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VERCO® STEEL DECKS:

• PLB™, HSB®, PLN3™, HSN3™, PLN™-24, and N-24 Roof Deck Panels

• PLB™ AC, HSB® AC, PLN3™ AC, HSN3™ AC, PLN™-24 AC, and N-24 AC Acoustical and Fully Perforated Roof Deck Panels

• PLB™, B, BR, PLN3™, N3, PLN™, N, PLW2™, W2, PLW3™, and W3 FORMLOK™ Deck Panels

• 9/16-inch (Shallow) VERCOR, 1-5/16-inch (Deep) VERCOR, and 1-5/16-inch (Deep) VERCOR™ Ventlok Deck Panels

• PLB™-CD, HSB®-CD, PLN3™-CD, HSN3™-CD, PLN™-24-CD, and N-24-CD Cellular Roof Deck Panels; and PLB™-CD, BCD, PLN3™-CD, N3-CD, PLN™-CD, NCD, PLW2™-CD, W2-CD, PLW3™-CD, and W3-CD FORMLOK™ Cellular Deck Panels

• PLB™-CD AC, HSB®-CD AC, PLN3™-CD AC, HSN3™-CD AC, PLN™-24-CD AC, and N-24-CD AC Acoustical Cellular Roof Deck Panels; and PLB™-CD AC, BCD AC, PLN3™-CD AC, N3CD AC, PLN™-CD AC, NCD AC, PLW2™-CD AC, W2-CD AC, PLW3™-CD AC, and W3-CD AC FORMLOK™ Acoustical Cellular Deck Panels

CSI SECTION: 05 05 23 – Metal Fastenings
05 31 00 - Steel Decking
05 31 13 - Steel Floor Decking
05 31 23 - Steel Roof Decking

1.0 RECOGNITION

Verco® Decking, Inc. Verco® Steel Decks recognized in this report has been evaluated for use as floor and roof systems to resist the code-required appropriate floor and roof loads. The structural performance properties of the Verco Steel Decks comply with the intent of the provisions of the following codes and regulations:

- 2015, 2012, and 2009 International Building Code® (IBC)
- 2015, 2012, and 2009 International Residential Code® (IRC)
- 2016 California Building Code® (CBC) – supplement attached
- 2017 Los Angeles Building Code® (LABC) – supplement attached
- 2017 City of Los Angeles Residential Code® (LARC) – supplement attached

2.0 LIMITATIONS

Use of the Verco Steel Deck Panels recognized in this report is subject to the following limitations:

2.1 The steel deck panels are manufactured, identified, and installed in accordance with this report, the accompanying document titled Tables and Figures-IAPMO UES ER-217, issued 11/2011, and Verco's published installation instructions. If there is a conflict between Verco's published installation instructions and this report with its accompanying tables and figures, the more restrictive governs.

2.2 Vertical load design of deck panels without concrete fill shall be based on the section properties in Tables 5 and 13, and reaction loads in Table 8 of this report.

2.3 Where the deck panels are used as diaphragms:

2.3.1 The one-third stress increase permitted for Allowable Stress Design, for load combinations in IBC Section 1605.3.2 including wind or seismic forces, shall not be used for shear values in the diaphragm tables.

2.3.2 Allowable shear values shall be as set forth in the tables accompanying this report for the type of deck panel involved.

2.3.3 Diaphragm deflections shall not exceed the permitted relative deflections of walls between the diaphragm level and the floor below.

2.3.4 Diaphragms may be zoned by varying deck gage and/or connections across a diaphragm to meet varying shear and stiffness (flexibility) demands.

2.4 Concrete-filled composite sections shall not be used to support loads that are predominantly vibratory.

2.5 Fire-resistance-rated assemblies are as described in Section 3.3 of this report or as set forth in Table 720.1(3) 2009 IBC or Table 721.1(3) 2012 and 2015 IBC,

provided the fill type, thickness, metal gage, and construction are as specified therein.

2.6 Roof systems with steel deck panels directly exposed to the exterior shall be attached with stainless steel fasteners or galvanized fasteners when covered with either a stainless steel sealing cap, corrosion resistant paint, or sealant. Welds shall not be permitted to attach steel roof panels directly exposed to the exterior.

2.7 Special inspection shall be provided in accordance with Section 3.4 of this report.

2.8 Calculations and details demonstrating that the loads applied to the decks comply with this report shall be submitted to the building official for approval. Calculations and drawings shall be prepared, signed, and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

2.9 Bundles marked in accordance with Section 7.0 of this report provide the material traceability required to conform to the requirements of Table 1704.3, Item 3 of the 2009 IBC, Table 1705.2.2 Item 1 of the 2012 IBC, or SDI QA/QC for buildings under the 2015 IBC.

2.10 For fire resistance-rated construction in Sections 3.3.1, 3.3.2 and 3.3.3.1 of this report, Verco UL File Card CHWX.R6149 may be referenced for additional information.

2.11 For openings, holes or penetrations through the steel deck, the registered design professional shall submit design calculations and opening details to the building official for approval based on principles of mechanics.

2.12 The steel deck panels are produced in Phoenix, Arizona, Antioch, California, and Fontana, California.

2.13 The cellular deck panels are fabricated at the Antioch, California.

2.14 Sammys X-Press SXP Anchors are produced in Elk Grove Village, Illinois.

3.0 DESIGN AND INSTALLATION

3.1 Design

3.1.1 General: The accompanying document titled Tables and Figures-IAPMO UES Evaluation Report No. ER-217, 174 pages, issued 11/2011 is a part of this report. Section properties and minimum design base-metal thicknesses are shown in Tables 5 and 8 of this report, and deck profiles are shown in Figures 4 and 17 of this report. Allowable reactions based on web crippling are shown in Table 8 of this report, and are applicable to bare deck panels, and to concrete-filled composite deck panels during the construction phase only, prior to the concrete achieving the minimum specified compressive strength. Tables 15 through 20 and 12 through 54 of this report describe allowable diaphragm shear values for each roof and composite deck panel type and superimposed loads for each composite deck panel type. The General Notes preceding the tables provide additional information.

3.1.1.1 Design of Steel Decks Used as a Horizontal or Sloped Diaphragm: As defined in Sections 202 and 1602 of the IBC, the diaphragm design shall include the following considerations:

1. Diaphragm Length and width shall be limited by one of the following:
   a. Engineering mechanics
   b. Applied loads
   c. Shear capacity of the diaphragm
   d. Diaphragm shear deflection limited by ASCE 7 Section 12.8.6 or 12.12
   e. Horizontal shear strength shall be distributed in accordance with ASCE 7 Section 12.8.4, 12.9.5, or 12.14.8.3.

2. Shear deflection shall be based on the shear stiffness for the steel deck diaphragm and equations of mechanics. Sample diaphragm shear web deflection equations shown in Table 14 of this report may be used.

3. Diaphragm deflections shall not exceed the permitted relative deflections of walls between the diaphragm level and the floor below.

3.1.1.2 Design of Steel Decks Used for Anchorage of Structural Walls and Transfer of Design Forces into Diaphragms: The design for anchorage of structural walls and transfer of anchorage forces into the diaphragm shall be in accordance with Section 12.11.2 of ASCE 7, subject to the following limitations:

1. Transfer of anchorage forces into diaphragm shall be in the direction parallel to the flutes (ribs) of the steel deck.

2. When acting as the continuous ties or struts between diaphragm chords, anchorage forces shall be distributed

into the diaphragm in the direction parallel to the flutes (ribs) of the steel deck.

3. Combined axial load and bending shall be considered in accordance with Section C5 of AISI S100 to determine the strength of steel deck (without concrete fill) used to resist wall anchorage forces or to resist continuous tie forces parallel to the flutes (ribs).

4. Hilti fasteners, Pneutek fasteners, ShearFlex fasteners, self-drilling screws, or welded connections described in this report are permitted to provide positive means of attachment to satisfy the connection requirements in ASCE 7 Section 12.11.2.2.1.

3.1.2 Concrete Diaphragms with Stud Shear Connectors: Allowable diaphragm shear strength and details for concrete diaphragms with stud shear connectors and deck panel Types PLB, B, BR, PLB-CD, BCD, PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, W3CD, PLN3, N3, PLN3-CD, N3-CD, PLN, N, PLN-CD, NCD, and 1-5/16-inch (Deep) VERCOR are shown in Table 22 and Figure 18 of this report.

3.1.3 PunchLok® II System Fastened with Welds: Allowable diaphragm shear strength and flexibility factors for PLW2 and PLW3 FORMLOK deck panels welded to supports without concrete and with side laps connected with VSC2 connections are shown in Tables 23 and 25 of this report.

Allowable diaphragm shear strength and flexibility factors for PLB, PLN3 and PLN-24 roof or FORMLOK deck panels welded to supports without structural concrete fill, using side laps connected with VSC2 connections, are shown in Tables 27, 36, and 44 of this report.

Allowable diaphragm shear strength and flexibility factors for PLB-CD, PLN3-CD, and PLN-24-CD roof deck panels with welds to supports are shown in Tables 32, 40, and 48 of this report, respectively. Diaphragm shear strength and flexibility factors shown in Tables 23, 25, 28 to 30, 37 to 39, and 45 to 47 of this report may also be applicable to cellular sections with a fluted top section of the same profile but with the gage of the flat bottom sheet, with or without acoustical perforations in the flat bottom section of the cellular deck. Similarly, the top seam weld values from Tables 33, 41, and 49 of this report may also be applied.

3.1.4 PLB™-36, PLN3™ and Deck Panels with the PunchLok® II System Fastened with Hilti Fasteners: Allowable diaphragm shear strength and flexibility factors for PLB-36, PLN3 and PLN-24 roof deck fastened to supports with the Hilti fasteners described in Section 4.9 of this report, with side laps connected with VSC2 connections, are shown in Tables 28, 37, and 45 of this report. The appropriate Hilti fastener shall be selected based on the actual substrate thickness, as noted in the table headings. Allowable tension loads for the steel deck panel-to-support connections using Hilti fasteners are shown in Table 3 of this report.

3.1.5 PLB™-36, PLN3™ and PLN™-24 Deck Panel with the PunchLok® II System Fastened with Pneutek Fasteners: Allowable diaphragm shear strength and flexibility factors for PLB-36, PLN3 and PLN-24 roof deck fastened to supports with the Pneutek fasteners described in Section 4.10 of this report, with side laps connected with VSC2 connections, are shown in Tables 29, 38, and 46 of this report. The appropriate Pneutek fastener shall be selected based on the actual substrate thickness, as noted in the table headings. Allowable tension loads for the steel deck panel-to-support connections using Pneutek fasteners are shown in Table 3 of this report.

3.1.6 SHEARTRANZ® II-42 System: Allowable diaphragm shear strength and flexibility factors for ShearTranz II-42 with PLB-36 deck panels welded to supports with side laps connected with VSC2 connections are shown in Table 31 of this report.

3.1.7 Concrete-filled Steel Deck with Shearflex Standoff Screws:

3.1.7.1 Composite Construction: Composite Beams with Shearflex Standoff Screws: Use of Shearflex Standoff Screws described in Section 4.11 of this report used as part of composite beam system is outside the scope of this report.

3.1.7.2 Concrete Diaphragms: Shearflex Standoff Screws described in Section 4.11 of this report may be used to fasten concrete-filled 1-5/16" (Deep) VERCOR, 9/16" VERCOR, PLB FORMLOK, and B FORMLOK deck panels to supporting members. Allowable diaphragm shear strengths are shown in Tables 52 to 55 of this report. The vertical load capacity of the non-composite VERCOR deck shall be determined in accordance with Section 3.1.1 of this report. The vertical load capacity of composite FORMLOK deck shall comply with the tables in this report.

3.1.8 ITW Buildex Sammys X-Press SXP Anchor Connections: Connections to Verco steel deck and code-complying ⅜ or ½ inch (9.5 or 12.7 mm) diameter threaded

steel rod with the Sammys X-Press SXP Anchors are shown in Figures 14, 15, and 16 of this report. ASD and LRFD strengths for these connections are provided in Table 12 of this report.

3.2 Installation

3.2.1 General: Deck panels shall be installed at locations in accordance with the plans and specifications approved by the building official. Arc seam or arc spot (puddle) welds for field assembly of steel decking shall have an effective fusion area of at least 3/8 inch by 1 inch (9.5 mm by 25 mm) or 1/2 inch (12.7 mm) in diameter, respectively. Where arc spot welds and shear studs coincide, the arc spot weld may be eliminated. Seam welds at side laps shall be a minimum of 1-1/2 inches (38 mm) long. Minimum E60XX filler metal is used. Other weld requirements shall comply with AWS D1.3. Connections made using the PunchLok II system are described in Section 4.7 of this report.

3.2.2 PLB™-36, PLN3™ and PLN™-24 Deck Panels with the PunchLok® II System Fastened with Hilti Fasteners: The PLB-36, PLN3, and PLN-24 deck panels shall be fastened to the structural supports with the Hilti fasteners described in Section 4.9 of this report. Deck panel side laps shall be connected with the VSC2 connections described in Section 4.7 of this report. Fasteners connecting the deck panel to structural steel supports shall be centered not less than 1 inch (25 mm) from the ends of the sheets. Proper nail head standoff of the Hilti fasteners into structural supports is shown in Figure 7 of this report.

3.2.3 PLB™-36, PLN3™ and PLN™-24 Deck Panels with the PunchLok® II System Fastened with Pneutek Fasteners: The PLB-36, PLN3 and PLN-24 deck panels shall be fastened to the structural supports with the Pneutek fasteners described in Section 3.11 of this report. Deck panel side laps shall be connected with the VSC2 connections described in Section 4.7 of this report. Fasteners connecting the deck panel to structural steel supports shall be centered not less than 1 inch (25 mm) from the ends of the sheets. Fasteners shall be driven such that there is tight contact between the fastener head and the attached panels as shown in Figure 8 of this report.

3.2.4 SHEARTRANZ® II-42 System: The No. 14 gage ShearTranz II-42 units are used with PLB-36 deck panels at shear collecting support elements perpendicular to the deck corrugations. No skewing of deck panel to collector supports is permitted. In addition to the standard details, the conditions described below may require the ShearTranz II-42 elements.

The first condition occurs where deck panels are cantilevered over deck supports. In this condition, the ShearTranz II-42 element is installed as shown in Figure 19 of this report.

The second condition occurs when the deck ends abut at interior supports. In this condition, the top flanges of ShearTranz II-42 elements are centered over the butt joints. Installation details are shown in Figure 19 of this report.

3.2.5 Concrete-filled Composite Deck Panels: These deck panels are of the same material and finish as described above, but with various depths of concrete as set forth in the accompanying tables, and with web and flange embossments designated as FORMLOK. Figure 4 of this report provides illustrations. Concrete shall consist of normal-weight rock or expanded shale aggregates and shall have a minimum 28-day compressive strength of 3,000 psi (20.7 MPa). The minimum concrete fill thickness is 2 inches (51 mm) above the top of the steel deck. The deck types used with concrete fill are as follows:

1. Type PLB, B, PLB-CD, BCD, and BR FORMLOK decks.
2. Type PLN3, N3, PLN3-CD, and N3-CD FORMLOK decks.
3. Type PLN, N, PLN-CD, and NCD FORMLOK decks.
4. Type PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3- CD, and W3CD FORMLOK decks.

3.2.6 Concrete Diaphragms: Non-composite or composite concrete-filled steel deck assemblies shall be installed in accordance with provisions set forth in Tables 52 to 55 of this report. The vertical load capacity of the non-composite VERCOR deck shall be determined in accordance with Section 3.1.1 of this report. The vertical load capacity of composite FORMLOK deck shall comply with the tables in this report.

3.2.7 ITW Buildex Sammys X-Press SXP Anchor Connections: Holes shall be drilled into the deck panels using a 25/64-inch (10 mm) diameter drill bit. Hole locations shall comply with Table 12 and Figures 14, 15, and 16 of this report. The anchors shall be inserted into the hole using an installation tool provided by ITW Buildex and set by drilling operation to release the expandable portion. The threaded rod shall then be fully screwed into the internally threaded portion of the anchor.

3.3 Fire-resistance-rated Assemblies

3.3.1 Restrained Fire-resistance-rated Assemblies:

3.3.1.1 Conditions of Restraint: Interior spans of continuous composite slabs may be considered thermally restrained. Perimeter spans are considered unrestrained unless restraint is substantiated by the registered design professional and approved by the building official. Appendix X3 of ASTM E119 or ACI 216.1 may be referenced as guidance on other possible restraint conditions at both exterior spans and discontinuities within fire-resistance-rated constructions, subject to the approval of the building official.

3.3.1.2 Two-hour Fire-resistance-rated Roof Assembly: Type PLB, B, PLN3, HSN3, PLN, N, PLW2, W2, 1-5/16-inch (Deep) VERCOR and 1-5/16-inch (Deep) VERCOR Ventlok deck panels used for a two-hour fire-resistance-rated roof assembly, with exposed soffit, are subject to the following conditions:

1. The fill type, thickness, and construction are as set forth in Table 720.1(3) of the 2009 IBC or Table 721.1(3) of the 2012 and 2015 IBC.

2. The maximum clear span for No. 26 gage decks shall be limited to 6 feet, 8 inches (2032 mm) and for heavier gage decks to 8 feet, 6 inches (2591 mm).

3. The decks shall be attached to supporting structural elements as set forth in the tables accompanying this report and in accordance with UL assembly specifications.

3.3.1.3 Two-hour Fire-resistance-rated Roof or Floor Assembly: Type PLB, B, PLB-CD, BCD, BR, PLN3, N3, PLN3-CD, N3-CD, PLN, N, PLN-CD, NCD, PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, and W3CD FORMLOK deck panels, when used with a structural concrete fill, have a two-hour fire-resistance rating with exposed underside when used as either a roof or floor, provided:

1. The maximum clear spans for concrete-filled PLB, B, PLB-CD, BCD, and BR FORMLOK are limited to 12 feet (3658 mm), while the spans for PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, W3CD, PLN3, N3, PLN3-CD, N3-CD, PLN, N, PLN-CD, and NCD FORMLOK are limited to 13 feet, 2 inches (4013 mm).

2. The minimum steel panel gage shall be No. 22 for fluted deck panels and No. 20/20 for cellular deck panels.

3. No electrical raceways are placed in the concrete fill.

4. The minimum attachments are as follows:

a. Welds shall be used for fastening to supports. Welds shall be 1/2-inch (12.7 mm) effective diameter arc spot welds or arc seam welds that have a 3/8 inch (9.5 mm) effective fusion width and a minimum length of 1 inch (25.4 mm) excluding circular ends where required by steel deck geometry. There shall be at least four welds for 30- and 36-inch-wide (762 and 914 mm) PLB, B, PLB-CD, BCD and BR FORMLOK deck panels; three welds for 24-inch wide (610 mm) decks; one in each valley for PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, and W3CD FORMLOK; and four welds for 32-inch wide PLN3, N3, PLN3-CD and N3CD FORMLOK deck panels. Where arc spot welds and shear studs coincide, the arc spot weld may be eliminated.

b. Attachment to chords or struts shall be welds as required for diaphragm shear strength with concrete fill.

c. Side laps (side seams) shall be button-punched, screwed with minimum No. 10 x 3/4 inch (19.1 mm) long screws or welded at 3 feet (914 mm) on center, maximum. Side laps of PLB, PLN3, PLN, PLW2, PLW3, PLB-CD, PLN3-CD, PLN-CD, PLW2-CD, and PLW3-CD FORMLOK deck panels are permitted to be connected with the VSC2 connections described in Section 4.7 of this report at 3 feet (914 mm) on center, maximum. For BR FORMLOK deck panels, use a 1-1/2-inch (38 mm) seam weld or minimum No. 10 x 3/4 inch (19.1 mm) long screws at 3 feet (914 mm) on center, maximum.

5. The concrete fill thickness above the deck panel top flange shall be either 3-1/4 inches (83 mm) for sand-lightweight concrete having a unit weight of 110 ±3 pounds per cubic foot (1762 ± 48 kg/m^3) and a 28-day compressive strength of 3,000 psi (20.7 MPa); or 4-1/2 inches (114 mm) for normal-weight concrete having a unit weight of 150 ± 3 pounds per cubic foot (2403 ± 48 kg/m^3) and a 28-day compressive strength, f'_c, of 3,500 psi (24.1 MPa).

6. The concrete fill shall be reinforced with minimum 6-by-6, W1.4-by-W1.4 welded-wire fabric, placed near the center of the concrete fill.

3.3.2 Additional Fire-resistance-rated Assemblies: The

following are additional restrained fire-resistance- rated assemblies for Types PLB, B, PLB-CD, BCD, BR, PLN3, N3, PLN3-CD, N3-CD, PLN, N, PLN-CD, NCD, PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, and W3CD FORMLOK deck panels:

a. One-hour fire-resistance rating with 2-1/2 inches (63.5 mm) of 3,000 psi (20.7 MPa) compressive strength sand-lightweight concrete [110 pcf (1762 kg/m^3)], or 3-1/2 inches (89 mm) of 3,500 psi (24.1 MPa) compressive strength normal-weight [150 pcf (2403 kg/m^3)] concrete over top flange of deck panel.

b. Three-hour fire-resistance rating with 4-1/4 inches (108 mm) of 3,000 psi (20.7 MPa) compressive strength sand-lightweight [110 pcf (1762 kg/m^3)] concrete over top flange of deck panel.

3.3.3 Unrestrained Fire-resistance-rated Assemblies:

3.3.3.1 Assemblies with PLB™, B, PLB™-CD, BCD, BR, PLN3™, N3, PLN3™-CD, N3-CD, PLN™, N, PLN™-CD, NCD, PLW2™, W2, PLW2™-CD, W2CD, PLW3™, W3, PLW3™-CD, and W3CD FORMLOK™ Deck Panels: The roof and floor assemblies with structural concrete filled deck panels have a fire-resistance rating with the deck panel exposed on the underside, provided:

1. The minimum steel panel gage shall be No. 22 for fluted deck panels and No. 20/20 for cellular deck panels.

2. Deck panels shall be attached as follows:

a. Welds shall be used for fastening to supports. Welds shall be 1/2-inch (12.7 mm) effective diameter arc spot welds or arc seam welds that have a 3/8 inch (9.5 mm) effective fusion width and a minimum length of 1 inch (25.4 mm) excluding circular ends where required by steel deck geometry. There shall be at least four welds for 30- and 36-inch-wide (762 and 914 mm) PLB, B, PLB-CD, BCD and BR FORMLOK deck panels; three welds for 24-inch wide (610 mm) decks; one in each valley for PLW2, W2, PLW2- CD, W2CD, PLW3, W3, PLW3-CD, and W3CD FORMLOK deck panels; and four welds for 32-inch wide (813 mm) PLN3, N3, PLN3-CD, and N3-CD FORMLOK. Where arc spot welds and shear studs coincide, the arc spot weld may be eliminated.

b. Attachment to chords or struts shall be welds as required for decks with concrete fill to resist the diaphragm shear.

c. Side laps (side seams) shall be button-punched, screwed with minimum No. 10 x 3/4 inch (19.1 mm) long screws, or welded at 3 feet (914 mm) on center, maximum. Side laps of PLB, PLN3, PLN, PLW2, PLW3, PLB-CD, PLN3-CD, PLN-CD, PLW2-CD, and PLW3-CD FORMLOK deck panels are permitted to be connected with the VSC2 connections described in Section 3.8 of this report at 3 feet (914 mm) on center, maximum. For BR FORMLOK deck panels, use a 1-1/2-inch (38 mm) seam weld or minimum #10 x 3/4" long screw at 3 feet (914 mm) on center, maximum.

3. The concrete fill shall be sand-lightweight concrete with expanded shale or slate aggregate and 4 to 7 percent entrained air. The unit weight of the concrete shall be 110 pounds per cubic foot (1762 kg/m^3) with a minimum 28-day compressive strength, f'_c, of 3,000 psi (20.7 MPa). The thickness above the top flange of the deck is 3-1/4 inches (83 mm).

4. The unrestrained assembly is assigned the same or lesser fire-resistance rating as the fire-resistance rating of the supporting steel beams.

3.3.3.2 Assemblies with Fireproofing Spray-applied to Deck: Fire-resistance ratings with fireproofing material spray-applied to galvanized deck underside are described in current UL Evaluation report ER4339-02. In addition, prime-painted Types PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3, and W3 decks may be sprayed with MK-6 (UL evaluation report ER4339-02) fireproofing materials. Other fireproofing materials shall be subject of an evaluation report issued in conformance with ICC AC23 by an approved evaluation service agency.

3.4 Special Inspection

3.4.1 Concrete: Continuous special inspection for concrete and concrete reinforcement shall be in accordance with Section 1704.4 of the 2009 IBC or Section 1705.3 of the 2012 and 2015 IBC. The inspector's duties include sampling and testing, and verification of concrete mixes, reinforcement types and placement, and concrete placement.

3.4.2 Jobsite Welding: Special inspection for welding shall be in accordance with Section 1704.3 of the 2009 IBC, Section 1705.2.2 of the 2012 IBC, and SDI QA/QC for buildings under the 2015 IBC. Prior to proceeding, the welder shall demonstrate his ability to produce the prescribed weld to the special inspector's satisfaction. The

inspector's other duties include verification of materials, weld preparation, welding procedures and welding processes.

3.4.3 Periodic Special Inspections: Periodic special inspections in accordance with Section 1707.4 of the 2009 IBC, Section 1705.11.3 of the 2012 IBC, or Section 1705.12 of the 2015 IBC are required where the steel deck panel systems are used as part of a seismic-force-resisting system in structures assigned to Seismic Design Category C, D, E, or F. Periodic special inspections in accordance with Section 1706.3 of the 2009 IBC, Section 1705.10.2 of the 2012 IBC, or Section 1705.11 of the 2015 IBC are required where the steel deck panel systems are used as part of a wind-force-resisting system in structures constructed in the areas listed in Section 1706.1 of the 2009 IBC, Section 1705.10 of the 2012 IBC, or Section 1705.11 of the 2015 IBC. Periodic special inspections apply to connections such as screws, power actuated fasteners, Verco PunchLok II system side seam connections, and button punches. Periodic special inspections also apply where noted in Tables 1704.3 and 1704.4 of the 2009 IBC, Tables 1705.2.2 and 1705.3 of the 2012 IBC, or SDI QA/QC for buildings under the 2015 IBC.

3.4.4 Continuous Special Inspections: Continuous special inspections shall be provided where noted in Tables 1704.3 and 1704.4 of the 2009 IBC, Tables 1705.2.2 and 1705.3 of the 2012 IBC, or SDI QA/QC for buildings under the 2015 IBC.

3.4.5 Statement of Special Inspections: A statement of special inspections shall be prepared by the registered design professional in charge and submitted to the building official as set forth in Section 1705 of the 2009 IBC or Section 1704.2.3 of the 2012 and 2015 IBC. The statement shall include the special inspector's duties noted in this section (Section 3.4).

4.0 PRODUCT DESCRIPTION

4.1 General

The steel deck panels described in this report are cold-formed from steel sheets into panels with fluted sections having galvanized, phosphatized/painted, painted/painted, or mill finishes. Panel dimensions and profiles are as shown in the tables and figures that accompany this report. The decks comply with requirements in IBC Sections 2210.1 and 2210.1.1.2.

The term “roof deck panels” as used in this report refers to steel deck panels without structural concrete fill. The term “FORMLOK deck panels” as used in this report refers to steel deck panels that act compositely with structural concrete fill.

The galvanized deck panels are formed from either ASTM A653 or A1063 steel, with a minimum G30 galvanized coating designation. The phosphatized/painted, painted/painted, or mill finished steel deck panels are formed from either ASTM A1008 or A1039 steel. Phosphatized/painted deck panels have a phosphatized (uncoated) top surface and primer painted bottom surface. Painted/painted deck panels have primer painted top and bottom surfaces. Mill-finished deck panels have no coating on either top or bottom surfaces.

A "PL" prefix indicates deck intended for installations where side seam (side lap) connections are made with the Verco PunchLok® II tool. A suffix number indicates a deck cover width - for example, N-24 indicates a deck cover width of 24 inches (610 mm). The suffix "SS" indicates deck provided with extended female lips intended for installations where side seam connections are made with self-drilling, self-tapping screws as shown in Figure 1 of this report. “NS” indicates deck nested side lap deck as shown in Figure 1 of this report. The suffix "CD" indicates cellular deck panels composed of fluted top sections that are resistance welded to flat bottom sections.

The suffix "AC" indicates fluted acoustical deck panels with perforations in the webs or acoustical cellular deck panels with perforated bands in the flat bottom sections.

4.2 Roof Deck Panels

Type PLB, HSB, PLN3, HSN3, PLN-24 and N-24 roof deck panels are available as galvanized, painted/painted, or mill finished. Galvanized panels shall be formed from ASTM A653 SS Designation Grade 50 minimum or HSLAS Grade 55 minimum, or ASTM A1063 SS or HSLAS Designation Grade 50 minimum steel. Painted/painted and mill-finished steel decks shall be formed from ASTM A1008 or ASTM A1039 SS or HSLAS Designations Grade 50 minimum steel. The roof deck panels are available in thicknesses ranging from No. 22 to No.16 gage [design base-metal thickness from 0.0299 inch (0.759 mm) to 0.0598 inch (1.52 mm)].

4.3 FORMLOK™ Deck Panels

Type PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3 and W3 FORMLOK deck panels are available as galvanized, phosphatized/painted, or mill finished. Galvanized panels shall be formed from ASTM A653 SS Designation Grade 50 minimum or HSLAS Grade 55 minimum, or ASTM A1063 SS or HSLAS Designations Grade 50 minimum steel. Painted/painted and mill-finished steel decks shall be formed from A1008 or A1039 SS or HSLAS Designations Grade 50 minimum steel. The deck panels have web embossments as shown in Figure 4 of this report. The FORMLOK deck panels are available in thicknesses ranging from No. 22 to No. 16 gage [design base-metal thickness from 0.0290 inch (0.737 mm) to 0.0598 inch (1.52 mm)]. FORMLOK deck panels are for use with or without concrete fill.

4.4 Acoustical Cellular Deck Panels

Type PLB-CD, HSB-CD, PLN3-CD, HSN3-CD, PLN-24CD, and N-24CD roof deck panels and PLB-CD, BCD, PLN3-CD, N3-CD, PLN-CD, NCD, PLW2-CD, W2CD, PLW3-CD and W3CD FORMLOK deck panels are available as acoustical cellular deck panels with perforations in the flat bottom plate. Perforations are 5/32 inch (4 mm) in diameter on 7/16 inch (11.1 mm) staggered centers. The nominal widths of the perforated bands, which are centered under the top flanges of the fluted top sections, are: PLB-CD, HSB-CD and BCD-3.7 inches (94 mm); PLN3-CD, HSN3-CD, PLN-24CD, N-24CD, and NCD-5.7 inches (145 mm); PLW2-CD, W2CD, PLW3-CD and W3CD-6.7 inches (170 mm). Table 13 of this report provides section properties of acoustical cellular deck panels.

4.5 9/16-inch (Shallow) VERCOR™ Deck Panels

Type 9/16" (Shallow) VERCOR deck panels are available as galvanized, painted/painted, or mill finished. Galvanized panels shall be formed from ASTM A653 or ASTM A1063 SS Designation Grade 80 steel. Painted/painted and mill-finished steel decks shall be formed from ASTM A1008 or ASTM A1039 SS Designation Grade 80 steel. The deck panels are available in thicknesses ranging from No. 26 to No. 22 gage [design base-metal thickness from 0.0179 inch (0.455 mm) to 0.0299 inch (0.759 mm)].

4.6 1-5/16-inch (Deep) VERCOR™ and 1-5/16-inch (Deep) VERCOR™ Ventlok Deck Panels

Type 1-5/16" (Deep) VERCOR and 1-5/16" (Deep) VERCOR Ventlok deck panels are available as galvanized, painted/painted, or mill finished. Galvanized panels shall be formed from ASTM A653 or ASTM A1063 SS Designation Grade 80 steel. Painted/painted and mill-finished steel decks shall be formed from ASTM A1008 or ASTM A1039 SS Designation Grade 80 steel. The deck panels are available in thicknesses ranging from No. 26 to No. 20 gage [design base-metal thickness from 0.0195 inch (0.495 mm) to 0.0374 inch (0.950 mm)].

4.7 PunchLok® II System

The PunchLok II system consists of PLB, PLN3, and PLN-24 roof decks and PLB, PLN3, PLN, PLW2, and PLW3 FORMLOK decks connected at sidelaps with the Verco Decking, Inc. proprietary connection. Acoustical, cellular, and acoustical cellular versions of the listed deck sections may also be used. The proprietary connection is referred to as the "Verco Sidelap Connection 2" (VSC2) and is an interlocking connection between the male and female lips of the decks listed above. A VSC2 connection is made in either direction relative to the female lip. A VSC2 connection is made when the side lap material has been sheared and offset so the sheared surface of the steel deck panel male lip is visible. This punched portion measures 0.45 inch (11.4 mm) – 0.70 inch (17.8 mm) nominal width by 0.30 inch (7.6 mm) nominal height. The PunchLok II systems shall be installed in accordance with Verco instructions. The resulting VSC2 connection is illustrated in Figure 6 of this report.

4.8 SHEARTRANZ® II-42 System

The ShearTranz II-42 system is a special end support connection that consists of the ShearTranz II-42 elements welded at shear collecting deck panel support members, perpendicular to the corrugations of PLB-36 deck panels. The ShearTranz II-42 elements are formed from ASTM A653 SS Designation Grade 33 minimum with a minimum G60 galvanized coating designation. The ShearTranz II-42 elements are for use with PLB-36 deck panels and are available in a thickness of No.14 gage [design base-metal thickness of 0.070 inch (1.78 mm)]. Figure 19 of this report provides illustrations of the system.

4.9 Hilti Fasteners

Hilti X-EDNK22-THQ12, X-HSN 24 and X-ENP-19 L15 power-actuated fasteners are used to attach steel deck panels to support members. The X-EDNK22-THQ12 fasteners have a dome style head and a 15/32-inch-diameter (11.9 mm) steel flat washer and a steel silver-colored top-hat washer. The X-HSN 24 has a dome style head, red guidance washer and a steel silver-colored top-hat washer.

The X-ENP-19 L15 fastener is 0.937 inch (23.8 mm) long with a 0.177-inch-diameter (4.5mm) fully knurled tip and tapered shank fitted with two 0.590-inch-diameter (15 mm) steel cupped washers. The Hilti fasteners have an electroplated zinc coating conforming to ASTM B633, SC 1 Type III. ICC-ES evaluation reports ESR-2197 or ESR-2776 contain additional information on Hilti fasteners.

4.10 Pneutek Fasteners

Pneutek SDK61075, SDK63075, K64062, K64075, K66062, or K66075 fasteners are used to attach steel deck panels to support members. The Pneutek fasteners are manufactured from carbon steel and heat treated to a Rockwell C hardness of 52 to 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-diameter (12.7 mm) and are coated with mechanically deposited zinc in accordance with ASTM B695-04 (2009). ICC-ES evaluation report ESR-2941 contains additional information on Pneutek fasteners.

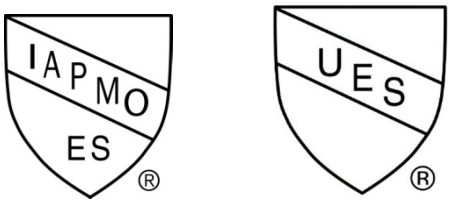
4.11 Shearflex Standoff Screws

Shearflex Standoff Screws are used as shear connectors between concrete-filled steel deck and steel support members. UES evaluation report ER-366 contains additional information on the Shearflex Standoff fasteners, including structural capacities, installation procedures, and permitted steel deck profiles.

4.12 ITW Buildex Sammys X-Press SXP Anchors: ITW Buildex Sammys X-Press SXP Anchors: ITW Buildex Sammys X-Press SXP 2.0 and SXP 3.5 Anchors are used to support threaded rod from steel panels in accordance with ITW Buildex installation instructions. The SXP anchors are produced from carbon steel complying with an electro-zinc plated finish. The cap portion is 25/64 inch (10 mm) diameter from C1010 steel in accordance with ASTM A510 and the screw portion is ⅝ inch (15.9 mm) diameter from C1022 steel in accordance with ASTM A510.

5.0 IDENTIFICATION

Each bundle of decking is marked with labels with the Verco Decking, Inc. name, the deck type, the minimum base-metal thickness (uncoated), minimum specified yield strength and the IAPMO Uniform Evaluation Report number ER-217. The cellular deck panel labeling also includes the manufacturing location (Antioch, CA). SHEARTRANZ® II-42 pieces are stamped "SHEARTRANZ® II-42". All bundles of SHEARTRANZ® II-42 pieces also are labeled with the Verco Decking, Inc. name, and the IAPMO Uniform ES Marks of Conformity and Evaluation Report No. ER-217. Either of the following marks of conformity may occur on the labeling:



or

IAPMO UES ER-217

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the IAPMO Evaluation Criteria for Steel Composite, Non-composite, and Roof Deck Construction (EC-007-2020), including structural properties, composite construction, diaphragm construction, and fire-resistance.

6.2 Quality documentation in accordance with IAPMO UES minimum requirements for Quality Assurance System (IAPMO UES 010).

6.3 Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research carried out by IAPMO Uniform Evaluation Service on (Verco® Decking, Inc. Verco® Steel Decks to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at locations noted in Sections 2.12, 2.13, and 2.14 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

Brian Gerber, P.E., S.E.
Vice President, Technical Operations
Uniform Evaluation Service

Richard Beck, PE, CBO, MCP
Vice-President of Uniform Evaluation Service

GP Russ Chaney
CEO, The IAPMO Group

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

CALIFORNIA SUPPLEMENT

REPORT HOLDER:
VERCO® DECKING, INC. a NUCOR Company
4340 NORTH 42ND AVENUE
PHOENIX, ARIZONA 85019
(602) 272-1347
www.vercodeck.com

EVALUATION SUBJECT:

VERCO® STEEL DECKS:

- **PLB™, HSB®, PLN3™, HSN3™, PLN™-24, and N-24 Roof Deck Panels**
- **PLB™ AC, HSB® AC, PLN3™ AC, HSN3™ AC, PLN™-24 AC, and N-24 AC Acoustical and Fully Perforated Roof Deck Panels**
- **PLB™, B, BR, PLN3™, N3, PLN™, N, PLW2™, W2, PLW3™, and W3 FORMLOK™ Deck Panels**
- **9/16-inch (Shallow) VERCOR, 1-5/16-inch (Deep) VERCOR, and 1-5/16 inch (Deep) VERCOR™ Ventlok Deck Panels**
- **PLB™-CD, HSB®-CD, PLN3™-CD, HSN3™-CD, PLN™-24-CD, and N-24-CD Cellular Roof Deck Panels; and PLB™-CD, BCD, PLN3™-CD, N3-CD, PLN™-CD, NCD, PLW2™-CD, W2-CD, PLW3™-CD, and W3-CD FORMLOK™ Cellular Deck Panels**
- **PLB™-CD AC, HSB®-CD AC, PLN3™-CD AC, HSN3™-CD AC, PLN™-24-CD AC, and N-24-CD AC Acoustical Cellular Roof Deck Panels; and PLB™-CD AC, BCD AC, PLN3™-CD AC, N3CD AC, PLN™-CD AC, NCD AC, PLW2™-CD AC, W2-CD AC, PLW3™-CD AC, and W3-CD AC FORMLOK™ Acoustical Cellular Deck Panels**

CSI DIVISION: 05 00 00 - METALS
CSI SECTION: 05 31 00 - Steel Decking
05 31 13 - Steel Floor Decking
05 31 23 - Steel Roof Decking

1.0 SCOPE OF EVALUATION

1.1 Compliance to the following codes

- 2016 California Building Code (CBC)

2.0 SUBSTANTIATING DATA

Data in accordance with the IAPMO Evaluation Criteria for Steel Composite, Non-composite, and Roof Deck Construction (EC-007-2015)

3.0 CONDITIONS OF USE

The Verco Steel Decks described in IAPMO UES ER-217 complies with the 2016 CBC. The design, installation, and inspection of the Verco Steel Decks shall be in accordance with the 2015 International Building Code as noted in ER-217 with the following modifications:

1. In addition to provisions in Section 5.3 of ER-217, diaphragm deflections shall not exceed the permitted relative deflection of walls between the diaphragm level and the floor below. The diaphragm shear web deflection may be calculated using the equations noted in Table 14 of this report. The flexibility limitations shown in Table 1604A.4 of the 2016 California Building Code may be used as a guide in lieu of a rational analysis of the anticipated deflections.
2. As applicable, in accordance with CBC Section 2210A.1.1.2, the minimum base steel thickness of the steel deck shall be 0.0359 inches (0.9 mm), except for single-story open structures, where the steel deck is not used as a diaphragm and there are no suspended hangers or bracing for nonstructural components attached to the deck.
3. Special Inspections are required in accordance with CBC Sections 1705.2 and 1705A.2, Steel Construction; and CBC Sections 1705.3 and 1705A.3, Concrete Construction.
4. Structural Observation is required in accordance with CBC Sections 1704.6 and 1704A.6.
5. Concrete tests and materials shall comply with CBC Sections 1909.2, 1903A, and 1910A, as applicable.

LOS ANGELES SUPPLEMENT

REPORT HOLDER:
VERCO DECKING, INC. A NUCOR COMPANY
4340 NORTH 42ND AVENUE
PHOENIX, ARIZONA 85019
(602) 272-1347
www.vercodeck.com

EVALUATION SUBJECT:
STEEL DECK PANELS

CSI Section: **05 05 23 Metal Fastenings**
05 31 00 Steel Decking
05 31 13 Steel Floor Decking
05 31 23 Steel Roof Decking

1.0 RECOGNITION

Verco Decking Inc. Steel Deck Panels described in IAPMO UES ER-217 and this supplement have been evaluated for use as components of floor and roof systems. The structural properties of the steel deck panels were evaluated for compliance with the following codes and regulations:

- 2017 City of Los Angeles Building Code (LABC)
- 2017 City of Los Angeles Residential Code (LARC)

2.0 LIMITATIONS

Use of the Verco Steel Deck Panels recognized in this report is subject to the following limitations:

2.1 Special Inspection are required in accordance with LABC Section 1705.2, Steel Construction and 1705.3, Concrete Construction.

2.2 Structural Observation is required in accordance with LABC Section 1704.6.

2.3 Computations and details demonstrating that the loads applied to the decks comply with this report shall be submitted to Department of Building and Safety for approval. In accordance with LABC Section 106.3.3.2, computations and drawing shall be prepared and stamped by an engineer or architect licensed by the State of California for the type of service performed except as otherwise permitted by the Department of Building and Safety. In accordance with LABC Section 1.6.3.3.3, for buildings exceeding 160 feet (49 m) computations and drawings shall be prepared and stamped by a structural engineer licensed by the State of California.

2.4 For each job where the deck units are specified, the following information shall be indicated on the plans submitted to the Department of Building and Safety for approval.: (a) Cross-section details of the deck panels; (b) fastener details, including deck welding or other fasteners at supports, at diaphragm boundaries parallel to flutes, at shear transfer elements, and at side seams if such fasteners are required; (c) minimum length of deck panels; and (d) design shears.

2.5 Deck wilding shall be performed by Los Angeles City certified cold-formed steel welders. Prior to proceeding with the welding, the welders shall demonstrate to the Deputy Inspectors their ability to produce the prescribed weld satisfactorily. A sample of the deck material shall be welded to steel simulating the framing. The sample specimen shall then be twisted, and if the deck material tears or if the weld in torsion indicates the proper fusion area, the weld shall be considered satisfactory.

2.6 Admixtures containing calcium chloride or other corrosive materials shall not be used in the concrete mix for the slab.

2.7 Prior to placement of the concrete for the slab, the steel deck panels shall be cleaned and oil, grease and other materials which may adversely affect the bonding of the concrete to the deck shall be removed.

2.8 In structures with long term live loads (i.e., warehouses, computer rooms, file rooms, etc.), the allowable loads in the tables of ER-217 shall be reduced to account for creep in the concrete.

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(continued)

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General Notes

Section Property Tables:

1. The base-metal thicknesses for steel deck panels are in Table 5 of this report. The base-metal thicknesses for cellular deck panels are in Table 13 of this report.
2. Thickness tolerances for all deck panels and ShearTranz II-42 elements shall comply with Section A2.4 of the AISI S100.
3. For SI dimensions, the following conversions apply:
   1 inch = 25.4 mm; 1 lbf/ft = 14.6 N/m = 0.0146 N/mm; 1 in^2 = 645.16 mm^2; 1 in^3 = 16,387.06 mm^3;
   1 in^4 = 416,231.4 mm^4; 1 psi = 6.89 kPa; 1 ft = 304.8 mm; 1 pcf = 16.018 kg/m^3; 1 psf = 0.0479 kN/m^2;
   1 lbf = 4.45 N.
4. All B, N3 and N-24 roof deck profiles are available in Acoustic and Fully Perforated versions, see Figure 2 for Acoustic Deck Perforation Patterns, Figure 3 for Fully Perforated Deck Perforation Patterns and Table 7 for Acoustic and Fully Perforated section properties. See Footnote 9 in Table 13 for section property adjustment factors for accoustical cellular deck panels.

Allowable Reactions at Supports Based upon Web Crippling:

5. Table 8 of this report provides allowable reactions based on web crippling. Table 8 footnote 4 of this report describes allowable reaction adjustment factors for acoustical deck panels.

Support Attachments and Attachments Perpendicular to the Flutes:

6. Arc spot (puddle) or arc seam welds shall have minimum effective fusion area to supporting members of ½ inch (12.7 mm) in diameter or 3/8 inch (9.5 mm) wide by 1 inch (25 mm) long, respectively.
7. Perpendicular support attachment patterns for Types PLB, B, PLB-CD, BCD, BR, HSB, HSB-CD, PLN3, HSN3, PLN3-CD, HSN3-CD, N3-CD, PLN, N, PLN-CD, N-24CD, PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, W3CD, 9/16" (Shallow) VERCOR and 1-5/16" (Deep) VERCOR are shown in Figure 5 of this report. Figure 19 of this report shows the SHEARTRANZ II-42 system attachment.
8. Attachments to diaphragm chords, struts, ties, or other collector elements that are perpendicular to flutes shall be based on the actual shear to be transferred and the shear capacity of the connections used, but the number of fasteners may not be less than the specified attachment pattern.
9. The shear transfer from a diaphragm to interior tie or strut lines perpendicular to deck corrugations shall not exceed the shear values indicated in the tables. Two lines of connections of the type appropriate to the table (welds, power actuated fasteners, or screws) may be used to develop the actual shear transfer to these collector elements.
10. SDI recognized No. 12 or No. 14 screws to supports are limited to Buildex, Elco, Hilti, Simpson Strong-Tie, or Triangle screws with a minimum substrate thickness of 0.0385 inch. Generic screws or thinner substrates may also be used, with appropriate adjustment factors, as noted in the footnotes of the applicable diaphragm shear table.
11. Deck panels may be butted or lapped. When deck panels are lapped, the minimum lap length is 2 inches. Figure 19 of this report illustrates lapped and butted joint requirements when using the Sheartranz II-42 System.
12. Bearing at supports shall allow for proper end distance and fastener spacing.

Support Attachments Parallel to the Flutes:

13. Spacing of attachments to diaphragm chords, struts, ties, or other collector elements that are parallel to flutes shall be based on the actual shear to be transferred and the shear capacity of the connections used.
    a. Arc spot welds, arc seam welds, power actuated fasteners, and SDI recognized screw connection allowable shear strengths are shown in Table 1 of this report.
    b. Generic self-drilling No. 12 screw connection allowable shear strengths are shown in Table 2.
    c. Fillet welds are permitted to be used to attach the diaphragm to parallel members such as diaphragm chords, struts, ties, or other collector elements. Allowable capacity of fillet welds is determined in accordance with Section E2.4 of AISI S100. Spacing of the welds shall be based on the actual shear to be transferred.
    d. To keep the same diaphragm rigidity, the spacing of attachment of the deck panels at perimeter or intermediate support elements such as chord, struts, and shear transfer elements parallel to deck flutes should not be larger than that for the interior sidelap fasteners.
14. Support attachments parallel to the flutes shall be spaced no greater than 3 feet (914 mm) on center.

Support Attachments at Skewed Conditions:

15. The number of support fasteners at skewed conditions shall be based on the actual shear to be transferred and the shear capacity of the connections used. Bearing at supports shall allow for proper end distance and fastener spacing.

(continued)

General Notes (Cont'd.)

Sidelap Deck-to-Deck Panel Attachments Parallel to the Flutes:

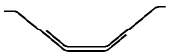
16. Provisions of specific UL Fire-Resistance-Rated Assemblies may reduce the maximum allowable sidelap fastener spacing.
17. Deck panel side seams (sidelaps) may be connected with the Verco PunchLok II VSC2 connections, welds, screws, or button punches, as illustrated in Figure 1 and as indicated in the evaluation report.

