078	1282 2064	1276 2054			
32/5	4"	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			
		q_a q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1539 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	4.9+-0.1R	4.9+-0.1R	5+-0.1R		
		q_a q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1539 2142	1084 1735
	18 ga	q_a q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1539 2142	1084 1735
		F	5.4+-0.4R	5.6+-0.4R	5.7+-0.3R	5.8+-0.3R	5.9+-0.2R	6+-0.2R						
		q_a q_f	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1544 2485	1539 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	6.9+-0.3R	6.9+-0.3R	
		q_a q_f	1453 2339	1412 2273	1390 2238	1376 2216	1367 2201	1360 2190	1355 2181	1339 2142	1339 2142	1339 2142	1339 2142	1084 1735
32/5	12"	q_a q_f	1453 2339	1412 2273	1390 2238	1376 2216	1367 2201	1360 2190	1355 2181	1339 2142	1339 2142	1339 2142	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			
		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			
		q_a q_f	1082 1742	1001 1612	958 1542	931 1499	913 1470	899 1448	889 1432	881 1419	875 1409			
	20 ga	q_a q_f	1080 1728	1080 1728	1080 1728	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	7.4+-0.2R	7.4+-0.2R		
		q_a q_f	1080 1728	1080 1728	1080 1728	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			
		q_a q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
22 ga	4"	q_a q_f	983 1583	939 1512	915 1473	900 1449	880 1433	882 1421	877 1411	872 1404	872 1404	872 1404	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			
		q_a q_f	865 1583	757 1218	777 1251	726 1168	689 1109	712 1146	686 1104	665 1071	684 1101			
	18"	q_a q_f	865 1583	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			
		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			
		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			
24"	4"	q_a q_f	771 1233	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				
		q_a q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872		
	6"	q_a q_f	771 1233	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				
		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				
		q_a q_f	771 1233	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			
24"	8"	q_a q_f	771 1233	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				
		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				
	12"	q_a q_f	758 1221	714 1150	690 1111	675 1087	665 1071	658 1059	652 1050	648 1043				
		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			
24"	18"	q_a q_f	663 1221	569 917	580 934	537 864	507 816	523 841	501 807	485 780				
		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+-5.2R	27.3+-5.2R			



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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"		
16 ga	4"	q_a q_f	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								
	6"	q_a q_f	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	4.2+0.1R	4.2+0.1R	
	8"	q_a q_f	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	4.8+0.2R	4.8+0.2R	
	12"	q_a q_f	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	6+0.4R	6+0.4R	
	18"	q_a q_f	1907	3070	1907	3070	1907	3070	1824	2937	1877	3022	1815	2922
		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	7.5+0.7R	7.5+0.7R	
	24"	q_a q_f	1897	3054	1720	2769	1623	2613	1562	2516	1521	2448	1490	2400
		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	8.9+1.1R	8.9+1.1R	
32/7	4"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142
		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	4.9+0.1R	4.9+0.1R	
	6"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142
		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	5.8+0.3R	5.9+0.2R	5.9+0.2R	
	8"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142
		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	6.7+0.4R	6.7+0.4R	
	12"	q_a q_f	1544	2485	1544	2485	1544	2485	1544	2485	1544	2485	1339	2142
		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	8.4+0.7R	8.4+0.7R	
	18"	q_a q_f	1544	2485	1429	2301	1447	2330	1345	2166	1273	2049	1307	2105
		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	10.5+1.3R	10.5+1.3R	
	24"	q_a q_f	1393	2243	1232	1984	1145	1843	1090	1755	1052	1694	1025	1651
		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	12.3+1.9R	12.3+1.9R	
20 ga	4"	q_a q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406
		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	7.3+0.3R	7.3+0.3R	
	6"	q_a q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406
		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	8.9+0.6R	8.9+0.6R	
	8"	q_a q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406
		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	10.3+0.9R	10.3+0.9R	
	12"	q_a q_f	1080	1728	1080	1728	1080	1728	1036	1668	1019	1641	1006	1620
		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	12.8+1.6R	12.8+1.6R	
	18"	q_a q_f	1080	1728	932	1500	926	1492	849	1366	794	1279	812	1307
		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	15.8+2.7R	15.8+2.7R	
	24"	q_a q_f	942	1516	806	1297	732	1179	687	1106	656	1056	633	1020
		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	18.3+3.7R	18.3+3.7R	
22 ga	4"	q_a q_f	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076
		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	9.5+0.5R	9.5+0.5R	
	6"	q_a q_f	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076
		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	11.6+0.9R	11.6+0.9R	
	8"	q_a q_f	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076
		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	13.4+1.4R	13.4+1.4R	
	12"	q_a q_f	771	1233	771	1233	771	1233	769	1233	753	1212	741	1192
		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	16.6+2.5R	16.6+2.5R	
	18"	q_a q_f	771	1233	709	1142	695	1119	631	1016	587	945	596	960
		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	20.3+4R	20.3+4R	
	24"	q_a q_f	736	1186	617	993	551	887	511	823	485	780	466	750
		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	23.2+5.3R	23.2+5.3R	



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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"			
16 ga	4"	q_a	q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	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	3.6+-0.1R		
	6"	q_a	q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	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	4.2+-0.1R		
	8"	q_a	q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	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	4.8+-0.2R		
	12"	q_a	q_f	2040	3284	1997	3215	1974	3179	1960	3156	1950	3140	1943	3128
		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	1887	2717	1747	2813	1666	2682	1606	2586	1656	2667
		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
		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			
32/5	4"	q_a	q_f	1662	2676	1662	2676	1662	2676	1662	2676	1662	2676	1339	2142
		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	1339	2142
		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	1339	2142
		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
		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
		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
		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	879	1406
		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	879	1406
		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	879	1406
		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
		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
		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
		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
		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	673	1076
		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	673	1076
		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
		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
		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
		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			



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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"									
16 ga	4"	q_a	q_f	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	3.6+-0.1R								
	6"	q_a	q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	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	4.1+-0.2R	4.2+-0.2R								
	8"	q_a	q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	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	4.7+-0.3R								
	12"	q_a	q_f	2053	3306	2053	3306	2053	3306	2053	3306	2053	3306	2053	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	5.7+-0.5R								
	18"	q_a	q_f	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									
32/7	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									
	4"	q_a	q_f	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	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+-0.4R	5.6+-0.4R									
	8"	q_a	q_f	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	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	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	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	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	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+-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	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	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	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	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									



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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"									
16 ga	4"	q_a	q_f	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	3.7+0R			3.7+0R					
		q_a	q_f	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+0R													
		q_a	q_f	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											
	6"	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+-0.2R	6.3+-0.2R	6.3+-0.2R			6.3+-0.1R	6.3+-0.1R				
		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	8.1+-0.4R	8.2+-0.3R	8.2+-0.3R	8.2+-0.3R			8.3+-0.3R					
		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	9.9+-0.6R	10+-0.5R	10.1+-0.5R	10.1+-0.5R			10.1+-0.5R					
32/5	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+-0.1R	5+-0R	5+-0R	5+-0R	5+-0R			5+-0R					
		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			6.1+-0.1R	6.1+-0.1R	6.1+-0.1R									
		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+-0.2R	7.1+-0.2R	7.1+-0.2R			7.1+-0.1R	7.1+-0.1R	7.1+-0.1R			
	8"	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	9.1+-0.3R			9.1+-0.3R					
		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	12+-0.6R			12+-0.6R					
		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	7.6+-0.1R			7.6+-0.1R					
		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	9.4+-0.2R			9.4+-0.2R					
		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	11.1+-0.4R	11.2+-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	14.6+-0.7R			14.6+-0.7R					
		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	19.7+-1.3R			19.5+-1.4R					
		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	9.9+-0.2R	9.9+-0.2R	9.9+-0.2R			10+-0.2R					
		q_a	q_f	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
	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+-0.6R	15+-0.6R			15+-0.6R					
		q_a	q_f	771	1233	771	1233	748	1204	727	1171	713	1148	703	1131	695	1119	673	1076	545	872
24"	12"	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									
		q_a	q_f	610	983	527	848	483	778	456	734	438	705	425	684	415	667	407	655	400	645
	18"	q_a	q_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									
		F																			
		q_a	q_f																		

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Support Attachment: Pneutek K66 PAF

Side Seam Attachment: DeltaGrip



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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"									
16 ga	4"	q_a	q_f	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	3.6+0R	3.6+0R	3.7+0R	3.7+0R							
	6"	q_a	q_f	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	4.3+-0.1R	4.3+-0.1R							
	8"	q_a	q_f	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	5+-0.1R								
	12"	q_a	q_f	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+-0.4R									
32/7	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									
	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										
	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									
22 ga	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									
	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	9.8+-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		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									



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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.	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"	
				Span	→	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	Span	→	4' - 0"	6' - 0"	8' - 0"	10' - 0"	
16 ga	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	
32/5	18 ga	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	
		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	
32/5	20 ga	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	
		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	
22 ga	20 ga	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	
		4"	q_a q_f	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
22 ga	22 ga		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
22 ga	18"		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	



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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"	
16 ga	4"	q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852
		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	3.6+0R	3.7+0R	
		q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852
		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	
		q_a	q_f	2393	3852	2393	3852	2393	3852	2393	3852	2393	3852
		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
		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
		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	
	18 ga	q_a	q_f	2168	3491	1919	3090	1784	2872	1700	2736	1642	2643
		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	
		q_a	q_f	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918
		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	
		q_a	q_f	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918
32/7	6"	q_a	q_f	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918
		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	
		q_a	q_f	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918
		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	
		q_a	q_f	1824	2918	1824	2918	1824	2918	1794	2888	1767	2844
		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	
	12"	q_a	q_f	1824	2918	1824	2918	1824	2918	1794	2888	1767	2844
		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	
	18"	q_a	q_f	1824	2918	1602	2579	1600	2575	1470	2367	1379	2220
		F		10.2+2.7R	10.4+2.6R	10.8+2.4R	11.1+2.2R	11.4+2.1R	11.7+2R	12.0+1.9R	12.3+1.8R	12.6+1.7R	
	20 ga	q_a	q_f	1606	2585	1383	2227	1263	2034	1189	1914	1138	1832
		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	
		q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		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	
		q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
	22 ga	q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		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	
		q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		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	
		q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1072	1726
	24"	q_a	q_f	1072	1725	895	1441	798	1285	740	1192	701	1129
		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	
		q_a	q_f	771	1233	771	1233	771	1233	771	1233	771	1233
		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	
		q_a	q_f	771	1233	771	1233	771	1233	771	1233	771	1233
	24"	q_a	q_f	771	1233	759	1222	736	1185	664	1069	614	989
		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	
		q_a	q_f	771	1233	655	1055	580	933	534	860	504	811
		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	
		q_a	q_f										



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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"	
16 ga	16 ga	4"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939
		4"	q_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	3.7+0R
		6"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939
		6"	q_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	4.3+0R
		8"	q_a	1826	2939	1826	2939	1826	2939	1826	2939	1826	2939
		8"	q_f	4.8+0.2R	4.9+0.2R	4.9+0.1R	5+0.1R						
		12"	q_a	1826	2939	1826	2939	1819	2928	1812	2917	1806	2908
		12"	q_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+0.2R	6.3+0.1R	6.3+0.1R
		18"	q_a	1713	2939	1584	2550	1639	2638	1571	2529	1521	2448
		18"	q_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	8.3+0.3R
	18 ga	24"	q_a	1455	2343	1378	2219	1337	2152	1311	2111	1293	2082
		24"	q_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	10.1+0.5R
32/5	18 ga	4"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526
		4"	q_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	5+0R
		6"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526
		6"	q_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+0.1R	6.1+0.1R	6.1+0.1R
		8"	q_a	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526
		8"	q_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+0.2R	7.1+0.1R	7.1+0.1R
		12"	q_a	1468	2364	1426	2296	1403	2259	1389	2236	1379	2220
		12"	q_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	9.1+0.3R
	20 ga	18"	q_a	1311	2364	1179	1899	1220	1964	1153	1857	1106	1780
		18"	q_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	12+0.6R
		24"	q_a	1091	1757	1008	1623	964	1552	936	1508	918	1477
		24"	q_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	14.8+0.9R
		4"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		4"	q_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	7.6+0.1R
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
22 ga	20 ga	8"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		8"	q_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	11.2+0.3R
		12"	q_a	1034	1665	982	1580	953	1534	935	1506	923	1486
		12"	q_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	14.6+0.7R
	22 ga	18"	q_a	907	1665	786	1266	805	1296	748	1205	709	1141
		18"	q_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	19.5+1.4R
		24"	q_a	748	1204	667	1073	624	1004	597	961	579	932
		24"	q_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	24.1+2.2R
N-32 32/5	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233
		4"	q_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	10+0.2R
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233
	22 ga	8"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233
		8"	q_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	15.1+0.6R
		12"	q_a	771	1233	758	1221	728	1173	710	1143	697	1122
N-32 32/5	22 ga	18"	q_a	710	1233	602	969	609	981	560	902	527	848
		18"	q_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	26.5+2.4R
		24"	q_a	588	946	511	823	471	758	446	718	429	691
		24"	q_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	32.6+3.8R



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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"			
16 ga	4"	q_a	q_f	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		
		q_a	q_f	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		
		q_a	q_f	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		
	6"	q_a	q_f	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		
		q_a	q_f	1826	2939	1826	2939	1826	2939	1793	2886	1826	2939	1785	2874
		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		
		q_a	q_f	1826	2939	1684	2711	1594	2566	1537	2474	1498	2412	1469	2366
		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		
32/7	8"	q_a	q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526
		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		
		q_a	q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526
		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		
		q_a	q_f	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526	1569	2526
		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
		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		
		q_a	q_f	1569	2526	1441	2320	1458	2347	1354	2180	1280	2061	1315	2117
		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		
		q_a	q_f	1407	2265	1242	1999	1152	1855	1096	1765	1058	1703	1030	1659
		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
		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		
		q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		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		
		q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		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		
	8"	q_a	q_f	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728
		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		
		q_a	q_f	1080	1728	973	1567	961	1548	877	1412	818	1317	834	1343
		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		
		q_a	q_f	996	1604	844	1358	762	1226	711	1144	676	1089	651	1048
		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
		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		
		q_a	q_f	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233
		F		10.5+-1.3R	11.2+-1.1R	11.5+-1R		11.8+-0.8R	12+-0.8R	12.1+-0.7R	12.3+-0.6R	12.3+-0.6R	12.3+-0.5R		
		q_a	q_f	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233
		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	770	1233
		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		
		q_a	q_f	771	1233	758	1220	735	1183	663	1067	613	988	621	999
		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		
		q_a	q_f	771	1233	654	1053	579	932	533	859	503	810	482	776
		F		17+-4.4R	20.4+-5.1R	22.8+-5.3R		24.7+-5.4R	26.2+-5.3R	27.4+-5.2R	28.3+-5R	29.2+-4.9R	29.9+-4.7R		



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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.	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"			
				Span	→	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	Span	→	4' - 0"	6' - 0"	8' - 0"	10' - 0"			
16 ga	16 ga	4"	q_a q_f	1888	3040	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		3.7+0R	
		6"	q_a q_f	1888	3040	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+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	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		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		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		8.3+0.3R	
32/5	18 ga	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		10.1+0.5R	
		4"	q_a q_f	1551	2497	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		5+0R	
		6"	q_a q_f	1551	2497	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		6.1+0.1R	
		8"	q_a q_f	1551	2497	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		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		9.1+0.3R	
32/5	20 ga	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		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		14.8+0.9R	
		4"	q_a q_f	1080	1728	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		7.6+0.1R	
		6"	q_a q_f	1080	1728	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		9.4+0.2R	
		8"	q_a q_f	1080	1728	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+0.4R		11.2+0.4R	
22 ga	20 ga	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		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		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		24.1+2.2R	
22 ga	22 ga	4"	q_a q_f	771	1233	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		10+0.2R	
		6"	q_a q_f	771	1233	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		12.6+0.3R	
		8"	q_a q_f	771	1233	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		15.1+0.6R	
22 ga	22 ga	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		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		
22 ga	22 ga		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		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.																			



