



DIVISION: 05 00 00—METALS
Section: 05 05 23—Metal Fastenings
Section: 05 31 00—Steel Decking

REPORT HOLDER:

PNEUTEK, INC.

EVALUATION SUBJECT:

STEEL DECK DIAPHRAGMS ATTACHED WITH PNEUTEK K66062, K66075, K64062, K64075, SDK63075, AND SDK61075 FRAME FASTENERS

1.0 EVALUATION SCOPE

Compliance with the following code:

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Property evaluated:

Structural

2.0 USES

The Pneutek K66062, K66075, K64062, K64075, SDK63075 and SDK61075 fasteners attach steel deck panels to supporting steel framing (support) members for use as horizontal diaphragms.

3.0 DESCRIPTION

3.1 Pneutek Fasteners:

Pneutek fasteners are power-driven fasteners manufactured from carbon steel and heat-treated to a Rockwell C hardness of 52-56 and a minimum tensile strength of 240,000 psi (1 654 800 kPa). The fasteners have a nominal head diameter of 1/2 inch and are coated with mechanically deposited zinc per ASTM B695. See Table 2 for Pneutek fastener properties.

3.2 Steel Roof Deck Diaphragms:

3.2.1 Steel Deck: Steel decks must be 16-gage [0.0598 inch (1.5 mm)], 18-gage [0.0478 (1.2 mm)], 20-gage [0.0359 (0.9 mm)], or 22-gage [0.0299 (0.8 mm)] B Deck-Standing Seams, B Deck-Nestable Seams, N Deck-Standing Seams, or N Deck-Nestable Seams. The thicknesses in [brackets] are the minimum design base metal thicknesses. The steel decks must be cold-formed from ASTM A653 or ASTM A1008 SS Grade 33 steel. The steel decks must have dimensions in accordance with Figure 1.

3.2.2 Structural Steel Supports: Structural steel supports (panel ends, interior supports, and framing members) must be minimum ASTM A36 grade steel.

3.2.3 Structural Steel Support Connections: Connections of steel deck to supporting structural steel must be accomplished by the Pneutek fasteners. See Figure 2 for Pneutek Support Fastener Details.

3.2.4 Sidelap Connections of Steel Decks: Connections of steel deck sidelaps must be accomplished by using either button punches or No. 10 self-drilling screws. The No. 10 screws must be minimum 3/4-inch-long (19.1 mm), self-drilling, hex-washer head steel screws conforming to ASTM C1513 requirements and recognized in a current ICC-ES evaluation report. See Figure 3 for sidelap fastener details.

3.3 Concrete-filled Steel Deck Diaphragms:

3.3.1 Concrete-filled Steel Deck: The concrete-filled steel decks must be 16-gage (0.0598 inch) [1.5 mm], 18-gage (0.0478) [1.2 mm], 20-gage (0.0359) [0.9 mm], or 22-gage (0.0299) [0.8 mm] B Deck-Standing Seam, B Deck-Nestable Seam, N Deck-Standing Seam, N Deck-Nestable Seam, 1 1/2-inch Deep Deck, 2-inch Deep Deck, or 3-inch Deep Deck. The steel decks must be cold-formed from ASTM A653 Grade 33 steel with a minimum G-60 galvanized coating designation complying with ASTM A653, or ASTM A1008 SS Grade 33 steel with a painted or phosphatized finish. The concrete-filled decks must have dimensions as noted in Figure 1.

3.3.2 Structural Steel Supports: Structural steel supports (panel ends, interior supports, and framing members) must be minimum ASTM A36 grade steel.

3.3.3 Structural Steel Support Connections: Connections of steel deck to supporting structural steel must be accomplished by the Pneutek fasteners. See Figure 2 for Pneutek Support Fastener Details.

3.3.4 Sidelap Connections of Steel Decks: Connections of steel deck sidelaps must be accomplished by using either button punches, No. 10 self-drilling screws, or 1 1/2-inch-long (38.1 mm) top seam welds. The No. 10 screws must be minimum 3/4-inch-long (19.1 mm), self-drilling, hex-washer head steel screws conforming to ASTM C1513 requirements and recognized in a current ICC-ES evaluation report. See Figure 3 for sidelap fastener details.

3.3.5 Concrete Fill: Concrete fill must be either normal-weight or lightweight and have a minimum compressive strength (f'_c) of 3,000 psi (20,684 kPa). Concrete fill must be specified in accordance with the applicable code. Lightweight (all lightweight and sand-lightweight) concrete must be 110 pcf (1760 kg/m²) and normalweight concrete must be 145 pcf (2320 kg/m²).

3.3.6 Welded Steel Headed Stud Anchors: The steel headed stud anchors must be 3/4 inch in diameter (19.1 mm), have lengths complying with Figure 4. Shear studs must conform to the requirements of the Structural Welding Code — Steel, AWS D1.1, and have minimum tensile strength of 65,000 psi.

3.3.7 Welded Connections: Welded connections must use E60 or E70 filler metal and comply with AWS D1.3.

4.0 DESIGN AND INSTALLATION

4.1 Design:

4.1.1 Diaphragm Shear and Flexibility: The allowable diaphragm shears and flexibility factors are provided in Tables 4 through 14. The allowable diaphragm shears may be adjusted based on the following:

TABLE	SAFETY FACTOR USED IN TABLE	ALTERNATE CASE	MULTIPLIER FOR INCREASE IN DIAPHRAGM CAPACITY
Capacity limited by panel stability in Tables 4-7 (See footnote and values marked with "**")	2.0	ASD Design	2.00 / 2.00 = 1.00
		LRFD Design	2.00 * 0.80 = 1.60
Capacity limited by connection related limit states in Tables 4-7 (Values not noted with "**")	2.56	ASD Design with combinations including earthquake and all others	2.56 / 2.56 = 1.00
		ASD Design with combinations including wind load	2.56 / 2.00 = 1.28
		ASD Design with combinations including earthquake and all others	2.56 * 0.63 = 1.60
		ASD Design with combinations including wind load	2.56 * 0.80 = 1.28 * 1.6 = 2.05
Table 10-14	2.00 for diagonal tension limit state and 3.00 for steel headed stud anchors	ASD Design	2.00 / 2.00 = 1.00
		LRFD Design	2.00 * 0.80 = 1.60

For roof (bare) decks, the allowable shear must be based on the values in Tables 4 through 7 which has been reduced where applicable when panel stability values included in Table 8 govern. These values marked * shall not be increased for wind load cases..

The allowable diaphragm shears and flexibility factors using steel headed stud anchors are provided in Table 9.

4.1.2 Uplift/Tension: For design considering uplift/tension forces, see Table 3.

4.2 Installation:

The steel roof deck and concrete-filled deck diaphragms must be installed using the materials described in Sections 3.2 and 3.3, respectively, and in accordance with the tables and table notes of this report. Pneutek fasteners must be placed not less than 0.50 inch (12.7 mm) from the panel ends and not less than 5/16 inch (7.94 mm) from panel edges parallel to corrugations at sidelaps, and must be spaced in

accordance with the appropriate table. The distance between the last sidelap connection of a span to the perpendicular support member and from the perpendicular support member to the first sidelap connection of the next span must not be greater than one-half of the specified spacing. The sidelap connection spacing must not exceed 36 inches (914 mm) on center.

5.0 CONDITIONS OF USE

Steel deck panels attached to framing with Pneutek K66062, K66075, K64062, K64075, SDK63075, and SDK61075 fasteners described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The fasteners are manufactured, identified and installed in accordance with this report, the manufacturer’s instructions and the approved construction documents. If there is a conflict, this report governs.
- 5.2** The base metal thickness for deck panels delivered to the jobsite must be at least 95 percent of the design based metal thickness.
- 5.3** Special inspection must comply with IBC Chapter 17.
- 5.4** Calculations demonstrating that the applied loads do not exceed the capacities in this report must be submitted to the code official for approval. The calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.5** The Diaphragm Flexibility Limitations in Table 1 must be considered.
- 5.6** Concrete-filled steel decks panels must not be used to support loads that are predominantly vibratory, such as those for operation of heavy machinery, reciprocating motors and moving loads.
- 5.7** Fasteners are manufactured by Pneutek, Inc. in Hudson, New Hampshire under a quality control program with annual inspections by ICC-ES.
- 5.8** When the steel deck panels are used as roof decks, the panels must be covered with an approved code-complying roof covering.

6.0 EVIDENCE SUBMITTED

- 6.1** Data in accordance with the ICC-ES Acceptance Criteria for Steel Deck Roof and Floor Systems (AC43), dated August 2022.
- 6.2** Data in accordance with the ICC-ES Acceptance Criteria for Power-Actuated Fasteners Driven into Concrete, Steel, and Masonry Element (AC70), dated December 2019 (Editorially revised January 2021).

7.0 IDENTIFICATION

- 7.1** All Pneutek K66062, K66075, K64062, K64075, SDK63075 and SDK61075 fasteners are identified by an “P” stamped on the fastener head. Fasteners are packaged in containers noting the fastener type, the Pneutek, Inc., name and address, and the evaluation report number (ESR-2941).
- 7.2** The report holder’s contact information is the following:

PNEUTEK, INC.
17 FRIARS DRIVE
HUDSON, NEW HAMPSHIRE 03051
(800) 431-8665
www.pneutek.com

General Table Notes:

The notes below apply to all of the accompanying tables unless noted otherwise:

1. The steel deck panel length is assumed to equal the span length times the number of spans.
2. Interpolation of allowable diaphragm shear values, Q, between adjacent spans is permissible. For interpolated lengths, use diaphragm flexibility factor, F, for the closest span length.
3. Q = Allowable (ASD) diaphragm shear in pounds per linear foot.
Q_{LRFD} = LRFD diaphragm shear strength in pounds per linear foot
4. F = Flexibility Factor deflection in micro-inches of 1 foot element under a shear of 1 pound per foot.
5. **For SI dimensions:**
1 inch = 25.4 mm, 1 inch² = 645.16 mm², 1 inch³ = 16.4 x 10³ mm³, 1 inch⁴ = 41.6 x 10⁴ mm⁴, 1 plf = 14.6 N/m, 1 psf = 4.88 kg/m², 1 pcf = 16.018 kg/m³, 1 inch-kip = 0.113 kN-m, 1 kip = 4.448 kN, 1 ksi = 6.89 MPa, 1 foot = 304.8 mm.

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ALLOWABLE SHEAR (Q) AND FLEXIBILITY (F) VALUES FOR STEEL ROOF DECK DIAPHRAGMS

TABLE	PNEUTEK SUPPORT FASTENERS AND PATTERN	SIDELAP FASTENERS
B DECK - STANDING SEAM (16, 18, 20, 22 gage)		
4A	K66062, K66075, K64062, K64075, OR SDK63075 36/5, 36/7, 36/9, 36/11	BUTTON PUNCHES SPACED @ 6" & 12" O.C.
4B	K66062, K66075, K64062, K64075, OR SDK63075 36/5, 36/7, 36/9, 36/11	#10 SELF-DRILLING SCREWS SPACED @ 6" & 12" O.C.
4C	SDK61075 36/5, 36/7, 36/9, 36/11	BUTTON PUNCHES SPACED @ 6" & 12" O.C.
4D	SDK61075 36/5, 36/7, 36/9, 36/11	#10 SELF-DRILLING SCREWS SPACED @ 6" & 12" O.C.
B DECK - NESTABLE SEAM (16, 18, 20, 22 gage)		
5A	K66062, K66075, K64062, K64075, OR SDK63075 36/4, 36/5, 36/7, 36/9, 36/11	#10 SELF-DRILLING SCREWS # BETWEEN SUPPORTS 0, 2, 4, 6, 8, 10, 12
5B	SDK61075 36/4, 36/5, 36/7, 36/9, 36/11	#10 SELF- DRILLING SCREWS # BETWEEN SUPPORTS 0, 2, 4, 6, 8, 10, 12
N DECK - STANDING SEAM (16, 18, 20, 22 gage)		
6A	K66062, K66075, K64062, K64075, OR SDK63075 24/4, 24/6, 24/8	BUTTON PUNCHES SPACED @ 6" & 12" O.C.
6B	K66062, K66075, K64062, K64075, OR SDK63075 24/4, 24/6, 24/8	#10 SELF-DRILLING SCREWS SPACED @ 6" & 12" O.C.
6C	SDK61075 24/4, 24/6, 24/8	BUTTON PUNCHES SPACED @ 6" & 12" O.C.
6D	SDK61075 24/4, 24/6, 24/8	#10 SELF- DRILLING SCREWS SPACED @ 6" & 12" O.C.
N DECK - NESTABLE SEAM (16, 18, 20, 22 gage)		
7A	K66062, K66075, K64062, K64075, OR SDK63075 24/4, 24/6, 24/8	#10 SELF- DRILLING SCREWS # BETWEEN SUPPORTS 0, 1, 2, 3, 4, 6, 9, 12, 16
7B	SDK61075 24/4, 24/6, 24/8	#10 SELF- DRILLING SCREWS #BETWEEN SUPPORTS 0, 1, 2, 3, 4, 6, 9, 12, 16.

ALLOWABLE SHEAR (Q) BASED ON BUCKLING LIMITS

TABLE	DECK TYPE
8A	B DECK (STANDING AND NESTABLE SEAMS - 16, 18, 20, 22 gage)
8B	N DECK (STANDING AND NESTABLE SEAMS - 16, 18, 20, 22 gage)

(continued)

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ALLOWABLE SHEAR (Q) AND FLEXIBILITY (F) VALUES FOR CONCRETE FILL AND STEEL HEADED STUD ANCHORS IN CONCRETE FILLED FLOOR DIAPHRAGMS

TABLE	CONCRETE TYPE
9	NORMAL WEIGHT AND LIGHTWEIGHT

ALLOWABLE SHEAR (Q) AND FLEXIBILITY (F) VALUES FOR CONCRETE FILLED FLOOR DIAPHRAGMS

TABLE	CONCRETE FILL	PNEUTEK SUPPORT FASTENERS AND PATTERN	SIDELAP FASTENERS
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B DECK - STANDING SEAM OR NESTABLE SEAM

10A	Normal Weight	K66062, K66075, K64062, K64075, OR SDK63075 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
10B	Normal Weight	SDK61075 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
10C	Lightweight	K66062, K66075, K64062, K64075, OR SDK63075 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
10D	Lightweight	SDK61075 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
11A	Normal Weight	K66062, K66075, K64062, K64075, OR SDK63075 36/7	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
11B	Normal Weight	SDK61075 36/7	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
11C	Lightweight	K66062, K66075, K64062, K64075, OR SDK63075 36/7	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
11D	Lightweight	SDK61075 36/7	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.

2" & 3" DEEP DECK

12A, 13A	Normal Weight	K66062, K66075, K64062, K64075, OR SDK63075 24/3, 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
12B, 13B	Normal Weight	SDK61075 24/3, 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
12C, 13C	Lightweight	K66062, K66075, K64062, K64075, OR SDK63075 24/3, 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
12D, 13D	Lightweight	SDK61075 24/3, 36/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.

N DECK - STANDING SEAM OR NESTABLE SEAM

14A	Normal Weight	K66062, K66075, K64062, K64075, OR SDK63075 24/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
14B	Normal Weight	SDK61075 24/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
14C	Lightweight	K66062, K66075, K64062, K64075, OR SDK63075 24/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.
14D	Lightweight	SDK61075 24/4	BUTTON PUNCHES, #10 by 3/4" SELF-DRILLING SCREWS, OR WELDS @ 36 O.C.

TABLE 1—DIAPHRAGM FLEXIBILITY LIMITATIONS
(Only applicable to the 2015 IBC and earlier codes)

F	Maximum Diaphragm Span for Masonry or Concrete Walls (feet)	Diaphragm Span-Depth Limitations			
		Rotation Not Considered in Diaphragm		Rotation considered in Diaphragm	
		Masonry or Concrete Walls	Flexible Walls	Masonry or Concrete Walls	Flexible Walls
> 150	not used	not used	2:1	not used	1 1/2:1
70-150	200	2:1 or as required for deflection	3:1	not used	2:1
10-70	400	2 1/2:1 or as required for deflection	4:1	as required for deflection	2 1/2:1
1-10	no limitation	3:1 or as required for deflection	5:1	as required for deflection	3:1
< 1	no limitation	as required for deflection	no limitation	as required for deflection	3 1/2:1

¹Diaphragms are to be investigated regarding their flexibility and recommended span-depth limitations.

²Diaphragms supporting masonry or concrete walls are to have their deflection limited to the following amount:

$$\Delta_{wall} = \frac{H^2 (f_c)}{0.01 E (t)}$$

where:

H = Unsupported height of wall (feet).

t = Thickness of wall (inch).

E = Modulus of elasticity of wall material for deflection determination (psi).

f_c = Allowable compression strength of wall material in flexure (psi)

For concrete, f_c = 0.45 f'_c

For masonry, f_c = F_b = 0.33 f'_m

³The total deflection of the diaphragm may be computed from the following equation:

$$\Delta_{total} = \Delta_{flexural} + \Delta_{web}$$

where:

Δ_{flexural} = Flexural deflection of the diaphragm determined in the same manner as the deflection of beams (inch).

Δ_{web} = The web deflection may be determined by the equation (inch):

$$\Delta_{web} = \frac{q_{ave}(L)(F)}{10^6}$$

where:

L = Distance between vertical resisting element (such as shear wall) and the point to which the deflection is to be determined (feet).

q_{ave} = Average shear in diaphragm (pounds per foot over length L)

F = Flexibility Factor: The average micro inches (μm) a diaphragm web will deflect in a span of 1 foot under a shear of 1 pound per foot.

⁴When applying these limitation to cantilevered diaphragms, the allowable span-depth ratio will be half that shown.

TABLE 2—PNEUTEK FASTENER PROPERTIES

PNEUTEK FASTENER NO.	NOMINAL HEAD DIAMETER		NOMINAL SHANK DIAMETER		NOMINAL SHANK LENGTH		SHANK STYLE	SHANK SURFACE
	inch	Mm	inch	mm	inch	mm		
SDK61075	1/2	12.6	0.144	3.7	0.78	19.8	stepped down	diamond knurled
SDK63075			0.173	4.4	0.77	19.6		
K64062			0.181	4.6	0.63	16.0	straight	helical knurled
K64075			0.181	4.6	0.73	18.6		
K66062			0.199	5.1	0.64	16.2		
K66075			0.199	5.1	0.75	19.0		

TABLE 3—ALLOWABLE SHEAR AND TENSION LOADS FOR PNEUTEK FASTENERS INSTALLED IN B AND N DECK¹

SPECIFIED YIELD STRENGTH OF B AND N DECKS (ksi)	ASTM A36 STEEL SPECIFIED SUBSTRATE THICKNESS RANGE (inches)	PNEUTEK FASTENER PART NUMBER	ALLOWABLE SHEAR STRENGTH ^{2,4} (lbs)				ALLOWABLE TENSION (UPLIFT) STRENGTH ^{3,5} (lbs)			
			Deck Gauge				Deck Gauge			
			22	20	18	16	22	20	18	16
33	0.281 and up	K66062 K66075	485	582	775	970	332	398	530	663
	0.187 to 0.312	K64062 K64075								646
	0.155 to 0.250	SDK63075							470	
	0.113 to 0.155	SDK61075							317	381

NOTES:

1. Pneutek fastener penetration must be through supporting steel or a minimum of 0.375 inch.
2. Allowable shear strengths are based on fasteners installed parallel to deck flutes.
3. Allowable tension strengths are based on the lesser of the allowable pullover or pullout strengths for deck gage, fastener and substrate thickness combination.
4. Allowable shear strength = Nominal shear strength/ Ω , where $\Omega = 3.0$.
5. Allowable tension strength = Nominal tension loads / Ω , where $\Omega = 3.0$ for pullover and $\Omega = 5.00$ for pullout.