FIGURE 1 - SIDELAP OPTIONS

Standard Sidelap
Used with the PunchLok® II (VSC2), Top Seam Weld (TSW), or Button Punch (BP). Available on deck types: B, N3, N, W2, W3

"SS" Sidelap Screw
Used with Self-Drilling Screws. Available on deck types: B, N3, N, W2, W3

"NS" Nested Sidelap
Used with Self-Drilling Screws. Available on deck type: HSN3-NS



Nested Sidelap
Used with Self-Drilling Screws. Available on deck type: 1-5/16" (Deep) VERCOR or 9/16" (Shallow) VERCOR

Diaphragm Shear and Flexibility:

18. The shear strength and flexibility factors for roof decks and FORMLOK decks without concrete fill listed in this report are based on an F_u = 62 ksi, and a continuous 3-span condition for span lengths 4 feet and greater. For span lengths less than 4 feet, the allowable diaphragm shear values are based on a sheet length of 12 feet or a maximum of 7 spans. Deck panels longer than 12 feet or with more than 7 spans may be used with the tabulated values.
19. The allowable values for composite decks shown in the tables are applicable to either phosphatized/painted or galvanized decks. The allowable values shown for roof deck panels are applicable to either painted, mill-finished, or galvanized decks.
20. The allowable diaphragm shear strength listed in the tables are in pounds per linear foot. The flexibility factors listed in the tables are in micro inches a diaphragm web will deflect in a span of 1 ft under a shear load of 1 lb/ft.
21. Where individual panels are cut, the partial panel shall be fastened in a manner to fully transfer the shears at the point of the diaphragm to the adjacent full panels for the values specified in the tables.
22. The allowable diaphragm shear strength tables in this report (except Tables 47 and 48) utilize the ASD factors of safety for Earthquake loading from AISI S100, Table D5, excerpt below.
    a. To convert from Earthquake loading to Wind loading, utilizing ASD, the published allowable diaphragm shear strength may be multiplied by Ω_d (Earthquake), and then divided by Ω_d (Wind):
    As an example:
    Welds: 3.00/2.35 = 1.27
    Mechanical Fasteners: 2.5/2.35 = 1.06
    b. To convert from ASD to LRFD for each connection type, the published allowable diaphragm shear values may be multiplied by the applicable conversion factor, $C = \Omega_d \times \Phi_d$
    The following examples are for Earthquake loading:
    For welds: $C_{WELD} = 3.00 \times 0.55 = 1.65$
    For mechanical fasteners: $C_{MECHANICAL\ FASTENER} = 2.5 \times 0.65 = 1.625$
    For deck panel buckling*: $C_{BUCKLING} = 2.00 \times 0.80 = 1.60$
    * The shaded areas in the allowable diaphragm shear tables indicate where buckling is the limit state rather than the connections.

AISI S100 TABLE D5 - SAFETY FACTORS AND RESISTANCE FACTORS FOR DIAPHRAGMS

Load Type or Combinations Including	Connection Type [1]	Limit State					
		Connection Related			Panel Buckling [2]		
		USA and Mexico		Canada	USA and Mexico		Canada
		Ω_d (ASD)	Φ_d (LRFD)	Φ_d (LSD)	Ω_d (ASD)	Φ_d (LRFD)	Φ_d (LSD)
Earthquake	Welds	3.00	0.55	0.50	2.00	0.80	0.75
	Screws	2.50	0.65	0.60			
Wind	Welds	2.35	0.70	0.65			
	Screws						
All Others	Welds	2.65	0.60	0.55			
	Screws	2.50	0.65	0.60			

[1] For mechanical fasteners - such as Power Actuated Fasteners or Forced Entry Fasteners, the factors of safety for screws may be used.
[2] Panel buckling is considered out-of-plane deck buckling and not local buckling at fasteners.

(continued)

General Notes (Cont'd.)

FORMLOK™ Composite Deck:

23. The allowable superimposed loads, diaphragm shear strength and flexibility factors for concrete-filled FORMLOK decks are applicable to deck panels that are either phosphatized/painted or galvanized.
24. The minimum 28-day compressive strength for structural concrete shall be 3,000 psi (20.7 MPa), and unit weight shall be as indicated in the tables. The minimum depth of concrete shall be 2 inches (51 mm) over the top flange, and it is reinforced with a minimum 6-by-6, W1.4-by-W1.4 welded-wire fabric. Where concrete fill depth exceeds 3¼ inches (82 mm), welded-wire fabric with an area equal to 0.00075 times the area of concrete fill over the deck panel, is required.
25. Steel deck panels with structural concrete fill are permitted to be classified as rigid in accordance with Section 12.3.1.2 of ASCE 7-10 with limitations stated therein.
26. The allowable diaphragm shear strength and flexibility factors for concrete-filled FORMLOK decks are applicable to deck panels with or without embossments.
27. The allowable diaphragm shear strength and flexibility factors for concrete-filled decks are applicable to deck panels with or without sidelap attachments.
28. FORMLOK composite deck panels shall be attached at the side seam with button punches, minimmum No. 10 screws, Verco PunchLok® II VSC2 connection or welds spaced no greater than 3 feet (914 mm) on center.

FIGURE 2 - ACOUSTIC DECK PERFORATION PATTERNS

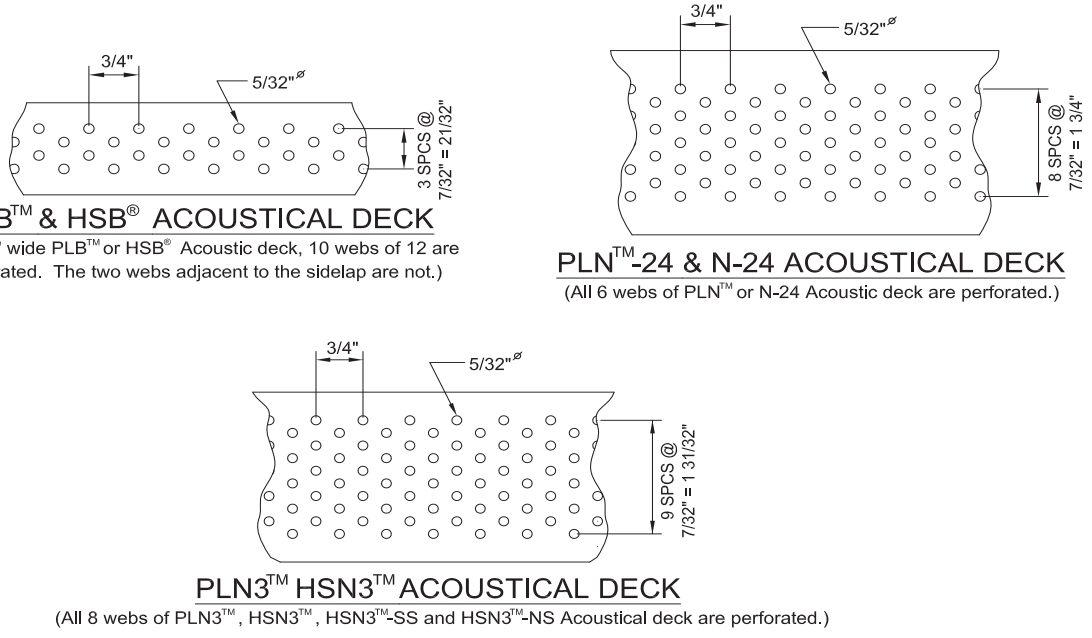


FIGURE 3 - FULLY PERFORATED DECK PERFORATION PATTERN

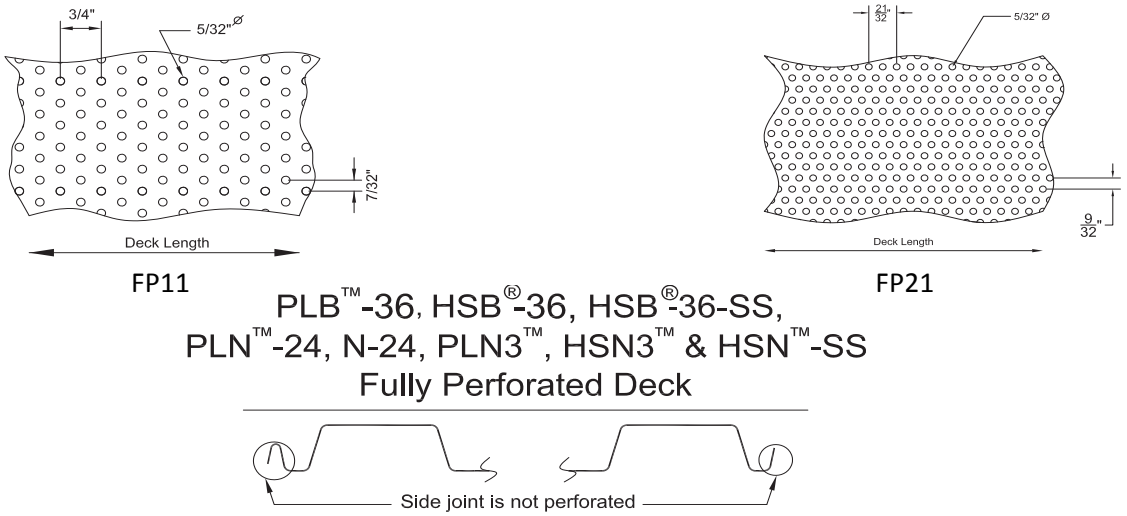
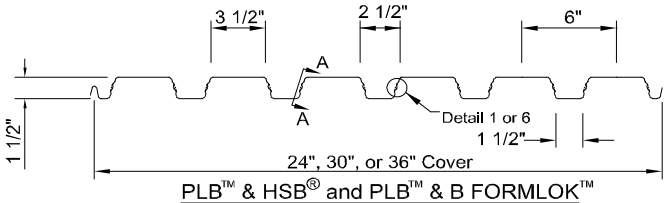
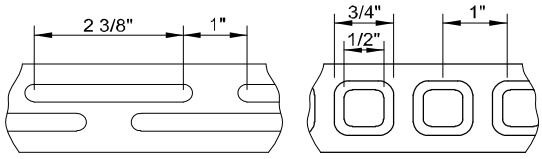


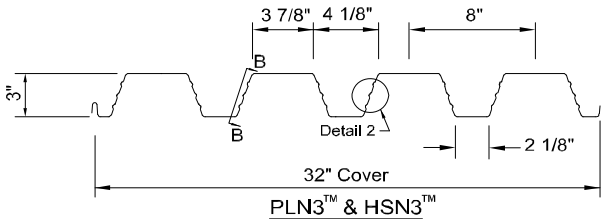
FIGURE 4 - DECK PROFILES



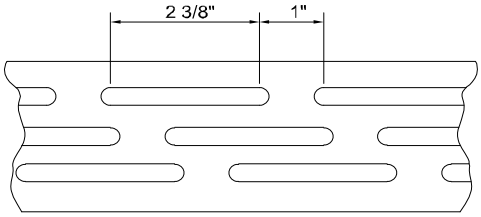
PLB™ & HSB® and PLB™ & B FORMLOK™



SECTION A-A OPTION 1 OR SECTION A-A OPTION 2



PLN3™ & HSN3™



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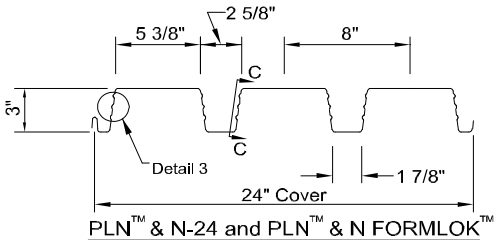
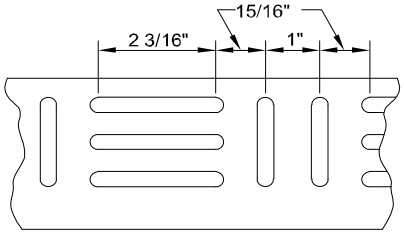
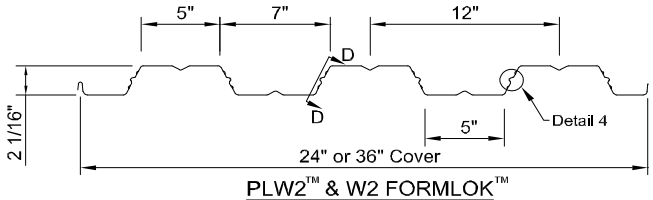


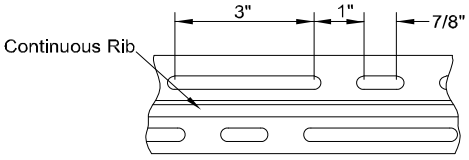
PLN™ & N-24 and PLN™ & N FORMLOK™



SECTION C-C



PLW2™ & W2 FORMLOK™



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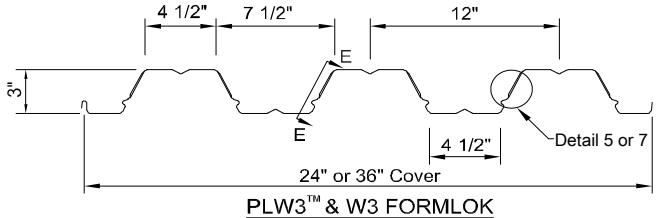
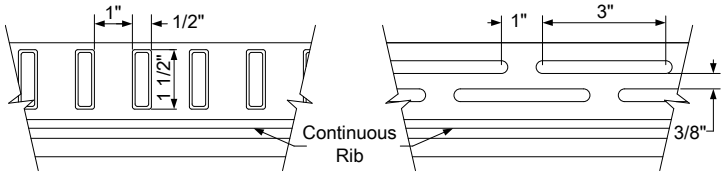
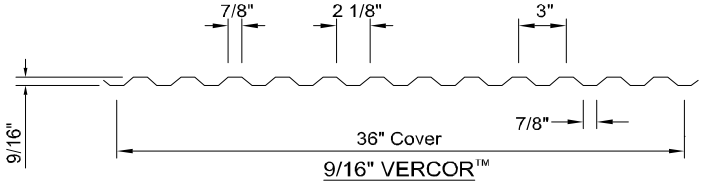


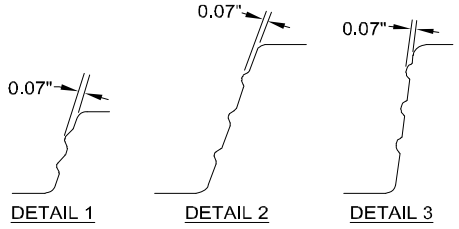
PLW3™ & W3 FORMLOK



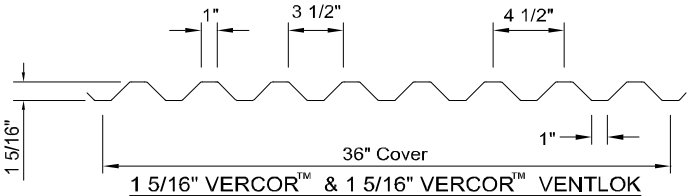
SECTION E-E OPTION 1 OR SECTION E-E OPTION 2



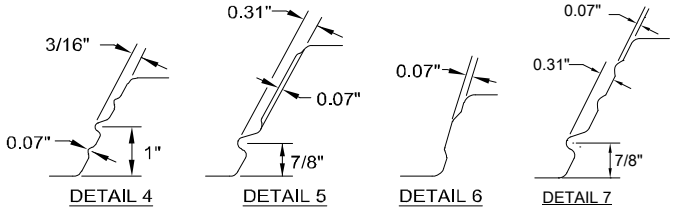
9/16" VERCOR™



DETAIL 1 DETAIL 2 DETAIL 3



1 5/16" VERCOR™ & 1 5/16" VERCOR™ VENTLOK



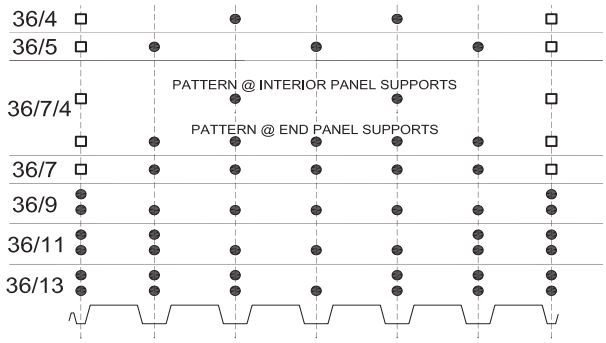
DETAIL 4 DETAIL 5 DETAIL 6 DETAIL 7

FIGURE 5 - ATTACHMENT PATTERNS

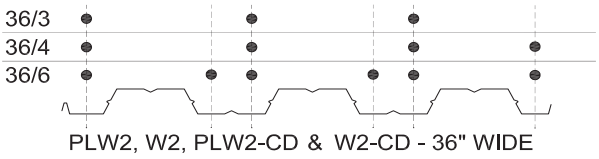
DECK FASTENING DESIGNATION KEY: XX/E/I or XX/A

XX= SHEET WIDTH
E= ATTACHMENT PATTERN @ SUPPORTS AT EACH END OF PANEL
I= ATTACHMENT PATTERN @ SUPPORTS AT EACH INTERMEDIATE SUPPORT
A= ATTACHMENT PATTERN @ ALL SUPPORTS

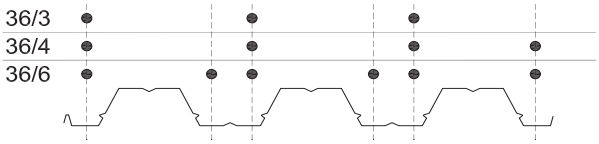
● = ARC SPOT WELD or MECHANICAL FASTENER ATTACHED AT INTERIOR BOTTOM FLUTE
□ = ARC SEAM WELD or MECHANICAL FASTENER ATTACHED ADJACENT TO SIDELAP



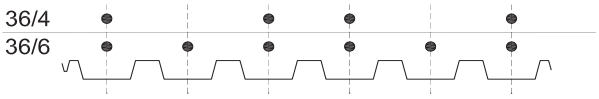
PLB, HSB, B, PLB-CD, B-CD & HSB-CD - 36" WIDE



PLW2, W2, PLW2-CD & W2-CD - 36" WIDE



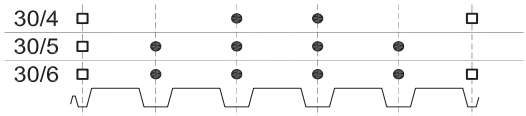
PLW3, W3, PLW3-CD & W3-CD - 36" WIDE



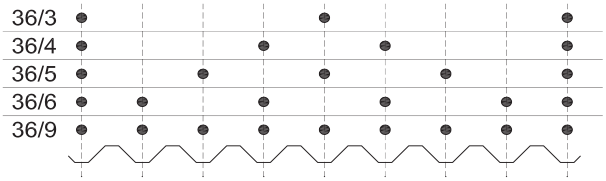
BR - 36" WIDE

PLW2, W2, PLW2-CD & W2-CD - 24" WIDE

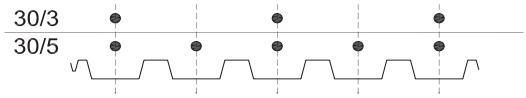
PLW3, W3, PLW3-CD & W3-CD - 24" WIDE



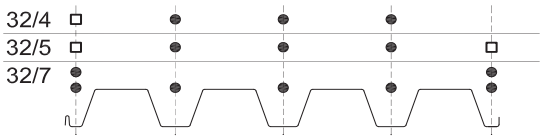
PLB, HSB, B, PLB-CD, B-CD & HSB-CD - 30" WIDE



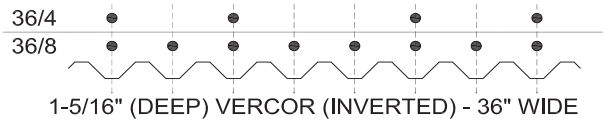
1-5/16" (DEEP) VERCOR (NORMAL) - 36" WIDE



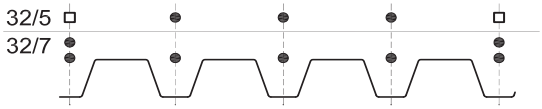
BR - 30" WIDE



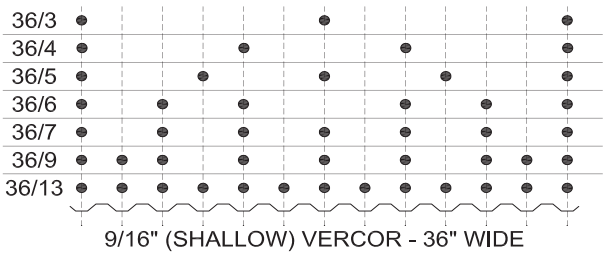
PLN3, HSN3, PLN3-CD, HSN3-CD, N3 & N3-CD - 32" WIDE



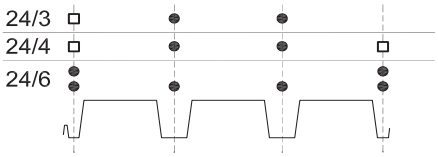
1-5/16" (DEEP) VERCOR (INVERTED) - 36" WIDE



HSN3-NS

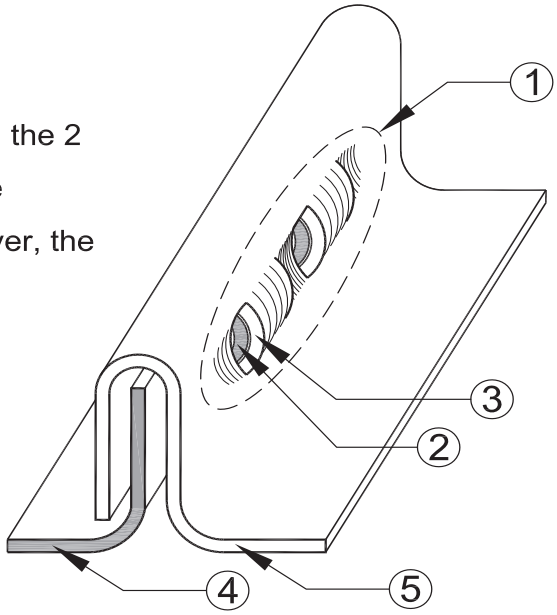


9/16" (SHALLOW) VERCOR - 36" WIDE



PLN, N, PLN-CD, N-24CD & NCD - 24" WIDE

FIGURE 6 – VERCO PUNCHLOK® II SYSTEM with the VERCO SIDELAP CONNECTION 2 (VSC2)



1. PunchLok® II system connection - as shown the 2 deformations of male and female sheets are projecting through the female sheet. However, the VSC2 may be made in either direction
2. Sheared surface of male leg.
3. Sheared surface of female leg.
4. Male leg / sheet.
5. Female leg / sheet.

FIGURE 7 – HILTI FASTENER NAIL HEAD STANDOFF (h_{NVS})

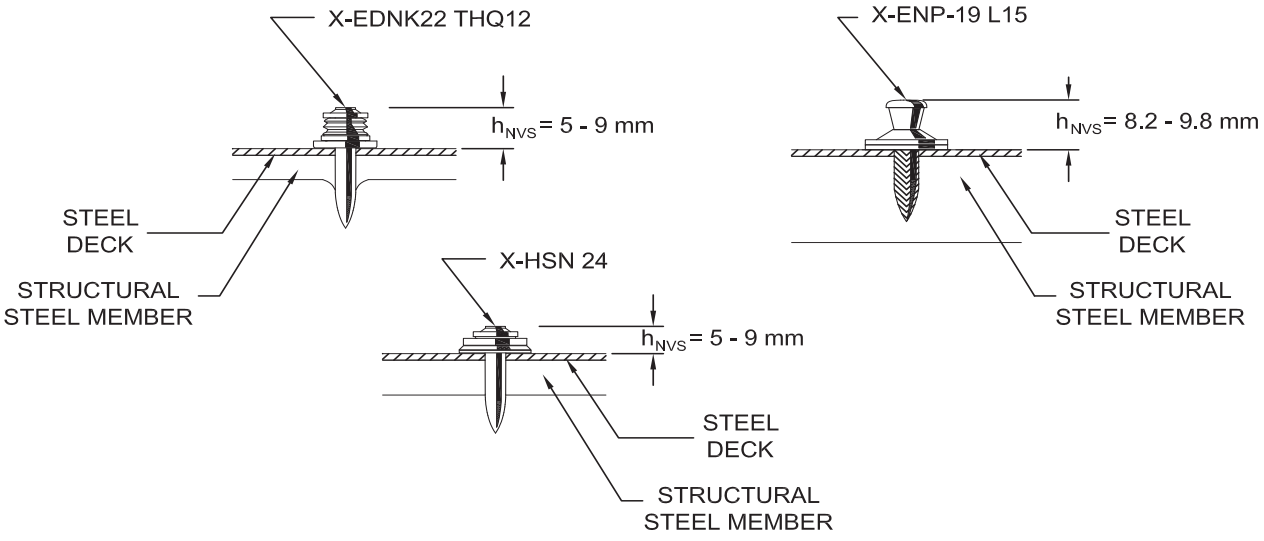


FIGURE 8 – PNEUTEK FASTENERS

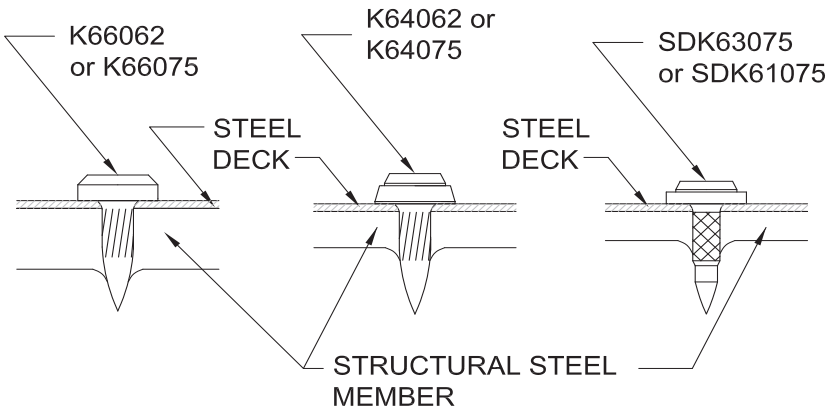


TABLE 1 - ALLOWABLE SHEAR STRENGTH (lbs/connection) FOR ARC SPOT WELDS, ARC SEAM WELDS, HILTI FASTENERS, PNEUTEK FASTENERS AND SDI RECOGNIZED SCREWS FOR VERCO DECK PANEL SUPPORT CONNECTIONS[7,8]

GAGE	PROFILE[1]	BMT[2]	ARC SPOT WELD[3,4]	ARC SEAM WELD[3,4]	HILTI[5] X-ENDK22 or X-HSN 24	HILTI[5] X-ENP-19	PNEUTEK[6] SDK61	PNEUTEK[6] SDK63	PNEUTEK[6] K64	PNEUTEK[6] K66	SDI RECOGNIZED SCREWS[9,10]
		(in.)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
22	B, N & W3	0.0299	783	1231	603	650	618	691	694	736	561
	W2	0.0300	788	1236	605	652	620	693	697	739	563
21	W2 & W3	0.0330	936	1365	664	715	678	744	797	822	619
20	B, N & W3	0.0359	1091	1491	720	775	733	791	886	903	673
	W2	0.0360	1096	1495	722	777	735	792	889	906	675
19	B, N, W2 & W3	0.0420	1455	1758	837	901	846	884	1057	1079	788
18	W2	0.0470	1793	1981	932	1003	937	956	1184	1228	881
	B, N & W3	0.0478	1850	2017	947	1020	951	967	1204	1253	896
16	W2	0.0590	2280	2527	1155	1244	1145	1115	1457	1604	1106
	B, N & W3	0.0598	2309	2564	1169	1259	1158	1125	1474	1630	1121

1 The profile designations used in this table apply to the profile families as summarized below:
"B" – PLB & HSB roof deck (including acoustical and fully perforated versions) and PLB & B FORMLOK deck
"N" – PLN3, HSN3, HSN3-NS, PLN24 & N24 roof deck (including acoustical and fully perforateded versions) and PLN3, N3, N3-NS, PLN & N FORMLOK deck
"W2" – PLW2 & W2 FORMLOK deck
"W3" – PLW3 & W3 FORMLOK deck

2 Base metal thickness (BMT) = specified minimum uncoated base metal thickness used in design. Deck subject to thickness tolerances as described in Section A2.4 of AISI S100.

3 The minimum arc spot weld effective fusion diameter, d_e, is 1/2 inch. The minimum arc seam weld effective fusion width, d_e, is 3/8 inch and the minimum arc seam weld length is 1 inch excluding circular ends.

4 Details, workmanship, technique, and qualification of welds must comply with AWS D1.3.

5 The Hilti fasteners are applicable to the following substrate thicknesses:
X-EDNK22: 1/8 in. ≤ substrate thickness ≤ 1/4 in.
X-HSN 24: 1/8 in. ≤ substrate thickness ≤ 3/8 in.
X-ENP-19: substrate thickness ≥ ¼ in.

6 The Pneutek fasteners are applicable to the following substrate thicknesses:
SDK61 series: 0.113 in. ≤ substrate thickness ≤ 0.155 in.
SDK63 series: 0.155 in. ≤ substrate thickness ≤ 0.250 in.
K64 series: 0.187 in. ≤ substrate thickness ≤ 0.312 in.
K66 series: substrate thickness ≥ 0.281 in.

7 The strength is the ASD allowable connection shear strength, where Ω_d for earthquakes is 3.0 for welds and 2.5 for Hilti, Pneutek and SDI Recognized Screw fasteners in accordance with General Note 22. Modify ASD shear strengths for wind or convert to LRFD as shown in General Note 22.

8 Allowable values may not be increased one-third for earthquake loading.

9 SDI recognized No. 12 or No.14 screws to supports are limited to Buildex, Elco, Hilti, Simpson Strong-Tie or Triangle screws with a minimum substrate thickness of 0.0385 in.

10 Table 21B of this report includes a guide to proper selection of support fastening screws.

TABLE 2 - ALLOWABLE SHEAR STRENGTH (lbs/connection) FOR NO. 12 SCREWS FOR VERCO DECK PANEL SUPPORT CONNECTIONS[3,4,5,6,7]

GAGE	PROFILE[1]	BMT[2]	SUPPORT THICKNESS (in.) AND STRENGTH, Fy/Fu (ksi)											
			33 mil (0.0346 in.)		43 mil (0.0451 in.)		54 mil (0.0566 in.)		68 mil (0.0713 in.)		97 mil (0.1017 in.)		1/8 in.	≥ 3/16 in.
		(in.)	33/45	50/65	33/45	50/65	33/45	50/65	33/45	50/65	33/45	50/65	36/58	36/58
26	9/16" SV	0.0179	247	259	259	259	259	259	259	259	259	259	259	259
	1-5/16" DV	0.0195	255	282	282	282	282	282	282	282	282	282	282	282
24	9/16" SV	0.0239	262	332	342	346	346	346	346	346	346	346	346	346
	1-5/16" DV	0.0254	259	336	352	367	367	367	367	367	367	367	367	367
22	9/16" SV	0.0299	240	338	369	432	432	432	432	432	432	432	432	432
	B, N & W3	0.0299	240	338	369	432	432	432	432	432	432	432	432	432
	W2	0.0300	240	338	369	434	434	434	434	434	434	434	434	434
	1-5/16" DV	0.0314	235	335	371	454	454	454	454	454	454	454	454	454
21	W2 & W3	0.0330	226	327	370	477	475	477	477	477	477	477	477	477
20	B, N & W3	0.0359	226	327	360	492	491	519	519	519	519	519	519	519
	W2	0.0360	226	327	360	492	491	521	521	521	521	521	521	521
	1-5/16" DV	0.0374	226	327	355	494	496	541	541	541	541	541	541	541
19	W2 & W3	0.0420	226	327	343	492	501	607	607	607	607	607	607	607
18	W2	0.0470	226	327	337	486	490	680	673	680	680	680	680	680
	B, N & W3	0.0478	226	327	337	486	488	684	676	691	691	691	691	691
16	W2	0.0590	226	327	337	486	473	683	680	853	853	853	853	853
	B, N & W3	0.0598	226	327	337	486	473	683	679	865	865	865	865	865

[1] The profile designations used in this table apply to the profile families as summarized below:
"9/16" SV" - 9/16 in. (Shallow) VERCOR
"1-5/16" DV" - 1-5/16 in. (Deep) VERCOR
"B" – PLB & HSB roof deck (including acoustical and fully perfed versions) and PLB & B FORMLOK deck
"N" – PLN3, HSN3, HSN3-NS, PLN24 & N24 roof deck (including acoustical and fully perfed versions) and PLN3, N3, N3-NS, PLN, and N FORMLOK deck
"W2" – PLW2 & W2 FORMLOK deck
"W3" – PLW3 & W3 FORMLOK deck

[2] Base metal thickness (BMT) = specified minimum uncoated base metal thickness used in design. Deck is subject to thickness tolerances as described in Section A2.4 of AISI S100.

[3] The No. 12 screws are self-drilling self-tapping screws with a minimum washer diameter of 5/16-inch and a minimum washer thickness of 0.05 inch. The screws shall comply with ASTM C1513.

[4] The allowable shear strength of the individual screws, as published by their manufacturer, shall equal or exceed the allowable screw connection shear strengths listed above.

[5] Table 21B of this report provides a guide to proper selection of support fastening screws.

[6] The strength is the ASD allowable connection shear strength, where Ω_d for earthquakes is 2.5 in accordance with General Note 22. The ASD shear strengths may be adjusted for wind or converted to LRFD as shown in General Note 22.

[7] Allowable values may not be increased one-third for earthquake loading.

TABLE 3 - ALLOWABLE TENSION LOADS (lbs/connection) FOR ARC SPOT WELDS, HILTI FASTENERS AND PNEUTEK FASTENERS SUBJECT TO WIND UPLIFT LOADS FOR VERCO B AND N STEEL DECK PANELS[7]

GAGE	PROFILE[1]	BMT[2]	ARC SPOT WELD[3,4]	HILTI[5] X-ENDK22 or X-HSN 24	HILTI[5] X-ENP-19	PNEUTEK[6] SDK61, SDK63, K64 or K66
		(in.)	(lbs)	(lbs)	(lbs)	(lbs)
22	B & N	0.0299	505	493	525	297
20	B & N	0.0359	602	592	631	429
18	B & N	0.0478	790	788	840	760
16	B & N	0.0598	975	985	1050	1190

[1] The profile designations used in this table apply to the profile families as summarized below:
"B" – PLB & HSB roof deck (including acoustical versions) and PLB & B FORMLOK deck
"N" – PLN3, HSN3, HSN3-NS, PLN24 & N24 roof deck (including acoustical versions) and PLN3, N3, N3-NS, PLN & N FORMLOK deck

[2] Base metal thickness (BMT) = specified minimum uncoated base metal thickness used in design. Deck is subject to thickness tolerances as described in Section A2.4 of AISI S100.

[3] The minimum arc spot weld effective fusion diameter, d_e, is 1/2 inch. The values for arc spot welds may be applied to arc seam weld with minimum effective fusion width, d_e, of 3/8 inch and minimum length is 1 inch excluding circular ends.

[4] Details, workmanship, technique and qualification of welds shall comply with AWS D1.3.

[5] The Hilti fasteners are applicable to the following substrate thicknesses:
X-EDNK22: 1/8 in. ≤ substrate thickness ≤ 1/4 in.
X-HSN 24: 1/8 in. ≤ substrate thickness ≤ 3/8 in.
X-ENP-19: substrate thickness ≥ ¼ in.

[6] The Pneutek fasteners are applicable to the following substrate thicknesses:
SDK61 series: 0.113 in. ≤ substrate thickness ≤ 0.155 in.
SDK63 series: 0.155 in. ≤ substrate thickness ≤ 0.250 in.
K64 series: 0.187 in. ≤ substrate thickness ≤ 0.312 in.
K66 series: substrate thickness ≥ 0.281 in.

[7] The strength is the ASD allowable connection tensile strength, where Ω is 2.5 for welds and 3.0 for Hilti and Pneutek fasteners. The ASD tensile strengths may be converted to LRFD based on Ø = 0.60 for welds and Ø = 0.50 for Hilti or Pneutek fasteners.

TABLE 4 - ALLOWABLE TENSION LOADS (lbs/connection) FOR #12 SCREWS SUBJECT TO WIND UPLIFT LOADS FOR VERCO DECK PANELS[3,4,5,6,7]

GAGE	PROFILE[1]	BMT[2]	SUPPORT THICKNESS (in.) AND STRENGTH, Fy/Fu (ksi)											
			33 mil (0.0346 in.)		43 mil (0.0451 in.)		54 mil (0.0566 in.)		68 mil (0.0713 in.)		97 mil (0.1017 in.)		1/8 in.	≥ 3/16 in.
		(in.)	33/45	50/65	33/45	50/65	33/45	50/65	33/45	50/65	33/45	50/65	36/58	36/58
26	9/16" SV	0.0179	95	138	124	173	156	173	173	173	173	173	173	173
	1-5/16" DV	0.0195	95	138	124	179	156	189	189	189	189	189	189	189
24	9/16" SV	0.0239	95	138	124	179	156	225	196	232	232	232	232	232
	1-5/16" DV	0.0254	95	138	124	179	156	225	196	246	246	246	246	246
22	9/16" SV	0.0299	95	138	124	179	156	225	196	284	280	290	290	290
	B, N & W3	0.0299	95	138	124	179	156	225	196	284	280	290	290	290
	W2	0.0300	95	138	124	179	156	225	196	284	280	291	291	291
	1-5/16" DV	0.0314	95	138	124	179	156	225	196	284	280	304	304	304
21	W2 & W3	0.0330	95	138	124	179	156	225	196	284	280	320	320	320
20	B, N & W3	0.0359	95	138	124	179	156	225	196	284	280	348	348	348
	W2	0.0360	95	138	124	179	156	225	196	284	280	349	349	349
	1-5/16" DV	0.0374	95	138	124	179	156	225	196	284	280	362	362	362
19	W2 & W3	0.0420	95	138	124	179	156	225	196	284	280	405	407	407
18	W2	0.0470	95	138	124	179	156	225	196	284	280	405	444	455
	B, N & W3	0.0478	95	138	124	179	156	225	196	284	280	405	444	463
16	W2	0.0590	95	138	124	179	156	225	196	284	280	405	444	572
	B, N & W3	0.0598	95	138	124	179	156	225	196	284	280	405	444	579

[1] The profile designations used in this table apply to the profile families as summarized below:
"9/16" SV" - 9/16 in. (Shallow) VERCOR
"1-5/16" DV" - 1-5/16 in. (Deep) VERCOR
"B" – PLB & HSB roof deck (including acoustical versions) and PLB & B FORMLOK deck
"N" – PLN3, HSN3, HSN3-NS, PLN24 & N24 roof deck (including acoustical versions) and PLN3, N3, N3-NS, PLN & N FORMLOK deck
"W2" – PLW2 & W2 FORMLOK deck
"W3" – PLW3 & W3 FORMLOK deck

[2] Base metal thickness (BMT) = specified minimum uncoated base metal thickness used in design. Deck subject to thickness tolerances as described in Section A2.4 of AISI S100.

[3] The #12 screws are self-drilling self-tapping screws with a minimum washer diameter of 5/16-inch and a minimum washer thickness of 0.05 in. The screws shall comply with ASTM C1513.

[4] The allowable tensile strength of the individual screws, as published by their manufacturer, must meet or exceed the allowable screw connection tensile strengths listed above.

[5] Table 21B of this report provides a guide to proper selection of support fastening screws.

[6] The strength is the ASD allowable connection tensile strength, where Ω is 3.0. ASD tensile strengths may be converted to LRFD based on Ø = 0.50.

TABLE 5 - DECK SECTION PROPERTIES (Per Foot of Width)[1-6]

DECK PROFILE	DECK GAGE	Basic Properties		Gross Section Properties					Web Crippling Geometry		Section Modulus		Moment of Inertia			
															Uniform Load	
		BMT	w	A_g	I_x	y_b	y_t	r	h_w	ϴ	S_{e+}	S_{e-}	I_{e+}	I_{e-}	I_{d+}	I_{d-}
		(in.)	(psf)	(in^2/ft)	(in^4/ft)	(in.)	(in.)	(in.)	(in.)	(deg.)	(in^3/ft)	(in^3/ft)	(in^4/ft)	(in^4/ft)	(in^4/ft)	(in^4/ft)
PLB & HSB Roof Deck; PLB & B FORMLOK[1,4]	22	0.0299	1.9	0.506	0.193	0.913	0.617	0.618	1.240	75.1	0.176	0.188	0.170	0.192	0.177	0.192
	20	0.0359	2.3	0.607	0.231	0.916	0.620	0.617	1.238	75.0	0.230	0.237	0.213	0.231	0.219	0.231
	18	0.0478	2.9	0.807	0.306	0.923	0.625	0.616	1.233	74.7	0.314	0.331	0.300	0.306	0.302	0.306
	16	0.0598	3.5	1.007	0.381	0.929	0.630	0.615	1.228	74.3	0.399	0.410	0.381	0.381	0.381	0.381
BR FORMLOK[1]	22	0.0299	1.9	0.506	0.193	0.617	0.913	0.618	1.240	75.1	0.188	0.176	0.192	0.170	0.192	0.177
	20	0.0359	2.3	0.607	0.231	0.620	0.916	0.617	1.238	75.0	0.237	0.230	0.231	0.213	0.231	0.219
	18	0.0478	2.9	0.807	0.306	0.625	0.923	0.616	1.233	74.7	0.331	0.314	0.306	0.300	0.306	0.302
	16	0.0598	3.5	1.007	0.381	0.630	0.929	0.615	1.228	74.3	0.410	0.399	0.381	0.381	0.381	0.381
PLN3 & HSN3 Roof Deck; PLN & N3 FORMLOK[1,4]	22	0.0299	2.0	0.567	0.800	1.687	1.343	1.188	2.879	71.2	0.353	0.405	0.681	0.778	0.721	0.785
	20	0.0359	2.4	0.680	0.959	1.690	1.346	1.188	2.877	71.1	0.452	0.509	0.855	0.950	0.889	0.953
	18	0.0478	3.1	0.905	1.273	1.697	1.351	1.186	2.872	71.0	0.671	0.722	1.207	1.273	1.229	1.273
	16	0.0598	3.9	1.130	1.587	1.703	1.357	1.185	2.867	70.8	0.883	0.932	1.562	1.587	1.571	1.587
PLN-24, N-24 Roof Deck; PLN-24 & N-24 FORMLOK[1,4]	22	0.0299	2.2	0.617	0.862	1.849	1.181	1.182	2.672	82.4	0.344	0.429	0.668	0.854	0.733	0.857
	20	0.0359	2.6	0.740	1.032	1.852	1.184	1.181	2.668	82.3	0.443	0.531	0.845	1.031	0.908	1.032
	18	0.0478	3.5	0.983	1.369	1.860	1.188	1.180	2.661	82.1	0.652	0.735	1.216	1.369	1.267	1.369
	16	0.0598	4.2	1.227	1.706	1.867	1.193	1.179	2.653	81.9	0.837	0.914	1.610	1.706	1.642	1.706
PLW2 & W2 FORMLOK[1]	22	0.0300	1.8	0.464	0.362	1.026	1.067	0.883	2.049	63.7	0.246	0.256	0.330	0.327	0.340	0.339
	21	0.0330	2.0	0.511	0.398	1.027	1.068	0.883	2.048	63.7	0.283	0.294	0.372	0.369	0.381	0.379
	20	0.0360	2.1	0.557	0.434	1.029	1.070	0.883	2.047	63.6	0.323	0.333	0.416	0.412	0.422	0.419
	19	0.0420	2.4	0.650	0.506	1.032	1.073	0.882	2.045	63.6	0.405	0.415	0.502	0.496	0.503	0.499
	18	0.0470	2.7	0.727	0.565	1.035	1.075	0.882	2.044	63.5	0.471	0.481	0.564	0.560	0.564	0.562
	16	0.0590	3.3	0.912	0.709	1.041	1.081	0.882	2.041	63.3	0.623	0.638	0.707	0.707	0.707	0.707
PLW3 & W3 FORMLOK[1]	22	0.0299	1.9	0.497	0.761	1.478	1.552	1.237	3.113	63.2	0.393	0.410	0.723	0.715	0.736	0.730
	21	0.0330	2.1	0.548	0.840	1.480	1.553	1.238	3.113	63.1	0.453	0.470	0.816	0.806	0.824	0.817
	20	0.0359	2.3	0.596	0.914	1.481	1.555	1.238	3.112	63.1	0.510	0.528	0.904	0.892	0.907	0.899
	19	0.0420	2.7	0.697	1.068	1.485	1.558	1.238	3.110	63.0	0.636	0.652	1.067	1.058	1.067	1.061
	18	0.0478	2.9	0.793	1.214	1.488	1.560	1.237	3.108	63.0	0.752	0.768	1.213	1.210	1.213	1.212
	16	0.0598	3.5	0.991	1.517	1.494	1.566	1.237	3.105	62.9	0.968	0.966	1.515	1.516	1.516	1.516
9/16" (SHALLOW) VERCOR[2]	26	0.0179	1.0	0.256	0.013	0.283	0.298	0.225	0.696	41.7	0.041	0.043	0.013	0.013	0.013	0.013
	24	0.0239	1.3	0.342	0.018	0.286	0.301	0.229	0.696	41.6	0.059	0.059	0.018	0.018	0.018	0.018
	22	0.0299	1.6	0.428	0.022	0.289	0.304	0.227	0.696	41.5	0.073	0.073	0.022	0.022	0.022	0.022
1-5/16" (DEEP) VERCOR[2]	26	0.0195	1.1	0.304	0.075	0.641	0.691	0.497	1.650	46.2	0.099	0.103	0.075	0.073	0.075	0.074
	24	0.0254	1.4	0.396	0.097	0.644	0.694	0.495	1.649	46.2	0.137	0.138	0.097	0.096	0.097	0.097
	22	0.0314	1.7	0.490	0.120	0.647	0.697	0.495	1.649	46.1	0.172	0.171	0.120	0.120	0.120	0.120
	20	0.0374	2.1	0.583	0.143	0.650	0.700	0.495	1.648	46.0	0.204	0.204	0.143	0.143	0.143	0.143

1 Values based on F_y = 50 ksi, F_u = 62 ksi.

2 Values based on F_y = 60 ksi, F_u = 62 ksi (specified yield strength of 80 ksi).

3 S_e (+ or -) is the effective section modulus. I_e (+ or -) is the effective moment of inertia. I_d (+ or -) is the moment of inertia for uniform loads. M (+ or -) is the ASD allowable moment, $M=M_n/W_b$, where W_b =1.67 and M_n is the nominal moment, $M_n=S_e * F_y$. LRFD moments may be determined by multiplying nominal moments by Φ_b=0.95.

4 Determination of deflection in this report, for single and multiple spans, is based on $I_{d\ single}$ and $I_{d\ multiple}$. $I_{d\ single}$ is equal to I_{d+} and $I_{d\ multiple}$ is the maximum of either Id+ or Id-.

5 w is weight of bare deck in psf, and BMT is base metal thickness in inches.