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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"
16 ga	4"	q_a q_f	1888 3040	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	3.6+0R	3.7+0R	3.7+0R
		q_a q_f	1888 3040	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						
		q_a q_f	1888 3040	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	5+-0.1R
	12"	q_a q_f	1888 3040	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	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	
32/7	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	
		q_a q_f	1551 2497	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	5+-0.1R
		q_a q_f	1551 2497	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	6+-0.1R
	18 ga	q_a q_f	1551 2497	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	7+-0.2R
	12"	q_a q_f	1551 2497	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	
	20 ga	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+-1.4R	14.2+-1.3R	
		q_a q_f	1080 1728	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+-0.2R	7.5+-0.1R	7.5+-0.1R
		q_a q_f	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	1080 1728	879 1406	712 1139
	8"	q_a q_f	1080 1728	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+-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	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	9.8+-0.3R	9.9+-0.2R
		q_a q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
	6"	q_a q_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	
		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	
		q_a q_f	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	771 1233	673 1076	545 872
	8"	q_a q_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	
		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	
		q_a q_f	748 1205	624 1004	556 895	515 829	488 786	469 755	454 731	443 713	434 698	
	12"	q_a q_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	
		F										



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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"									
16 ga	16 ga	4"	q_a	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	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R					
		6"	q_a	2742	4387	2742	4387	2742	4387	2742	4387	2742	4387	2349	3758	1856	2969	1503	2405		
		F	3.1+-0.1R	3.1+0R																	
		8"	q_a	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															
	18 ga	12"	q_a	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																
		18"	q_a	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+-0.2R	4.7+-0.2R	4.7+-0.1R										
		24"	q_a	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+-0.3R	5.4+-0.2R	5.5+-0.2R										
32/5	18 ga	4"	q_a	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	3.5+0R	3.5+0R	3.5+0R	3.5+0R	3.5+0R	3.5+0R	3.5+0R			
		6"	q_a	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1824	2918	1694	2711	1339	2142	1084	1735
		F	3.7+-0.1R	3.8+0R																	
		8"	q_a	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+-0.1R	4.1+0R													
	20 ga	12"	q_a	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	4.6+-0.1R	4.7+-0.1R													
		18"	q_a	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	5.5+-0.2R	5.5+-0.2R	5.5+-0.2R	5.6+-0.2R	5.6+-0.2R	5.6+-0.2R	5.6+-0.2R	5.6+-0.2R	5.6+-0.2R			
		24"	q_a	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	6.3+-0.3R	6.4+-0.3R	6.4+-0.3R	6.4+-0.3R	6.4+-0.2R	6.4+-0.2R	6.4+-0.2R	6.4+-0.2R	6.4+-0.2R	6.4+-0.2R			
22 ga	20 ga	4"	q_a	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	4.5+0R	4.5+0R	4.5+0R	4.5+0R	4.5+0R	4.5+0R	4.5+0R			
		6"	q_a	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	1080	1728	879	1406	712	1139		
		F	4.8+-0.1R	4.8+-0.1R	4.9+0R																
	22 ga	8"	q_a	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																	
		12"	q_a	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															
32/5	18 ga	18"	q_a	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+-0.3R	6.8+-0.2R	6.9+-0.2R	7+-0.2R											
		24"	q_a	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	7.7+-0.4R	7.8+-0.3R	7.8+-0.3R	7.8+-0.3R	7.8+-0.3R	7.9+-0.3R								
	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
		F	5.3+0R	5.3+0R	5.4+0R																
		6"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233	673	1076	545	872
		F	5.7+-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	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.8+-0R								
32/5	18 ga	8"	q_a	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+-0R																
		12"	q_a	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	6.8+-0.1R	6.9+-0.1R													
	22 ga	18"	q_a	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+-0.3R	7.9+-0.3R	7.9+-0.2R	7.9+-0.2R	8+-0.2R									
		24"	q_a	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	8.8+-0.5R	8.9+-0.4R	8.9+-0.4R	9+-0.4R	9+-0.3R	9.1+-0.3R									



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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"	
16 ga	4"	q_a	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	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	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	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 ga	18"	q_a	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	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									
	4"	q_a	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									
32/5	6"	q_a	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	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	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	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	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	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	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	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	25.3+6.2R	26.1+6.3R	27.2+6.3R									
	12"	q_a	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									
22 ga	18"	q_a	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	36.1+11.6R	38.3+12.1R									
	24"	q_a	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									
	4"	q_a	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	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	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	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	322	545	219	361	173	285	141	233	121	199	108	178	97	160	88	145	82	136
		F																		



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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"	
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		3.8+-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	
32/5	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	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											
	20 ga	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	
	24"	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	
	22 ga	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	
	12"	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	
	18"	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	
	24"	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											
	20 ga	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	
	24"	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	
	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		6.7+-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	

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Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: #12 SD HWH Screw



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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"								
16 ga	4"	q_a	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														
	6"	q_a	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	4.3+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.2R	4.4+-0.1R						
	8"	q_a	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	4.9+-0.3R	5+-0.3R	5+-0.3R	5+-0.3R	5+-0.3R	5+-0.2R						
	12"	q_a	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	6.2+-0.5R	6.2+-0.5R	6.2+-0.5R						
	18"	q_a	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	7.7+-0.9R	7.8+-0.9R	7.8+-0.9R	7.8+-0.9R						
	24"	q_a	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	9.1+-1.3R	9.1+-1.3R	9.1+-1.3R						
18 ga	4"	q_a	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	4.4+-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	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												
	8"	q_a	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	5.9+-0.3R	5.9+-0.3R	5.9+-0.3R						
	12"	q_a	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+-0.6R	7.3+-0.6R	7.3+-0.6R	7.3+-0.5R						
	18"	q_a	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	9.1+-1R	9.1+-1R	9.1+-1R	9.1+-1R						
	24"	q_a	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	10.3+-1.5R	10.3+-1.5R	10.3+-1.5R	10.5+-1.5R						
32/7	4"	q_a	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+-0.2R	5.6+-0.1R	5.6+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R						
	6"	q_a	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												
	8"	q_a	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	7.4+-0.3R	7.4+-0.3R	7.4+-0.3R						
	12"	q_a	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	8.8+-0.7R	8.8+-0.7R	8.8+-0.7R	8.8+-0.6R						
	18"	q_a	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	10.7+-1.2R	10.7+-1.2R	10.7+-1.2R	10.9+-1.1R						
	24"	q_a	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	11.8+-1.8R	12.1+-1.8R	12.4+-1.7R	12.4+-1.7R	12.4+-1.7R	12.7+-1.7R						
22 ga	4"	q_a	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+-0.2R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R	6.6+-0.1R					
	6"	q_a	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	7.5+-0.2R	7.5+-0.2R	7.5+-0.2R	7.6+-0.2R						
	8"	q_a	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	8.3+-0.4R	8.4+-0.4R	8.4+-0.4R	8.4+-0.4R	8.4+-0.4R	8.5+-0.3R						
	12"	q_a	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	9.9+-0.8R	10+-0.7R	10.1+-0.7R	10.1+-0.7R	10.1+-0.7R						
	18"	q_a	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+-1.4R	12.2+-1.3R	12.2+-1.3R	12.3+-1.2R	12.3+-1.2R	12.3+-1.2R						
	24"	q_a	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	14.3+-1.9R	14.3+-1.9R	14.3+-1.9R						



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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"			
16 ga	4"	q_a	q_f	1478	2380	1478	2380	1478	2380	1472	2370	1466	2360	1461	2353
		F		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
		F		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
		F		5.3+0R		5.3+0R		5.3+0R		5.3+0R		5.3+0R		5.3+0R	
18 ga	12"	q_a	q_f	987	1589	900	1449	853	1374	824	1327	804	1295	790	1272
		F		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
		F		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
		F		11.5+0R		11.5+0R		11.5+0R		11.5+0R		11.5+0R		11.5+0R	
32/5	4"	q_a	q_f	1178	1896	1152	1855	1138	1833	1130	1819	1124	1809	1119	1802
		F		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
		F		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
		F		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
		F		8+0R		8+0R		8+0R		8+0R		8+0R		8+0R	
32/5	18"	q_a	q_f	657	1206	539	868	532	856	482	776	448	721	457	735
		F		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
		F		13.1+0R		13.1+0R		13.1+0R		13.1+0R		13.1+0R		13.1+0R	
	20 ga	q_a	q_f	845	1360	821	1322	808	1301	800	1288	794	1279	790	1272
		F		5.8+0R		5.8+0R		5.8+0R		5.8+0R		5.8+0R		5.8+0R	
32/5	6"	q_a	q_f	722	1162	684	1101	663	1068	650	1047	641	1033	635	1022
		F		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
		F		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
		F		9.7+0R		9.7+0R		9.7+0R		9.7+0R		9.7+0R		9.7+0R	
32/5	18"	q_a	q_f	464	848	375	604	366	589	329	530	305	490	309	498
		F		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
		F		15.6+0.1R		15.6+0R		15.7+0R		15.7+0R		15.7+0R		15.7+0R	
	22 ga	q_a	q_f	681	1097	659	1061	647	1041	639	1029	634	1020	630	1014
		F		6.7+0R		6.7+0R		6.7+0R		6.7+0R		6.7+0R		6.7+0R	
32/5	6"	q_a	q_f	578	930	543	875	525	845	513	826	505	813	499	804
		F		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
		F		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
		F		11.1+0R		11.1+0R		11.1+0R		11.1+0R		11.1+0R		11.1+0R	
32/5	18"	q_a	q_f	372	678	298	480	288	464	259	416	238	384	241	388
		F		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
		F		17.5+0.1R		17.5+0R		17.5+0R		17.6+0R		17.6+0R		17.6+0R	

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Support Attachment #12 SD HWH Screw

Side Seam Attachment #10 SD HWH Screw



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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"	
16 ga	4"	q_a	q_f	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	1455	2343	1435	2310
		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
		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
		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
		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
		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	
32/7	4"	q_a	q_f	1182	1903	1182	1903	1182	1903	1182	1903	1182	1903
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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+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	736	1185
		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
		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
		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
		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	11.1+0R
	18"	q_a	q_f	522	920	404	650	369	595	324	522	293	472
		F		14.3+-0.1R	14.3+-0.1R	14.3+-0.1R	14.3+-0.1R	14.3+-0.1R	14.3+-0.1R	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
		F		17.5+-0.1R	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



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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"	
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	
		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	
		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	
32/5	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	
		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	
		q_a q_f	1046	1684	1005	1618	983	1583	969	1560	960	1545	953	1534	948	1526	943	1519	940	1513
	18 ga	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	
		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	
		q_a q_f	676	1242	558	899	553	891	503	810	468	754	478	770	455	733	437	703	447	720
	20 ga	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	
		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	
		q_a q_f	742	1194	706	1136	686	1105	674	1086	666	1072	660	1062	655	1055	652	1049	649	1045
22 ga	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	
		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	
		q_a q_f	594	957	562	904	544	876	533	858	525	846	520	837	516	831	513	825	510	821
	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	
		q_a q_f	433	698	384	618	358	576	341	550	330	532	322	519	316	509	311	501	308	495
24"	12"	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	
	18"	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									



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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.	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"							
				Span	→	4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"							
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		3.8+-0.1R		3.8+-0.1R		3.8+0R		3.8+0R			
		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			
		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	
		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	
		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	
		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	
		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	
		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	
		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	
		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	
		q_a	q_f	672	1082	540	869	477	768	439	707	414	667	396	638	383	616	372	599	364	586
32/5	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	
		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+-0.1R		6.6+-0.1R		6.6+-0.1R		6.6+-0.1R	
		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	
		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	
		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	
		q_a	q_f	479	772	379	610	331	533	302	487	283	456	270	434	259	418	251	405	245	394
20 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	
		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	
		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	
		q_a	q_f	508	819	437	703	399	642	376	605	360	579	348	561	340	547	333	536	328	527
22 ga	12"	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	
		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															



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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"	
16 ga	4"	q_a q_f	2289	3686	2190	3526	2136	3439	2103	3385	2079	3348	2063
		F	3.7+0.1R	3.8+0.1R	3.8+0R								
	6"	q_a q_f	1920	3091	1779	2863	1703	2741	1655	2665	1623	2613	1599
		F	4.4+0.2R	4.4+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
		F	5+0.3R	5.1+0.2R	5.2+0.2R	5.2+0.1R	5.2+0.1R	5.2+0.1R	5.2+0.1R	5.3+0.1R	5.3+0.1R	5.3+0.1R	5.3+0.1R
18 ga	12"	q_a q_f	1401	2256	1210	1948	1109	1785	1046	1684	1004	1616	973
		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	6.6+0.2R	6.7+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
		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+0.4R	8.8+0.4R	8.8+0.3R
	24"	q_a q_f	1080	1738	837	1347	728	1172	663	1068	620	998	589
		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	10.8+0.6R	10.8+0.6R
32/5	4"	q_a q_f	1708	2749	1625	2617	1581	2545	1553	2500	1534	2469	1520
		F	4.5+0.1R	4.5+0.1R	4.5+0R								
	6"	q_a q_f	1427	2297	1313	2114	1252	2016	1214	1954	1188	1913	1169
		F	5.2+0.2R	5.3+0.1R	5.3+0.1R	5.3+0.1R	5.3+0.1R	5.3+0.1R	5.4+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
		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	6.2+0.1R	6.2+0.1R
	12"	q_a q_f	1044	1681	894	1440	815	1312	766	1234	733	1181	710
		F	7.2+0.6R	7.4+0.4R	7.6+0.4R	7.6+0.3R	7.7+0.3R	7.7+0.3R	7.7+0.2R	7.8+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
		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	10.1+0.4R	10.2+0.4R	10.2+0.4R
	24"	q_a q_f	804	1294	621	1000	538	866	488	786	455	732	431
		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	12.4+0.6R	12.4+0.6R
20 ga	4"	q_a q_f	1080	1728	1080	1728	1078	1728	1056	1700	1041	1676	1030
		F	5.7+0.1R	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	5.8+0R
	6"	q_a q_f	981	1580	894	1440	848	1365	819	1318	799	1286	785
		F	6.5+0.2R	6.6+0.2R	6.6+0.1R	6.7+0.1R							
	8"	q_a q_f	859	1384	761	1225	708	1140	676	1088	654	1052	638
		F	7.3+0.3R	7.5+0.3R	7.5+0.2R	7.6+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	7.7+0.1R
	12"	q_a q_f	722	1162	611	984	553	890	517	833	493	794	475
		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	9.4+0.3R	9.5+0.2R	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
		F	10.7+1.2R	11.3+1R	11.6+0.8R	11.8+0.7R	11.9+0.6R	11.9+0.6R	12+0.6R	12.1+0.5R	12.2+0.5R	12.2+0.4R	12.2+0.4R
	24"	q_a q_f	554	891	428	688	368	592	332	534	308	495	290
		F	12.3+1.8R	13.2+1.5R	13.8+1.3R	14.1+1.2R	14.3+1R	14.3+1R	14.5+0.9R	14.6+0.8R	14.7+0.8R	14.8+0.7R	14.8+0.7R
22 ga	4"	q_a q_f	771	1233	771	1233	771	1233	771	1233	771	1233	771
		F	6.6+0.1R	6.6+0.1R	6.7+0.1R	6.7+0.1R	6.7+0R						
	6"	q_a q_f	771	1233	701	1129	662	1065	637	1026	621	999	609
		F	7.5+0.2R	7.6+0.2R	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
		F	8.4+0.4R	8.6+0.3R	8.6+0.2R	8.7+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	8.8+0.1R
	12"	q_a q_f	572	921	481	774	432	695	403	648	383	617	369
		F	10+0.7R	10.3+0.6R	10.5+0.5R	10.6+0.4R	10.7+0.3R	10.7+0.3R	10.7+0.3R	10.8+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
		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	13.6+0.6R	13.7+0.6R	13.7+0.5R	13.7+0.5R	13.8+0.5R
	24"	q_a q_f	438	704	338	545	289	466	260	419	240	387	226
		F	13.9+1.9R	14.9+1.7R	15.5+1.5R	15.8+1.3R	16.1+1.1R	16.3+1R	16.3+1R	16.4+0.9R	16.6+0.8R	16.7+0.8R	16.7+0.8R