TABLE 4A—Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING SEAM), F_y = 33 ksi

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate, **SIDELAP FASTENERS** – Non-Piercing Button Punch Sidelap Connection

DECK GAGE	NUMBER OF SUPPORT FASTENERS	SPACING OF SIDELAP FASTENERS (inches)	Q (plf)	SPAN (ft-in) - 3 SPAN CONDITION									
			F (10 ⁻⁶ in)	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	11	6	Q	722*	613	500	425	371	331	302	280	261	246
			F	20.9	19.4	19.0	18.9	19.1	19.4	19.8	20.1	20.5	20.9
	12	6	Q	722*	574	461	386	332	292	263	241	222	207
			F	21.5	20.4	20.3	20.7	21.3	22.0	22.8	23.7	24.5	25.3
	9	6	Q	660	526	431	367	322	288	264	245	230	217
			F	21.9	20.6	20.2	20.3	20.5	20.8	21.2	21.6	22.0	22.3
	12	6	Q	629	487	392	328	283	249	225	206	191	178
			F	22.7	21.8	22.0	22.6	23.4	24.3	25.2	26.1	27.1	27.9
	7	6	Q	442	356	298	259	231	210	195	183	174	166
			F	24.1	23.1	22.9	23.1	23.4	23.7	24.1	24.5	24.8	25.2
	12	6	Q	409	317	259	220	192	171	156	144	135	127
			F	25.6	25.4	26.0	27.0	28.2	29.3	30.4	31.5	32.5	33.5
5	6	Q	400	328	280	244	219	199	185	175	166	159	
		F	84.9	69.1	60.0	54.2	50.3	47.4	45.3	43.6	42.3	41.3	
12	6	Q	370	295	241	205	180	160	146	136	127	120	
		F	86.9	72.1	64.0	59.2	56.2	54.2	52.9	52.0	51.5	51.1	
20	11	6	Q	915	723	588	498	433	385	348	320	298	280
			F	15.6	15.0	15.1	15.4	15.8	16.2	16.7	17.1	17.5	17.9
	12	6	Q	883	684	549	459	394	346	308	281	259	241
			F	16.1	15.9	16.3	17.0	17.8	18.6	19.5	20.3	21.1	22.0
	9	6	Q	780	619	505	428	374	333	301	279	261	245
			F	16.4	16.1	16.2	16.6	17.0	17.5	18.0	18.4	18.9	19.3
	12	6	Q	749	580	466	389	335	294	262	240	221	206
			F	17.2	17.2	17.9	18.7	19.7	20.6	21.6	22.6	23.5	24.4
	7	6	Q	518	413	343	297	263	238	219	204	193	183
			F	18.5	18.4	18.7	19.1	19.6	20.1	20.6	21.0	21.5	21.8
	12	6	Q	484	374	304	257	224	199	180	165	154	144
			F	19.9	20.5	21.5	22.8	24.0	25.2	26.4	27.5	28.5	29.5
5	6	Q	468	381	323	279	248	225	207	194	183	175	
		F	57.3	47.8	42.5	39.2	37.0	35.5	34.4	33.5	32.9	32.4	
12	6	Q	438	347	283	240	209	186	168	155	144	136	
		F	59.1	50.6	46.2	43.8	42.4	41.7	41.3	41.2	41.2	41.4	
18	11	6	Q	1200	940	762	642	557	492	442	402	371	347
			F	10.4	10.6	11.1	11.6	12.1	12.6	13.1	13.6	14.0	14.5
	12	6	Q	1160	903	723	603	517	453	403	363	332	308
			F	10.8	11.3	12.1	13.0	13.8	14.7	15.6	16.4	17.2	18.0
	9	6	Q	1020	804	651	550	478	423	381	347	321	301
			F	11.2	11.5	12.0	12.6	13.2	13.8	14.3	14.8	15.2	15.6
	12	6	Q	986	765	612	511	438	384	342	308	282	262
			F	11.8	12.5	13.5	14.5	15.5	16.5	17.4	18.4	19.2	20.1
	7	6	Q	667	527	434	372	327	294	268	247	231	218
			F	12.9	13.5	14.2	14.8	15.5	16.0	16.6	17.0	17.5	17.9
	12	6	Q	633	488	395	333	288	255	229	208	192	179
			F	14.1	15.3	16.7	18.0	19.3	20.4	21.6	22.6	23.6	24.5
5	6	Q	603	485	406	349	307	277	253	233	218	207	
		F	32.3	28.3	26.3	25.1	24.4	24.0	23.7	23.6	23.5	23.4	
12	6	Q	572	451	367	310	268	237	213	194	179	168	
		F	33.9	30.7	29.4	29.1	29.1	29.4	29.8	30.2	30.7	31.2	
16	11	6	Q	1480	1160	939	789	681	601	538	488	448	414
			F	7.91	8.39	8.97	9.54	10.1	10.6	11.1	11.6	12.0	12.4
	12	6	Q	1450	1120	900	749	642	562	499	449	408	375
			F	8.32	9.04	9.89	10.8	11.6	12.5	13.3	14.1	14.8	15.5
	9	6	Q	1260	989	800	673	582	514	462	419	385	357
			F	8.59	9.19	9.84	10.5	11.1	11.6	12.1	12.6	13.0	13.4
	12	6	Q	1230	952	761	634	543	475	422	380	346	318
			F	9.16	10.1	11.1	12.1	13.1	14.1	15.0	15.8	16.6	17.4
	7	6	Q	818	643	526	448	392	350	318	292	271	253
			F	10.2	11.0	11.7	12.5	13.1	13.7	14.2	14.6	15.1	15.4
	12	6	Q	784	603	487	409	353	311	279	253	232	214
			F	11.2	12.6	14.0	15.3	16.5	17.6	18.7	19.6	20.5	21.4
5	6	Q	740	590	491	419	367	329	299	275	255	239	
		F	21.5	19.7	19.0	18.7	18.6	18.6	18.6	18.7	18.8	18.9	
12	6	Q	708	556	452	380	328	290	260	236	216	200	
		F	22.9	21.9	21.8	22.2	22.7	23.3	24.0	24.6	25.3	25.9	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 4B—Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate, **SIDELAP FASTENERS** - #10 by 3/4" Self-Drilling Screws