6 Table 7 of this report lists section properties and moment capacities of web perforated and fully perforated deck.

TABLE 6 - DECK NOMINAL BENDING, TENSION AND COMPRESSION CAPACITIES[1-3]

DECK PROFILE	DECK GAGE	BENDING/TENSION			COMPRESSION											
		M_{n+}	M_{n-}	T_n	P_{no}	Pn [For laterally unbraced (span) Length in Feet], kip/ft										
		(k-ft/ft)	(k-ft/ft)	(kip/ft)	(kip/ft)	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0
PLB & HSB	22	0.733	0.783	25.30	17.40	12.70	10.49	8.08	6.14	4.85	3.94	3.26	2.75	2.36	2.03	1.75
Roof Deck;	20	0.958	0.988	30.35	23.15	16.38	13.18	10.09	7.67	6.06	4.91	4.07	3.39	2.84	2.42	2.09
PLB & B	18	1.308	1.379	40.35	34.26	23.22	18.67	14.28	10.85	8.48	6.70	5.43	4.48	3.77	3.21	2.77
FORMLOK[1]	16	1.663	1.708	50.35	44.97	30.50	24.50	18.67	13.79	10.56	8.34	6.76	5.58	4.69	4.00	3.45
	22	0.783	0.733	25.30	17.40	12.70	10.49	8.08	6.14	4.85	3.94	3.26	2.75	2.36	2.03	1.75
BR	20	0.988	0.958	30.35	23.15	16.38	13.18	10.09	7.67	6.06	4.91	4.07	3.39	2.84	2.42	2.09
FORMLOK[1]	18	1.379	1.308	40.35	34.26	23.22	18.67	14.28	10.85	8.48	6.70	5.43	4.48	3.77	3.21	2.77
	16	1.708	1.663	50.35	44.97	30.50	24.50	18.67	13.79	10.56	8.34	6.76	5.58	4.69	4.00	3.45
PLN3 & HSN3	22	1.471	1.688	28.35	14.33	13.25	12.68	12.01	11.27	10.47	9.63	8.77	7.90	7.04	6.30	5.68
Roof Deck;	20	1.883	2.121	34.00	19.44	17.97	17.19	16.28	15.27	14.17	13.02	11.84	10.64	9.41	8.34	7.46
PLN & N3	18	2.796	3.008	45.25	31.30	28.87	27.59	26.08	24.40	22.47	20.46	18.41	16.36	14.36	12.67	11.19
FORMLOK[1]	16	3.679	3.883	56.50	44.76	40.96	38.97	36.65	34.08	31.32	28.43	25.49	22.48	19.23	16.58	14.36
PLN-24, N-24	22	1.433	1.788	30.85	15.18	13.98	13.35	12.62	11.81	10.93	10.02	9.09	8.15	7.19	6.38	5.72
Roof Deck;	20	1.846	2.213	37.00	20.42	18.81	17.96	16.97	15.87	14.68	13.42	12.08	10.75	9.46	8.39	7.50
PLN-24 & N-24	18	2.717	3.063	49.15	32.35	29.61	28.16	26.50	24.65	22.68	20.63	18.55	16.47	14.45	12.67	11.10
FORMLOK[1]	16	3.488	3.808	61.35	45.34	41.46	39.42	37.06	34.44	31.63	28.70	25.62	22.29	19.14	16.60	14.54
	22	1.025	1.067	23.20	15.59	13.52	12.47	11.29	10.02	8.71	7.41	6.34	5.40	4.57	3.89	3.36
	21	1.179	1.225	25.55	18.30	15.84	14.59	13.19	11.68	10.12	8.57	7.19	5.98	5.03	4.28	3.69
PLW2 & W2	20	1.346	1.388	27.85	21.11	18.24	16.79	15.15	13.38	11.56	9.66	7.89	6.52	5.48	4.67	4.03
FORMLOK[1]	19	1.688	1.729	32.50	27.15	23.37	21.44	19.27	16.93	14.19	11.36	9.20	7.60	6.39	5.44	4.69
	18	1.963	2.004	36.35	31.87	27.35	25.04	22.44	19.39	15.90	12.69	10.28	8.49	7.14	6.08	5.24
	16	2.596	2.658	45.60	43.70	37.24	33.54	28.97	24.36	19.95	15.92	12.90	10.66	8.96	7.63	6.58
	22	1.638	1.708	24.85	15.80	14.69	14.10	13.41	12.63	11.78	10.88	9.95	9.00	8.04	7.12	6.24
	21	1.888	1.958	27.40	18.58	17.27	16.57	15.75	14.82	13.81	12.75	11.64	10.50	9.26	8.03	7.04
PLW3 & W3	20	2.125	2.200	29.80	21.34	19.82	19.01	18.05	16.98	15.80	14.56	13.27	11.80	10.26	8.90	7.80
FORMLOK[1]	19	2.650	2.717	34.85	27.53	25.51	24.43	23.16	21.73	20.13	18.17	16.21	14.28	12.42	10.78	9.44
	18	3.133	3.200	39.65	33.40	30.89	29.55	27.88	25.78	23.55	21.26	18.97	16.72	14.54	12.60	11.04
	16	4.033	4.025	49.55	45.46	41.29	39.12	36.62	33.87	30.95	27.94	24.91	21.94	19.04	16.30	14.06
9/16"	26	0.205	0.215	15.36	13.13	1.44	0.92	0.64	0.47	0.36	0.28	0.23	0.19	0.16	0.14	0.12
(SHALLOW)	24	0.295	0.295	20.52	20.19	1.99	1.28	0.89	0.65	0.50	0.39	0.32	0.26	0.22	0.19	0.16
VERCOR[2]	22	0.365	0.365	25.68	25.68	2.44	1.56	1.08	0.80	0.61	0.48	0.39	0.32	0.27	0.23	0.20
	26	0.495	0.515	18.24	11.38	6.42	4.53	3.36	2.60	2.07	1.64	1.33	1.10	0.92	0.79	0.68
1-5/16" (DEEP)	24	0.685	0.690	23.76	17.36	9.16	6.44	4.74	3.51	2.69	2.12	1.72	1.42	1.19	1.02	0.88
VERCOR[2]	22	0.860	0.855	29.40	23.78	12.22	8.51	5.91	4.34	3.32	2.63	2.13	1.76	1.48	1.26	1.09
	20	1.020	1.020	34.98	30.15	15.40	10.14	7.04	5.17	3.96	3.13	2.54	2.10	1.76	1.50	1.29

1 Values based on F_y = 50 ksi, F_u = 62 ksi.

2 Values based on F_y = 60 ksi, F_u = 62 ksi (specified yield strength of 80 ksi).

3 To convert nominal values to ASD or LRFD, the following safety and resistance factors apply as set forth in AISI S100:

	ASD	LRFD
Bending	1.67	0.90
Tension	1.67	0.95
Compression	1.80	0.85

TABLE 7 - DECK SECTION PROPERTIES FOR WEB PERFORATED AND FULLY PERFORATED STEEL DECK (Per Foot of Width)[1-6]

DECK PROFILE	DECK GAGE	Basic Properties		Gross Section Properties					Web Crippling Geometry		Section Modulus		Moment of Inertia			
															Uniform Load	
		BMT	w	A_g	I_x	y_b	y_t	r	h_w	ϴ	S_{e+}	S_{e-}	I_{e+}	I_{e-}	I_{d+}	I_{d-}
		(in.)	(psf)	(in^2/ft)	(in^4/ft)	(in.)	(in.)	(in.)	(in.)	(deg.)	(in^3/ft)	(in^3/ft)	(in^4/ft)	(in^4/ft)	(in^4/ft)	(in^4/ft)
PLB & HSB Acoustical[1,4]	22	0.0299	1.9	0.493	0.187	0.913	0.617	0.616	1.240	75.1	0.170	0.182	0.166	0.187	0.173	0.187
	20	0.0359	2.3	0.591	0.224	0.916	0.620	0.616	1.238	75.0	0.223	0.230	0.208	0.225	0.214	0.225
	18	0.0478	2.9	0.786	0.297	0.923	0.625	0.615	1.233	74.7	0.306	0.322	0.293	0.299	0.295	0.299
	16	0.0598	3.5	0.981	0.370	0.929	0.630	0.614	1.228	74.3	0.388	0.399	0.372	0.372	0.372	0.372
PLB & HSB FP11[1,4]	22	0.0299	1.7	0.447	0.193	0.913	0.617	0.656	1.240	75.1	0.098	0.105	0.127	0.133	0.149	0.153
	20	0.0359	2.0	0.536	0.231	0.916	0.620	0.656	1.238	75.0	0.128	0.132	0.157	0.160	0.181	0.183
	18	0.0478	2.6	0.712	0.306	0.923	0.625	0.655	1.233	74.7	0.175	0.185	0.211	0.211	0.243	0.243
	16	0.0598	3.1	0.889	0.381	0.929	0.630	0.655	1.228	74.3	0.223	0.229	0.263	0.263	0.303	0.303
PLB & HSB FP21[1,4]	22	0.0299	1.5	0.396	0.193	0.913	0.617	0.697	1.240	75.1	0.078	0.083	0.102	0.104	0.132	0.133
	20	0.0359	1.8	0.475	0.231	0.916	0.620	0.697	1.238	75.0	0.102	0.105	0.124	0.124	0.159	0.160
	18	0.0478	2.3	0.631	0.306	0.923	0.625	0.696	1.233	74.7	0.139	0.147	0.165	0.165	0.212	0.212
	16	0.0598	2.8	0.787	0.381	0.929	0.630	0.696	1.228	74.3	0.177	0.182	0.205	0.205	0.264	0.264
PLN3 & HSN3 Acoustical[1,4]	22	0.0299	2.0	0.538	0.752	1.687	1.343	1.182	2.879	71.2	0.321	0.374	0.635	0.729	0.673	0.736
	20	0.0359	2.4	0.645	0.901	1.690	1.346	1.182	2.877	71.1	0.414	0.471	0.799	0.891	0.833	0.894
	18	0.0478	3.1	0.858	1.197	1.697	1.351	1.181	2.872	71.0	0.620	0.672	1.132	1.194	1.153	1.194
	16	0.0598	3.9	1.072	1.492	1.703	1.357	1.180	2.867	70.8	0.821	0.870	1.467	1.490	1.475	1.490
PLN3 & HSN3 FP11[1,4]	22	0.0299	1.8	0.501	0.800	1.687	1.343	1.264	2.879	71.2	0.197	0.226	0.512	0.552	0.608	0.635
	20	0.0359	2.1	0.601	0.959	1.690	1.346	1.263	2.877	71.1	0.252	0.284	0.636	0.663	0.744	0.761
	18	0.0478	2.8	0.799	1.273	1.697	1.351	1.262	2.872	71.0	0.374	0.403	0.875	0.880	1.007	1.011
	16	0.0598	3.5	0.998	1.587	1.703	1.357	1.261	2.867	70.8	0.493	0.520	1.098	1.098	1.261	1.261
PLN3 & HSN3 FP21[1,4]	22	0.0299	1.6	0.443	0.800	1.687	1.343	1.343	2.879	71.2	0.156	0.180	0.411	0.431	0.540	0.554
	20	0.0359	1.9	0.532	0.959	1.690	1.346	1.342	2.877	71.1	0.200	0.225	0.507	0.517	0.657	0.664
	18	0.0478	2.4	0.707	1.273	1.697	1.351	1.341	2.872	71.0	0.297	0.320	0.686	0.686	0.882	0.882
	16	0.0598	3.1	0.884	1.587	1.703	1.357	1.340	2.867	70.8	0.391	0.413	0.856	0.856	1.100	1.100
PLN24 & N24 Acoustical[1,4]	22	0.0299	2.2	0.590	0.819	1.849	1.181	1.178	2.672	82.4	0.317	0.403	0.629	0.810	0.692	0.812
	20	0.0359	2.6	0.708	0.980	1.852	1.184	1.177	2.668	82.3	0.411	0.498	0.799	0.978	0.859	0.979
	18	0.0478	3.5	0.941	1.301	1.860	1.188	1.176	2.661	82.1	0.609	0.692	1.153	1.299	1.202	1.299
	16	0.0598	4.2	1.175	1.621	1.867	1.193	1.174	2.653	81.9	0.784	0.860	1.529	1.619	1.559	1.619
PLN24 & N24 FP11[1,4]	22	0.0299	2.0	0.545	0.862	1.849	1.181	1.258	2.672	82.4	0.192	0.240	0.513	0.596	0.629	0.684
	20	0.0359	2.3	0.653	1.032	1.852	1.184	1.257	2.668	82.3	0.247	0.296	0.645	0.714	0.774	0.820
	18	0.0478	3.1	0.868	1.369	1.860	1.188	1.256	2.661	82.1	0.364	0.410	0.910	0.947	1.063	1.088
	16	0.0598	3.7	1.084	1.706	1.867	1.193	1.255	2.653	81.9	0.467	0.510	1.172	1.180	1.350	1.355
PLN24 & N24 FP21[1,4]	22	0.0299	1.7	0.482	0.862	1.849	1.181	1.337	2.672	82.4	0.152	0.190	0.415	0.465	0.564	0.597
	20	0.0359	2.1	0.578	1.032	1.852	1.184	1.336	2.668	82.3	0.196	0.235	0.520	0.557	0.690	0.715
	18	0.0478	2.8	0.769	1.369	1.860	1.188	1.335	2.661	82.1	0.289	0.326	0.725	0.738	0.939	0.949
	16	0.0598	3.3	0.960	1.706	1.867	1.193	1.333	2.653	81.9	0.371	0.405	0.920	0.920	1.182	1.182

1 Values based on F_y = 50 ksi, F_u = 62 ksi.

2 Values based on F_y = 60 ksi, F_u = 62 ksi (specified yield strength of 80 ksi).

3 S_e (+ or -) is the effective section modulus. I_e (+ or -) is the effective moment of inertia. I_d (+ or -) is the moment of inertia for uniform loads. M (+ or -) is the ASD allowable moment, $M=M_n/W_b$, where W_b =1.67 and M_n is the nominal moment, $M_n=S_e * F_y$. LRFD moments may be determined by multiplying nominal moments by Φ_b=0.95.

4 Determination of deflection in this report, for single and multiple spans, is based on $I_{d\ single}$ and $I_{d\ multiple}$. $I_{d\ single}$ is equal to I_{d+} and $I_{d\ multiple}$ is the maximum of either I_{d+} or I_{d-}.

5 w is weight of bare beck in psf, and BMT is bare metal thickness in inches.

6 Acoustical is web perforated deck, as shown in Figure 2 of this report for the Acoustic Deck Perforation Pattern. FP11 is fully perforated deck with approximately 11 percent open area. Figure 3 of this report shows the Fully Perforated Deck Perforation Pattern. FP21 is fully perforated deck with approximately 21 percent open area. Figure 3 of this report shows the Fully Perforated Deck Perforation Pattern.

TABLE 8 - ALLOWABLE REACTIONS BASED ON WEB CRIPPLING (Pounds Per Foot of Width)[1-6]

DECK PROFILE	DECK GAGE	END REACTION			INTERIOR REACTION	
		LENGTH OF BEARING ON SUPPORT				
		2"	3"	4"	3"	4"
PLB & HSB Roof Deck; PLB & B FORMLOK[1,3,4]	22	935	1076	1163	1559	1671
	20	1301	1492	1609	2190	2340
	18	2181	2484	2667	3714	3950
	16	3265	3699	3955	5607	5938
		2"	3"	4"	4"	8"
PLW3 & W3 FORMLOK[1]	22	383	441	490	778	908
	21	461	530	588	934	1126
	20	540	619	686	1091	1352
	19	724	828	914	1456	1832
	18	922	1049	1157	1845	2310
	16	1395	1581	1737	2780	3449
		1½"		2"	1½"	2"
9/16" (SHALLOW) VERCOR[2]	26	581		644	788	862
	24	980		1081	1375	1497
	22	1466		1611	2105	2283
		2"	3"	4"	4"	8"
PLN-24, N-24 Roof Deck; PLN & N FORMLOK[1,3,4]	22	654	753	836	1300	1518
	20	921	1056	1169	1823	2259
	18	1566	1783	1967	3085	3860
	16	2367	2681	2946	4648	5758

DECK PROFILE	DECK GAGE	END REACTION			INTERIOR REACTION	
		LENGTH OF BEARING ON SUPPORT				
		2"	3"	4"	4"	8"
PLN3 & HSN3 Roof Deck; PLN3 & N3 FORMLOK[1,3,4]	22	618	711	789	1240	1447
	20	870	997	1105	1738	2154
	18	1481	1687	1860	2941	3682
	16	2240	2538	2789	4430	5497
		2"	3"	4"	4"	6"
PLW2 & W2 FORMLOK[1]	22	412	475	527	793	911
	21	492	565	626	945	1084
	20	577	661	732	1109	1269
	19	765	874	966	1472	1678
	18	940	1071	1182	1808	2056
	16	1424	1613	1773	2738	3097
		2"	3"	4"	3"	4"
1-5/16" (DEEP) VERCOR[2]	26	492	572	639	829	916
	24	802	927	1032	1366	1503
	22	1184	1361	1510	2029	2225
	20	1628	1864	2064	2807	3069

1 Values based on F_y = 50 ksi, F_u = 65 ksi.

2 Values based on F_y = 60 ksi, F_u = 62 ksi (specified yield strength of 80 ksi).

3 All B, N3, and N-24 roof deck profiles are available in acoustical versions. Figure 2 of this report shows the acoustic deck perforation patterns and Footnote 4 provides the allowable reaction adjustment factors.

4 Allowable reaction adjustment factors for fully perforated deck are outside the scope of this report. The tabulated B, N3 and N-24 roof deck values shall be multiplied by the following allowable reaction adjustment factors to obtain acoustical deck reactions:

DECK TYPE	END	INTERIOR
B - Acoustical	1.00	0.76
N3 - Acoustical	1.00	0.85
N24 - Acoustical	1.00	0.84

5 Allowable (ASD) reactions are based on web crippling per AISI S100 Section C3.4, where Ω_w = 1.70 for end bearing and 1.75 for interior bearing. Nominal reactions may be determined by multiplying the table values by Ω_w. LRFD reactions may be determined by multiplying nominal reactions by ϕ_w=0.9 for end reactions and 0.85 for interior reactions.

6 The allowable values are reactions (or concentrated loads) applied to bare deck, or to composite decks during the construction phase only, prior to the concrete achieving minimum specified compressive strength.

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3]

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	11'-0"	12'-0"
			PLB™-36 & HSB®-36 and PLB™ & B FORMLOK™															
SINGLE	22	Stress	300	300	220	141	116	98	83	72	63	55	49	43	39	35	29	24
		L/360	♦♦♦	287	121	62	47	36	28	23	18	15	13	11	9	8	6	4
		L/240	♦♦♦	♦♦♦	182	93	70	54	42	34	28	23	19	16	14	12	9	7
		L/180	♦♦♦	♦♦♦	♦♦♦	124	93	72	56	45	37	30	25	21	18	15	12	9
	20	Stress	300	300	288	184	152	128	109	94	82	72	64	57	51	46	38	32
		L/360	♦♦♦	♦♦♦	150	77	58	44	35	28	23	19	16	13	11	10	7	6
		L/240	♦♦♦	♦♦♦	225	115	86	67	52	42	34	28	23	20	17	14	11	8
		L/180	♦♦♦	♦♦♦	♦♦♦	153	115	89	70	56	45	37	31	26	22	19	14	11
	18	Stress	300	300	300	251	208	174	149	128	112	98	87	78	70	63	52	44
		L/360	♦♦♦	♦♦♦	207	106	79	61	48	39	31	26	22	18	15	13	10	8
		L/240	♦♦♦	♦♦♦	♦♦♦	159	119	92	72	58	47	39	32	27	23	20	15	11
		L/180	♦♦♦	♦♦♦	♦♦♦	212	159	122	96	77	63	52	43	36	31	26	20	15
	16	Stress	300	300	300	300	264	222	189	163	142	125	110	99	88	80	66	55
		L/360	♦♦♦	♦♦♦	261	133	100	77	61	49	40	33	27	23	19	17	13	10
		L/240	♦♦♦	♦♦♦	♦♦♦	200	150	116	91	73	59	49	41	34	29	25	19	14
		L/180	♦♦♦	♦♦♦	♦♦♦	267	200	154	121	97	79	65	54	46	39	33	25	19
DOUBLE	22	Stress	300	300	235	150	124	104	89	77	67	59	52	46	42	38	31	26
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	122	94	74	59	48	40	33	28	24	20	15	12
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	49	42	35	30	23	18
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	30	23
	20	Stress	300	300	296	190	157	132	112	97	84	74	66	59	53	47	39	33
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	146	113	89	71	58	48	40	33	28	24	18	14
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	71	59	50	43	37	27	21
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	37	28
	18	Stress	300	300	300	265	219	184	157	135	118	103	92	82	73	66	55	46
		L/360	♦♦♦	♦♦♦	♦♦♦	258	194	149	117	94	76	63	53	44	38	32	24	19
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	115	94	79	66	56	48	36	28
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	64	48	37
	16	Stress	300	300	300	300	271	228	194	167	146	128	113	101	91	82	68	57
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	241	186	146	117	95	78	65	55	47	40	30	23
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	143	118	98	83	70	60	45	35
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	80	60	46
TRIPLE	22	Stress	300	300	294	188	155	131	111	96	84	73	65	58	52	47	39	33
		L/360	♦♦♦	♦♦♦	247	127	95	73	58	46	38	31	26	22	18	16	12	9
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	143	110	86	69	56	46	39	33	28	24	18	14
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	92	75	62	52	43	37	32	24	18
	20	Stress	300	300	300	237	196	165	140	121	105	93	82	73	66	59	49	41
		L/360	♦♦♦	♦♦♦	298	152	115	88	69	56	45	37	31	26	22	19	14	11
		L/240	♦♦♦	♦♦♦	♦♦♦	229	172	132	104	83	68	56	47	39	33	29	21	17
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	139	111	90	74	62	52	44	38	29	22
	18	Stress	300	300	300	300	274	230	196	169	147	129	115	102	92	83	68	57
		L/360	♦♦♦	♦♦♦	♦♦♦	202	152	117	92	74	60	49	41	35	29	25	19	15
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	228	175	138	110	90	74	62	52	44	38	28	22
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	184	147	120	99	82	69	59	50	38	29
	16	Stress	300	300	300	300	300	285	243	209	182	160	142	127	114	103	85	71
		L/360	♦♦♦	♦♦♦	♦♦♦	251	189	145	114	92	74	61	51	43	37	31	24	18
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	283	218	172	137	112	92	77	65	55	47	35	27
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	229	183	149	123	102	86	73	63	47	36

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"
			PLN3™ & HSN3™ and PLN3™ & N3 FORMLOK™																
SINGLE	22	Stress	300	282	196	144	110	87	71	58	49	42	36	31	28	24	22	20	18
		L/360	♦♦♦	252	146	92	62	43	32	24	18	14	12	9	8	6	5	5	4
		L/240	♦♦♦	♦♦♦	♦♦♦	138	92	65	47	36	27	22	17	14	12	10	8	7	6
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	87	63	47	37	29	23	19	15	13	11	9	8
	20	Stress	300	300	251	184	141	112	90	75	63	53	46	40	35	31	28	25	23
		L/360	♦♦♦	♦♦♦	180	113	76	53	39	29	23	18	14	12	10	8	7	6	5
		L/240	♦♦♦	♦♦♦	♦♦♦	170	114	80	58	44	34	27	21	17	14	12	10	9	7
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	107	78	58	45	35	28	23	19	16	13	11	10
	18	Stress	300	300	300	274	210	166	134	111	93	79	68	60	52	46	41	37	34
		L/360	♦♦♦	♦♦♦	249	157	105	74	54	40	31	24	20	16	13	11	9	8	7
		L/240	♦♦♦	♦♦♦	♦♦♦	235	158	111	81	61	47	37	29	24	20	16	14	12	10
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	148	108	81	62	49	39	32	26	22	18	16	13
	16	Stress	300	300	300	300	276	218	177	146	123	104	90	78	69	61	55	49	44
		L/360	♦♦♦	♦♦♦	♦♦♦	200	134	94	69	52	40	31	25	20	17	14	12	10	9
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	201	141	103	78	60	47	38	31	25	21	18	15	13
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	269	189	138	103	80	63	50	41	34	28	24	20	17
DOUBLE	22	Stress	300	300	225	165	127	100	81	67	56	48	41	36	32	28	25	22	20
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	62	48	38	30	25	20	17	14	12	10
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	30	25	21	18	16
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	20	Stress	300	300	283	208	159	126	102	84	71	60	52	45	40	35	31	28	25
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	100	75	58	46	37	30	25	20	17	15	13
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	45	37	31	26	22	19
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	25
	18	Stress	300	300	300	295	226	178	144	119	100	85	74	64	56	50	45	40	36
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	134	101	78	61	49	40	33	27	23	20	17
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	73	60	49	41	35	29	25
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	39	34
	16	Stress	300	300	300	300	291	230	186	154	129	110	95	83	73	64	58	52	47
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	229	167	126	97	76	61	50	41	34	29	24	21
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	91	74	61	51	43	37	31
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	57	49	42
TRIPLE	22	Stress	300	300	281	207	158	125	101	84	70	60	52	45	40	35	31	28	25
		L/360	♦♦♦	♦♦♦	♦♦♦	189	126	89	65	49	37	29	24	19	16	13	11	9	8
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	97	73	56	44	35	29	24	20	17	14	12
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	59	47	38	32	26	22	19	16
	20	Stress	300	300	300	260	199	157	127	105	88	75	65	57	50	44	39	35	32
		L/360	♦♦♦	♦♦♦	♦♦♦	229	154	108	79	59	45	36	29	23	19	16	13	11	10
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	118	89	68	54	43	35	29	24	20	17	15
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	72	57	47	38	32	27	23	20
	18	Stress	300	300	300	300	282	223	181	149	125	107	92	80	71	62	56	50	45
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	205	144	105	79	61	48	38	31	26	21	18	15	13
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	216	157	118	91	72	57	47	38	32	27	23	20
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	122	96	77	62	51	43	36	31	26
	16	Stress	300	300	300	300	300	288	233	193	162	138	119	104	91	81	72	65	58
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	256	180	131	98	76	60	48	39	32	27	22	19	16
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	269	196	148	114	89	72	58	48	40	34	29	25
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	151	119	95	78	64	53	45	38	33

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"
			PLN™-24 & N-24 and PLN™ & N FORMLOK™																
SINGLE	22	Stress	300	275	191	140	108	85	69	57	48	41	35	31	27	24	21	19	17
		L/360	♦♦♦	257	149	94	63	44	32	24	19	15	12	10	8	7	6	5	4
		L/240	♦♦♦	♦♦♦	♦♦♦	140	94	66	48	36	28	22	18	14	12	10	8	7	6
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	64	48	37	29	23	19	16	13	11	9	8
	20	Stress	300	300	246	181	138	109	89	73	62	52	45	39	35	31	27	25	22
		L/360	♦♦♦	♦♦♦	184	116	78	55	40	30	23	18	14	12	10	8	7	6	5
		L/240	♦♦♦	♦♦♦	♦♦♦	174	116	82	60	45	35	27	22	18	15	12	10	9	7
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	109	79	60	46	36	29	24	19	16	14	12	10
	18	Stress	300	300	300	266	204	161	130	108	91	77	67	58	51	45	40	36	33
		L/360	♦♦♦	♦♦♦	257	162	108	76	55	42	32	25	20	16	14	11	10	8	7
		L/240	♦♦♦	♦♦♦	♦♦♦	243	162	114	83	63	48	38	30	25	20	17	14	12	10
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	152	111	83	64	50	40	33	27	23	19	16	14
	16	Stress	300	300	300	300	262	207	167	138	116	99	85	74	65	58	52	46	42
		L/360	♦♦♦	♦♦♦	♦♦♦	210	140	99	72	54	42	33	26	21	18	15	12	10	9
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	211	148	108	81	62	49	39	32	26	22	18	16	13
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	197	144	108	83	65	52	43	35	29	25	21	18
DOUBLE	22	Stress	300	300	238	175	134	106	86	71	60	51	44	38	34	30	26	24	21
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	68	52	41	33	27	22	18	15	13	11
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	33	28	23	20	17
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	20	Stress	300	300	295	217	166	131	106	88	74	63	54	47	41	37	33	29	27
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	82	63	50	40	32	27	22	19	16	14
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	40	33	28	24	20
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	18	Stress	300	300	300	300	230	181	147	121	102	87	75	65	57	51	45	41	37
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	144	108	83	66	53	43	35	29	25	21	18
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	64	53	44	37	32	27
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	36
	16	Stress	300	300	300	300	286	226	183	151	127	108	93	81	71	63	56	51	46
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	180	135	104	82	66	53	44	37	31	26	22
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	80	66	55	46	39	34
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	45
TRIPLE	22	Stress	300	300	298	219	168	132	107	89	74	63	55	48	42	37	33	30	27
		L/360	♦♦♦	♦♦♦	♦♦♦	206	138	97	71	53	41	32	26	21	17	14	12	10	9
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	106	80	61	48	39	31	26	22	18	15	13
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	52	42	35	29	24	21	18
	20	Stress	300	300	300	271	207	164	133	110	92	79	68	59	52	46	41	37	33
		L/360	♦♦♦	♦♦♦	♦♦♦	248	166	117	85	64	49	39	31	25	21	17	15	12	11
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	128	96	74	58	47	38	31	26	22	19	16
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	77	62	50	42	35	29	25	21
	18	Stress	300	300	300	300	287	227	184	152	128	109	94	82	72	64	57	51	46
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	221	155	113	85	65	51	41	33	28	23	19	16	14
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	169	127	98	77	62	50	41	34	29	25	21
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	103	82	67	55	46	39	33	28
	16	Stress	300	300	300	300	300	282	229	189	159	135	117	102	89	79	71	63	57
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	275	193	141	106	81	64	51	42	34	29	24	21	18
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	211	159	122	96	77	63	52	43	36	31	26
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	128	103	83	69	57	48	41	35

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.)																
			6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"
			PLW2™ & W2 FORMLOK™																
SINGLE	22	Stress	137	116	100	87	77	68	61	55	49	45	41	37	34	31	29	27	25
		L/360	69	54	43	35	29	24	20	17	15	13	11	10	9	8	7	6	5
		L/240	103	81	65	53	44	36	31	26	22	19	17	15	13	11	10	9	8
		L/180	♦♦♦	108	87	71	58	48	41	35	30	26	22	20	17	15	14	12	11
	21	Stress	157	134	116	101	88	78	70	63	57	51	47	43	39	36	33	31	29
		L/360	77	61	49	40	33	27	23	19	17	14	13	11	10	9	8	7	6
		L/240	116	91	73	59	49	41	34	29	25	22	19	16	14	13	11	10	9
		L/180	154	121	97	79	65	54	46	39	33	29	25	22	19	17	15	14	12
	20	Stress	179	153	132	115	101	89	80	72	65	59	53	49	45	41	38	35	33
		L/360	86	67	54	44	36	30	25	22	18	16	14	12	11	9	8	8	7
		L/240	128	101	81	66	54	45	38	32	28	24	21	18	16	14	13	11	10
		L/180	171	135	108	88	72	60	51	43	37	32	28	24	21	19	17	15	13
	19	Stress	225	192	165	144	127	112	100	90	81	73	67	61	56	52	48	44	41
		L/360	102	80	64	52	43	36	30	26	22	19	17	14	13	11	10	9	8
		L/240	153	120	96	78	65	54	45	39	33	29	25	22	19	17	15	13	12
		L/180	204	160	128	104	86	72	60	51	44	38	33	29	25	23	20	18	16
	18	Stress	262	223	192	167	147	130	116	104	94	85	78	71	65	60	56	52	48
		L/360	114	90	72	59	48	40	34	29	25	21	19	16	14	13	11	10	9
		L/240	171	135	108	88	72	60	51	43	37	32	28	24	21	19	17	15	13
		L/180	229	180	144	117	96	80	68	58	49	43	37	32	29	25	22	20	18
	16	Stress	300	295	254	222	195	172	154	138	125	113	103	94	87	80	74	68	64
		L/360	143	113	90	73	60	50	42	36	31	27	23	20	18	16	14	13	11
		L/240	215	169	135	110	91	76	64	54	46	40	35	31	27	24	21	19	17
		L/180	287	225	180	147	121	101	85	72	62	53	47	41	36	32	28	25	23
DOUBLE	22	Stress	142	121	104	91	80	71	63	57	51	46	42	39	36	33	30	28	26
		L/360	♦♦♦	♦♦♦	104	85	70	58	49	42	36	31	27	24	21	18	16	15	13
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	46	40	35	31	28	24	22	20
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	26
	21	Stress	163	139	120	105	92	81	73	65	59	53	49	44	41	38	35	32	30
		L/360	♦♦♦	♦♦♦	117	95	78	65	55	47	40	35	30	26	23	21	18	16	15
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	52	45	40	35	31	27	24	22
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	29
	20	Stress	185	158	136	118	104	92	82	74	67	60	55	50	46	43	39	37	34
		L/360	♦♦♦	♦♦♦	130	105	87	72	61	52	44	38	33	29	26	23	20	18	16
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	58	50	44	39	34	30	27	24
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	36	32
	19	Stress	231	196	169	148	130	115	102	92	83	75	69	63	58	53	49	46	42
		L/360	♦♦♦	193	155	126	104	86	73	62	53	46	40	35	31	27	24	22	19
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	80	69	60	52	46	41	36	32	29
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	48	43	39
	18	Stress	267	228	196	171	150	133	119	107	96	87	80	73	67	62	57	53	49
		L/360	♦♦♦	216	173	141	116	97	82	69	59	51	45	39	34	30	27	24	22
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	104	89	77	67	59	52	46	41	36	32
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	61	54	48	43
	16	Stress	300	300	260	227	199	177	158	141	128	116	105	96	89	82	76	70	65
		L/360	♦♦♦	271	217	177	146	121	102	87	75	64	56	49	43	38	34	30	27
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	153	130	112	97	84	73	65	57	51	45	41
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	86	76	68	61	54

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.) 6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"
			PLW2™ & W2 FORMLOK™(Cont'd.)																
TRIPLE	22	Stress	178	151	131	114	100	89	79	71	64	58	53	48	44	41	38	35	33
		L/360	130	102	82	66	55	46	38	33	28	24	21	18	16	14	13	11	10
		L/240	♦♦♦	♦♦♦	123	100	82	68	58	49	42	36	32	28	24	22	19	17	15
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	77	65	56	48	42	37	32	29	26	23	20
	21	Stress	204	174	150	131	115	102	91	81	74	67	61	56	51	47	43	40	38
		L/360	145	114	92	74	61	51	43	37	31	27	24	21	18	16	14	13	11
		L/240	♦♦♦	172	137	112	92	77	65	55	47	41	35	31	27	24	21	19	17
		L/180	♦♦♦	♦♦♦		♦♦♦	♦♦♦	♦♦♦	86	73	63	54	47	41	36	32	29	26	23
	20	Stress	231	197	170	148	130	115	103	92	83	76	69	63	58	53	49	46	42
		L/360	161	127	101	82	68	57	48	41	35	30	26	23	20	18	16	14	13
		L/240	♦♦♦	190	152	124	102	85	72	61	52	45	39	34	30	27	24	21	19
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	113	95	81	70	60	52	46	40	36	32	28	25
	19	Stress	288	246	212	184	162	144	128	115	104	94	86	78	72	66	61	57	53
		L/360	192	151	121	98	81	68	57	48	41	36	31	27	24	21	19	17	15
		L/240	288	227	181	147	122	101	85	73	62	54	47	41	36	32	28	25	23
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	162	135	114	97	83	72	62	55	48	42	38	34	30
	18	Stress	300	285	245	214	188	166	148	133	120	109	99	91	84	77	71	66	61
		L/360	215	169	136	110	91	76	64	54	47	40	35	31	27	24	21	19	17
		L/240	♦♦♦	254	203	165	136	114	96	81	70	60	52	46	40	36	32	28	25
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	182	151	128	109	93	80	70	61	54	48	42	38	34
	16	Stress	300	300	300	284	249	221	197	177	160	145	132	121	111	102	94	88	81
		L/360	270	212	170	138	114	95	80	68	58	50	44	38	34	30	27	24	21
		L/240	♦♦♦	♦♦♦	255	207	171	142	120	102	87	76	66	58	51	45	40	36	32
		L/180	♦♦♦	♦♦♦	♦♦♦	276	228	190	160	136	117	101	88	77	67	60	53	47	42

			SPAN (ft-in.) 6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"
			PLW3™ & W3 FORMLOK™																
SINGLE	22	Stress	218	186	160	140	123	109	97	87	79	71	65	55	47	40	35	31	27
		L/360	149	117	94	76	63	52	44	38	32	28	24	19	15	12	10	8	7
		L/240	♦♦♦	176	141	115	94	79	66	56	48	42	36	28	22	18	14	12	10
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	105	88	75	64	56	48	37	29	23	19	16	13
	21	Stress	252	214	185	161	142	125	112	100	91	82	75	63	54	46	40	35	31
		L/360	167	131	105	85	70	59	49	42	36	31	27	21	16	13	11	9	7
		L/240	250	197	158	128	106	88	74	63	54	47	41	31	25	20	16	13	11
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	141	117	99	84	72	62	54	42	33	26	21	18	15
	20	Stress	283	241	208	181	159	141	126	113	102	93	84	71	60	52	45	40	35
		L/360	184	145	116	94	78	65	54	46	40	34	30	23	18	14	12	10	8
		L/240	276	217	174	141	116	97	82	69	60	51	45	34	27	22	18	15	12
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	155	129	109	93	79	69	60	46	36	29	24	19	16
	19	Stress	300	300	260	226	199	176	157	141	127	115	105	88	75	65	57	50	44
		L/360	216	170	136	111	91	76	64	54	47	40	35	27	21	17	14	11	10
		L/240	♦♦♦	255	204	166	137	114	96	82	70	61	53	41	32	26	21	17	14
		L/180	♦♦♦	♦♦♦	♦♦♦	221	182	152	128	109	93	81	70	54	43	34	28	23	19
	18	Stress	300	300	300	267	235	208	186	167	150	136	124	104	89	77	67	59	52
		L/360	246	193	155	126	104	86	73	62	53	46	40	31	24	19	16	13	11
		L/240	♦♦♦	290	232	189	156	130	109	93	80	69	60	46	36	29	24	19	16
		L/180	♦♦♦	♦♦♦	♦♦♦	252	207	173	146	124	106	92	80	61	48	39	31	26	22
	16	Stress	300	300	300	300	300	268	239	215	194	176	160	134	115	99	86	76	67
		L/360	♦♦♦	242	193	157	130	108	91	77	66	57	50	38	30	24	20	16	14
		L/240	♦♦♦	♦♦♦	290	236	194	162	137	116	100	86	75	58	45	36	29	24	20
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	259	216	182	155	133	115	100	77	60	48	39	32	27

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.) 6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"
			PLW3™ & W3 FORMLOK™ (Cont'd)																
DOUBLE	22	Stress	228	194	167	146	128	113	101	91	82	74	68	57	49	42	36	32	28
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	90	78	67	58	45	35	28	23	19	16
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	34	28	24
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	21	Stress	261	222	192	167	147	130	116	104	94	85	78	65	56	48	42	37	33
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	101	87	75	65	50	40	32	26	21	18
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	47	39	32	27
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	20	Stress	293	250	216	188	165	146	130	117	106	96	87	73	62	54	47	41	37
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	111	96	83	72	55	44	35	28	23	19
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	52	42	35	29
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	19	Stress	300	300	266	232	204	180	161	144	130	118	108	91	77	67	58	51	45
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	154	131	112	97	84	65	51	41	33	27	23
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	77	61	50	41	34
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦
	18	Stress	300	300	300	273	240	213	190	170	154	139	127	107	91	78	68	60	53
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	208	175	149	128	110	96	74	58	47	38	31	26
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	87	70	57	47	39
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	52
	16	Stress	300	300	300	300	300	267	239	214	193	175	160	134	114	99	86	75	67
		L/360	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	260	219	186	160	138	120	92	73	58	47	39	33
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	109	87	71	59	49
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	65
TRIPLE	22	Stress	285	243	209	182	160	142	127	114	103	93	85	71	61	52	46	40	35
		L/360	281	221	177	144	119	99	83	71	61	52	46	35	28	22	18	15	12
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	125	106	91	79	68	53	41	33	27	22	19
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	70	55	44	36	30	25
	21	Stress	300	278	240	209	184	163	145	130	118	107	97	82	70	60	52	46	41
		L/360	♦♦♦	247	198	161	133	111	93	79	68	59	51	39	31	25	20	17	14
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	140	119	102	88	77	59	46	37	30	25	21
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	79	62	50	40	33	28
	20	Stress	300	300	269	235	206	183	163	146	132	120	109	92	78	67	59	52	46
		L/360	♦♦♦	272	218	177	146	122	103	87	75	65	56	43	34	27	22	18	15
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	154	131	112	97	84	65	51	41	33	27	23
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	87	68	55	44	37	30
	19	Stress	300	300	300	290	255	226	201	181	163	148	135	113	96	83	72	64	56
		L/360	♦♦♦	♦♦♦	257	209	172	143	121	103	88	76	66	51	40	32	26	21	18
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	215	181	154	132	114	99	76	60	48	39	32	27
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	132	102	80	64	52	43	36
	18	Stress	300	300	300	300	300	266	237	213	192	174	159	133	114	98	85	75	66
		L/360	♦♦♦	♦♦♦	292	237	195	163	137	117	100	86	75	58	46	36	30	24	20
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	293	244	206	175	150	130	113	87	68	55	44	37	31
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	173	150	116	91	73	59	49	41
	16	Stress	300	300	300	300	300	300	298	268	242	219	200	168	143	123	107	94	84
		L/360	♦♦♦	♦♦♦	♦♦♦	296	244	204	172	146	125	108	94	72	57	46	37	31	25
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	257	219	188	162	141	109	85	68	56	46	38
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	216	188	145	114	91	74	61	51

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.)														
			3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
			1-5/16" (Deep) VERCOR™ Deck														
SINGLE	26	Stress	264	194	149	117	95	79	66	56	48	42	37	33	29	26	24
		L/360	122	77	51	36	26	20	15	12	10	8	6	5	5	4	3
		L/240	182	115	77	54	39	30	23	18	14	12	10	8	7	6	5
		L/180	243	153	103	72	53	39	30	24	19	16	13	11	9	8	7
	24	Stress	300	268	206	162	132	109	91	78	67	58	51	46	41	36	33
		L/360	157	99	66	47	34	26	20	15	12	10	8	7	6	5	4
		L/240	236	149	100	70	51	38	29	23	19	15	12	10	9	7	6
		L/180	♦♦♦	198	133	93	68	51	39	31	25	20	17	14	12	10	8
	22	Stress	300	300	258	204	165	136	115	98	84	73	65	57	51	46	41
		L/360	195	123	82	58	42	32	24	19	15	12	10	9	7	6	5
		L/240	292	184	123	86	63	47	36	29	23	19	15	13	11	9	8
		L/180	♦♦♦	245	164	115	84	63	49	38	31	25	21	17	14	12	11
	20	Stress	300	300	300	242	196	162	136	116	100	87	77	68	60	54	49
		L/360	232	146	98	69	50	38	29	23	18	15	12	10	9	7	6
		L/240	♦♦♦	219	147	103	75	56	43	34	27	22	18	15	13	11	9
		L/180	♦♦♦	292	196	137	100	75	58	46	36	30	24	20	17	15	13
DOUBLE	26	Stress	275	202	155	122	99	82	69	59	50	44	39	34	31	27	25
		L/360	♦♦♦	184	123	87	63	48	37	29	23	19	15	13	11	9	8
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	95	71	55	43	35	28	23	19	16	14	12
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	58	46	37	31	26	22	18	16
	24	Stress	300	270	207	164	132	109	92	78	68	59	52	46	41	37	33
		L/360	♦♦♦	238	160	112	82	61	47	37	30	24	20	17	14	12	10
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	123	92	71	56	45	36	30	25	21	18	15
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	74	60	48	40	33	28	24	20
	22	Stress	300	300	257	203	164	136	114	97	84	73	64	57	51	45	41
		L/360	♦♦♦	295	198	139	101	76	59	46	37	30	25	21	17	15	13
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	152	114	88	69	55	45	37	31	26	22	19
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	92	74	60	49	41	35	29	25
	20	Stress	300	300	300	242	196	162	136	116	100	87	77	68	60	54	49
		L/360	♦♦♦	♦♦♦	235	165	121	91	70	55	44	36	29	25	21	18	15
		L/240	♦♦♦	♦♦♦	♦♦♦	♦♦♦	181	136	105	82	66	54	44	37	31	26	23
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	♦♦♦	110	88	71	59	49	41	35	30
TRIPLE	26	Stress	300	252	193	153	124	102	86	73	63	55	48	43	38	34	31
		L/360	229	144	97	68	49	37	29	23	18	15	12	10	8	7	6
		L/240	♦♦♦	216	145	102	74	56	43	34	27	22	18	15	13	11	9
		L/180	♦♦♦	♦♦♦	♦♦♦	136	99	74	57	45	36	29	24	20	17	14	12
	24	Stress	300	300	259	204	166	137	115	98	84	74	65	57	51	46	41
		L/360	296	187	125	88	64	48	37	29	23	19	16	13	11	9	8
		L/240	♦♦♦	280	187	132	96	72	56	44	35	28	23	20	16	14	12
		L/180	♦♦♦	♦♦♦	250	176	128	96	74	58	47	38	31	26	22	19	16
	22	Stress	300	300	300	253	205	170	143	121	105	91	80	71	63	57	51
		L/360	♦♦♦	231	155	109	79	59	46	36	29	23	19	16	14	12	10
		L/240	♦♦♦	♦♦♦	232	163	119	89	69	54	43	35	29	24	20	17	15
		L/180	♦♦♦	♦♦♦	♦♦♦	217	158	119	92	72	58	47	39	32	27	23	20
	20	Stress	300	300	300	300	245	202	170	145	125	109	96	85	76	68	61
		L/360	♦♦♦	275	184	129	94	71	55	43	34	28	23	19	16	14	12
		L/240	♦♦♦	♦♦♦	276	194	142	106	82	64	52	42	35	29	24	21	18
		L/180	♦♦♦	♦♦♦	♦♦♦	259	189	142	109	86	69	56	46	38	32	28	24

Page 24 has the footnotes.

(continued)

TABLE 9 - ALLOWABLE UNIFORM LOADS (psf) FOR VERCO STEEL DECK PANELS WITHOUT CONCRETE FILL[1,2,3] (Cont'd.)

SPAN	DECK GAGE	CRITERIA	SPAN (ft-in.)										
			1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
			9/16" (Shallow) VERCOR™ Deck										
SINGLE	26	Stress	300	300	246	157	109	80	62	49	39	33	27
		L/360	♦♦♦	169	71	36	21	13	9	6	5	3	3
		L/240	♦♦♦	253	107	55	32	20	13	9	7	5	4
		L/180	♦♦♦	♦♦♦	142	73	42	27	18	12	9	7	5
	24	Stress	300	300	300	227	157	116	89	70	57	47	39
		L/360	♦♦♦	233	98	50	29	18	12	9	6	5	4
		L/240	♦♦♦	♦♦♦	148	76	44	28	18	13	9	7	5
		L/180	♦♦♦	♦♦♦	197	101	58	37	25	17	13	9	7
	22	Stress	300	300	300	280	195	143	110	87	70	58	49
		L/360	♦♦♦	285	120	62	36	22	15	11	8	6	4
		L/240	♦♦♦	♦♦♦	181	92	54	34	23	16	12	9	7
		L/180	♦♦♦	♦♦♦	241	123	71	45	30	21	15	12	9
DOUBLE	26	Stress	300	300	258	165	115	84	65	51	41	34	29
		L/360	♦♦♦	♦♦♦	171	88	51	32	21	15	11	8	6
		L/240	♦♦♦	♦♦♦	257	132	76	48	32	23	16	12	10
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	101	64	43	30	22	16	13
	24	Stress	300	300	300	227	157	116	89	70	57	47	39
		L/360	♦♦♦	♦♦♦	237	121	70	44	30	21	15	11	9
		L/240	♦♦♦	♦♦♦	♦♦♦	182	105	66	44	31	23	17	13
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	141	88	59	42	30	23	18
	22	Stress	300	300	300	280	195	143	110	87	70	58	49
		L/360	♦♦♦	♦♦♦	290	148	86	54	36	25	19	14	11
		L/240	♦♦♦	♦♦♦	♦♦♦	223	129	81	54	38	28	21	16
		L/180	♦♦♦	♦♦♦	♦♦♦	♦♦♦	172	108	72	51	37	28	21
TRIPLE	26	Stress	300	300	300	206	143	105	81	64	52	43	36
		L/360	♦♦♦	♦♦♦	134	69	40	25	17	12	9	6	5
		L/240	♦♦♦	♦♦♦	201	103	60	38	25	18	13	10	7
		L/180	♦♦♦	♦♦♦	268	137	79	50	34	24	17	13	10
	24	Stress	300	300	300	283	197	144	111	87	71	59	49
		L/360	♦♦♦	♦♦♦	186	95	55	35	23	16	12	9	7
		L/240	♦♦♦	♦♦♦	278	143	82	52	35	24	18	13	10
		L/180	♦♦♦	♦♦♦	♦♦♦	190	110	69	46	33	24	18	14
	22	Stress	300	300	300	300	243	179	137	108	88	72	61
		L/360	♦♦♦	♦♦♦	227	116	67	42	28	20	15	11	8
		L/240	♦♦♦	♦♦♦	♦♦♦	174	101	63	43	30	22	16	13
		L/180	♦♦♦	♦♦♦	♦♦♦	232	134	85	57	40	29	22	17

1 Stress = Allowable uniform load based on maximum allowable flexural stress in deck.

2 The symbol ♦♦♦ indicates allowable uniform load based on deflection exceeds allowable uniform load based on Stress.

3 Nominal uniform loads may be determined by multiplying the allowable values in the table by Ω_b = 1.67. LRFD loads may be determined by multiplying nominal loads by ϕ_b=0.95.

TABLE 10 - PLB™-36 AND HSB®-36 ROOF DECK SPANS FOR CONCENTRATED LOADS[1-5]

DECK PROFILE	DECK GAGE	SPANS	MAXIMUM SPAN			
			Strength[1]	Deflection of Roof Deck Assembly with Insulation[2,4]		
			P_n / Ω	L / 360	L / 240	L / 180
PLB-36 & HSB-36	22	1	12'-7"	7'-5"	9'-5"	11'-5"
		2	17'-0"	7'-10"	10'-11"	13'-0"
		3	≥ 14'-0"	7'-10"	10'-11"	12'-11"
	20	1	15'-5"	8'-4"	11'-0"	13'-8"
		2	20'-5"	10'-0"	13'-8"	15'-11"
		3	≥ 14'-0"	10'-4"	≥ 14'-0"	≥ 14'-0"
	18	1	19'-5"	9'-10"	12'-11"	15'-2"
		2	≥ 21'-0"	12'-1"	15'-10"	17'-4"
		3	≥ 14'-0"	12'-1"	≥ 14'-0"	≥ 14'-0"
	16	1	23'-2"	11'-0"	15'-5"	18'-10"
		2	≥ 21'-0"	13'-10"	19'-6"	≥ 21'-0"
		3	≥ 14'-0"	14'-0"	≥ 14'-0"	≥ 14'-0"

[1] Strength values based on a 300 lbs concentrated roof live load and 5 psf uniform dead load.

[2] Deflection values based on a 300 lbs concentrated roof live load.

[3] Concentrated load distributed over a 2-1/2 foot x 2-1/2 foot area as set forth in IBC section 1607.4.

[4] Concentrated load deflections based on an assembly that includes a minimum of 2 layers of 1-1/2 inch thick ASTM C 1289, Type II, Class 1, Grade 2 (20 psi compressive strength) polyisocyanurate insulation board on the steel deck.

[5] Grey shaded cells indicate the maximum span exceeds the maximum available sheet length of 42 feet. For longer sheet lengths, Verco Decking, Inc. needs to be contacted.