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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"								
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															
	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															
	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	5.2+-0.1R	5.2+-0.1R	5.3+-0.1R									
18 ga	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	6.6+-0.2R	6.6+-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	8.7+-0.4R	8.8+-0.4R									
	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	10.7+-0.7R	10.8+-0.6R									
32/5	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															
	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	5.3+-0.1R	5.4+-0.1R											
	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	6.1+-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	7.6+-0.3R	7.7+-0.3R	7.7+-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	10.2+-0.4R	10.2+-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	12.4+-0.6R	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+-0.1R	5.7+0R	5.7+0R	5.7+0R	5.7+0R	5.7+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	6.6+-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+-0.2R	7.6+-0.1R	7.6+-0.1R	7.6+-0.1R	7.6+-0.1R	7.6+-0.1R	7.7+-0.1R							
	12"	q_a q_f	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	9.4+-0.3R	9.4+-0.3R	9.4+-0.3R	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	11.9+-0.6R	12+-0.6R	12.1+-0.5R	12.2+-0.5R									
	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+-1.2R	14.3+-1.2R	14.3+-1.2R	14.3+-1.2R	14.3+-1.2R	14.5+-0.9R	14.6+-0.8R	14.6+-0.8R	14.7+-0.8R	14.7+-0.8R	14.8+-0.7R	14.8+-0.7R	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+-0.1R	6.7+-0.1R	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	7.8+-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	8.7+-0.2R	8.8+-0.2R	8.8+-0.2R	8.8+-0.2R	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	10.6+-0.4R	10.7+-0.3R	10.7+-0.3R	10.7+-0.3R	10.7+-0.3R	10.7+-0.3R	10.8+-0.3R							
	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	13.3+-0.8R	13.5+-0.7R	13.5+-0.7R	13.6+-0.6R	13.6+-0.6R	13.7+-0.6R								



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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"			
16 ga	16 ga	4"	q_a	1800	2897	1758	2831	1736	2794	1722	2772	1712	2756	1705	2745
		4"	q_f	3.7+-0.1R	3.8+-0.1R	3.8+0R									
		6"	q_a	1553	2501	1483	2388	1445	2326	1421	2288	1405	2262	1393	2242
		6"	q_f	4.4+-0.2R	4.4+-0.1R	4.5+-0.1R	4.5+-0R	4.5+-0R	4.5+-0R						
		8"	q_a	1372	2209	1281	2063	1232	1983	1201	1934	1180	1900	1165	1876
		8"	q_f	5+-0.3R	5.1+-0.2R	5.2+-0.2R	5.2+-0.1R	5.2+-0.1R	5.2+-0.1R	5.2+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R
		12"	q_a	1139	1833	1023	1647	962	1548	923	1486	897	1444	878	1414
		12"	q_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	6.6+-0.2R	6.7+-0.2R	6.7+-0.2R	6.7+-0.2R	6.7+-0.2R	6.7+-0.2R
		18"	q_a	1000	1833	818	1316	804	1294	727	1171	675	1087	688	1107
		18"	q_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+-0.4R	8.8+-0.4R	8.8+-0.3R	8.8+-0.3R
	18 ga	24"	q_a	846	1361	701	1128	626	1009	582	937	552	889	531	855
		24"	q_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	10.8+-0.6R	10.8+-0.6R	10.8+-0.6R
		4"	q_a	1454	2340	1407	2265	1382	2225	1366	2199	1355	2182	1347	2169
		4"	q_f	4.5+-0.1R	4.5+-0.1R	4.5+0R									
		6"	q_a	1235	1988	1163	1872	1124	1809	1099	1770	1083	1743	1070	1723
		6"	q_f	5.2+-0.2R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.3+-0.1R	5.4+-0.1R	5.4+-0.1R	5.4+-0.1R	5.4+-0.1R	5.4+-0.1R	5.4+-0R
		8"	q_a	1084	1745	995	1603	948	1526	918	1478	898	1446	883	1422
		8"	q_f	5.9+-0.3R	6+-0.2R	6.1+-0.2R	6.1+-0.1R	6.1+-0.1R	6.1+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R	6.2+-0.1R
		12"	q_a	900	1448	793	1277	736	1185	701	1129	677	1091	660	1063
		12"	q_f	7.2+-0.6R	7.4+-0.4R	7.6+-0.4R	7.6+-0.3R	7.7+-0.3R	7.7+-0.3R	7.7+-0.2R	7.8+-0.2R	7.8+-0.2R	7.8+-0.2R	7.8+-0.2R	7.8+-0.2R
		18"	q_a	794	1448	638	1027	617	994	554	892	511	823	517	833
		18"	q_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	10.1+-0.4R	10.1+-0.4R	10.2+-0.4R	10.2+-0.4R
		24"	q_a	679	1094	544	876	480	773	442	711	416	670	398	641
		24"	q_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	12.4+-0.6R	12.4+-0.6R	12.4+-0.6R
32/5	20 ga	4"	q_a	1080	1728	1039	1673	1012	1629	995	1602	983	1583	975	1570
		4"	q_f	5.7+-0.1R	5.7+-0.1R	5.7+-0.1R	5.7+0R	5.7+0R	5.7+0R	5.7+0R	5.8+0R	5.8+0R	5.8+0R	5.8+0R	5.8+0R
		6"	q_a	911	1467	841	1354	804	1294	780	1256	764	1230	753	1212
		6"	q_f	6.5+-0.2R	6.6+-0.2R	6.6+-0.1R	6.7+-0.1R								
		8"	q_a	798	1284	716	1153	673	1083	646	1040	627	1010	614	989
		8"	q_f	7.3+-0.3R	7.5+-0.3R	7.5+-0.2R	7.6+-0.2R	7.6+-0.2R	7.6+-0.1R	7.6+-0.1R	7.6+-0.1R	7.6+-0.1R	7.7+-0.1R	7.7+-0.1R	7.7+-0.1R
		12"	q_a	666	1072	573	922	523	842	493	793	472	760	457	736
		12"	q_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	9.4+-0.3R	9.5+-0.2R	9.5+-0.2R	9.5+-0.2R	9.5+-0.2R	9.5+-0.2R
		18"	q_a	593	1072	459	739	438	706	388	625	355	571	358	576
		18"	q_f	10.7+-1.2R	11.3+-1R	11.6+-0.8R	11.8+-0.7R	11.9+-0.6R	11.9+-0.6R	12+-0.6R	12.1+-0.5R	12.1+-0.5R	12.2+-0.5R	12.2+-0.4R	12.2+-0.4R
		24"	q_a	506	815	397	639	344	555	313	504	292	470	277	446
		24"	q_f	12.3+-1.8R	13.2+-1.5R	13.8+-1.3R	14.1+-1.2R	14.3+-1R	14.3+-1R	14.5+-0.9R	14.6+-0.8R	14.7+-0.8R	14.7+-0.8R	14.8+-0.7R	14.8+-0.7R
22 ga	22 ga	4"	q_a	771	1233	771	1233	771	1233	771	1233	771	1233	771	1233
		4"	q_f	6.6+-0.1R	6.6+-0.1R	6.7+-0.1R	6.7+-0.1R	6.7+0R							
		6"	q_a	747	1202	680	1096	645	1038	623	1003	608	978	597	961
		6"	q_f	7.5+-0.2R	7.6+-0.2R	7.7+-0.1R	7.8+-0.1R	7.8+-0.1R							
		8"	q_a	654	1053	579	932	539	868	514	828	497	800	485	781
		8"	q_f	8.4+-0.4R	8.6+-0.3R	8.6+-0.2R	8.7+-0.2R	8.7+-0.2R	8.8+-0.2R	8.8+-0.1R	8.8+-0.1R	8.8+-0.1R	8.8+-0.1R	8.8+-0.1R	8.8+-0.1R
	22 ga	12"	q_a	549	884	465	749	421	677	393	633	375	604	362	582
		12"	q_f	10+-0.7R	10.3+-0.6R	10.5+-0.5R	10.6+-0.4R	10.7+-0.3R	10.7+-0.3R	10.7+-0.3R	10.8+-0.3R	10.8+-0.3R	10.8+-0.3R	10.8+-0.2R	10.8+-0.2R
		18"	q_a	490	884	373	600	351	565	309	498	282	453	282	454
		18"	q_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	13.6+-0.6R	13.7+-0.6R	13.7+-0.6R	13.7+-0.5R	13.8+-0.5R	13.8+-0.5R
		24"	q_a	418	673	325	524	280	450	252	406	234	377	221	356
		24"	q_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	16.6+-0.8R	16.7+-0.8R	16.7+-0.8R	16.7+-0.8R



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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"								
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														
		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+0R	4.5+0R	4.5+0R	4.5+0R											
		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	5.2+0.1R	5.2+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	6.6+0.2R	6.6+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										
	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										
32/5	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														
		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	5.4+0.1R	5.4+0.1R														
		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	6.1+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+0.3R	7.7+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+0.1R	5.7+0R	5.7+0R	5.7+0R	5.7+0R	5.8+0R									
		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													
		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+0.2R	7.6+0.1R	7.6+0.1R	7.6+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	9.4+0.3R	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	11.9+0.6R	12+0.6R	12.1+0.5R	12.1+0.5R	12.2+0.4R	12.2+0.4R	12.2+0.4R	12.2+0.4R	12.2+0.4R	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	14.3+1R	14.5+0.9R	14.6+0.8R	14.7+0.8R	14.8+0.7R	14.8+0.7R	14.8+0.7R	14.8+0.7R	14.8+0.7R	14.8+0.7R			
22 ga	4"	q_a q_f	771	1233	771	1233	768	1233	758	1221	751	1210	746	1201	743	1196	739	1187	732	1176
		F	6.6+0.1R	6.6+0.1R	6.7+0.1R	6.7+0.1R	6.7+0R													
		q_a q_f	705	1135	649	1045	619	996	600	966	587	946	578	931	571	919	565	910	545	872
	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	8.7+0.2R	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	10.7+0.3R	10.8+0.3R										
	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	13.5+0.7R	13.6+0.6R	13.7+0.6R										
	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	16.1+1.1R	16.3+1R	16.4+0.9R	16.4+0.9R	16.6+0.8R	16.6+0.8R	16.7+0.8R	16.7+0.8R	16.7+0.8R				



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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"			
16 ga	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	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	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+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+1.1R	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			
	18 ga	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			
		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			
32/5	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	6.6+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			



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FIGURE 21 DG2WH-36

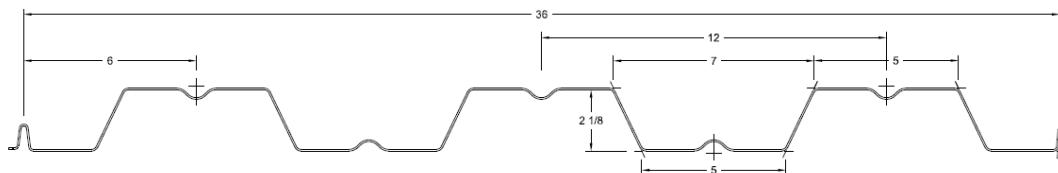


FIGURE 22 DG2WHF-36

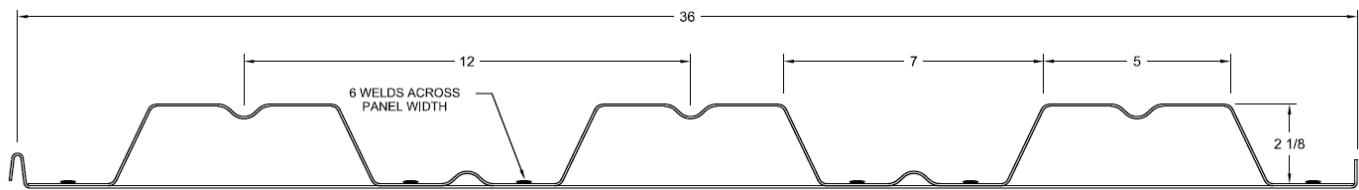
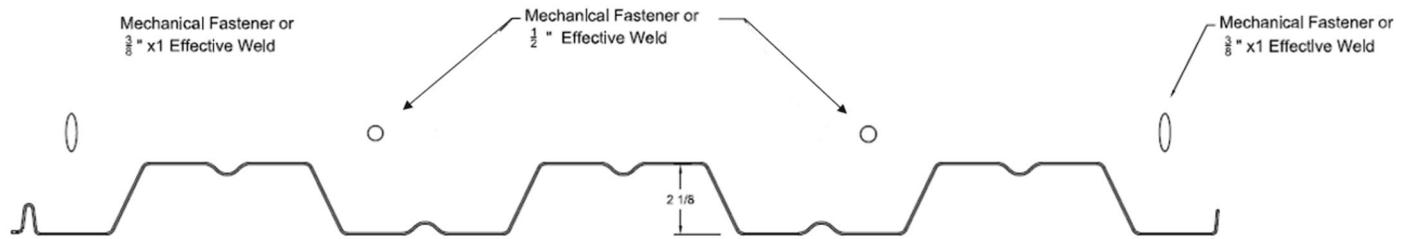


FIGURE 23: 36/4 Attachment Pattern





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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 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	I _{e+} (in ⁴ /ft)
	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	



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**TABLE 23: DG2WH-36 Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b / Ω	308	137	77	49	34	25	19	15	12
		Φf_b	462	205	116	74	51	38	29	23	18
		L/360	231	68	29	15	9	5	4	3	2
		L/240	346	103	43	22	13	8	5	4	3
		L/180	461	137	58	30	17	11	7	5	4
		L/120	692	205	86	44	26	16	11	8	6
	Double Span	f_b / Ω	319	142	80	51	35	26	20	16	13
		Φf_b	480	213	120	77	53	39	30	24	19
		L/360	556	165	69	36	21	13	9	6	4
		L/240	833	247	104	53	31	19	13	9	7
		L/180	1111	329	139	71	41	26	17	12	9
		L/120	1667	494	208	107	62	39	26	18	13
21	Single Span	f_b / Ω	399	177	100	64	44	33	25	20	16
		Φf_b	600	267	150	96	67	49	37	30	24
		L/360	435	129	54	28	16	10	7	5	3
		L/240	653	193	82	42	24	15	10	7	5
		L/180	871	258	109	56	32	20	14	10	7
		L/120	1306	387	163	84	48	30	20	14	10
	Double 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
	Triple Span	f_b / Ω	383	170	96	61	43	31	24	19	15
		Φf_b	576	256	144	92	64	47	36	28	23
		L/360	645	191	81	41	24	15	10	7	5
		L/240	968	287	121	62	36	23	15	11	8
		L/180	1290	382	161	83	48	30	20	14	10
		L/120	1936	573	242	124	72	45	30	21	15



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TABLE 23: DG2WH-36, Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20	Single Span	f_b / Ω	420	187	105	67	47	34	26	21	17
		Φf_b	631	281	158	101	70	52	39	31	25
		L/360	295	87	37	19	11	7	5	3	2
		L/240	443	131	55	28	16	10	7	5	4
		L/180	590	175	74	38	22	14	9	6	5
		L/120	885	262	111	57	33	21	14	10	7
	Double Span	f_b / Ω	431	191	108	69	48	35	27	21	17
		Φf_b	648	288	162	104	72	53	40	32	26
		L/360	711	211	89	46	26	17	11	8	6
		L/240	1066	316	133	68	39	25	17	12	9
		L/180	1422	421	178	91	53	33	22	16	11
		L/120	2133	632	267	137	79	50	33	23	17
19	Single Span	f_b / Ω	539	239	135	86	60	44	34	27	22
		Φf_b	809	360	202	130	90	66	51	40	32
		L/360	557	165	70	36	21	13	9	6	4
		L/240	835	248	104	53	31	19	13	9	7
		L/180	1114	330	139	71	41	26	17	12	9
		L/120	1671	495	209	107	62	39	26	18	13
	Double 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
	Triple Span	f_b / Ω	530	236	133	85	59	43	33	26	21
		Φf_b	797	354	199	128	89	65	50	39	32
		L/360	833	247	104	53	31	19	13	9	7
		L/240	1250	370	156	80	46	29	20	14	10
		L/180	1667	494	208	107	62	39	26	18	13
		L/120	2500	741	313	160	93	58	39	27	20