DECK GAGE	NUMBER OF SUPPORT FASTENERS	SPACING OF SIDELAP FASTENERS (inches)	Q (plf)	SPAN (ft-in) - 3 SPAN CONDITION											
				F (10 ⁻⁶ in)	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	
			22	11	6	Q	722*	722*	722*	672	626	586	557	534	516
F	17.5	14.8				13.2	12.1	11.4	10.8	10.4	10.1	9.78	9.54		
9	6	Q		722*	690	588	513	460	420	390	368	350	334		
		F		18.5	16.1	14.7	13.8	13.2	12.7	12.4	12.1	11.9	11.7		
7	6	Q		722*	722*	661	610	572	543	518	500	485	472		
		F		17.6	14.9	13.3	12.2	11.5	10.9	10.5	10.1	9.83	9.59		
5	6	Q		722*	603	519	456	410	376	352	333	318	306		
		F		18.8	16.4	15.0	14.0	13.4	12.9	12.6	12.3	12.0	11.9		
20	11	6		Q	638	568	523	492	469	452	438	427	418	410	
				F	17.8	15.1	13.4	12.4	11.6	11.0	10.6	10.2	9.91	9.66	
	9	6		Q	515	435	384	347	319	298	283	272	262	254	
				F	19.4	16.9	15.4	14.5	13.8	13.3	12.9	12.6	12.3	12.1	
	7	6	Q	565	513	478	454	436	422	411	402	394	388		
			F	77.5	59.8	49.3	42.2	37.2	33.4	30.5	28.1	26.2	24.6		
	18	11	6	Q	463	399	356	327	305	288	274	263	254	247	
				F	79.2	61.8	51.4	44.4	39.5	35.8	32.9	30.6	28.7	27.1	
		9	6	Q	1020*	1020*	914	839	785	743	707	680	658	640	
				F	12.4	10.8	9.82	9.17	8.72	8.38	8.11	7.90	7.73	7.59	
		7	6	Q	1020*	845	728	638	574	526	488	461	439	421	
				F	13.4	12.0	11.2	10.7	10.3	10.1	9.91	9.76	9.65	9.55	
16		11	6	Q	1020*	910	824	763	718	684	657	635	617	602	
				F	12.5	10.9	9.90	9.25	8.78	8.44	8.17	7.95	7.78	7.63	
		9	6	Q	889	740	644	569	515	474	442	420	401	386	
				F	13.7	12.3	11.4	10.9	10.5	10.3	10.1	9.93	9.80	9.70	
		7	6	Q	792	710	658	621	595	574	558	545	534	525	
				F	12.7	11.0	10.0	9.36	8.89	8.53	8.25	8.03	7.85	7.70	
	5	6	Q	633	538	478	436	404	379	359	345	334	324		
			F	14.2	12.7	11.8	11.3	10.9	10.6	10.4	10.2	10.0	9.93		
	14	11	6	Q	698	639	599	571	550	534	521	511	502	495	
				F	50.6	39.4	32.7	28.3	25.1	22.7	20.9	19.4	18.2	17.2	
		9	6	Q	569	493	443	408	382	362	347	334	324	315	
				F	52.2	41.2	34.7	30.3	27.2	24.9	23.1	21.6	20.4	19.5	
12		11	6	Q	1640	1430	1290	1190	1120	1070	1020	988	960	935	
				F	7.67	6.93	6.49	6.20	6.00	5.85	5.73	5.64	5.57	5.51	
		9	6	Q	1400	1160	1010	900	815	750	701	661	629	605	
				F	8.53	7.98	7.69	7.52	7.41	7.34	7.29	7.25	7.23	7.21	
		7	6	Q	1450	1280	1170	1090	1030	986	951	923	899	879	
				F	7.77	7.01	6.56	6.26	6.06	5.90	5.78	5.69	5.61	5.54	
		10	11	6	Q	1220	1020	896	808	736	681	639	605	579	559
					F	8.76	8.19	7.89	7.71	7.59	7.50	7.44	7.40	7.36	7.33
	9		6	Q	1110	1010	943	897	863	837	816	799	786	774	
				F	7.93	7.14	6.67	6.37	6.15	5.98	5.85	5.75	5.67	5.60	
	7		6	Q	878	754	675	621	581	551	526	505	489	476	
				F	9.19	8.58	8.24	8.02	7.88	7.77	7.69	7.63	7.58	7.53	
5	6		Q	934	901	852	818	792	772	756	743	732	723		
			F	26.5	21.0	17.8	15.6	14.1	12.9	12.0	11.3	10.7	10.2		
8	11		6	Q	787	689	625	580	546	521	500	484	470	459	
				F	27.8	22.6	19.5	17.4	15.9	14.8	13.9	13.3	12.7	12.2	
	9		6	Q	2120	1860	1690	1570	1490	1420	1370	1320	1290	1260	
				F	5.49	5.10	4.88	4.74	4.64	4.56	4.51	4.46	4.43	4.40	
	7	6	Q	1790	1500	1310	1170	1070	993	931	881	840	807		
			F	6.25	6.04	5.95	5.91	5.90	5.89	5.90	5.90	5.91	5.92		
	5	6	Q	1870	1670	1530	1440	1370	1310	1270	1240	1210	1180		
			F	5.57	5.17	4.94	4.79	4.69	4.61	4.55	4.50	4.46	4.43		
	6	11	6	Q	1560	1320	1160	1050	975	907	854	812	777	749	
				F	6.46	6.23	6.13	6.08	6.05	6.04	6.03	6.03	6.03	6.03	
		9	6	Q	1450	1330	1250	1200	1150	1120	1100	1080	1060	1050	
				F	5.71	5.29	5.05	4.88	4.77	4.68	4.61	4.56	4.52	4.48	
7		6	Q	1140	984	887	820	772	735	705	682	663	646		
			F	6.84	6.58	6.44	6.36	6.31	6.28	6.25	6.24	6.22	6.21		
5		6	Q	1170	1170	1120	1080	1050	1030	1010	995	982	972		
			F	16.3	13.2	11.4	10.2	9.31	8.65	8.14	7.74	7.41	7.13		
3		6	Q	1020	898	819	764	724	693	668	648	631	617		
			F	17.5	14.6	12.9	11.7	10.9	10.3	9.84	9.47	9.16	8.91		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5A—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf)	SPAN (ft-in) - 3 SPAN CONDITION										
				F (10 ⁻⁶ in)										
			3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"		
22	11	0	Q	702	547	434	357	302	261	230	207	189	173	
			F	22.6	21.8	22.3	23.3	24.7	26.3	28.0	29.9	31.8	33.7	
		2	Q	725*	615	499	411	348	301	267	240	218	200	
			F	19.7	18.0	17.5	17.6	18.0	18.6	19.4	20.2	21.2	22.2	
		4	Q	725*	680	560	465	395	342	303	273	248	227	
			F	18.6	16.5	15.6	15.3	15.3	15.6	15.9	16.4	17.0	17.6	
		6	Q	725*	725*	614	520	442	383	339	305	278	254	
			F	17.9	15.7	14.6	14.0	13.9	13.9	14.1	14.4	14.7	15.1	
		8	Q	725*	725*	666	568	488	424	375	338	307	282	
			F	17.6	15.1	13.9	13.3	13.0	12.9	13.0	13.1	13.3	13.6	
		10	Q	725*	725*	716	613	535	465	412	370	337	309	
			F	17.3	14.8	13.5	12.8	12.4	12.2	12.2	12.2	12.4	12.6	
		12	Q	725*	725*	725*	657	574	505	448	403	366	336	
			F	17.1	14.5	13.2	12.4	11.9	11.7	11.6	11.6	11.7	11.8	
		9	0	Q	588	461	365	300	253	218	193	173	158	144
				F	24.1	23.8	24.8	26.3	28.2	30.3	32.5	34.8	37.2	39.6
			2	Q	664	527	430	354	300	259	229	206	187	172
				F	20.1	18.6	18.2	18.4	19.0	19.8	20.7	21.7	22.8	23.9
	4		Q	725*	588	487	409	346	300	265	238	217	199	
			F	18.8	16.7	15.9	15.7	15.8	16.1	16.6	17.1	17.7	18.4	
	6		Q	725*	645	539	461	393	340	301	271	246	226	
			F	18.1	15.8	14.8	14.3	14.2	14.2	14.5	14.8	15.2	15.6	
	8		Q	725*	698	588	505	439	381	337	304	276	253	
			F	17.6	15.3	14.0	13.4	13.2	13.1	13.2	13.4	13.6	13.9	
	10		Q	725*	725*	634	547	480	422	374	336	306	280	
			F	17.4	14.9	13.6	12.9	12.5	12.4	12.3	12.4	12.6	12.8	
	12		Q	725*	725*	677	588	517	460	410	369	335	307	
			F	17.1	14.6	13.2	12.5	12.0	11.8	11.7	11.7	11.8	12.0	
	7		0	Q	376	285	225	185	157	136	120	108	98.2	90.0
				F	28.1	29.3	31.6	34.4	37.7	41.1	44.7	48.4	52.1	55.9
			2	Q	464	361	291	240	204	176	156	141	128	117
				F	21.0	19.7	19.7	20.2	21.0	22.1	23.3	24.6	26.0	27.4
		4	Q	543	429	352	294	250	217	192	173	157	144	
			F	19.1	17.2	16.5	16.4	16.7	17.1	17.7	18.4	19.1	19.9	
		6	Q	613	491	407	346	297	258	229	206	187	172	
			F	18.3	16.1	15.1	14.7	14.6	14.8	15.1	15.5	15.9	16.4	
		8	Q	675	549	459	392	341	299	265	238	217	199	
			F	17.8	15.4	14.3	13.7	13.5	13.5	13.6	13.8	14.1	14.4	
		10	Q	725*	602	507	436	381	338	301	271	246	226	
			F	17.4	15.0	13.7	13.1	12.7	12.6	12.6	12.7	12.9	13.1	
		12	Q	725*	650	553	478	419	373	335	304	276	253	
			F	17.2	14.7	13.3	12.6	12.2	12.0	11.9	12.0	12.1	12.2	
		5	0	Q	333	261	208	171	145	125	110	99.4	90.4	82.9
				F	88.5	76.0	70.4	68.3	68.2	69.4	71.3	73.9	76.9	80.2
			2	Q	406	325	269	226	191	166	147	132	120	110
				F	79.3	63.7	55.1	49.9	46.7	44.8	43.8	43.3	43.2	43.4
	4		Q	467	382	320	274	238	207	183	165	150	137	
			F	77.2	60.9	51.5	45.7	41.8	39.2	37.4	36.2	35.4	35.0	
	6		Q	516	432	367	317	278	247	219	197	179	164	
			F	76.3	59.6	50.0	43.8	39.6	36.7	34.6	33.1	32.0	31.2	
	8		Q	556	475	409	356	315	281	253	230	209	192	
			F	75.7	58.9	49.1	42.8	38.4	35.3	33.0	31.3	30.1	29.1	
	10		Q	576	511	446	393	349	313	283	258	237	219	
			F	75.4	58.5	48.5	42.1	37.6	34.4	32.0	30.2	28.8	27.8	
	12		Q	576	543	479	426	381	343	311	285	262	242	
			F	75.2	58.2	48.1	41.6	37.1	33.8	31.3	29.4	28.0	26.8	
	4		0	Q	255	200	157	129	108	93.0	82.0	73.8	67.1	61.5
				F	121	103	93.9	90.1	89.2	90.0	92.0	94.8	98.2	102
			2	Q	325	263	218	183	155	134	118	106	96.8	88.7
				F	109	86.0	73.2	65.3	60.2	56.9	54.7	53.4	52.7	52.4
		4	Q	378	315	267	230	201	175	155	139	126	116	
			F	106	82.8	69.2	60.5	54.6	50.5	47.6	45.4	43.9	42.9	
		6	Q	419	359	309	270	238	213	191	172	156	143	
			F	105	81.5	67.5	58.5	52.2	47.8	44.5	42.1	40.2	38.8	
		8	Q	450	394	345	305	272	244	221	202	186	170	
			F	105	80.7	66.6	57.3	50.9	46.3	42.8	40.2	38.2	36.6	
		10	Q	473	422	376	336	302	273	249	228	210	195	
			F	104	80.2	66.0	56.6	50.1	45.3	41.8	39.0	36.8	35.1	
		12	Q	491	446	402	363	329	300	275	253	234	217	
			F	104	79.9	65.5	56.1	49.5	44.7	41.0	38.2	35.9	34.1	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5A—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
20	11	0	Q	852	663	529	436	369	319	281	252	229	210
			F	16.7	16.9	17.8	19.1	20.6	22.2	24.0	25.7	27.5	29.4
		2	Q	959	754	616	509	432	374	329	295	268	246
			F	14.1	13.4	13.5	13.9	14.5	15.2	16.1	17.0	17.9	18.9
		4	Q	1040*	840	693	581	494	428	377	339	308	282
			F	13.0	12.0	11.7	11.8	12.1	12.5	13.0	13.5	14.1	14.8
		6	Q	1040*	922	764	650	556	483	426	383	348	319
			F	12.5	11.3	10.8	10.7	10.8	11.0	11.3	11.7	12.1	12.5
		8	Q	1040*	998	833	712	618	537	474	426	387	355
			F	12.1	10.8	10.2	9.99	9.97	10.1	10.3	10.5	10.8	11.2
		10	Q	1040*	1040*	899	771	673	592	523	470	427	391
			F	11.9	10.5	9.83	9.52	9.42	9.44	9.56	9.74	9.96	10.2
	12	Q	1040*	1040*	962	829	726	644	571	513	467	428	
		F	11.7	10.3	9.54	9.17	9.02	8.99	9.04	9.16	9.33	9.52	
	9	0	Q	714	560	446	367	310	268	235	210	191	175
			F	18.1	18.7	20.1	21.8	23.7	25.8	28.0	30.2	32.5	34.8
		2	Q	814	647	533	440	372	322	283	254	231	212
			F	14.5	13.9	14.1	14.7	15.4	16.3	17.3	18.3	19.4	20.5
		4	Q	903	728	605	512	435	377	331	297	270	248
			F	13.2	12.3	12.0	12.2	12.5	13.0	13.5	14.2	14.8	15.5
		6	Q	982	803	672	576	497	431	380	341	310	284
			F	12.6	11.4	11.0	10.9	11.0	11.3	11.6	12.0	12.5	13.0
		8	Q	1040*	872	736	634	554	486	428	385	350	321
			F	12.2	10.9	10.3	10.1	10.1	10.3	10.5	10.8	11.1	11.4
		10	Q	1040*	935	796	689	605	538	477	428	389	357
			F	12.0	10.6	9.91	9.62	9.53	9.58	9.71	9.90	10.1	10.4
	12	Q	1040*	992	852	742	654	583	525	472	429	393	
		F	11.8	10.3	9.60	9.25	9.10	9.08	9.15	9.28	9.46	9.67	
	7	0	Q	457	347	275	227	192	166	146	131	119	109
			F	21.7	23.6	26.2	29.2	32.4	35.7	39.1	42.5	46.0	49.6
		2	Q	573	447	362	299	254	221	194	175	159	146
			F	15.3	15.0	15.4	16.3	17.3	18.4	19.7	21.0	22.3	23.7
		4	Q	677	536	441	372	317	275	243	218	198	182
			F	13.6	12.7	12.6	12.8	13.3	13.9	14.6	15.3	16.1	16.9
		6	Q	768	618	513	437	379	330	291	262	238	218
			F	12.8	11.7	11.3	11.3	11.5	11.8	12.2	12.7	13.2	13.7
		8	Q	847	693	581	498	434	384	340	305	278	255
			F	12.3	11.1	10.5	10.4	10.4	10.6	10.8	11.2	11.5	11.9
		10	Q	915	761	644	555	486	432	388	349	317	291
			F	12.0	10.7	10.0	9.78	9.72	9.79	9.95	10.2	10.4	10.7
	12	Q	973	822	703	610	536	478	430	390	357	327	
		F	11.8	10.4	9.70	9.37	9.24	9.24	9.33	9.48	9.68	9.91	
	5	0	Q	404	317	254	209	177	153	135	121	110	101
			F	59.7	53.4	51.4	51.5	52.9	55.0	57.6	60.7	63.9	67.4
		2	Q	501	402	333	282	240	208	183	164	149	137
			F	51.3	42.2	37.4	34.8	33.4	32.7	32.6	32.8	33.3	34.0
		4	Q	579	477	401	344	300	262	231	208	189	173
			F	49.4	39.7	34.2	31.0	28.9	27.6	26.9	26.4	26.3	26.3
6		Q	642	541	461	400	351	313	280	251	229	210	
		F	48.6	38.5	32.8	29.3	26.9	25.4	24.3	23.6	23.2	22.9	
8		Q	691	595	515	451	399	357	322	293	268	246	
		F	48.1	37.9	32.0	28.3	25.8	24.1	22.9	22.0	21.4	21.0	
10		Q	699	641	562	497	443	399	361	330	303	280	
		F	47.8	37.5	31.5	27.7	25.1	23.3	21.9	21.0	20.3	19.8	
12	Q	699	679	604	539	484	437	398	365	336	311		
	F	47.6	37.2	31.2	27.3	24.6	22.7	21.3	20.3	19.5	18.9		
4	0	Q	310	243	192	158	133	114	100.0	89.6	81.5	74.7	
		F	80.9	71.2	67.6	67.1	68.3	70.6	73.6	77.1	81.0	85.2	
	2	Q	402	326	271	230	195	169	148	133	121	111	
		F	69.6	56.2	48.8	44.5	42.0	40.5	39.8	39.5	39.7	40.1	
	4	Q	470	394	335	289	254	223	197	177	161	147	
		F	67.4	53.3	45.2	40.2	36.9	34.7	33.3	32.3	31.7	31.4	
	6	Q	521	449	389	341	302	270	244	220	200	184	
		F	66.5	52.1	43.7	38.4	34.8	32.3	30.5	29.2	28.3	27.7	
	8	Q	558	493	435	386	345	311	283	258	238	220	
		F	66.0	51.4	42.8	37.3	33.6	30.9	29.0	27.5	26.5	25.7	
	10	Q	586	528	473	425	384	348	318	292	270	250	
		F	65.7	51.0	42.3	36.7	32.8	30.1	28.0	26.5	25.3	24.4	
12	Q	606	555	505	459	418	382	351	324	300	279		
	F	65.5	50.7	41.9	36.3	32.3	29.5	27.3	25.7	24.5	23.5		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5A—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
18	11	0	Q	1130	878	706	582	494	428	377	336	303	278
			F	11.4	12.3	13.5	14.9	16.4	17.9	19.5	21.2	22.8	24.5
		2	Q	1290	1020	833	693	589	511	451	402	363	333
			F	9.13	9.22	9.68	10.3	11.0	11.8	12.7	13.6	14.5	15.4
		4	Q	1440	1150	946	803	684	594	524	468	424	388
			F	8.23	8.02	8.17	8.51	8.94	9.44	9.99	10.6	11.2	11.8
		6	Q	1570	1270	1050	898	779	677	598	535	484	444
			F	7.75	7.38	7.37	7.54	7.82	8.16	8.54	8.95	9.38	9.84
		8	Q	1690	1380	1160	990	864	760	672	601	545	499
			F	7.45	6.98	6.87	6.94	7.11	7.35	7.63	7.95	8.28	8.63
		10	Q	1790*	1480	1250	1080	944	837	746	668	605	554
			F	7.24	6.70	6.52	6.53	6.63	6.80	7.02	7.26	7.53	7.81
	12	Q	1790*	1580	1350	1160	1020	908	817	734	665	610	
		F	7.09	6.50	6.28	6.23	6.28	6.41	6.57	6.76	6.98	7.21	
	9	0	Q	945	741	596	491	416	360	316	281	253	232
			F	12.6	13.8	15.4	17.2	19.1	21.0	23.0	25.1	27.1	29.2
		2	Q	1100	873	720	602	511	443	390	347	313	287
			F	9.48	9.68	10.2	11.0	11.8	12.8	13.7	14.7	15.7	16.7
		4	Q	1230	995	828	706	606	526	463	414	374	343
			F	8.39	8.24	8.44	8.83	9.32	9.87	10.5	11.1	11.7	12.4
		6	Q	1340	1110	929	797	696	609	537	480	434	398
			F	7.84	7.50	7.53	7.73	8.03	8.40	8.82	9.26	9.73	10.2
		8	Q	1440	1210	1020	884	775	689	611	546	495	453
			F	7.51	7.06	6.97	7.06	7.26	7.51	7.82	8.15	8.50	8.87
		10	Q	1530	1300	1110	965	850	758	683	613	555	509
			F	7.28	6.76	6.60	6.61	6.73	6.92	7.15	7.40	7.68	7.98
	12	Q	1600	1380	1190	1040	922	825	745	678	615	564	
		F	7.12	6.55	6.33	6.29	6.36	6.49	6.66	6.87	7.10	7.34	
	7	0	Q	605	463	367	303	257	223	196	175	158	145
			F	15.8	18.1	20.8	23.6	26.6	29.6	32.7	35.8	38.9	42.0
		2	Q	781	610	498	413	352	306	270	241	218	200
			F	10.2	10.6	11.4	12.4	13.5	14.6	15.8	17.0	18.3	19.5
		4	Q	935	744	613	520	447	389	344	307	278	255
			F	8.69	8.63	8.94	9.42	10.0	10.7	11.4	12.1	12.8	13.6
		6	Q	1070	865	721	615	535	472	417	374	339	311
			F	8.00	7.72	7.80	8.05	8.41	8.84	9.31	9.80	10.3	10.9
		8	Q	1180	973	821	705	617	547	490	440	399	366
			F	7.61	7.19	7.14	7.27	7.50	7.79	8.13	8.49	8.88	9.29
		10	Q	1270	1070	912	790	694	618	556	504	460	421
			F	7.35	6.85	6.71	6.75	6.90	7.11	7.36	7.64	7.94	8.26
	12	Q	1350	1150	996	869	768	686	618	563	516	476	
		F	7.18	6.61	6.41	6.40	6.48	6.63	6.82	7.04	7.29	7.55	
	5	0	Q	535	419	339	280	237	206	181	161	145	133
			F	35.4	34.0	34.6	36.3	38.7	41.4	44.4	47.5	50.8	54.2
		2	Q	681	548	455	387	332	289	255	227	206	189
			F	28.2	24.3	22.5	21.8	21.7	22.0	22.6	23.3	24.2	25.1
		4	Q	794	658	556	478	418	371	328	294	266	244
			F	26.5	22.1	19.7	18.5	17.9	17.6	17.6	17.8	18.1	18.5
		6	Q	881	750	644	561	494	441	397	360	326	299
			F	25.8	21.1	18.5	17.0	16.1	15.6	15.4	15.3	15.4	15.5
		8	Q	926	825	721	635	564	506	458	418	384	354
			F	25.3	20.5	17.8	16.2	15.2	14.5	14.1	13.9	13.8	13.9
		10	Q	926	887	787	700	628	567	515	472	434	402
			F	25.1	20.2	17.4	15.7	14.5	13.8	13.3	13.0	12.9	12.8
	12	Q	926	926	843	758	685	623	569	523	483	448	
		F	24.9	19.9	17.1	15.3	14.1	13.3	12.8	12.4	12.2	12.0	
	4	0	Q	410	322	257	211	179	154	135	120	108	98.9
			F	47.2	44.5	44.8	46.6	49.2	52.4	56.0	59.8	63.8	68.0
		2	Q	547	446	373	319	273	237	209	186	168	154
			F	37.4	31.4	28.4	27.0	26.4	26.3	26.6	27.1	27.9	28.8
		4	Q	645	545	466	405	356	317	283	253	229	210
			F	35.5	28.9	25.3	23.2	22.0	21.3	20.9	20.9	21.0	21.2
		6	Q	714	623	544	480	427	383	347	316	289	265
			F	34.7	27.8	23.9	21.6	20.1	19.1	18.5	18.2	18.0	18.0
		8	Q	762	682	608	544	489	442	403	369	341	316
			F	34.3	27.2	23.2	20.7	19.1	18.0	17.2	16.7	16.4	16.2
		10	Q	797	727	659	597	543	495	454	419	387	360
			F	34.0	26.8	22.7	20.1	18.4	17.2	16.4	15.8	15.4	15.1
	12	Q	822	762	700	643	590	543	501	464	431	402	
		F	33.8	26.6	22.4	19.8	18.0	16.7	15.8	15.1	14.7	14.3	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5A—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
16	11	0	Q	1420	1110	895	740	628	545	480	428	386	350
			F	8.72	9.77	11.0	12.4	13.8	15.3	16.7	18.2	19.7	21.3
		2	Q	1650	1300	1070	897	763	663	585	522	471	429
			F	6.69	7.07	7.65	8.34	9.08	9.85	10.7	11.5	12.3	13.1
		4	Q	1850	1480	1230	1040	897	780	689	616	557	507
			F	5.89	6.00	6.31	6.73	7.20	7.71	8.25	8.80	9.36	9.93
		6	Q	2030	1650	1380	1180	1020	898	794	711	642	586
			F	5.46	5.43	5.60	5.87	6.20	6.57	6.96	7.36	7.78	8.21
		8	Q	2190	1810	1520	1300	1140	1010	898	805	728	664
			F	5.19	5.07	5.15	5.33	5.57	5.85	6.15	6.47	6.80	7.14
		10	Q	2330	1950	1650	1430	1250	1110	999	899	814	743
			F	5.01	4.83	4.85	4.97	5.15	5.36	5.60	5.86	6.13	6.41
	12	Q	2340	2080	1780	1540	1360	1210	1090	990	899	821	
		F	4.87	4.65	4.62	4.70	4.84	5.01	5.20	5.42	5.64	5.87	
	9	0	Q	1190	935	757	624	530	458	403	359	323	293
			F	9.76	11.2	12.8	14.5	16.2	18.0	19.9	21.7	23.6	25.4
		2	Q	1410	1120	926	781	664	576	508	453	408	371
			F	7.00	7.48	8.16	8.95	9.79	10.7	11.6	12.5	13.4	14.4
		4	Q	1590	1290	1080	920	798	694	612	547	494	450
			F	6.03	6.19	6.55	7.02	7.54	8.10	8.68	9.28	9.89	10.5
		6	Q	1740	1440	1220	1050	915	811	717	641	579	528
			F	5.54	5.54	5.74	6.04	6.39	6.79	7.21	7.64	8.09	8.54
		8	Q	1870	1580	1350	1170	1030	912	821	735	665	606
			F	5.24	5.14	5.24	5.44	5.70	6.00	6.31	6.65	7.00	7.36
		10	Q	1980	1700	1460	1280	1130	1010	910	828	751	685
			F	5.05	4.88	4.91	5.04	5.24	5.46	5.72	5.99	6.27	6.56
	12	Q	2080	1800	1570	1380	1230	1100	996	908	833	763	
		F	4.90	4.69	4.67	4.76	4.90	5.08	5.29	5.51	5.74	5.99	
	7	0	Q	763	586	465	384	327	283	250	223	201	182
			F	12.6	15.0	17.5	20.2	22.9	25.7	28.4	31.2	34.1	36.9
		2	Q	1010	791	646	541	461	401	354	317	286	261
			F	7.61	8.30	9.19	10.2	11.2	12.3	13.4	14.5	15.7	16.8
		4	Q	1220	977	808	686	595	519	459	411	372	339
			F	6.30	6.54	6.99	7.54	8.15	8.80	9.47	10.2	10.8	11.6
		6	Q	1400	1140	957	819	714	631	563	505	457	418
			F	5.69	5.73	5.98	6.33	6.73	7.17	7.64	8.12	8.62	9.12
		8	Q	1550	1290	1090	943	827	734	660	598	543	496
			F	5.34	5.26	5.39	5.63	5.91	6.24	6.59	6.96	7.33	7.72
		10	Q	1670	1420	1220	1060	933	833	750	682	624	575
			F	5.11	4.96	5.01	5.17	5.38	5.63	5.91	6.20	6.50	6.81
	12	Q	1760	1530	1330	1170	1030	926	837	763	700	646	
		F	4.95	4.75	4.75	4.85	5.01	5.21	5.43	5.66	5.91	6.17	
	5	0	Q	676	529	430	355	302	262	230	205	185	168
			F	24.2	24.7	26.3	28.6	31.2	34.0	36.9	39.9	43.0	46.2
		2	Q	878	710	590	503	436	379	335	300	271	246
			F	17.8	16.1	15.6	15.7	16.1	16.7	17.5	18.4	19.4	20.4
		4	Q	1030	861	730	630	552	490	440	394	356	325
			F	16.3	14.1	13.1	12.7	12.6	12.8	13.1	13.5	13.9	14.4
		6	Q	1150	983	850	743	657	587	530	482	442	403
			F	15.6	13.2	12.0	11.4	11.1	11.0	11.1	11.3	11.5	11.8
		8	Q	1170	1080	952	843	752	677	614	561	516	477
			F	15.3	12.7	11.4	10.6	10.2	10.0	9.98	10.0	10.2	10.3
		10	Q	1170	1160	1040	930	838	759	692	635	586	543
			F	15.0	12.4	11.0	10.2	9.67	9.40	9.27	9.24	9.28	9.37
	12	Q	1170	1170	1110	1010	914	834	764	704	652	606	
		F	14.8	12.2	10.7	9.82	9.28	8.96	8.77	8.68	8.67	8.71	
	4	0	Q	517	406	327	269	228	197	173	154	138	125
			F	31.8	31.9	33.6	36.2	39.3	42.7	46.3	50.0	53.9	57.8
		2	Q	708	580	486	416	362	314	277	248	223	203
			F	23.1	20.2	19.1	18.8	18.9	19.4	20.1	20.9	21.9	22.9
		4	Q	838	714	614	535	472	421	380	342	309	282
			F	21.4	18.0	16.3	15.4	15.0	15.0	15.1	15.3	15.7	16.1
		6	Q	926	815	718	636	568	512	464	424	390	360
			F	20.7	17.0	15.1	14.0	13.4	13.1	12.9	13.0	13.1	13.3
		8	Q	985	890	800	721	652	592	541	497	459	426
			F	20.3	16.5	14.4	13.2	12.4	12.0	11.8	11.6	11.6	11.7
		10	Q	1030	945	865	790	722	663	610	564	523	487
			F	20.0	16.2	14.0	12.7	11.9	11.3	11.0	10.8	10.7	10.7
	12	Q	1060	987	916	847	782	724	671	624	582	544	
		F	19.9	15.9	13.7	12.4	11.5	10.9	10.5	10.2	10.1	10.0	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5B—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	11	0	Q	442	344	273	225	190	164	145	131	119	109
			F	30.2	32.0	35.0	38.6	42.5	46.6	50.9	55.3	59.7	64.2
		2	Q	521	412	338	279	237	205	181	163	148	136
			F	21.3	20.2	20.2	20.8	21.8	23.0	24.3	25.7	27.2	28.7
		4	Q	590	474	393	333	283	246	218	196	178	163
			F	19.3	17.4	16.8	16.7	17.0	17.4	18.1	18.8	19.6	20.4
		6	Q	650	531	444	380	330	287	254	229	208	190
			F	18.3	16.2	15.2	14.8	14.8	15.0	15.3	15.7	16.2	16.7
		8	Q	702	582	492	423	370	327	290	261	237	218
			F	17.8	15.5	14.3	13.8	13.6	13.6	13.7	13.9	14.3	14.6
		10	Q	725*	629	536	465	408	363	326	294	267	245
			F	17.5	15.0	13.8	13.1	12.8	12.7	12.7	12.8	13.0	13.3
	12	Q	725*	671	578	504	445	397	358	325	297	272	
		F	17.2	14.7	13.4	12.6	12.2	12.0	12.0	12.0	12.1	12.3	
	9	0	Q	371	290	230	189	159	137	121	109	99.2	91.0
			F	33.4	36.2	40.3	44.9	49.9	55.1	60.4	65.9	71.3	76.9
		2	Q	444	355	293	243	206	178	158	142	129	118
			F	21.7	20.7	20.9	21.6	22.7	24.0	25.5	27.0	28.7	30.3
		4	Q	505	412	345	295	253	219	194	174	159	145
			F	19.4	17.6	17.0	17.0	17.3	17.8	18.5	19.3	20.1	21.0
		6	Q	557	464	393	338	296	260	230	207	188	172
			F	18.4	16.3	15.3	15.0	15.0	15.2	15.5	15.9	16.5	17.0
		8	Q	599	508	436	379	334	297	266	240	218	200
			F	17.9	15.5	14.4	13.9	13.7	13.7	13.8	14.1	14.4	14.8
		10	Q	634	547	475	416	369	330	298	272	247	227
			F	17.5	15.1	13.8	13.2	12.9	12.8	12.8	12.9	13.1	13.4
	12	Q	663	581	510	451	402	361	327	299	275	254	
		F	17.3	14.7	13.4	12.7	12.3	12.1	12.1	12.1	12.2	12.4	
	7	0	Q	237	180	142	117	98.9	85.5	75.6	68.0	61.8	56.7
			F	42.1	47.9	54.8	62.4	70.3	78.4	86.6	95.0	103	112
		2	Q	322	253	207	171	146	126	112	101	91.5	83.9
			F	22.5	21.7	22.1	23.1	24.4	26.0	27.7	29.5	31.3	33.2
		4	Q	394	316	262	223	192	167	148	133	121	111
			F	19.7	17.9	17.4	17.5	17.9	18.5	19.3	20.1	21.0	22.0
		6	Q	452	372	313	268	234	207	184	166	151	138
			F	18.5	16.4	15.5	15.2	15.3	15.5	15.9	16.4	16.9	17.5
		8	Q	499	420	358	310	272	242	218	198	180	165
			F	17.9	15.6	14.5	14.0	13.9	13.9	14.1	14.3	14.7	15.1
		10	Q	536	461	398	348	308	276	249	226	208	192
			F	17.6	15.1	13.9	13.3	13.0	12.9	12.9	13.1	13.3	13.6
	12	Q	566	495	434	383	342	307	278	254	233	216	
		F	17.3	14.8	13.5	12.8	12.4	12.2	12.2	12.2	12.4	12.6	
	5	0	Q	210	164	131	108	91.2	78.8	69.6	62.6	57.0	52.2
			F	105	98.3	98.3	102	107	114	122	130	138	147
		2	Q	279	227	189	161	138	120	106	95.3	86.6	79.4
			F	80.7	65.5	57.3	52.6	49.9	48.5	47.8	47.8	48.2	48.9
		4	Q	330	277	236	204	179	159	142	128	116	107
			F	77.7	61.5	52.3	46.6	42.9	40.5	38.8	37.8	37.2	36.9
6		Q	363	317	276	242	215	192	174	158	145	134	
		F	76.5	59.9	50.4	44.3	40.2	37.3	35.3	33.9	32.9	32.2	
8		Q	363	348	309	275	246	222	202	185	170	158	
		F	75.9	59.1	49.3	43.0	38.7	35.7	33.5	31.8	30.6	29.7	
10		Q	363	363	336	303	274	250	228	210	194	180	
		F	75.5	58.6	48.7	42.3	37.8	34.6	32.3	30.5	29.2	28.1	
12	Q	363	363	358	327	299	274	252	233	216	201		
	F	75.2	58.2	48.2	41.7	37.2	33.9	31.5	29.6	28.2	27.1		
4	0	Q	161	126	98.9	81.0	68.2	58.6	51.7	46.5	42.3	38.8	
		F	142	131	129	132	138	146	155	165	175	186	
	2	Q	226	186	156	134	115	99.4	87.9	79.1	71.9	65.9	
		F	110	87.6	75.2	67.7	63.1	60.1	58.4	57.5	57.2	57.3	
	4	Q	268	230	199	174	154	138	124	112	102	93.1	
		F	107	83.3	69.9	61.3	55.6	51.6	48.8	46.8	45.4	44.5	
	6	Q	295	262	233	207	186	168	153	140	129	119	
		F	105	81.7	67.8	58.9	52.7	48.3	45.1	42.7	40.9	39.6	
	8	Q	312	285	259	234	213	194	178	164	152	141	
		F	105	80.9	66.7	57.6	51.2	46.6	43.2	40.6	38.6	37.0	
	10	Q	324	302	278	256	236	217	201	186	173	162	
		F	104	80.3	66.1	56.8	50.3	45.6	42.0	39.3	37.1	35.4	
12	Q	333	314	294	273	254	237	220	206	192	180		
	F	104	80.0	65.6	56.2	49.7	44.8	41.2	38.4	36.1	34.4		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5B—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
20	11	0	Q	537	418	333	275	233	201	177	159	144	132
			F	23.6	26.1	29.4	33.0	36.8	40.7	44.7	48.8	52.9	57.1
		2	Q	641	507	417	347	295	256	225	202	184	168
			F	15.6	15.4	15.9	16.8	18.0	19.2	20.6	21.9	23.4	24.9
		4	Q	731	589	489	417	357	310	274	246	223	205
			F	13.7	12.9	12.8	13.1	13.6	14.2	14.9	15.7	16.5	17.3
		6	Q	809	664	557	477	416	365	322	289	263	241
			F	12.8	11.8	11.4	11.4	11.6	11.9	12.4	12.9	13.4	14.0
		8	Q	875	730	619	534	468	416	371	333	303	277
			F	12.4	11.1	10.6	10.4	10.5	10.7	10.9	11.3	11.7	12.1
		10	Q	881	790	677	588	518	462	416	377	342	314
			F	12.1	10.7	10.1	9.83	9.78	9.86	10.0	10.3	10.5	10.8
	12	Q	881	843	730	639	565	506	456	416	381	350	
		F	11.9	10.4	9.73	9.40	9.28	9.29	9.39	9.54	9.75	9.98	
	9	0	Q	450	352	281	231	195	169	148	132	120	110
			F	26.5	30.0	34.2	38.7	43.5	48.4	53.4	58.4	63.5	68.6
		2	Q	547	438	362	304	258	223	196	176	160	147
			F	15.9	15.9	16.5	17.6	18.8	20.2	21.6	23.2	24.7	26.3
		4	Q	627	514	431	369	320	278	245	220	200	183
			F	13.8	13.1	13.0	13.3	13.9	14.6	15.3	16.1	17.0	17.9
		6	Q	692	580	493	426	374	332	293	263	239	219
			F	12.9	11.8	11.5	11.5	11.8	12.1	12.6	13.1	13.7	14.2
		8	Q	745	637	549	479	423	377	340	307	279	256
			F	12.4	11.2	10.7	10.5	10.6	10.8	11.1	11.4	11.8	12.2
		10	Q	788	686	598	527	468	420	380	347	318	292
			F	12.1	10.8	10.1	9.89	9.85	9.94	10.1	10.4	10.6	10.9
	12	Q	823	727	643	571	510	460	418	382	352	325	
		F	11.9	10.5	9.77	9.44	9.33	9.35	9.45	9.61	9.82	10.1	
	7	0	Q	288	219	173	143	121	105	92.0	82.6	75.0	68.8
			F	34.4	40.5	47.4	54.6	62.0	69.5	77.1	84.8	92.6	100
		2	Q	401	315	258	215	183	159	140	126	115	105
			F	16.6	16.8	17.6	18.9	20.4	21.9	23.6	25.4	27.1	29.0
		4	Q	493	398	331	282	245	214	189	170	154	141
			F	14.0	13.4	13.4	13.8	14.4	15.2	16.0	16.9	17.8	18.8
		6	Q	567	470	397	341	299	265	237	213	194	178
			F	13.0	12.0	11.7	11.8	12.0	12.4	12.9	13.5	14.1	14.7
		8	Q	625	530	455	396	349	311	280	254	233	214
			F	12.5	11.3	10.8	10.7	10.8	11.0	11.3	11.6	12.1	12.5
		10	Q	670	581	506	445	395	354	320	292	268	247
			F	12.1	10.8	10.2	9.98	9.95	10.1	10.2	10.5	10.8	11.1
	12	Q	705	623	551	489	438	394	358	328	301	279	
		F	11.9	10.5	9.82	9.51	9.41	9.43	9.55	9.72	9.94	10.2	
	5	0	Q	255	199	160	132	112	96.5	84.8	76.0	69.1	63.4
			F	74.9	73.7	76.7	81.9	88.4	95.6	103	111	120	128
		2	Q	346	282	235	201	174	151	133	120	109	99.7
			F	52.6	43.9	39.5	37.3	36.3	36.0	36.3	36.9	37.8	38.9
		4	Q	410	347	297	258	227	202	182	163	148	136
			F	49.8	40.2	35.0	31.8	29.9	28.8	28.1	27.9	27.8	28.0
6		Q	441	397	348	307	273	245	222	202	186	172	
		F	48.8	38.8	33.2	29.7	27.4	25.9	24.9	24.3	24.0	23.8	
8		Q	441	435	389	348	313	284	259	237	219	203	
		F	48.2	38.1	32.2	28.6	26.1	24.4	23.2	22.4	21.9	21.5	
10		Q	441	441	422	383	348	318	292	269	249	232	
		F	47.9	37.6	31.7	27.9	25.3	23.5	22.2	21.3	20.6	20.1	
12	Q	441	441	441	412	378	349	322	298	278	259		
	F	47.6	37.3	31.3	27.4	24.7	22.8	21.5	20.5	19.7	19.2		
4	0	Q	195	153	121	99.3	83.7	72.1	63.0	56.5	51.3	47.0	
		F	99.9	96.6	99.3	105	113	121	131	141	151	161	
	2	Q	280	232	195	168	146	127	111	100	91.0	83.4	
		F	70.7	57.7	50.7	46.8	44.6	43.5	43.1	43.2	43.7	44.5	
	4	Q	333	288	251	220	195	175	158	144	131	120	
		F	67.8	53.8	45.8	40.9	37.8	35.7	34.4	33.5	33.0	32.9	
	6	Q	365	328	293	262	236	214	195	179	165	153	
		F	66.7	52.3	44.0	38.7	35.2	32.8	31.0	29.8	29.0	28.4	
	8	Q	386	355	324	296	270	248	228	211	195	182	
		F	66.1	51.5	43.0	37.6	33.8	31.2	29.3	27.9	26.8	26.1	
	10	Q	399	374	348	322	298	276	256	238	222	208	
		F	65.8	51.0	42.4	36.8	33.0	30.2	28.2	26.7	25.5	24.7	
12	Q	408	388	365	343	320	300	280	262	246	232		
	F	65.5	50.7	42.0	36.4	32.4	29.6	27.5	25.9	24.6	23.7		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5B—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
18	11	0	Q	711	553	445	367	311	270	237	211	191	175
			F	17.4	20.3	23.5	26.9	30.4	34.0	37.6	41.2	44.9	48.5
		2	Q	868	689	567	478	406	353	311	278	251	230
			F	10.4	10.9	11.8	12.9	14.1	15.3	16.6	17.9	19.2	20.5
		4	Q	1000	811	676	576	501	436	385	344	312	286
			F	8.79	8.76	9.10	9.62	10.2	10.9	11.7	12.4	13.2	14.0
		6	Q	1110	920	776	667	583	517	459	411	372	341
			F	8.06	7.79	7.88	8.16	8.54	8.98	9.47	9.98	10.5	11.1
		8	Q	1170	1020	867	751	660	588	529	477	432	396
			F	7.64	7.24	7.19	7.33	7.57	7.88	8.22	8.60	9.00	9.42
		10	Q	1170	1100	950	830	733	655	591	538	493	452
			F	7.38	6.88	6.75	6.80	6.95	7.17	7.43	7.71	8.02	8.35
	12	Q	1170	1170	1020	902	802	720	652	594	546	504	
		F	7.19	6.64	6.44	6.43	6.52	6.67	6.87	7.10	7.34	7.61	
	9	0	Q	596	467	376	309	262	227	199	177	159	146
			F	19.9	23.6	27.7	31.9	36.2	40.6	45.1	49.6	54.0	58.6
		2	Q	741	596	494	420	357	310	273	243	220	202
			F	10.7	11.4	12.4	13.5	14.8	16.1	17.5	18.9	20.4	21.8
		4	Q	858	708	596	512	447	393	347	310	280	257
			F	8.91	8.92	9.30	9.86	10.5	11.2	12.0	12.8	13.6	14.5
		6	Q	950	803	687	596	525	467	420	376	341	312
			F	8.12	7.87	7.99	8.28	8.68	9.14	9.65	10.2	10.7	11.3
		8	Q	1020	883	767	673	596	534	482	440	401	368
			F	7.68	7.29	7.26	7.41	7.66	7.97	8.33	8.72	9.14	9.56
		10	Q	1080	950	837	742	662	596	541	495	455	421
			F	7.40	6.92	6.79	6.85	7.01	7.23	7.50	7.80	8.12	8.45
	12	Q	1120	1010	898	803	723	655	596	547	504	467	
		F	7.21	6.66	6.47	6.46	6.56	6.72	6.92	7.15	7.41	7.68	
	7	0	Q	381	291	231	191	162	140	123	110	99.4	91.1
			F	26.8	32.8	39.2	45.7	52.3	59.0	65.7	72.5	79.3	86.1
		2	Q	551	435	357	301	257	223	197	176	160	146
			F	11.3	12.1	13.3	14.7	16.1	17.7	19.2	20.8	22.5	24.1
		4	Q	685	557	465	398	346	306	271	243	220	202
			F	9.10	9.18	9.63	10.2	11.0	11.8	12.6	13.5	14.3	15.3
		6	Q	787	660	561	485	426	379	340	309	281	257
			F	8.22	8.00	8.15	8.48	8.91	9.40	9.94	10.5	11.1	11.7
		8	Q	865	744	645	564	499	447	403	367	337	311
			F	7.74	7.37	7.35	7.52	7.80	8.13	8.51	8.92	9.35	9.80
		10	Q	923	813	716	634	566	509	462	422	388	359
			F	7.44	6.97	6.86	6.93	7.10	7.34	7.62	7.93	8.26	8.61
	12	Q	967	868	776	695	626	567	517	475	438	406	
		F	7.24	6.70	6.52	6.52	6.62	6.79	7.01	7.25	7.51	7.79	
	5	0	Q	337	264	214	176	150	129	114	101	91.5	83.9
			F	48.7	51.6	56.7	62.8	69.5	76.7	84.1	91.6	99.3	107
		2	Q	473	387	325	278	243	212	188	168	152	139
			F	29.2	25.7	24.3	24.0	24.3	24.9	25.8	26.9	28.1	29.4
		4	Q	563	481	415	362	319	285	257	234	212	195
			F	26.9	22.6	20.4	19.2	18.7	18.6	18.7	19.0	19.4	20.0
6		Q	583	550	486	432	386	348	316	289	266	246	
		F	26.0	21.3	18.8	17.4	16.6	16.1	15.9	15.9	16.1	16.3	
8		Q	583	583	542	490	444	404	370	340	314	292	
		F	25.5	20.7	18.0	16.4	15.4	14.8	14.5	14.3	14.3	14.3	
10		Q	583	583	583	536	492	452	417	386	359	334	
		F	25.2	20.3	17.5	15.8	14.7	14.0	13.6	13.3	13.1	13.1	
12	Q	583	583	583	574	532	494	458	427	399	373		
	F	24.9	20.0	17.2	15.4	14.2	13.5	12.9	12.6	12.4	12.3		
4	0	Q	258	203	162	133	112	97.1	85.1	75.5	67.9	62.3	
		F	63.7	66.5	72.3	79.6	87.8	96.5	106	115	124	134	
	2	Q	384	320	271	233	204	180	159	142	128	118	
		F	38.4	32.7	30.0	28.9	28.6	28.9	29.5	30.4	31.4	32.6	
	4	Q	456	399	350	310	276	248	225	205	189	173	
		F	35.8	29.3	25.8	23.8	22.7	22.1	21.9	21.9	22.1	22.5	
	6	Q	497	452	408	369	334	305	279	257	237	220	
		F	34.9	28.0	24.2	21.9	20.5	19.6	19.0	18.7	18.6	18.6	
	8	Q	522	486	449	414	381	351	325	301	281	262	
		F	34.3	27.3	23.4	20.9	19.3	18.2	17.5	17.0	16.8	16.6	
	10	Q	538	509	479	447	417	389	364	340	319	299	
		F	34.0	26.9	22.8	20.3	18.6	17.4	16.6	16.0	15.6	15.4	
12	Q	549	526	500	473	446	420	396	373	352	332		
	F	33.8	26.6	22.5	19.8	18.1	16.8	15.9	15.3	14.8	14.5		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 5B—Q (plf) & F (1x10⁻⁶ inches), B DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
16	11	0	Q	897	698	564	466	396	343	302	270	243	221
			F	14.1	16.9	20.0	23.1	26.3	29.5	32.8	36.1	39.4	42.7
		2	Q	1120	889	733	621	530	461	407	364	329	299
			F	7.84	8.61	9.57	10.6	11.8	12.9	14.1	15.3	16.5	17.7
		4	Q	1300	1060	884	756	658	579	512	458	414	378
			F	6.38	6.66	7.14	7.72	8.36	9.03	9.73	10.4	11.2	11.9
		6	Q	1450	1210	1020	881	772	685	615	552	500	456
			F	5.73	5.79	6.06	6.42	6.84	7.30	7.78	8.28	8.79	9.31
		8	Q	1470	1340	1150	997	879	784	706	642	585	534
			F	5.37	5.30	5.44	5.68	5.98	6.32	6.68	7.05	7.44	7.84
		10	Q	1470	1450	1260	1100	979	877	793	723	663	612
			F	5.13	4.99	5.05	5.21	5.43	5.69	5.97	6.26	6.57	6.89
	12	Q	1470	1470	1360	1200	1070	966	876	801	736	681	
		F	4.96	4.77	4.77	4.88	5.04	5.24	5.47	5.71	5.97	6.23	
	9	0	Q	751	589	477	393	334	289	254	226	203	184
			F	16.3	19.9	23.7	27.6	31.5	35.5	39.5	43.5	47.5	51.6
		2	Q	955	770	640	545	468	406	359	320	289	263
			F	8.12	8.98	10.0	11.2	12.4	13.7	15.0	16.2	17.6	18.9
		4	Q	1110	925	782	673	589	523	463	414	374	341
			F	6.49	6.80	7.32	7.93	8.60	9.31	10.0	10.8	11.6	12.3
		6	Q	1230	1050	906	789	696	621	560	509	460	420
			F	5.79	5.87	6.15	6.53	6.97	7.44	7.94	8.46	8.99	9.53
		8	Q	1330	1160	1010	893	794	713	646	589	541	498
			F	5.40	5.35	5.50	5.75	6.06	6.41	6.78	7.16	7.56	7.97
		10	Q	1400	1240	1100	985	884	798	726	665	613	567
			F	5.15	5.02	5.08	5.25	5.48	5.74	6.03	6.34	6.65	6.98
	12	Q	1450	1310	1180	1070	964	876	801	737	681	632	
		F	4.98	4.79	4.80	4.91	5.08	5.29	5.52	5.76	6.02	6.29	
	7	0	Q	481	369	293	242	206	178	157	140	126	115
			F	22.4	28.1	33.9	39.8	45.8	51.8	57.9	64.0	70.0	76.1
		2	Q	718	569	468	396	340	296	262	234	212	193
			F	8.64	9.66	10.9	12.2	13.6	15.0	16.5	18.0	19.4	20.9
		4	Q	899	737	619	530	462	409	366	329	298	272
			F	6.66	7.03	7.61	8.28	9.01	9.78	10.6	11.4	12.2	13.0
		6	Q	1030	875	749	650	572	510	459	417	382	350
			F	5.88	5.98	6.29	6.70	7.17	7.68	8.21	8.75	9.31	9.88
		8	Q	1130	984	859	756	672	603	546	498	457	422
			F	5.45	5.42	5.58	5.85	6.18	6.55	6.93	7.34	7.75	8.18
		10	Q	1200	1070	951	849	762	689	627	574	529	490
			F	5.19	5.06	5.14	5.32	5.56	5.84	6.14	6.45	6.78	7.12
	12	Q	1250	1140	1030	928	841	766	701	645	596	554	
		F	5.00	4.82	4.84	4.96	5.14	5.35	5.59	5.85	6.11	6.39	
	5	0	Q	426	333	271	224	190	165	145	129	117	106
			F	36.0	40.4	46.0	52.1	58.6	65.4	72.2	79.2	86.2	93.3
		2	Q	613	505	425	365	319	282	250	224	202	184
			F	18.7	17.3	17.2	17.6	18.3	19.3	20.4	21.6	22.9	24.2
		4	Q	732	631	548	480	425	380	343	313	287	263
			F	16.6	14.5	13.6	13.3	13.4	13.7	14.1	14.6	15.1	15.8
		6	Q	736	720	642	573	515	466	425	389	359	332
			F	15.8	13.4	12.3	11.7	11.5	11.5	11.6	11.8	12.1	12.5
		8	Q	736	736	712	648	591	541	497	458	425	395
			F	15.3	12.9	11.5	10.8	10.5	10.3	10.3	10.4	10.5	10.7
		10	Q	736	736	736	707	653	603	559	519	484	453
			F	15.1	12.5	11.1	10.3	9.83	9.57	9.47	9.46	9.52	9.64
	12	Q	736	736	736	736	703	656	613	573	537	505	
		F	14.9	12.2	10.8	9.92	9.39	9.08	8.91	8.84	8.84	8.90	
	4	0	Q	326	256	206	169	143	124	109	96.7	86.8	78.6
			F	46.5	51.5	58.2	65.7	73.7	82.0	90.5	99.1	108	117
		2	Q	498	418	356	308	270	240	213	191	172	157
			F	23.9	21.4	20.5	20.5	21.0	21.7	22.7	23.8	25.0	26.3
		4	Q	591	523	462	411	368	332	301	276	254	235
			F	21.7	18.4	16.7	16.0	15.7	15.7	15.9	16.3	16.7	17.3
		6	Q	641	588	536	488	445	407	374	346	320	298
			F	20.8	17.2	15.3	14.3	13.7	13.4	13.4	13.4	13.6	13.8
		8	Q	670	629	586	544	505	468	435	405	378	355
			F	20.4	16.6	14.6	13.4	12.6	12.2	12.0	11.9	11.9	12.0
		10	Q	688	656	621	585	550	516	485	455	428	404
			F	20.1	16.2	14.1	12.8	12.0	11.5	11.2	11.0	10.9	10.9
	12	Q	699	674	646	615	585	554	525	497	471	446	
		F	19.9	16.0	13.8	12.4	11.6	11.0	10.6	10.4	10.2	10.2	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 6A—Q (plf) & F (1x10⁻⁶ inches), N DECK (STANDING SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDELAP FASTENERS – Non-Piercing Button Punch Sidelap Connection