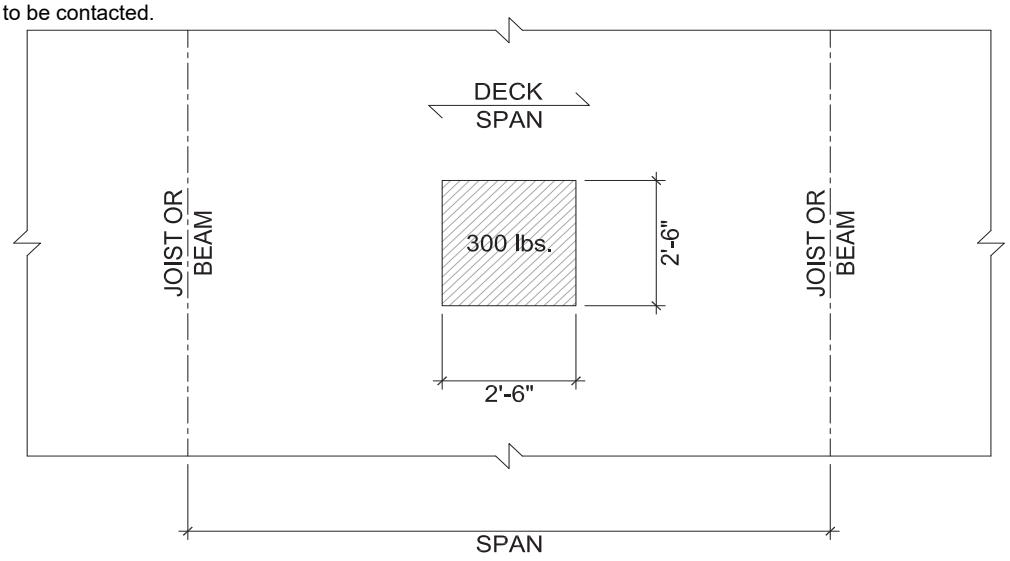


Figure 9 - Load Placement Bare Deck - Plan View

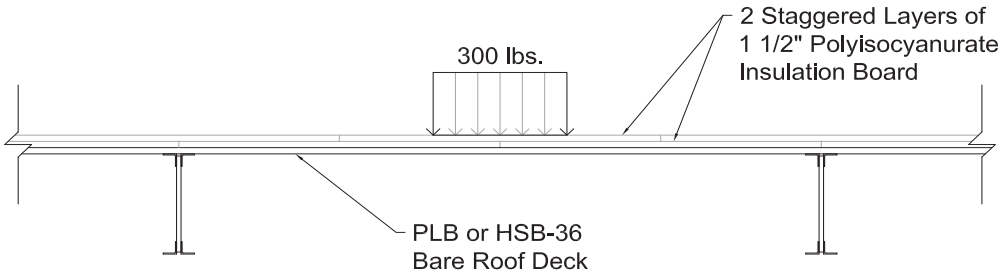


Figure 10 - Load Placement Bare Deck

TABLE 11 - OPENINGS REINFORCED WITH COLD-FORMED STEEL CURBS

Roof openings may be reinforced with cold-formed steel curbs on top of the steel roof deck without below deck support frames, as shown in Figure 11 of this report, subject to the following conditions:[1-6]

[1] The diaphragm shear strengths shall not exceed the lesser of Table 11 of this report or the shears provided in Tables 27 to 35 of this report for PLB™-36 and HSB®-36 deck.

[2] Openings shall span between joists or beams shown in Figure 11 of this report.

[3] Cold-formed steel curbs be shall be a minimum of ASTM A653 Commercial Quality or equivalent steel specification.

[4] Cold-Formed steel curbs shall comply with the dimensions as shown in Figure 13 of this report.

[5] Cold-Formed steel curbs shall have the minimum attachments to the steel roof deck as shown in Figure 12 of this report.

[6] Deck may be end lapped, butted, or continuous between openings.

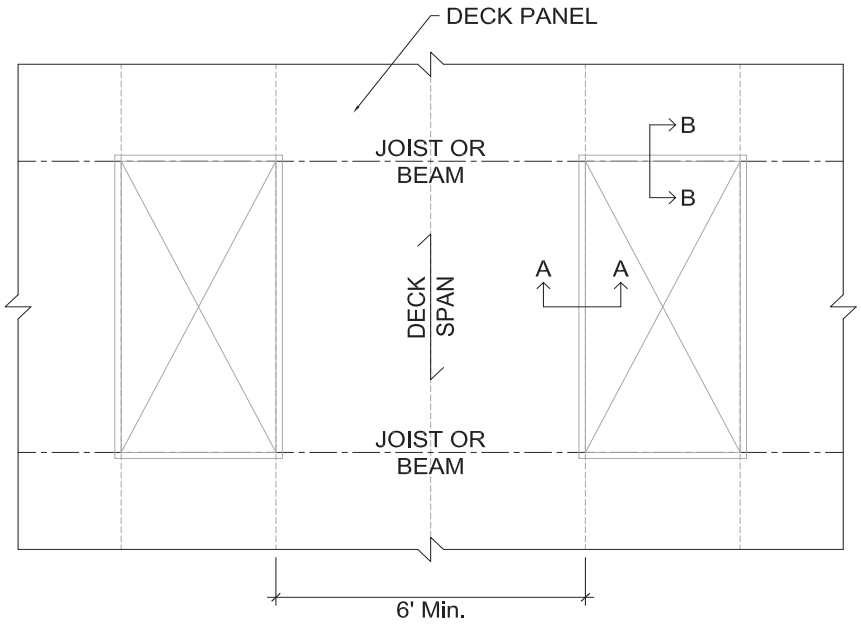


Figure 11 - Recommended Opening Layout

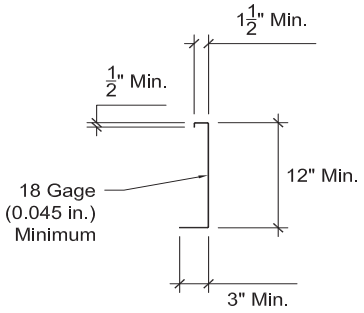


Figure 13 - Minimum Roof Curb Dimensions

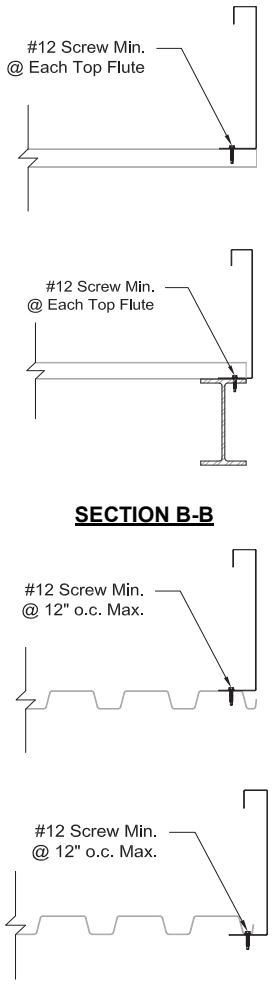


Figure 12 - Minimum Roof Curb Attachments

PLB™-36 and HSB®-36 - MAXIMUM SHEAR BETWEEN OPENINGS REINFORCED WITH COLD-FORMED STEEL CURBS[1-6]

ASD - ALLOWABLE DIAPHRAGM SHEAR, S_{nc}/Ω (plf)		
DECK GAGE	DECK SPAN (ft-in)	
	6'-0"	8'-0"
22	1127	1116
20	1408	1398
18	1929	1920

LRFD - FACTORED DIAPHRAGM SHEAR, ϕS_{nc} (plf)		
DECK GAGE	DECK SPAN (ft-in)	
	6'-0"	8'-0"
22	1831	1814
20	2288	2272
18	3135	3120

TABLE 12 - ITW BUILDEX SAMMY X-PRESS SWIVEL HEAD® CONNECTION[1-7]

GAGE	PART NUMBER & MODEL	CONNECTION STRENGTH (lbs.)	
		ASD	LRFD
		P_n / Ω	ϕP_n
22	8294922 - SXP 20 8272957 - SXP 2.0	200	320
20		240	390
19		280	460
18		320	520
16	8295922 - SXP 35 8271957 - SXP 3.5	400	660
14		500	820

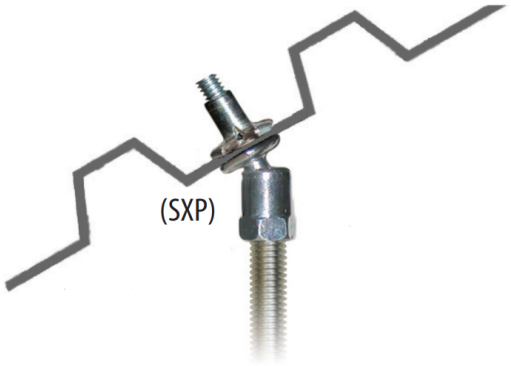


Figure 14 - Sammy X-Press Swivel Head®

1 Sammy X-press may be installed in any flat portion of the bottom flange, web or top flange as shown in Figure 15 of this report for the following bare steel decks listed in this report; PLB, HSB, B, PLN-24, N, N-24, PLN3, HSN3, N3, W2, W3, Shallow Vercor, and Deep Vercor. PLB, HSB, HSN3, PLN, PLN-24 and N-24 roof decks may be web perforated or fully perforated with FP11 (11 percent open area).

2 Sammy X-press shall not be installed in fully perforated - FP21 (21 percent open area)

3 The load may be applied at any angle, Θ, from 0 to 90 degrees, $0 \le \Theta \le 90$, relative to the axis of the base of the Sammy X-press as shown in Figure 15 of this report.

4 The load may be applied at any angle, Θ, from 0 to 360 degrees, $0 \le \Theta \le 360$, relative to the ribs of the steel deck as shown in Figure 16.

5 The allowable strength, P_n/Ω, shall be equal to or greater than the governing load combination for Allowable Stress Design (ASD) as stipulated in the IBC or ASCE/SEI 7.

6 The factored strength, ϕP_n, shall be equal to or greater than the governing load combination for Load and Resistance Factor Design as stipulated in the IBC or ASCE/SEI 7.

7 Safety and resistance factors included in the table are ASD: $\Omega = 2.5$ and LRFD $\phi = 0.65$ respectively.

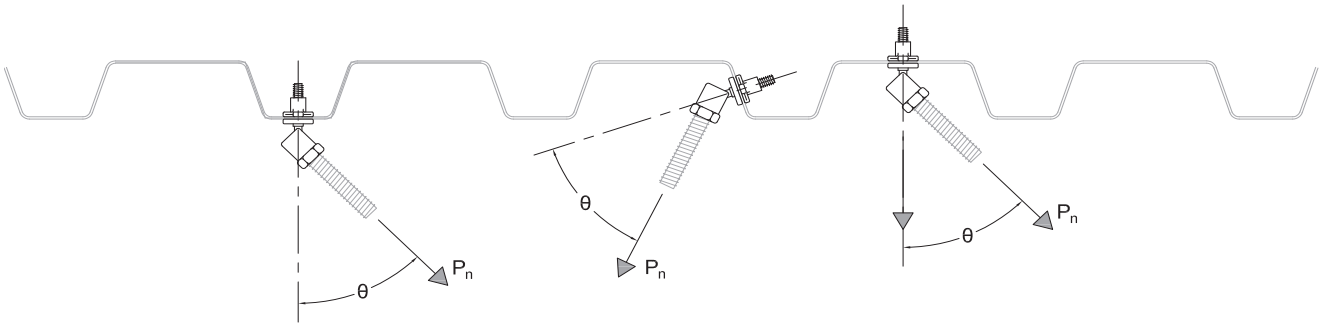


Figure 15 - Sammy X-Press Swivel Head® Connector

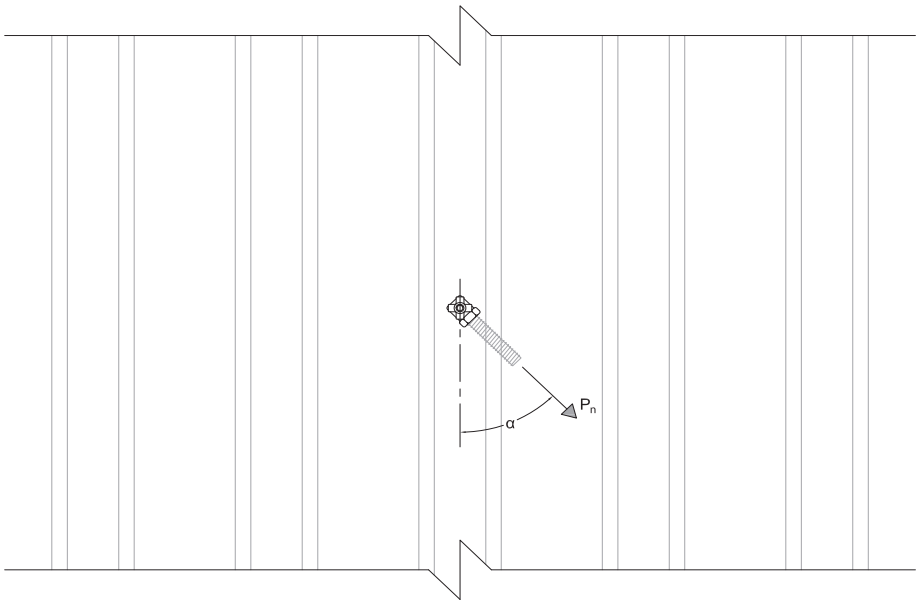


Figure 16 - Sammy X-Press Swivel Head® Connector - Plan View

TABLE 13 - CELLULAR DECK SECTION PROPERTIES AND SHEAR STRENGTHS (Per Foot of Width)[1-11]

DECK PROFILE	DECK GAGE	Gross Section Properties					Web Crippling Geometry		Section Modulus		Moment of Inertia				Vertical Shear[4]	
													Uniform Load			
		A_g	I_x	y_b	y_t	r	h_w	Θ	S_{e+}	S_{e-}	I_{e+}	I_{e-}	I_{d+}	I_{d-}	End	Int.
		(in^2/ft)	(in^4/ft)	(in.)	(in.)	(in.)	(in.)	(deg.)	(in^3/ft)	(in^3/ft)	(in^4/ft)	(in^4/ft)	(in^4/ft)	(in^4/ft)	(lb/ft)	(lb/ft)
PLB-CD & HSB-CD Roof Deck; PLB-CD & BCD FORMLOK[2]	20/20	1.028	0.448	0.571	0.965	0.660	1.238	75.0	0.279	0.382	0.400	0.280	0.416	0.336	340	510
	20/18	1.179	0.490	0.514	1.022	0.645	1.238	75.0	0.287	0.428	0.436	0.318	0.454	0.375	318	369
	18/20	1.216	0.550	0.639	0.909	0.673	1.233	74.7	0.417	0.453	0.528	0.354	0.535	0.419	369	612
	18/18	1.367	0.603	0.583	0.965	0.664	1.233	74.7	0.428	0.552	0.579	0.391	0.587	0.462	517	667
	18/16	1.520	0.649	0.540	1.008	0.653	1.233	74.7	0.437	0.575	0.622	0.443	0.631	0.511	491	524
	16/18	1.556	0.708	0.638	0.922	0.675	1.228	74.3	0.587	0.629	0.702	0.467	0.704	0.547	549	757
	16/16	1.709	0.763	0.596	0.964	0.668	1.228	74.3	0.599	0.700	0.757	0.517	0.759	0.599	718	821
PLN3-CD & HSN3-CD Roof Deck; PLN3-CD & N3CD FORMLOK[2]	20/20	1.099	1.714	1.076	1.996	1.249	2.877	71.1	0.505	0.709	1.511	1.172	1.579	1.353	528	1186
	20/18	1.251	1.863	0.962	2.122	1.489	2.877	71.1	0.503	0.801	1.643	1.394	1.716	1.550	489	747
	18/20	1.310	2.105	1.198	1.886	1.607	2.872	71.0	0.804	0.869	1.973	1.474	2.017	1.684	579	1438
	18/18	1.463	2.294	1.089	2.007	1.568	2.872	71.0	0.824	1.030	2.144	1.699	2.194	1.897	803	1426
	18/16	1.616	2.452	1.001	2.107	1.517	2.872	71.0	0.829	1.077	2.293	1.997	2.346	2.148	756	1106
	16/18	1.675	2.694	1.186	1.921	1.608	2.867	70.8	1.107	1.210	2.631	2.007	2.652	2.236	862	1684
	16/16	1.828	2.884	1.101	2.018	1.577	2.867	70.8	1.129	1.314	2.815	2.316	2.838	2.505	1115	1734
PLN24-CD & N-24CD Roof Deck; PLN24-CD & N24CD FORMLOK[2]	20/20	1.152	1.96	1.217	1.819	1.305	2.668	82.3	0.518	0.706	1.541	1.211	1.681	1.461	559	1039
	20/18	1.308	2.154	1.090	1.946	1.283	2.668	82.3	0.515	0.909	1.685	1.356	1.841	1.622	522	718
	18/20	1.376	2.381	1.351	1.697	1.315	2.661	82.1	0.805	0.852	2.048	1.519	2.159	1.806	608	1253
	18/18	1.532	2.624	1.230	1.818	1.309	2.661	82.1	0.826	1.055	2.241	1.679	2.369	1.994	850	1275
	18/16	1.689	2.829	1.132	1.916	1.294	2.661	82.1	0.843	1.318	2.402	1.845	2.544	2.173	805	966
	16/18	1.757	3.054	1.336	1.723	1.318	2.653	81.9	1.121	1.199	2.795	1.994	2.881	2.347	906	1455
	16/16	1.914	3.299	1.243	1.817	1.313	2.653	81.9	1.144	1.475	3.009	2.174	3.106	2.549	1181	1498
PLW2-CD & W2CD FORMLOK[2]	20/20	0.957	0.69	0.628	1.47	0.849	2.047	63.6	0.363	0.429	0.655	0.497	0.666	0.561	404	614
	20/18	1.108	0.740	0.558	1.540	0.817	2.047	63.6	0.372	0.446	0.700	0.552	0.714	0.614	376	433
	18/20	1.109	0.848	0.703	1.406	0.874	2.044	63.5	0.526	0.549	0.847	0.619	0.847	0.695	439	755
	18/18	1.261	0.912	0.634	1.475	0.850	2.044	63.5	0.536	0.570	0.911	0.678	0.911	0.756	596	741
	18/16	1.413	0.965	0.581	1.528	0.826	2.044	63.5	0.544	0.586	0.964	0.792	0.964	0.850	562	646
	16/18	1.427	1.088	0.700	1.421	0.873	2.041	63.3	0.704	0.702	1.087	0.813	1.087	0.905	638	867
	16/16	1.580	1.154	0.647	1.474	0.855	2.041	63.3	0.714	0.722	1.152	0.883	1.153	0.974	831	949
PLW3-CD & W3CD FORMLOK[2]	20/20	1.002	1.46	0.911	2.125	1.205	3.112	63.1	0.542	0.625	1.455	1.05	1.456	1.186	571	912
	20/18	1.153	1.562	0.807	2.229	1.164	3.112	63.1	0.541	0.652	1.550	1.163	1.554	1.296	528	617
	18/20	1.182	1.814	1.024	2.024	1.239	3.108	63.0	0.852	0.813	1.813	1.331	1.813	1.492	628	1171
	18/18	1.334	1.950	0.923	2.125	1.209	3.108	63.0	0.862	0.846	1.949	1.452	1.949	1.618	869	1144
	18/16	1.486	2.063	0.843	2.205	1.178	3.108	63.0	0.859	0.874	2.061	1.688	2.062	1.813	816	956
	16/18	1.515	2.317	1.013	2.047	1.237	3.105	62.9	1.105	1.037	2.315	1.738	2.315	1.931	934	1354
	16/16	1.668	2.45	0.935	2.125	1.213	3.105	62.9	1.123	1.073	2.452	1.882	2.453	2.073	1206	1406

[1] Values based on F_y = 50 ksi minimum and F_u = 62 ksi minimum.

[2] Gage "xx/yy" shall be defined as: First Number (xx) is the gage of the fluted top section and Second Number (yy) is the gage of the flat bottom section.

[3] S_e (+ or -) is the effective section modulus.

[4] Vertical Shear is the ASD allowable vertical shear strength based on the horizontal shear strength of the resistance welds, where $V = V_n/\Omega$, with $\Omega = 2.35$. "End" shear strength values are applicable adjacent to supports where deck is not continuous and "Int." shear strength values are applicable adjacent to supports where deck is continuous.

[5] Reactions shall be compared to the allowable reactions due to web crippling as shown in Table 8 of this report, based on the gage of the fluted top section of the cellular deck.

[6] Superimposed load and diaphragm capacities for FORMLOK composite decks shown in Tables 15 to 20 of this report for a given concrete type and thickness may be applied to composite cellular sections with a fluted top section of the same profile and gage, with or without acoustical perforations in the flat bottom section of the cellular deck.

[7] Allowable Diaphragm shear strength and flexibility factors for PLB™-CD, PLN3™-CD, and PLN™-24-CD roof deck panels with welds to supports are shown in Tables 27, 35, and 43 of this report, respectively. Diaphragm shear strength and flexibility factors shown in Tables 23, 25, 28-30, 37 to 39, and 45 to 47 of this report may also be applicable to cellular sections with a fluted top section of the same profile but with the gage of the flat bottom sheet, with or without acoustical perforations in the flat bottom section of the cellular deck. Similarly the top seam weld values from Tables 33, 41, and 49 of this report may also be applied.

Page 29 has addtional footnotes.

(continued)

TABLE 13 - CELLULAR DECK SECTION PROPERTIES AND SHEAR STRENGTHS (Per Foot of Width)[1-11] (Cont'd)

[8] Determination of deflection in this report, for single and multiple spans, is based on $I_{d\ single}$ and $I_{d\ multiple}$. $I_{d\ single}$ is equal to I_{d+}, and $I_{d\ multiple}$ is the maximum of either I_{d+} or I_{d-}.

[9] Cellular deck resistance welds locations are illustrated in Figure 17of this report.

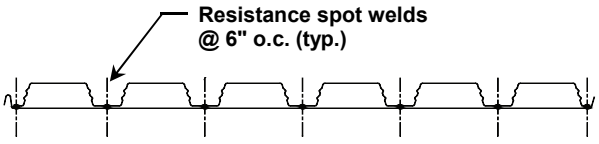
[10] The tabulated values for roof or FORMLOK deck shall be multiplied by the following factors to obtain acoustical cellular deck section properties:

DECK TYPE	MOMENT OF INERTIA					SECTION MODULUS		VERTICAL SHEAR	
	GROSS	EFFECTIVE		I_d FOR DEFLECTION					
	I_X	I_{e+}	I_{e-}	$I_{d\ SIMPLE}$	$I_{d\ MULTIPLE}$	S_{e+}	S_{e-}	EXT.	INT.
BCD Acoustical	0.97	0.97	1.00	0.97	0.97	0.99	1.00	1.00	1.00
N3CD Acoustical	0.97	0.97	1.00	0.97	0.99	0.99	1.00	1.00	1.00
N24CD Acoustical	0.97	0.97	1.00	0.97	0.97	0.99	1.00	1.00	1.00
W2CD Acoustical	0.98	0.98	0.87	0.98	0.98	0.99	0.98	1.00	1.00
W3CD Acoustical	0.98	0.98	0.88	0.98	0.98	0.99	0.97	1.00	1.00

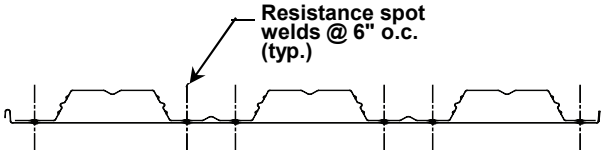
[11] Base metal thicknesses (BMT) and deck weight (w) are as follows:

DECK GAGE	DECK WEIGHT (psf)					BASE METAL THICKNESS (in.)	
	B CD	N3 CD	N-24 CD	W2 CD	W3 CD	BCD, N3CD, N-24 CD & W3CD	W2CD
20/20	3.6	3.9	4.1	3.4	3.6	0.0359/0.0359	0.036/0.0359
20/18	4.1	4.4	4.6	3.8	4.0	0.0359/0.0478	0.036/0.0478
18/20	4.1	4.6	4.8	3.9	4.1	0.0478/0.0359	0.047/0.0359
18/18	4.6	5.1	5.3	4.3	4.6	0.0478/0.0478	0.047/0.0478
18/16	5.1	5.7	5.8	4.8	5.0	0.0478/0.0598	0.047/0.0598
16/18	5.3	5.9	6.1	4.9	5.2	0.0598/0.0478	0.059/0.0478
16/16	5.8	6.4	6.6	5.4	5.7	0.0598/0.0598	0.059/0.0598

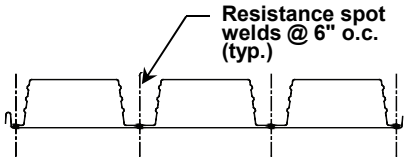
FIGURE 17 - CELLULAR DECK RESISTANCE WELD LOCATIONS



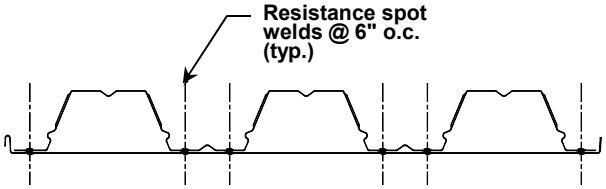
PLB™-CD & HSB^R-CD and PLB™-CD & B-CD FORMLOK™



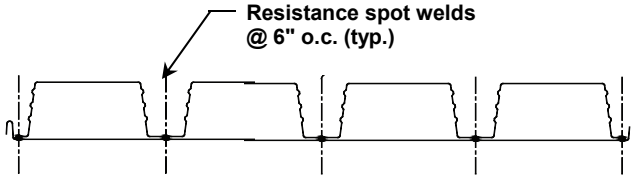
PLW2™-CD & W2-CD FORMLOK™



N™-CD & N-24CD and PLN™-CD & N-CD FORMLOK™



PLW3™-CD & W3-CD FORMLOK™

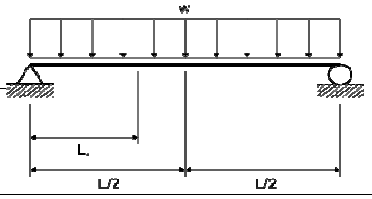
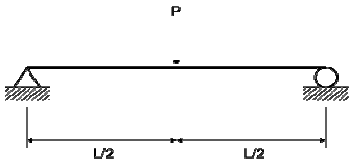
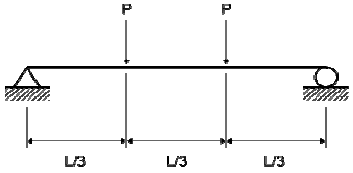
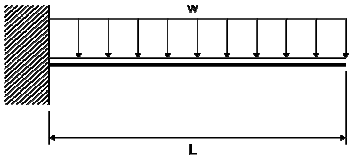
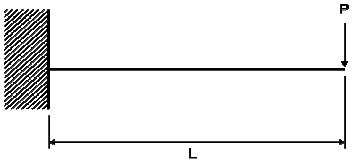


PLN3™-CD & HSN3-CD and PLN3™-CD & N3-CD FORMLOK™

TABLE 14 – DIAPHRAGM SHEAR WEB DEFLECTION EQUATIONS [1,2]

Diaphragm Shear Web Deflection Equations

Diaphragm shear web deflection shall be determined by the following equations:

Type of Loading	Loading Condition	Shear Deflection	Diagrams
Simple Diaphragm, Deflection at L_1	Uniform Load, w	$\Delta_w = \frac{q_{ave} L_1 F}{10^6}$	
Simple Diaphragm, Deflection at center	Uniform Load, w	$\Delta_w = \frac{wL^2 F}{8b * 10^6}$	
Simple Diaphragm, Deflection at center	Point Load, P	$\Delta_w = \frac{PLF}{4b * 10^6}$	
Simple Diaphragm, Deflection at 1/3 points	Point Load, P	$\Delta_w = \frac{PLF}{3b * 10^6}$	
Cantilever Diaphragm, Deflection at Free End	Uniform Load, w	$\Delta_w = \frac{WL^2 F}{2b * 10^6}$	
Cantilever Diaphragm, Deflection at Free End	Point Load, P	$\Delta_w = \frac{PLF}{b * 10^6}$	

Where:

Δ_w = Diaphragm shear web deflection (in)
q_{ave} = Average diaphragm shear (lbs/ft)
L_1 = Distance between vertical resisting element (such as shear wall) and the point at which deflection is to be calculated (ft)
F = Diaphragm shear flexibility factor (µ-in/lbs)
G' = Diaphragm shear stiffness factor (kips/in) = 1000 / F
b = Depth of diaphragm (ft)
L = Diaphragm Length (ft)
P = Concentrated load (lbs)
w = Uniform load (lbs/ft)

[1] The total deflection Δ of the diaphragm may be computed from the equation: $\Delta = \Delta_f + \Delta_w$
Where:
Δ_f = Flexural deflection of the diaphragm determined in the same manner as the deflection of beams

[2] The diaphragm deflection shall be limited by the requirements of ASCE 7 in section 12.8.6 titled "Story Drift Determinations"; or section 12.12 titled "Drift and Deformation"

TABLE 15 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 FORMLOK™ & B-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5]

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			4'-0"	5'-0"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
3½" Normal Weight (145 pcf)	22	1: 6'-6"	400	353	261	228	170	148	130	115	101	90	80	71	64	57	51
		2: 7'-8"	400	353	261	228	202	180	130	115	101	90	80	71	64	57	51
		3: 7'-9"	400	353	261	228	202	180	130	115	101	90	80	71	64	57	51
		q - 4 welds	2074	1925	1825	1787	1754	1726	1701	1679	1659	1642	1626	1612	1599	1587	1576
		F - 4 welds	0.40	0.43	0.45	0.46	0.47	0.48	0.48	0.49	0.50	0.50	0.51	0.51	0.52	0.52	0.52
		q - 7 welds	2389	2177	2035	1981	1934	1893	1858	1827	1799	1774	1752	1732	1713	1697	1681
		F - 7 welds	0.35	0.38	0.41	0.42	0.43	0.44	0.44	0.45	0.46	0.46	0.47	0.48	0.48	0.49	0.49
	20	1: 7'-9"	400	372	274	240	212	189	138	122	108	96	85	76	68	61	55
		2: 9'-1"	400	372	274	240	212	189	170	153	140	96	85	76	68	61	55
		3: 9'-3"	400	372	274	240	212	189	170	153	140	96	85	76	68	61	55
		q - 4 welds	2192	2013	1893	1847	1808	1773	1743	1717	1694	1673	1654	1637	1621	1607	1594
		F - 4 welds	0.34	0.37	0.40	0.41	0.42	0.42	0.43	0.44	0.44	0.45	0.45	0.46	0.46	0.47	0.47
		q - 7 welds	2569	2315	2145	2079	2023	1975	1932	1895	1861	1832	1805	1780	1758	1738	1720
		F - 7 welds	0.29	0.33	0.35	0.36	0.37	0.38	0.39	0.40	0.40	0.41	0.42	0.42	0.43	0.43	0.44
	18	1: 8'-10"	400	400	297	260	230	205	184	166	119	106	95	85	76	68	61
		2: 10'-8"	400	400	297	260	230	205	184	166	151	138	127	117	76	68	61
		3: 11'-0"	400	400	297	260	230	205	184	166	151	138	127	117	108	68	61
		q - 4 welds	2444	2205	2046	1985	1932	1887	1847	1812	1781	1753	1728	1705	1684	1665	1648
		F - 4 welds	0.27	0.30	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.40
		q - 7 welds	2947	2607	2381	2294	2219	2155	2098	2048	2004	1964	1929	1896	1867	1840	1815
		F - 7 welds	0.22	0.25	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.36
	16	1: 9'-6"	400	400	297	260	230	205	184	166	151	138	94	84	75	68	61
		2: 11'-10"	400	400	297	260	230	205	184	166	151	138	127	117	108	100	61
		3: 11'-7"	400	400	297	260	230	205	184	166	151	138	127	117	108	100	61
		q - 4 welds	2713	2414	2215	2138	2073	2016	1966	1922	1883	1848	1816	1788	1762	1738	1717
		F - 4 welds	0.21	0.24	0.26	0.27	0.28	0.29	0.30	0.30	0.31	0.32	0.32	0.33	0.33	0.34	0.34
		q - 7 welds	3342	2917	2634	2525	2432	2351	2280	2218	2162	2113	2068	2027	1991	1957	1926
		F - 7 welds	0.17	0.20	0.22	0.23	0.24	0.25	0.26	0.26	0.27	0.28	0.28	0.29	0.29	0.30	0.30
4" Normal Weight (145 pcf)	22	1: 6'-2"	400	400	303	229	198	173	151	133	118	104	93	83	74	66	59
		2: 7'-3"	400	400	303	265	234	173	151	133	118	104	93	83	74	66	59
		3: 7'-4"	400	400	303	265	234	173	151	133	118	104	93	83	74	66	59
		q - 4 welds	2314	2164	2065	2026	1993	1965	1940	1918	1898	1881	1865	1851	1838	1826	1815
		F - 4 welds	0.36	0.38	0.40	0.41	0.41	0.42	0.42	0.43	0.43	0.44	0.44	0.45	0.45	0.45	0.45
		q - 7 welds	2628	2416	2274	2220	2173	2133	2097	2066	2038	2013	1991	1971	1952	1936	1920
		F - 7 welds	0.31	0.34	0.36	0.37	0.38	0.39	0.39	0.40	0.40	0.41	0.41	0.42	0.42	0.43	0.43
	20	1: 7'-5"	400	400	318	279	246	183	160	141	125	111	99	89	79	71	64
		2: 8'-8"	400	400	318	279	246	220	197	178	125	111	99	89	79	71	64
		3: 8'-9"	400	400	318	279	246	220	197	178	125	111	99	89	79	71	64
		q - 4 welds	2431	2252	2132	2086	2047	2012	1983	1956	1933	1912	1893	1876	1860	1846	1833
		F - 4 welds	0.31	0.33	0.35	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.40	0.40	0.40	0.41	0.41
		q - 7 welds	2809	2554	2384	2318	2262	2214	2171	2134	2100	2071	2044	2020	1997	1977	1959
		F - 7 welds	0.27	0.29	0.32	0.32	0.33	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.38

Page 36 has the footnotes.

(continued)

TABLE 15 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 FORMLOK™ & B-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			4'-0"	5'-0"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
4" Normal Weight (145 pcf)	18	1: 8'-5"	400	400	344	301	266	237	213	155	138	123	109	98	88	79	71
		2: 10'-2"	400	400	344	301	266	237	213	192	175	160	147	98	88	79	71
		3: 10'-5"	400	400	344	301	266	237	213	192	175	160	147	98	88	79	71
		q - 4 welds	2683	2444	2285	2224	2171	2126	2086	2051	2020	1992	1967	1944	1923	1904	1887
		F - 4 welds	0.24	0.27	0.29	0.29	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.34	0.34	0.34	0.35
		q - 7 welds	3186	2846	2620	2533	2459	2394	2337	2287	2243	2203	2168	2135	2106	2079	2055
		F - 7 welds	0.20	0.23	0.25	0.26	0.27	0.27	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31	0.32
	16	1: 9'-1"	400	400	342	300	265	236	212	192	174	121	108	97	87	78	70
		2: 11'-3"	400	400	342	300	265	236	212	192	174	159	146	135	125	78	70
		3: 11'-2"	400	400	342	300	265	236	212	192	174	159	146	135	125	78	70
		q - 4 welds	2952	2653	2454	2377	2312	2255	2205	2161	2122	2087	2055	2027	2001	1978	1956
		F - 4 welds	0.20	0.22	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.29	0.30
		q - 7 welds	3581	3156	2873	2764	2671	2590	2519	2457	2401	2352	2307	2267	2230	2196	2165
		F - 7 welds	0.16	0.18	0.20	0.21	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27
4½" Normal Weight (145 pcf)	22	1: 5'-11"	400	400	306	263	227	198	174	153	135	120	107	95	85	76	68
		2: 6'-11"	400	400	348	304	227	198	174	153	135	120	107	95	85	76	68
		3: 7'-0"	400	400	348	304	269	198	174	153	135	120	107	95	85	76	68
		q - 4 welds	2553	2403	2304	2265	2232	2204	2179	2157	2138	2120	2104	2090	2077	2065	2055
		F - 4 welds	0.32	0.34	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.39	0.40	0.40	0.40
		q - 7 welds	2867	2655	2513	2459	2412	2372	2336	2305	2277	2252	2230	2210	2191	2175	2159
		F - 7 welds	0.29	0.31	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.38	0.38	0.38
	20	1: 7'-1"	400	400	365	319	282	210	184	162	144	128	114	102	91	81	73
		2: 8'-3"	400	400	365	319	282	252	226	162	144	128	114	102	91	81	73
		3: 8'-4"	400	400	365	319	282	252	226	162	144	128	114	102	91	81	73
		q - 4 welds	2670	2491	2371	2325	2286	2252	2222	2195	2172	2151	2132	2115	2099	2085	2072
		F - 4 welds	0.28	0.30	0.32	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.35	0.36	0.36	0.36	0.36
		q - 7 welds	3048	2793	2623	2557	2501	2453	2410	2373	2340	2310	2283	2259	2237	2216	2198
		F - 7 welds	0.25	0.27	0.29	0.29	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34
	18	1: 8'-1"	400	400	393	344	304	271	244	178	158	140	125	112	101	90	81
		2: 9'-9"	400	400	393	344	304	271	244	220	200	183	125	112	101	90	81
		3: 10'-0"	400	400	393	344	304	271	244	220	200	183	168	112	101	90	81
		q - 4 welds	2922	2683	2524	2463	2410	2365	2325	2290	2259	2231	2206	2183	2162	2143	2126
		F - 4 welds	0.22	0.24	0.26	0.26	0.27	0.28	0.28	0.28	0.29	0.29	0.30	0.30	0.30	0.30	0.31
		q - 7 welds	3425	3086	2859	2772	2698	2633	2576	2527	2482	2442	2407	2374	2345	2318	2294
		F - 7 welds	0.19	0.21	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.28
	16	1: 8'-8"	400	400	391	342	302	269	242	219	156	138	124	111	99	89	80
		2: 10'-9"	400	400	391	342	302	269	242	219	199	182	167	154	99	89	80
		3: 10'-9"	400	400	391	342	302	269	242	219	199	182	167	154	99	89	80
		q - 4 welds	3191	2892	2693	2616	2551	2494	2444	2400	2361	2326	2295	2266	2240	2217	2195
		F - 4 welds	0.18	0.20	0.22	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.26	0.27
		q - 7 welds	3820	3395	3112	3003	2910	2829	2758	2696	2640	2591	2546	2506	2469	2435	2405
		F - 7 welds	0.15	0.17	0.19	0.19	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.24	0.24	0.24

Page 36 has the footnotes.

(continued)

TABLE 15 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 FORMLOK™ & B-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			4'-0"	5'-0"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
5" Normal Weight (145 pcf)	22	1: 5'-8"	400	400	347	297	257	224	197	173	153	136	121	108	96	86	77
		2: 6'-8"	400	400	393	344	257	224	197	173	153	136	121	108	96	86	77
		3: 6'-9"	400	400	393	344	257	224	197	173	153	136	121	108	96	86	77
		q - 4 welds	2792	2642	2543	2504	2472	2443	2418	2396	2377	2359	2343	2329	2316	2304	2294
		F - 4 welds	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.36	0.36	0.36
		q - 7 welds	3106	2894	2752	2698	2651	2611	2575	2544	2516	2492	2469	2449	2431	2414	2398
		F - 7 welds	0.27	0.28	0.30	0.31	0.31	0.32	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34	0.34
	20	1: 6'-9"	400	400	400	361	272	237	208	184	163	145	129	115	103	92	83
		2: 7'-11"	400	400	400	361	319	284	208	184	163	145	129	115	103	92	83
		3: 8'-0"	400	400	400	361	319	284	255	184	163	145	129	115	103	92	83
		q - 4 welds	2909	2730	2610	2564	2525	2491	2461	2434	2411	2390	2371	2354	2338	2324	2311
		F - 4 welds	0.26	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.33
		q - 7 welds	3287	3032	2862	2796	2740	2692	2649	2612	2579	2549	2522	2498	2476	2455	2437
		F - 7 welds	0.23	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31
	18	1: 7'-9"	400	400	400	389	344	306	227	201	178	159	142	127	114	103	92
		2: 9'-4"	400	400	400	389	344	306	275	249	226	159	142	127	114	103	92
		3: 9'-7"	400	400	400	389	344	306	275	249	226	207	142	127	114	103	92
		q - 4 welds	3161	2923	2763	2702	2650	2604	2564	2529	2498	2470	2445	2422	2401	2382	2365
		F - 4 welds	0.21	0.22	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28
		q - 7 welds	3664	3325	3098	3011	2937	2872	2816	2766	2721	2682	2646	2613	2584	2557	2533
		F - 7 welds	0.18	0.20	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.24	0.25	0.25	0.25	0.25	0.26
	16	1: 8'-4"	400	400	400	386	341	304	273	198	176	157	140	125	112	101	91
		2: 10'-4"	400	400	400	386	341	304	273	247	224	205	188	125	112	101	91
		3: 10'-4"	400	400	400	386	341	304	273	247	224	205	188	125	112	101	91
		q - 4 welds	3430	3131	2932	2856	2790	2733	2683	2639	2600	2565	2534	2505	2479	2456	2434
		F - 4 welds	0.17	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24
		q - 7 welds	4059	3634	3351	3242	3149	3068	2997	2935	2880	2830	2785	2745	2708	2674	2644
		F - 7 welds	0.14	0.16	0.17	0.18	0.19	0.19	0.19	0.20	0.20	0.21	0.21	0.21	0.22	0.22	0.22
6" Normal Weight (145 pcf)	22	1: 5'-4"	400	400	400	369	320	279	244	215	191	169	151	134	120	107	96
		2: 6'-2"	400	400	400	369	320	279	244	215	191	169	151	134	120	107	96
		3: 6'-3"	400	400	400	369	320	279	244	215	191	169	151	134	120	107	96
		q - 4 welds	3270	3120	3021	2983	2950	2921	2896	2874	2855	2837	2822	2807	2794	2783	2772
		F - 4 welds	0.25	0.26	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.30
		q - 7 welds	3584	3372	3230	3176	3129	3089	3053	3022	2995	2970	2947	2927	2909	2892	2877
		F - 7 welds	0.23	0.24	0.26	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.29	0.29
	20	1: 6'-3"	400	400	400	389	337	295	259	228	202	180	160	143	128	115	103
		2: 7'-4"	400	400	400	400	395	295	259	228	202	180	160	143	128	115	103
		3: 7'-5"	400	400	400	400	395	295	259	228	202	180	160	143	128	115	103
		q - 4 welds	3387	3208	3088	3042	3003	2969	2939	2912	2889	2868	2849	2832	2817	2802	2789
		F - 4 welds	0.22	0.23	0.24	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27
		q - 7 welds	3765	3510	3340	3275	3219	3170	3128	3090	3057	3027	3000	2976	2954	2934	2915
		F - 7 welds	0.20	0.21	0.23	0.23	0.23	0.24	0.24	0.24	0.25	0.25	0.25	0.25	0.25	0.26	0.26

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TABLE 15 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 FORMLOK™ & B-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			4'-0"	5'-0"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
6" Normal Weight (145 pcf)	18	1: 7'-3"	400	400	400	400	400	321	282	250	222	197	177	158	142	128	115
		2: 8'-8"	400	400	400	400	400	379	340	308	222	197	177	158	142	128	115
		3: 8'-11"	400	400	400	400	400	379	340	308	222	197	177	158	142	128	115
		q - 4 welds	3640	3401	3241	3180	3128	3082	3042	3007	2976	2948	2923	2900	2880	2861	2843
		F - 4 welds	0.18	0.19	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.23	0.23	0.23
		q - 7 welds	4142	3803	3577	3490	3415	3350	3294	3244	3199	3160	3124	3092	3062	3035	3011
		F - 7 welds	0.16	0.17	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.22
	16	1: 7'-10"	400	400	400	400	400	376	279	246	219	195	174	156	140	126	113
		2: 9'-7"	400	400	400	400	400	376	337	305	277	253	174	156	140	126	113
		3: 9'-8"	400	400	400	400	400	376	337	305	277	253	174	156	140	126	113
		q - 4 welds	3908	3610	3410	3334	3268	3211	3161	3117	3078	3043	3012	2983	2957	2934	2912
		F - 4 welds	0.15	0.16	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.20	0.20	0.20	0.20
		q - 7 welds	4537	4113	3829	3721	3627	3546	3476	3413	3358	3308	3263	3223	3186	3153	3122
		F - 7 welds	0.13	0.14	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.19
3½" Structural Light Weight (110 pcf)	22	1: 7'-0"	400	400	261	228	202	156	137	122	109	97	87	78	71	62	54
		2: 8'-3"	400	400	261	228	202	180	161	122	109	97	87	78	71	62	54
		3: 8'-4"	400	400	261	228	202	180	161	122	109	97	87	78	71	62	54
		q - 4 welds	1750	1601	1501	1463	1430	1401	1376	1354	1335	1317	1302	1287	1275	1263	1252
		F - 4 welds	0.47	0.52	0.55	0.56	0.58	0.59	0.60	0.61	0.62	0.63	0.63	0.64	0.65	0.65	0.66
		q - 7 welds	2064	1852	1711	1656	1609	1569	1534	1502	1475	1450	1427	1407	1389	1372	1357
		F - 7 welds	0.40	0.45	0.48	0.50	0.51	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.59	0.60	0.61
	20	1: 8'-5"	400	400	274	240	212	189	170	129	115	103	93	84	75	67	59
		2: 9'-10"	400	400	274	240	212	189	170	153	140	119	93	84	75	67	59
		3: 10'-0"	400	400	274	240	212	189	170	153	140	119	102	84	75	67	59
		q - 4 welds	1868	1688	1569	1523	1483	1449	1419	1393	1369	1348	1329	1312	1297	1282	1269
		F - 4 welds	0.40	0.45	0.48	0.49	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.57	0.58	0.59	0.59
		q - 7 welds	2245	1990	1820	1755	1699	1650	1608	1570	1537	1507	1480	1456	1434	1414	1395
		F - 7 welds	0.34	0.38	0.41	0.43	0.44	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.52	0.53	0.54
	18	1: 9'-8"	400	400	297	260	230	205	184	166	151	135	102	92	83	76	67
		2: 11'-7"	400	400	297	260	230	205	184	166	151	135	116	100	87	76	67
		3: 11'-9"	400	400	297	260	230	205	184	166	151	135	116	100	87	76	67
		q - 4 welds	2120	1881	1722	1660	1608	1562	1523	1487	1456	1428	1403	1380	1360	1341	1323
		F - 4 welds	0.31	0.35	0.38	0.39	0.41	0.42	0.43	0.44	0.45	0.46	0.46	0.47	0.48	0.49	0.49
		q - 7 welds	2622	2283	2057	1970	1895	1830	1774	1724	1680	1640	1604	1572	1542	1516	1491
		F - 7 welds	0.25	0.29	0.32	0.33	0.34	0.36	0.37	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44
	16	1: 10'-4"	400	400	297	260	230	205	184	166	151	138	127	91	83	75	68
		2: 12'-9"	400	400	297	260	230	205	184	166	151	138	127	111	96	84	74
		3: 12'-4"	400	400	297	260	230	205	184	166	151	138	127	111	96	84	74
		q - 4 welds	2389	2090	1890	1814	1748	1691	1641	1597	1558	1523	1492	1463	1438	1414	1392
		F - 4 welds	0.24	0.28	0.31	0.32	0.33	0.34	0.36	0.36	0.37	0.38	0.39	0.40	0.41	0.41	0.42
		q - 7 welds	3017	2593	2310	2201	2107	2027	1956	1893	1838	1788	1743	1703	1666	1633	1602
		F - 7 welds	0.19	0.22	0.25	0.26	0.28	0.29	0.30	0.31	0.32	0.33	0.33	0.34	0.35	0.36	0.36

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TABLE 15 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 FORMLOK™ & B-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			4'-0"	5'-0"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
4" Structural Light Weight (110 pcf)	22	1: 6'-9"	400	400	303	265	206	181	160	142	126	113	101	91	82	75	67
		2: 7'-11"	400	400	303	265	234	209	160	142	126	113	101	91	82	75	67
		3: 8'-0"	400	400	303	265	234	209	188	142	126	113	101	91	82	75	67
		q - 4 welds	1908	1759	1659	1621	1588	1559	1534	1512	1493	1475	1460	1445	1433	1421	1410
		F - 4 welds	0.43	0.47	0.50	0.51	0.52	0.53	0.54	0.55	0.55	0.56	0.56	0.57	0.58	0.58	0.58
		q - 7 welds	2222	2010	1869	1814	1767	1727	1692	1660	1633	1608	1585	1565	1547	1530	1515
		F - 7 welds	0.37	0.41	0.44	0.45	0.47	0.48	0.49	0.50	0.50	0.51	0.52	0.53	0.53	0.54	0.54
	20	1: 8'-1"	400	400	318	279	246	220	197	150	134	120	108	97	88	79	72
		2: 9'-5"	400	400	318	279	246	220	197	178	162	120	108	97	88	79	72
		3: 9'-7"	400	400	318	279	246	220	197	178	162	148	108	97	88	79	72
		q - 4 welds	2026	1846	1726	1680	1641	1607	1577	1551	1527	1506	1487	1470	1455	1440	1427
		F - 4 welds	0.37	0.41	0.44	0.45	0.46	0.47	0.48	0.49	0.49	0.50	0.51	0.51	0.52	0.52	0.53
		q - 7 welds	2403	2148	1978	1913	1857	1808	1766	1728	1695	1665	1638	1614	1592	1572	1553
		F - 7 welds	0.31	0.35	0.38	0.39	0.41	0.42	0.43	0.44	0.44	0.45	0.46	0.47	0.47	0.48	0.48
	18	1: 9'-2"	400	400	344	301	266	237	213	192	175	131	118	106	96	87	79
		2: 11'-1"	400	400	344	301	266	237	213	192	175	160	147	135	125	87	79
		3: 11'-4"	400	400	344	301	266	237	213	192	175	160	147	135	125	87	79
		q - 4 welds	2278	2039	1880	1818	1766	1720	1681	1645	1614	1586	1561	1538	1518	1499	1481
		F - 4 welds	0.29	0.32	0.35	0.36	0.37	0.38	0.39	0.40	0.40	0.41	0.42	0.42	0.43	0.44	0.44
		q - 7 welds	2780	2441	2215	2128	2053	1988	1932	1882	1838	1798	1762	1730	1700	1674	1649
		F - 7 welds	0.23	0.27	0.29	0.31	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.38	0.38	0.39	0.40
	16	1: 9'-10"	400	400	342	300	265	236	212	192	174	159	117	105	95	86	78
		2: 12'-3"	400	400	342	300	265	236	212	192	174	159	146	135	125	116	108
		3: 11'-11"	400	400	342	300	265	236	212	192	174	159	146	135	125	116	78
		q - 4 welds	2547	2248	2048	1972	1906	1849	1799	1755	1716	1681	1650	1621	1596	1572	1550
		F - 4 welds	0.23	0.26	0.28	0.30	0.31	0.32	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.37	0.38
		q - 7 welds	3175	2751	2468	2359	2265	2185	2114	2051	1996	1946	1901	1861	1824	1791	1760
		F - 7 welds	0.18	0.21	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.30	0.31	0.31	0.32	0.33	0.33
4¾" Structural Light Weight (110 pcf)	22	1: 6'-4"	400	400	370	290	253	221	195	173	155	138	124	112	101	91	83
		2: 7'-5"	400	400	370	324	286	221	195	173	155	138	124	112	101	91	83
		3: 7'-6"	400	400	370	324	286	255	195	173	155	138	124	112	101	91	83
		q - 4 welds	2145	1996	1896	1858	1825	1796	1771	1749	1730	1712	1697	1682	1669	1658	1647
		F - 4 welds	0.38	0.41	0.43	0.44	0.45	0.46	0.47	0.47	0.48	0.48	0.49	0.49	0.49	0.50	0.50
		q - 7 welds	2459	2247	2105	2051	2004	1964	1929	1897	1870	1845	1822	1802	1784	1767	1752
		F - 7 welds	0.34	0.37	0.39	0.40	0.41	0.42	0.43	0.43	0.44	0.45	0.45	0.46	0.46	0.47	0.47
	20	1: 7'-7"	400	400	389	340	301	268	206	183	163	146	132	119	107	97	88
		2: 8'-10"	400	400		340	301	268	241	217	163	146	132	119	107	97	88
		3: 8'-11"	400	400	389	340	301	268	241	217	163	146	132	119	107	97	88
		q - 4 welds	2263	2083	1963	1917	1878	1844	1814	1788	1764	1743	1724	1707	1692	1677	1664
		F - 4 welds	0.33	0.36	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.43	0.44	0.44	0.44	0.45	0.45
		q - 7 welds	2640	2385	2215	2150	2094	2045	2003	1965	1932	1902	1875	1851	1829	1809	1790
		F - 7 welds	0.28	0.32	0.34	0.35	0.36	0.37	0.38	0.38	0.39	0.40	0.40	0.41	0.41	0.42	0.42

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TABLE 15 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 FORMLOK™ & B-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			4'-0"	5'-0"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
4¾" Structural Light Weight (110 pcf)	18	1: 8'-8"	400	400	400	366	324	289	259	234	178	160	144	130	118	107	97
		2: 10'-5"	400	400	400	366	324	289	259	234	213	195	179	130	118	107	97
		3: 10'-8"	400	400	400	366	324	289	259	234	213	195	179	165	118	107	97
		q - 4 welds	2515	2276	2117	2055	2003	1957	1917	1882	1851	1823	1798	1775	1755	1736	1718
		F - 4 welds	0.26	0.29	0.31	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38
		q - 7 welds	3017	2678	2452	2365	2290	2225	2169	2119	2074	2035	1999	1967	1937	1911	1886
		F - 7 welds	0.22	0.24	0.27	0.28	0.28	0.29	0.30	0.31	0.31	0.32	0.33	0.33	0.34	0.34	0.35
	16	1: 9'-3"	400	400	400	364	321	287	257	233	211	158	142	128	116	105	96
		2: 11'-6"	400	400	400	364	321	287	257	233	211	193	177	164	151	141	96
		3: 11'-5"	400	400	400	364	321	287	257	233	211	193	177	164	151	105	96
		q - 4 welds	2784	2485	2285	2209	2143	2086	2036	1992	1953	1918	1887	1858	1833	1809	1787
		F - 4 welds	0.21	0.23	0.26	0.26	0.27	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33
		q - 7 welds	3412	2988	2705	2596	2502	2421	2351	2288	2233	2183	2138	2098	2061	2028	1997
		F - 7 welds	0.17	0.20	0.22	0.22	0.23	0.24	0.25	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.29
5¾" Structural Light Weight (110 pcf)	22	1: 5'-11"	400	400	400	364	317	278	245	218	194	174	156	141	127	115	104
		2: 6'-11"	400	400	400	400	317	278	245	218	194	174	156	141	127	115	104
		3: 7'-0"	400	400	400	400	358	278	245	218	194	174	156	141	127	115	104
		q - 4 welds	2461	2311	2212	2174	2141	2112	2087	2065	2046	2028	2013	1998	1985	1974	1963
		F - 4 welds	0.33	0.36	0.37	0.38	0.39	0.39	0.39	0.40	0.40	0.41	0.41	0.41	0.42	0.42	0.42
		q - 7 welds	2775	2563	2421	2367	2320	2280	2245	2213	2186	2161	2138	2118	2100	2083	2068
		F - 7 welds	0.30	0.32	0.34	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.40	0.40
	20	1: 7'-1"	400	400	400	400	376	293	259	230	205	184	165	149	135	122	111
		2: 8'-3"	400	400	400	400	376	335	301	230	205	184	165	149	135	122	111
		3: 8'-4"	400	400	400	400	376	335	301	230	205	184	165	149	135	122	111
		q - 4 welds	2578	2399	2279	2233	2194	2160	2130	2104	2080	2059	2040	2023	2008	1993	1980
		F - 4 welds	0.29	0.31	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.37	0.38	0.38
		q - 7 welds	2956	2701	2531	2466	2410	2361	2319	2281	2248	2218	2191	2167	2145	2125	2106
		F - 7 welds	0.25	0.28	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.35	0.36
	18	1: 8'-1"	400	400	400	400	400	361	324	250	223	201	181	163	148	134	122
		2: 9'-8"	400	400	400	400	400	361	324	293	266	243	181	163	148	134	122
		3: 10'-0"	400	400	400	400	400	361	324	293	266	243	223	163	148	134	122
		q - 4 welds	2831	2592	2433	2371	2319	2273	2233	2198	2167	2139	2114	2091	2071	2052	2034
		F - 4 welds	0.23	0.25	0.27	0.27	0.28	0.29	0.29	0.30	0.30	0.30	0.31	0.31	0.31	0.32	0.32
		q - 7 welds	3333	2994	2768	2681	2606	2541	2485	2435	2390	2351	2315	2283	2253	2226	2202
		F - 7 welds	0.20	0.22	0.24	0.24	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.29	0.30
	16	1: 8'-8"	400	400	400	400	400	358	321	290	221	198	178	161	146	132	120
		2: 10'-9"	400	400	400	400	400	358	321	290	264	241	221	204	146	132	120
		3: 10'-8"	400	400	400	400	400	358	321	290	264	241	221	204	146	132	120
		q - 4 welds	3099	2801	2601	2525	2459	2402	2352	2308	2269	2234	2203	2174	2149	2125	2103
		F - 4 welds	0.19	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.26	0.27	0.27	0.27	0.28
		q - 7 welds	3728	3304	3021	2912	2818	2737	2667	2604	2549	2499	2454	2414	2377	2344	2313
		F - 7 welds	0.16	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.25

1 Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8 of this report.