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TABLE 23: DG2WH-36, Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18	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
16	Single 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
	Double 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
	Triple 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



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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					Effective Moment of Inertia for Deflection				
	at F _y					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		
								$I_d = (2I_e + I_g)/3$		
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	



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**TABLE 25: DG2WHF-36 Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b / Ω	487	217	122	78	54	40	30	24	19
		Φf_b	733	326	183	117	81	60	46	36	29
		L/360	509	151	64	33	19	12	8	6	4
		L/240	763	226	95	49	28	18	12	8	6
		L/180	1017	301	127	65	38	24	16	11	8
		L/120	1526	452	191	98	57	36	24	17	12
	Double Span	f_b / Ω	570	253	143	91	63	47	36	28	23
		Φf_b	857	381	214	137	95	70	54	42	34
		L/360	1225	363	153	78	45	29	19	13	10
		L/240	1838	544	230	118	68	43	29	20	15
		L/180	2450	726	306	157	91	57	38	27	20
		L/120	3675	1089	459	235	136	86	57	40	29
20/18	Single Span	f_b / Ω	713	317	178	114	79	58	45	35	29
		Φf_b	1071	476	268	171	119	87	67	53	43
		L/360	960	284	120	61	36	22	15	11	8
		L/240	1440	427	180	92	53	34	22	16	12
		L/180	1919	569	240	123	71	45	30	21	15
		L/120	2879	853	360	184	107	67	45	32	23
	Double 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
	Triple Span	f_b / Ω	593	264	148	95	66	48	37	29	24
		Φf_b	892	396	223	143	99	73	56	44	36
		L/360	1300	385	163	83	48	30	20	14	10
		L/240	1950	578	244	125	72	45	30	21	16
		L/180	2601	771	325	166	96	61	41	29	21
		L/120	3901	1156	488	250	144	91	61	43	31



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TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/16	Single Span	f_b / Ω	507	225	127	81	56	41	32	25	20
		Φf_b	762	339	191	122	85	62	48	38	30
		L/360	568	168	71	36	21	13	9	6	5
		L/240	852	253	107	55	32	20	13	9	7
		L/180	1136	337	142	73	42	27	18	12	9
		L/120	1705	505	213	109	63	40	27	19	14
	Double Span	f_b / Ω	614	273	154	98	68	50	38	30	25
		Φf_b	923	410	231	148	103	75	58	46	37
		L/360	1369	406	171	88	51	32	21	15	11
		L/240	2053	608	257	131	76	48	32	23	16
		L/180	2737	811	342	175	101	64	43	30	22
		L/120	4106	1217	513	263	152	96	64	45	33
	Triple Span	f_b / Ω	768	341	192	123	85	63	48	38	31
		Φf_b	1154	513	289	185	128	94	72	57	46
		L/360	1072	318	134	69	40	25	17	12	9
		L/240	1608	477	201	103	60	38	25	18	13
		L/180	2144	635	268	137	79	50	34	24	17
		L/120	3217	953	402	206	119	75	50	35	26
18/20	Single Span	f_b / Ω	736	327	184	118	82	60	46	36	29
		Φf_b	1106	491	276	177	123	90	69	55	44
		L/360	656	194	82	42	24	15	10	7	5
		L/240	983	291	123	63	36	23	15	11	8
		L/180	1311	389	164	84	49	31	20	14	10
		L/120	1967	583	246	126	73	46	31	22	16
	Double Span	f_b / Ω	740	329	185	118	82	60	46	37	30
		Φf_b	1112	494	278	178	124	91	70	55	44
		L/360	1579	468	197	101	58	37	25	17	13
		L/240	2369	702	296	152	88	55	37	26	19
		L/180	3159	936	395	202	117	74	49	35	25
		L/120	4738	1404	592	303	175	111	74	52	38
	Triple Span	f_b / Ω	925	411	231	148	103	76	58	46	37
		Φf_b	1390	618	348	222	154	113	87	69	56
		L/360	1237	367	155	79	46	29	19	14	10
		L/240	1856	550	232	119	69	43	29	20	15
		L/180	2474	733	309	158	92	58	39	27	20
		L/120	3712	1100	464	238	137	87	58	41	30



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TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/18	Single Span	f_b/Ω	747	332	187	120	83	61	47	37	30
		Φf_b	1123	499	281	180	125	92	70	55	45
		L/360	699	207	87	45	26	16	11	8	6
		L/240	1048	311	131	67	39	24	16	12	8
		L/180	1398	414	175	89	52	33	22	15	11
		L/120	2097	621	262	134	78	49	33	23	17
	Double Span	f_b/Ω	768	341	192	123	85	63	48	38	31
		Φf_b	1155	513	289	185	128	94	72	57	46
		L/360	1684	499	210	108	62	39	26	18	13
		L/240	2526	748	316	162	94	59	39	28	20
		L/180	3367	998	421	216	125	79	53	37	27
		L/120	5051	1497	631	323	187	118	79	55	40
18/16	Single Span	f_b/Ω	960	427	240	154	107	78	60	47	38
		Φf_b	1443	641	361	231	160	118	90	71	58
		L/360	1319	391	165	84	49	31	21	14	11
		L/240	1978	586	247	127	73	46	31	22	16
		L/180	2638	782	330	169	98	62	41	29	21
		L/120	3957	1172	495	253	147	92	62	43	32
	Double 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
	Triple Span	f_b/Ω	797	354	199	128	89	65	50	39	32
		Φf_b	1198	532	299	192	133	98	75	59	48
		L/360	1779	527	222	114	66	41	28	20	14
		L/240	2668	791	334	171	99	62	42	29	21
		L/180	3558	1054	445	228	132	83	56	39	28
		L/120	5337	1581	667	342	198	124	83	59	43



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TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b/Ω	972	432	243	155	108	79	61	48	39
		Φf_b	1460	649	365	234	162	119	91	72	58
		L/360	790	234	99	51	29	18	12	9	6
		L/240	1185	351	148	76	44	28	19	13	9
		L/180	1580	468	197	101	59	37	25	17	13
		L/120	2370	702	296	152	88	55	37	26	19
	Double Span	f_b/Ω	923	410	231	148	103	75	58	46	37
		Φf_b	1388	617	347	222	154	113	87	69	56
		L/360	1903	564	238	122	70	44	30	21	15
		L/240	2854	846	357	183	106	67	45	31	23
		L/180	3805	1128	476	244	141	89	59	42	30
		L/120	5708	1691	714	365	211	133	89	63	46
16/18	Single Span	f_b/Ω	1154	513	288	185	128	94	72	57	46
		Φf_b	1734	771	434	278	193	142	108	86	69
		L/360	1491	442	186	95	55	35	23	16	12
		L/240	2236	662	279	143	83	52	35	25	18
		L/180	2981	883	373	191	110	70	47	33	24
		L/120	4472	1325	559	286	166	104	70	49	36
	Double 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
	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	2028	601	254	130	75	47	32	22	16
		L/240	3042	901	380	195	113	71	48	33	24
		L/180	4056	1202	507	260	150	95	63	45	32
		L/120	6085	1803	761	389	225	142	95	67	49



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TABLE 25: DG2WHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/16	Single Span	f_b / Ω	1002	445	250	160	111	82	63	49	40
		Φf_b	1506	669	376	241	167	123	94	74	60
		L/360	891	264	111	57	33	21	14	10	7
		L/240	1336	396	167	85	49	31	21	15	11
		L/180	1781	528	223	114	66	42	28	20	14
		L/120	2672	792	334	171	99	62	42	29	21
	Double Span	f_b / Ω	989	439	247	158	110	81	62	49	40
		Φf_b	1486	660	371	238	165	121	93	73	59
		L/360	2145	636	268	137	79	50	34	24	17
		L/240	3218	953	402	206	119	75	50	35	26
		L/180	4291	1271	536	275	159	100	67	47	34
		L/120	6436	1907	804	412	238	150	101	71	51
	Triple Span	f_b / Ω	1236	549	309	198	137	101	77	61	49
		Φf_b	1857	825	464	297	206	152	116	92	74
		L/360	1681	498	210	108	62	39	26	18	13
		L/240	2521	747	315	161	93	59	39	28	20
		L/180	3361	996	420	215	124	78	53	37	27
		L/120	5042	1494	630	323	187	118	79	55	40



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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"			
16 ga	4"	q_a q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	2080	3328	1794 2870
		F	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+0R	3+0R	3+0R	3+0R	
		q_a q_f	2421	3994	2421	3994	2421	3994	2421	3994	2421	3994	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	3.5+-0.1R	3.5+-0.1R	3.6+-0.1R	3.6+-0.1R	3.6+-0.1R	3.6+-0.1R	
		q_a q_f	2421	3994	2421	3994	2420	3993	2421	3994	2396	3953	2416	3986	2379 3906
		F	3.9+-0.3R	4+-0.2R	4+-0.2R	4+-0.2R	4+-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
		F	4.7+-0.5R	4.8+-0.5R	4.9+-0.4R	5+-0.4R	5+-0.4R	5+-0.4R	5.1+-0.4R	5.1+-0.4R	5.1+-0.3R	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
		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+-0.7R	6.4+-0.7R	6.5+-0.6R	6.5+-0.6R	6.6+-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
		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+-1R	7.8+-1R	7.8+-0.9R	7.8+-0.9R	
36/4	4"	q_a q_f	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1734 2774
		F	4+-0.2R	4.1+-0.2R	4.1+-0.1R	4.2+-0.1R	4.2+-0.1R								
		q_a q_f	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1871	3087	1734 2774
		F	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	5+-0.2R	5+-0.2R	5+-0.2R	5+-0.2R	
		q_a q_f	1753	2893	1766	2914	1713	2827	1729	2852	1688	2786	1704	2811	1671 2757
		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+-0.4R	5.8+-0.4R	5.8+-0.3R	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
		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+-0.7R	7.3+-0.6R	7.3+-0.6R	7.4+-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
		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	9.3+-1.2R	9.4+-1.1R	9.4+-1.1R	9.4+-1.1R	
	24"	q_a q_f	1011	1669	1039	1714	928	1531	959	1583	876	1445	907	1497	840 1387
		F	8.9+-1.9R	9.3+-1.9R	9.7+-1.9R	10+-1.9R	10.3+-1.8R	10.6+-1.8R	10.6+-1.8R	10.8+-1.8R	10.8+-1.8R	11+-1.7R	11.2+-1.7R	11.2+-1.7R	
20 ga	4"	q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1121	1845	983 1572
		F	5.9+-0.4R	6+-0.4R	6+-0.3R	6.1+-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	6.2+-0.2R	
		q_a q_f	1121	1850	1121	1850	1121	1850	1121	1850	1121	1850	1119	1845	983 1572
		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	7.5+-0.5R	7.6+-0.5R	7.6+-0.5R	7.6+-0.5R	7.6+-0.4R	
		q_a q_f	1031	1702	1039	1714	1006	1660	1015	1675	990	1634	999	1649	980 1616
		F	7.9+-1R	8.2+-1R	8.3+-0.9R	8.5+-0.9R	8.6+-0.9R	8.7+-0.8R	8.7+-0.8R	8.8+-0.8R	8.8+-0.8R	8.9+-0.7R	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
		F	9.5+-1.6R	9.8+-1.6R	10.1+-1.6R	10.4+-1.5R	10.6+-1.5R	10.6+-1.5R	10.8+-1.5R	10.8+-1.5R	11+-1.4R	11.1+-1.4R	11.3+-1.3R	11.3+-1.3R	
	18"	q_a q_f	688	1404	689	1136	689	1137	627	1034	633	1045	639	1054	594 980
		F	11.1+-2.4R	11.7+-2.5R	12.2+-2.5R	12.7+-2.5R	13.1+-2.4R	13.1+-2.4R	13.4+-2.4R	13.7+-2.4R	14.2+-2.3R	14.2+-2.3R	14.2+-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
		F	12.3+-3.1R	13.1+-3.2R	13.8+-3.2R	14.4+-3.3R	15+-3.3R	15.5+-3.3R	15.5+-3.3R	15.9+-3.3R	16.3+-3.3R	16.3+-3.3R	16.7+-3.2R	16.7+-3.2R	
22 ga	4"	q_a q_f	774	1277	774	1277	774	1277	774	1277	774	1277	774	1277	714 1142
		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	8.4+-0.5R	8.4+-0.5R	8.4+-0.5R	8.5+-0.4R	
		q_a q_f	774	1277	774	1276	768	1267	764	1260	760	1254	757	1249	754 1245
	8"	q_a q_f	695	1146	699	1154	676	1116	682	1125	665	1097	671	1106	657 1083
		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+-1.4R	12.2+-1.4R	12.2+-1.3R	12.3+-1.3R	12.3+-1.3R	12.3+-1.3R	
		q_a q_f	571	942	556	917	545	898	535	883	528	871	522	861	517 852
22 ga	12"	q_a q_f	461	942	461	760	460	759	418	689	422	696	425	701	395 651
		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	17.9+-3.8R	18.4+-3.8R	18.8+-3.8R	18.8+-3.8R	19.2+-3.7R	19.2+-3.7R	
		q_a q_f	398	656	406	670	362	598	373	616	340	561	351	580	325 536
	18"	q_a q_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	21.6+-5R	21.6+-5R	22.2+-5.1R	22.2+-5.1R	
		F													
		q_a q_f													