DECK GAGE	NUMBER OF SUPPORT FASTENERS	SPACING OF SIDELAP FASTENERS (inches)	Q (plf)		SPAN (ft-in) - 3 SPAN CONDITION									
			F (10 ⁻⁶ in)		6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
22	8	6	Q		306	274	249	230	215	203	192	183	176	164
			F		58.2	54.6	52.2	50.4	49.2	48.2	47.5	47.0	46.5	46.0
		12	Q		267	235	210	191	176	164	153	144	137	125
			F		62.4	59.8	58.3	57.4	57.1	57.0	57.2	57.4	57.8	58.7
	6	6	Q		292	261	239	221	206	195	185	177	170	158
			F		59.6	56.1	53.7	51.9	50.6	49.7	49.0	48.4	48.0	47.3
		12	Q		253	222	199	182	167	156	146	138	131	119
			F		64.6	62.2	60.9	60.1	59.9	59.9	60.1	60.4	60.8	61.7
	4	6	Q		192	176	164	154	147	140	135	131	127	121
			F		65.6	62.0	59.5	57.7	56.3	55.2	54.3	53.6	53.0	52.1
		12	Q		153	137	125	115	108	101	96.1	91.7	88.0	81.9
			F		75.2	73.3	72.3	71.8	71.7	71.8	72.0	72.3	72.7	73.5
20	8	6	Q		352	313	284	261	243	228	215	205	196	181
			F		42.6	40.8	39.6	38.9	38.4	38.1	37.9	37.8	37.8	37.8
		12	Q		313	274	245	222	204	189	176	166	157	142
			F		46.4	45.5	45.2	45.3	45.6	46.1	46.7	47.4	48.0	49.4
	6	6	Q		335	298	271	249	232	218	207	197	188	174
			F		43.9	42.1	41.0	40.3	39.8	39.4	39.2	39.1	39.0	39.0
		12	Q		296	259	232	210	193	179	167	158	149	135
			F		48.5	47.7	47.6	47.8	48.2	48.7	49.4	50.1	50.8	52.2
	4	6	Q		215	196	181	169	160	153	147	141	137	130
			F		49.4	47.6	46.4	45.5	44.9	44.5	44.1	43.9	43.7	43.4
		12	Q		176	157	142	130	121	114	108	102	97.8	90.5
			F		58.2	57.9	58.0	58.4	59.0	59.6	60.3	61.0	61.6	62.9
18	8	6	Q		443	391	352	321	297	277	261	247	235	215
			F		27.8	27.4	27.4	27.5	27.6	27.8	28.0	28.3	28.5	29.0
		12	Q		404	352	313	282	258	238	222	207	195	176
			F		31.1	31.5	32.2	33.0	33.9	34.8	35.7	36.6	37.4	39.1
	6	6	Q		420	371	335	306	283	265	249	236	225	206
			F		28.9	28.6	28.6	28.6	28.8	29.0	29.2	29.4	29.6	30.1
		12	Q		381	332	295	267	244	226	210	197	186	167
			F		32.9	33.5	34.2	35.1	36.1	37.0	38.0	38.9	39.8	41.5
	4	6	Q		261	235	215	200	188	178	169	162	156	147
			F		33.6	33.3	33.2	33.2	33.2	33.3	33.4	33.5	33.7	33.9
		12	Q		222	195	176	161	149	139	130	123	117	107
			F		41.3	42.2	43.3	44.4	45.5	46.5	47.4	48.3	49.2	50.8
16	8	6	Q		535	469	421	382	352	327	306	289	274	249
			F		20.9	21.1	21.5	21.8	22.2	22.6	23.0	23.3	23.7	24.3
		12	Q		496	430	381	343	313	288	267	250	235	210
			F		23.9	24.8	25.8	26.8	27.8	28.8	29.8	30.7	31.6	33.3
	6	6	Q		506	445	399	363	335	311	292	276	261	239
			F		21.9	22.2	22.5	22.9	23.3	23.7	24.0	24.3	24.7	25.3
		12	Q		467	406	360	324	296	272	253	236	222	199
			F		25.5	26.5	27.6	28.7	29.8	30.9	31.9	32.8	33.7	35.4
	4	6	Q		306	274	249	230	215	203	192	183	176	164
			F		26.2	26.4	26.7	27.0	27.3	27.5	27.8	28.0	28.3	28.6
		12	Q		267	235	210	191	176	164	153	144	137	125
			F		33.0	34.4	35.7	37.0	38.2	39.3	40.3	41.3	42.2	43.7

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 6B—Q (plf) & F (1x10⁻⁶ inches), N DECK (STANDING SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDELAP FASTENERS - #10 by 3/4" Self-Drilling Screws

DECK GAGE	NUMBER OF SUPPORT FASTENERS	SPACING OF SIDELAP FASTENERS (inches)	Q (plf)	SPAN (ft-in) - 3 SPAN CONDITION										
			F (10 ⁻⁶ in)	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"	
22	8	6	Q	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*
			F	44.8	39.7	35.9	32.9	30.6	28.6	27.0	25.6	24.5	22.6	
		12	Q	348*	348*	338	319	303	291	281	272	264	252	
			F	47.7	42.8	39.1	36.2	33.9	32.1	30.5	29.2	28.1	26.2	
	6	6	Q	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*
			F	44.9	39.8	36.0	33.0	30.6	28.7	27.0	25.7	24.5	22.6	
		12	Q	348*	348*	327	309	295	283	273	265	258	247	
			F	47.9	43.0	39.2	36.4	34.1	32.2	30.6	29.3	28.2	26.3	
	4	6	Q	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*
			F	45.1	40.0	36.1	33.1	30.7	28.8	27.2	25.8	24.6	22.7	
		12	Q	281	264	252	242	235	229	223	219	215	209	
			F	48.6	43.6	39.8	36.9	34.5	32.6	31.0	29.7	28.5	26.7	
20	8	6	Q	495*	495*	495*	495*	495*	495*	495*	495*	495*	495*	495*
			F	30.4	27.2	24.8	22.9	21.4	20.2	19.2	18.3	17.6	16.4	
		12	Q	493	454	424	402	383	368	356	345	336	322	
			F	33.0	30.0	27.7	25.9	24.5	23.3	22.4	21.6	20.9	19.8	
	6	6	Q	495*	495*	495*	495*	495*	495*	495*	495*	495*	495*	495*
			F	30.5	27.3	24.9	23.0	21.5	20.3	19.2	18.4	17.6	16.4	
		12	Q	476	439	411	390	373	359	347	337	329	315	
			F	33.2	30.1	27.8	26.1	24.6	23.5	22.5	21.7	21.0	19.9	
	4	6	Q	495*	495*	495*	495*	495*	492	486	481	476	469	
			F	30.7	27.4	25.0	23.1	21.6	20.4	19.3	18.5	17.7	16.5	
		12	Q	356	336	322	310	301	294	287	282	278	270	
			F	33.8	30.7	28.4	26.5	25.1	23.9	22.9	22.0	21.3	20.2	
18	8	6	Q	857*	857*	857*	857*	857*	857*	855	841	829	809	
			F	17.2	15.7	14.5	13.6	12.9	12.3	11.8	11.4	11.1	10.5	
		12	Q	701	649	610	580	555	535	519	505	493	473	
			F	19.5	18.1	17.0	16.2	15.6	15.0	14.6	14.2	13.9	13.4	
	6	6	Q	857*	857*	857*	857*	857*	851	835	821	810	791	
			F	17.3	15.7	14.6	13.7	12.9	12.4	11.9	11.5	11.1	10.5	
		12	Q	678	629	593	564	541	523	507	494	483	465	
			F	19.6	18.2	17.2	16.3	15.7	15.1	14.7	14.3	14.0	13.5	
	4	6	Q	801	778	761	747	736	727	719	713	707	698	
			F	17.4	15.9	14.7	13.8	13.0	12.4	12.0	11.5	11.2	10.6	
		12	Q	519	493	473	458	446	436	428	421	415	405	
			F	20.2	18.7	17.6	16.7	16.0	15.5	15.0	14.6	14.3	13.7	
16	8	6	Q	1310*	1310*	1280	1250	1220	1190	1170	1150	1140	1110	
			F	11.5	10.6	9.98	9.48	9.08	8.76	8.49	8.26	8.06	7.74	
		12	Q	927	862	813	775	745	720	699	681	666	642	
			F	13.5	12.8	12.2	11.8	11.5	11.2	11.0	10.8	10.6	10.3	
	6	6	Q	1310*	1280	1240	1200	1170	1150	1130	1110	1100	1080	
			F	11.5	10.7	10.0	9.52	9.11	8.79	8.51	8.28	8.08	7.76	
		12	Q	898	837	791	756	727	704	684	668	654	631	
			F	13.7	12.9	12.3	11.9	11.6	11.3	11.0	10.9	10.7	10.4	
	4	6	Q	1070	1050	1030	1010	996	985	976	969	962	951	
			F	11.7	10.8	10.1	9.62	9.21	8.87	8.59	8.35	8.15	7.82	
		12	Q	699	666	642	623	608	595	585	576	568	554	
			F	14.1	13.3	12.7	12.3	11.9	11.6	11.3	11.1	10.9	10.6	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 6C—Q (plf) & F (1x10⁻⁶ inches), N DECK (STANDING SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDELAP FASTENERS - Non-Piercing Button Punch Sidelap Connection