2 Concrete fill to have minimum compressive strength f'_c = 3,000 psi.

3 Total slab depth is nominal depth from top of concrete to bottom of steel deck.

4 Shoring is required at midspan for superimposed load values to the right of the heavy line.

5 Nominal diaphragm shear values may be determined by multiplying the table values by Ω=3.0. LRFD diaphragm shear strength may be determined by multiplying nominal shear strength by ϕ=0.55.

TABLE 16 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR BR-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5]

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)										
			7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
3½" Normal Weight (145 pcf)	22	1: 6'-6"	185	161	141	124	109	97	86	77	68	61	54
		2: 7'-6"	221	197	141	124	109	97	86	77	68	61	54
		3: 7'-9"	221	197	141	124	109	97	86	77	68	61	54
		q - 4 welds	1698	1675	1655	1637	1622	1608	1595	1584	1574	1564	1556
		F - 4 welds	0.52	0.53	0.54	0.54	0.55	0.55	0.56	0.56	0.57	0.57	0.57
		q - 6 welds	1815	1785	1758	1735	1714	1695	1678	1663	1649	1636	1624
		F - 6 welds	0.49	0.50	0.51	0.51	0.52	0.53	0.53	0.54	0.54	0.54	0.55
	20	1: 7'-7"	232	207	150	132	117	103	92	82	73	65	58
		2: 8'-7"	232	207	186	168	117	103	92	82	73	65	58
		3: 8'-10"	232	207	186	168	117	103	92	82	73	65	58
		q - 4 welds	1731	1704	1680	1659	1640	1623	1608	1595	1582	1571	1561
		F - 4 welds	0.47	0.48	0.48	0.49	0.50	0.50	0.51	0.51	0.51	0.52	0.52
		q - 6 welds	1872	1836	1804	1775	1750	1728	1707	1689	1672	1657	1643
		F - 6 welds	0.43	0.44	0.45	0.46	0.46	0.47	0.48	0.48	0.49	0.49	0.49
	18	1: 8'-6"	251	224	201	182	128	114	102	91	82	73	66
		2: 10'-0"	251	224	201	182	165	151	139	91	82	73	66
		3: 10'-4"	251	224	201	182	165	151	139	91	82	73	66
		q - 4 welds	1818	1781	1750	1722	1697	1674	1654	1636	1620	1605	1591
		F - 4 welds	0.39	0.40	0.40	0.41	0.42	0.42	0.43	0.43	0.43	0.44	0.44
		q - 6 welds	2006	1957	1915	1877	1843	1813	1786	1762	1740	1719	1701
		F - 6 welds	0.35	0.36	0.37	0.38	0.38	0.39	0.39	0.40	0.40	0.41	0.41
	16	1: 9'-1"	250	223	200	181	165	113	101	90	81	72	65
		2: 11'-2"	250	223	200	181	165	150	138	127	118	72	65
		3: 11'-3"	250	223	200	181	165	150	138	127	118	72	65
		q - 4 welds	1921	1875	1836	1801	1769	1742	1716	1694	1673	1654	1637
		F - 4 welds	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.38
		q - 6 welds	2157	2095	2042	1995	1953	1915	1882	1851	1823	1798	1775
		F - 6 welds	0.29	0.30	0.31	0.32	0.32	0.33	0.33	0.34	0.35	0.35	0.35
4" Normal Weight (145 pcf)	22	1: 6'-3"	214	186	163	143	127	112	100	89	79	70	63
		2: 7'-2"	255	186	163	143	127	112	100	89	79	70	63
		3: 7'-5"	255	186	163	143	127	112	100	89	79	70	63
		q - 4 welds	1937	1914	1894	1877	1861	1847	1834	1823	1813	1803	1795
		F - 4 welds	0.46	0.47	0.47	0.47	0.48	0.48	0.49	0.49	0.49	0.49	0.50
		q - 6 welds	2055	2024	1997	1974	1953	1934	1917	1902	1888	1875	1864
		F - 6 welds	0.43	0.44	0.45	0.45	0.46	0.46	0.46	0.47	0.47	0.47	0.48
	20	1: 7'-3"	267	197	173	152	135	119	106	95	85	76	68
		2: 8'-2"	267	238	214	152	135	119	106	95	85	76	68
		3: 8'-5"	267	238	214	152	135	119	106	95	85	76	68
		q - 4 welds	1970	1943	1919	1898	1879	1862	1847	1834	1821	1810	1800
		F - 4 welds	0.41	0.42	0.42	0.43	0.43	0.44	0.44	0.44	0.45	0.45	0.45
		q - 6 welds	2112	2075	2043	2014	1989	1967	1946	1928	1911	1896	1882
		F - 6 welds	0.38	0.39	0.40	0.40	0.41	0.41	0.42	0.42	0.43	0.43	0.43

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TABLE 16 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR BR-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.) 7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
4" Normal Weight (145 pcf)	18	1: 8'-2"	289	257	231	167	148	132	117	105	94	84	76
		2: 9'-6"	289	257	231	209	190	173	117	105	94	84	76
		3: 9'-10"	289	257	231	209	190	173	117	105	94	84	76
		q - 4 welds	2057	2020	1989	1961	1936	1913	1893	1875	1859	1844	1830
		F - 4 welds	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.38	0.38
		q - 6 welds	2245	2196	2154	2116	2082	2052	2025	2001	1979	1958	1940
		F - 6 welds	0.31	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.36
	16	1: 8'-9"	287	256	230	208	146	130	116	103	93	83	74
		2: 10'-8"	287	256	230	208	189	172	158	146	93	83	74
		3: 10'-9"	287	256	230	208	189	172	158	146	93	83	74
		q - 4 welds	2160	2114	2075	2040	2009	1981	1956	1933	1912	1893	1876
		F - 4 welds	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.33	0.34
		q - 6 welds	2396	2335	2281	2234	2192	2154	2121	2090	2062	2037	2014
		F - 6 welds	0.26	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31
4½" Normal Weight (145 pcf)	22	1: 6'-0"	244	212	186	163	144	128	114	101	90	80	72
		2: 6'-10"	244	212	186	163	144	128	114	101	90	80	72
		3: 7'-1"	290	212	186	163	144	128	114	101	90	80	72
		q - 4 welds	2233	2202	2176	2153	2133	2116	2100	2086	2074	2062	2052
		F - 4 welds	0.40	0.40	0.41	0.41	0.42	0.42	0.42	0.43	0.43	0.43	0.43
		q - 6 welds	2370	2329	2294	2263	2236	2213	2192	2173	2156	2141	2127
		F - 6 welds	0.38	0.38	0.39	0.39	0.40	0.40	0.41	0.41	0.41	0.42	0.42
	20	1: 6'-11"	257	224	197	173	153	136	121	108	97	86	77
		2: 7'-10"	304	271	197	173	153	136	121	108	97	86	77
		3: 8'-1"	304	271	243	173	153	136	121	108	97	86	77
		q - 4 welds	2277	2241	2209	2182	2158	2137	2118	2101	2086	2073	2060
		F - 4 welds	0.36	0.36	0.37	0.37	0.38	0.38	0.38	0.39	0.39	0.39	0.39
		q - 6 welds	2442	2393	2351	2314	2282	2253	2228	2206	2185	2167	2150
		F - 6 welds	0.33	0.34	0.35	0.35	0.36	0.36	0.36	0.37	0.37	0.37	0.38
	18	1: 7'-10"	328	292	215	190	168	150	134	120	107	96	86
		2: 9'-1"	328	292	262	237	216	150	134	120	107	96	86
		3: 9'-5"	328	292	262	237	216	150	134	120	107	96	86
		q - 4 welds	2387	2338	2296	2260	2228	2200	2175	2153	2133	2114	2098
		F - 4 welds	0.30	0.30	0.31	0.31	0.32	0.32	0.32	0.33	0.33	0.33	0.34
		q - 6 welds	2606	2541	2484	2435	2393	2355	2321	2291	2264	2240	2218
		F - 6 welds	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31	0.32
	16	1: 8'-5"	325	290	260	188	166	148	132	118	105	95	85
		2: 10'-3"	325	290	260	235	214	196	180	118	105	95	85
		3: 10'-4"	325	290	260	235	214	196	180	118	105	95	85
		q - 4 welds	2513	2451	2399	2354	2314	2279	2248	2220	2195	2172	2151
		F - 4 welds	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.28	0.29	0.29	0.29
		q - 6 welds	2788	2705	2635	2574	2520	2473	2431	2393	2360	2329	2301
		F - 6 welds	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.27

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TABLE 16 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR BR-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)										
			7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
5" Normal Weight (145 pcf)	22	1: 5'-9"	274	239	209	184	163	144	128	114	102	91	81
		2: 6'-7"	274	239	209	184	163	144	128	114	102	91	81
		3: 6'-10"	274	239	209	184	163	144	128	114	102	91	81
		q - 4 welds	2415	2392	2372	2355	2339	2325	2313	2301	2291	2282	2273
		F - 4 welds	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39
		q - 6 welds	2533	2502	2475	2452	2431	2412	2395	2380	2366	2353	2342
		F - 6 welds	0.35	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.38	0.38	0.38
	20	1: 6'-8"	290	253	222	195	173	154	137	122	109	98	87
		2: 7'-6"	341	304	222	195	173	154	137	122	109	98	87
		3: 7'-9"	341	304	222	195	173	154	137	122	109	98	87
		q - 4 welds	2448	2421	2397	2376	2357	2341	2325	2312	2299	2288	2278
		F - 4 welds	0.33	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.36	0.36
		q - 6 welds	2590	2553	2521	2493	2467	2445	2425	2406	2390	2374	2360
		F - 6 welds	0.31	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.34
	18	1: 7'-7"	368	328	242	214	190	169	151	135	121	108	97
		2: 8'-9"	368	328	294	266	190	169	151	135	121	108	97
		3: 9'-1"	368	328	294	266	242	169	151	135	121	108	97
		q - 4 welds	2535	2499	2467	2439	2414	2392	2372	2353	2337	2322	2308
		F - 4 welds	0.28	0.28	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.31
		q - 6 welds	2723	2675	2632	2594	2561	2531	2504	2479	2457	2437	2418
		F - 6 welds	0.26	0.26	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29
	16	1: 8'-1"	365	325	292	211	187	166	148	133	119	107	96
		2: 9'-10"	365	325	292	264	240	219	148	133	119	107	96
		3: 10'-0"	365	325	292	264	240	219	201	133	119	107	96
		q - 4 welds	2638	2593	2553	2518	2487	2459	2434	2411	2390	2372	2354
		F - 4 welds	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.27	0.27
		q - 6 welds	2874	2813	2759	2712	2670	2633	2599	2568	2540	2515	2492
		F - 6 welds	0.22	0.22	0.23	0.23	0.24	0.24	0.24	0.25	0.25	0.25	0.25
6" Normal Weight (145 pcf)	22	1: 5'-5"	337	293	257	227	200	178	158	141	126	112	101
		2: 6'-2"	337	293	257	227	200	178	158	141	126	112	101
		3: 6'-4"	337	293	257	227	200	178	158	141	126	112	101
		q - 4 welds	2163	2140	2120	2103	2087	2073	2061	2049	2039	2030	2021
		F - 4 welds	0.41	0.42	0.42	0.42	0.43	0.43	0.43	0.43	0.44	0.44	0.44
		q - 6 welds	2281	2250	2224	2200	2179	2160	2143	2128	2114	2102	2090
		F - 6 welds	0.39	0.40	0.40	0.40	0.41	0.41	0.42	0.42	0.42	0.42	0.43
	20	1: 6'-3"	356	310	272	240	213	189	169	151	135	121	108
		2: 7'-0"	400	310	272	240	213	189	169	151	135	121	108
		3: 7'-3"	400	310	272	240	213	189	169	151	135	121	108
		q - 4 welds	2196	2169	2145	2124	2105	2089	2074	2060	2048	2036	2026
		F - 4 welds	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.39	0.40	0.40	0.40
		q - 6 welds	2338	2301	2269	2241	2216	2193	2173	2154	2138	2123	2109
		F - 6 welds	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.38	0.38	0.38	0.39

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TABLE 16 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR BR-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.) 7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
6" Normal Weight (145 pcf)	18	1: 7'-1"	400	338	297	263	233	208	186	166	149	134	121
		2: 8'-2"	400	400	360	263	233	208	186	166	149	134	121
		3: 8'-6"	400	400	360	326	233	208	186	166	149	134	121
		q - 4 welds	2283	2247	2215	2187	2162	2140	2120	2102	2085	2070	2056
		F - 4 welds	0.31	0.31	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34	0.34
		q - 6 welds	2472	2423	2380	2342	2309	2279	2252	2227	2205	2185	2166
		F - 6 welds	0.28	0.29	0.30	0.30	0.31	0.31	0.31	0.32	0.32	0.32	0.33
	16	1: 7'-8"	400	398	294	259	230	205	183	164	147	132	118
		2: 9'-2"	400	398	357	323	293	205	183	164	147	132	118
		3: 9'-5"	400	398	357	323	293	205	183	164	147	132	118
		q - 4 welds	2386	2341	2301	2266	2235	2207	2182	2159	2139	2120	2102
		F - 4 welds	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.29	0.29	0.30	0.30
		q - 6 welds	2622	2561	2507	2460	2418	2381	2347	2316	2289	2263	2240
		F - 6 welds	0.24	0.25	0.25	0.26	0.26	0.26	0.27	0.27	0.28	0.28	0.28
3½" Structural Light Weight (110 pcf)	22	1: 7'-1"	221	169	149	132	118	105	94	85	76	69	62
		2: 8'-2"	221	197	177	132	118	105	94	85	76	69	62
		3: 8'-5"	221	197	177	132	118	105	94	85	76	69	62
		q - 4 welds	1373	1350	1331	1313	1297	1284	1271	1260	1249	1240	1231
		F - 4 welds	0.65	0.66	0.67	0.68	0.69	0.69	0.70	0.71	0.71	0.72	0.72
		q - 6 welds	1491	1460	1434	1410	1389	1370	1353	1338	1324	1312	1300
		F - 6 welds	0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.67	0.68	0.68
	20	1: 8'-3"	232	207	186	140	125	112	100	90	81	74	67
		2: 9'-4"	232	207	186	168	153	112	100	90	81	74	67
		3: 9'-8"	232	207	186	168	153	140	100	90	81	74	67
		q - 4 welds	1406	1379	1355	1334	1316	1299	1284	1270	1258	1246	1236
		F - 4 welds	0.58	0.59	0.60	0.61	0.62	0.63	0.63	0.64	0.65	0.65	0.66
		q - 6 welds	1548	1511	1479	1451	1426	1403	1383	1365	1348	1333	1319
		F - 6 welds	0.52	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.60	0.61	0.62
	18	1: 9'-3"	251	224	201	182	165	123	110	99	90	81	74
		2: 10'-10"	251	224	201	182	165	151	139	128	90	81	74
		3: 11'-3"	251	224	201	182	165	151	139	128	111	81	74
		q - 4 welds	1493	1457	1425	1397	1372	1350	1330	1312	1295	1280	1266
		F - 4 welds	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.54	0.55	0.56
		q - 6 welds	1682	1633	1590	1552	1519	1489	1462	1437	1415	1395	1376
		F - 6 welds	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.50	0.51
	16	1: 9'-11"	250	223	200	181	165	150	109	98	89	80	73
		2: 12'-2"	250	223	200	181	165	150	138	127	118	108	95
		3: 12'-0"	250	223	200	181	165	150	138	127	118	108	95
		q - 4 welds	1596	1551	1511	1476	1445	1417	1392	1369	1349	1330	1313
		F - 4 welds	0.39	0.41	0.42	0.43	0.44	0.44	0.45	0.46	0.47	0.47	0.48
		q - 6 welds	1832	1771	1718	1670	1628	1591	1557	1527	1499	1473	1450
		F - 6 welds	0.34	0.36	0.37	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.43

Page 42 has the footnotes.

(continued)

TABLE 16 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR BR-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)										
			7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
4" Structural Light Weight (110 pcf)	22	1: 6'-10"	223	196	172	153	136	122	109	98	88	80	72
		2: 7'-10"	255	227	172	153	136	122	109	98	88	80	72
		3: 8'-1"	255	227	204	153	136	122	109	98	88	80	72
		q - 4 welds	1531	1508	1489	1471	1455	1441	1429	1418	1407	1398	1389
		F - 4 welds	0.58	0.59	0.60	0.61	0.61	0.62	0.62	0.63	0.63	0.64	0.64
		q - 6 welds	1649	1618	1592	1568	1547	1528	1511	1496	1482	1470	1458
		F - 6 welds	0.54	0.55	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.61
	20	1: 7'-11"	267	238	182	162	144	129	116	104	94	85	77
		2: 8'-11"	267	238	214	193	144	129	116	104	94	85	77
		3: 9'-3"	267	238	214	193	176	129	116	104	94	85	77
		q - 4 welds	1564	1537	1513	1492	1474	1457	1442	1428	1416	1404	1394
		F - 4 welds	0.52	0.53	0.54	0.54	0.55	0.56	0.56	0.57	0.57	0.58	0.58
		q - 6 welds	1706	1669	1637	1609	1584	1561	1541	1523	1506	1491	1477
		F - 6 welds	0.48	0.49	0.50	0.51	0.51	0.52	0.53	0.53	0.54	0.55	0.55
	18	1: 8'-11"	289	257	231	209	158	141	127	114	104	94	85
		2: 10'-5"	289	257	231	209	190	173	159	114	104	94	85
		3: 10'-9"	289	257	231	209	190	173	159	147	104	94	85
		q - 4 welds	1651	1615	1583	1555	1530	1508	1488	1470	1453	1438	1424
		F - 4 welds	0.43	0.44	0.44	0.45	0.46	0.47	0.47	0.48	0.48	0.49	0.49
		q - 6 welds	1840	1791	1748	1710	1677	1647	1620	1595	1573	1553	1534
		F - 6 welds	0.38	0.39	0.40	0.41	0.42	0.43	0.43	0.44	0.45	0.45	0.46
	16	1: 9'-6"	287	256	230	208	189	172	125	113	102	93	84
		2: 11'-8"	287	256	230	208	189	172	158	146	135	125	84
		3: 11'-7"	287	256	230	208	189	172	158	146	135	125	84
		q - 4 welds	1754	1709	1669	1634	1603	1575	1550	1527	1507	1488	1471
		F - 4 welds	0.36	0.37	0.38	0.39	0.39	0.40	0.41	0.41	0.42	0.42	0.43
		q - 6 welds	1990	1929	1876	1828	1786	1749	1715	1684	1657	1631	1608
		F - 6 welds	0.32	0.33	0.34	0.34	0.35	0.36	0.37	0.37	0.38	0.39	0.39
4¾" Structural Light Weight (110 pcf)	22	1: 6'-5"	270	237	209	185	165	148	132	119	107	97	88
		2: 7'-5"	308	237	209	185	165	148	132	119	107	97	88
		3: 7'-7"	308	274	209	185	165	148	132	119	107	97	88
		q - 4 welds	1768	1745	1726	1708	1692	1678	1666	1655	1644	1635	1626
		F - 4 welds	0.50	0.51	0.52	0.52	0.53	0.53	0.53	0.54	0.54	0.54	0.55
		q - 6 welds	1886	1855	1829	1805	1784	1765	1748	1733	1719	1707	1695
		F - 6 welds	0.47	0.48	0.49	0.49	0.50	0.50	0.51	0.51	0.52	0.52	0.53
	20	1: 7'-6"	323	288	221	196	175	156	140	126	114	103	94
		2: 8'-5"	323	288		196	175	156	140	126	114	103	94
		3: 8'-9"	323	288	258	233	175	156	140	126	114	103	94
		q - 4 welds	1801	1774	1750	1729	1711	1694	1679	1665	1653	1641	1631
		F - 4 welds	0.45	0.46	0.46	0.47	0.48	0.48	0.48	0.49	0.49	0.50	0.50
		q - 6 welds	1943	1906	1874	1846	1821	1798	1778	1759	1743	1728	1714
		F - 6 welds	0.42	0.43	0.43	0.44	0.45	0.45	0.46	0.46	0.47	0.47	0.47

Page 42 has the footnotes.

(continued)

TABLE 16 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR BR-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)										
			7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
4¾" Structural Light Weight (110 pcf)	18	1: 8'-5"	348	310	278	213	190	171	154	139	125	114	103
		2: 9'-10"	348	310	278	251	229	209	154	139	125	114	103
		3: 10'-2"	348	310	278	251	229	209	192	139	125	114	103
		q - 4 welds	1888	1852	1820	1792	1767	1745	1725	1707	1690	1675	1661
		F - 4 welds	0.37	0.38	0.39	0.39	0.40	0.40	0.41	0.41	0.42	0.42	0.42
		q - 6 welds	2077	2028	1985	1947	1914	1884	1857	1832	1810	1790	1771
		F - 6 welds	0.34	0.35	0.35	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.40
	16	1: 9'-0"	345	307	276	250	227	168	152	137	124	112	102
		2: 11'-0"	345	307	276	250	227	207	190	175	162	112	102
		3: 11'-1"	345	307	276	250	227	207	190	175	162	112	102
		q - 4 welds	1991	1946	1906	1871	1840	1812	1787	1764	1744	1725	1707
		F - 4 welds	0.32	0.32	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37
		q - 6 welds	2227	2166	2112	2065	2023	1986	1952	1921	1894	1868	1845
		F - 6 welds	0.28	0.29	0.30	0.30	0.31	0.32	0.32	0.33	0.33	0.34	0.34
5¾" Structural Light Weight (110 pcf)	22	1: 6'-0"	335	294	259	230	205	183	165	148	134	121	110
		2: 6'-11"	335	294	259	230	205	183	165	148	134	121	110
		3: 7'-2"	380	294	259	230	205	183	165	148	134	121	110
		q - 4 welds	2084	2061	2041	2024	2008	1994	1982	1971	1960	1951	1942
		F - 4 welds	0.43	0.43	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.46	0.46
		q - 6 welds	2202	2171	2145	2121	2100	2081	2064	2049	2035	2023	2011
		F - 6 welds	0.40	0.41	0.42	0.42	0.42	0.43	0.43	0.43	0.44	0.44	0.44
	20	1: 7'-0"	399	310	274	243	217	194	174	157	142	129	117
		2: 7'-11"	399	355	274	243	217	194	174	157	142	129	117
		3: 8'-2"	399	355	319	243	217	194	174	157	142	129	117
		q - 4 welds	2117	2090	2066	2045	2026	2010	1995	1981	1969	1957	1947
		F - 4 welds	0.38	0.39	0.39	0.40	0.40	0.40	0.41	0.41	0.41	0.42	0.42
		q - 6 welds	2259	2222	2190	2162	2137	2114	2094	2075	2059	2044	2030
		F - 6 welds	0.36	0.37	0.37	0.38	0.38	0.38	0.39	0.39	0.39	0.40	0.40
	18	1: 7'-11"	400	383	297	264	236	212	191	172	156	141	129
		2: 9'-2"	400	383	344	311	282	212	191	172	156	141	129
		3: 9'-6"	400	383	344	311	282	258	191	172	156	141	129
		q - 4 welds	2204	2168	2136	2108	2083	2061	2041	2023	2006	1991	1977
		F - 4 welds	0.32	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.35	0.35	0.36
		q - 6 welds	2393	2344	2301	2263	2230	2200	2173	2148	2126	2106	2087
		F - 6 welds	0.29	0.30	0.31	0.31	0.32	0.32	0.32	0.33	0.33	0.33	0.34
	16	1: 8'-5"	400	379	341	261	233	209	188	170	154	139	127
		2: 10'-4"	400	379	341	308	280	256	235	170	154	139	127
		3: 10'-5"	400	379	341	308	280	256	235	170	154	139	127
		q - 4 welds	2307	2262	2222	2187	2156	2128	2103	2080	2060	2041	2023
		F - 4 welds	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.30	0.31	0.31	0.31
		q - 6 welds	2543	2482	2428	2381	2339	2302	2268	2237	2210	2184	2161
		F - 6 welds	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.28	0.29	0.29

[1] Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8 of this report.

[2] Shoring is required at midspan for superimposed load values to the right of the heavy line.

[3] Total slab depth is nominal depth from top of concrete to bottom of steel deck.

[4] Concrete fill to have minimum compressive strength f'_c = 3,000 psi.

[5] Nominal diaphragm shear values may be determined by multiplying the table values by Ω = 3.0. LRFD diaphragm shear values may be determined by multiplying nominal values by ϕ=0.55.

TABLE 17 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW2™-36 FORMLOK™ & W2-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6]

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	14'-0"
4" Normal Weight (145 pcf)	22	1: 7'-9"	337	261	232	172	152	135	120	107	96	86	78	70	63	57	46
		2: 9'-0"	337	261	232	209	189	171	120	107	96	86	78	70	63	57	46
		3: 9'-2"	337	261	232	209	189	171	120	107	96	86	78	70	63	57	46
		q - 3 welds	1674	1635	1619	1606	1594	1583	1573	1565	1557	1550	1543	1537	1532	1527	1518
		q - 4 welds	1834	1762	1734	1708	1686	1667	1649	1633	1619	1606	1594	1583	1573	1563	1547
	21	1: 8'-6"	377	292	260	234	211	155	139	125	112	101	91	82	75	68	55
		2: 9'-8"	377	292	260	234	211	192	175	125	112	101	91	82	75	68	55
		3: 10'-0"	377	292	260	234	211	192	175	161	112	101	91	82	75	68	55
		q - 3 welds	1680	1637	1620	1605	1592	1580	1570	1560	1552	1544	1537	1530	1524	1519	1509
		q - 4 welds	1867	1788	1756	1729	1704	1683	1663	1646	1630	1616	1602	1590	1579	1569	1551
	20	1: 9'-3"	400	324	288	259	234	213	158	142	128	116	105	95	86	79	65
		2: 10'-3"	400	324	288	259	234	213	195	179	128	116	105	95	86	79	65
		3: 10'-8"	400	324	288	259	234	213	195	179	165	116	105	95	86	79	65
		q - 3 welds	1689	1643	1624	1608	1593	1580	1569	1559	1549	1541	1533	1526	1519	1513	1503
		q - 4 welds	1902	1816	1781	1751	1725	1701	1680	1661	1643	1628	1613	1600	1588	1577	1557
	19	1: 10'-0"	400	389	347	311	275	242	214	190	161	146	133	121	110	99	81
		2: 11'-5"	400	389	347	311	275	242	214	190	169	152	133	121	110	99	81
		3: 11'-10"	400	389	347	311	275	242	214	190	169	152	136	121	110	99	81
		q - 3 welds	1714	1659	1637	1618	1602	1587	1573	1561	1550	1540	1531	1523	1515	1508	1496
		q - 4 welds	1977	1877	1836	1801	1770	1742	1718	1696	1675	1657	1640	1625	1611	1598	1575
	18	1: 10'-5"	400	400	386	335	293	258	229	203	181	162	146	131	118	105	84
		2: 12'-3"	400	400	386	335	293	258	229	203	181	162	146	131	118	105	84
		3: 12'-5"	400	400	386	335	293	258	229	203	181	162	146	131	118	105	84
		q - 3 welds	1739	1678	1653	1632	1613	1596	1581	1568	1556	1545	1534	1525	1517	1509	1495
		q - 4 welds	2044	1931	1886	1847	1812	1781	1753	1729	1706	1686	1667	1650	1634	1619	1593
	16	1: 11'-2"	400	400	396	356	322	292	261	233	208	187	157	143	131	116	93
		2: 13'-11"	400	400	396	356	322	292	261	233	208	187	168	148	131	116	93
		3: 13'-1"	400	400	396	356	322	292	261	233	208	187	168	148	131	116	93
		q - 3 welds	1809	1733	1702	1675	1652	1631	1612	1595	1580	1566	1553	1541	1531	1521	1503
		q - 4 welds	2212	2071	2015	1965	1922	1883	1848	1817	1789	1763	1740	1718	1698	1680	1647
4½" Normal Weight (145 pcf)	22	1: 7'-5"	380	294	220	194	171	152	135	121	108	97	87	78	70	63	51
		2: 8'-7"	380	294	262	235	213	152	135	121	108	97	87	78	70	63	51
		3: 8'-9"	380	294	262	235	213	152	135	121	108	97	87	78	70	63	51
		q - 3 welds	1913	1874	1858	1845	1833	1822	1812	1804	1796	1789	1782	1777	1771	1766	1757
		q - 4 welds	2073	2001	1973	1947	1925	1906	1888	1872	1858	1845	1833	1822	1812	1802	1786
	21	1: 8'-1"	400	329	293	263	196	174	156	140	125	113	102	92	83	75	62
		2: 9'-3"	400	329	293	263	238	216	156	140	125	113	102	92	83	75	62
		3: 9'-6"	400	329	293	263	238	216	198	140	125	113	102	92	83	75	62
		q - 3 welds	1919	1876	1859	1844	1831	1819	1809	1799	1791	1783	1776	1769	1763	1758	1748
		q - 4 welds	2106	2027	1995	1968	1943	1922	1902	1885	1869	1855	1842	1829	1818	1808	1790
	20	1: 8'-9"	400	364	324	291	263	198	177	159	143	130	117	106	97	88	73
		2: 9'-10"	400	364	324	291	263	239	219	159	143	130	117	106	97	88	73
		3: 10'-2"	400	364	324	291	263	239	219	201	143	130	117	106	97	88	73
		q - 3 welds	1928	1882	1863	1847	1832	1819	1808	1798	1788	1780	1772	1765	1758	1752	1742
		q - 4 welds	2141	2055	2020	1990	1964	1940	1919	1900	1882	1867	1853	1839	1827	1816	1796
	19	1: 9'-7"	400	400	389	349	316	287	262	199	180	163	149	136	124	113	95
		2: 10'-11"	400	400	389	349	316	287	262	241	222	163	149	136	124	113	95
		3: 11'-4"	400	400	389	349	316	287	262	241	222	206	149	136	124	113	95
		q - 3 welds	1953	1898	1877	1857	1841	1826	1812	1800	1789	1779	1770	1762	1754	1747	1735
		q - 4 welds	2216	2116	2075	2040	2009	1982	1957	1935	1915	1896	1880	1864	1850	1837	1814

Page 48 has the footnotes.

(continued)

TABLE 17 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW2™-36 FORMLOK™ & W2-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	14'-0"
4½" Normal Weight (145 pcf)	18	1: 10'-0"	400	400	400	399	361	328	300	275	211	192	176	161	147	135	115
		2: 11'-9"	400	400	400	399	361	328	300	275	254	235	210	161	147	135	115
		3: 12'-0"	400	400	400	399	361	328	300	275	254	235	210	185	147	135	115
		q - 3 welds	1978	1917	1892	1871	1852	1835	1820	1807	1795	1784	1774	1764	1756	1748	1734
		q - 4 welds	2283	2170	2125	2086	2051	2020	1992	1968	1945	1925	1906	1889	1873	1859	1833
	16	1: 10'-8"	400	400	400	397	359	327	298	274	253	191	174	159	146	134	114
		2: 13'-6"	400	400	400	397	359	327	298	274	253	234	217	197	179	160	114
		3: 12'-8"	400	400	400	397	359	327	298	274	253	234	217	197	179	134	114
		q - 3 welds	2048	1972	1941	1914	1891	1870	1851	1834	1819	1805	1792	1781	1770	1760	1742
		q - 4 welds	2451	2310	2254	2204	2161	2122	2087	2056	2028	2002	1979	1957	1937	1919	1887
5" Normal Weight (145 pcf)	22	1: 7'-1"	400	329	246	216	191	169	151	135	120	108	97	87	78	70	57
		2: 8'-3"	400	329	293	263	191	169	151	135	120	108	97	87	78	70	57
		3: 8'-4"	400	329	293	263	191	169	151	135	120	108	97	87	78	70	57
		q - 3 welds	2152	2113	2097	2084	2072	2061	2051	2043	2035	2028	2022	2016	2010	2005	1996
		q - 4 welds	2312	2240	2212	2187	2164	2145	2127	2111	2097	2084	2072	2061	2051	2042	2025
	21	1: 7'-9"	400	367	328	247	219	195	174	156	140	126	114	103	93	84	69
		2: 8'-10"	400	367	328	294	266	195	174	156	140	126	114	103	93	84	69
		3: 9'-2"	400	367	328	294	266	242	174	156	140	126	114	103	93	84	69
		q - 3 welds	2158	2116	2098	2083	2070	2058	2048	2038	2030	2022	2015	2009	2003	1997	1987
		q - 4 welds	2345	2266	2234	2207	2182	2161	2141	2124	2108	2094	2081	2069	2058	2047	2029
	20	1: 8'-5"	400	400	363	326	247	221	198	178	160	145	131	119	108	98	81
		2: 9'-5"	400	400	363	326	294	268	198	178	160	145	131	119	108	98	81
		3: 9'-9"	400	400	363	326	294	268	245	178	160	145	131	119	108	98	81
		q - 3 welds	2168	2121	2102	2086	2071	2059	2047	2037	2027	2019	2011	2004	1998	1992	1981
		q - 4 welds	2380	2294	2259	2229	2203	2179	2158	2139	2122	2106	2092	2078	2066	2055	2035
	19	1: 9'-3"	400	400	400	390	353	321	246	222	201	182	166	151	138	126	106
		2: 10'-6"	400	400	400	390	353	321	293	269	248	182	166	151	138	126	106
		3: 10'-10"	400	400	400	390	353	321	293	269	248	182	166	151	138	126	106
		q - 3 welds	2192	2137	2116	2097	2080	2065	2051	2039	2028	2019	2009	2001	1994	1987	1974
		q - 4 welds	2455	2355	2314	2279	2248	2221	2196	2174	2154	2135	2119	2103	2089	2076	2053
	18	1: 9'-7"	400	400	400	400	400	366	334	259	235	214	196	179	164	151	128
		2: 11'-3"	400	400	400	400	400	366	334	307	283	262	196	179	164	151	128
		3: 11'-8"	400	400	400	400	400	366	334	307	283	262	243	179	164	151	128
		q - 3 welds	2217	2156	2131	2110	2091	2074	2059	2046	2034	2023	2013	2003	1995	1987	1973
		q - 4 welds	2522	2409	2364	2325	2290	2259	2232	2207	2184	2164	2145	2128	2112	2098	2072
	16	1: 10'-4"	400	400	400	400	400	364	332	305	233	212	194	177	162	149	126
		2: 12'-11"	400	400	400	400	400	364	332	305	281	260	242	225	210	149	126
		3: 12'-4"	400	400	400	400	400	364	332	305	281	260	242	225	162	149	126
		q - 3 welds	2287	2211	2180	2154	2130	2109	2090	2073	2058	2044	2031	2020	2009	1999	1981
		q - 4 welds	2691	2549	2493	2443	2400	2361	2326	2295	2267	2241	2218	2196	2176	2158	2126
5½" Normal Weight (145 pcf)	22	1: 6'-10"	400	313	273	240	212	188	167	149	134	120	108	97	87	78	63
		2: 7'-11"	400	365	325	240	212	188	167	149	134	120	108	97	87	78	63
		3: 8'-0"	400	365	325	292	212	188	167	149	134	120	108	97	87	78	63
		q - 3 welds	2391	2352	2336	2323	2311	2300	2291	2282	2274	2267	2261	2255	2249	2244	2235
		q - 4 welds	2551	2480	2451	2426	2403	2384	2366	2350	2336	2323	2311	2300	2290	2281	2264
	21	1: 7'-5"	400	400	311	274	243	216	193	173	155	140	126	114	103	93	76
		2: 8'-6"	400	400	364	326	295	216	193	173	155	140	126	114	103	93	76
		3: 8'-9"	400	400	364	326	295	216	193	173	155	140	126	114	103	93	76
		q - 3 welds	2397	2355	2337	2323	2309	2298	2287	2278	2269	2261	2254	2248	2242	2236	2226
		q - 4 welds	2584	2505	2474	2446	2422	2400	2380	2363	2347	2333	2320	2308	2297	2286	2268

Page 48 has the footnotes.