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**TABLE 26b: DG2WH-36 and DG2WHR-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"	
16 ga	16 ga	4"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
		4"	q_f	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+-0.1R	3+0R	3+0R	3+0R	3+0R	
		6"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
		6"	q_f	3.5+-0.2R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R	3.5+-0.1R	3.6+-0.1R	3.6+-0.1R	3.6+-0.1R	3.6+-0.1R	
		8"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
		8"	q_f	3.9+-0.3R	4+-0.2R	4+-0.2R	4+-0.2R	4.1+-0.2R	4.1+-0.2R	4.1+-0.2R	4.1+-0.1R	4.1+-0.1R	
		12"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
		12"	q_f	4.8+-0.5R	4.9+-0.4R	4.9+-0.4R	5+-0.4R	5.1+-0.4R	5.1+-0.3R	5.1+-0.3R	5.2+-0.3R	5.2+-0.3R	
		18"	q_a	1271	2047	1271	2047	1271	2047	1271	2047	1271	2047
		18"	q_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	
36/4	18 ga	24"	q_a	1200	1932	1253	2017	1174	1890	1221	1965	1157	1863
		24"	q_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	
		4"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
		4"	q_f	4.1+-0.2R	4.1+-0.1R	4.1+-0.1R	4.1+-0.1R	4.1+-0.1R	4.1+-0.1R	4.2+-0.1R	4.2+-0.1R	4.2+-0.1R	
		6"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
		6"	q_f	4.8+-0.3R	4.9+-0.3R	4.9+-0.3R	4.9+-0.2R	5+-0.2R	5+-0.2R	5+-0.2R	5+-0.2R	5+-0.2R	
		8"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
		8"	q_f	5.5+-0.5R	5.6+-0.5R	5.6+-0.4R	5.7+-0.4R	5.7+-0.4R	5.8+-0.3R	5.8+-0.3R	5.9+-0.3R	5.9+-0.3R	
		12"	q_a	1021	1644	1021	1644	1021	1644	1021	1644	1021	1644
		12"	q_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	
36/4	20 ga	18"	q_a	981	1644	997	1606	1009	1625	954	1535	969	1560
		18"	q_f	8+-1.4R	8.3+-1.4R	8.6+-1.3R	8.8+-1.3R	9+-1.2R	9.2+-1.2R	9.3+-1.2R	9.4+-1.1R	9.5+-1.1R	
		24"	q_a	864	1392	905	1457	837	1347	874	1407	819	1319
		24"	q_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	
		4"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260
		4"	q_f	5.9+-0.4R	6+-0.3R	6.1+-0.3R	6.1+-0.3R	6.1+-0.3R	6.2+-0.2R	6.2+-0.2R	6.2+-0.2R	6.2+-0.2R	
		6"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260
		6"	q_f	7.1+-0.7R	7.2+-0.6R	7.3+-0.6R	7.4+-0.6R	7.5+-0.5R	7.5+-0.5R	7.6+-0.5R	7.6+-0.4R	7.7+-0.4R	
		8"	q_a	783	1260	783	1260	783	1260	783	1260	783	1260
		8"	q_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	
22 ga	20 ga	12"	q_a	783	1260	779	1253	773	1244	768	1237	764	1231
		12"	q_f	9.7+-1.6R	10+-1.6R	10.3+-1.6R	10.6+-1.5R	10.8+-1.5R	11+-1.4R	11.1+-1.4R	11.3+-1.3R	11.4+-1.3R	
		18"	q_a	662	1260	672	1082	680	1094	633	1019	644	1037
		18"	q_f	11.4+-2.5R	12+-2.5R	12.6+-2.5R	13+-2.4R	13.4+-2.4R	13.7+-2.4R	14+-2.3R	14.3+-2.3R	14.5+-2.2R	
		24"	q_a	574	924	600	966	547	880	572	921	530	853
		24"	q_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	
		4"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025
22 ga	22 ga	4"	q_f	8+-0.7R	8.1+-0.6R	8.2+-0.6R	8.3+-0.5R	8.3+-0.5R	8.4+-0.5R	8.4+-0.4R	8.5+-0.4R	8.5+-0.4R	
		6"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025
		6"	q_f	9.5+-1.2R	9.7+-1.1R	9.9+-1.1R	10.1+-1R	10.2+-1R	10.3+-0.9R	10.4+-0.9R	10.5+-0.8R	10.6+-0.8R	
		8"	q_a	637	1025	637	1025	637	1025	637	1025	637	1025
		8"	q_f	10.7+-1.7R	11.1+-1.6R	11.4+-1.6R	11.6+-1.5R	11.9+-1.4R	12+-1.4R	12.2+-1.3R	12.3+-1.3R	12.4+-1.2R	
		12"	q_a	585	943	577	930	571	920	566	912	562	905
22 ga	22 ga	12"	q_f	12.7+-2.5R	13.3+-2.5R	13.8+-2.5R	14.2+-2.5R	14.6+-2.4R	14.9+-2.4R	15.2+-2.3R	15.5+-2.3R	15.7+-2.2R	
		18"	q_a	483	943	489	787	493	794	455	733	462	744
		18"	q_f	14.7+-3.6R	15.6+-3.7R	16.5+-3.7R	17.2+-3.8R	17.8+-3.8R	18.3+-3.8R	18.8+-3.8R	19.3+-3.7R	19.7+-3.7R	
		24"	q_a	416	669	433	697	391	630	408	657	376	605
		24"	q_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	



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**TABLE 26c: DG2WH-36 and DG2WHR-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"	
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	1257 2024	1257 2024	1257 2024	1257 2024	1257 2024	1257 2024		
		F	3+0.1R	3+0R															
		q_a q_f	1242 1999	1242 1999	1241 1999	1241 1999	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998	1241 1998		
		F	3.5+0.1R	3.6+0.1R															
		q_a q_f	1221 1966	1225 1972	1220 1965	1223 1969	1220 1964	1222 1968	1219 1963	1222 1967	1219 1963	1222 1967	1219 1963	1222 1967	1219 1963	1222 1967	1219 1963		
		F	4.1+0.2R	4.1+0.2R	4.1+0.2R	4.1+0.2R	4.1+0.2R	4.1+0.2R	4.1+0.2R	4.2+0.1R									
		q_a q_f	1170 1883	1168 1881	1167 1879	1166 1878	1166 1877	1165 1876	1165 1875	1164 1874	1164 1874	1164 1874	1164 1874	1164 1874	1164 1874	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										
18 ga	6"	q_a q_f	1080 1883	1095 1764	1106 1780	1072 1725	1084 1745	1093 1760	1067 1718	1077 1735	1086 1748	1067 1718	1077 1735	1086 1748	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	6.8+0.5R	6.8+0.4R	6.9+0.4R	6.8+0.5R	6.8+0.4R	6.9+0.4R		
		q_a q_f	990 1594	1030 1658	980 1577	1014 1632	973 1566	1003 1614	968 1559	994 1601	965 1554	968 1559	994 1601	965 1554	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	8.2+0.8R	8.3+0.7R	8.3+0.7R	8.2+0.8R	8.3+0.7R	8.3+0.7R		
		q_a q_f	1003 1615	1003 1615	1003 1615	1003 1615	1003 1615	1003 1615	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														
		q_a q_f	984 1584	983 1583	983 1583	983 1583	983 1582	983 1582	982 1582	982 1582	982 1582	982 1582	982 1582	982 1582	982 1582	982 1582	982 1582		
36/3	4"	q_a q_f	959 1544	963 1550	957 1541	961 1547	957 1540	960 1545	956 1539	959 1543	956 1538	956 1539	959 1543	956 1538	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										
		q_a q_f	900 1449	898 1446	896 1443	895 1441	894 1440	893 1438	893 1437	892 1436	892 1436	892 1436	892 1436	892 1436	892 1436	892 1436	892 1436		
		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											
		q_a q_f	807 1449	821 1322	831 1338	796 1282	808 1301	817 1315	790 1273	800 1289	808 1302	807 1449	821 1322	831 1338	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	9.9+0.9R	9.9+0.9R	9.9+0.9R	9.9+0.9R	9.9+0.9R	10+0.9R		
		q_a q_f	722 1163	757 1219	710 1143	740 1192	702 1131	729 1173	697 1122	720 1160	693 1116	722 1163	757 1219	710 1143	740 1192	702 1131	729 1173	697 1122	
20 ga	6"	q_a q_f	759 1223	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222	759 1222		
		F	6.1+0.3R	6.2+0.3R	6.2+0.2R	6.2+0.2R	6.2+0.2R	6.2+0.2R	6.3+0.2R										
		q_a q_f	735 1183	734 1182	734 1181	733 1181	733 1180	733 1180	733 1179	732 1179	732 1179	732 1179	732 1179	732 1179	732 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	7.7+0.4R	7.8+0.3R									
		q_a q_f	705 1136	710 1143	703 1132	707 1138	702 1130	705 1135	701 1128	704 1133	700 1127	705 1136	710 1143	703 1132	707 1138	702 1130	705 1135	701 1128	
		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	9.2+0.5R	9.2+0.5R	9.3+0.5R	9.2+0.5R	9.2+0.5R	9.3+0.5R		
		q_a q_f	642 1033	639 1028	637 1025	635 1022	633 1020	632 1018	631 1016	630 1015	630 1014	642 1033	639 1028	637 1025	635 1022	633 1020	632 1018	631 1016	
22 ga	12"	q_a q_f	553 1033	565 909	573 922	540 870	550 886	558 898	534 859	542 873	549 884	553 1033	565 909	573 922	540 870	550 886	558 898	534 859	
		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	15.2+2R	15.5+2R	15.6+1.9R	15.2+2R	15.5+2R	15.6+1.9R		
		q_a q_f	482 777	509 820	469 756	493 793	461 742	482 776	456 734	474 763	452 727	482 777	509 820	469 756	493 793	461 742	482 776	456 734	
		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	18.2+3R	18.5+2.9R	18.8+2.8R	18.2+3R	18.5+2.9R	18.8+2.8R		
		q_a q_f	609 980	608 979	608 979	608 979	608 978	608 978	608 978	608 978	608 978	608 978	608 978	608 978	608 978	608 978	608 978		
		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+0.4R	8.6+0.3R	8.7+0.3R								
		q_a q_f	580 934	579 933	579 932	578 931	578 930	578 930	577 929	577 929	577 929	577 929	577 929	577 929	577 929	577 929	577 929		
22 ga	8"	q_a q_f	548 883	553 890	546 878	550 885	544 875	547 881	543 874	546 879	542 872	548 883	553 890	546 878	550 885	544 875	547 881	543 874	
		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+1.1R	13+1R	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	
		q_a q_f	485 781	481 775	479 771	477 768	475 765	474 763	473 761	472 759	471 758	485 781	481 775	479 771	477 768	475 765	474 763	473 761	
		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	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	
		q_a q_f	406 781	415 668	421 678	393 632	400 645	407 655	386 621	392 632	398 641	406 781	415 668	421 678	393 632	400 645	407 655	386 621	
		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	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	
		q_a q_f	349 561	368 593	336 541	354 569	328 528	344 553	323 519	336 542	319 513	349 561	368 593	336 541	354 569	328 528	344 553	323 519	336 542
		F	19.5+4.9R	20.7+5R	21.8+5R	22.7+5.1R	23												



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**TABLE 26d: DG2WH-36 and DG2WHR-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"	1271	2047	
16 ga	4"	q_a	q_f	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+-0R							
	6"	q_a	q_f	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	3.5+-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
		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	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
		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+-0.4R	5.1+-0.3R		
	18"	q_a	q_f	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	6.4+-0.7R		
	24"	q_a	q_f	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			
36/6	4"	q_a	q_f	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	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
		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	5+-0.2R		
	8"	q_a	q_f	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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		F		14.1+-3.9R	15.2+-4.1R	16.2+-4.4R	17.1+-4.5R	18+-4.7R	18.8+-4.8R	19.5+-4.9R	20.1+-4.9R	20.7+-5R			



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FIGURE 24: DG3WxH-36 Profile

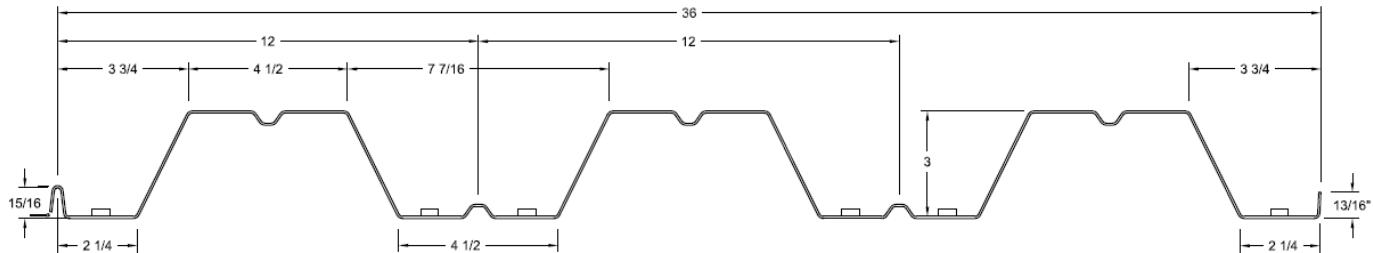


FIGURE 25 DG3WxHF-36

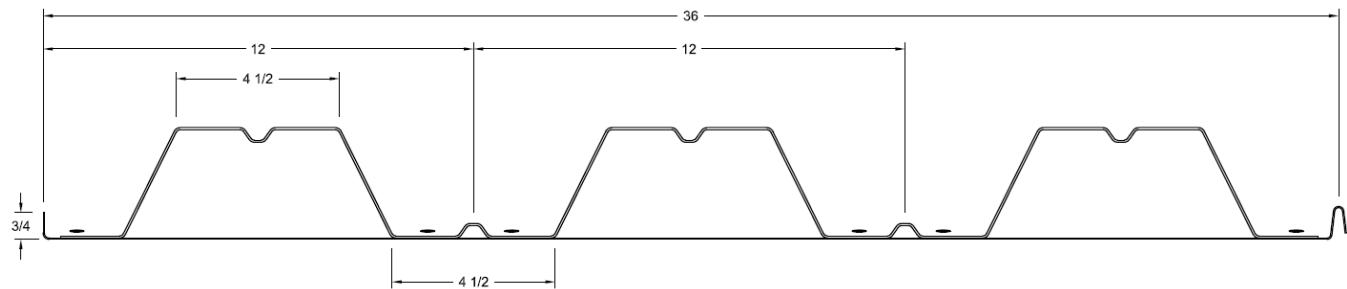
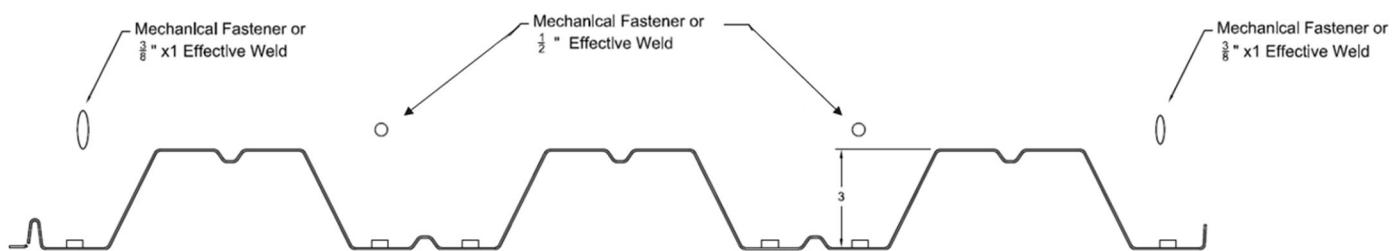


FIGURE 26: 36/4 Attachment Pattern





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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					Effective Moment of Inertia for Deflection			
	at F _y					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°	



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**TABLE 29: DG3WxH-36 Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
22	Single Span	f_b / Ω	490	218	122	78	54	40	31	24	20
		Φf_b	736	327	184	118	82	60	46	36	29
		L/360	506	150	63	32	19	12	8	6	4
		L/240	759	225	95	49	28	18	12	8	6
		L/180	1012	300	127	65	37	24	16	11	8
		L/120	1518	450	190	97	56	35	24	17	12
	Double Span	f_b / Ω	504	224	126	81	56	41	31	25	20
		Φf_b	758	337	189	121	84	62	47	37	30
		L/360	1219	361	152	78	45	28	19	13	10
		L/240	1829	542	229	117	68	43	29	20	15
		L/180	2438	722	305	156	90	57	38	27	20
		L/120	3657	1084	457	234	135	85	57	40	29
21	Single Span	f_b / Ω	630	280	157	101	70	51	39	31	25
		Φf_b	947	421	237	152	105	77	59	47	38
		L/360	955	283	119	61	35	22	15	10	8
		L/240	1433	424	179	92	53	33	22	16	11
		L/180	1910	566	239	122	71	45	30	21	15
		L/120	2865	849	358	183	106	67	45	31	23
	Double 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
	Triple Span	f_b / Ω	580	258	145	93	64	47	36	29	23
		Φf_b	872	388	218	140	97	71	54	43	35
		L/360	1369	406	171	88	51	32	21	15	11
		L/240	2053	608	257	131	76	48	32	23	16
		L/180	2738	811	342	175	101	64	43	30	22
		L/120	4107	1217	513	263	152	96	64	45	33