DECK GAGE	NUMBER OF SUPPORT FASTENERS	SPACING OF SIDELAP FASTENERS (inches)	Q (plf)	SPAN (ft-in) - 3 SPAN CONDITION											
				F (10 ⁻⁶ in)	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"	
			Q	F	Q	F	Q	F	Q	F	Q	F	Q	F	Q
22	8	6	Q	222	201	186	174	164	157	150	145	140	132		
			F	66.3	62.8	60.2	58.3	56.9	55.8	54.9	54.2	53.6	52.6		
		12	Q	183	162	147	135	125	118	111	105	101	93.0		
			F	76.7	74.8	73.8	73.3	73.2	73.3	73.5	73.8	74.1	74.9		
	6	6	Q	213	194	179	168	159	152	145	140	136	129		
			F	67.8	64.1	61.6	59.6	58.1	57.0	56.0	55.3	54.6	53.6		
		12	Q	174	155	140	129	120	113	106	101	96.8	89.6		
			F	79.6	77.8	76.8	76.3	76.2	76.2	76.4	76.6	76.9	77.5		
	4	6	Q	150	140	132	126	121	117	114	111	109	105		
			F	73.0	69.1	66.2	64.0	62.3	60.9	59.8	58.8	58.0	56.7		
		12	Q	111	101	93.0	87.0	82.2	78.3	75.0	72.3	69.9	66.0		
			F	91.6	89.6	88.4	87.7	87.2	87.0	86.8	86.8	86.7	86.8		
20	8	6	Q	251	226	208	193	182	172	164	158	152	143		
			F	50.0	48.2	47.0	46.1	45.5	45.0	44.7	44.4	44.2	43.9		
		12	Q	212	187	169	154	143	133	125	119	113	104		
			F	59.5	59.2	59.4	59.8	60.4	61.0	61.6	62.3	62.9	64.1		
	6	6	Q	240	217	199	186	175	166	159	153	147	139		
			F	51.3	49.5	48.2	47.3	46.6	46.1	45.7	45.4	45.1	44.7		
		12	Q	201	178	160	147	136	127	120	114	108	99.7		
			F	62.2	61.9	62.1	62.5	63.1	63.6	64.2	64.9	65.4	66.6		
	4	6	Q	164	152	143	136	130	125	121	118	115	111		
			F	56.1	54.0	52.4	51.3	50.4	49.7	49.1	48.6	48.2	47.6		
		12	Q	125	113	104	96.6	90.9	86.2	82.2	78.9	76.1	71.4		
			F	73.1	72.7	72.7	72.9	73.2	73.5	73.8	74.1	74.4	75.0		
18	8	6	Q	308	275	251	231	216	204	193	184	177	164		
			F	34.2	33.9	33.7	33.7	33.7	33.8	33.9	34.0	34.1	34.3		
		12	Q	269	236	211	192	177	164	154	145	138	125		
			F	42.4	43.4	44.5	45.6	46.6	47.6	48.6	49.5	50.3	51.9		
	6	6	Q	294	263	240	222	207	196	186	178	170	159		
			F	35.3	35.0	34.8	34.7	34.7	34.7	34.8	34.8	34.9	35.0		
		12	Q	254	224	201	183	168	157	147	138	131	120		
			F	44.7	45.8	46.9	47.9	49.0	50.0	50.9	51.7	52.5	54.0		
	4	6	Q	193	177	164	155	147	141	136	131	127	121		
			F	39.5	38.9	38.5	38.2	38.0	37.8	37.7	37.7	37.6	37.5		
		12	Q	154	138	125	116	108	102	96.5	92.1	88.3	82.2		
			F	54.2	55.1	56.0	56.9	57.7	58.5	59.1	59.8	60.3	61.3		
16	8	6	Q	366	325	294	270	251	235	222	211	201	186		
			F	26.7	26.9	27.2	27.4	27.7	28.0	28.2	28.4	28.6	29.0		
		12	Q	327	286	255	231	212	196	183	172	162	147		
			F	34.0	35.4	36.8	38.0	39.2	40.3	41.4	42.3	43.2	44.7		
	6	6	Q	348	309	280	258	240	225	213	202	194	179		
			F	27.7	27.9	28.1	28.4	28.6	28.8	29.0	29.2	29.4	29.7		
		12	Q	309	270	241	219	201	186	174	163	155	140		
			F	36.1	37.5	38.9	40.2	41.3	42.4	43.4	44.3	45.1	46.6		
	4	6	Q	222	201	186	174	164	157	150	145	140	132		
			F	31.4	31.4	31.4	31.5	31.5	31.6	31.6	31.7	31.8	31.9		
		12	Q	183	162	147	135	125	118	111	105	101	93.0		
			F	44.5	45.9	47.1	48.2	49.2	50.0	50.8	51.5	52.1	53.2		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 6D—Q (plf) & F (1x10⁻⁶ inches), N DECK (STANDING SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDELAP FASTENERS - #10 by 3/4" Self-Drilling Screws

DECK GAGE	NUMBER OF SUPPORT FASTENERS	SPACING OF SIDELAP FASTENERS (inches)	Q (plf)	SPAN (ft-in) - 3 SPAN CONDITION											
				F (10 ⁻⁶ in)	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"	
			Q	F	Q	F	Q	F	Q	F	Q	F	Q	F	Q
22	8	6	Q	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*
			F	45.1	40.0	36.1	33.1	30.8	28.8	27.2	25.8	24.6	22.7		
		12	Q	310	290	274	262	253	245	238	233	228	220		
			F	48.7	43.6	39.9	36.9	34.6	32.7	31.1	29.7	28.6	26.7		
	6	6	Q	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	348*	
			F	45.1	40.0	36.2	33.2	30.8	28.8	27.2	25.8	24.6	22.7		
		12	Q	301	282	267	256	247	240	234	229	224	217		
			F	48.8	43.7	40.0	37.0	34.7	32.7	31.1	29.8	28.6	26.7		
	4	6	Q	348*	348*	348*	344	340	337	334	332	330	326		
			F	45.3	40.1	36.2	33.2	30.8	28.9	27.2	25.9	24.7	22.7		
		12	Q	237	227	219	213	208	204	201	198	195	191		
			F	49.2	44.1	40.3	37.3	34.9	33.0	31.4	30.0	28.8	26.9		
20	8	6	Q	495*	495*	495*	495*	495*	495*	495*	495*	495*	495*	493	
			F	30.7	27.4	25.0	23.1	21.6	20.4	19.4	18.5	17.7	16.5		
		12	Q	392	367	348	334	323	313	305	299	293	284		
			F	33.9	30.8	28.4	26.6	25.1	23.9	22.9	22.1	21.4	20.2		
	6	6	Q	495*	495*	495*	495*	495*	495*	495	489	484	476		
			F	30.7	27.5	25.0	23.1	21.6	20.4	19.4	18.5	17.7	16.5		
		12	Q	381	358	340	327	316	307	300	294	288	280		
			F	34.0	30.9	28.5	26.7	25.2	24.0	23.0	22.1	21.4	20.2		
	4	6	Q	460	451	444	439	434	430	427	425	423	419		
			F	30.8	27.5	25.1	23.2	21.7	20.5	19.4	18.5	17.8	16.6		
		12	Q	301	289	280	272	267	262	258	254	251	247		
			F	34.4	31.2	28.8	26.9	25.4	24.2	23.2	22.3	21.6	20.4		
18	8	6	Q	857*	843	820	801	786	774	763	755	747	735		
			F	17.4	15.9	14.7	13.8	13.1	12.5	12.0	11.5	11.2	10.6		
		12	Q	566	533	509	490	474	462	451	442	435	423		
			F	20.2	18.7	17.6	16.8	16.1	15.5	15.1	14.7	14.3	13.8		
	6	6	Q	821	795	776	760	748	737	729	721	715	704		
			F	17.5	15.9	14.7	13.8	13.1	12.5	12.0	11.6	11.2	10.6		
		12	Q	552	521	498	480	466	454	444	436	429	417		
			F	20.3	18.8	17.7	16.8	16.1	15.6	15.1	14.7	14.4	13.8		
	4	6	Q	666	655	646	640	634	630	626	623	620	616		
			F	17.5	16.0	14.8	13.9	13.1	12.5	12.0	11.6	11.2	10.6		
		12	Q	437	422	410	401	393	387	382	377	374	367		
			F	20.6	19.1	18.0	17.1	16.3	15.8	15.3	14.9	14.5	13.9		
16	8	6	Q	1170	1130	1110	1080	1070	1050	1040	1030	1020	1000		
			F	11.7	10.8	10.1	9.63	9.22	8.88	8.60	8.36	8.16	7.83		
		12	Q	758	717	686	662	643	627	614	603	594	578		
			F	14.2	13.4	12.8	12.3	11.9	11.6	11.4	11.1	11.0	10.7		
	6	6	Q	1090	1060	1040	1020	1010	995	985	976	968	956		
			F	11.7	10.8	10.2	9.65	9.23	8.89	8.61	8.37	8.17	7.84		
		12	Q	740	702	673	650	632	618	605	595	585	570		
			F	14.3	13.5	12.8	12.4	12.0	11.7	11.4	11.2	11.0	10.7		
	4	6	Q	886	874	864	857	851	846	841	838	835	830		
			F	11.8	10.9	10.2	9.70	9.28	8.94	8.65	8.41	8.20	7.87		
		12	Q	586	567	553	542	533	525	519	514	509	502		
			F	14.6	13.7	13.1	12.6	12.2	11.8	11.6	11.3	11.1	10.8		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 7A—Q (plf) & F (1x10⁻⁶ inches), N DECK (NESTABLE SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
22	8	0	Q	246	211	185	164	148	134	123	114	105	92.3
			F	67.0	66.6	67.5	69.2	71.4	74.1	77.1	80.4	83.8	91.2
		1	Q	273	234	205	182	164	149	137	126	117	102
			F	57.5	55.5	54.8	55.0	55.7	56.8	58.2	59.9	61.7	65.9
		2	Q	300	258	225	200	180	164	150	139	129	113
			F	52.9	50.2	48.7	48.0	48.0	48.3	49.0	49.9	51.0	53.6
		3	Q	328	281	246	218	197	179	164	151	140	123
			F	50.1	47.0	45.0	43.9	43.4	43.3	43.5	43.9	44.6	46.3
		4	Q	333*	304	266	237	213	194	177	164	152	133
			F	48.3	44.9	42.6	41.2	40.4	40.0	39.9	40.0	40.4	41.5
		6	Q	333*	333*	307	273	246	223	205	189	175	153
			F	46.1	42.2	39.6	37.8	36.6	35.9	35.4	35.2	35.1	35.5
		9	Q	333*	333*	333*	327	294	268	245	226	210	184
			F	44.3	40.1	37.2	35.1	33.6	32.5	31.7	31.2	30.9	30.6
		12	Q	333*	333*	333*	333*	333*	312	286	264	245	215
			F	43.2	38.9	35.8	33.6	31.9	30.6	29.7	29.0	28.4	27.8
		16	Q	333*	333*	333*	333*	333*	333*	333*	314	292	255
			F	42.4	37.9	34.7	32.3	30.5	29.1	28.0	27.1	26.5	25.6
	6	0	Q	232	199	174	155	139	126	116	107	99.4	87.0
			F	70.9	71.2	72.7	75.1	78.0	81.3	85.0	88.9	93.0	102
		1	Q	259	222	194	173	155	141	130	120	111	97.2
			F	59.1	57.4	57.0	57.4	58.3	59.7	61.4	63.4	65.5	70.2
		2	Q	286	245	215	191	172	156	143	132	123	107
			F	53.7	51.2	49.8	49.3	49.4	49.9	50.7	51.8	53.0	55.9
		3	Q	313	269	235	209	188	171	157	145	134	118
			F	50.7	47.6	45.8	44.7	44.3	44.3	44.6	45.1	45.9	47.7
		4	Q	333*	292	255	227	204	186	170	157	146	128
			F	48.7	45.3	43.1	41.8	41.0	40.7	40.6	40.8	41.2	42.5
		6	Q	333*	333*	296	263	237	215	197	182	169	148
			F	46.3	42.5	39.9	38.2	37.0	36.2	35.8	35.6	35.6	36.0
		9	Q	333*	333*	333*	318	286	260	238	220	204	179
			F	44.4	40.2	37.3	35.3	33.8	32.7	32.0	31.4	31.1	30.9
		12	Q	333*	333*	333*	333*	333*	304	279	258	239	209
			F	43.3	39.0	35.9	33.7	32.0	30.7	29.8	29.1	28.6	28.0
		16	Q	333*	333*	333*	333*	333*	333*	333*	308	286	250
			F	42.4	38.0	34.7	32.3	30.5	29.1	28.1	27.2	26.6	25.7
4	0	Q	123	105	92.3	82.0	73.8	67.1	61.5	56.8	52.7	46.1	
		F	94.5	98.7	104	110	117	125	132	140	148	165	
	1	Q	150	129	113	100	90.1	81.9	75.1	69.3	64.4	56.3	
		F	66.3	65.8	66.6	68.2	70.3	72.9	75.8	78.9	82.3	89.4	
	2	Q	177	152	133	118	106	96.8	88.7	81.9	76.0	66.5	
		F	57.2	55.2	54.5	54.5	55.2	56.2	57.6	59.2	61.1	65.1	
	3	Q	205	175	153	136	123	112	102	94.4	87.7	76.7	
		F	52.7	50.0	48.5	47.8	47.7	48.0	48.6	49.5	50.6	53.1	
	4	Q	232	199	174	155	139	126	116	107	99.3	86.9	
		F	50.0	46.8	44.9	43.8	43.2	43.1	43.3	43.7	44.3	46.0	
	6	Q	286	245	215	191	172	156	143	132	123	107	
		F	47.0	43.3	40.8	39.2	38.2	37.5	37.2	37.1	37.2	37.9	
	9	Q	333*	310	275	245	221	201	184	170	158	138	
		F	44.7	40.6	37.8	35.8	34.4	33.4	32.7	32.2	31.9	31.8	
	12	Q	333*	333*	325	294	267	245	225	207	193	168	
		F	43.5	39.2	36.2	34.0	32.3	31.1	30.2	29.6	29.1	28.6	
	16	Q	333*	333*	333*	333*	321	296	274	255	238	209	
		F	42.5	38.1	34.9	32.5	30.7	29.4	28.3	27.5	26.9	26.0	

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 7A—Q (plf) & F (1x10⁻⁶ inches), N DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
20	8	0	Q	299	256	224	199	179	163	149	138	128	112
			F	50.3	51.4	53.3	55.7	58.4	61.4	64.6	67.9	71.4	78.6
		1	Q	335	287	251	223	201	183	168	155	144	126
			F	41.7	41.4	41.8	42.8	44.1	45.6	47.4	49.3	51.3	55.6
		2	Q	371	318	279	248	223	203	186	171	159	139
			F	37.5	36.5	36.2	36.5	37.1	37.9	39.0	40.2	41.5	44.4
		3	Q	408	349	306	272	245	222	204	188	175	153
			F	35.0	33.6	32.9	32.7	32.9	33.4	34.0	34.8	35.7	37.8
		4	Q	444	381	333	296	266	242	222	205	190	167
			F	33.4	31.7	30.7	30.3	30.2	30.4	30.7	31.3	31.9	33.4
		6	Q	484*	443	387	344	310	282	258	238	221	194
			F	31.3	29.3	28.0	27.2	26.8	26.6	26.7	26.9	27.2	28.0
	9	Q	484*	484*	469	417	375	341	313	289	268	235	
		F	29.7	27.3	25.8	24.7	24.0	23.6	23.4	23.3	23.3	23.6	
	12	Q	484*	484*	484*	484*	441	401	367	339	315	275	
		F	28.7	26.3	24.5	23.3	22.5	21.9	21.5	21.2	21.1	21.1	
	16	Q	484*	484*	484*	484*	484*	480	440	406	377	330	
		F	28.0	25.4	23.5	22.2	21.2	20.5	19.9	19.6	19.3	19.0	
	6	0	Q	281	241	211	188	169	153	141	130	121	106
			F	53.9	55.6	58.0	61.0	64.3	67.9	71.7	75.6	79.7	88.1
		1	Q	318	272	238	212	191	173	159	147	136	119
			F	43.1	43.1	43.8	44.9	46.5	48.3	50.3	52.5	54.7	59.5
		2	Q	354	303	266	236	212	193	177	163	152	133
			F	38.3	37.4	37.3	37.7	38.4	39.4	40.6	41.9	43.4	46.6
3		Q	390	335	293	260	234	213	195	180	167	146	
		F	35.5	34.2	33.6	33.5	33.8	34.3	35.0	35.9	36.9	39.1	
4		Q	427	366	320	284	256	233	213	197	183	160	
		F	33.7	32.1	31.2	30.8	30.8	31.0	31.4	32.0	32.7	34.3	
6		Q	484*	428	375	333	300	272	250	230	214	187	
		F	31.5	29.5	28.2	27.5	27.1	27.0	27.0	27.3	27.6	28.5	
9	Q	484*	484*	456	406	365	332	304	281	261	228		
	F	29.8	27.5	25.9	24.9	24.2	23.8	23.6	23.5	23.5	23.9		
12	Q	484*	484*	484*	478	430	391	359	331	307	269		
	F	28.8	26.3	24.6	23.4	22.6	22.0	21.6	21.4	21.2	21.2		
16	Q	484*	484*	484*	484*	484*	467	431	398	370	324		
	F	28.0	25.4	23.6	22.2	21.3	20.5	20.0	19.6	19.4	19.1		
4	0	Q	149	128	112	99.6	89.6	81.5	74.7	68.9	64.0	56.0	
		F	75.3	80.5	86.6	93.1	100	107	115	122	130	145	
	1	Q	186	159	139	124	111	101	92.8	85.7	79.6	69.6	
		F	49.7	50.7	52.5	54.7	57.4	60.3	63.4	66.6	70.0	76.9	
	2	Q	222	190	167	148	133	121	111	102	95.1	83.3	
		F	41.4	41.1	41.5	42.4	43.6	45.1	46.9	48.7	50.7	54.9	
	3	Q	258	221	194	172	155	141	129	119	111	96.9	
		F	37.3	36.3	36.0	36.2	36.8	37.7	38.7	39.9	41.2	44.1	
	4	Q	295	253	221	196	177	161	147	136	126	110	
		F	34.9	33.5	32.8	32.6	32.8	33.2	33.8	34.6	35.5	37.6	
	6	Q	366	315	275	245	220	200	184	170	157	138	
		F	32.2	30.2	29.1	28.5	28.2	28.1	28.3	28.6	29.1	30.2	
9	Q	451	396	353	317	286	260	238	220	204	179		
	F	30.1	27.8	26.3	25.4	24.7	24.4	24.2	24.2	24.3	24.7		
12	Q	484*	467	419	378	345	316	292	270	251	219		
	F	29.0	26.5	24.9	23.7	22.9	22.3	22.0	21.8	21.7	21.8		
16	Q	484*	484*	484*	453	415	383	355	330	309	273		
	F	28.1	25.5	23.7	22.4	21.4	20.7	20.2	19.9	19.7	19.4		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 7A—Q (plf) & F (1x10⁻⁶ inches), N DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION										
				6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"	
18	8	0	Q	395	339	297	264	237	216	198	183	169	148	
			F	35.3	37.4	39.9	42.6	45.5	48.6	51.7	54.9	58.2	64.8	
		1	Q	451	386	338	301	270	246	225	208	193	169	
			F	27.8	28.7	29.9	31.4	33.1	34.9	36.7	38.7	40.7	44.9	
		2	Q	506	434	380	337	304	276	253	234	217	190	
			F	24.2	24.4	25.0	25.9	27.0	28.2	29.5	30.8	32.2	35.2	
		3	Q	562	481	421	374	337	306	281	259	241	211	
			F	22.0	21.9	22.2	22.7	23.4	24.2	25.1	26.1	27.2	29.4	
		4	Q	617	529	463	411	370	336	308	285	264	231	
			F	20.6	20.2	20.3	20.5	21.0	21.6	22.3	23.0	23.9	25.6	
		6	Q	728	624	546	485	437	397	364	336	312	273	
			F	18.8	18.2	17.9	17.9	18.1	18.4	18.7	19.2	19.7	20.9	
	9	Q	845*	766	670	596	536	487	447	412	383	335		
		F	17.4	16.5	16.0	15.7	15.7	15.7	15.9	16.1	16.4	17.1		
	12	Q	845*	845*	795	706	636	578	530	489	454	397		
		F	16.5	15.5	14.9	14.5	14.3	14.2	14.2	14.3	14.5	14.9		
	16	Q	845*	845*	845*	845*	769	699	641	591	549	480		
		F	15.9	14.8	14.0	13.5	13.2	13.0	12.9	12.9	12.9	13.1		
	6	0	Q	373	319	279	248	224	203	186	172	160	140	
			F	38.4	41.0	44.0	47.3	50.7	54.2	57.9	61.6	65.4	73.1	
		1	Q	428	367	321	285	257	233	214	198	183	160	
			F	29.1	30.1	31.6	33.3	35.2	37.2	39.3	41.5	43.7	48.3	
		2	Q	483	414	362	322	290	264	242	223	207	181	
			F	24.8	25.2	26.0	27.0	28.1	29.4	30.8	32.3	33.8	37.0	
		3	Q	539	462	404	359	323	294	269	249	231	202	
			F	22.4	22.4	22.7	23.3	24.1	25.0	26.0	27.1	28.2	30.6	
		4	Q	594	509	445	396	356	324	297	274	255	223	
			F	20.9	20.6	20.7	21.0	21.5	22.1	22.9	23.7	24.5	26.4	
		6	Q	705	604	529	470	423	384	352	325	302	264	
			F	19.0	18.4	18.1	18.1	18.3	18.6	19.1	19.6	20.1	21.3	
		9	Q	833	734	653	580	522	475	435	402	373	327	
			F	17.4	16.6	16.1	15.9	15.8	15.9	16.0	16.3	16.6	17.3	
		12	Q	845*	839	753	681	621	566	518	479	444	389	
			F	16.6	15.6	15.0	14.6	14.4	14.3	14.3	14.4	14.6	15.0	
		16	Q	845*	845*	845*	795	728	671	622	579	539	472	
			F	15.9	14.8	14.0	13.6	13.2	13.1	13.0	12.9	13.0	13.2	
		4	0	Q	198	169	148	132	119	108	98.9	91.3	84.7	74.1
				F	57.0	62.7	68.8	75.2	81.7	88.3	95.1	102	109	123
			1	Q	253	217	190	169	152	138	127	117	108	94.9
				F	34.7	36.8	39.2	41.8	44.6	47.6	50.6	53.8	56.9	63.4
			2	Q	308	264	231	206	185	168	154	142	132	116
				F	27.6	28.4	29.6	31.0	32.7	34.4	36.3	38.2	40.2	44.3
	3		Q	364	312	273	243	218	198	182	168	156	136	
			F	24.0	24.3	24.9	25.7	26.8	27.9	29.2	30.5	31.9	34.8	
	4		Q	419	359	314	279	251	229	210	193	180	157	
			F	21.9	21.8	22.1	22.6	23.3	24.1	25.0	26.0	27.0	29.2	
	6		Q	520	454	397	353	318	289	265	245	227	199	
			F	19.5	19.0	18.9	19.0	19.3	19.7	20.2	20.8	21.4	22.8	
9	Q		644	568	507	457	416	380	348	321	298	261		
	F		17.7	16.9	16.5	16.3	16.3	16.4	16.6	16.9	17.2	18.0		
12	Q		751	670	603	547	500	460	425	395	369	323		
	F		16.8	15.8	15.2	14.8	14.7	14.6	14.7	14.8	15.0	15.5		
16	Q		845*	787	716	655	602	557	517	482	452	400		
	F		16.0	14.9	14.2	13.7	13.4	13.2	13.2	13.2	13.2	13.5		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 7A—Q (plf) & F (1x10⁻⁶ inches), N DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate)

SIDLAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
16	8	0	Q	499	428	374	333	299	272	249	230	214	187
			F	27.6	30.0	32.6	35.3	38.1	41.0	44.0	47.0	50.0	56.1
		1	Q	577	495	433	385	346	315	289	266	247	217
			F	21.0	22.2	23.7	25.3	27.0	28.8	30.7	32.6	34.5	38.4
		2	Q	656	562	492	437	393	358	328	303	281	246
			F	17.7	18.4	19.4	20.5	21.6	22.9	24.2	25.5	26.9	29.7
		3	Q	734	629	551	489	441	400	367	339	315	275
			F	15.8	16.2	16.8	17.6	18.4	19.4	20.3	21.4	22.4	24.6
		4	Q	813	697	609	542	488	443	406	375	348	305
			F	14.5	14.7	15.1	15.7	16.3	17.0	17.8	18.6	19.5	21.2
		6	Q	970	831	727	646	582	529	485	447	416	364
			F	12.9	12.9	13.0	13.3	13.7	14.1	14.6	15.2	15.8	17.0
	9	Q	1200	1030	904	803	723	657	602	556	516	452	
		F	11.7	11.4	11.3	11.4	11.5	11.8	12.1	12.4	12.8	13.6	
	12	Q	1300*	1220	1080	960	864	786	720	665	617	540	
		F	10.9	10.5	10.3	10.3	10.3	10.5	10.6	10.8	11.1	11.6	
	16	Q	1300*	1300*	1280	1150	1050	957	877	809	752	658	
		F	10.3	9.85	9.55	9.40	9.35	9.37	9.44	9.56	9.70	10.1	
	6	0	Q	470	403	353	313	282	256	235	217	201	176
			F	30.4	33.2	36.3	39.4	42.7	46.1	49.5	52.9	56.4	63.5
		1	Q	549	470	411	366	329	299	274	253	235	206
			F	22.1	23.5	25.2	27.0	28.9	30.9	32.9	35.0	37.1	41.4
		2	Q	627	537	470	418	376	342	313	289	269	235
			F	18.3	19.2	20.2	21.4	22.7	24.0	25.4	26.9	28.3	31.4
		3	Q	705	605	529	470	423	385	353	326	302	265
			F	16.2	16.6	17.3	18.1	19.1	20.1	21.1	22.2	23.3	25.6
		4	Q	784	672	588	523	470	428	392	362	336	294
			F	14.8	15.0	15.5	16.1	16.7	17.5	18.3	19.2	20.1	21.9
		6	Q	934	806	706	627	564	513	470	434	403	353
			F	13.1	13.0	13.2	13.5	13.9	14.4	14.9	15.5	16.1	17.4
	9	Q	1100	976	872	784	706	641	588	543	504	441	
		F	11.7	11.5	11.4	11.5	11.7	11.9	12.2	12.6	13.0	13.8	
	12	Q	1260	1120	1010	914	835	767	706	651	605	529	
		F	11.0	10.6	10.4	10.4	10.4	10.5	10.7	10.9	11.2	11.8	
	16	Q	1300*	1290	1170	1070	982	906	841	784	734	647	
		F	10.4	9.88	9.59	9.44	9.40	9.42	9.50	9.62	9.77	10.1	
	4	0	Q	249	214	187	166	150	136	125	115	107	93.5
			F	46.9	52.5	58.3	64.3	70.3	76.4	82.6	88.8	95.1	108
		1	Q	328	281	246	219	197	179	164	151	141	123
			F	27.1	29.4	31.9	34.6	37.3	40.2	43.0	45.9	48.9	54.9
		2	Q	406	348	305	271	244	222	203	188	174	152
			F	20.8	22.0	23.4	25.0	26.7	28.5	30.3	32.1	34.0	37.8
		3	Q	485	416	364	323	291	264	242	224	208	182
			F	17.6	18.3	19.2	20.3	21.4	22.7	24.0	25.3	26.6	29.4
		4	Q	563	483	422	375	338	307	282	260	241	211
			F	15.7	16.1	16.7	17.5	18.3	19.2	20.2	21.2	22.2	24.4
		6	Q	696	610	540	480	432	393	360	332	309	270
			F	13.6	13.6	13.9	14.3	14.7	15.3	15.9	16.6	17.3	18.7
9	Q	865	766	686	620	565	518	478	441	409	358		
	F	12.0	11.8	11.7	11.9	12.1	12.4	12.7	13.1	13.5	14.5		
12	Q	1010	903	816	742	680	626	580	540	505	446		
	F	11.1	10.8	10.6	10.6	10.7	10.8	11.0	11.3	11.5	12.2		
16	Q	1160	1060	966	887	819	759	706	660	619	550		
	F	10.5	9.98	9.71	9.58	9.54	9.58	9.67	9.81	9.97	10.4		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 7B—Q (plf) & F (1x10⁻⁶ inches), N DECK (NESTABLE SEAM), Fy = 33 ksi

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDELAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION									
				6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
22	8	0	Q	155	133	116	103	93.0	84.6	77.5	71.6	66.5	58.1
			F	98.4	103	109	116	124	132	140	149	157	175
		1	Q	182	156	137	121	109	99.4	91.1	84.1	78.1	68.3
			F	67.2	66.9	67.8	69.5	71.8	74.6	77.6	80.9	84.4	91.8
		2	Q	209	179	157	140	126	114	105	96.6	89.7	78.5
			F	57.6	55.7	55.0	55.1	55.8	57.0	58.4	60.1	62.0	66.2
		3	Q	237	203	177	158	142	129	118	109	101	88.7
			F	52.9	50.2	48.8	48.1	48.0	48.4	49.1	50.0	51.1	53.7
		4	Q	264	226	198	176	158	144	132	122	113	98.9
			F	50.2	47.0	45.1	44.0	43.5	43.4	43.6	44.0	44.7	46.4
		6	Q	318	273	239	212	191	174	159	147	136	119
			F	47.1	43.4	40.9	39.3	38.3	37.6	37.3	37.3	37.4	38.1
	9	Q	333*	333*	300	266	240	218	200	184	171	150	
		F	44.7	40.7	37.9	35.8	34.4	33.4	32.7	32.3	32.0	31.9	
	12	Q	333*	333*	333*	321	289	262	241	222	206	180	
		F	43.5	39.2	36.2	34.0	32.4	31.2	30.3	29.6	29.1	28.6	
	16	Q	333*	333*	333*	333*	333*	320	295	272	253	221	
		F	42.6	38.1	34.9	32.6	30.8	29.4	28.3	27.5	26.9	26.1	
	6	0	Q	146	125	110	97.4	87.7	79.7	73.0	67.4	62.6	54.8
			F	107	113	121	129	138	147	157	167	177	197
		1	Q	173	149	130	116	104	94.5	86.6	80.0	74.3	65.0
			F	68.9	68.9	70.1	72.1	74.7	77.7	81.1	84.7	88.4	96.4
		2	Q	200	172	150	134	120	109	100	92.5	85.9	75.2
			F	58.3	56.5	55.9	56.2	57.0	58.3	59.9	61.7	63.7	68.1
		3	Q	228	195	171	152	137	124	114	105	97.6	85.4
			F	53.3	50.7	49.3	48.7	48.7	49.1	49.9	50.8	52.0	54.8
		4	Q	255	218	191	170	153	139	127	118	109	95.5
			F	50.4	47.3	45.4	44.4	43.9	43.8	44.1	44.6	45.2	47.0
		6	Q	303	265	232	206	185	169	155	143	132	116
			F	47.2	43.5	41.1	39.5	38.5	37.9	37.6	37.5	37.7	38.4
	9	Q	333*	319	286	258	234	213	195	180	167	147	
		F	44.8	40.8	37.9	35.9	34.5	33.5	32.8	32.4	32.2	32.1	
	12	Q	333*	333*	331	301	276	254	235	218	202	177	
		F	43.5	39.3	36.3	34.1	32.4	31.2	30.3	29.7	29.2	28.7	
	16	Q	333*	333*	333*	333*	325	300	279	261	244	217	
		F	42.6	38.1	35.0	32.6	30.8	29.4	28.4	27.6	26.9	26.1	
	4	0	Q	77.5	66.5	58.1	51.7	46.5	42.3	38.8	35.8	33.2	29.1
			F	157	172	188	205	222	240	258	276	295	332
		1	Q	105	89.7	78.5	69.8	62.8	57.1	52.4	48.3	44.9	39.3
			F	75.7	76.8	79.2	82.3	86.1	90.2	94.7	99.4	104	115
		2	Q	132	113	98.9	87.9	79.1	71.9	65.9	60.9	56.5	49.5
			F	60.9	59.5	59.4	60.1	61.3	63.0	65.0	67.2	69.7	75.0
		3	Q	159	136	119	106	95.4	86.8	79.5	73.4	68.2	59.6
			F	54.7	52.2	51.1	50.7	50.9	51.6	52.6	53.8	55.1	58.4
		4	Q	186	160	140	124	112	102	93.1	86.0	79.8	69.8
			F	51.2	48.3	46.5	45.6	45.2	45.3	45.7	46.3	47.2	49.2
		6	Q	229	201	179	160	144	131	120	111	103	90.2
			F	47.6	44.0	41.6	40.1	39.1	38.6	38.4	38.4	38.6	39.5
9	Q	285	254	228	206	188	173	160	148	138	121		
	F	45.0	41.0	38.2	36.2	34.8	33.9	33.2	32.8	32.6	32.6		
12	Q	330	298	271	247	227	209	194	181	169	150		
	F	43.7	39.4	36.4	34.2	32.6	31.4	30.5	29.9	29.5	29.0		
16	Q	333*	333*	319	294	272	253	236	221	208	185		
	F	42.6	38.2	35.0	32.7	30.9	29.5	28.5	27.7	27.1	26.3		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 7B—Q (plf) & F (1x10⁻⁶ inches), N DECK (NESTABLE SEAM), Fy = 33 ksi (Continued)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate)

SIDELAP FASTENERS - #10 by 3/4" Self-Drilling Screws (THE SPACING OF SIDELAP FASTENERS MUST NOT EXCEED 36" O.C., INCREASE THE NUMBER OF INSTALLED FASTENERS PER SPAN AS REQUIRED).

DECK GAGE	NUMBER OF SUPPORT FASTENERS	NO. OF SIDELAP FASTENERS PER SPAN	Q (plf) F (10 ⁻⁶ in)	SPAN (ft-in) - 3 SPAN CONDITION										
				6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"	
18	8	0	Q	249	214	187	166	149	136	125	115	107	93.4	
			F	60.1	66.3	72.9	79.8	86.8	94.0	101	109	116	131	
		1	Q	304	261	228	203	183	166	152	141	130	114	
			F	35.5	37.6	40.1	42.9	45.8	48.9	52.1	55.3	58.6	65.3	
		2	Q	360	308	270	240	216	196	180	166	154	135	
			F	27.9	28.8	30.0	31.5	33.2	35.0	36.9	38.9	40.9	45.1	
		3	Q	415	356	311	277	249	226	208	192	178	156	
			F	24.2	24.5	25.1	26.0	27.1	28.3	29.5	30.9	32.3	35.3	
		4	Q	471	403	353	314	282	257	235	217	202	176	
			F	22.0	21.9	22.2	22.7	23.4	24.3	25.2	26.2	27.3	29.5	
		6	Q	581	498	436	387	349	317	291	268	249	218	
			F	19.6	19.1	18.9	19.0	19.3	19.8	20.3	20.9	21.5	23.0	
	9	Q	717	629	559	498	448	408	374	345	320	280		
		F	17.8	16.9	16.5	16.3	16.3	16.4	16.6	16.9	17.3	18.1		
	12	Q	836	740	661	597	543	498	457	422	391	343		
		F	16.8	15.8	15.2	14.9	14.7	14.6	14.7	14.8	15.0	15.5		
	16	Q	845*	845*	786	714	653	601	556	517	483	426		
		F	16.0	14.9	14.2	13.7	13.4	13.3	13.2	13.2	13.2	13.5		
	6	0	Q	235	201	176	156	141	128	117	108	101	88.0	
			F	66.7	74.1	81.8	89.8	97.9	106	115	123	132	149	
		1	Q	290	249	218	193	174	158	145	134	124	109	
			F	36.8	39.2	41.9	44.9	48.1	51.4	54.8	58.3	61.8	69.0	
		2	Q	345	296	259	230	207	188	173	159	148	130	
			F	28.5	29.4	30.8	32.4	34.1	36.0	38.0	40.1	42.3	46.6	
		3	Q	401	344	301	267	240	219	200	185	172	150	
			F	24.5	24.8	25.5	26.5	27.6	28.8	30.2	31.6	33.1	36.1	
		4	Q	456	391	342	304	274	249	228	211	195	171	
			F	22.2	22.2	22.5	23.0	23.8	24.6	25.6	26.6	27.7	30.0	
		6	Q	538	474	423	378	340	309	283	262	243	213	
			F	19.7	19.2	19.1	19.2	19.5	19.9	20.5	21.1	21.8	23.2	
		9	Q	644	575	518	471	430	396	366	338	314	275	
			F	17.8	17.0	16.6	16.4	16.4	16.5	16.7	17.0	17.4	18.2	
		12	Q	731	662	602	551	507	468	435	406	380	337	
			F	16.8	15.8	15.2	14.9	14.7	14.7	14.8	14.9	15.1	15.6	
		16	Q	822	756	697	644	597	556	519	486	457	407	
			F	16.0	14.9	14.2	13.7	13.4	13.3	13.2	13.2	13.3	13.5	
		4	0	Q	125	107	93.4	83.0	74.7	67.9	62.3	57.5	53.4	46.7
				F	107	121	135	150	164	179	194	209	225	255
			1	Q	180	154	135	120	108	98.1	90.0	83.0	77.1	67.5
				F	42.2	45.5	49.1	53.0	57.0	61.2	65.5	69.9	74.3	83.3
			2	Q	235	202	176	157	141	128	118	109	101	88.2
				F	30.5	31.8	33.5	35.4	37.5	39.8	42.1	44.5	47.0	52.1
	3		Q	291	249	218	194	174	159	145	134	125	109	
			F	25.6	26.1	26.9	28.0	29.3	30.8	32.3	33.9	35.5	39.0	
	4		Q	337	295	259	231	208	189	173	160	148	130	
			F	22.9	22.9	23.3	24.0	24.8	25.8	26.9	28.0	29.2	31.8	
	6		Q	418	370	331	298	272	249	228	211	196	171	
			F	20.0	19.5	19.5	19.7	20.0	20.5	21.1	21.8	22.5	24.1	
9	Q		518	466	422	385	353	325	301	281	263	232		
	F		18.0	17.2	16.8	16.6	16.6	16.8	17.0	17.4	17.7	18.6		
12	Q		594	543	498	459	424	394	367	343	322	286		
	F		16.9	15.9	15.4	15.0	14.9	14.9	14.9	15.1	15.3	15.8		
16	Q		667	621	579	540	505	473	444	418	394	353		
	F		16.1	15.0	14.3	13.8	13.5	13.4	13.3	13.3	13.4	13.7		

Values noted with * are governed by panel stability and shall not be increased for wind load cases.

TABLE 8A—BUCKLING LIMIT FOR ALLOWABLE DIAPHRAGM SHEAR

STEEL DECK TYPE	DECK GAGE	SPAN (ft)										
		3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	
		Q (plf)										
B DECK (STANDING SEAM)	22	722	722	722	722	722	722	722	722	629	528	
	20	1020	1020	1020	1020	1020	1020	1020	1020	999	693	
	18	1730	1730	1730	1730	1730	1730	1730	1730	1530	1060	
	16	2630	2630	2630	2630	2630	2630	2630	2630	2130	1480	
B DECK (NESTABLE SEAM)	22	725	725	725	725	725	725	725	725	697	484	
	20	1040	1040	1040	1040	1040	1040	1040	1040	932	647	
	18	1790	1790	1790	1790	1790	1790	1790	1760	1420	989	
	16	2720	2720	2720	2720	2720	2720	2720	2500	2020	1400	
Q_{LRFD} (plf)												
B DECK (STANDING SEAM)	22	1160	1160	1160	1160	1160	1160	1160	1160	1160	1010	845
	20	1630	1630	1630	1630	1630	1630	1630	1630	1600	1320	1110
	18	2770	2770	2770	2770	2770	2770	2770	2770	2450	2020	1700
	16	4210	4210	4210	4210	4210	4210	4210	4210	3410	2820	2370
B DECK (NESTABLE SEAM)	22	1160	1160	1160	1160	1160	1160	1160	1160	1120	922	774
	20	1670	1670	1670	1670	1670	1670	1670	1670	1490	1230	1040
	18	2860	2860	2860	2860	2860	2860	2860	2810	2280	1880	1580
	16	4360	4360	4360	4360	4360	4360	4360	3990	3230	2670	2250

Values in Tables 4 through 7 have already considered the values above.

TABLE 8B—BUCKLING LIMIT FOR ALLOWABLE DIAPHRAGM SHEAR

STEEL DECK TYPE	DECK GAGE	SPAN (ft)									
		6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	16'-0"
		Q (plf)									
N DECK (STANDING SEAM)	22	348	348	348	348	348	348	348	348	348	348
	20	495	495	495	495	495	495	495	495	495	495
	18	857	857	857	857	857	857	857	857	857	857
	16	1310	1310	1310	1310	1310	1310	1310	1310	1310	1310
N DECK (NESTABLE SEAM)	22	333	333	333	333	333	333	333	333	333	333
	20	484	484	484	484	484	484	484	484	484	484
	18	845	845	845	845	845	845	845	845	845	845
	16	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
Q_{LRFD} (plf)											
N DECK (STANDING SEAM)	22	1160	1160	1160	1160	1160	1010	845	720	621	475
	20	1630	1630	1630	1630	1600	1320	1110	945	815	624
	18	2770	2770	2770	2770	2450	2020	1700	1450	1250	955
	16	4210	4210	4210	4210	3410	2820	2370	2020	1740	1330
N DECK (NESTABLE SEAM)	22	1160	1160	1160	1160	1120	922	774	660	569	436
	20	1670	1670	1670	1670	1490	1230	1040	882	761	583
	18	2860	2860	2860	2810	2280	1880	1580	1350	1160	890
	16	4360	4360	4360	3990	3230	2670	2250	1910	1650	1260

Values in Tables 4 through 7 have already considered the values above.

TABLE 9—Q (plf), 1 1/2, 2 OR 3-INCH DEEP DECK WITH 3/4" WELDED STEEL HEADED STUD ANCHORS PER AISC 341-16¹⁻¹⁰

CONCRETE TYPE	THICKNESS ABOVE DECK (t _f , inches)	SPACING OF STEEL HEADED STUD ANCHORS (inches o.c.)						
		12	16	18	24	30	32	36
NW	2	3110 (1310)			2870 (1310)	2300 (1310)	2150 (1310)	1910 (1310)
	2 1/2	3890 (1640)		3830 (1640)	2870 (1640)	2300 (1640)	2150 (1640)	1910 (1640)
	3	4670 (1970)	4310 (1970)	3830 (1970)	2870 (1970)	2300 (1970)	2150 (1970)	1910 (1910)
	3 1/2	5450 (2300)	4310 (2300)	3830 (2300)	2870 (2300)	2300 (2300)	2150 (2150)	1910 (1910)
	4	5740 (2630)	4310 (2630)	3830 (2630)	2870 (2630)	2300 (2300)	2150 (2150)	1910 (1910)
	4 1/2	5740 (2960)	4310 (2960)	3830 (2960)	2870 (2870)	2300 (2300)	2150 (2150)	1910 (1910)
	6	5740 (3940)	4310 (3940)	3830 (3830)	2870 (2870)	2300 (2300)	2150 (2150)	1910 (1910)
LW (sand-lightweight)	2	2920 (1120)			2850 (1120)	2280 (1120)	2140 (1120)	1900 (1120)
	2 1/2	3650 (1400)		3800 (1400)	2850 (1400)	2280 (1400)	2140 (1400)	1900 (1400)
	3	4380 (1680)	4280 (1680)	3800 (1680)	2850 (1680)	2280 (1680)	2140 (1680)	1900 (1680)
	3 1/4	4740 (1820)	4280 (1820)	3800 (1820)	2850 (1820)	2280 (1820)	2140 (1820)	1900 (1820)
	3 1/2	5110 (1960)	4280 (1960)	3800 (1960)	2850 (1960)	2280 (1960)	2140 (1960)	1900 (1900)
	4 1/4	5700 (2370)	4280 (2370)	3800 (2370)	2850 (2370)	2280 (2280)	2140 (2140)	1900 (1900)
	6	5700 (3350)	4280 (3350)	3800 (3350)	2850 (2850)	2280 (2280)	2140 (2140)	1900 (1900)

Notes:

1. See Figure 1 for qualified steel floor decks.
2. See Section 3.0 steel headed stud anchor requirements and Figure 4 for details and minimum lengths.
3. Thickness above deck (t_f) is measured from the top of steel deck to the top of concrete.
4. Reinforcing must have minimum yield strength of 60,000 psi and meet the requirements of ACI 318 standard reinforcing bars or WRI standard welded wire reinforcement.
5. Reinforcement in each direction must have an area of 0.0025 times the gross area of the concrete the top of steel deck to use the tabulated values. 6x6-W4xW4 wire mesh meets this requirement for 2" and 2.5" thick slabs. 4x4-W4xW4 wire mesh meets this requirement for 3", 3.25", 3.5", and 4" thick slabs. 4x4-W4.5xW4.5 wire mesh meets this requirement for 4.25" and 4.5" thick slabs, 4x4-W6xW6 wire mesh meets this requirement for 6" slab.
6. For values in parentheses - reinforcement in each direction must have an area of 0.00075 times the area of concrete fill above the top of steel deck to use the tabulated values in parentheses. 6x6-W1.4xW1 wire mesh meets this requirement for 2", 2.5", and 3" slabs. 6x6-W2.1xW2.1 wire mesh meets this requirement for 3.25", 3.5", 4", 4.25", and 4.5" thick slabs. 6x6-W2.9xW2.9 meets this requirement for 6" slabs.
7. The thickness of the base metal to which the steel headed stud anchor is welded must not be less than 0.300 inch unless it is welded to a flange directly over a web. Reference AISC 360-16 Section I8.1.
8. The maximum center-to-center spacing of steel headed stud anchors must not exceed eight times the slab thickness h (see Figure 4) nor 36 inches. Reference AISC 360-16 Section I8.2d.
9. Tabulated values must be multiplied by φ/0.75, where φ < 0.75 per Section 12.5.3.2 of ACI 318-19.
10. For LRFD diaphragm design shear strength, multiply tabulated values by 1.5.