(continued)

TABLE 17 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW2™-36 FORMLOK™ & W2-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	14'-0"
5½" Normal Weight (145 pcf)	20	1: 8'-1"	400	400	400	361	274	245	219	197	177	160	145	132	120	109	90
		2: 9'-0"	400	400	400	361	327	297	219	197	177	160	145	132	120	109	90
		3: 9'-4"	400	400	400	361	327	297	219	197	177	160	145	132	120	109	90
		q - 3 welds	2407	2360	2341	2325	2310	2298	2286	2276	2267	2258	2250	2243	2237	2231	2220
		q - 4 welds	2619	2533	2499	2468	2442	2418	2397	2378	2361	2345	2331	2318	2306	2294	2274
	19	1: 8'-11"	400	400	400	400	391	303	272	246	222	202	184	168	153	140	118
		2: 10'-1"	400	400	400	400	391	355	325	298	222	202	184	168	153	140	118
		3: 10'-5"	400	400	400	400	391	355	325	298	222	202	184	168	153	140	118
		q - 3 welds	2431	2376	2355	2336	2319	2304	2290	2278	2268	2258	2249	2240	2233	2226	2213
		q - 4 welds	2694	2594	2554	2518	2487	2460	2435	2413	2393	2374	2358	2342	2328	2315	2292
	18	1: 9'-3"	400	400	400	400	400	400	318	287	261	237	217	198	182	167	141
		2: 10'-10"	400	400	400	400	400	400	370	340	314	237	217	198	182	167	141
		3: 11'-2"	400	400	400	400	400	400	370	340	314	290	217	198	182	167	141
		q - 3 welds	2456	2395	2370	2349	2330	2314	2299	2285	2273	2262	2252	2242	2234	2226	2212
		q - 4 welds	2761	2648	2603	2564	2529	2498	2471	2446	2423	2403	2384	2367	2351	2337	2311
	16	1: 9'-11"	400	400	400	400	400	400	368	284	258	235	214	196	179	165	139
		2: 12'-5"	400	400	400	400	400	400	368	338	311	288	267	249	179	165	139
		3: 12'-0"	400	400	400	400	400	400	368	338	311	288	267	249	179	165	139
		q - 3 welds	2527	2450	2419	2393	2369	2348	2329	2312	2297	2283	2270	2259	2248	2238	2220
		q - 4 welds	2930	2788	2732	2682	2639	2600	2565	2534	2506	2480	2457	2435	2416	2397	2365
6½" Normal Weight (145 pcf)	22	1: 6'-4"	400	377	329	290	256	227	202	180	161	145	130	117	105	94	76
		2: 7'-5"	400	400	329	290	256	227	202	180	161	145	130	117	105	94	76
		3: 7'-6"	400	400	392	290	256	227	202	180	161	145	130	117	105	94	76
		q - 3 welds	2869	2830	2815	2801	2789	2778	2769	2760	2752	2745	2739	2733	2727	2722	2713
		q - 4 welds	3029	2958	2929	2904	2882	2862	2844	2828	2814	2801	2789	2778	2768	2759	2742
	21	1: 6'-11"	400	400	375	331	293	261	233	209	187	169	152	138	124	113	92
		2: 7'-11"	400	400	400	331	293	261	233	209	187	169	152	138	124	113	92
		3: 8'-2"	400	400	400	393	293	261	233	209	187	169	152	138	124	113	92
		q - 3 welds	2876	2833	2816	2801	2787	2776	2765	2756	2747	2739	2732	2726	2720	2714	2704
		q - 4 welds	3062	2983	2952	2924	2900	2878	2859	2841	2825	2811	2798	2786	2775	2765	2746
	20	1: 7'-6"	400	400	400	372	331	295	264	237	214	193	175	159	144	131	109
		2: 8'-5"	400	400	400	400	331	295	264	237	214	193	175	159	144	131	109
		3: 8'-9"	400	400	400	400	393	295	264	237	214	193	175	159	144	131	109
		q - 3 welds	2885	2838	2819	2803	2789	2776	2764	2754	2745	2736	2728	2721	2715	2709	2698
		q - 4 welds	3097	3011	2977	2947	2920	2896	2875	2856	2839	2823	2809	2796	2784	2773	2753
	19	1: 8'-5"	400	400	400	400	400	365	328	296	268	243	221	202	185	169	142
		2: 9'-5"	400	400	400	400	400	400	328	296	268	243	221	202	185	169	142
		3: 9'-9"	400	400	400	400	400	400	391	296	268	243	221	202	185	169	142
		q - 3 welds	2909	2855	2833	2814	2797	2782	2769	2757	2746	2736	2727	2718	2711	2704	2691
		q - 4 welds	3172	3072	3032	2997	2966	2938	2913	2891	2871	2853	2836	2821	2807	2794	2770
	18	1: 8'-9"	400	400	400	400	400	400	382	346	314	286	261	239	219	201	170
		2: 10'-1"	400	400	400	400	400	400	400	400	314	286	261	239	219	201	170
		3: 10'-5"	400	400	400	400	400	400	400	400	314	286	261	239	219	201	170
		q - 3 welds	2934	2873	2849	2827	2808	2792	2777	2763	2751	2740	2730	2721	2712	2704	2690
		q - 4 welds	3239	3126	3081	3042	3007	2976	2949	2924	2901	2881	2862	2845	2829	2815	2789
	16	1: 9'-4"	400	400	400	400	400	400	378	342	310	282	258	236	216	198	168
		2: 11'-7"	400	400	400	400	400	400	400	400	374	346	321	236	216	198	168
		3: 11'-6"	400	400	400	400	400	400	400	400	374	346	321	236	216	198	168
		q - 3 welds	3005	2928	2898	2871	2847	2826	2807	2790	2775	2761	2749	2737	2726	2716	2699
		q - 4 welds	3408	3267	3210	3161	3117	3078	3044	3012	2984	2958	2935	2914	2894	2875	2843

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(continued)

TABLE 17 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW2™-36 FORMLOK™ & W2-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	14'-0"
4" Structural Light Weight (110 pcf)	22	1: 8'-6"	337	261	232	209	189	144	129	116	105	95	86	78	71	65	54
		2: 9'-10"	337	261	232	209	189	171	157	116	105	95	86	78	71	65	54
		3: 10'-1"	337	261	232	209	189	171	157	144	105	95	86	78	71	65	54
		q - 3 welds	1349	1310	1295	1281	1269	1258	1249	1240	1232	1225	1219	1213	1208	1203	1194
		q - 4 welds	1510	1438	1409	1384	1362	1342	1324	1309	1294	1281	1269	1258	1248	1239	1222
	21	1: 9'-4"	377	292	260	234	211	192	147	133	120	109	100	90	80	71	57
		2: 10'-6"	377	292	260	234	211	192	175	156	134	109	100	90	80	71	57
		3: 10'-11"	377	292	260	234	211	192	175	156	134	109	100	90	80	71	57
		q - 3 welds	1356	1313	1296	1281	1268	1256	1245	1236	1227	1220	1212	1206	1200	1194	1185
		q - 4 welds	1542	1463	1432	1404	1380	1358	1339	1321	1305	1291	1278	1266	1255	1245	1226
	20	1: 10'-2"	400	324	288	259	234	213	188	161	136	121	106	93	83	73	59
		2: 11'-2"	400	324	288	259	234	213	188	161	139	121	106	93	83	73	59
		3: 11'-7"	400	324	288	259	234	213	188	161	139	121	106	93	83	73	59
		q - 3 welds	1365	1318	1300	1283	1269	1256	1244	1234	1225	1216	1209	1201	1195	1189	1178
		q - 4 welds	1577	1491	1457	1427	1400	1376	1355	1336	1319	1303	1289	1276	1264	1253	1233
	19	1: 10'-11"	400	389	347	308	270	237	201	173	149	130	113	100	88	79	63
		2: 12'-5"	400	389	347	308	270	237	201	173	149	130	113	100	88	79	63
		3: 12'-11"	400	389	347	308	270	237	201	173	149	130	113	100	88	79	63
		q - 3 welds	1389	1335	1313	1294	1277	1262	1249	1237	1226	1216	1207	1199	1191	1184	1171
		q - 4 welds	1653	1552	1512	1477	1446	1418	1393	1371	1351	1333	1316	1301	1287	1274	1250
	18	1: 11'-4"	400	400	376	328	288	249	211	181	157	136	119	105	93	83	66
		2: 13'-5"	400	400	376	328	288	249	211	181	157	136	119	105	93	83	66
		3: 13'-3"	400	400	376	328	288	249	211	181	157	136	119	105	93	83	66
		q - 3 welds	1414	1353	1329	1307	1289	1272	1257	1243	1231	1220	1210	1201	1192	1184	1170
		q - 4 welds	1719	1607	1562	1522	1487	1457	1429	1404	1382	1361	1342	1325	1310	1295	1269
	16	1: 11'-11"	400	400	396	356	322	276	235	201	174	151	132	116	103	92	73
		2: 14'-10"	400	400	396	356	322	276	235	201	174	151	132	116	103	92	73
		3: 13'-11"	400	400	396	356	322	276	235	201	174	151	132	116	103	92	73
		q - 3 welds	1485	1408	1378	1351	1327	1306	1287	1271	1255	1241	1229	1217	1206	1196	1179
		q - 4 welds	1888	1747	1690	1641	1597	1558	1524	1493	1464	1439	1415	1394	1374	1356	1323
4½" Structural Light Weight (110 pcf)	22	1: 8'-1"	380	294	262	235	181	161	145	130	118	106	97	88	80	73	61
		2: 9'-5"	380	294	262	235	213	193	145	130	118	106	97	88	80	73	61
		3: 9'-7"	380	294	262	235	213	193	177	130	118	106	97	88	80	73	61
		q - 3 welds	1507	1468	1453	1439	1427	1416	1407	1398	1390	1383	1377	1371	1366	1360	1352
		q - 4 welds	1668	1596	1567	1542	1520	1500	1482	1467	1452	1439	1427	1416	1406	1397	1380
	21	1: 8'-11"	400	329	293	263	238	184	166	149	135	123	112	102	93	85	72
		2: 10'-1"	400	329	293	263	238	216	198	181	135	123	112	102	93	85	72
		3: 10'-5"	400	329	293	263	238	216	198	181	135	123	112	102	93	85	72
		q - 3 welds	1514	1471	1454	1439	1426	1414	1403	1394	1385	1378	1370	1364	1358	1352	1342
		q - 4 welds	1700	1621	1590	1562	1538	1516	1497	1479	1463	1449	1436	1424	1413	1403	1384
	20	1: 9'-8"	400	364	324	291	263	239	219	169	153	139	127	116	106	98	81
		2: 10'-9"	400	364	324	291	263	239	219	201	185	139	127	116	106	98	81
		3: 11'-1"	400	364	324	291	263	239	219	201	185	167	127	116	106	98	81
		q - 3 welds	1523	1476	1458	1441	1427	1414	1402	1392	1383	1374	1367	1359	1353	1347	1336
		q - 4 welds	1735	1649	1615	1585	1558	1534	1513	1494	1477	1461	1447	1434	1422	1411	1391
	19	1: 10'-6"	400	400	389	349	316	287	262	238	205	173	156	138	122	108	87
		2: 11'-11"	400	400	389	349	316	287	262	238	205	179	156	138	122	108	87
		3: 12'-4"	400	400	389	349	316	287	262	238	205	179	156	138	122	108	87
		q - 3 welds	1547	1493	1471	1452	1435	1420	1407	1395	1384	1374	1365	1357	1349	1342	1329
		q - 4 welds	1811	1710	1670	1635	1604	1576	1551	1529	1509	1491	1474	1459	1445	1432	1408

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(continued)

TABLE 17 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW2™-36 FORMLOK™ & W2-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	14'-0"
4½" Structural Light Weight (110 pcf)	18	1: 10'-10"	400	400	400	399	361	327	291	250	216	188	164	144	128	114	91
		2: 12'-10"	400	400	400	399	361	327	291	250	216	188	164	144	128	114	91
		3: 12'-10"	400	400	400	399	361	327	291	250	216	188	164	144	128	114	91
		q - 3 welds	1572	1511	1487	1465	1447	1430	1415	1401	1389	1378	1368	1359	1350	1342	1328
		q - 4 welds	1877	1765		1680	1645	1615	1587	1562	1540	1519	1500	1483	1468	1453	1427
	16	1: 11'-7"	400	400	400	397	359	327	298	274	238	207	182	160	141	126	101
		2: 14'-5"	400	400	400	397	359	327	298	274	238	207	182	160	141	126	101
		3: 13'-6"	400	400	400	397	359	327	298	274	238	207	182	160	141	126	101
		q - 3 welds	1643	1566	1536	1509	1485	1464	1445	1429	1413	1399	1387	1375	1364	1354	1337
		q - 4 welds	2046	1905	1848	1799	1755	1716	1682	1650	1622	1597	1573	1552	1532	1514	1481
5¼" Structural Light Weight (110 pcf)	22	1: 7'-8"	400	347	309	240	213	190	171	154	139	125	114	103	94	86	71
		2: 8'-11"	400	347	309	277	251	190	171	154	139	125	114	103	94	86	71
		3: 9'-0"	400	347	309	277	251	228	171	154	139	125	114	103	94	86	71
		q - 3 welds	1744	1705	1690	1676	1664	1653	1644	1635	1627	1620	1614	1608	1602	1597	1588
		q - 4 welds	1905	1833	1804	1779	1757	1737	1719	1703	1689	1676	1664	1653	1643	1634	1617
	21	1: 8'-5"	400	388	345	310	242	217	195	176	159	145	132	120	110	100	84
		2: 9'-6"	400	388	345	310	280	255	233	176	159	145	132	120	110	100	84
		3: 9'-10"	400	388	345	310	280	255	233	176	159	145	132	120	110	100	84
		q - 3 welds	1751	1708	1691	1676	1663	1651	1640	1631	1622	1614	1607	1601	1595	1589	1579
		q - 4 welds	1937	1858	1827	1799	1775	1753	1734	1716	1700	1686	1673	1661	1650	1640	1621
	20	1: 9'-1"	400	400	382	343	310	282	220	199	180	164	150	137	125	115	97
		2: 10'-2"	400	400	382	343	310	282	258	237	180	164	150	137	125	115	97
		3: 10'-6"	400	400	382	343	310	282	258	237	218	164	150	137	125	115	97
		q - 3 welds	1760	1713	1694	1678	1664	1651	1639	1629	1620	1611	1604	1596	1590	1584	1573
		q - 4 welds	1972	1886	1852	1822	1795	1771	1750	1731	1714	1698	1684	1671	1659	1648	1628
	19	1: 9'-11"	400	400	400	400	372	338	309	245	223	204	186	171	157	145	124
		2: 11'-3"	400	400	400	400	372	338	309	283	261	242	186	171	157	145	124
		3: 11'-8"	400	400	400	400	372	338	309	283	261	242	225	171	157	145	124
		q - 3 welds	1784	1730	1708	1689	1672	1657	1644	1632	1621	1611	1602	1594	1586	1579	1566
		q - 4 welds	2048	1947	1907	1872	1841	1813	1788	1766	1746	1728	1711	1696	1682	1669	1645
	18	1: 10'-3"	400	400	400	400	400	385	352	323	260	237	218	200	184	170	139
		2: 12'-2"	400	400	400	400	400	385	352	323	298	276	251	221	184	170	139
		3: 12'-4"	400	400	400	400	400	385	352	323	298	276	251	221	184	170	139
		q - 3 welds	1809	1748	1724	1702	1684	1667	1652	1638	1626	1615	1605	1596	1587	1579	1565
		q - 4 welds	2114	2002	1957	1917	1882	1852	1824	1799	1776	1756	1737	1720	1704	1690	1664
	16	1: 11'-0"	400	400	400	400	400	383	350	321	296	274	215	198	182	168	144
		2: 13'-10"	400	400	400	400	400	383	350	321	296	274	254	237	216	192	144
		3: 13'-0"	400	400	400	400	400	383	350	321	296	274	254	237	216	192	144
		q - 3 welds	1880	1803	1773	1746	1722	1701	1682	1666	1650	1636	1624	1612	1601	1591	1574
		q - 4 welds	2283	2142	2085	2036	1992	1953	1919	1887	1859	1834	1810	1789	1769	1751	1718

Page 48 has the footnotes.

(continued)

TABLE 17 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW2™-36 FORMLOK™ & W2-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	14'-0"
6¼" Structural Light Weight (110 pcf)	22	1: 7'-2"	400	400	329	291	259	231	207	187	168	152	138	126	114	104	87
		2: 8'-4"	400	400	375	337	259	231	207	187	168	152	138	126	114	104	87
		3: 8'-5"	400	400	375	337	259	231	207	187	168	152	138	126	114	104	87
		q - 3 welds	2060	2021	2006	1992	1980	1969	1960	1951	1943	1936	1930	1924	1918	1913	1904
		q - 4 welds	2221	2149	2120	2095	2073	2053	2035	2019	2005	1992	1980	1969	1959	1950	1933
	21	1: 7'-10"	400	400	400	331	294	263	237	214	193	176	160	146	133	122	102
		2: 8'-11"	400	400	400	376	340	263	237	214	193	176	160	146	133	122	102
		3: 9'-3"	400	400	400	376	340	309	237	214	193	176	160	146	133	122	102
		q - 3 welds	2067	2024	2007	1992	1978	1967	1956	1947	1938	1930	1923	1917	1911	1905	1895
		q - 4 welds	2253	2174	2143	2115	2091	2069	2050	2032	2016	2002	1989	1977	1966	1956	1937
	20	1: 8'-6"	400	400	400	400	376	296	267	241	219	199	182	166	152	139	118
		2: 9'-6"	400	400	400	400	376	342	313	241	219	199	182	166	152	139	118
		3: 9'-10"	400	400	400	400	376	342	313	241	219	199	182	166	152	139	118
		q - 3 welds	2076	2029	2010	1994	1980	1967	1955	1945	1936	1927	1919	1912	1906	1900	1889
		q - 4 welds	2288	2202	2168	2138	2111	2087	2066	2047	2030	2014	2000	1987	1975	1964	1944
	19	1: 9'-4"	400	400	400	400	400	400	328	297	270	247	226	207	191	176	150
		2: 10'-7"	400	400	400	400	400	400	374	343	317	247	226	207	191	176	150
		3: 10'-11"	400	400	400	400	400	400	374	343	317	247	226	207	191	176	150
		q - 3 welds	2100	2046	2024	2005	1988	1973	1960	1948	1937	1927	1918	1909	1902	1895	1882
		q - 4 welds	2364	2263	2223	2188	2157	2129	2104	2082	2062	2044	2027	2012	1998	1985	1961
	18	1: 9'-8"	400	400	400	400	400	400	400	345	315	288	264	243	224	206	177
		2: 11'-4"	400	400	400	400	400	400	400	392	361	334	264	243	224	206	177
		3: 11'-9"	400	400	400	400	400	400	400	392	361	334	310	243	224	206	177
		q - 3 welds	2125	2064	2040	2018	1999	1983	1968	1954	1942	1931	1921	1912	1903	1895	1881
		q - 4 welds	2430	2317	2272	2233	2198	2167	2140	2115	2092	2072	2053	2036	2020	2006	1980
	16	1: 10'-5"	400	400	400	400	400	400	400	388	311	284	261	240	221	204	175
		2: 13'-0"	400	400	400	400	400	400	400	388	358	331	308	286	268	251	175
		3: 12'-5"	400	400	400	400	400	400	400	388	358	331	308	286	221	204	175
		q - 3 welds	2196	2119	2089	2062	2038	2017	1998	1981	1966	1952	1940	1928	1917	1907	1890
		q - 4 welds	2599	2458	2401	2352	2308	2269	2235	2203	2175	2149	2126	2105	2085	2067	2034

[1] Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8 of this report.

[2] Shoring is required at midspan for superimposed load values to the right of the heavy line.

[3] Total slab depth is nominal depth from top of concrete to bottom of steel deck.

[4] Concrete fill to have minimum compressive strength f'_c = 3,000 psi.

[5] PLW2-36 and W2-36 FORMLOK decks with structural concrete have a Flexibility Factor of F < 1.

[6] Nominal diaphragm shear values may be determined by multiplying the table values by Ω = 3.0. LRFD diaphragm shear values may be determined by multiplying nominal values by ϕ = 0.55.

TABLE 18 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW3™-36 FORMLOK™ & W3-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6]

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5" Normal Weight (145 pcf)	22	1: 10'-0"	254	229	208	190	175	120	108	97	88	79	72	65	58	48	39
		2: 10'-7"	254	229	208	190	175	161	108	97	88	79	72	65	58	48	39
		3: 11'-4"	254	229	208	190	175	161	108	97	88	79	72	65	58	48	39
		q - 3 welds	1606	1594	1583	1573	1565	1557	1550	1544	1538	1532	1527	1523	1518	1511	1504
		q - 4 welds	1708	1686	1666	1648	1633	1618	1605	1593	1583	1572	1563	1555	1547	1532	1520
	21	1: 10'-11"	274	248	225	206	189	174	120	108	98	89	81	73	66	55	45
		2: 11'-8"	274	248	225	206	189	174	161	150	98	89	81	73	66	55	45
		3: 12'-1"	274	248	225	206	189	174	161	150	140	89	81	73	66	55	45
		q - 3 welds	1605	1592	1580	1570	1560	1552	1544	1537	1530	1524	1519	1514	1509	1500	1493
		q - 4 welds	1729	1704	1683	1663	1646	1630	1616	1602	1590	1579	1569	1560	1551	1535	1521
	20	1: 11'-7"	294	265	241	220	202	187	173	160	108	98	89	81	74	61	51
		2: 12'-4"	294	265	241	220	202	187	173	160	149	98	89	81	74	61	51
		3: 12'-10"	294	265	241	220	202	187	173	160	149	140	89	81	74	61	51
		q - 3 welds	1608	1593	1580	1569	1559	1549	1541	1533	1526	1520	1513	1508	1503	1493	1485
		q - 4 welds	1750	1724	1700	1679	1660	1643	1627	1613	1600	1588	1577	1567	1557	1540	1525
	19	1: 12'-1"	333	301	274	250	230	212	191	172	155	116	106	97	89	75	63
		2: 13'-9"	333	301	274	250	230	212	191	172	155	140	126	115	89	75	63
		3: 14'-2"	333	301	274	250	230	212	191	172	155	140	126	115	104	75	63
		q - 3 welds	1618	1602	1587	1573	1561	1550	1540	1531	1523	1515	1508	1502	1496	1485	1475
		q - 4 welds	1801	1770	1742	1718	1696	1675	1657	1640	1625	1611	1598	1586	1575	1555	1537
	18	1: 12'-5"	370	334	304	278	255	232	208	187	169	134	122	112	103	88	74
		2: 14'-10"	370	334	304	278	255	232	208	187	169	153	139	126	115	88	74
		3: 14'-7"	370	334	304	278	255	232	208	187	169	153	139	126	115	88	74
		q - 3 welds	1634	1615	1598	1583	1569	1557	1546	1535	1526	1517	1509	1502	1495	1482	1472
		q - 4 welds	1854	1819	1787	1759	1734	1711	1690	1671	1654	1638	1623	1609	1597	1574	1554
	16	1: 13'-1"	400	400	365	333	299	268	241	217	197	178	162	143	132	113	95
		2: 16'-4"	400	400	365	333	299	268	241	217	197	178	162	148	135	113	95
		3: 15'-4"	400	400	365	333	299	268	241	217	197	178	162	148	135	113	95
		q - 3 welds	1679	1655	1633	1614	1597	1582	1568	1555	1543	1532	1522	1513	1504	1489	1475
		q - 4 welds	1973	1929	1890	1855	1823	1795	1769	1745	1723	1703	1684	1667	1651	1623	1598
5½" Normal Weight (145 pcf)	22	1: 9'-7"	278	251	228	209	145	130	117	105	95	85	77	70	63	51	41
		2: 9'-9"	278	251	228	209	145	130	117	105	95	85	77	70	63	51	41
		3: 10'-10"	278	251	228	209	145	130	117	105	95	85	77	70	63	51	41
		q - 3 welds	1845	1833	1822	1813	1804	1796	1789	1783	1777	1771	1766	1762	1757	1750	1743
		q - 4 welds	1947	1925	1905	1888	1872	1857	1844	1832	1822	1812	1802	1794	1786	1772	1759
	21	1: 10'-5"	300	271	247	225	207	144	130	117	106	96	87	79	71	59	48
		2: 11'-2"	300	271	247	225	207	191	177	117	106	96	87	79	71	59	48
		3: 11'-7"	300	271	247	225	207	191	177	164	106	96	87	79	71	59	48
		q - 3 welds	1844	1831	1819	1809	1799	1791	1783	1776	1769	1763	1758	1753	1748	1739	1732
		q - 4 welds	1968	1943	1922	1902	1885	1869	1855	1842	1829	1818	1808	1799	1790	1774	1760
	20	1: 11'-2"	321	290	264	241	221	204	189	128	116	106	96	87	79	66	54
		2: 11'-10"	321	290	264	241	221	204	189	175	116	106	96	87	79	66	54
		3: 12'-3"	321	290	264	241	221	204	189	175	163	106	96	87	79	66	54
		q - 3 welds	1847	1832	1819	1808	1798	1788	1780	1772	1765	1759	1753	1747	1742	1733	1724
		q - 4 welds	1989	1963	1939	1918	1899	1882	1866	1852	1839	1827	1816	1806	1796	1779	1764
	19	1: 11'-9"	363	328	298	273	250	231	214	198	138	125	115	105	96	80	67
		2: 13'-2"	363	328	298	273	250	231	214	198	185	173	162	105	96	80	67
		3: 13'-7"	363	328	298	273	250	231	214	198	185	173	162	152	96	80	67
		q - 3 welds	1857	1841	1826	1812	1800	1789	1779	1770	1762	1754	1747	1741	1735	1724	1714
		q - 4 welds	2040	2009	1982	1957	1935	1915	1896	1880	1864	1850	1837	1825	1814	1794	1776

Page 54 has the footnotes.

(continued)

TABLE 18 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW3™-36 FORMLOK™ & W3-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5½" Normal Weight (145 pcf)	18	1: 12'-1"	400	364	331	302	277	256	237	220	205	144	132	121	111	94	79
		2: 14'-3"	400	364	331	302	277	256	237	220	205	191	179	168	158	94	79
		3: 14'-2"	400	364	331	302	277	256	237	220	205	191	179	168	158	94	79
		q - 3 welds	1873	1854	1837	1822	1808	1796	1785	1774	1765	1756	1748	1741	1734	1721	1711
		q - 4 welds	2093	2058	2027	1998	1973	1950	1929	1910	1893	1877	1862	1849	1836	1813	1793
	16	1: 12'-9"	400	400	395	361	332	306	283	263	245	223	166	153	141	121	104
		2: 15'-11"	400	400	395	361	332	306	283	263	245	223	203	185	169	142	104
		3: 14'-11"	400	400	395	361	332	306	283	263	245	223	203	185	169	121	104
		q - 3 welds	1918	1894	1873	1853	1836	1821	1807	1794	1782	1771	1761	1752	1743	1728	1714
		q - 4 welds	2213	2168	2129	2094	2062	2034	2008	1984	1962	1942	1924	1906	1891	1862	1837
6" Normal Weight (145 pcf)	22	1: 9'-2"	304	274	250	176	158	141	127	114	103	93	83	75	68	55	44
		2: 9'-0"	304	274	250	176	158	141	127	114	103	93	83	75	68	55	44
		3: 10'-3"	304	274	250	176	158	141	127	114	103	93	83	75	68	55	44
		q - 3 welds	2084	2072	2061	2052	2043	2035	2028	2022	2016	2010	2005	2001	1997	1989	1982
		q - 4 welds	2186	2164	2144	2127	2111	2096	2083	2072	2061	2051	2041	2033	2025	2011	1998
	21	1: 10'-0"	328	296	269	246	226	157	141	127	115	104	94	85	77	63	51
		2: 10'-9"	328	296	269	246	226	208	141	127	115	104	94	85	77	63	51
		3: 11'-2"	328	296	269	246	226	208	193	127	115	104	94	85	77	63	51
		q - 3 welds	2083	2070	2058	2048	2038	2030	2022	2015	2009	2003	1997	1992	1987	1979	1971
		q - 4 welds	2207	2182	2161	2141	2124	2108	2094	2081	2069	2058	2047	2038	2029	2013	1999
	20	1: 10'-8"	350	317	288	263	241	223	154	139	126	114	104	94	86	71	58
		2: 11'-5"	350	317	288	263	241	223	206	139	126	114	104	94	86	71	58
		3: 11'-10"	350	317	288	263	241	223	206	191	126	114	104	94	86	71	58
		q - 3 welds	2086	2071	2059	2047	2037	2027	2019	2011	2004	1998	1992	1986	1981	1972	1963
		q - 4 welds	2229	2202	2178	2157	2138	2121	2105	2091	2078	2066	2055	2045	2035	2018	2003
	19	1: 11'-5"	396	358	325	297	273	252	233	164	149	136	124	113	104	87	72
		2: 12'-8"	396	358	325	297	273	252	233	216	201	188	124	113	104	87	72
		3: 13'-1"	396	358	325	297	273	252	233	216	201	188	176	113	104	87	72
		q - 3 welds	2097	2080	2065	2051	2039	2028	2019	2009	2001	1994	1987	1980	1974	1963	1954
		q - 4 welds	2279	2248	2221	2196	2174	2154	2135	2119	2103	2089	2076	2064	2053	2033	2015
	18	1: 11'-9"	400	396	360	329	302	278	258	239	170	156	142	131	120	101	85
		2: 13'-8"	400	396	360	329	302	278	258	239	223	208	195	183	120	101	85
		3: 13'-9"	400	396	360	329	302	278	258	239	223	208	195	183	120	101	85
		q - 3 welds	2112	2093	2076	2061	2047	2035	2024	2013	2004	1995	1987	1980	1973	1961	1950
		q - 4 welds	2332	2297	2266	2237	2212	2189	2169	2150	2132	2116	2101	2088	2075	2052	2032
	16	1: 12'-5"	400	400	400	392	360	332	307	285	266	195	179	165	152	130	111
		2: 15'-4"	400	400	400	392	360	332	307	285	266	248	233	218	206	176	111
		3: 14'-6"	400	400	400	392	360	332	307	285	266	248	233	218	206	130	111
		q - 3 welds	2157	2133	2112	2093	2075	2060	2046	2033	2021	2010	2000	1991	1982	1967	1953
		q - 4 welds	2452	2407	2368	2333	2301	2273	2247	2223	2201	2181	2163	2145	2130	2101	2076
6½" Normal Weight (145 pcf)	22	1: 8'-10"	331	299	215	192	171	153	138	124	111	100	90	81	73	59	47
		2: 8'-5"	331	242	215	192	171	153	138	124	111	100	90	81	73	59	47
		3: 9'-6"	331	242	215	192	171	153	138	124	111	100	90	81	73	59	47
		q - 3 welds	2323	2311	2300	2291	2282	2274	2267	2261	2255	2250	2245	2240	2236	2228	2221
		q - 4 welds	2425	2403	2383	2366	2350	2336	2323	2311	2300	2290	2281	2272	2264	2250	2237
	21	1: 9'-7"	357	323	293	268	189	170	153	138	125	113	102	92	83	68	55
		2: 10'-3"	357	323	293	268	246	170	153	138	125	113	102	92	83	68	55
		3: 10'-9"	357	323	293	268	246	170	153	138	125	113	102	92	83	68	55
		q - 3 welds	2323	2309	2298	2287	2278	2269	2261	2254	2248	2242	2236	2231	2226	2218	2210
		q - 4 welds	2446	2422	2400	2380	2363	2347	2333	2320	2308	2297	2286	2277	2268	2252	2239

Page 54 has the footnotes.

(continued)

TABLE 18 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW3™-36 FORMLOK™ & W3-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
6½" Normal Weight (145 pcf)	20	1: 10'-3"	381	345	313	286	263	185	167	151	137	124	113	102	93	77	63
		2: 11'-0"	381	345	313	286	263	242	224	151	137	124	113	102	93	77	63
		3: 11'-5"	381	345	313	286	263	242	224	151	137	124	113	102	93	77	63
		q - 3 welds	2325	2310	2298	2286	2276	2267	2258	2250	2243	2237	2231	2225	2220	2211	2203
		q - 4 welds	2468	2441	2417	2396	2377	2360	2345	2330	2317	2305	2294	2284	2274	2257	2242
	19	1: 11'-2"	400	389	354	323	297	274	253	178	162	147	134	123	112	94	78
		2: 12'-2"	400	389	354	323	297	274	253	235	219	147	134	123	112	94	78
		3: 12'-8"	400	389	354	323	297	274	253	235	219	205	134	123	112	94	78
		q - 3 welds	2336	2319	2304	2290	2278	2268	2258	2249	2240	2233	2226	2219	2213	2202	2193
		q - 4 welds	2518	2487	2460	2435	2413	2393	2374	2358	2342	2328	2315	2303	2292	2272	2254
	18	1: 11'-6"	400	400	391	358	328	303	280	260	184	169	154	141	130	109	92
		2: 13'-3"	400	400	391	358	328	303	280	260	242	226	212	141	130	109	92
		3: 13'-6"	400	400	391	358	328	303	280	260	242	226	212	199	130	109	92
		q - 3 welds	2352	2332	2315	2300	2286	2274	2263	2252	2243	2234	2226	2219	2212	2200	2189
		q - 4 welds	2571	2536	2505	2477	2451	2428	2408	2389	2371	2355	2340	2327	2314	2291	2271
	16	1: 12'-2"	400	400	400	400	391	360	333	310	288	211	194	179	165	140	120
		2: 14'-9"	400	400	400	400	391	360	333	310	288	269	252	237	223	140	120
		3: 14'-2"	400	400	400	400	391	360	333	310	288	269	252	237	223	140	120
		q - 3 welds	2396	2372	2351	2332	2314	2299	2285	2272	2260	2249	2239	2230	2221	2206	2192
		q - 4 welds	2691	2647	2607	2572	2540	2512	2486	2462	2440	2420	2402	2385	2369	2340	2315
7½" Normal Weight (145 pcf)	22	1: 8'-3"	388	283	251	224	200	179	161	144	130	117	105	95	85	69	55
		2: 7'-4"	320	283	251	224	200	179	161	144	130	117	105	95	85	69	55
		3: 8'-4"	320	283	251	224	200	179	161	144	130	117	105	95	85	69	55
		q - 3 welds	2801	2789	2778	2769	2760	2753	2745	2739	2733	2728	2723	2718	2714	2706	2699
		q - 4 welds	2903	2881	2861	2844	2828	2814	2801	2789	2778	2768	2759	2750	2742	2728	2715
	21	1: 8'-11"	400	378	276	247	221	198	179	161	145	131	119	107	97	79	64
		2: 8'-11"	400	378	276	247	221	198	179	161	145	131	119	107	97	79	64
		3: 10'-1"	400	378	344	247	221	198	179	161	145	131	119	107	97	79	64
		q - 3 welds	2801	2787	2776	2765	2756	2747	2739	2732	2726	2720	2714	2709	2704	2696	2688
		q - 4 welds	2924	2900	2878	2859	2841	2825	2811	2798	2786	2775	2765	2755	2746	2731	2717
	20	1: 9'-7"	400	400	367	335	240	216	195	176	160	145	131	119	108	89	73
		2: 10'-4"	400	400	367	335	308	216	195	176	160	145	131	119	108	89	73
		3: 10'-8"	400	400	367	335	308	284	195	176	160	145	131	119	108	89	73
		q - 3 welds	2803	2789	2776	2764	2754	2745	2736	2729	2721	2715	2709	2703	2698	2689	2681
		q - 4 welds	2946	2919	2896	2875	2856	2838	2823	2808	2795	2783	2772	2762	2752	2735	2720
	19	1: 10'-6"	400	400	400	378	347	320	228	207	188	171	156	143	130	109	91
		2: 11'-5"	400	400	400	378	347	320	296	207	188	171	156	143	130	109	91
		3: 11'-10"	400	400	400	378	347	320	296	275	188	171	156	143	130	109	91
		q - 3 welds	2814	2797	2782	2769	2757	2746	2736	2727	2718	2711	2704	2697	2691	2680	2671
		q - 4 welds	2997	2966	2938	2913	2891	2871	2853	2836	2821	2807	2794	2782	2770	2750	2733
	18	1: 11'-0"	400	400	400	400	384	354	327	236	215	196	180	164	151	127	107
		2: 12'-5"	400	400	400	400	384	354	327	304	283	196	180	164	151	127	107
		3: 12'-10"	400	400	400	400	384	354	327	304	283	264	180	164	151	127	107
		q - 3 welds	2830	2811	2794	2778	2765	2752	2741	2731	2721	2713	2705	2697	2690	2678	2667
		q - 4 welds	3050	3014	2983	2955	2929	2907	2886	2867	2849	2833	2819	2805	2792	2769	2749
	16	1: 11'-8"	400	400	400	400	400	400	389	361	267	245	225	208	191	163	139
		2: 13'-10"	400	400	400	400	400	400	389	361	336	314	294	276	191	163	139
		3: 13'-8"	400	400	400	400	400	400	389	361	336	314	294	276	191	163	139
		q - 3 welds	2874	2850	2829	2810	2793	2777	2763	2750	2738	2728	2717	2708	2700	2684	2670
		q - 4 welds	3169	3125	3085	3050	3019	2990	2964	2940	2918	2898	2880	2863	2847	2818	2793

Page 54 has the footnotes.

(continued)

TABLE 18 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW3™-36 FORMLOK™ & W3-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5" Structural Light Weight (110 pcf)	22	1: 11'-1"	254	229	208	190	175	161	149	107	97	89	81	74	68	57	48
		2: 11'-11"	254	229	208	190	175	161	149	138	97	89	81	74	68	57	48
		3: 12'-4"	254	229	208	190	175	161	149	138	129	89	81	74	68	57	48
		q - 3 welds	1281	1269	1259	1249	1240	1233	1226	1219	1213	1208	1203	1198	1194	1186	1179
		q - 4 welds	1383	1361	1342	1324	1308	1294	1281	1269	1258	1248	1239	1230	1222	1208	1195
	21	1: 12'-1"	274	248	225	206	189	174	161	150	140	99	90	83	76	64	55
		2: 12'-9"	274	248	225	206	189	174	161	150	140	130	90	83	76	64	55
		3: 13'-3"	274	248	225	206	189	174	161	150	140	130	120	83	76	64	55
		q - 3 welds	1281	1268	1256	1245	1236	1227	1220	1212	1206	1200	1194	1189	1185	1176	1168
		q - 4 welds	1404	1380	1358	1339	1321	1305	1291	1278	1266	1255	1245	1235	1226	1211	1197
	20	1: 12'-5"	294	265	241	220	202	187	172	155	140	108	99	91	84	71	60
		2: 13'-6"	294	265	241	220	202	187	172	155	140	127	115	105	84	71	60
		3: 14'-0"	294	265	241	220	202	187	172	155	140	127	115	105	96	71	60
		q - 3 welds	1283	1269	1256	1244	1234	1225	1216	1209	1202	1195	1189	1183	1178	1169	1161
		q - 4 welds	1426	1399	1376	1355	1336	1318	1303	1289	1276	1263	1252	1242	1233	1215	1200
	19	1: 12'-11"	333	301	274	250	230	212	191	172	156	141	116	107	99	85	71
		2: 15'-0"	333	301	274	250	230	212	191	172	156	141	129	117	106	87	71
		3: 15'-1"	333	301	274	250	230	212	191	172	156	141	129	117	106	87	71
		q - 3 welds	1294	1277	1262	1249	1237	1226	1216	1207	1199	1191	1184	1177	1171	1160	1151
		q - 4 welds	1477	1446	1418	1393	1371	1351	1333	1316	1301	1287	1274	1262	1250	1230	1213
	18	1: 13'-3"	370	334	304	278	255	230	207	187	170	154	140	122	112	91	75
		2: 16'-3"	370	334	304	278	255	230	207	187	170	154	140	125	112	91	75
		3: 15'-7"	370	334	304	278	255	230	207	187	170	154	140	125	112	91	75
		q - 3 welds	1310	1291	1274	1258	1245	1232	1221	1211	1201	1193	1185	1177	1170	1158	1147
		q - 4 welds	1530	1494	1463	1435	1410	1387	1366	1347	1329	1313	1299	1285	1272	1249	1229
	16	1: 14'-0"	400	400	365	331	296	266	240	217	197	175	155	139	124	101	83
		2: 17'-5"	400	400	365	331	296	266	240	217	197	175	155	139	124	101	83
		3: 16'-4"	400	400	365	331	296	266	240	217	197	175	155	139	124	101	83
		q - 3 welds	1354	1330	1309	1290	1273	1257	1243	1230	1218	1208	1198	1188	1180	1164	1151
		q - 4 welds	1649	1605	1566	1530	1499	1470	1444	1420	1399	1379	1360	1343	1327	1298	1273
5½" Structural Light Weight (110 pcf)	22	1: 10'-7"	278	251	228	209	191	176	128	116	106	96	88	80	74	62	52
		2: 11'-6"	278	251	228	209	191	176	163	152	106	96	88	80	74	62	52
		3: 11'-11"	278	251	228	209	191	176	163	152	106	96	88	80	74	62	52
		q - 3 welds	1439	1427	1417	1407	1398	1391	1384	1377	1371	1366	1361	1356	1352	1344	1337
		q - 4 welds	1541	1519	1500	1482	1466	1452	1439	1427	1416	1406	1397	1388	1380	1366	1353
	21	1: 11'-6"	300	271	247	225	207	191	177	164	117	107	98	90	82	69	59
		2: 12'-4"	300	271	247	225	207	191	177	164	153	107	98	90	82	69	59
		3: 12'-9"	300	271	247	225	207	191	177	164	153	143	98	90	82	69	59
		q - 3 welds	1439	1426	1414	1403	1394	1385	1378	1370	1364	1358	1352	1347	1342	1334	1326
		q - 4 welds	1562	1538	1516	1497	1479	1463	1449	1436	1424	1413	1403	1393	1384	1369	1355
	20	1: 12'-1"	321	290	264	241	221	204	189	175	163	117	107	98	90	77	65
		2: 13'-0"	321	290	264	241	221	204	189	175	163	152	143	98	90	77	65
		3: 13'-6"	321	290	264	241	221	204	189	175	163	152	143	134	90	77	65
		q - 3 welds	1441	1427	1414	1402	1392	1383	1374	1367	1360	1353	1347	1341	1336	1327	1319
		q - 4 welds	1584	1557	1534	1513	1494	1476	1461	1447	1433	1421	1410	1400	1391	1373	1358
	19	1: 12'-6"	363	328	298	273	250	231	214	198	185	173	125	116	107	91	78
		2: 14'-5"	363	328	298	273	250	231	214	198	185	173	162	152	138	91	78
		3: 14'-8"	363	328	298	273	250	231	214	198	185	173	162	152	138	91	78
		q - 3 welds	1452	1435	1420	1407	1395	1384	1374	1365	1357	1349	1342	1335	1329	1318	1309
		q - 4 welds	1635	1604	1576	1551	1529	1509	1491	1474	1459	1445	1432	1420	1408	1388	1371

Page 54 has the footnotes.

(continued)

TABLE 18 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW3™-36 FORMLOK™ & W3-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5½" Structural Light Weight (110 pcf)	18	1: 12'-11"	400	364	331	302	277	256	237	220	205	191	143	132	122	105	90
		2: 15'-8"	400	364	331	302	277	256	237	220	205	191	176	161	146	119	90
		3: 15'-1"	400	364	331	302	277	256	237	220	205	191	176	161	146	119	90
		q - 3 welds	1468	1449	1432	1416	1403	1390	1379	1369	1359	1351	1343	1335	1328	1316	1305
		q - 4 welds	1688	1652		1593	1568	1545	1524	1505	1487	1471	1457	1443	1430	1407	1387
	16	1: 13'-7"	400	400	395	361	332	306	283	263	243	222	201	179	152	131	108
		2: 16'-11"	400	400	395	361	332	306	283	263	243	222	201	179	161	131	108
		3: 15'-11"	400	400	395	361	332	306	283	263	243	222	201	179	161	131	108
		q - 3 welds	1512	1488	1467	1448	1431	1415	1401	1388	1376	1366	1356	1346	1338	1322	1309
		q - 4 welds	1807	1763	1724	1688	1657	1628	1602	1578	1557	1536	1518	1501	1485	1456	1431
6¼" Structural Light Weight (110 pcf)	22	1: 10'-0"	317	287	261	238	219	160	145	132	120	109	100	91	83	70	58
		2: 10'-7"	317	287	261	238	219	202	145	132	120	109	100	91	83	70	58
		3: 11'-3"	317	287	261	238	219	202	145	132	120	109	100	91	83	70	58
		q - 3 welds	1676	1664	1653	1644	1635	1628	1621	1614	1608	1603	1598	1593	1589	1581	1574
		q - 4 welds	1778	1756	1737	1719	1703	1689	1676	1664	1653	1643	1634	1625	1617	1603	1590
	21	1: 10'-10"	342	309	281	257	236	218	160	145	133	121	111	101	93	78	66
		2: 11'-8"	342	309	281	257	236	218	201	187	133	121	111	101	93	78	66
		3: 12'-1"	342	309	281	257	236	218	201	187	174	121	111	101	93	78	66
		q - 3 welds	1676	1663	1651	1640	1631	1622	1614	1607	1601	1595	1589	1584	1579	1571	1563
		q - 4 welds	1799	1775	1753	1734	1716	1700	1686	1673	1661	1650	1640	1630	1621	1606	1592
	20	1: 11'-7"	366	330	300	275	252	232	215	200	144	132	121	111	102	86	73
		2: 12'-4"	366	330	300	275	252	232	215	200	186	132	121	111	102	86	73
		3: 12'-9"	366	330	300	275	252	232	215	200	186	174	121	111	102	86	73
		q - 3 welds	1678	1664	1651	1639	1629	1620	1611	1604	1597	1590	1584	1578	1573	1564	1556
		q - 4 welds	1821	1794	1771	1750	1731	1713	1698	1684	1670	1658	1647	1637	1627	1610	1595
	19	1: 12'-1"	400	373	339	310	285	263	243	226	210	154	142	131	120	103	88
		2: 13'-8"	400	373	339	310	285	263	243	226	210	196	184	173	120	103	88
		3: 14'-1"	400	373	339	310	285	263	243	226	210	196	184	173	163	103	88
		q - 3 welds	1689	1672	1657	1644	1632	1621	1611	1602	1594	1586	1579	1572	1566	1555	1546
		q - 4 welds	1872	1841	1813	1788	1766	1746	1728	1711	1696	1682	1669	1657	1645	1625	1608
	18	1: 12'-5"	400	400	375	343	315	290	269	250	232	175	161	149	137	118	102
		2: 14'-10"	400	400	375	343	315	290	269	250	232	217	203	191	180	118	102
		3: 14'-7"	400	400	375	343	315	290	269	250	232	217	203	191	180	118	102
		q - 3 welds	1705	1686	1669	1653	1640	1627	1616	1606	1596	1588	1580	1572	1565	1553	1542
		q - 4 welds	1925	1889	1858	1830	1805	1782	1761	1742	1724	1708	1694	1680	1667	1644	1624
	16	1: 13'-1"	400	400	400	400	375	346	320	297	277	259	242	185	171	148	128
		2: 16'-4"	400	400	400	400	375	346	320	297	277	259	242	228	214	186	153
		3: 15'-4"	400	400	400	400	375	346	320	297	277	259	242	228	214	186	128
		q - 3 welds	1749	1725	1704	1685	1668	1652	1638	1625	1613	1603	1593	1583	1575	1559	1546
		q - 4 welds	2044	2000	1960	1925	1894	1865	1839	1815	1793	1773	1755	1738	1722	1693	1668

Page 54 has the footnotes.

(continued)

TABLE 18 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), FOR PLW3™-36 FORMLOK™ & W3-36 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
7¼" Structural Light Weight (110 pcf)	22	1: 9'-4"	373	337	307	231	208	188	170	154	140	128	117	107	97	82	68
		2: 9'-4"	373	337	307	231	208	188	170	154	140	128	117	107	97	82	68
		3: 10'-7"	373	337	307	231	208	188	170	154	140	128	117	107	97	82	68
		q - 3 welds	1992	1980	1969	1960	1951	1944	1937	1930	1924	1919	1914	1909	1905	1897	1890
		q - 4 welds	2094	2072	2052	2035	2019	2005	1992	1980	1969	1959	1950	1941	1933	1919	1906
	21	1: 10'-2"	400	364	331	302	278	206	187	170	155	142	130	119	109	92	77
		2: 10'-11"	400	364	331	302	278	256	187	170	155	142	130	119	109	92	77
		3: 11'-4"	400	364	331	302	278	256	237	170	155	142	130	119	109	92	77
		q - 3 welds	1992	1978	1967	1956	1947	1938	1930	1923	1917	1911	1905	1900	1895	1887	1879
		q - 4 welds	2115	2091	2069	2050	2032	2016	2002	1989	1977	1966	1956	1946	1937	1922	1908
	20	1: 10'-11"	400	388	353	323	296	273	203	185	169	155	142	130	119	101	86
		2: 11'-7"	400	388	353	323	296	273	253	235	169	155	142	130	119	101	86
		3: 12'-0"	400	388	353	323	296	273	253	235	219	155	142	130	119	101	86
		q - 3 welds	1994	1980	1967	1955	1945	1936	1927	1920	1912	1906	1900	1894	1889	1880	1872
		q - 4 welds	2137	2110	2087	2066	2047	2029	2014	1999	1986	1974	1963	1953	1943	1926	1911
	19	1: 11'-7"	400	400	399	364	334	308	285	265	197	181	166	153	141	120	103
		2: 12'-10"	400	400	399	364	334	308	285	265	247	231	166	153	141	120	103
		3: 13'-4"	400	400	399	364	334	308	285	265	247	231	216	153	141	120	103
		q - 3 welds	2005	1988	1973	1960	1948	1937	1927	1918	1909	1902	1895	1888	1882	1871	1862
		q - 4 welds	2188	2157	2129	2104	2082	2062	2044	2027	2012	1998	1985	1973	1961	1941	1924
	18	1: 11'-11"	400	400	400	400	369	341	315	293	222	204	188	174	161	138	118
		2: 13'-11"	400	400	400	400	369	341	315	293	273	255	239	224	161	138	118
		3: 13'-11"	400	400	400	400	369	341	315	293	273	255	239	224	161	138	118
		q - 3 welds	2021	2002	1985	1969	1956	1943	1932	1922	1912	1904	1896	1888	1881	1869	1858
		q - 4 welds	2241	2205	2174	2146	2120	2098	2077	2058	2040	2024	2010	1996	1983	1960	1940
	16	1: 12'-7"	400	400	400	400	400	400	375	348	324	303	233	215	200	172	150
		2: 15'-7"	400	400	400	400	400	400	375	348	324	303	283	266	251	223	150
		3: 14'-8"	400	400	400	400	400	400	375	348	324	303	283	266	251	172	150
		q - 3 welds	2065	2041	2020	2001	1984	1968	1954	1941	1929	1919	1909	1899	1891	1875	1862
		q - 4 welds	2360	2316	2276	2241	2210	2181	2155	2131	2109	2089	2071	2054	2038	2009	1984

1 Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8 of this report.

2 Shoring is required at midspan for superimposed load values to the right of the heavy line.

3 Total slab depth is nominal depth from top of concrete to bottom of steel deck.

4 Concrete fill to have minimum compressive strength f'_c = 3,000 psi.

5 PLW3-36 and W3-36 FORMLOK decks with structural concrete fill have a Flexibility Factor of F < 1.

6 Nominal diaphragm shear values may be determined by multiplying the table values by Ω = 3.0. LRFD diaphragm shear values may be determined by multiplying nominal values by ϕ = 0.55.

TABLE 19 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf) FOR PLN3™ FORMLOK™ & N3 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5,6]

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5" Normal Weight (145 pcf)	20	1: 11'-2"	365	318	279	245	217	193	172	115	98	84	72	60	50	33	19
		2: 12'-6"	365	318	279	245	217	193	172	153	137	123	72	60	50	33	19
		3: 12'-11"	365	318	279	245	217	193	172	153	137	123	72	60	50	33	19
		q - 4 welds	1651	1633	1617	1603	1589	1578	1567	1557	1548	1540	1532	1525	1519	1507	1497
		q - 5 welds	1806	1776	1749	1725	1703	1683	1665	1649	1634	1620	1608	1596	1585	1565	1548
	18	1: 12'-9"	400	400	371	328	292	260	233	209	189	170	115	100	87	65	47
		2: 14'-9"	400	400	371	328	292	260	233	209	189	170	154	139	126	65	47
		3: 15'-0"	400	400	371	328	292	260	233	209	189	170	154	139	126	104	47
		q - 4 welds	1703	1678	1657	1638	1620	1604	1590	1577	1565	1554	1544	1535	1526	1510	1497
		q - 5 welds	1933	1892	1856	1824	1795	1769	1745	1724	1704	1685	1668	1653	1638	1612	1589
	16	1: 13'-6"	400	400	400	400	363	325	292	264	238	216	196	179	123	96	74
		2: 16'-9"	400	400	400	400	363	325	292	264	238	216	196	179	163	136	114
		3: 15'-10"	400	400	400	400	363	325	292	264	238	216	196	179	163	136	74
		q - 4 welds	1771	1740	1713	1689	1668	1648	1630	1614	1599	1585	1572	1561	1550	1530	1513
		q - 5 welds	2075	2024	1979	1939	1903	1870	1840	1813	1788	1765	1744	1724	1706	1673	1645
5½" Normal Weight (145 pcf)	20	1: 10'-8"	400	378	331	292	259	230	161	139	120	103	88	75	63	43	26
		2: 11'-11"	400	378	331	292	259	230	205	183	120	103	88	75	63	43	26
		3: 12'-4"	400	378	331	292	259	230	205	183	164	103	88	75	63	43	26
		q - 4 welds	1890	1872	1856	1842	1829	1817	1806	1796	1787	1779	1771	1764	1758	1746	1736
		q - 5 welds	2045	2015	1988	1964	1942	1922	1905	1888	1873	1860	1847	1835	1824	1804	1787
	18	1: 12'-4"	400	400	400	390	347	310	278	250	225	159	140	123	107	81	60
		2: 14'-2"	400	400	400	390	347	310	278	250	225	204	184	167	152	81	60
		3: 14'-7"	400	400	400	390	347	310	278	250	225	204	184	167	152	81	60
		q - 4 welds	1942	1917	1896	1877	1859	1844	1829	1816	1804	1793	1783	1774	1765	1749	1736
		q - 5 welds	2172	2131	2095	2063	2034	2008	1984	1963	1943	1924	1908	1892	1877	1851	1828
	16	1: 13'1"	400	400	400	400	400	387	348	314	284	258	234	168	150	118	92
		2: 16'0"	400	400	400	400	400	387	348	314	284	258	234	213	195	163	137
		3: 15"4"	400	400	400	400	400	387	348	314	284	258	234	213	195	163	92
		q - 4 welds	2010	1980	1953	1928	1907	1887	1869	1853	1838	1824	1811	1800	1789	1769	1752
		q - 5 welds	2314	2263	2218	2178	2142	2109	2079	2052	2027	2004	1983	1963	1945	1913	1884
6" Normal Weight (145 pcf)	20	1: 10'-2"	400	400	388	342	303	221	192	166	144	125	107	92	78	54	35
		2: 11'-5"	400	400	388	342	303	270	241	166	144	125	107	92	78	54	35
		3: 11'-10"	400	400	388	342	303	270	241	215	144	125	107	92	78	54	35
		q - 4 welds	2130	2111	2095	2081	2068	2056	2045	2035	2026	2018	2010	2003	1997	1985	1975
		q - 5 welds	2284	2254	2227	2203	2181	2161	2144	2127	2112	2099	2086	2074	2063	2044	2026
	18	1: 12'-0"	400	400	400	400	400	364	326	294	265	190	168	148	130	99	74
		2: 13'-7"	400	400	400	400	400	364	326	294	265	240	217	197	130	99	74
		3: 14'-1"	400	400	400	400	400	364	326	294	265	240	217	197	179	99	74
		q - 4 welds	2181	2157	2135	2116	2098	2083	2068	2055	2043	2032	2022	2013	2004	1988	1975
		q - 5 welds	2411	2370	2335	2302	2273	2247	2224	2202	2182	2164	2147	2131	2116	2090	2067
	16	1: 12'-9"	400	400	400	400	400	400	400	368	334	303	225	201	179	142	112
		2: 15'-4"	400	400	400	400	400	400	400	368	334	303	276	251	230	193	112
		3: 14'-11"	400	400	400	400	400	400	400	368	334	303	276	251	230	142	112
		q - 4 welds	2249	2219	2192	2167	2146	2126	2108	2092	2077	2063	2051	2039	2028	2008	1991
		q - 5 welds	2553	2502	2457	2417	2381	2348	2318	2291	2266	2243	2222	2203	2184	2152	2123

Page 57 has the footnotes.