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TABLE 29: DG3WxH-36, Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20	Single Span	f_b / Ω	636	283	159	102	71	52	40	31	25
		Φf_b	956	425	239	153	106	78	60	47	38
		L/360	625	185	78	40	23	15	10	7	5
		L/240	938	278	117	60	35	22	15	10	8
		L/180	1250	370	156	80	46	29	20	14	10
		L/120	1876	556	234	120	69	44	29	21	15
	Double Span	f_b / Ω	654	291	163	105	73	53	41	32	26
		Φf_b	983	437	246	157	109	80	61	49	39
		L/360	1506	446	188	96	56	35	24	17	12
		L/240	2259	669	282	145	84	53	35	25	18
		L/180	3012	892	377	193	112	70	47	33	24
		L/120	4518	1339	565	289	167	105	71	50	36
19	Single Span	f_b / Ω	817	363	204	131	91	67	51	40	33
		Φf_b	1228	546	307	197	136	100	77	61	49
		L/360	1180	350	147	76	44	28	18	13	9
		L/240	1770	524	221	113	66	41	28	19	14
		L/180	2360	699	295	151	87	55	37	26	19
		L/120	3539	1049	442	227	131	83	55	39	28
	Double 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
	Triple Span	f_b / Ω	815	362	204	130	91	67	51	40	33
		Φf_b	1226	545	306	196	136	100	77	61	49
		L/360	1782	528	223	114	66	42	28	20	14
		L/240	2673	792	334	171	99	62	42	29	21
		L/180	3564	1056	446	228	132	83	56	39	29
		L/120	5346	1584	668	342	198	125	84	59	43



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TABLE 29: DG3WxH-36, Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18	Single Span	f_b/Ω	949	422	237	152	105	77	59	47	38
		Φf_b	1426	634	357	228	158	116	89	70	57
		L/360	842	250	105	54	31	20	13	9	7
		L/240	1263	374	158	81	47	29	20	14	10
		L/180	1684	499	211	108	62	39	26	18	13
		L/120	2527	749	316	162	94	59	39	28	20
	Double Span	f_b/Ω	974	433	244	156	108	80	61	48	39
		Φf_b	1464	651	366	234	163	120	92	72	59
		L/360	2029	601	254	130	75	47	32	22	16
		L/240	3043	902	380	195	113	71	48	33	24
		L/180	4058	1202	507	260	150	95	63	45	32
		L/120	6086	1803	761	390	225	142	95	67	49
16	Single Span	f_b/Ω	1218	541	304	195	135	99	76	60	49
		Φf_b	1830	814	458	293	203	149	114	90	73
		L/360	1589	471	199	102	59	37	25	17	13
		L/240	2384	706	298	153	88	56	37	26	19
		L/180	3179	942	397	203	118	74	50	35	25
		L/120	4768	1413	596	305	177	111	74	52	38
	Double 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
14	Triple 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
	Quadruple Span	f_b/Ω	1532	681	383	245	170	125	96	76	61
		Φf_b	2302	1023	576	368	256	188	144	114	92
		L/360	1984	588	248	127	73	46	31	22	16
		L/240	2977	882	372	191	110	69	47	33	24
		L/180	3969	1176	496	254	147	93	62	44	32
		L/120	5953	1764	744	381	220	139	93	65	48



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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					Effective Moment of Inertia for Deflection			
	at F _y					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



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**TABLE 31: DG3WxHF-36 Out-of-Plane Capacities
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/20	Single Span	f_b / Ω	671	298	168	107	75	55	42	33	27
		Φf_b	1009	448	252	161	112	82	63	50	40
		L/360	1037	307	130	66	38	24	16	11	8
		L/240	1555	461	194	100	58	36	24	17	12
		L/180	2073	614	259	133	77	48	32	23	17
		L/120	3110	921	389	199	115	73	49	34	25
	Double Span	f_b / Ω	805	358	201	129	89	66	50	40	32
		Φf_b	1209	538	302	194	134	99	76	60	
		L/360	2497	740	312	160	92	58	39	27	20
		L/240	3746	1110	468	240	139	87	59	41	30
		L/180	4994	1480	624	320	185	116	78	55	40
		L/120	7491	2220	936	479	277	175	117	82	60
	Triple Span	f_b / Ω	1006	447	251	161	112	82	63	50	40
		Φf_b	1512	672	378	242	168	123	94	75	60
		L/360	1956	580	245	125	72	46	31	21	16
		L/240	2934	869	367	188	109	68	46	32	23
		L/180	3912	1159	489	250	145	91	61	43	31
		L/120	5868	1739	734	376	217	137	92	64	47
20/18	Single Span	f_b / Ω	674	299	168	108	75	55	42	33	27
		Φf_b	1013	450	253	162	113	83	63	50	41
		L/360	1094	324	137	70	41	26	17	12	9
		L/240	1640	486	205	105	61	38	26	18	13
		L/180	2187	648	273	140	81	51	34	24	17
		L/120	3281	972	410	210	122	77	51	36	26
	Double Span	f_b / Ω	841	374	210	135	93	69	53	42	34
		Φf_b	1264	562	316	202	140	103	79	62	51
		L/360	2634	780	329	169	98	61	41	29	21
		L/240	3951	1171	494	253	146	92	62	43	32
		L/180	5268	1561	659	337	195	123	82	58	42
		L/120	7902	2341	988	506	293	184	123	87	63
	Triple Span	f_b / Ω	1051	467	263	168	117	86	66	52	42
		Φf_b	1580	702	395	253	176	129	99	78	63
		L/360	2064	611	258	132	76	48	32	23	17
		L/240	3095	917	387	198	115	72	48	34	25
		L/180	4127	1223	516	264	153	96	64	45	33
		L/120	6191	1834	774	396	229	144	97	68	50



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TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
20/16	Single Span	f_b/Ω	701	312	175	112	78	57	44	35	28
		Φf_b	1054	468	263	169	117	86	66	52	42
		L/360	1140	338	142	73	42	27	18	13	9
		L/240	1710	507	214	109	63	40	27	19	14
		L/180	2279	675	285	146	84	53	36	25	18
		L/120	3419	1013	427	219	127	80	53	38	27
	Double Span	f_b/Ω	875	389	219	140	97	71	55	43	35
		Φf_b	1314	584	329	210	146	107	82	65	53
		L/360	2745	813	343	176	102	64	43	30	22
		L/240	4118	1220	515	264	153	96	64	45	33
		L/180	5491	1627	686	351	203	128	86	60	44
		L/120	8236	2440	1030	527	305	192	129	90	66
18/20	Single Span	f_b/Ω	1093	486	273	175	121	89	68	54	44
		Φf_b	1643	730	411	263	183	134	103	81	66
		L/360	2151	637	269	138	80	50	34	24	17
		L/240	3226	956	403	206	119	75	50	35	26
		L/180	4301	1275	538	275	159	100	67	47	34
		L/120	6452	1912	807	413	239	150	101	71	52
	Double 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
	Triple Span	f_b/Ω	1053	468	263	168	117	86	66	52	42
		Φf_b	1583	703	396	253	176	129	99	78	63
		L/360	3176	941	397	203	118	74	50	35	25
		L/240	4764	1411	595	305	176	111	74	52	38
		L/180	6352	1882	794	407	235	148	99	70	51
		L/120	9527	2823	1191	610	353	222	149	105	76



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

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

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
18/18	Single Span	f_b / Ω	1095	487	274	175	122	89	68	54	44
		Φf_b	1646	732	412	263	183	134	103	81	66
		L/360	1404	416	176	90	52	33	22	15	11
		L/240	2107	624	263	135	78	49	33	23	17
		L/180	2809	832	351	180	104	66	44	31	22
		L/120	4213	1248	527	270	156	98	66	46	34
	Double Span	f_b / Ω	1097	487	274	175	122	90	69	54	44
		Φf_b	1648	733	412	264	183	135	103	81	66
		L/360	3383	1002	423	217	125	79	53	37	27
		L/240	5075	1504	634	325	188	118	79	56	41
		L/180	6766	2005	846	433	251	158	106	74	54
		L/120	10149	3007	1269	650	376	237	159	111	81
	Triple Span	f_b / Ω	1371	609	343	219	152	112	86	68	55
		Φf_b	2060	916	515	330	229	168	129	102	82
		L/360	2650	785	331	170	98	62	41	29	21
		L/240	3975	1178	497	254	147	93	62	44	32
		L/180	5301	1571	663	339	196	124	83	58	42
		L/120	7951	2356	994	509	294	185	124	87	64
18/16	Single Span	f_b / Ω	1092	485	273	175	121	89	68	54	44
		Φf_b	1641	729	410	263	182	134	103	81	66
		L/360	1482	439	185	95	55	35	23	16	12
		L/240	2223	659	278	142	82	52	35	24	18
		L/180	2965	878	371	190	110	69	46	33	24
		L/120	4447	1318	556	285	165	104	69	49	36
	Double Span	f_b / Ω	1135	505	284	182	126	93	71	56	45
		Φf_b	1706	758	427	273	190	139	107	84	68
		L/360	3571	1058	446	229	132	83	56	39	29
		L/240	5356	1587	669	343	198	125	84	59	43
		L/180	7141	2116	893	457	264	167	112	78	57
		L/120	10712	3174	1339	686	397	250	167	118	86
	Triple Span	f_b / Ω	1419	631	355	227	158	116	89	70	57
		Φf_b	2133	948	533	341	237	174	133	105	85
		L/360	2797	829	350	179	104	65	44	31	22
		L/240	4196	1243	524	269	155	98	66	46	34
		L/180	5594	1658	699	358	207	130	87	61	45
		L/120	8392	2486	1049	537	311	196	131	92	67



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TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/20	Single Span	f_b / Ω	1466	651	366	235	163	120	92	72	59
		Φf_b	2203	979	551	353	245	180	138	109	88
		L/360	1575	467	197	101	58	37	25	17	13
		L/240	2363	700	295	151	88	55	37	26	19
		L/180	3151	934	394	202	117	73	49	35	25
		L/120	4726	1400	591	302	175	110	74	52	38
	Double Span	f_b / Ω	1306	581	327	209	145	107	82	65	52
		Φf_b	1963	873	491	314	218	160	123	97	79
		L/360	3795	1124	474	243	141	89	59	42	30
		L/240	5692	1687	712	364	211	133	89	62	46
		L/180	7590	2249	949	486	281	177	119	83	61
		L/120	11385	3373	1423	729	422	266	178	125	91
	Triple Span	f_b / Ω	1633	726	408	261	181	133	102	81	65
		Φf_b	2454	1091	613	393	273	200	153	121	98
		L/360	2973	881	372	190	110	69	46	32	24
		L/240	4459	1321	557	285	165	104	70	49	36
		L/180	5946	1762	743	381	220	139	93	65	48
		L/120	8919	2643	1115	571	330	208	139	98	71
16/18	Single Span	f_b / Ω	1490	662	372	238	166	122	93	74	60
		Φf_b	2239	995	560	358	249	183	140	111	90
		L/360	1676	497	210	107	62	39	26	18	13
		L/240	2515	745	314	161	93	59	39	28	20
		L/180	3353	993	419	215	124	78	52	37	27
		L/120	5029	1490	629	322	186	117	79	55	40
	Double Span	f_b / Ω	1352	601	338	216	150	110	85	67	54
		Φf_b	2033	903	508	325	226	166	127	100	81
		L/360	4038	1197	505	258	150	94	63	44	32
		L/240	6057	1795	757	388	224	141	95	66	48
		L/180	8077	2393	1010	517	299	188	126	89	65
		L/120	12115	3590	1514	775	449	283	189	133	97
	Triple Span	f_b / Ω	1690	751	423	270	188	138	106	83	68
		Φf_b	2541	1129	635	407	282	207	159	125	102
		L/360	3164	937	395	202	117	74	49	35	25
		L/240	4745	1406	593	304	176	111	74	52	38
		L/180	6327	1875	791	405	234	148	99	69	51
		L/120	9491	2812	1186	607	352	221	148	104	76



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TABLE 31: DG3WxHF-36 Out-of-Plane Capacities (continued)
Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbf/ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			4' - 0"	6' - 0"	8' - 0"	10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"
16/16	Single Span	f_b/Ω	1511	671	378	242	168	123	94	75	60
		Φf_b	2271	1009	568	363	252	185	142	112	91
		L/360	1771	525	221	113	66	41	28	19	14
		L/240	2656	787	332	170	98	62	42	29	21
		L/180	3541	1049	443	227	131	83	55	39	28
		L/120	5312	1574	664	340	197	124	83	58	42
	Double Span	f_b/Ω	1396	620	349	223	155	114	87	69	56
		Φf_b	2098	933	525	336	233	171	131	104	84
		L/360	4265	1264	533	273	158	99	67	47	34
		L/240	6398	1896	800	409	237	149	100	70	51
		L/180	8531	2528	1066	546	316	199	133	94	68
		L/120	12796	3791	1599	819	474	298	200	140	102
	Triple Span	f_b/Ω	1745	776	436	279	194	142	109	86	70
		Φf_b	2623	1166	656	420	291	214	164	130	105
		L/360	3341	990	418	214	124	78	52	37	27
		L/240	5012	1485	627	321	186	117	78	55	40
		L/180	6683	1980	835	428	248	156	104	73	53
		L/120	10024	2970	1253	642	371	234	157	110	80



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**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"		
16 ga	4"	q_a q_f	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+0.1R	3.1+0.1R	3.1+0R	3.1+0R	3.1+0R	3.1+0R
		q_a q_f	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							
		q_a q_f	2421	3875	2421	3875	2421	3875	2397	3875	2417	3875	2380	3875
		F	4+0.3R	4.1+0.2R	4.1+0.2R	4.2+0.2R								
	12"	q_a q_f	2081	3433	2044	3373	2016	3327	1994	3290	1975	3259	1960	3234
		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+0.4R	5.3+0.3R	5.3+0.3R	5.3+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
		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	6.6+0.6R	6.7+0.6R	6.7+0.6R	6.7+0.6R
	24"	q_a q_f	1463	2413	1515	2499	1361	2245	1415	2335	1297	2141	1349	2225
		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	8+0.9R	8+0.9R	8+0.9R
36/4	4"	q_a q_f	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	4.2+0.1R	4.3+0.1R	4.3+0.1R	4.3+0.1R	4.3+0.1R	4.3+0.1R
		q_a q_f	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						
		q_a q_f	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	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
		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	7.4+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
		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	9.4+1.1R	9.4+1.1R	9.4+1.1R
	24"	q_a q_f	1032	1703	1059	1748	946	1562	978	1614	893	1474	925	1526
		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	11.2+1.6R	11.2+1.6R	11.2+1.6R
20 ga	4"	q_a q_f	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	6.3+0.3R	6.4+0.2R	6.4+0.2R	6.4+0.2R	6.4+0.2R	6.4+0.2R
		q_a q_f	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+0.5R	7.8+0.5R	7.8+0.4R	7.8+0.4R
		q_a q_f	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	9.1+0.7R	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
		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	11.5+1.3R	11.5+1.3R	11.5+1.3R
	18"	q_a q_f	691	1407	691	1140	691	1140	628	1037	635	1047	640	1056
		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	14.4+2.3R	14.4+2.3R	14.4+2.3R
	24"	q_a q_f	595	982	610	1006	544	898	561	926	512	845	530	874
		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	16.9+3.2R	16.9+3.2R	16.9+3.2R
22 ga	4"	q_a q_f	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	8.3+0.4R	8.4+0.4R	8.4+0.4R	8.4+0.4R
		q_a q_f	678	1085	678	1085	678	1085	678	1085	678	1085	678	1085
	6"	q_a q_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	10.3+0.8R	10.3+0.8R	10.3+0.8R
		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+1.2R	12+1.2R	12+1.2R
	8"	q_a q_f	602	993	586	968	575	948	565	932	557	920	551	909
		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	15+2.1R	15+2.1R	15+2.1R
	12"	q_a q_f	487	993	486	803	486	802	442	729	446	736	449	741
		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	18.7+3.5R	18.7+3.5R	18.7+3.5R
	18"	q_a q_f	420	693	429	709	383	632	395	651	360	594	372	614
		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	21.6+4.8R	21.6+4.8R	21.6+4.8R

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Support Attachment: 0.5" Effective Dia. Arc Spot Weld