TABLE 10A - Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch SUBSTRATE); or SDK63075 (0.155 to 0.250 inch substrate); 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 x 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Normal Weight (145 pcf); f_c = 3000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,830	24	24	0.517	0.518	0.518	0.519	0.520	0.520	0.521	0.521	0.521	0.521
	20	2,880	18	24	0.516	0.517	0.518	0.519	0.519	0.519	0.520	0.520	0.521	0.521
	18	2,960	18	24	0.514	0.516	0.516	0.517	0.518	0.518	0.519	0.520	0.520	0.520
	16	3,050	18	24	0.512	0.514	0.515	0.516	0.517	0.517	0.518	0.519	0.519	0.519
2 1/2	22	3,360	18	20	0.415	0.416	0.416	0.416	0.417	0.417	0.417	0.418	0.418	0.418
	20	3,400	18	20	0.414	0.415	0.415	0.416	0.416	0.417	0.417	0.417	0.417	0.417
	18	3,490	18	20	0.413	0.414	0.415	0.415	0.416	0.416	0.416	0.417	0.417	0.417
	16	3,580	18	20	0.412	0.413	0.414	0.415	0.415	0.415	0.416	0.416	0.416	0.417
3	22	3,880	12	18	0.346	0.347	0.347	0.348	0.348	0.348	0.348	0.348	0.348	0.349
	20	3,930	12	18	0.346	0.347	0.347	0.347	0.348	0.348	0.348	0.348	0.348	0.348
	18	4,010	12	18	0.345	0.346	0.346	0.347	0.347	0.347	0.348	0.348	0.348	0.348
	16	4,100	12	16	0.344	0.345	0.346	0.346	0.347	0.347	0.347	0.347	0.347	0.348
3 1/2	22	4,410	12	16	0.297	0.298	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299
	20	4,450	12	16	0.297	0.298	0.298	0.298	0.298	0.298	0.299	0.299	0.299	0.299
	18	4,540	12	16	0.297	0.297	0.297	0.298	0.298	0.298	0.298	0.298	0.298	0.299
	16	4,630	12	14	0.296	0.297	0.297	0.297	0.298	0.298	0.298	0.298	0.298	0.298
4 1/2	22	5,460	12	12	0.232	0.232	0.232	0.232	0.233	0.233	0.233	0.233	0.233	0.233
	20	5,510	12	12	0.232	0.232	0.232	0.232	0.232	0.232	0.233	0.233	0.233	0.233
	18	5,590	12	12	0.231	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.233
	16	5,680	12	12	0.231	0.231	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232
5 1/4	22	6,250	6	10	0.199	0.199	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200
	20	6,290	6	10	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.200	0.200	0.200
	18	6,380	6	10	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
	16	6,470	6	10	0.198	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199

¹ Diaphragm shear capacity must be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 10B - Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate); 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 x 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Normal Weight (145 pcf); f_c = 3000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,830	24	24	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.523	0.523	0.523
	20	2,880	18	24	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522	0.522	0.523
	18	2,960	18	24	0.519	0.520	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522
	16	3,050	18	24	0.518	0.519	0.519	0.520	0.521	0.520	0.521	0.521	0.521	0.522
2 1/2	22	3,360	18	20	0.417	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419
	20	3,400	18	20	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419
	18	3,490	18	20	0.416	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418
	16	3,580	18	20	0.416	0.416	0.416	0.417	0.417	0.417	0.418	0.418	0.418	0.418
3	22	3,880	12	18	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349
	20	3,930	12	18	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349
	18	4,010	12	18	0.347	0.348	0.348	0.348	0.349	0.348	0.349	0.349	0.349	0.349
	16	4,100	12	16	0.347	0.348	0.348	0.348	0.348	0.348	0.348	0.349	0.349	0.349
3 1/2	22	4,410	12	16	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.300
	20	4,450	12	16	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	18	4,540	12	16	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	16	4,630	12	14	0.298	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299
4 1/2	22	5,460	12	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	5,510	12	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	5,590	12	12	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	16	5,680	12	12	0.232	0.232	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233
5 1/4	22	6,250	6	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	6,290	6	10	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	6,380	6	10	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	16	6,470	6	10	0.199	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 10C - Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch SUBSTRATE); or SDK63075 (0.155 to 0.250 inch substrate); 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 x 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Sand Lightweight (110 pcf); f'c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,500	24	26	0.517	0.518	0.518	0.519	0.520	0.520	0.521	0.521	0.521	0.521
	20	2,560	24	26	0.516	0.517	0.518	0.519	0.519	0.519	0.520	0.520	0.521	0.521
	18	2,660	24	24	0.514	0.516	0.516	0.517	0.518	0.518	0.519	0.520	0.520	0.520
	16	2,780	24	24	0.512	0.514	0.515	0.516	0.517	0.517	0.518	0.519	0.519	0.519
2 1/2	22	2,950	18	22	0.415	0.416	0.416	0.416	0.417	0.417	0.417	0.418	0.418	0.418
	20	3,000	18	22	0.414	0.415	0.415	0.416	0.416	0.417	0.417	0.417	0.417	0.417
	18	3,110	18	20	0.413	0.414	0.415	0.415	0.416	0.416	0.416	0.417	0.417	0.417
	16	3,230	18	20	0.412	0.413	0.414	0.415	0.415	0.415	0.416	0.416	0.416	0.417
3 1/4	22	3,620	18	18	0.320	0.321	0.321	0.321	0.321	0.321	0.322	0.322	0.322	0.322
	20	3,670	18	18	0.320	0.320	0.320	0.321	0.321	0.321	0.321	0.322	0.322	0.322
	18	3,780	18	18	0.319	0.320	0.320	0.320	0.321	0.321	0.321	0.321	0.321	0.321
	16	3,900	12	16	0.318	0.319	0.319	0.320	0.320	0.320	0.321	0.321	0.321	0.321
4 1/4	22	4,510	12	14	0.245	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246
	20	4,570	12	14	0.245	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246
	18	4,680	12	14	0.245	0.245	0.245	0.246	0.246	0.246	0.246	0.246	0.246	0.246
	16	4,790	12	14	0.244	0.245	0.245	0.245	0.246	0.246	0.246	0.246	0.246	0.246

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 10D - Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate); 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 x 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Sand Lightweight (110 pcf); f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,500	24	26	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.523	0.523	0.523
	20	2,560	24	26	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522	0.522	0.523
	18	2,660	24	24	0.519	0.520	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522
	16	2,780	24	24	0.518	0.519	0.519	0.520	0.521	0.520	0.521	0.521	0.521	0.522
2 1/2	22	2,950	18	22	0.417	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419
	20	3,000	18	22	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419
	18	3,110	18	20	0.416	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418
	16	3,230	18	20	0.416	0.416	0.416	0.417	0.417	0.417	0.418	0.418	0.418	0.418
3 1/4	22	3,620	18	18	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	20	3,670	18	18	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	18	3,780	18	18	0.321	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	16	3,900	12	16	0.321	0.321	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322
4 1/4	22	4,510	12	14	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	4,570	12	14	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247
	18	4,680	12	14	0.246	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247
	16	4,790	12	14	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.247

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 11A—Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate), 36/7 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Normal Weight (145 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,830	24	24	0.514	0.515	0.516	0.517	0.518	0.518	0.519	0.519	0.520	0.520
	20	2,880	18	24	0.512	0.514	0.515	0.516	0.517	0.517	0.518	0.519	0.519	0.519
	18	2,960	18	24	0.510	0.512	0.513	0.515	0.516	0.516	0.517	0.518	0.518	0.518
	16	3,050	18	24	0.508	0.510	0.511	0.513	0.514	0.515	0.516	0.517	0.517	0.517
2 1/2	22	3,360	18	20	0.413	0.414	0.414	0.415	0.416	0.416	0.416	0.417	0.417	0.417
	20	3,400	18	20	0.412	0.413	0.414	0.414	0.415	0.415	0.416	0.416	0.416	0.417
	18	3,490	18	20	0.410	0.412	0.413	0.413	0.414	0.414	0.415	0.415	0.416	0.416
	16	3,580	18	20	0.409	0.411	0.411	0.412	0.413	0.414	0.414	0.415	0.415	0.415
3	22	3,880	12	18	0.345	0.346	0.346	0.347	0.347	0.347	0.347	0.348	0.348	0.348
	20	3,930	12	18	0.344	0.345	0.346	0.346	0.347	0.347	0.347	0.347	0.347	0.348
	18	4,010	12	18	0.343	0.344	0.345	0.346	0.346	0.346	0.347	0.347	0.347	0.347
	16	4,100	12	16	0.342	0.344	0.344	0.345	0.345	0.346	0.346	0.346	0.347	0.347
3 1/2	22	4,410	12	16	0.296	0.297	0.297	0.298	0.298	0.298	0.298	0.298	0.298	0.299
	20	4,450	12	16	0.296	0.297	0.297	0.297	0.298	0.298	0.298	0.298	0.298	0.298
	18	4,540	12	16	0.295	0.296	0.296	0.297	0.297	0.297	0.298	0.298	0.298	0.298
	16	4,630	12	14	0.294	0.295	0.296	0.296	0.297	0.297	0.297	0.297	0.298	0.298
4 1/2	22	5,460	12	12	0.231	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.233
	20	5,510	12	12	0.231	0.231	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232
	18	5,590	12	12	0.231	0.231	0.231	0.231	0.232	0.232	0.232	0.232	0.232	0.232
	16	5,680	12	12	0.230	0.231	0.231	0.231	0.231	0.232	0.232	0.232	0.232	0.232
5 1/4	22	6,250	6	10	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
	20	6,290	6	10	0.198	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
	18	6,380	6	10	0.198	0.198	0.198	0.199	0.199	0.199	0.199	0.199	0.199	0.199
	16	6,470	6	10	0.198	0.198	0.198	0.198	0.199	0.199	0.199	0.199	0.199	0.199

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)
² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.
³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.
⁴ Requirement for force transfer to develop Q.

TABLE 11B—Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate), 36/7 pattern

SIDELAP FASTENERS Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Normal Weight (145 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,830	24	24	0.519	0.520	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522
	20	2,880	18	24	0.518	0.519	0.519	0.520	0.521	0.521	0.521	0.522	0.522	0.522
	18	2,960	18	24	0.517	0.518	0.518	0.519	0.520	0.520	0.520	0.521	0.521	0.521
	16	3,050	18	24	0.515	0.517	0.517	0.518	0.519	0.519	0.520	0.520	0.520	0.521
2 1/2	22	3,360	18	20	0.416	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418
	20	3,400	18	20	0.416	0.416	0.417	0.417	0.417	0.417	0.418	0.418	0.418	0.418
	18	3,490	18	20	0.415	0.416	0.416	0.416	0.417	0.417	0.417	0.417	0.417	0.418
	16	3,580	18	20	0.414	0.415	0.415	0.416	0.416	0.416	0.417	0.417	0.417	0.417
3	22	3,880	12	18	0.347	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349
	20	3,930	12	18	0.347	0.348	0.348	0.348	0.348	0.348	0.348	0.349	0.349	0.349
	18	4,010	12	18	0.346	0.347	0.347	0.348	0.348	0.348	0.348	0.348	0.348	0.348
	16	4,100	12	16	0.346	0.347	0.347	0.347	0.348	0.348	0.348	0.348	0.348	0.348
3 1/2	22	4,410	12	16	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	20	4,450	12	16	0.298	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	18	4,540	12	16	0.297	0.298	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299
	16	4,630	12	14	0.297	0.298	0.298	0.298	0.298	0.298	0.298	0.299	0.299	0.299
4 1/2	22	5,460	12	12	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	5,510	12	12	0.232	0.232	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	5,590	12	12	0.232	0.232	0.232	0.232	0.233	0.233	0.233	0.233	0.233	0.233
	16	5,680	12	12	0.232	0.232	0.232	0.232	0.232	0.232	0.233	0.233	0.233	0.233
5 1/4	22	6,250	6	10	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	6,290	6	10	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	6,380	6	10	0.199	0.199	0.199	0.199	0.199	0.199	0.200	0.200	0.200	0.200
	16	6,470	6	10	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 11C—Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate), 36/7 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,500	24	26	0.514	0.515	0.516	0.517	0.518	0.518	0.519	0.519	0.520	0.520
	20	2,560	24	26	0.512	0.514	0.515	0.516	0.517	0.517	0.518	0.519	0.519	0.519
	18	2,660	24	24	0.510	0.512	0.513	0.515	0.516	0.516	0.517	0.518	0.518	0.518
	16	2,780	24	24	0.508	0.510	0.511	0.513	0.514	0.515	0.516	0.517	0.517	0.517
2 1/2	22	2,950	18	22	0.413	0.414	0.414	0.415	0.416	0.416	0.416	0.417	0.417	0.417
	20	3,000	18	22	0.412	0.413	0.414	0.414	0.415	0.415	0.416	0.416	0.416	0.417
	18	3,110	18	20	0.410	0.412	0.413	0.413	0.414	0.414	0.415	0.415	0.416	0.416
	16	3,230	18	20	0.409	0.411	0.411	0.412	0.413	0.414	0.414	0.415	0.415	0.415
3 1/4	22	3,620	18	18	0.319	0.320	0.320	0.320	0.321	0.321	0.321	0.321	0.321	0.321
	20	3,670	18	18	0.318	0.319	0.319	0.320	0.320	0.320	0.321	0.321	0.321	0.321
	18	3,780	18	18	0.317	0.318	0.319	0.319	0.320	0.320	0.320	0.320	0.321	0.321
	16	3,900	12	16	0.317	0.318	0.318	0.319	0.319	0.319	0.320	0.320	0.320	0.320
4 1/4	22	4,510	12	14	0.245	0.245	0.245	0.246	0.246	0.246	0.246	0.246	0.246	0.246
	20	4,570	12	14	0.244	0.245	0.245	0.245	0.246	0.246	0.246	0.246	0.246	0.246
	18	4,680	12	14	0.244	0.244	0.245	0.245	0.245	0.245	0.245	0.246	0.246	0.246
	16	4,790	12	14	0.243	0.244	0.244	0.245	0.245	0.245	0.245	0.245	0.245	0.246

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 11D—Q (plf) & F (1x10⁻⁶ inches), B DECK (STANDING OR NESTABLE SEAM)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate), 36/7 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2	22	2,500	24	26	0.519	0.520	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522
	20	2,560	24	26	0.518	0.519	0.519	0.520	0.521	0.521	0.521	0.522	0.522	0.522
	18	2,660	24	24	0.517	0.518	0.518	0.519	0.520	0.520	0.520	0.521	0.521	0.521
	16	2,780	24	24	0.515	0.517	0.517	0.518	0.519	0.519	0.520	0.520	0.520	0.521
2 1/2	22	2,950	18	22	0.416	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418
	20	3,000	18	22	0.416	0.416	0.417	0.417	0.417	0.417	0.418	0.418	0.418	0.418
	18	3,110	18	20	0.415	0.416	0.416	0.416	0.417	0.417	0.417	0.417	0.417	0.418
	16	3,230	18	20	0.414	0.415	0.415	0.416	0.416	0.416	0.417	0.417	0.417	0.417
3 1/4	22	3,620	18	18	0.321	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	20	3,670	18	18	0.321	0.321	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322
	18	3,780	18	18	0.320	0.321	0.321	0.321	0.321	0.321	0.322	0.322	0.322	0.322
	16	3,900	12	16	0.320	0.320	0.320	0.321	0.321	0.321	0.321	0.321	0.321	0.322
4 1/4	22	4,510	12	14	0.246	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247
	20	4,570	12	14	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247
	18	4,680	12	14	0.245	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246
	16	4,790	12	14	0.245	0.245	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 12A—Q (plf) & F (1x10⁻⁶ inches), 2 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Normal Weight (145 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)										
					SPAN (ft-in) - 3 SPAN CONDITION										
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	
2	22	3,400	12	24	0.521	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523	
	20	3,450	12	24	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	
	18	3,540	12	22	0.520	0.520	0.521	0.522	0.522	0.522	0.522	0.522	0.523	0.523	
	16	3,640	12	22	0.519	0.520	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.522	
2 1/2	22	3,920	12	20	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	
	20	3,970	12	20	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	
	18	4,070	12	20	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419	0.419	
	16	4,170	12	20	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.418	
3	22	4,450	12	18	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.350	
	20	4,500	12	18	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	
	18	4,590	12	18	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349	
	16	4,690	12	16	0.348	0.348	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349	
3 1/2	22	4,970	12	16	0.299	0.299	0.299	0.299	0.299	0.300	0.300	0.300	0.300	0.300	
	20	5,020	12	16	0.299	0.299	0.299	0.299	0.299	0.299	0.300	0.299	0.300	0.300	
	18	5,120	12	16	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	
	16	5,220	12	16	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	
4 1/2	22	6,020	1 stud per flute + 1 additional stud every 168 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	
	20	6,080	1 stud per flute + 1 additional stud every 144 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	
	18	6,170	1 stud per flute + 1 additional stud every 108 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	
	16	6,270	1 stud per flute + 1 additional stud every 84 in.	12	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	
5 1/4	22	6,810	1 stud per flute + 1 additional stud every 36 in.	12	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	
	20	6,860	1 stud per flute + 1 additional stud every 36 in.	12	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	
	18	6,960	1 stud per flute + 1 additional stud every 36 in.	12	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	
	16	7,060	1 stud per flute + 1 additional stud every 36 in.	10	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 12B—Q (plf) & F (1x10⁻⁶ inches), 2 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Normal Weight (145 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,400	12	24	0.523	0.523	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
	20	3,450	12	24	0.523	0.523	0.523	0.524	0.523	0.524	0.524	0.524	0.524	0.524
	18	3,540	12	22	0.522	0.522	0.523	0.523	0.523	0.523	0.524	0.523	0.524	0.524
	16	3,640	12	22	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
2 1/2	22	3,920	12	20	0.419	0.419	0.419	0.419	0.419	0.419	0.420	0.419	0.420	0.420
	20	3,970	12	20	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.420
	18	4,070	12	20	0.419	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	16	4,170	12	20	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
3	22	4,450	12	18	0.349	0.349	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350
	20	4,500	12	18	0.349	0.349	0.349	0.350	0.350	0.350	0.350	0.350	0.350	0.350
	18	4,590	12	18	0.349	0.349	0.349	0.349	0.349	0.349	0.350	0.349	0.350	0.350
	16	4,690	12	16	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.350
3 1/2	22	4,970	12	16	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	20	5,020	12	16	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	18	5,120	12	16	0.299	0.299	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	16	5,220	12	16	0.299	0.299	0.299	0.300	0.299	0.300	0.300	0.300	0.300	0.300
4 1/2	22	6,020	1 stud per flute + 1 additional stud every 168 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	6,080	1 stud per flute + 1 additional stud every 144 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	6,170	1 stud per flute + 1 additional stud every 108 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	16	6,270	1 stud per flute + 1 additional stud every 84 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
5 1/4	22	6,810	1 stud per flute + 1 additional stud every 36 in.	12	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	6,860	1 stud per flute + 1 additional stud every 36 in.	12	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	6,960	1 stud per flute + 1 additional stud every 36 in.	12	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	16	7,060	1 stud per flute + 1 additional stud every 36 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 12C—Q (plf) & F (1x10⁻⁶ inches), 2 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	2,990	12	22	0.521	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
	20	3,060	12	22	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523
	18	3,180	12	20	0.520	0.520	0.521	0.522	0.522	0.522	0.522	0.522	0.523	0.523
	16	3,310	12	20	0.519	0.520	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.522
2 1/2	22	3,440	12	18	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	20	3,500	12	18	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419
	18	3,630	12	18	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419	0.419
	16	3,760	12	18	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.418
3 1/4	22	4,110	12	16	0.322	0.322	0.322	0.322	0.322	0.322	0.323	0.323	0.323	0.323
	20	4,170	12	16	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.323	0.323
	18	4,300	12	14	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	16	4,430	12	14	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
4 1/4	22	5,000	12	12	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	5,070	12	12	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	18	5,190	12	12	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	16	5,320	12	12	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247
5	22	5,670	12	12	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	20	5,740	1 stud per flute + 1 additional stud every 1284 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	18	5,860	1 stud per flute + 1 additional stud every 300 in.	10	0.209	0.209	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	16	5,990	1 stud per flute + 1 additional stud every 168 in.	10	0.209	0.209	0.209	0.210	0.210	0.210	0.210	0.210	0.210	0.210

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 12D—Q (plf) & F (1x10⁻⁶ inches), 2 DEEP DECK

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	2,990	12	22	0.523	0.523	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
	20	3,060	12	22	0.523	0.523	0.523	0.524	0.523	0.524	0.524	0.524	0.524	0.524
	18	3,180	12	20	0.522	0.522	0.523	0.523	0.523	0.523	0.524	0.523	0.524	0.524
	16	3,310	12	20	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
2 1/2	22	3,440	12	18	0.419	0.419	0.419	0.419	0.419	0.419	0.420	0.419	0.420	0.420
	20	3,500	12	18	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.420
	18	3,630	12	18	0.419	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	16	3,760	12	18	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
3 1/4	22	4,110	12	16	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	20	4,170	12	16	0.323	0.322	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	18	4,300	12	14	0.322	0.322	0.322	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	16	4,430	12	14	0.322	0.322	0.322	0.322	0.322	0.323	0.323	0.323	0.323	0.323
4 1/4	22	5,000	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	5,070	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	18	5,190	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	16	5,320	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
5	22	5,670	12	12	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	20	5,740	1 stud per flute + 1 additional stud every 1284 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	18	5,860	1 stud per flute + 1 additional stud every 300 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	16	5,990	1 stud per flute + 1 additional stud every 168 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 13A—Q (plf) & F (1x10⁻⁶ inches), 3 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Normal Weight (145 pcf), f'c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,900	12	20	0.521	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
	20	3,940	12	20	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523
	18	4,030	12	20	0.520	0.520	0.521	0.522	0.522	0.522	0.522	0.522	0.523	0.523
	16	4,120	12	20	0.519	0.520	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.522
2 1/2	22	4,420	12	18	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	20	4,470	12	18	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419
	18	4,560	12	18	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419	0.419
	16	4,650	12	18	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.418
3	22	4,950	12	16	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.350
	20	5,000	12	16	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349
	18	5,080	12	16	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349
	16	5,170	12	16	0.348	0.348	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349
3 1/2	22	5,480	12	14	0.299	0.299	0.299	0.299	0.299	0.300	0.300	0.300	0.300	0.300
	20	5,520	12	14	0.299	0.299	0.299	0.299	0.299	0.299	0.300	0.300	0.300	0.300
	18	5,610	12	14	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	16	5,700	12	14	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
4 1/2	22	6,530	1 stud per flute + 1 additional stud every 60 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	6,570	1 stud per flute + 1 additional stud every 48 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	6,660	1 stud per flute + 1 additional stud every 48 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	16	6,750	1 stud per flute + 1 additional stud every 36 in.	12	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
5 1/4	22	7,320	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	7,360	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	7,450	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	16	7,540	1 stud per flute + 1 additional stud every 24 in.	10	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 13B—Q (plf) & F (1x10⁻⁶ inches), 3 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL - Normal Weight (145 pcf), F_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q ¹ (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,900	12	20	0.523	0.523	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
	20	3,940	12	20	0.523	0.523	0.523	0.524	0.523	0.524	0.524	0.524	0.524	0.524
	18	4,030	12	20	0.522	0.522	0.523	0.523	0.523	0.523	0.524	0.523	0.524	0.524
	16	4,120	12	20	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
2 1/2	22	4,420	12	18	0.419	0.419	0.419	0.419	0.419	0.419	0.420	0.419	0.420	0.420
	20	4,470	12	18	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.420
	18	4,560	12	18	0.419	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	16	4,650	12	18	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
3	22	4,950	12	16	0.349	0.349	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350
	20	5,000	12	16	0.349	0.349	0.349	0.350	0.350	0.350	0.350	0.350	0.350	0.350
	18	5,080	12	16	0.349	0.349	0.349	0.349	0.349	0.349	0.350	0.349	0.350	0.350
	16	5,170	12	16	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.350
3 1/2	22	5,480	12	14	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	20	5,520	12	14	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	18	5,610	12	14	0.299	0.299	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	16	5,700	12	14	0.299	0.299	0.299	0.300	0.299	0.300	0.300	0.300	0.300	0.300
4 1/2	22	6,530	1 stud per flute + 1 additional stud every 60 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	6,570	1 stud per flute + 1 additional stud every 48 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	6,660	1 stud per flute + 1 additional stud every 48 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	16	6,750	1 stud per flute + 1 additional stud every 36 in.	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
5 1/4	22	7,320	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	7,360	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	7,450	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	16	7,540	1 stud per flute + 1 additional stud every 24 in.	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 13C—Q (plf) & F (1x10⁻⁶ inches), 3 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch substrate); or SDK63075 (0.155 to 0.250 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Sand Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,410	12	20	0.521	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
	20	3,470	12	18	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523
	18	3,580	12	18	0.520	0.520	0.521	0.522	0.522	0.522	0.522	0.522	0.523	0.523
	16	3,700	12	18	0.519	0.520	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.522
2 1/2	22	3,860	12	16	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	20	3,920	12	16	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419
	18	4,030	12	16	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419	0.419
	16	4,140	12	16	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.418
3 1/4	22	4,530	12	14	0.322	0.322	0.322	0.322	0.322	0.322	0.323	0.323	0.323	0.323
	20	4,590	12	14	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.323	0.323
	18	4,700	12	14	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	16	4,810	12	14	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
4 1/4	22	5,420	12	12	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	5,480	12	12	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	18	5,590	12	12	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	16	5,710	1 stud per flute + 1 additional stud every 8064 in.	10	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247
5	22	6,090	1 stud per flute + 1 additional stud every 120 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	20	6,150	1 stud per flute + 1 additional stud every 108 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	18	6,260	1 stud per flute + 1 additional stud every 84 in.	10	0.209	0.209	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	16	6,380	1 stud per flute + 1 additional stud every 72 in.	10	0.209	0.209	0.209	0.210	0.210	0.210	0.210	0.210	0.210	0.210