(continued)

TABLE 19 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf) FOR PLN3™ FORMLOK™ & N3 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
6½" Normal Weight (145 pcf)	20	1: 9'-9"	400	400	400	395	296	258	224	195	170	147	127	110	94	66	44
		2: 11'-0"	400	400	400	395	350	312	279	195	170	147	127	110	94	66	44
		3: 11'-5"	400	400	400	395	350	312	279	195	170	147	127	110	94	66	44
		q - 4 welds	2369	2350	2334	2320	2307	2295	2284	2274	2265	2257	2250	2243	2236	2224	2214
		q - 5 welds	2523	2493	2466	2442	2420	2401	2383	2366	2351	2338	2325	2313	2302	2283	2265
	18	1: 11'-8"	400	400	400	400	400	400	377	340	252	223	197	174	154	119	90
		2: 13'-1"	400	400	400	400	400	400	377	340	307	278	252	174	154	119	90
		3: 13'-6"	400	400	400	400	400	400	377	340	307	278	252	229	154	119	90
		q - 4 welds	2420	2396	2374	2355	2337	2322	2307	2294	2282	2271	2261	2252	2243	2228	2214
		q - 5 welds	2650	2610	2574	2542	2513	2486	2463	2441	2421	2403	2386	2370	2356	2329	2306
	16	1: 12'-5"	400	400	400	400	400	400	400	400	386	295	264	236	211	169	134
		2: 14'-10"	400	400	400	400	400	400	400	400	386	351	320	292	267	169	134
		3: 14'-7"	400	400	400	400	400	400	400	400	386	351	320	292	267	169	134
		q - 4 welds	2488	2458	2431	2407	2385	2365	2347	2331	2316	2302	2290	2278	2267	2247	2230
		q - 5 welds	2792	2741	2696	2656	2620	2587	2557	2530	2505	2482	2461	2442	2423	2391	2362
7½" Normal Weight (145 pcf)	20	1: 9'-1"	400	400	400	400	385	336	294	257	224	196	170	148	128	93	65
		2: 10'-4"	400	400	400	400	400	336	294	257	224	196	170	148	128	93	65
		3: 10'-8"	400	400	400	400	400	400	294	257	224	196	170	148	128	93	65
		q - 4 welds	2847	2829	2812	2798	2785	2773	2762	2753	2744	2735	2728	2721	2714	2702	2692
		q - 5 welds	3002	2971	2944	2920	2898	2879	2861	2845	2830	2816	2803	2791	2780	2761	2744
	18	1: 11'-2"	400	400	400	400	400	400	400	372	330	293	260	231	205	161	124
		2: 12'-3"	400	400	400	400	400	400	400	400	395	293	260	231	205	161	124
		3: 12'-8"	400	400	400	400	400	400	400	400	395	358	260	231	205	161	124
		q - 4 welds	2898	2874	2852	2833	2816	2800	2786	2773	2761	2750	2740	2730	2721	2706	2692
		q - 5 welds	3128	3088	3052	3020	2991	2965	2941	2919	2899	2881	2864	2848	2834	2808	2785
	16	1: 11'-11"	400	400	400	400	400	400	400	400	400	387	347	312	280	225	181
		2: 13'-10"	400	400	400	400	400	400	400	400	400	400	400	377	280	225	181
		3: 13'-11"	400	400	400	400	400	400	400	400	400	400	400	377	280	225	181
		q - 4 welds	2966	2936	2909	2885	2863	2843	2826	2809	2794	2781	2768	2756	2745	2725	2708
		q - 5 welds	3270	3219	3175	3134	3098	3065	3036	3008	2983	2961	2939	2920	2902	2869	2840
5" Structural Light Weight (110 pcf)	20	1: 12'-4"	352	308	271	239	213	190	170	121	106	93	81	70	60	44	31
		2: 13'-7"	352	308	271	239	213	190	170	152	137	123	81	70	60	44	31
		3: 14'-1"	352	308	271	239	213	190	170	152	137	123	81	70	60	44	31
		q - 4 welds	1327	1309	1293	1278	1265	1253	1243	1233	1224	1216	1208	1201	1194	1182	1172
		q - 5 welds	1482	1451	1424	1400	1379	1359	1341	1325	1310	1296	1283	1272	1261	1241	1224
	18	1: 13'-7"	400	400	356	316	282	252	226	204	184	167	120	107	95	74	57
		2: 16'-1"	400	400	356	316	282	252	226	204	184	167	152	138	126	74	57
		3: 16'-0"	400	400	356	316	282	252	226	204	184	167	152	138	126	105	57
		q - 4 welds	1378	1354	1332	1313	1296	1280	1266	1253	1241	1230	1220	1210	1202	1186	1172
		q - 5 welds	1608	1568	1532	1500	1471	1445	1421	1399	1379	1361	1344	1328	1314	1288	1265
	16	1: 14'-4"	400	400	400	389	347	312	281	254	230	209	190	174	127	102	81
		2: 17'-11"	400	400	400	389	347	312	281	254	230	209	190	174	159	134	113
		3: 16'-10"	400	400	400	389	347	312	281	254	230	209	190	174	159	134	81
		q - 4 welds	1446	1416	1389	1365	1343	1324	1306	1289	1274	1261	1248	1236	1225	1206	1188
		q - 5 welds	1750	1700	1655	1614	1578	1545	1516	1489	1464	1441	1420	1400	1382	1349	1320
5½" Structural Light Weight (110 pcf)	20	1: 11'-9"	400	366	322	285	253	226	168	147	129	113	99	86	75	56	40
		2: 13'-1"	400	366	322	285	253	226	202	182	129	113	99	86	75	56	40
		3: 13'-6"	400	366	322	285	253	226	202	182	164	113	99	86	75	56	40
		q - 4 welds	1485	1467	1451	1436	1423	1411	1401	1391	1382	1373	1366	1359	1352	1340	1330
		q - 5 welds	1640	1609	1582	1558	1537	1517	1499	1483	1468	1454	1441	1429	1419	1399	1382

Page 57 has the footnotes.

(continued)

TABLE 19 - ALLOWABLE SUPERIMPOSED LOADS (psf) AND ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf) FOR PLN3™ FORMLOK™ & N3 FORMLOK™ DECK PANELS WITH CONCRETE FILL[1,2,3,4,5,6] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5½" Structural Light Weight (110 pcf)	18	1: 13'-2"	400	400	400	376	335	300	270	243	220	164	146	130	116	91	71
		2: 15'-6"	400	400	400	376	335	300	270	243	220	200	181	165	151	91	71
		3: 15'-6"	400	400	400	376	335	300	270	243	220	200	181	165	151	91	71
		q - 4 welds	1536	1512	1490	1471	1454	1438	1424	1411	1399	1388	1378	1368	1359	1344	1330
		q - 5 welds	1766	1726	1690	1658	1629	1603	1579	1557	1537	1519	1502	1486	1472	1446	1423
	16	1: 13'-11"	400	400	400	400	400	370	334	302	274	249	227	172	154	125	100
		2: 17'-5"	400	400	400	400	400	370	334	302	274	249	227	208	190	160	136
		3: 16'-4"	400	400	400	400	400	370	334	302	274	249	227	208	190	160	100
		q - 4 welds	1604	1574	1547	1523	1501	1481	1464	1447	1432	1419	1406	1394	1383	1364	1346
		q - 5 welds	1908	1858	1813	1772	1736	1703	1674	1647	1622	1599	1578	1558	1540	1507	1478
6¼" Structural Light Weight (110 pcf)	20	1: 11'-1"	400	400	400	360	320	246	216	190	168	148	130	114	100	76	56
		2: 12'-4"	400	400	400	360	320	286	257	190	168	148	130	114	100	76	56
		3: 12'-10"	400	400	400	360	320	286	257	231	168	148	130	114	100	76	56
		q - 4 welds	1722	1704	1688	1673	1660	1648	1637	1628	1619	1610	1603	1596	1589	1577	1567
		q - 5 welds	1877	1846	1819	1795	1773	1754	1736	1720	1705	1691	1678	1666	1656	1636	1619
	18	1: 12'-8"	400	400	400	400	400	379	341	308	279	213	190	170	151	120	95
		2: 14'-8"	400	400	400	400	400	379	341	308	279	254	231	211	151	120	95
		3: 14'-11"	400	400	400	400	400	379	341	308	279	254	231	211	193	120	95
		q - 4 welds	1773	1749	1727	1708	1691	1675	1661	1648	1636	1625	1615	1605	1596	1581	1567
		q - 5 welds	2003	1963	1927	1895	1866	1840	1816	1794	1774	1756	1739	1723	1709	1683	1660
	16	1: 13'-5"	400	400	400	400	400	400	400	382	347	316	247	222	201	163	132
		2: 16'-7"	400	400	400	400	400	400	400	382	347	316	289	264	242	205	132
		3: 15'-9"	400	400	400	400	400	400	400	382	347	316	289	264	242	163	132
		q - 4 welds	1841	1811	1784	1760	1738	1718	1701	1684	1669	1656	1643	1631	1620	1601	1583
		q - 5 welds	2145	2095	2050	2009	1973	1940	1911	1883	1859	1836	1814	1795	1777	1744	1715
7¼" Structural Light Weight (110 pcf)	20	1: 10'-4"	400	400	400	400	369	325	287	253	224	198	176	155	137	106	80
		2: 11'-7"	400	400	400	400	400	373	335	253	224	198	176	155	137	106	80
		3: 12'-0"	400	400	400	400	400	373	335	253	224	198	176	155	137	106	80
		q - 4 welds	2038	2020	2003	1989	1976	1964	1953	1944	1935	1926	1919	1912	1905	1893	1883
		q - 5 welds	2193	2162	2135	2111	2089	2070	2052	2036	2021	2007	1994	1982	1971	1952	1935
	18	1: 12'-1"	400	400	400	400	400	400	400	400	317	284	254	228	205	165	132
		2: 13'-8"	400	400	400	400	400	400	400	400	366	333	303	228	205	165	132
		3: 14'-3"	400	400	400	400	400	400	400	400	366	333	303	277	205	165	132
		q - 4 welds	2089	2065	2043	2024	2007	1991	1977	1964	1952	1941	1931	1921	1912	1897	1883
		q - 5 welds	2319	2279	2243	2211	2182	2156	2132	2110	2090	2072	2055	2039	2025	1999	1976
	16	1: 12'-10"	400	400	400	400	400	400	400	400	400	365	329	298	269	221	181
		2: 15'-7"	400	400	400	400	400	400	400	400	400	400	379	347	319	221	181
		3: 15'-0"	400	400	400	400	400	400	400	400	400	400	379	347	319	221	181
		q - 4 welds	2157	2127	2100	2076	2054	2034	2017	2000	1985	1972	1959	1947	1936	1917	1899
		q - 5 welds	2461	2410	2366	2325	2289	2256	2227	2199	2175	2152	2130	2111	2093	2060	2031

1 Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8 of this report.

2 Shoring is required at midspan for superimposed load values to the right of the heavy line.

3 Total slab depth is nominal depth from top of concrete to bottom of steel deck.

4 Concrete fill to have minimum compressive strength f'_c = 3,000 psi.

5 PLN3 and N3 FORMLOK decks with structural concrete fill have a Flexibility Factor of F < 1.

6 Nominal diaphragm shear values may be determined by multiplying the table values by Ω = 3.0. LRFD diaphragm shear values may be determined by multiplying nominal values by ϕ = 0.55.

TABLE 20 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 FORMLOK™ & N-24 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5]

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5" Normal Weight (145 pcf)	22	1: 9'-9"	241	218	198	181	131	118	107	97	88	80	72	66	60	50	41
		2: 11'-5"	241	218	198	181	166	153	142	97	88	80	72	66	60	50	41
		3: 11'-6"	241	218	198	181	166	153	142	132	88	80	72	66	60	50	41
		q - 4 welds	1699	1678	1658	1641	1625	1611	1599	1587	1576	1566	1557	1549	1541	1527	1515
		F - 4 welds	1.10	1.11	1.13	1.14	1.15	1.16	1.17	1.18	1.19	1.19	1.20	1.21	1.21	1.22	1.23
	20	1: 11'-5"	255	231	210	192	176	162	150	104	95	86	78	71	65	54	45
		2: 13'-2"	255	231	210	192	176	162	150	139	130	121	114	71	65	54	45
		3: 13'-5"	255	231	210	192	176	162	150	139	130	121	114	71	65	54	45
		q - 4 welds	1741	1715	1692	1671	1652	1635	1620	1606	1593	1581	1570	1560	1551	1534	1519
		F - 4 welds	0.98	0.99	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.09	1.10	1.11	1.12
	18	1: 13'-1"	257	232	211	193	177	163	151	140	131	122	114	72	65	54	45
		2: 15'-4"	257	232	211	193	177	163	151	140	131	122	114	107	101	90	45
		3: 15'-8"	257	232	211	193	177	163	151	140	131	122	114	107	101	90	45
		q - 4 welds	1842	1808	1777	1749	1724	1702	1681	1663	1646	1630	1615	1602	1589	1567	1547
		F - 4 welds	0.80	0.82	0.83	0.84	0.86	0.87	0.88	0.89	0.90	0.91	0.91	0.92	0.93	0.94	0.96
	16	1: 13'-11"	259	234	213	195	179	165	152	142	132	123	115	108	65	54	45
		2: 17'-0"	259	234	213	195	179	165	152	142	132	123	115	108	102	91	82
		3: 16'-5"	259	234	213	195	179	165	152	142	132	123	115	108	102	91	82
		q - 4 welds	1959	1916	1877	1843	1812	1783	1758	1734	1713	1693	1675	1658	1643	1615	1590
		F - 4 welds	0.67	0.69	0.70	0.72	0.73	0.74	0.75	0.76	0.77	0.78	0.79	0.80	0.80	0.82	0.83
5½" Normal Weight (145 pcf)	22	1: 9'-4"	264	238	217	158	142	128	115	104	94	85	77	70	64	52	43
		2: 10'-10"	264	238	217	198	182	168	115	104	94	85	77	70	64	52	43
		3: 10'-11"	264	238	217	198	182	168	115	104	94	85	77	70	64	52	43
		q - 4 welds	1938	1917	1897	1880	1865	1850	1838	1826	1815	1805	1796	1788	1780	1766	1754
		F - 4 welds	0.96	0.97	0.98	0.99	1.00	1.01	1.02	1.02	1.03	1.03	1.04	1.04	1.05	1.06	1.07
	20	1: 10'-10"	278	252	229	209	192	177	123	112	101	92	84	76	69	57	47
		2: 12'-6"	278	252	229	209	192	177	164	152	142	132	84	76	69	57	47
		3: 12'-9"	278	252	229	209	192	177	164	152	142	132	84	76	69	57	47
		q - 4 welds	1980	1954	1931	1910	1891	1874	1859	1845	1832	1820	1809	1799	1790	1773	1758
		F - 4 welds	0.86	0.87	0.88	0.89	0.90	0.91	0.92	0.92	0.93	0.94	0.94	0.95	0.95	0.96	0.97
	18	1: 12'-8"	279	252	229	209	192	177	164	152	142	132	83	75	69	57	47
		2: 14'-8"	279	252	229	209	192	177	164	152	142	132	124	117	110	57	47
		3: 15'-1"	279	252	229	209	192	177	164	152	142	132	124	117	110	98	47
		q - 4 welds	2081	2047	2016	1988	1963	1941	1920	1902	1885	1869	1854	1841	1828	1806	1786
		F - 4 welds	0.71	0.72	0.73	0.74	0.75	0.76	0.77	0.78	0.78	0.79	0.80	0.80	0.81	0.82	0.83
	16	1: 13'-5"	279	253	230	210	193	178	164	153	142	133	124	75	68	56	46
		2: 16'-3"	279	253	230	210	193	178	164	153	142	133	124	117	110	98	88
		3: 15'-11"	279	253	230	210	193	178	164	153	142	133	124	117	110	98	46
		q - 4 welds	2198	2155	2116	2082	2051	2022	1997	1974	1952	1932	1914	1897	1882	1854	1829
		F - 4 welds	0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	0.68	0.69	0.70	0.70	0.71	0.72
6" Normal Weight (145 pcf)	22	1: 8'-11"	289	261	192	172	154	138	125	113	102	92	83	76	68	56	46
		2: 10'-4"	289	261	238	217	199	138	125	113	102	92	83	76	68	56	46
		3: 10'-5"	289	261	238	217	199	138	125	113	102	92	83	76	68	56	46
		q - 4 welds	2178	2156	2136	2119	2104	2090	2077	2065	2054	2045	2035	2027	2019	2005	1993
		F - 4 welds	0.86	0.87	0.87	0.88	0.89	0.89	0.90	0.90	0.91	0.91	0.92	0.92	0.93	0.93	0.94
	20	1: 10'-4"	304	275	250	229	210	148	133	121	109	99	90	82	74	61	50
		2: 12'-0"	304	275	250	229	210	193	179	166	155	99	90	82	74	61	50
		3: 12'-2"	304	275	250	229	210	193	179	166	155	99	90	82	74	61	50
		q - 4 welds	2219	2193	2170	2149	2130	2113	2098	2084	2071	2059	2048	2038	2029	2012	1997
		F - 4 welds	0.77	0.78	0.79	0.79	0.80	0.81	0.81	0.82	0.82	0.83	0.83	0.84	0.84	0.85	0.85

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TABLE 20 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 FORMLOK™ & N-24 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.) 8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
6" Normal Weight (145 pcf)	18	1: 12'-4"	304	274	250	228	209	193	179	166	154	98	89	81	73	60	49
		2: 14'-1"	304	274	250	228	209	193	179	166	154	144	135	127	119	60	49
		3: 14'-7"	304	274	250	228	209	193	179	166	154	144	135	127	119	60	49
		q - 4 welds	2321	2286	2255	2227	2202	2180	2159	2141	2124	2108	2093	2080	2067	2045	2025
		F - 4 welds	0.64	0.65	0.66	0.66	0.67	0.68	0.68	0.69	0.70	0.70	0.71	0.71	0.71	0.72	0.73
	16	1: 13'-1"	303	274	249	228	209	193	178	166	154	144	135	80	72	59	48
		2: 15'-7"	303	274	249	228	209	193	178	166	154	144	135	127	119	106	48
		3: 15'-5"	303	274	249	228	209	193	178	166	154	144	135	127	119	106	48
		q - 4 welds	2437	2394	2355	2321	2290	2262	2236	2213	2191	2172	2153	2136	2121	2093	2068
		F - 4 welds	0.54	0.55	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.61	0.62	0.62	0.63	0.64
6½" Normal Weight (145 pcf)	22	1: 8'-6"	316	286	209	187	167	150	135	122	110	100	90	82	74	60	49
		2: 9'-11"	316	286	260	237	167	150	135	122	110	100	90	82	74	60	49
		3: 10'-0"	316	286	260	237	218	150	135	122	110	100	90	82	74	60	49
		q - 4 welds	2417	2395	2376	2358	2343	2329	2316	2304	2293	2284	2275	2266	2258	2244	2232
		F - 4 welds	0.77	0.78	0.79	0.79	0.80	0.80	0.81	0.81	0.81	0.82	0.82	0.82	0.83	0.83	0.84
	20	1: 9'-11"	332	301	273	250	178	161	145	131	118	107	97	88	80	66	54
		2: 11'-6"	332	301	273	250	229	211	196	182	118	107	97	88	80	66	54
		3: 11'-7"	332	301	273	250	229	211	196	182	118	107	97	88	80	66	54
		q - 4 welds	2458	2432	2409	2388	2369	2352	2337	2323	2310	2298	2288	2277	2268	2251	2236
		F - 4 welds	0.69	0.70	0.71	0.71	0.72	0.72	0.73	0.73	0.74	0.74	0.75	0.75	0.75	0.76	0.76
	18	1: 12'-0"	331	299	272	248	228	210	195	181	168	106	96	87	79	65	53
		2: 13'-6"	331	299	272	248	228	210	195	181	168	157	147	138	79	65	53
		3: 14'-0"	331	299	272	248	228	210	195	181	168	157	147	138	130	65	53
		q - 4 welds	2560	2525	2494	2466	2442	2419	2399	2380	2363	2347	2332	2319	2307	2284	2264
		F - 4 welds	0.58	0.59	0.59	0.60	0.61	0.61	0.62	0.62	0.63	0.63	0.63	0.64	0.64	0.65	0.65
	16	1: 12'-9"	329	298	271	247	227	209	194	180	168	157	94	85	77	63	52
		2: 15'-0"	329	298	271	247	227	209	194	180	168	157	147	138	130	116	52
		3: 15'-1"	329	298	271	247	227	209	194	180	168	157	147	138	130	116	52
		q - 4 welds	2677	2633	2594	2560	2529	2501	2475	2452	2430	2411	2392	2376	2360	2332	2307
		F - 4 welds	0.49	0.50	0.51	0.52	0.52	0.53	0.53	0.54	0.54	0.55	0.55	0.56	0.56	0.57	0.57
7½" Normal Weight (145 pcf)	22	1: 7'-11"	313	277	246	220	197	177	159	143	129	117	105	95	86	70	57
		2: 9'-2"	373	338	307	220	197	177	159	143	129	117	105	95	86	70	57
		3: 9'-3"	373	338	307	220	197	177	159	143	129	117	105	95	86	70	57
		q - 4 welds	2895	2873	2854	2836	2821	2807	2794	2782	2772	2762	2753	2744	2736	2722	2710
		F - 4 welds	0.65	0.65	0.65	0.66	0.66	0.67	0.67	0.67	0.67	0.68	0.68	0.68	0.68	0.69	0.69
	20	1: 9'-2"	392	355	322	233	209	188	170	153	138	125	113	103	93	76	62
		2: 10'-8"	392	355	322	295	270	249	170	153	138	125	113	103	93	76	62
		3: 10'-9"	392	355	322	295	270	249	170	153	138	125	113	103	93	76	62
		q - 4 welds	2936	2910	2887	2866	2848	2831	2815	2801	2788	2777	2766	2756	2746	2729	2715
		F - 4 welds	0.58	0.59	0.59	0.59	0.60	0.60	0.61	0.61	0.61	0.61	0.62	0.62	0.62	0.62	0.63
	18	1: 11'-5"	389	352	320	292	268	247	229	151	136	123	111	101	91	75	61
		2: 12'-7"	389	352	320	292	268	247	229	212	198	185	111	101	91	75	61
		3: 13'-0"	389	352	320	292	268	247	229	212	198	185	173	101	91	75	61
		q - 4 welds	3038	3003	2972	2945	2920	2897	2877	2858	2841	2825	2811	2797	2785	2762	2743
		F - 4 welds	0.49	0.49	0.50	0.50	0.51	0.51	0.51	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.54
	16	1: 12'-2"	386	349	317	290	266	246	227	211	197	121	109	99	89	73	59
		2: 14'-0"	386	349	317	290	266	246	227	211	197	184	172	162	152	73	59
		3: 14'-4"	386	349	317	290	266	246	227	211	197	184	172	162	152	73	59
		q - 4 welds	3155	3111	3073	3038	3007	2979	2953	2930	2908	2889	2871	2854	2838	2810	2785
		F - 4 welds	0.42	0.42	0.43	0.43	0.44	0.44	0.45	0.45	0.45	0.46	0.46	0.46	0.47	0.47	0.47

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TABLE 20 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 FORMLOK™ & N-24 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
5" Structural Light Weight (110 pcf)	22	1: 10'-9"	241	218	198	181	166	153	115	105	96	88	80	74	68	58	49
		2: 12'-7"	241	218	198	181	166	153	142	132	123	109	80	74	68	58	49
		3: 12'-8"	241	218	198	181	166	153	142	132	123	109	80	74	68	58	49
		q - 4 welds	1375	1353	1334	1317	1301	1287	1274	1262	1252	1242	1233	1224	1217	1203	1190
		F - 4 welds	1.36	1.38	1.40	1.42	1.44	1.45	1.47	1.48	1.49	1.50	1.52	1.53	1.54	1.55	1.57
	20	1: 12'-7"	255	231	210	192	176	162	150	139	130	118	86	79	73	62	53
		2: 14'-3"	255	231	210	192	176	162	150	139	130	118	105	94	84	62	53
		3: 14'-9"	255	231	210	192	176	162	150	139	130	118	105	94	84	62	53
		q - 4 welds	1416	1390	1367	1346	1328	1311	1295	1281	1269	1257	1246	1236	1226	1209	1195
		F - 4 welds	1.20	1.23	1.25	1.27	1.28	1.30	1.32	1.33	1.34	1.36	1.37	1.38	1.39	1.41	1.43
	18	1: 13'-11"	257	232	211	193	177	163	151	140	131	122	114	107	73	62	53
		2: 16'-8"	257	232	211	193	177	163	151	140	131	122	114	107	96	78	64
		3: 16'-8"	257	232	211	193	177	163	151	140	131	122	114	107	96	78	64
		q - 4 welds	1518	1483	1452	1425	1400	1377	1357	1338	1321	1305	1291	1277	1265	1242	1223
		F - 4 welds	0.97	1.00	1.02	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.14	1.16	1.17	1.19	1.21
	16	1: 14'-10"	259	234	213	195	179	165	152	142	132	123	115	108	102	62	53
		2: 18'-5"	259	234	213	195	179	165	152	142	132	123	115	108	102	87	72
		3: 17'-6"	259	234	213	195	179	165	152	142	132	123	115	108	102	87	72
		q - 4 welds	1635	1591	1553	1518	1487	1459	1433	1410	1389	1369	1351	1334	1318	1290	1265
		F - 4 welds	0.81	0.83	0.85	0.87	0.89	0.91	0.92	0.94	0.95	0.96	0.98	0.99	1.00	1.02	1.04
5½" Structural Light Weight (110 pcf)	22	1: 10'-3"	264	238	217	198	182	137	124	113	103	95	87	79	73	62	52
		2: 11'-11"	264	238	217	198	182	168	155	144	103	95	87	79	73	62	52
		3: 12'-1"	264	238	217	198	182	168	155	144	134	95	87	79	73	62	52
		q - 4 welds	1533	1511	1492	1475	1459	1445	1432	1420	1410	1400	1391	1382	1375	1361	1348
		F - 4 welds	1.22	1.24	1.25	1.27	1.28	1.29	1.30	1.32	1.33	1.33	1.34	1.35	1.36	1.37	1.39
	20	1: 12'-0"	278	252	229	209	192	177	164	152	142	101	93	85	78	66	57
		2: 13'-8"	278	252	229	209	192	177	164	152	142	132	124	116	78	66	57
		3: 14'-1"	278	252	229	209	192	177	164	152	142	132	124	116	110	66	57
		q - 4 welds	1574	1548	1525	1504	1486	1469	1453	1439	1427	1415	1404	1394	1384	1367	1353
		F - 4 welds	1.08	1.10	1.12	1.13	1.15	1.16	1.17	1.18	1.20	1.21	1.21	1.22	1.23	1.25	1.26
	18	1: 13'-6"	279	252	229	209	192	177	164	152	142	132	124	117	78	66	56
		2: 16'-0"	279	252	229	209	192	177	164	152	142	132	124	117	110	98	84
		3: 16'-1"	279	252	229	209	192	177	164	152	142	132	124	117	110	98	84
		q - 4 welds	1676	1641	1610	1583	1558	1535	1515	1496	1479	1463	1449	1435	1423	1400	1381
		F - 4 welds	0.88	0.90	0.92	0.93	0.95	0.96	0.98	0.99	1.00	1.01	1.02	1.03	1.04	1.06	1.07
	16	1: 14'-4"	279	253	230	210	193	178	164	153	142	133	124	117	110	65	55
		2: 17'-9"	279	253	230	210	193	178	164	153	142	133	124	117	110	98	88
		3: 16'-11"	279	253	230	210	193	178	164	153	142	133	124	117	110	98	88
		q - 4 welds	1793	1749	1711	1676	1645	1617	1591	1568	1547	1527	1509	1492	1476	1448	1423
		F - 4 welds	0.74	0.76	0.77	0.79	0.80	0.82	0.83	0.84	0.85	0.87	0.88	0.89	0.89	0.91	0.93
6¼" Structural Light Weight (110 pcf)	22	1: 9'-7"	302	273	248	227	172	155	141	128	117	107	98	90	82	69	59
		2: 11'-2"	302	273	248	227	208	192	178	128	117	107	98	90	82	69	59
		3: 11'-4"	302	273	248	227	208	192	178	128	117	107	98	90	82	69	59
		q - 4 welds	1770	1748	1729	1712	1696	1682	1669	1657	1647	1637	1628	1619	1612	1597	1585
		F - 4 welds	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.13	1.14	1.15	1.15	1.16	1.17	1.18
	20	1: 11'-3"	318	288	262	239	219	202	187	137	125	114	105	96	88	75	63
		2: 12'-11"	318	288	262	239	219	202	187	174	162	151	105	96	88	75	63
		3: 13'-2"	318	288	262	239	219	202	187	174	162	151	142	96	88	75	63
		q - 4 welds	1811	1785	1762	1741	1723	1706	1690	1676	1663	1652	1641	1631	1621	1604	1590
		F - 4 welds	0.94	0.95	0.97	0.98	0.99	1.00	1.01	1.02	1.02	1.03	1.04	1.05	1.05	1.06	1.07

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TABLE 20 - ALLOWABLE SUPERIMPOSED LOADS (psf), ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 FORMLOK™ & N-24 FORMLOK™ DECK PANELS WITH CONCRETE FILL [1,2,3,4,5] (Cont'd.)

TOTAL SLAB DEPTH & CONC. TYPE	DECK GAGE	NO. OF DECK SPANS & MAX UNSHORED CLEAR SPANS (ft-in.)	SPAN (ft-in.)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	15'-0"	16'-0"
6¼" Structural Light Weight (110 pcf)	18	1: 12'-11"	317	287	260	238	219	201	186	173	161	151	103	95	87	73	62
		2: 15'-1"	317	287	260	238	219	201	186	173	161	151	141	133	125	111	62
		3: 15'-5"	317	287	260	238	219	201	186	173	161	151	141	133	125	111	62
		q - 4 welds	1913	1878	1847	1820	1795	1772	1752	1733	1716	1700	1686	1672	1660	1637	1618
		F - 4 welds	0.77	0.79	0.80	0.81	0.82	0.83	0.84	0.85	0.86	0.87	0.88	0.88	0.89	0.90	0.91
	16	1: 13'-9"	316	286	260	237	218	201	186	173	161	150	141	132	86	72	61
		2: 16'-9"	316	286	260	237	218	201	186	173	161	150	141	132	124	111	100
		3: 16'-3"	316	286	260	237	218	201	186	173	161	150	141	132	124	111	100
		q - 4 welds	2030	1986	1948	1913	1882	1854	1828	1805	1784	1764	1746	1729	1713	1685	1660
		F - 4 welds	0.65	0.67	0.68	0.69	0.70	0.71	0.72	0.73	0.74	0.75	0.76	0.76	0.77	0.78	0.8
7¼" Structural Light Weight (110 pcf)	22	1: 8'-11"	359	324	250	225	203	183	166	151	138	126	115	105	97	81	68
		2: 10'-5"	359	324	295	269	247	183	166	151	138	126	115	105	97	81	68
		3: 10'-6"	359	324	295	269	247	228	166	151	138	126	115	105	97	81	68
		q - 4 welds	2086	2064	2045	2027	2012	1998	1985	1973	1963	1953	1944	1935	1927	1913	1901
		F - 4 welds	0.90	0.91	0.91	0.92	0.93	0.94	0.94	0.95	0.95	0.96	0.96	0.97	0.97	0.98	0.98
	20	1: 10'-5"	377	341	310	283	260	195	177	161	147	134	123	113	103	87	74
		2: 12'-1"	377	341	310	283	260	240	222	206	192	134	123	113	103	87	74
		3: 12'-3"	377	341	310	283	260	240	222	206	192	134	123	113	103	87	74
		q - 4 welds	2127	2101	2078	2057	2039	2022	2006	1992	1979	1968	1957	1947	1937	1920	1906
		F - 4 welds	0.80	0.81	0.82	0.83	0.84	0.84	0.85	0.86	0.86	0.87	0.87	0.88	0.88	0.89	0.89
	18	1: 12'-4"	374	338	307	281	258	238	220	204	190	132	121	111	102	86	72
		2: 14'-2"	374	338	307	281	258	238	220	204	190	178	167	156	147	86	72
		3: 14'-7"	374	338	307	281	258	238	220	204	190	178	167	156	147	86	72
		q - 4 welds	2229	2194	2163	2136	2111	2088	2068	2049	2032	2016	2002	1988	1976	1953	1934
		F - 4 welds	0.66	0.67	0.68	0.69	0.70	0.71	0.71	0.72	0.73	0.73	0.74	0.74	0.75	0.76	0.76
	16	1: 13'-1"	372	336	305	279	256	236	219	203	189	177	165	109	100	84	71
		2: 15'-8"	372	336	305	279	256	236	219	203	189	177	165	155	146	130	71
		3: 15'-6"	372	336	305	279	256	236	219	203	189	177	165	155	146	130	71
		q - 4 welds	2346	2302	2264	2229	2198	2170	2144	2121	2100	2080	2062	2045	2029	2001	1976
		F - 4 welds	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.62	0.63	0.64	0.64	0.65	0.65	0.66	0.67

[1] Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8 of this report.

[2] Shoring is required at midspan for superimposed load values to the right of the heavy line.

[3] Total slab depth is nominal depth from top of concrete to bottom of steel deck.

[4] Concrete fill to have minimum compressive strength f'_c = 3,000 psi.

[5] Nominal diaphragm shear values may be determined by multiplying the table values by Ω = 3.0. LRFD diaphragm shear values may be determined by multiplying nominal values by ϕ = 0.55.

TABLE 21A - ADJUSTMENT FACTORS FOR ALLOWABLE DIAPHRAGM SHEAR STRENGTH SHOWN IN TABLES REFERENCED BELOW USING MECHANICAL FASTENERS[1,2,3,4,5]

Table XX (Deck Type)	Adjustment Factor	Concrete Thickness Over Top of Deck								
		Normal Weight Concrete					Light Weight Concrete			
		2 in	2 1/2 in	3 in	3 1/2 in	4 1/2 in	2 in	2 1/2 in	3 1/4 in	4 1/4 in
Table 15 (B FORMLOK™)	A_{q4}	0.60	0.66	0.68	0.62	0.53	0.46	0.53	0.62	0.69
	A_{q7}	0.49	0.57	0.62	0.66	0.72	0.38	0.44	0.52	0.61
Table 17 (W2 FORMLOK™)	A_{q3}	0.77	0.68	0.60	0.54	0.45	0.65	0.71	0.74	0.63
	A_{q4}	0.67	0.73	0.75	0.68	0.57	0.56	0.62	0.69	0.76
Table 18 (W3 FORMLOK™)	A_{q3}	0.78	0.68	0.60	0.54	0.45	0.67	0.74	0.75	0.63
	A_{q4}	0.73	0.79	0.77	0.69	0.58	0.63	0.68	0.75	0.80
Table 19 (N3 FORMLOK™)	A_{q4}	0.78	0.85	0.82	0.73	0.61	0.67	0.73	0.80	0.85
	A_{q5}	0.71	0.77	0.82	0.85	0.73	0.61	0.66	0.73	0.80
Table 20 (N FORMLOK™)	A_{q4}	0.74	0.80	0.79	0.71	0.60	0.64	0.69	0.76	0.83

1 Mechanical fastener attachment patterns shall coincide with the listed attachment patterns for welds.

2 The tabulated values in Tables 15, 17, 18, 19 and 20 of this report shall be multiplied by the adjustment factors listed to obtain allowable diaphragm shear values using mechanical fasteners.

3 Applicable mechanical fasteners are limited to the following: Hilti Fasteners, Pneutek Fasteners and SDI Recognized Screws produced by Buildex, Elco, Hilti, Simpson Strong-Tie or Triangle. Installations shall comply with the minimum and maximum substrate thickness requirements for applicable mechanical fasteners.

4 These adjustment factors are applied to the ASD diaphragm shear values listed in Tables 15, 17, 18, 19 and 20 of this report. Nominal diaphragm shear values may be determined by multiplying the adjusted table values by $\Omega = 3.25$. Adjusted LRFD diaphragm shear values may be determined by multiplying adjusted nominal values by $\phi = 0.50$.

5 The fastener manufacturer needs to be contacted for applicable fire-resistance assembly ratings.

TABLE 21B - SELECTION GUIDE FOR SCREWS BASED ON ACTUAL SUBSTRATE THICKNESS[1]

SUPPORT THICKNESS	FASTENER DESIGNATION
33 mil (0.0346") to 3/16"	#3 Drill Point
1/8" to 1/4"	#4 Drill Point
1/8" to 1/2"	#5 Drill Point

1 Deck is attached with minimum No. 12 Screws (self drilling, self tapping) to supports. Appropriate screw shall be selected based on actual substrate thickness. This table is provided as a guide, and proper selection shall be verified based on the specific fasteners used.

TABLE 21C - ADJUSTMENT FACTORS FOR ALLOWABLE DIAPHRAGM SHEAR STRENGTH AND FLEXIBILITY FACTORS, R_q and R_F, FOR PLB-36, HSB-36-SS, PLN3, HSN3-NS, HSN3-SS and PLN-24 DECK ATTACHED TO SUPPORTS WITH GENERIC #12 SCREWS[1,2,3,4]

Deck Gage	Factors	Substrate Thickness and Strength									
		20 ga		18 ga		16 ga		14 ga		≥ 12 ga	
		33 mil (0.0346 in)		43 mil (0.0451 in)		54 mil (0.0566 in)		68 mil (0.0713 in)		≥ 97 mil (0.1017 in)	
		33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi
22	R_q	0.44	0.61	0.67	0.78	0.78	0.78	0.78	0.78	0.78	0.78
	R_F	1.28	1.25	1.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	R_q	0.34	0.49	0.54	0.74	0.74	0.78	0.78	0.78	0.78	0.78
	R_F	1.31	1.31	1.24	1.19	1.15	1.00	1.00	1.00	1.00	1.00
18	R_q	0.26	0.37	0.38	0.55	0.55	0.78	0.76	0.78	0.78	0.78
	R_F	1.34	1.39	1.30	1.31	1.26	1.18	1.19	1.00	1.00	1.00
16	R_q	0.20	0.30	0.30	0.44	0.43	0.65	0.61	0.78	0.78	0.78
	R_F	1.43	1.66	1.39	1.54	1.33	1.34	1.25	1.00	1.00	1.00

1 All tabulated Diaphragm values shown in Tables 30, 34, 42 and 47 are for a minimum 0.0385 inch thick support with SDI recognized screws produced by Buildex, Elco, Hilti, Simpson Strong-Tie or Triangle. If the minimum support thickness can not be met or a screw that is not recognized by SDI is used, modify tabulated q and F values based on actual substrate and thickness using Adjustment Factors listed in this table.

2 Adjustment factors are based on connection strengths determined in accordance with Section E4 of AISI S100. These self drilling, self tapping screws shall comply with ASTM C1513.

3 Allowable Diaphragm Strength = $q \cdot R_q$; Flexibility Factor = $F \cdot R_F$

4 These adjustment factors are based on the maximum adjustment for the tabulated span lengths and fastener patterns. To calculate a specific condition, the design equations listed at the end of this report shall be referenced.

TABLE 21D - ADJUSTMENT FACTORS FOR ALLOWABLE DIAPHRAGM SHEAR STRENGTH AND FLEXIBILITY FACTORS, R_q and R_F, FOR 9/16" (SHALLOW) VERCOR DECK ATTACHED TO SUPPORTS WITH GENERIC #12 SCREWS[1,2,3,4]

Deck Gage	Factors	Substrate Thickness and Strength									
		20 ga		18 ga		16 ga		14 ga		≥ 12 ga	
		33 mil (0.0346 in)		43 mil (0.0451 in)		54 mil (0.0566 in)		68 mil (0.0713 in)		≥ 97 mil (0.1017 in)	
		33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi
26	R_q	0.66	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	R_F	1.26	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	R_q	0.52	0.66	0.68	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	R_F	1.51	1.38	1.27	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	R_q	0.38	0.54	0.59	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	R_F	1.69	1.58	1.36	1.00	1.00	1.00	1.00	1.00	1.00	1.00

1 All tabulated Diaphragm values shown in Table 50 of this report are for a minimum 0.0385 inch thick support with SDI recognized screws produced by Buildex, Elco, Hilti, Simpson Strong-Tie or Triangle. If the support thickness is less than the minimum or a screw that is not recognized by SDI is used, the tabulated q and F values shall be revised based on actual substrate and thickness using Adjustment Factors
2 listed in this table.
Adjustment factors are based on connection strengths determined in accordance with Section E4 of AISI S100. The self drilling, self tapping
3 screws shall comply with ASTM C1513.
4 Allowable Diaphragm Strength = q • R_q; Flexibility Factor = F • R_F
These adjustment factors are based on the maximum adjustment for the tabulated span lengths and fastener patterns. To calculate a specific condition, the design equations listed at the end of this report shall be referenced.

TABLE 21E - ADJUSTMENT FACTORS FOR ALLOWABLE DIAPHRAGM SHEAR STRENGTH AND FLEXIBILITY FACTORS, R_q and R_F, FOR 1-5/16" (DEEP) VERCOR DECK ATTACHED TO SUPPORTS WITH GENERIC #12 SCREWS[1,2,3,4]

Deck Gage	Factors	Substrate Thickness and Strength									
		20 ga		18 ga		16 ga		14 ga		≥ 12 ga	
		33 mil (0.0346 in)		43 mil (0.0451 in)		54 mil (0.0566 in)		68 mil (0.0713 in)		≥ 97 mil (0.1017 in)	
		33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi	33 ksi	50 ksi
26	R_q	0.69	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
	R_F	1.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	R_q	0.58	0.70	0.73	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	R_F	1.21	1.17	1.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	R_q	0.48	0.61	0.65	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	R_F	1.27	1.24	1.16	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	R_q	0.39	0.53	0.57	0.71	0.71	0.76	0.76	0.76	0.76	0.76
	R_F	1.32	1.33	1.25	1.21	1.16	1.00	1.00	1.00	1.00	1.00

1 All tabulated Diaphragm values shown in Table 51 are for a minimum 0.0385 in. thick support with SDI recognized screws produced by Buildex, Elco, Hilti, Simpson Strong-Tie or Triangle. If the support thickness is less than the minimum or a screw that is not recognized by SDI is used, the tabulated q and F values shall be revised based on actual substrate and thickness using Adjustment Factors listed in this table.
2 Adjustment factors are based on connection strengths determined in accordance with Section E4 of AISI S100. These self drilling, self tapping screws shall comply with ASTM C1513.
3 Allowable Diaphragm Strength = q • R_q; Flexibility Factor = F • R_F
4 These adjustment factors are based on the maximum adjustment for the tabulated span lengths and fastener patterns. To calculate a specific condition, the design equations listed at the end of this report shall be referenced.

TABLE 21F - ADJUSTMENT FACTORS FOR ALLOWABLE DIAPHRAGM SHEAR STRENGTH AND FLEXIBILITY FACTORS, R_q and R_F, FOR ACOUSTICAL (PERFORATED) DECK PANELS[1,2,3]

Deck Type	R_q	R_F	Deck Type	R_q	R_F
B AC	0.97	1.02	BCD AC	0.98	1.09
N3 AC	0.93	1.07	N3CD AC	0.98	1.11
N-24 AC	0.94	1.05	N24CD AC	0.97	1.10

1 The profile designations used in this table apply to the profile families as summarized below:
"B AC" – PLB-36, HSB-36 and HSB-36-SS acoustical deck, "N3 AC" – PLN3, HSN3, HSN3-SS and HSN3-NS acoustical deck, "N-24 AC" – PLN-24, N-24 and N-24-SS acoustical deck, "BCD AC" – PLB-CD & HSB-CD and PLB-CD & BCD FORMLOK acoustical cellular deck, "N3CD AC" – PLN3-CD & HSN3-CD and PLN3-CD & N3-CD FORMLOK acoustic cellular deck, "N24CD AC" – PLN24-CD & N-24CD and PLN-CD & N-CD FORMLOK acoustic cellular deck
2 Adjustment Factor, R_q shall be applied only to allowable diaphragm shear strengths governed by panel buckling, which are shown in the shaded areas of the diaphragm tables.
3 These adjustment factors are based on the maximum adjustment for the tabulated gages, span lengths, and fastener patterns. To calculate a specific condition, the design equations listed at the end of this report shall be referenced.

TABLE 22 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH (plf) FOR DECKS WITH CONCRETE FILL AND 3/4" DIAMETER STUD SHEAR CONNECTORS [1-8, 16, 17, 19]

CONCRETE TYPE[9]	CONCRETE THICKNESS[10]	SPACING OF STUD SHEAR CONNECTOR[11,14]							
		12"	16"	18"	24"	30"	32"	36"	F[12]
MINIMUM CONCRETE REINFORCEMENT OF 0.0025 TIMES THE AREA OF FILL ABOVE THE DECK									
NW	2"[18]	3110	3110	3110	3110	2980	2790	2480	0.40
	2 1/2"	3890	3890	3890	3720	2980	2790	2480	0.32
	3"	4670	4670	4670	3720	2980	2790	2480	0.26
	3 1/2"	5450	5450	4970	3720	2980	2790	2480	0.23
	4 1/2"	7000	5590	4970	3720	2980	2790	2480	0.18
	6"	7450	5590	4970	3720	2980	2790	2480	0.13
LW	2"[18]	2910	2910	2910	2910	2910	2770	2460	0.56
	2 1/2"	3640	3640	3640	3640	2960	2770	2460	0.45
	3 1/4"	4740	4740	4740	3700	2960	2770	2460	0.35
	4 1/4"	6190	5550	4930	3700	2960	2770	2460	0.26
	6"	7400	5550	4930	3700	2960	2770	2460	0.19
MINIMUM CONCRETE REINFORCEMENT OF 0.00075 TIMES THE AREA OF FILL ABOVE THE DECK[13]									
NW	2"[18]	1310	1310	1310	1310	1310	1310	1310	0.40
	2 1/2"	1640	1640	1640	1640	1640	1640	1640	0.32
	3"	1970	1970	1970	1970	1970	1970	1970	0.26
	3 1/2"	2300	2300	2300	2300	2300	2300	2300	0.23
	4 1/2"	2950	2950	2950	2950	2950	2790	2480	0.18
	6"	3940	3940	3940	3720	2980	2790	2480	0.13
LW	2"[18]	1110	1110	1110	1110	1110	1110	1110	0.56
	2 1/2"	1390	1390	1390	1390	1390	1390	1390	0.45
	3 1/4"	1810	1810	1810	1810	1810	1810	1810	0.35
	4 1/4"	2370	2370	2370	2370	2370	2370	2370	0.26
	6"	3350	3350	3350	3350	2960	2770	2460	0.19

1 The allowable diaphragm shear strengths are determined according to ACI 318 and AISC 360, utilizing a minimum area of reinforcing, as stated in the table below, with a minimum yield strength of f_y = 60,000 psi. If the area of steel exceeds that stated below, the allowable diaphragm shear may be increased, per ACI 318 and AISC 360. Reinforcement shall have an equivalent area and spacing in both directions. Welded wire fabric of the sizes listed below conform to this requirement. The fabric shall be placed approximately one inch below the top of the concrete.

MINIMUM REINFORCEMENT FOR TABULATED SHEAR STRENGTH

CONCRETE THICKNESS[10]	Reinforcement = 0.0025 times area of fill above deck		Reinforcement =0.00075 times area of fill above deck	
	Area of Steel (in^2/ft)	Suggested Fabric[15]	Area of Steel (in^2/ft)	Suggested Fabric[15]
2"	0.060	4 x 4 - W2.0 x W2.0	0.028	6 x 6 - W1.4 x W1.4
2½"	0.075	4 x 4 - W2.5 x W2.5	0.028	6 x 6 - W1.4 x W1.4
3"	0.090	6 x 6 - W4.5 x W4.5	0.028	6 x 6 - W1.4 x W1.4
3¼"	0.098	6 x 6 - W5.0 x W5.0	0.029	6 x 6 - W2.0 x W2.0
3½"	0.105	4 x 4 - W3.5 x W3.5	0.032	6 x 6 - W2.0 x W2.0
4¼"	0.128	6 x 6 - W6.5 x W6.5	0.038	6 x 6 - W2.0 x W2.0
4½"	0.135	4 x 4 - W4.5 x W4.5	0.041	4 x 4 - W1.4 x W1.4
6"	0.180	4 x 4 - W6.0 x W6.0	0.054	6 x 6 - W2.9 x W2.9

2 Stud shear connector diameter shall be less than or equal to 2.5 times the steel support thickness unless connector is located directly over support web.

3 Figure 18 provides details.

(continued)

Table 22 Notes (Cont'd.)

4 Allowable diaphragm shear strengths assume “weak stud position” as described in AISC Steel Construction Manual (14th Ed.) Figure C-I8.1, with a single stud shear connector per rib at the spacings shown in the tables. The allowable values may be used when deck is either perpendicular or parallel to supports.

5 For local shear transfer within the field of the diaphragm, 3/4 inch diameter studs have an allowable shear value of 7.46 kips per stud for normal weight concrete fills and 7.40 kips per stud for structural light weight concrete. However, when using 1-5/16" (Deep) VERCOR, 1/2 inch diameter studs having an allowable shear value of 3.31 kips per stud for normal weight concrete and 3.29 kips for light weight concrete shall be used.

6 Sidelap connections shall be spaced at 36 inches on center maximum with either button-punches, No. 10 screws, 1½ inch long top-seam welds (standing seams), or 1½ inch long fillet welds (nested seams). Sidelaps of PLB, PLW2, PLW3, PLN3, and PLN shall be connected with Verco sidelap connections (VSC) at 36 inches on center maximum.

7 To obtain factored (LRFD) diaphragm strengths, the values shall be multiplied by a factor of 1.5 for all load combinations.

8 ACI 318-14 Section 21.2.4 (ACI 318-11, Section 9.3.4) shall be referenced for possible reductions of the diaphragm shear capacity based on the vertical components of the primary lateral-force-resisting system. Tabulated values may be multiplied by $\phi/0.75$, where ϕ is modified in accordance with ACI 318-14 Section 21.2.4 (ACI 318-11, Section 9.3.4).