Side Seam Attachment: DeltaGrip



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**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"	
16 ga	16 ga	4"	q_a	q_f	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		
			F		3.6+-0.2R	3.6+-0.1R	3.6+-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		
			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		
			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		
			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			
	18 ga	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			
		4"	q_a	q_f	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		
			F		4.9+-0.3R	5+-0.3R	5+-0.3R		5+-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		
			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		
			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
36/4	20 ga	4"	q_a	q_f	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		
			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		
			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	22 ga	4"	q_a	q_f	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		
			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		
			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			
	20 ga	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			

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Support Attachment: Hilti X-HSN 24 PAF

Side Seam Attachment: DeltaGrip



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FIGURE 27: C 0.9-32

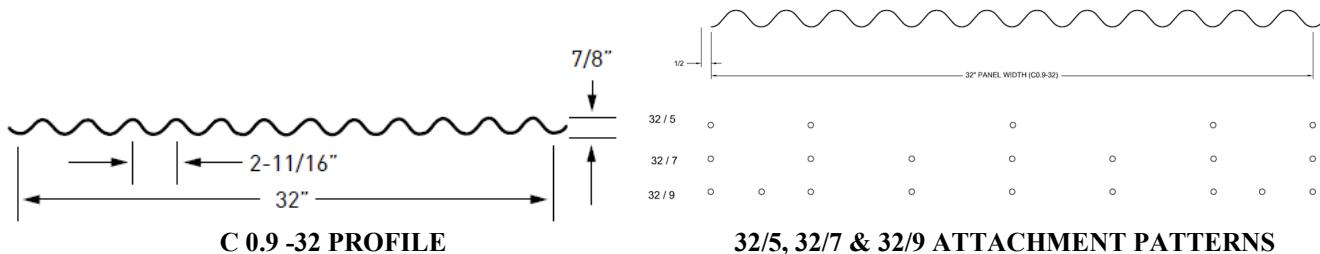


TABLE 33: C 0.9-32 PANEL PROPERTIES

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	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	
	Area							$I_d = (2I_e + I_g)/3$	
	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



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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



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**TABLE 35: C 0.9-32 OUT-OF-PLANE CAPACITIES
INWARD ALLOWABLE (F_b/Ω) AND FACTORED (ΦF_b) DISTRIBUTED LOAD (LBF/FT²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3'- 0"	3'- 6"	4'- 0"	4'- 6"	5'- 0"	5'- 6"	6'- 0"	7'- 0"	8'- 0"
26	Single Span	f_b / Ω	163	120	92	73	59	49	41	30	23
		Φf_b	245	180	138	109	88	73	61	45	34
		L/360	46	29	19	13	10	7	6	4	2
		L/240	68	43	29	20	15	11	9	5	4
		L/180	91	57	38	27	20	15	11	7	5
		L/120	137	86	58	40	30	22	17	11	7
	Double Span	f_b / Ω	158	116	89	70	57	47	40	29	22
		Φf_b	238	175	134	106	86	71	60	44	33
		L/360	110	69	46	32	24	18	14	9	6
		L/240	164	104	69	49	36	27	21	13	9
		L/180	219	138	93	65	47	36	27	17	12
		L/120	329	207	139	97	71	53	41	26	17
24	Single 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
	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	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
24	Triple 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



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TABLE 35: C 0.9-32 OUT-OF-PLANE CAPACITIES (continued)
INWARD ALLOWABLE (F_b/Ω) AND FACTORED (ΦF_b) DISTRIBUTED LOAD (Lbf/Ft²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
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
20	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
	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



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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"	
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	
22 ga		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									
		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	
32/5		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	
24 ga		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											
		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+-0R		16.3+-0R											
26 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	
32/5		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									
		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+0R		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	



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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"	
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															
		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															
		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															
22 ga	4"	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															
		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											
		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+0R		14.6+0R		14.6+0R		14.6+0R	
32/7	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															
		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															
		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															
24 ga	4"	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															
		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	
		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													
26 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															
		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															
		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															
24 ga	6"	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											
		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	
		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	6"	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															
		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															
		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		11.2+0R											
24 ga	8"	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+0R		13.8+0R									
		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	
		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	
26 ga	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+0R		13.8+0R									
		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	
		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



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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"
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	5+0R
		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	5.9+0R
		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	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								
		q_a q_f	1750 2817	1523 2452	1390 2238	1173 1888	1008 1624	992 1597	883 1421	794 1278	804 1294	
	18"	q_a q_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	11.7+0R
		F	14.4+-0.3R	14.5+-0.2R	14.5+-0.1R	14.6+-0.1R						
		q_a q_f	1750 2817	1523 2452	1237 1991	1173 1888	1008 1624	882 1420	782 1259	794 1278	721 1161	
32/9	22 ga	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	5.7+0R
		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								
		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	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							
		q_a q_f	1469 2365	1267 2039	1146 1846	965 1554	829 1335	810 1304	720 1159	647 1042	652 1049	
	18"	q_a q_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+-0.1R	13.1+0R	13.1+0R
		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	16.2+-0.1R
		q_a q_f	1469 2365	1267 2039	1027 1654	965 1554	829 1335	724 1166	642 1034	647 1042	588 946	
32/9	24 ga	q_a q_f	1188 1913	1188 1913	1184 1907	1183 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	6.8+0R
		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								
		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								
	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	11.5+0R
		q_a q_f	1188 1913	1014 1632	909 1463	764 1229	655 1055	635 1022	564 908	506 815	506 815	
	18"	q_a q_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	15+-0.1R
		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	18.4+-0.1R
		q_a q_f	1188 1913	1014 1632	821 1321	764 1229	655 1055	572 921	506 815	506 815	459 740	
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	8.5+0R
		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								
		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						
	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	13.8+-0.1R
		q_a q_f	912 1469	769 1238	681 1097	571 920	489 788	470 756	417 671	374 602	371 597	
	18"	q_a q_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	17.8+-0.1R
		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	21.7+-0.2R
		q_a q_f	912 1469	769 1238	621 1000	571 920	489 788	427 687	378 608	374 602	339 546	

C 0.9-32 32/9

Support Attachment: #12 SD HWH Screw

Side Seam Attachment: #10 SD HWH Screw



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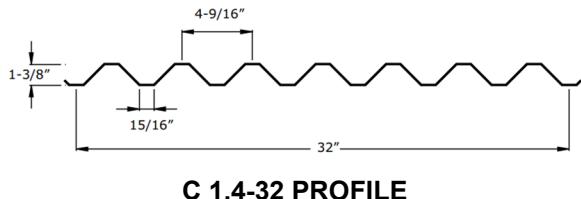
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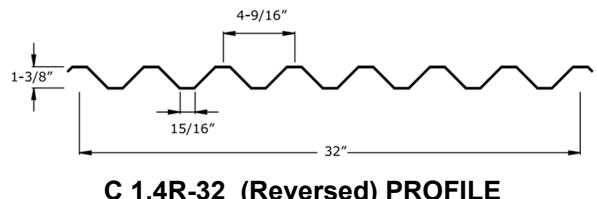
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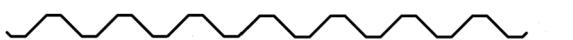
FIGURE 28 – C 1.4-32 and C 1.4R-32



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. PATTERNS (32/4 & 32/7)

• • • • • • • 32/4
• • • • • • • • 32/8

• • • • • • • • 32/4
• • • • • • • • 32/7



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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 (in ² /ft)	I _g (in ⁴ /ft)	y _b (in)	S _{gbot} (in ³ /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				Effective Section Properties at Service Load			
		Compression	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
		Area							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)
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"			$\theta = 45^\circ$	



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**TABLE 39: C 1.4 -32 OUT-OF-PLANE CAPACITIES
INWARD ALLOWABLE (F_b/Ω) AND FACTORED (ΦF_b) DISTRIBUTED LOAD (LBF/FT²)**

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b / Ω	268	197	151	119	96	80	67	49	38
		Φf_b	403	296	227	179	145	120	101	74	57
		L/360	127	80	54	38	27	21	16	10	7
		L/240	191	120	81	57	41	31	24	15	10
		L/180	255	160	107	75	55	41	32	20	13
		L/120	382	240	161	113	82	62	48	30	20
	Double Span	f_b / Ω	283	208	159	126	102	84	71	52	40
		Φf_b	425	313	239	189	153	127	106	78	60
		L/360	307	193	129	91	66	50	38	24	16
		L/240	460	290	194	136	99	75	57	36	24
		L/180	613	386	259	182	132	100	77	48	32
		L/120	920	579	388	273	199	149	115	72	48
24	Single Span	f_b / Ω	354	260	199	157	127	105	88	65	50
		Φf_b	532	391	299	236	191	158	133	98	75
		L/360	240	151	101	71	52	39	30	19	13
		L/240	360	227	152	107	78	58	45	28	19
		L/180	480	302	203	142	104	78	60	38	25
		L/120	720	454	304	213	156	117	90	57	38
	Double Span	f_b / Ω	370	272	208	164	133	110	92	68	52
		Φf_b	556	408	313	247	200	165	139	102	78
		L/360	166	105	70	49	36	27	21	13	9
		L/240	249	157	105	74	54	40	31	20	13
		L/180	333	209	140	99	72	54	42	26	18
		L/120	499	314	210	148	108	81	62	39	26
	Triple Span	f_b / Ω	375	275	211	167	135	111	94	69	53
		Φf_b	563	414	317	250	203	168	141	103	79
		L/360	401	252	169	119	87	65	50	32	21
		L/240	601	378	254	178	130	98	75	47	32
		L/180	801	505	338	237	173	130	100	63	42
		L/120	1202	757	507	356	260	195	150	95	63



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TABLE 39: C 1.4 -32 OUT-OF-PLANE CAPACITIES (continued)
INWARD ALLOWABLE (F_b/Ω) AND FACTORED (ΦF_b) DISTRIBUTED LOAD (LBF/FT²)

Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
22	Single Span	f_b / Ω	465	341	261	206	167	138	116	85	65
		Φf_b	698	513	393	310	251	208	175	128	98
		L/360	206	130	87	61	45	33	26	16	11
		L/240	310	195	131	92	67	50	39	24	16
		L/180	413	260	174	122	89	67	52	32	22
		L/120	619	390	261	183	134	100	77	49	33
	Double Span	f_b / Ω	464	341	261	206	167	138	116	85	65
		Φf_b	697	512	392	310	251	207	174	128	98
		L/360	497	313	210	147	107	81	62	39	26
		L/240	746	470	315	221	161	121	93	59	39
		L/180	994	626	419	295	215	161	124	78	52
		L/120	1491	939	629	442	322	242	186	117	79
20	Triple Span	f_b / Ω	580	426	326	258	209	172	145	106	82
		Φf_b	871	640	490	387	314	259	218	160	123
		L/360	389	245	164	115	84	63	49	31	21
		L/240	584	368	246	173	126	95	73	46	31
		L/180	779	491	329	231	168	126	97	61	41
		L/120	1168	736	493	346	252	190	146	92	62
	Single Span	f_b / Ω	549	403	309	244	198	163	137	101	77
		Φf_b	825	606	464	367	297	245	206	152	116
		L/360	243	153	102	72	52	39	30	19	13
		L/240	364	229	154	108	79	59	46	29	19
		L/180	486	306	205	144	105	79	61	38	26
		L/120	728	459	307	216	157	118	91	57	38
	Double Span	f_b / Ω	549	403	309	244	198	163	137	101	77
		Φf_b	825	606	464	367	297	245	206	152	116
		L/360	585	368	247	173	126	95	73	46	31
		L/240	877	552	370	260	189	142	110	69	46
		L/180	1170	737	493	347	253	190	146	92	62
		L/120	1755	1105	740	520	379	285	219	138	93
	Triple Span	f_b / Ω	686	504	386	305	247	204	172	126	97
		Φf_b	1031	758	580	458	371	307	258	189	145
		L/360	458	289	193	136	99	74	57	36	24
		L/240	687	433	290	204	148	112	86	54	36
		L/180	916	577	387	272	198	149	115	72	48
		L/120	1375	866	580	407	297	223	172	108	72



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

			INWARD ALLOWABLE (F_b/Ω) AND FACTORED (ΦF_b) DISTRIBUTED LOAD (LBF/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"	
18	Single Span	f_b / Ω	464	341	261	206	167	138	116	85	65
		Φf_b	697	512	392	310	251	207	174	128	98
		L/360	310	195	131	92	67	50	39	24	16
		L/240	464	292	196	138	100	75	58	37	24
		L/180	619	390	261	183	134	100	77	49	33
		L/120	929	585	392	275	201	151	116	73	49
	Double Span	f_b / Ω	464	341	261	206	167	138	116	85	65
		Φf_b	697	512	392	310	251	207	174	128	98
		L/360	746	470	315	221	161	121	93	59	39
		L/240	1119	704	472	331	242	182	140	88	59
		L/180	1491	939	629	442	322	242	186	117	79
		L/120	2237	1409	944	663	483	363	280	176	118
	Triple Span	f_b / Ω	580	426	326	258	209	172	145	106	82
		Φf_b	871	640	490	387	314	259	218	160	123
		L/360	584	368	246	173	126	95	73	46	31
		L/240	876	552	370	260	189	142	110	69	46
		L/180	1168	736	493	346	252	190	146	92	62
		L/120	1753	1104	739	519	379	284	219	138	92



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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"
20 ga	4"	q_a q_f	818 1317	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	4.9+0R
		q_a q_f	818 1317	818 1317	818 1317	818 1317	818 1317	808 1300	799 1287	793 1276	764 1223	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	5.9+0R
		q_a q_f	818 1317	818 1317	765 1232	759 1222	719 1157	721 1160	693 1115	698 1123	677 1089	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	6.8+0R
		q_a q_f	794 1278	703 1131	647 1042	611 983	585 942	566 911	551 887	539 868	530 853	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	8.8+0R
		q_a q_f	794 1278	614 989	574 925	549 884	474 763	469 755	465 749	420 677	422 680	422 680
		F	11.6+0R	11.7+0R								
32/4	4"	q_a q_f	686 1104	614 989	492 791	481 774	412 663	415 669	369 594	377 607	343 552	343 552
		F	14.5+0.1R	14.5+0R	14.6+0R							
		q_a q_f	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106	687 1106
		F	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R	5.6+0R
		q_a q_f	687 1106	687 1106	687 1106	675 1087	662 1065	652 1049	644 1037	638 1027	595 952	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	6.7+0R
		q_a q_f	687 1106	681 1096	620 999	613 987	578 931	579 932	555 893	558 898	540 870	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	7.8+0R
		q_a q_f	653 1052	573 922	524 843	492 792	469 755	452 728	439 707	429 691	421 677	421 677
		F	9.8+0R	9.9+0R								
24 ga	18"	q_a q_f	653 1052	502 808	466 750	442 712	381 613	375 604	371 597	335 539	335 540	335 540
		F	13+-0.1R	13+0R								
		q_a q_f	567 913	502 808	400 644	389 626	332 534	333 536	296 476	301 484	271 437	271 437
		F	16.1+-0.1R	16.2+-0.1R	16.2+-0.1R	16.2+-0R						
		q_a q_f	556 895	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	6.7+0R
		q_a q_f	556 895	556 895	539 868	522 841	510 821	501 807	494 796	489 787	434 695	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	7.9+0R
		q_a q_f	556 895	532 856	480 773	473 761	443 714	443 713	423 681	425 684	410 660	410 660
		F	9+0R	9+0R	9+0R	9.1+0R						
26 ga	24"	q_a q_f	516 831	447 720	405 653	378 609	359 578	345 555	334 537	325 523	318 512	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	11.4+0R
		q_a q_f	516 831	393 633	361 582	341 549	292 471	287 461	282 454	254 409	254 409	254 409
		F	14.9+-0.1R	14.9+-0.1R	14.9+-0.1R	14.9+-0R						
		q_a q_f	450 725	393 633	312 503	300 484	256 412	255 411	223 360	227 366	205 329	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	18.4+-0R
		q_a q_f	427 687	427 687	427 687	427 687	427 687	427 687	427 687	361 578	293 468	293 468
		F	8.3+0R	8.4+0R								
		q_a q_f	427 687	415 668	393 633	378 609	368 592	360 580	354 570	349 562	293 468	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	9.7+0R
32/4	8"	q_a q_f	422 679	390 628	349 562	341 549	318 512	316 509	301 485	302 486	290 467	290 467
		F	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R
		q_a q_f	385 619	291 468	264 425	247 397	211 340	205 331	201 324	180 290	180 289	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	17.7+-0R
		q_a q_f	339 545	291 468	230 370	219 352	184 296	182 292	158 255	161 259	145 233	145 233
		F	21.5+-0.3R	21.6+-0.2R	21.7+-0.1R							