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 13D—Q (plf) & F (1x10⁻⁶ inches), 3 INCH DEEP DECK

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate), 24/3 and 36/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Sand Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,410	12	20	0.523	0.523	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
	20	3,470	12	18	0.523	0.523	0.523	0.524	0.523	0.524	0.524	0.524	0.524	0.524
	18	3,580	12	18	0.522	0.522	0.523	0.523	0.523	0.523	0.524	0.523	0.524	0.524
	16	3,700	12	18	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
2 1/2	22	3,860	12	16	0.419	0.419	0.419	0.419	0.419	0.419	0.420	0.419	0.420	0.420
	20	3,920	12	16	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.420
	18	4,030	12	16	0.419	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	16	4,140	12	16	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
3 1/4	22	4,530	12	14	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	20	4,590	12	14	0.323	0.322	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	18	4,700	12	14	0.322	0.322	0.322	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	16	4,810	12	14	0.322	0.322	0.322	0.322	0.322	0.323	0.323	0.323	0.323	0.323
4 1/4	22	5,420	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	5,480	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	18	5,590	12	12	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	16	5,710	1 stud per flute + 1 additional stud every 8064 in.	10	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
5	22	6,090	1 stud per flute + 1 additional stud every 120 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	20	6,150	1 stud per flute + 1 additional stud every 108 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	18	6,260	1 stud per flute + 1 additional stud every 84 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210
	16	6,380	1 stud per flute + 1 additional stud every 72 in.	10	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210	0.210

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)
² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.
³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.
⁴ Requirement for force transfer to develop Q.

TABLE 14A—Q (plf) & F (1x10⁶ inches), N DECK (STANDING OR NESTABLE)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch SUBSTRATE); or SDK63075 (0.155 to 0.250 inch substrate); 24/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Normal weight (145 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,120	16	22	0.520	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523
	20	3,160	16	22	0.520	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.522	0.523
	18	3,230	16	22	0.519	0.519	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522
	16	3,310	16	22	0.518	0.518	0.519	0.520	0.520	0.521	0.521	0.521	0.521	0.522
2 1/2	22	3,650	16	20	0.417	0.417	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419
	20	3,690	16	18	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419	0.419
	18	3,760	16	18	0.416	0.417	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418
	16	3,830	16	18	0.416	0.416	0.417	0.417	0.417	0.417	0.418	0.418	0.418	0.418
3	22	4,170	16	16	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349
	20	4,210	16	16	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349	0.349	0.349
	18	4,280	16	16	0.347	0.348	0.348	0.348	0.348	0.349	0.349	0.349	0.349	0.349
	16	4,360	8	16	0.347	0.347	0.348	0.348	0.348	0.348	0.348	0.348	0.349	0.349
3 1/2	22	4,700	8	14	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.300	0.300
	20	4,740	8	14	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	18	4,810	8	14	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
	16	4,880	8	14	0.298	0.298	0.298	0.299	0.299	0.299	0.299	0.299	0.299	0.299
4 1/2	22	5,750	8	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	5,790	8	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	5,860	8	12	0.232	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	16	5,940	8	12	0.232	0.232	0.232	0.233	0.233	0.233	0.233	0.233	0.233	0.233
5 1/4	22	6,540	8	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	6,580	8	10	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	6,650	8	10	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	16	6,720	8	10	0.199	0.199	0.199	0.199	0.200	0.200	0.200	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 14B—Q (plf) & F (1x10⁶ inches), N DECK (STANDING OR NESTABLE)

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate); 24/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Normal weight (145 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	3,120	16	22	0.523	0.523	0.523	0.523	0.523	0.524	0.524	0.524	0.524	0.524
	20	3,160	16	22	0.522	0.522	0.523	0.523	0.523	0.523	0.524	0.523	0.524	0.524
	18	3,230	16	22	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
	16	3,310	16	22	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523
2 1/2	22	3,650	16	20	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.420
	20	3,690	16	18	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	18	3,760	16	18	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	16	3,830	16	18	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419
3	22	4,170	16	16	0.349	0.349	0.349	0.350	0.349	0.350	0.350	0.350	0.350	0.350
	20	4,210	16	16	0.349	0.349	0.349	0.349	0.349	0.349	0.350	0.350	0.350	0.350
	18	4,280	16	16	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.350
	16	4,360	8	16	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349	0.349
3 1/2	22	4,700	8	14	0.299	0.299	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	20	4,740	8	14	0.299	0.299	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
	18	4,810	8	14	0.299	0.299	0.299	0.299	0.299	0.300	0.300	0.300	0.300	0.300
	16	4,880	8	14	0.299	0.299	0.299	0.299	0.299	0.299	0.300	0.299	0.300	0.300
4 1/2	22	5,750	8	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	20	5,790	8	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	18	5,860	8	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
	16	5,940	8	12	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233	0.233
5 1/4	22	6,540	8	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	20	6,580	8	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	18	6,650	8	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	16	6,720	8	10	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 14C—Q (plf) & F (1x10⁶ inches), N DECK (STANDING OR NESTABLE)

SUPPORT FASTENERS - PNEUTEK K66062 or K66075 (0.281 inch and up substrate); K64062 or K64075 (0.187 to 0.312 inch SUBSTRATE); or SDK63075 (0.155 to 0.250 inch substrate); 24/4 pattern

SIDLAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Sand Lightweight (110 pcf), f_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	2,730	24	24	0.520	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523
	20	2,780	24	24	0.520	0.520	0.521	0.521	0.522	0.522	0.522	0.522	0.522	0.523
	18	2,870	16	22	0.519	0.519	0.520	0.521	0.521	0.521	0.522	0.522	0.522	0.522
	16	2,970	16	22	0.518	0.518	0.519	0.520	0.520	0.521	0.521	0.521	0.521	0.522
2 1/2	22	3,180	16	20	0.417	0.417	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419
	20	3,230	16	20	0.417	0.417	0.418	0.418	0.418	0.418	0.418	0.418	0.419	0.419
	18	3,320	16	20	0.416	0.417	0.417	0.417	0.417	0.418	0.418	0.418	0.418	0.418
	16	3,420	16	20	0.416	0.416	0.417	0.417	0.417	0.417	0.418	0.418	0.418	0.418
3 1/4	22	3,850	16	16	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.323
	20	3,900	16	16	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	18	3,990	16	16	0.321	0.321	0.321	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	16	4,090	16	16	0.321	0.321	0.321	0.321	0.321	0.322	0.322	0.322	0.322	0.322
4 1/4	22	4,740	8	14	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	4,790	8	14	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247
	18	4,880	8	14	0.246	0.246	0.246	0.246	0.246	0.246	0.247	0.247	0.247	0.247
	16	4,980	8	12	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.246	0.247

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

TABLE 14D—Q (plf) & F (1x10⁻⁶ inches), N DECK (STANDING OR NESTABLE), F_y = 33 ksi

SUPPORT FASTENERS - PNEUTEK SDK61075 (0.113 to 0.155 inch substrate); 24/4 pattern

SIDELAP FASTENERS - Button Punches, #10 by 3/4" Self-Drilling Screws, or Welds @ 36" o.c.

CONCRETE FILL – Sand Lightweight (110 pcf), F_c = 3,000 psi

FASTENERS AT EDGE AND END OF DIAPHRAGM - 3/4" Diameter Steel Headed Stud Anchors, F_u = 65 ksi, AWS D1.1, Type B³

DEPTH OF FILL ABOVE TOP OF DECK (inches)	DECK GAGE	Q (plf)	STUD SPACING ⁴ PERPENDICULAR TO FLUTES (inches) ³	STUD SPACING ⁴ PARALLEL TO FLUTES (inches) ^{2,3}	F (10 ⁻⁶ in.)									
					SPAN (ft-in) - 3 SPAN CONDITION									
					6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
2	22	2,730	24	24	0.523	0.523	0.523	0.523	0.523	0.524	0.524	0.524	0.524	0.524
	20	2,780	24	24	0.522	0.522	0.523	0.523	0.523	0.523	0.524	0.523	0.524	0.524
	18	2,870	16	22	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523	0.523	0.523
	16	2,970	16	22	0.521	0.521	0.522	0.522	0.522	0.523	0.523	0.523	0.523	0.523
2 1/2	22	3,180	16	20	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.420
	20	3,230	16	20	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	18	3,320	16	20	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419	0.419	0.419
	16	3,420	16	20	0.418	0.418	0.418	0.418	0.418	0.419	0.419	0.419	0.419	0.419
3 1/4	22	3,850	16	16	0.322	0.322	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	20	3,900	16	16	0.322	0.322	0.322	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	18	3,990	16	16	0.322	0.322	0.322	0.322	0.322	0.323	0.323	0.323	0.323	0.323
	16	4,090	16	16	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.323	0.323
4 1/4	22	4,740	8	14	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	20	4,790	8	14	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	18	4,880	8	14	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247
	16	4,980	8	12	0.246	0.246	0.247	0.247	0.247	0.247	0.247	0.247	0.247	0.247

¹ Diaphragm shear capacity shall be limited by AISC 341-16 Section D1.5, where AISC 341-16 is applicable. (see Table 9)

² Spacing for perimeter fastening along edges parallel to deck flutes may be increased with a corresponding linear reduction in allowable diaphragm capacity in accordance with AISI S310-20 Section D4.4.

³ Pneutek fasteners with adequate available strength may be used in lieu of headed studs to transfer shear forces in and out of the diaphragm.

⁴ Requirement for force transfer to develop Q.

**FASTENER
PATTERN**

**STEEL ROOF DECKS AND
CONCRETE-FILLED FLOOR DECKS**

**CONCRETE-FILLED
STEEL FLOOR DECKS**

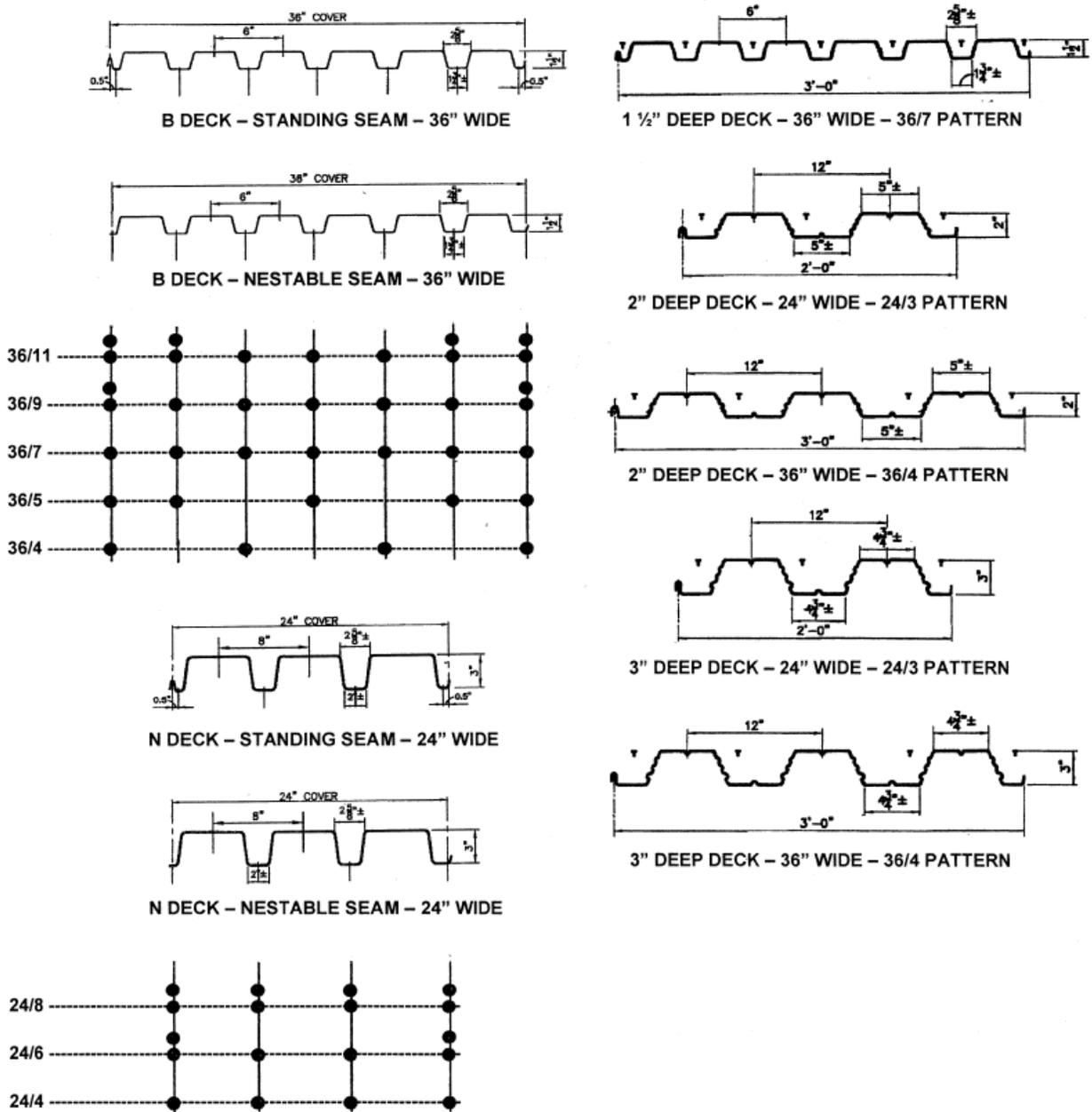
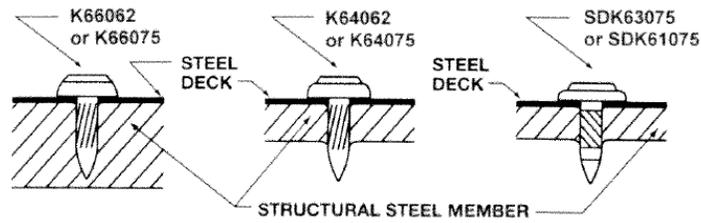


FIGURE 1—PNEUTEK SUPPORT FASTENER PATTERNS AND DECK PROFILES



DIAPHRAGM EDGES

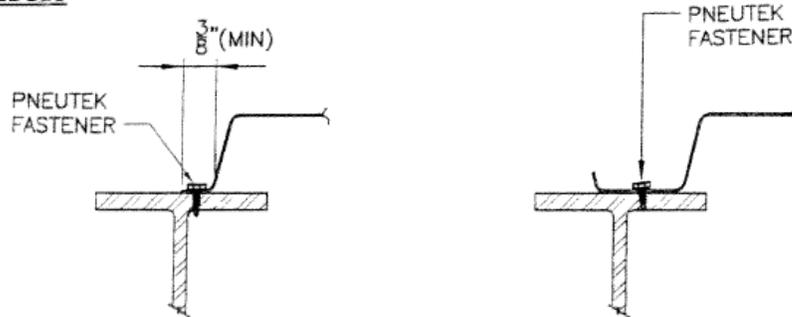
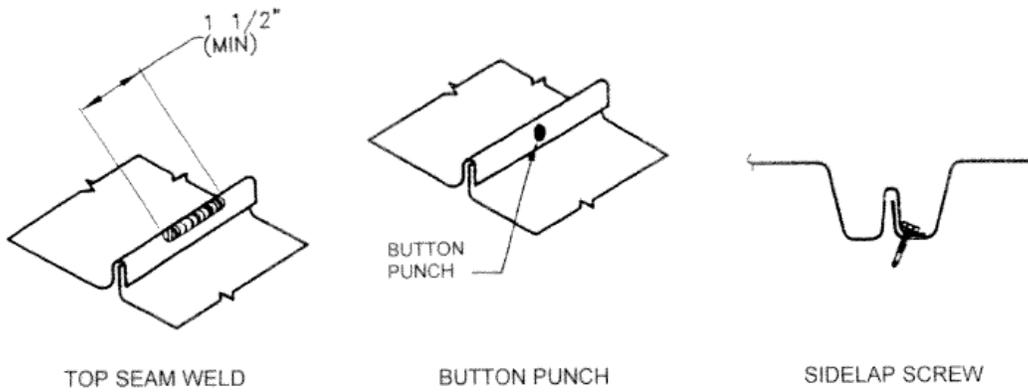


FIGURE 2—PNEUTEK FRAME (SUPPORT) FASTENER DETAILS

STANDING SEAM SIDELAPS



NESTABLE SIDELAPS

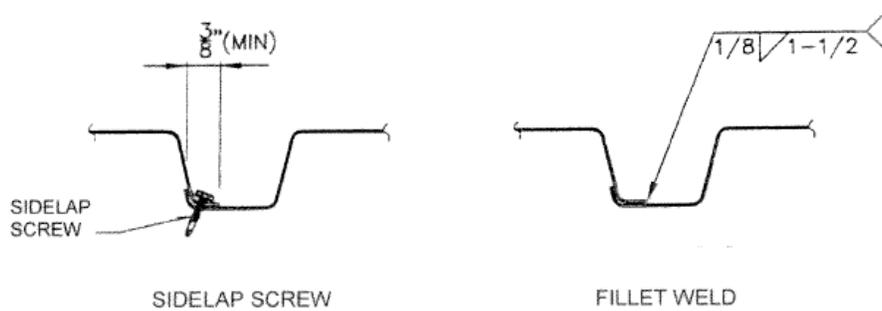
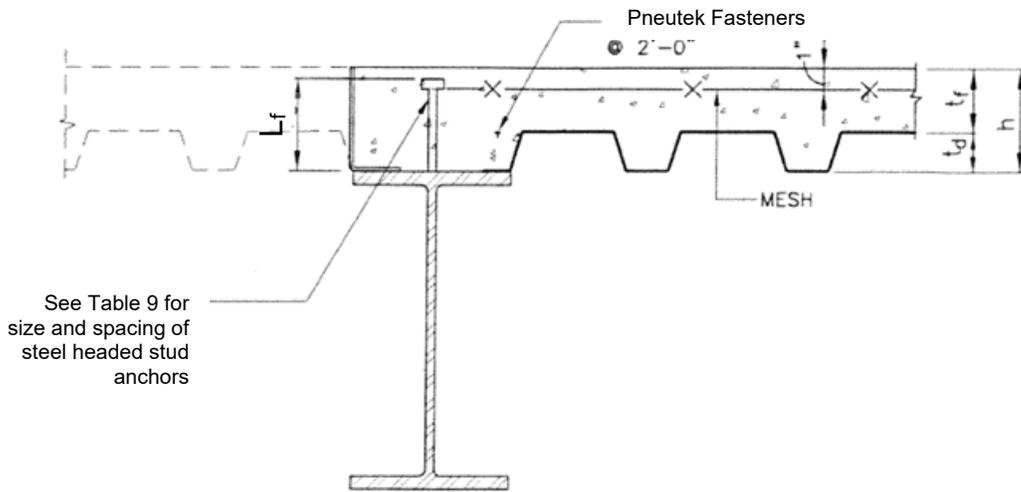
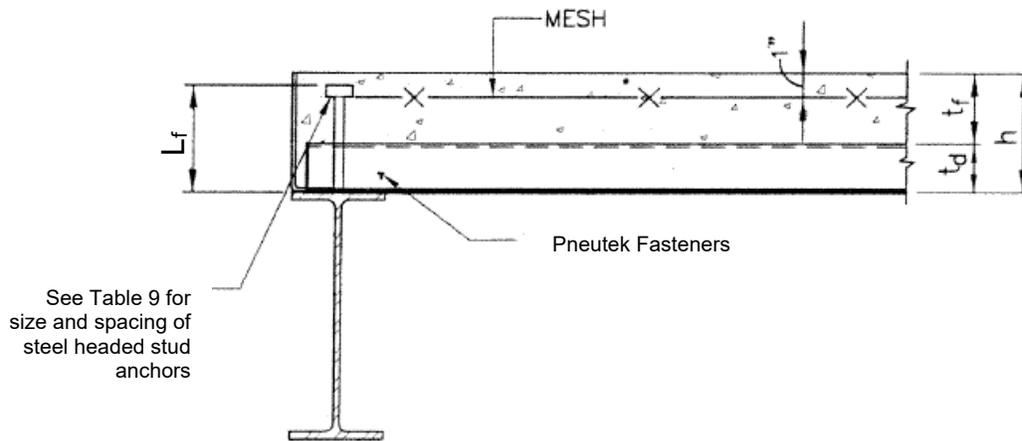


FIGURE 3—SIDELAP FASTENER DETAILS



STEEL HEADED STUD ANCHORS AT SUPPORTS PARALLEL TO FLUTES



STEEL HEADED STUD ANCHORS AT SUPPORTS PERPENDICULAR TO FLUTES

DEPTH OF STEEL DECK (t_d , inch)	MINIMUM LENGTH OF STUD (L_f , inch)
1 1/2	3
2	3 1/2
3	4 1/2

TYPICAL STEEL HEADED STUD ANCHOR LENGTH

FIGURE 4—STEEL HEADED STUD ANCHORS DETAILS