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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"								
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	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	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	6.8+0R	6.8+0R	6.8+0R	6.8+0R	6.8+0R	6.8+0R	6.8+0R	6.8+0R	
22 ga	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	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	11.6+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	11.7+0R	
	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+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	14.6+0R	14.6+0R	14.6+0R	14.6+0R	14.6+0R	
32/8	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	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	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	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	7.7+0R	
32/8	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	9.8+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	9.9+0R	
	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	13+0R	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+0R	16.1+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	16.2+0R	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	6.7+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	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+0R	9+0R	9+0R	9+0R	9+0R	9.1+0R							
26 ga	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	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+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	14.9+0R	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+0R	18.3+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	18.4+0R	
26 ga	4"	q_a 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	8.3+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	8.4+0R	
	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	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	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	11+0R	
26 ga	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+0.1R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	13.7+0R	
	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+0R	17.6+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	17.7+0R	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+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	21.6+0R	

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Support Attachment: #12 SD HWH Screw

Side Seam Attachment: #10 SD HWH Screw



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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



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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"
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	0+0R
		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	0.1+0R
		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	0.1+0R
22 ga	6"	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	0.1+0R
		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	0.1+0R
		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	0.1+0R
32/7	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	0.1+0R
		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	0.1+0R
		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	0.1+0R
24 ga	6"	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	0.1+0R
		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	0.1+0R
		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	0.2+0R
26 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	0.1+0R
		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	0.1+0R
		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	0.1+0R
24 ga	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	0.2+0R
		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	0.2+0R
		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	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	0.2+0R
		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	0.2+0R
		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	0.3+0R
24 ga	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	0.3+0R
		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	0.4+0R
		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	0.5+0R



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

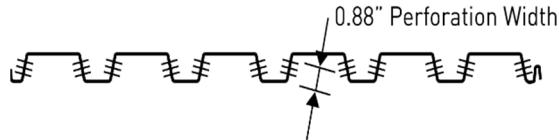


FIGURE 30: Perforation Pattern

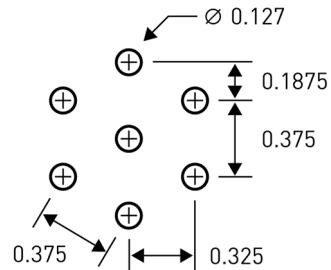


TABLE 41: DGB-36AW & B-36AW Panel Properties

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					Effective Moment of Inertia for Deflection			
	at F _y					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	
								$I_d = (2I_e + I_g)/3$	
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



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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



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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
16	Single 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
	Double 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
	Triple 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



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

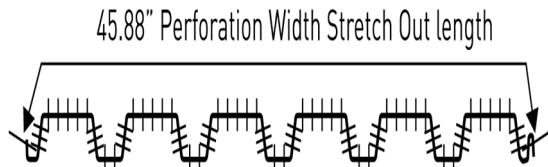


FIGURE 32: Perforation Pattern

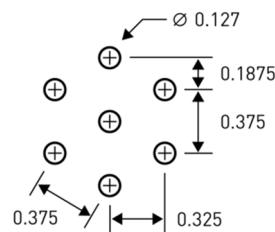


TABLE 43: DGB-36AT & B-36AT Panel Properties

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	ln	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 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	
								$I_d = (2I_{e+} + I_{e-})/3$	
	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



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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
20	Single 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
	Double 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
	Triple 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



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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
16	Single 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
	Double 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
	Triple 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



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

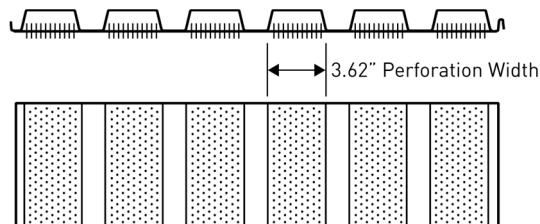


FIGURE 34: DGBF-36A Perforation Pattern

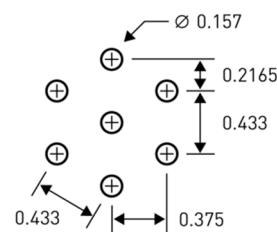


TABLE 45: DGBF-36A & BF-36A Panel Properties

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			
	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	
	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 _{pf}	K	P _p	C _p	dp
DGBF-36A & BF-36A	3.624	1.66	1	3.62	0.433	0.157



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**TABLE 46: DGBF-36A & BF-36A 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"
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
20/18	Single 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
	Double 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
20/18	Triple 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



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**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
18/20	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
	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



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**TABLE 46: DGBF-36A & BF-36A Out-of-Plane Capacities (continued)
Inward Allowable (f_b) 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
18/16	Single 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
	Double 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
	Triple 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



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**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"
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
16/18	Single 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
	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	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
	Triple 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



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**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"
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



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FIGURE 35: DGN-32AW Perforation Locations

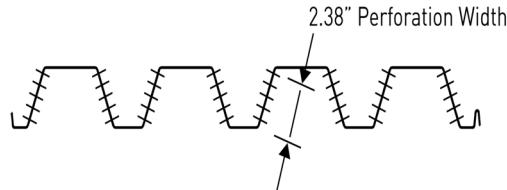


FIGURE 36: DGN-32AW Perforation Pattern

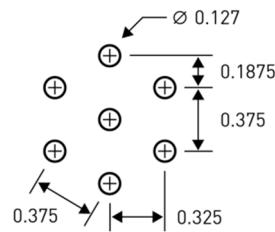


TABLE 47: DGN-32AW Panel Properties

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				Effective Moment of Inertia for Deflection			
	at F _y				at Service Load			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Moment of Inertia	Moment of Inertia	Uniform Load Only	
	A _{e+}	S _{e+}	y _b	S _{e-}	y _b	I _{e+}	I _{e-}	I ₊
	in ² /ft	in ³ /ft	in	in ³ /ft	in	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
20	0.366	0.407	1.39	0.487	1.71	0.793	0.913	0.846
18	0.593	0.610	1.47	0.657	1.75	1.198	1.253	1.216
16	0.856	0.822	1.54	0.857	1.73	1.529	1.547	1.535
	$I_d = (2I_e + I_g)/3$							



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**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



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TABLE 48: DGN-32AW 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	761	338	190	122	85	62	48	38	30
		Φf_b	1144	508	286	183	127	93	71	56	46
		L/360	830	246	104	53	31	19	13	9	7
		L/240	1246	369	156	80	46	29	19	14	10
		L/180	1661	492	208	106	62	39	26	18	13
		L/120	2491	738	311	159	92	58	39	27	20
	Double Span	f_b / Ω	820	364	205	131	91	67	51	40	33
		Φf_b	1232	548	308	197	137	101	77	61	49
		L/360	2000	593	250	128	74	47	31	22	16
		L/240	3000	889	375	192	111	70	47	33	24
		L/180	4000	1185	500	256	148	93	63	44	32
		L/120	6001	1778	750	384	222	140	94	66	48
	Triple Span	f_b / Ω	1025	455	256	164	114	84	64	51	41
		Φf_b	1540	684	385	246	171	126	96	76	62
		L/360	1567	464	196	100	58	37	24	17	13
		L/240	2350	696	294	150	87	55	37	26	19
		L/180	3134	929	392	201	116	73	49	34	25
		L/120	4701	1393	588	301	174	110	73	52	38
16	Single Span	f_b / Ω	1025	456	256	164	114	84	64	51	41
		Φf_b	1541	685	385	247	171	126	96	76	62
		L/360	1048	311	131	67	39	24	16	12	8
		L/240	1572	466	197	101	58	37	25	17	13
		L/180	2096	621	262	134	78	49	33	23	17
		L/120	3145	932	393	201	116	73	49	35	25
	Double Span	f_b / Ω	1069	475	267	171	119	87	67	53	43
		Φf_b	1607	714	402	257	179	131	100	79	64
		L/360	2525	748	316	162	94	59	39	28	20
		L/240	3787	1122	473	242	140	88	59	42	30
		L/180	5050	1496	631	323	187	118	79	55	40
		L/120	7575	2244	947	485	281	177	118	83	61
	Triple Span	f_b / Ω	1336	594	334	214	148	109	84	66	53
		Φf_b	2009	893	502	321	223	164	126	99	80
		L/360	1978	586	247	127	73	46	31	22	16
		L/240	2967	879	371	190	110	69	46	33	24
		L/180	3956	1172	495	253	147	92	62	43	32
		L/120	5934	1758	742	380	220	138	93	65	47



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FIGURE 37: DGN-32AT Perforation Locations

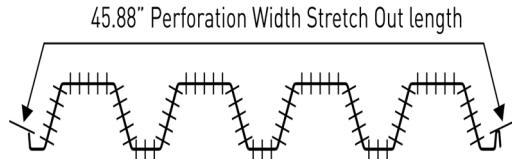


FIGURE 38: DGN-32AT Perforation Pattern

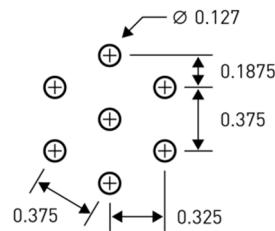


TABLE 49: DGN-32AT Panel Properties

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	
	A _{e+}	S _{e+}	y _b	S _{e-}	y _b	I _{e+}	I _{e-}	I _d = (2I _e +I _g)/3	
	in ² /ft	in ³ /ft	in	in ³ /ft	in	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



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**TABLE 50: DGN-32AT 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	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



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TABLE 50: DGN-32AT 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	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



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FIGURE 39: DGNF-32A Pan Perforation Locations

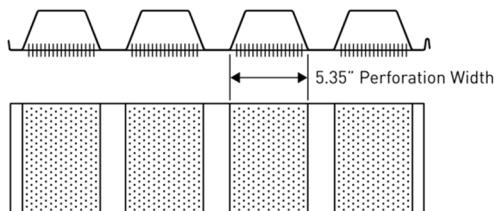


FIGURE 40: DGNF-32A Perforation Pattern

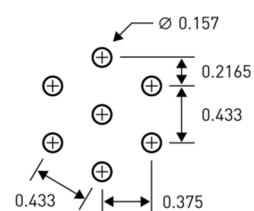


TABLE 51: DGNF-32A Panel Properties

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
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					Effective Moment of Inertia for Deflection				
	at F _y			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		
I _{e+} S _{e+} y _b S _{e-} y _b I _{e+} I _{e-} I ₊ I ₋										
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		P _p		C _p	d _p
DGNF-32A & NF-32A	3.875		2.157		1		5.35		0.433	0.157



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**TABLE 52: DGNF-32A 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"
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
20/18	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
	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



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TABLE 52: DGNF-32A 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"
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
18/20	Single 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
	Double 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
	Triple 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



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TABLE 52: DGNF-32A 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"
18/18	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
18/16	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
	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



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TABLE 52: DGNF-32A 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"
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
16/18	Single 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
	Double 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
	Triple 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



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TABLE 52: DGNF-32A 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"
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 SpansD	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



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FIGURE 41: 2WHF-36A Pan Perforation Locations

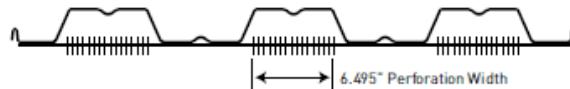


FIGURE 42: 2WHF-36A Perforation Pattern

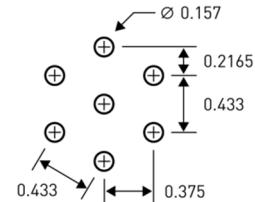


TABLE 53: 2WHF-36A Panel Properties

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					Effective Moment of Inertia for Deflection			
	at F _y					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	P _p	C _p	d _p
2WHF-36A	5.016	5.016	1	6.495	0.433	0.157



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**TABLE 54: 2WHF-36A 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"
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
20/18	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
	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



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TABLE 54: 2WHF-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"	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
18/20	Single 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
	Double 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
	Triple 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



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TABLE 54: 2WHF-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"	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
18/16	Single 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
	Double 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
	Triple 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



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TABLE 54: 2WHF-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"	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
16/18	Single 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
	Double 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
	Triple 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



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TABLE 54: 2WHF-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"	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



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FIGURE 43: 3WxHF-36A Pan Perforation Locations

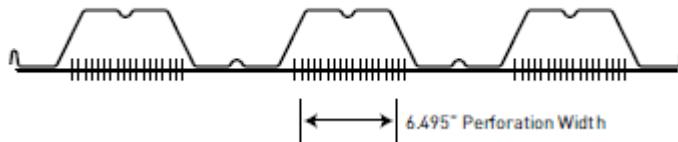


FIGURE 44: 3WxHF-36A Perforation Pattern

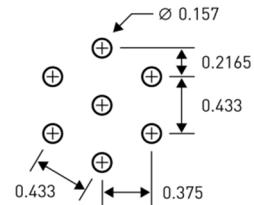


TABLE 55: 3WxHF-36A Panel Properties

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	psf	t	F _y	F _u	A _g	I _g	y _b	S _{gtop}	r
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					Effective Moment of Inertia for Deflection			
	at F _y				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	
	A _{e+}	S _{e+}	y _b	S _{e-}	y _b	I _{e+}	I _{e-}	I ₊	
	in ² /ft	in ³ /ft	in	in ³ /ft	in	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	
20/18	0.418	0.680	0.86	0.739	1.28	1.568	1.336	1.578	
20/16	0.483	0.684	0.81	0.739	1.11	1.633	1.476	1.650	
18/20	0.589	0.940	1.15	0.931	1.52	1.880	1.514	1.881	
18/18	0.628	0.953	1.06	0.964	1.38	2.002	1.686	2.002	
18/16	0.693	0.965	0.99	0.975	1.24	2.112	1.839	2.113	
16/20	0.821	1.173	1.25	1.137	1.55	2.244	1.843	2.246	
16/18	0.864	1.192	1.18	1.177	1.43	2.385	2.027	2.387	
16/16	0.928	1.211	1.12	1.200	1.32	2.516	2.198	2.519	
								I _d = (2I _e +I _g)/3	

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	P _p	C _p	d _p
3WxHF-36A	4.5	4.5	1	6.495	0.433	0.157



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**TABLE 56: 3WxHF-36A 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"
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
20/18	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
	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



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TABLE 56: 3WxHF-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"	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
18/20	Single 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
	Double 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
	Triple 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



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TABLE 56: 3WxHF-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"	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
18/16	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
	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



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TABLE 56: 3WxHF-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"	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
16/18	Single 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
	Double 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
	Triple 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



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TABLE 56: 3WxHF-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"	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



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CALIFORNIA SUPPLEMENT

ASC STEEL DECK
A DIVISION OF ASC PROFILES, INC.
2110 Enterprise Blvd.
West Sacramento, CA 95691
(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:

- 2019 California Building Code (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 Occupational Safety and Office of Statewide Health Planning and Development (OSHPD) are subject to agency specific review by DSA or OSHPD, 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.

3.0 SUBSTANTIATING DATA

Data in accordance with IAPMO-ES EC-007-2021, Evaluation Criteria for Steel Composite, Non-Composite and Roof Deck Construction. Test results are from laboratories in compliance with ISO/IEC 17025.

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



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CITY OF LOS ANGELES SUPPLEMENT

ASC STEEL DECK
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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

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 Los Angeles City Supplement remains in effect as long as it is available on the IAPMO UES website posted with its parent report, ER-161.

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