9 Design compressive strength f'_c = 3,000 psi minimum.
NW = Normal Weight concrete (145 pcf)
LW = Structural Light Weight concrete (110 pcf)

10 Concrete thickness (t_f) is measured above the top flute of the steel deck.

11 Formlok deck types PLB, B, PLB-CD, BCD, BR, PLN3, N3, PLN3-CD, N3CD ,PLW2, W2, PLW2-CD, W2CD, PLW3, W3, PLW3-CD, W3CD, PLN, N, PLN-CD, and NCD shall use minimum 3/4 inch diameter studs to achieve the allowable values. 1-5/16" (Deep) VERCOR shall use minimum 1/2 inch diameter studs. The tabulated shear values must be multiplied by a factor of 0.44 for 1-5/16" (Deep) VERCOR.

12 The flexibility factors listed in the tables are in micro inches a diaphragm web will deflect in a span of 1 foot under a shear load of 1 lb per ft.

13 The values in this table shall be compared to allowable diaphragm shear strength of composite decks in Tables 15 through 20 of this report.

14 The maximum center-to-center spacing of stud shear connectors shall not exceed eight times the total slab thickness nor 36 inches.

15 Minimum lap of welded wire fabric shall be 12 inches.

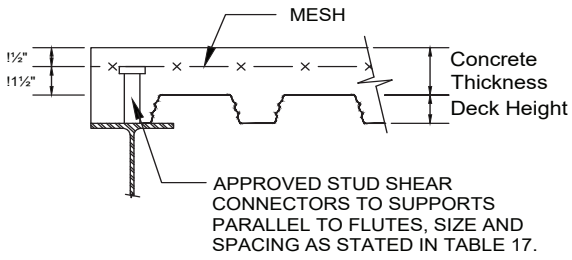
16 Steel decks shall be fastened to intermediate deck supports with arc spot welds or mechanical fasteners.

17 Stud shear connectors shall extend not less than 1-1/2 inches above top of steel deck and shall have at least 1/2 inch concrete cover.

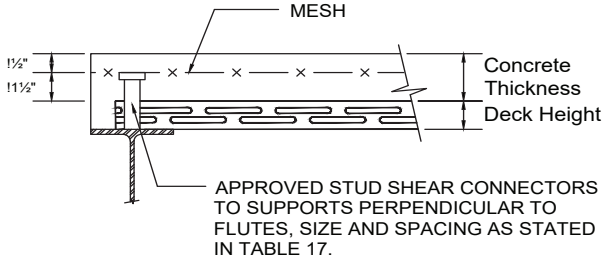
18 For 1-5/16" Deep Vercor with only 2 inches of concrete cover, shear studs complying with both the minimum length requirement and minimum concrete cover requirement of footnote 17 may not be commonly available.

19 All FORMLOK and 1-5/16” (Deep) VERCOR steel deck profiles have an average rib width, w_r, of not less than 2” as required in AISC 360 Section I3.2.

FIGURE 18 - STUD SHEAR CONNECTOR DETAILS



STUD SHEAR CONNECTORS AT SUPPORTS PARALLEL TO FLUTES



STUD SHEAR CONNECTORS AT SUPPORTS PERPENDICULAR TO FLUTES

TABLE 23 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE PLW2™-36 FORMLOK™ DECK PANELS ATTACHED WITH WELDS TO THE SUPPORTS AND SIDELAPS CONNECTED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
36/4 ARC SPOT WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	473	491	441	459	420	437	407	422	397
		F	11.4+25R	11.6+21R	13.1+18R	13.1+16R	14.4+14R	14.2+12R	15.3+11R	15+10R	16+9R
	VSC2 @ 12"	q	675	664	655	648	642	637	633	629	626
		F	8.2+26R	8.7+22R	9.1+19R	9.5+17R	9.8+15R	10+14R	10.2+13R	10.4+12R	10.6+11R
	VSC2 @ 8"	q	800	806	787	794	779	786	774	749	646
		F	6.6+27R	6.8+23R	7.3+20R	7.4+18R	7.7+16R	7.8+14R	8.1+13R	8.1+12R	8.3+11R
	VSC2 @ 4"	q	955	953	951	950	949	949	879	749	646
		F	4.5+27R	4.8+23R	5+20R	5.2+18R	5.4+16R	5.5+15R	5.6+14R	5.6+13R	5.7+12R
21	VSC2 @ 24"	q	564	585	525	547	501	522	485	504	473
		F	10.4+19R	10.5+16R	11.9+14R	11.7+12R	12.9+11R	12.7+10R	13.6+8R	13.4+8R	14.2+7R
	VSC2 @ 12"	q	805	791	780	772	765	759	754	750	745
		F	7.4+20R	7.9+17R	8.2+15R	8.5+13R	8.7+12R	8.9+11R	9.1+10R	9.2+9R	9.3+8R
	VSC2 @ 8"	q	952	960	937	946	928	936	922	864	745
		F	6+21R	6.2+18R	6.6+16R	6.6+14R	6.9+12R	6.9+11R	7.2+10R	7.1+10R	7.3+9R
	VSC2 @ 4"	q	1135	1133	1131	1130	1129	1128	1014	864	745
		F	4.2+21R	4.4+18R	4.6+16R	4.7+14R	4.8+13R	4.9+12R	5+11R	5.1+10R	5.1+9R
20	VSC2 @ 24"	q	658	682	613	638	585	608	565	587	552
		F	9.5+15R	9.5+13R	10.7+11R	10.5+10R	11.5+8R	11.2+8R	12.1+7R	11.8+6R	12.5+6R
	VSC2 @ 12"	q	940	923	911	901	893	886	880	875	849
		F	6.7+16R	7.1+14R	7.3+12R	7.5+11R	7.7+10R	7.9+9R	8+8R	8.1+7R	8.2+7R
	VSC2 @ 8"	q	1113	1122	1095	1105	1084	1094	1077	984	849
		F	5.4+17R	5.5+14R	5.9+13R	5.9+11R	6.2+10R	6.2+9R	6.3+8R	6.3+8R	6.5+7R
	VSC2 @ 4"	q	1329	1326	1324	1322	1321	1320	1155	984	849
		F	3.8+17R	4+15R	4.2+13R	4.3+11R	4.4+10R	4.4+9R	4.5+9R	4.5+8R	4.6+7R
19	VSC2 @ 24"	q	857	888	796	828	758	789	733	761	714
		F	7.7+10R	7.6+9R	8.5+7R	8.3+7R	9+6R	8.8+5R	9.4+5R	9.1+4R	9.7+4R
	VSC2 @ 12"	q	1226	1204	1187	1173	1162	1153	1145	1138	1069
		F	5.4+11R	5.6+10R	5.8+8R	5.9+7R	6.1+7R	6.1+6R	6.2+6R	6.3+5R	6.3+5R
	VSC2 @ 8"	q	1458	1470	1434	1446	1418	1430	1408	1240	1069
		F	4.4+12R	4.5+10R	4.7+9R	4.7+8R	4.9+7R	4.9+6R	5+6R	5+5R	5.1+5R
	VSC2 @ 4"	q	1753	1749	1747	1744	1742	1732	1455	1240	1069
		F	3.2+12R	3.3+10R	3.4+9R	3.5+8R	3.5+7R	3.6+6R	3.6+6R	3.7+5R	3.7+5R
18	VSC2 @ 24"	q	1034	1068	958	995	910	946	878	911	854
		F	6.5+8R	6.4+7R	7.1+6R	6.9+5R	7.4+4R	7.2+4R	7.7+4R	7.5+3R	7.9+3R
	VSC2 @ 12"	q	1482	1453	1431	1414	1399	1387	1377	1369	1263
		F	4.6+9R	4.7+7R	4.8+6R	4.9+6R	5+5R	5.1+5R	5.1+4R	5.2+4R	5.2+4R
	VSC2 @ 8"	q	1769	1783	1737	1753	1717	1732	1703	1465	1263
		F	3.7+9R	3.8+7R	3.9+7R	3.9+6R	4.1+5R	4.1+5R	4.2+4R	4.1+4R	4.2+4R
	VSC2 @ 4"	q	2145	2140	2136	2133	2130	2047	1720	1465	1263
		F	2.8+9R	2.9+8R	2.9+7R	3+6R	3+5R	3.1+5R	3.1+4R	3.1+4R	3.2+4R
16	VSC2 @ 24"	q	1367	1418	1273	1325	1215	1264	1175	1220	1146
		F	5.4+4R	5.3+4R	5.8+3R	5.6+3R	6.1+2R	5.9+2R	6.3+2R	6+2R	6.4+2R
	VSC2 @ 12"	q	1953	1919	1893	1872	1855	1841	1829	1819	1777
		F	3.8+5R	3.9+4R	4+4R	4+3R	4.1+3R	4.1+3R	4.2+2R	4.2+2R	4.2+2R
	VSC2 @ 8"	q	2313	2332	2277	2297	2254	2273	2238	2060	1777
		F	3.1+5R	3.1+4R	3.2+4R	3.2+3R	3.3+3R	3.3+3R	3.4+2R	3.3+2R	3.4+2R
	VSC2 @ 4"	q	2762	2757	2753	2750	2747	2745	2418	2060	1777
		F	2.4+5R	2.4+4R	2.4+4R	2.5+3R	2.5+3R	2.5+3R	2.5+3R	2.5+2R	2.6+2R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for side seam fasteners placed at spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

TABLE 24 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE W2-36 FORMLOK™ DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH BUTTON PUNCHES (BP) OR 1½ INCH TOP SEAM WELDS (TSW)[1,2,3,4,5,6]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
36/4 ARC SPOT WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	188	171	150	141	127	122	112	109	101
		F	18.2+20R	20.4+16R	23.2+12R	24.9+9R	27.6+6R	29+4R	31.5+2R	32.8+1R	35.1-1R
	BP @ 12"	q	224	202	186	173	163	155	148	142	137
		F	16.3+22R	18.3+17R	20.1+14R	21.7+11R	23.2+9R	24.6+7R	25.9+6R	27.1+4R	28.2+3R
	TSW @ 24"	q	530	553	501	523	482	503	470	489	461
		F	5.4+27R	5.3+23R	6+20R	5.9+18R	6.4+16R	6.2+15R	6.6+13R	6.4+12R	6.8+11R
	TSW @ 12"	q	743	734	726	721	716	712	709	706	646
		F	3.8+27R	4.1+23R	4.3+20R	4.4+18R	4.6+16R	4.7+15R	4.7+14R	4.8+13R	4.9+12R
21	BP @ 24"	q	226	204	179	168	152	146	134	130	121
		F	17.5+15R	19.5+11R	22.1+8R	23.8+6R	26.3+3R	27.7+2R	30+0R	31.2-1R	33.5-3R
	BP @ 12"	q	270	241	222	207	195	185	177	170	164
		F	15.6+16R	17.5+12R	19.2+10R	20.7+8R	22.1+6R	23.4+4R	24.7+3R	25.8+2R	26.9+1R
	TSW @ 24"	q	615	641	579	605	557	580	541	563	530
		F	5.3+21R	5.2+18R	5.8+16R	5.6+14R	6.1+13R	5.9+12R	6.3+11R	6.1+10R	6.4+9R
	TSW @ 12"	q	866	854	845	838	832	828	823	820	745
		F	3.7+21R	4+18R	4.1+16R	4.3+14R	4.4+13R	4.4+12R	4.5+11R	4.6+10R	4.6+9R
20	BP @ 24"	q	267	240	210	198	178	172	157	153	142
		F	16.8+11R	18.7+8R	21.2+5R	22.8+3R	25.2+1R	26.5+0R	28.7-2R	29.8-3R	32-4R
	BP @ 12"	q	319	284	262	244	230	219	209	201	194
		F	15+12R	16.8+9R	18.4+7R	19.8+5R	21.2+4R	22.4+2R	23.6+1R	24.7+0R	25.7+0R
	TSW @ 24"	q	704	733	661	690	635	661	616	641	603
		F	5.1+17R	5+15R	5.5+13R	5.4+11R	5.8+10R	5.6+9R	6+8R	5.8+8R	6.1+7R
	TSW @ 12"	q	996	981	970	962	955	949	944	940	849
		F	3.7+17R	3.8+15R	4+13R	4.1+12R	4.2+10R	4.2+9R	4.3+9R	4.3+8R	4.4+7R
19	BP @ 24"	q	360	323	281	265	239	230	211	205	191
		F	15.7+6R	17.4+4R	19.6+1R	21.1+0R	23.2-2R	24.5-3R	26.5-4R	27.6-5R	29.5-6R
	BP @ 12"	q	430	383	351	328	309	294	281	270	261
		F	14+7R	15.6+5R	17+3R	18.3+2R	19.6+1R	20.7+0R	21.8-1R	22.8-2R	23.7-2R
	TSW @ 24"	q	897	931	838	873	801	834	776	807	758
		F	4.8+11R	4.7+10R	5.1+9R	5+8R	5.3+7R	5.2+6R	5.5+6R	5.3+5R	5.6+5R
	TSW @ 12"	q	1276	1256	1240	1227	1217	1208	1201	1195	1069
		F	3.5+12R	3.6+10R	3.7+9R	3.7+8R	3.8+7R	3.9+6R	3.9+6R	3.9+5R	4+5R
18	BP @ 24"	q	447	402	347	328	295	285	261	254	236
		F	14.8+3R	16.4+1R	18.5+0R	19.9-1R	21.9-3R	23.1-4R	25-5R	26-5R	27.8-6R
	BP @ 12"	q	535	478	435	407	384	365	349	336	325
		F	13.2+4R	14.7+3R	16.1+1R	17.3+0R	18.4-1R	19.5-1R	20.5-2R	21.4-3R	22.3-3R
	TSW @ 24"	q	1071	1110	997	1037	950	988	919	954	896
		F	4.5+9R	4.4+7R	4.8+6R	4.6+6R	5+5R	4.8+5R	5.1+4R	4.9+4R	5.2+4R
	TSW @ 12"	q	1530	1503	1482	1466	1452	1441	1432	1424	1263
		F	3.3+9R	3.4+8R	3.4+7R	3.5+6R	3.6+5R	3.6+5R	3.6+4R	3.7+4R	3.7+4R
16	BP @ 24"	q	602	548	473	447	402	391	359	352	327
		F	13.2+0R	14.6-1R	16.5-3R	17.7-3R	19.5-4R	20.5-5R	22.2-6R	23.1-6R	24.7-7R
	BP @ 12"	q	741	667	612	571	542	518	498	481	466
		F	11.8+1R	13.1+0R	14.2-1R	15.3-2R	16.4-2R	17.3-3R	18.2-3R	19-4R	19.8-4R
	TSW @ 24"	q	1407	1462	1315	1370	1258	1310	1219	1266	1190
		F	4+5R	3.9+4R	4.2+3R	4+3R	4.3+3R	4.2+3R	4.4+2R	4.3+2R	4.5+2R
	TSW @ 12"	q	2002	1970	1945	1926	1910	1896	1885	1876	1777
		F	2.9+5R	2.9+4R	3+4R	3+3R	3.1+3R	3.1+3R	3.1+2R	3.1+2R	3.1+2R

1 BP = Button Punch; TSW = Top Seam Weld

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for side seam fasteners placed at spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

TABLE 25 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE PLW3™-36 FORMLOK™ DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"
36/4 ARC SPOT WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	470	487	438	456	418	435	404	394	387
		F	11+36R	11.3+31R	13+26R	13+23R	14.3+20R	14.2+18R	15.3+16R	16.1+14R	16.8+12R
	VSC2 @ 12"	q	671	660	651	644	638	633	629	622	618
		F	7.8+37R	8.5+32R	9+28R	9.4+24R	9.7+22R	10+20R	10.2+18R	10.6+16R	10.9+14R
	VSC2 @ 8"	q	795	801	782	789	775	781	769	765	762
		F	6.2+38R	6.5+32R	7.1+28R	7.3+25R	7.7+23R	7.7+20R	8.1+19R	8.3+16R	8.5+14R
	VSC2 @ 4"	q	949	947	946	944	943	943	942	941	844
		F	4.2+38R	4.6+33R	4.9+29R	5.1+26R	5.3+23R	5.4+21R	5.6+19R	5.8+16R	5.9+14R
21	VSC2 @ 24"	q	564	585	525	547	501	522	485	473	464
		F	10.2+28R	10.3+24R	11.7+20R	11.7+18R	12.8+16R	12.6+14R	13.6+13R	14.3+11R	14.8+9R
	VSC2 @ 12"	q	805	791	780	772	765	759	754	747	741
		F	7.2+29R	7.7+25R	8.1+22R	8.4+19R	8.7+17R	8.9+16R	9.1+14R	9.4+12R	9.6+11R
	VSC2 @ 8"	q	952	960	937	946	928	936	922	917	914
		F	5.7+30R	6+25R	6.4+22R	6.5+20R	6.9+18R	6.9+16R	7.2+15R	7.4+13R	7.5+11R
	VSC2 @ 4"	q	1135	1133	1131	1130	1129	1128	1127	1126	979
		F	3.9+30R	4.2+26R	4.5+22R	4.7+20R	4.8+18R	4.9+16R	5+15R	5.2+13R	5.3+11R
20	VSC2 @ 24"	q	655	679	610	635	582	605	563	549	538
		F	9.3+22R	9.4+19R	10.6+16R	10.5+14R	11.5+13R	11.3+12R	12.2+10R	12.7+9R	13.1+7R
	VSC2 @ 12"	q	935	919	906	897	888	882	876	867	860
		F	6.6+24R	7+20R	7.3+17R	7.5+15R	7.8+14R	7.9+13R	8.1+12R	8.3+10R	8.5+9R
	VSC2 @ 8"	q	1107	1117	1090	1100	1079	1088	1072	1066	1062
		F	5.3+24R	5.4+21R	5.8+18R	5.9+16R	6.2+14R	6.2+13R	6.4+12R	6.6+10R	6.7+9R
	VSC2 @ 4"	q	1322	1319	1317	1316	1314	1313	1312	1311	1111
		F	3.7+24R	3.9+21R	4.1+18R	4.3+16R	4.4+15R	4.5+13R	4.5+12R	4.7+10R	4.8+9R
19	VSC2 @ 24"	q	857	888	796	828	758	789	733	714	700
		F	7.7+15R	7.6+13R	8.5+11R	8.3+10R	9.1+9R	8.8+8R	9.5+7R	9.8+6R	10+5R
	VSC2 @ 12"	q	1226	1204	1187	1173	1162	1153	1145	1133	1123
		F	5.3+16R	5.6+14R	5.8+12R	6+11R	6.1+9R	6.2+9R	6.3+8R	6.4+7R	6.5+6R
	VSC2 @ 8"	q	1458	1470	1434	1446	1418	1430	1408	1400	1394
		F	4.3+16R	4.4+14R	4.7+12R	4.7+11R	4.9+10R	4.9+9R	5.1+8R	5.2+7R	5.2+6R
	VSC2 @ 4"	q	1753	1749	1747	1744	1742	1741	1740	1738	1404
		F	3.1+16R	3.3+14R	3.4+12R	3.5+11R	3.6+10R	3.7+9R	3.7+8R	3.8+7R	3.8+6R
18	VSC2 @ 24"	q	1063	1098	984	1022	935	971	902	877	859
		F	6.4+11R	6.2+9R	6.9+8R	6.7+7R	7.3+6R	7.1+6R	7.6+5R	7.8+4R	7.9+4R
	VSC2 @ 12"	q	1524	1494	1471	1453	1438	1426	1416	1399	1386
		F	4.4+12R	4.6+10R	4.8+9R	4.9+8R	4.9+7R	5+6R	5.1+6R	5.2+5R	5.2+4R
	VSC2 @ 8"	q	1820	1835	1787	1803	1766	1782	1752	1741	1703
		F	3.6+12R	3.7+10R	3.9+9R	3.9+8R	4+7R	4+6R	4.1+6R	4.2+5R	4.3+4R
	VSC2 @ 4"	q	2210	2205	2201	2198	2195	2193	2191	2188	1703
		F	2.7+12R	2.8+10R	2.9+9R	3+8R	3+7R	3.1+6R	3.1+6R	3.2+5R	3.2+4R
16	VSC2 @ 24"	q	1389	1440	1294	1346	1234	1284	1194	1165	1142
		F	5.5+6R	5.3+5R	5.9+4R	5.7+4R	6.2+3R	6+3R	6.4+3R	6.5+2R	6.6+2R
	VSC2 @ 12"	q	1982	1948	1922	1901	1884	1870	1858	1839	1824
		F	3.8+7R	4+6R	4.1+5R	4.1+4R	4.2+4R	4.2+4R	4.3+3R	4.3+3R	4.4+2R
	VSC2 @ 8"	q	2347	2366	2310	2330	2287	2307	2271	2260	2251
		F	3.2+7R	3.2+6R	3.3+5R	3.3+4R	3.4+4R	3.4+4R	3.5+3R	3.5+3R	3.5+2R
	VSC2 @ 4"	q	2800	2794	2790	2787	2784	2782	2780	2777	2381
		F	2.4+7R	2.5+6R	2.5+5R	2.5+5R	2.6+4R	2.6+4R	2.6+3R	2.7+3R	2.7+3R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for side seam fasteners placed at spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

TABLE 26 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE W3-36 FORMLOK™ DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH BUTTON PUNCHES (BP) OR 1½ INCH TOP SEAM WELDS (TSW)[1,2,3,4,5,6]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"
36/4 ARC SPOT WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	186	170	149	140	126	121	111	100	92
		F	17.9+32R	20.1+25R	23+20R	24.8+16R	27.5+13R	29+10R	31.5+8R	35.2+4R	38.6+1R
	BP @ 12"	q	222	201	184	172	162	154	147	136	128
		F	15.9+33R	18+27R	19.9+22R	21.6+19R	23.1+16R	24.6+13R	25.9+11R	28.3+8R	30.3+6R
	TSW @ 24"	q	527	551	498	521	480	500	467	458	451
		F	5+38R	5.1+33R	5.8+29R	5.7+25R	6.3+23R	6.1+21R	6.6+19R	6.8+16R	7+14R
	TSW @ 12"	q	739	730	723	717	712	709	705	700	697
		F	3.4+38R	3.8+33R	4.1+29R	4.3+26R	4.5+23R	4.6+21R	4.7+19R	4.9+16R	5+14R
21	BP @ 24"	q	224	204	179	168	152	146	134	121	111
		F	17.3+23R	19.3+19R	22+14R	23.7+11R	26.2+8R	27.7+6R	30+4R	33.5+1R	36.7-2R
	BP @ 12"	q	267	241	222	207	195	185	177	164	155
		F	15.4+25R	17.3+20R	19.1+16R	20.6+13R	22.1+11R	23.4+9R	24.7+7R	26.9+5R	28.9+3R
	TSW @ 24"	q	615	641	579	605	557	580	541	530	522
		F	5+30R	5+26R	5.6+22R	5.5+20R	6+18R	5.9+16R	6.3+15R	6.5+13R	6.6+11R
	TSW @ 12"	q	866	854	845	838	832	828	823	817	812
		F	3.5+30R	3.8+26R	4+23R	4.2+20R	4.3+18R	4.4+16R	4.5+15R	4.7+13R	4.8+11R
20	BP @ 24"	q	261	239	209	197	177	171	156	141	130
		F	16.7+18R	18.6+14R	21.2+10R	22.8+8R	25.2+5R	26.5+4R	28.8+2R	32.1-1R	35.1-3R
	BP @ 12"	q	313	283	260	243	229	218	208	193	182
		F	14.9+19R	16.7+15R	18.3+12R	19.8+10R	21.2+8R	22.5+6R	23.7+5R	25.8+3R	27.6+1R
	TSW @ 24"	q	701	730	659	687	632	659	614	601	591
		F	5+24R	4.9+21R	5.5+18R	5.4+16R	5.8+14R	5.7+13R	6+12R	6.2+10R	6.3+9R
	TSW @ 12"	q	991	977	966	958	950	945	940	932	926
		F	3.5+24R	3.7+21R	3.9+18R	4.1+16R	4.2+15R	4.3+13R	4.3+12R	4.5+10R	4.5+9R
19	BP @ 24"	q	351	321	281	265	239	230	211	191	176
		F	15.6+11R	17.3+8R	19.6+5R	21.1+3R	23.3+1R	24.5+0R	26.6-2R	29.6-4R	32.4-5R
	BP @ 12"	q	421	381	351	328	309	294	281	261	246
		F	13.9+12R	15.5+9R	17+7R	18.4+5R	19.6+4R	20.8+2R	21.8+1R	23.8+0R	25.5-1R
	TSW @ 24"	q	897	931	838	873	801	834	776	758	744
		F	4.7+16R	4.6+14R	5.1+12R	5+11R	5.4+10R	5.2+9R	5.5+8R	5.7+7R	5.7+6R
	TSW @ 12"	q	1276	1256	1240	1227	1217	1208	1201	1190	1181
		F	3.4+16R	3.5+14R	3.7+12R	3.8+11R	3.9+10R	3.9+9R	4+8R	4.1+7R	4.1+6R
18	BP @ 24"	q	447	410	358	339	305	294	269	244	225
		F	14.7+6R	16.3+4R	18.4+2R	19.8+1R	21.8-1R	22.9-2R	24.9-3R	27.7-5R	30.3-6R
	BP @ 12"	q	539	488	450	420	396	377	361	335	316
		F	13.1+7R	14.6+5R	15.9+4R	17.2+2R	18.3+1R	19.4+0R	20.4+0R	22.2-2R	23.8-3R
	TSW @ 24"	q	1100	1139	1023	1064	975	1014	942	919	901
		F	4.5+12R	4.4+10R	4.8+9R	4.7+8R	5+7R	4.8+6R	5.1+6R	5.2+5R	5.3+4R
	TSW @ 12"	q	1572	1544	1522	1505	1491	1480	1470	1454	1443
		F	3.2+12R	3.3+10R	3.4+9R	3.5+8R	3.6+7R	3.6+6R	3.7+6R	3.7+5R	3.8+4R
16	BP @ 24"	q	587	544	476	455	410	398	365	333	310
		F	13.1+2R	14.5+0R	16.4-1R	17.6-2R	19.4-3R	20.4-4R	22.1-5R	24.6-6R	27-7R
	BP @ 12"	q	730	667	619	582	553	528	508	476	453
		F	11.7+3R	13+1R	14.2+0R	15.3-1R	16.3-1R	17.3-2R	18.1-2R	19.7-3R	21.1-4R
	TSW @ 24"	q	1429	1485	1336	1392	1278	1331	1238	1210	1188
		F	4+6R	3.9+6R	4.2+5R	4.1+4R	4.4+4R	4.2+4R	4.5+3R	4.5+3R	4.6+2R
	TSW @ 12"	q	2032	2000	1975	1955	1939	1926	1915	1897	1883
		F	2.9+7R	3+6R	3+5R	3.1+4R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+3R

1 BP = Button Punch; TSW = Top Seam Weld

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for side seam fasteners placed at spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

TABLE 27 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	567	578	496	515	458	478	435	–	–
		F	-5.1+269R	-1.4+215R	2.4+178R	4+153R	6.5+133R	7.3+118R	9.2+106R		
	VSC2 @ 18"	q	688	675	585	590	594	539	548	–	–
		F	-6.3+270R	-2.5+216R	1.1+179R	2.8+153R	4.1+134R	6.1+119R	6.9+107R		
	VSC2 @ 12"	q	789	759	738	723	711	701	694	–	–
		F	-7.2+270R	-3.4+216R	-0.7+180R	1.2+154R	2.6+135R	3.7+119R	4.7+107R		
	VSC2 @ 8"	q	943	949	908	918	889	899	878	–	–
		F	-8.4+271R	-5+217R	-2.3+180R	-0.7+155R	0.8+135R	1.7+120R	2.6+108R		
	VSC2 @ 6"	q	1048	1034	1024	1017	1011	1007	1001	–	–
		F	-9.2+271R	-5.6+217R	-3.3+181R	-1.6+155R	-0.3+135R	0.7+120R	1.5+108R		
	VSC2 @ 4"	q	1169	1162	1157	1154	1151	1149	1001	–	–
		F	-10.1+271R	-6.6+217R	-4.4+181R	-2.7+155R	-1.5+136R	-0.5+121R	0.3+108R		
20	VSC2 @ 24"	q	777	792	682	708	632	658	601	625	579
		F	-1+170R	1.3+136R	3.9+113R	4.8+96R	6.6+84R	7+75R	8.3+67R	8.4+61R	9.5+55R
	VSC2 @ 18"	q	936	919	801	808	813	741	752	761	709
		F	-2.1+171R	0.3+136R	2.7+113R	3.8+97R	4.6+85R	6+75R	6.4+67R	6.7+61R	7.7+56R
	VSC2 @ 12"	q	1066	1028	1001	981	966	953	943	935	912
		F	-2.9+171R	-0.5+137R	1.2+114R	2.4+97R	3.3+85R	4+76R	4.6+68R	5.1+62R	5.5+57R
	VSC2 @ 8"	q	1259	1265	1216	1227	1192	1205	1178	1085	912
		F	-3.9+171R	-1.8+137R	-0.1+114R	0.9+98R	1.9+86R	2.4+76R	3+68R	3.4+62R	3.8+57R
	VSC2 @ 6"	q	1385	1368	1357	1348	1341	1336	1313	1085	912
		F	-4.6+172R	-2.3+137R	-0.8+114R	0.2+98R	1+86R	1.7+76R	2.2+69R	2.6+62R	2.9+57R
	VSC2 @ 4"	q	1527	1519	1513	1509	1506	1504	1313	1085	912
		F	-5.3+172R	-3.1+137R	-1.7+115R	-0.6+98R	0.2+86R	0.8+76R	1.2+69R	1.6+62R	2+57R
18	VSC2 @ 24"	q	1238	1253	1084	1118	1000	1038	949	985	914
		F	1.4+83R	2.3+66R	3.8+55R	4+47R	5+41R	5.1+37R	5.8+33R	5.7+30R	6.3+27R
	VSC2 @ 18"	q	1471	1441	1262	1269	1274	1163	1178	1190	1110
		F	0.5+83R	1.6+67R	2.9+55R	3.3+47R	3.7+42R	4.4+37R	4.5+33R	4.6+30R	5.2+28R
	VSC2 @ 12"	q	1661	1600	1557	1525	1501	1481	1465	1452	1394
		F	-0.1+84R	1.1+67R	1.9+56R	2.4+48R	2.9+42R	3.2+37R	3.5+33R	3.7+30R	3.9+28R
	VSC2 @ 8"	q	1936	1942	1869	1884	1833	1849	1809	1659	1394
		F	-0.8+84R	0.2+67R	1.1+56R	1.5+48R	2+42R	2.2+37R	2.6+33R	2.7+30R	2.9+28R
	VSC2 @ 6"	q	2114	2088	2070	2057	2047	2038	2007	1659	1394
		F	-1.2+84R	-0.1+67R	0.6+56R	1.1+48R	1.5+42R	1.8+37R	2.1+34R	2.3+31R	2.4+28R
	VSC2 @ 4"	q	2311	2299	2291	2285	2280	2276	2007	1659	1394
		F	-1.6+84R	-0.5+67R	0.2+56R	0.7+48R	1+42R	1.3+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	1606	1635	1418	1469	1317	1370	1254	1304	1211
		F	2.6+47R	3+38R	4.1+31R	4.1+27R	4.9+23R	4.8+21R	5.4+19R	5.2+17R	5.7+15R
	VSC2 @ 18"	q	1912	1880	1654	1667	1677	1534	1557	1575	1472
		F	1.7+47R	2.4+38R	3.3+31R	3.5+27R	3.7+24R	4.2+21R	4.3+19R	4.3+17R	4.7+16R
	VSC2 @ 12"	q	2156	2085	2035	1998	1969	1946	1928	1912	1899
		F	1.2+48R	1.9+38R	2.4+32R	2.7+27R	3+24R	3.2+21R	3.4+19R	3.5+17R	3.6+16R
	VSC2 @ 8"	q	2501	2512	2426	2446	2384	2406	2358	2310	1941
		F	0.7+48R	1.2+38R	1.7+32R	2+27R	2.3+24R	2.4+21R	2.6+19R	2.7+17R	2.8+16R
	VSC2 @ 6"	q	2716	2689	2669	2654	2643	2634	2627	2310	1941
		F	0.3+48R	0.9+38R	1.4+32R	1.7+27R	1.9+24R	2+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	2948	2936	2927	2921	2916	2912	2795	2310	1941
		F	-0.1+48R	0.6+38R	1+32R	1.2+27R	1.5+24R	1.6+21R	1.8+19R	1.9+17R	2+16R

Page 73 has the footnotes.

(continued)

TABLE 27 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	651	649	555	568	501	520	470	–	–
		F	-1.1+189R	1.7+151R	4.6+125R	5.9+107R	7.9+93R	8.6+82R	10.2+74R		
	VSC2 @ 18"	q	776	751	648	647	646	584	590	–	–
		F	-2.1+190R	0.8+151R	3.6+125R	4.9+107R	6+94R	7.6+83R	8.2+74R		
	VSC2 @ 12"	q	886	842	812	789	772	758	747	–	–
		F	-2.8+190R	0.1+152R	2.1+126R	3.5+108R	4.6+94R	5.5+84R	6.2+75R		
	VSC2 @ 8"	q	1060	1059	1006	1013	976	986	958	–	–
		F	-3.8+190R	-1.3+152R	0.7+127R	1.8+109R	3+95R	3.6+84R	4.4+76R		
	VSC2 @ 6"	q	1186	1163	1147	1135	1126	1118	1001	–	–
		F	-4.5+191R	-1.9+152R	-0.2+127R	1.1+109R	2+95R	2.8+85R	3.3+76R		
	VSC2 @ 4"	q	1344	1332	1323	1317	1312	1236	1001	–	–
		F	-5.3+191R	-2.8+153R	-1.1+127R	0+109R	0.9+95R	1.6+85R	2.2+76R		
20	VSC2 @ 24"	q	896	893	766	784	697	719	654	677	625
		F	1.4+119R	3.1+95R	5.2+79R	5.9+67R	7.4+58R	7.7+52R	8.9+46R	9+42R	10+38R
	VSC2 @ 18"	q	1063	1029	892	890	889	806	814	820	762
		F	0.5+120R	2.3+96R	4.3+79R	5.1+68R	5.7+59R	6.9+52R	7.2+47R	7.5+43R	8.3+39R
	VSC2 @ 12"	q	1207	1150	1110	1080	1057	1039	1025	1012	912
		F	-0.2+120R	1.7+96R	3+80R	3.9+68R	4.6+60R	5.2+53R	5.6+48R	6+43R	6.3+40R
	VSC2 @ 8"	q	1431	1429	1362	1371	1324	1336	1300	1085	912
		F	-1+120R	0.5+96R	1.8+80R	2.5+69R	3.3+60R	3.7+53R	4.2+48R	4.4+44R	4.8+40R
	VSC2 @ 6"	q	1589	1560	1540	1525	1514	1504	1313	1085	912
		F	-1.6+121R	0+96R	1.1+80R	1.9+69R	2.5+60R	3+54R	3.3+48R	3.6+44R	3.9+40R
	VSC2 @ 4"	q	1781	1767	1756	1749	1743	1621	1313	1085	912
		F	-2.2+121R	-0.7+97R	0.4+81R	1.1+69R	1.7+60R	2.1+54R	2.5+48R	2.7+44R	3+40R
18	VSC2 @ 24"	q	1443	1429	1229	1250	1114	1144	1042	1074	994
		F	2.6+58R	3.3+46R	4.5+38R	4.6+33R	5.5+29R	5.5+25R	6.2+23R	6.1+21R	6.6+19R
	VSC2 @ 18"	q	1693	1634	1420	1413	1408	1278	1287	1295	1203
		F	1.8+59R	2.6+47R	3.7+39R	4+33R	4.3+29R	4.9+26R	5+23R	5.1+21R	5.5+19R
	VSC2 @ 12"	q	1907	1815	1750	1701	1663	1633	1609	1589	1394
		F	1.3+59R	2.2+47R	2.8+39R	3.2+33R	3.5+29R	3.8+26R	4+23R	4.2+21R	4.3+19R
	VSC2 @ 8"	q	2238	2231	2127	2138	2066	2082	2007	1659	1394
		F	0.7+59R	1.4+47R	2+39R	2.3+34R	2.7+29R	2.9+26R	3.1+24R	3.2+21R	3.4+20R
	VSC2 @ 6"	q	2471	2425	2393	2369	2350	2335	2007	1659	1394
		F	0.3+59R	1.1+47R	1.6+39R	2+34R	2.3+29R	2.5+26R	2.7+24R	2.8+21R	2.9+20R
	VSC2 @ 4"	q	2752	2729	2712	2700	2690	2478	2007	1659	1394
		F	-0.1+59R	0.7+47R	1.2+39R	1.5+34R	1.8+30R	2+26R	2.2+24R	2.3+21R	2.4+20R
16	VSC2 @ 24"	q	1864	1859	1603	1638	1462	1506	1374	1420	1315
		F	3.1+33R	3.5+26R	4.4+22R	4.4+19R	5.1+16R	5+14R	5.5+13R	5.4+12R	5.8+11R
	VSC2 @ 18"	q	2196	2130	1856	1854	1852	1684	1700	1713	1594
		F	2.4+33R	2.9+27R	3.7+22R	3.9+19R	4+16R	4.5+14R	4.5+13R	4.5+12R	4.9+11R
	VSC2 @ 12"	q	2474	2365	2288	2230	2185	2150	2121	2097	1941
		F	2+33R	2.5+27R	2.9+22R	3.2+19R	3.4+17R	3.5+15R	3.6+13R	3.8+12R	3.8+11R
	VSC2 @ 8"	q	2895	2892	2768	2785	2697	2720	2653	2310	1941
		F	1.5+34R	1.9+27R	2.3+22R	2.4+19R	2.7+17R	2.7+15R	2.9+13R	3+12R	3.1+11R
	VSC2 @ 6"	q	3182	3131	3095	3068	3047	3030	2795	2310	1941
		F	1.1+34R	1.6+27R	1.9+22R	2.1+19R	2.3+17R	2.4+15R	2.5+13R	2.6+12R	2.7+11R
	VSC2 @ 4"	q	3518	3493	3475	3462	3452	3444	2795	2310	1941
		F	0.8+34R	1.2+27R	1.5+22R	1.7+19R	1.9+17R	2+15R	2.1+13R	2.2+12R	2.3+11R

Page 73 has the footnotes.

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TABLE 27 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	651	653	543	561	487	510	459	–	–
		F	9.3+27R	10+21R	11.8+16R	12.1+14R	13.5+11R	13.5+10R	14.7+8R		
	VSC2 @ 18"	q	796	770	655	657	658	587	598	–	–
		F	8.2+28R	9+22R	10.6+17R	11+14R	11.3+12R	12.4+10R	12.5+9R		
	VSC2 @ 12"	q	929	880	846	821	802	788	776	–	–
		F	7.4+28R	8.3+22R	8.9+18R	9.5+15R	9.9+13R	10.2+11R	10.5+10R		
	VSC2 @ 8"	q	1159	1161	1091	1103	1056	1069	1001	–	–
		F	6.3+29R	6.8+23R	7.5+19R	7.7+16R	8.1+14R	8.2+12R	8.5+11R		
	VSC2 @ 6"	q	1343	1311	1289	1273	1261	1236	1001	–	–
		F	5.6+29R	6.2+23R	6.6+19R	6.9+17R	7.1+14R	7.3+13R	7.4+11R		
	VSC2 @ 4"	q	1601	1581	1568	1558	1550	1236	1001	–	–
		F	4.7+30R	5.2+24R	5.5+20R	5.7+17R	5.9+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	902	906	764	789	687	715	643	673	617
		F	8.1+17R	8.5+13R	9.8+10R	9.9+8R	11+6R	10.9+6R	11.8+5R	11.6+4R	12.4+3R
	VSC2 @ 18"	q	1100	1066	908	910	911	819	829	838	774
		F	7+17R	7.6+13R	8.8+10R	9+9R	9.1+8R	10+6R	10+6R	10+5R	10.7+4R
	VSC2 @ 12"	q	1281	1214	1168	1135	1109	1089	1073	1059	912
		F	6.3+18R	6.9+14R	7.3+11R	7.7+10R	7.9+8R	8.1+7R	8.3+6R	8.4+6R	8.6+5R
	VSC2 @ 8"	q	1589	1592	1499	1514	1451	1469	1313	1085	912
		F	5.4+18R	5.6+15R	6.1+12R	6.2+10R	6.5+9R	6.5+8R	6.8+7R	6.8+6R	6.9+6R
	VSC2 @ 6"	q	1831	1790	1761	1740	1724	1621	1313	1085	912
		F	4.8+19R	5.1+15R	5.4+12R	5.6+10R	5.7+9R	5.8+8R	5.9+7R	6+7R	6+6R
	VSC2 @ 4"	q	2164	2139	2122	2109	2052	1621	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.7+11R	4.8+9R	4.9+8R	5+7R	5+7R	5.1+6R
18	VSC2 @ 24"	q	1462	1457	1235	1264	1116	1153	1037	1079	989
		F	5.9+8R	5.9+6R	6.7+5R	6.6+4R	7.2+3R	7+3R	7.6+2R	7.3+2R	7.8+2R
	VSC2 @ 18"	q	1768	1704	1454	1451	1449	1303	1317	1328	1226
		F	5+8R	5.2+7R	5.9+5R	5.9+4R	5.9+4R	6.4+3R	6.3+3R	6.3+3R	6.7+2R
	VSC2 @ 12"	q	2047	1934	1857	1800	1757	1723	1695	1659	1394
		F	4.5+9R	4.7+7R	4.9+6R	5+5R	5.1+4R	5.2+4R	5.3+3R	5.3+3R	5.4+3R
	VSC2 @ 8"	q	2522	2519	2370	2390	2289	2314	2007	1659	1394
		F	3.8+9R	3.9+7R	4.1+6R	4.1+5R	4.3+4R	4.3+4R	4.4+4R	4.4+3R	4.4+3R
	VSC2 @ 6"	q	2896	2826	2777	2741	2713	2478	2007	1659	1394
		F	3.4+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	3411	3369	3339	3318	3136	2478	2007	1659	1394
		F	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1897	1906	1618	1665	1472	1526	1383	1436	1320
		F	5+4R	5+3R	5.7+2R	5.5+2R	6.1+1R	5.9+1R	6.4+1R	6.2+1R	6.5+1R
	VSC2 @ 18"	q	2307	2236	1911	1915	1918	1727	1749	1766	1632
		F	4.3+5R	4.4+4R	5+3R	5+2R	5+2R	5.4+2R	5.3+1R	5.2+1R	5.6+1R
	VSC2 @ 12"	q	2676	2541	2447	2378	2326	2285	2252	2224	1941
		F	3.8+5R	4+4R	4.1+3R	4.2+3R	4.3+2R	4.4+2R	4.4+2R	4.4+2R	4.5+1R
	VSC2 @ 8"	q	3293	3298	3114	3145	3019	3055	2795	2310	1941
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+2R	3.6+2R	3.6+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	3767	3686	3630	3589	3558	3451	2795	2310	1941
		F	2.9+5R	3+4R	3.1+3R	3.1+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	4398	4352	4319	4296	4278	3451	2795	2310	1941
		F	2.6+5R	2.6+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

Page 73 has the footnotes.

(continued)

TABLE 27 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	700	693	581	594	516	535	482	–	–
		F	8+28R	8.9+22R	10.4+18R	10.8+15R	12+12R	12.2+11R	13.3+9R		
	VSC2 @ 18"	q	842	808	688	685	682	613	618	–	–
		F	7.2+29R	8.1+23R	9.5+18R	10+15R	10.3+13R	11.3+11R	11.5+10R		
	VSC2 @ 12"	q	971	914	875	847	825	808	794	–	–
		F	6.6+29R	7.6+23R	8.2+19R	8.8+16R	9.2+14R	9.5+12R	9.8+11R		
	VSC2 @ 8"	q	1193	1188	1116	1123	1074	1085	1001	–	–
		F	5.8+30R	6.4+24R	7+19R	7.3+17R	7.7+14R	7.8+13R	8.2+11R		
	VSC2 @ 6"	q	1370	1334	1309	1290	1276	1236	1001	–	–
		F	5.2+30R	5.8+24R	6.3+20R	6.6+17R	6.8+15R	7+13R	7.2+12R		
	VSC2 @ 4"	q	1617	1595	1579	1568	1559	1236	1001	–	–
		F	4.5+30R	5+24R	5.4+20R	5.6+17R	5.8+15R	5.9+13R	6.1+12R		
20	VSC2 @ 24"	q	970	960	815	830	727	751	676	703	644
		F	7.1+18R	7.6+14R	8.8+11R	9+9R	10+8R	10+7R	10.8+6R	10.7+5R	11.5+4R
	VSC2 @ 18"	q	1162	1116	953	949	945	850	857	863	797
		F	6.3+18R	6.9+14R	8+11R	8.2+10R	8.5+8R	9.2+7R	9.3+6R	9.4+6R	10+5R
	VSC2 @ 12"	q	1337	1261	1208	1170	1140	1117	1098	1082	912
		F	5.8+18R	6.4+14R	6.8+12R	7.2+10R	7.5+9R	7.7+8R	7.9+7R	8.1+6R	8.2+6R
	VSC2 @ 8"	q	1634	1627	1531	1541	1476	1491	1313	1085	912
		F	5+19R	5.4+15R	5.8+12R	6+10R	6.3+9R	6.3+8R	6.5+7R	6.6+7R	6.7+6R
	VSC2 @ 6"	q	1866	1819	1786	1762	1743	1621	1313	1085	912
		F	4.6+19R	4.9+15R	5.2+12R	5.4+11R	5.6+9R	5.7+8R	5.8+7R	5.9+7R	5.9+6R
	VSC2 @ 4"	q	2184	2156	2137	2122	2052	1621	1313	1085	912
		F	4+19R	4.3+15R	4.5+13R	4.6+11R	4.8+9R	4.9+8R	4.9+8R	5+7R	5+6R
18	VSC2 @ 24"	q	1575	1548	1315	1333	1179	1208	1092	1127	1035
		F	5.3+8R	5.5+7R	6.2+5R	6.1+4R	6.8+4R	6.6+3R	7.1+3R	7+3R	7.4+2R
	VSC2 @ 18"	q	1872	1789	1530	1517	1507	1356	1364	1371	1266
		F	4.7+9R	4.9+7R	5.5+6R	5.6+5R	5.6+4R	6.1+3R	6.1+3R	6+3R	6.4+3R
	VSC2 @ 12"	q	2141	2013	1924	1859	1809	1770	1738	1659	1394
		F	4.2+9R	4.5+7R	4.7+6R	4.8+5R	5+4R	5.1+4R	5.1+3R	5.2+3R	5.2+3R
	VSC2 @ 8"	q	2596	2579	2424	2436	2331	2352	2007	1659	1394
		F	3.7+9R	3.8+7R	4+6R	4+5R	4.2+5R	4.2+4R	4.3+4R	4.3+3R	4.4+3R
	VSC2 @ 6"	q	2954	2875	2820	2778	2747	2478	2007	1659	1394
		F	3.3+9R	3.5+7R	3.6+6R	3.7+5R	3.8+5R	3.8+4R	3.9+4R	3.9+3R	3.9+3R
	VSC2 @ 4"	q	3446	3398	3365	3340	3136	2478	2007	1659	1394
		F	2.9+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.3+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	2037	2018	1717	1749	1548	1593	1445	1492	1376
		F	4.6+5R	4.7+4R	5.3+3R	5.2+2R	5.7+2R	5.6+2R	6+1R	5.9+1R	6.2+1R
	VSC2 @ 18"	q	2434	2340	2005	1996	1989	1792	1807	1819	1682
		F	4+5R	4.2+4R	4.7+3R	4.7+3R	4.7+2R	5.1+2R	5.1+2R	5.1+1R	5.4+1R
	VSC2 @ 12"	q	2789	2635	2529	2450	2390	2342	2304	2272	1941
		F	3.6+5R	3.8+4R	4+3R	4.1+3R	4.2+2R	4.2+2R	4.3+2R	4.3+2R	4.4+2R
	VSC2 @ 8"	q	3381	3369	3178	3199	3069	3098	2795	2310	1941
		F	3.1+5R	3.2+4R	3.4+3R	3.4+3R	3.5+3R	3.5+2R	3.6+2R	3.6+2R	3.6+2R
	VSC2 @ 6"	q	3833	3743	3679	3632	3596	3451	2795	2310	1941
		F	2.9+5R	3+4R	3+3R	3.1+3R	3.1+3R	3.2+2R	3.2+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	4436	4384	4347	4320	4300	3451	2795	2310	1941
		F	2.5+5R	2.6+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexiblity factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

8 Table 21F of this report shall be referenced for adjustment factors when using acoustical deck profiles.

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ATTACHMENT PATTERN FOR HILTI X-EDNK22 OR X-HSN 24 AT SUPPORTS EQUAL TO OR GREATER THAN 1/8" AND LESS THAN 3/16" THICK											
22	VSC2 @ 24"	q	467	486	436	457	420	439	409	–	–
		F	-4.7+269R	-1.1+215R	2.8+178R	4.3+153R	6.9+133R	7.6+118R	9.6+106R		
	VSC2 @ 18"	q	543	544	498	506	512	481	489	–	–
		F	-6+270R	-2.3+216R	1.4+179R	3.1+153R	4.4+134R	6.4+119R	7.1+107R		
	VSC2 @ 12"	q	592	585	579	575	572	570	568	–	–
		F	-7+270R	-3.2+216R	-0.6+180R	1.3+154R	2.8+135R	3.9+120R	4.8+107R		
	VSC2 @ 8"	q	648	652	642	646	638	642	636	–	–
		F	-8.3+271R	-4.9+217R	-2.2+180R	-0.7+155R	0.8+135R	1.7+120R	2.7+108R		
	VSC2 @ 6"	q	675	673	672	671	670	670	669	–	–
		F	-9.1+271R	-5.6+217R	-3.2+181R	-1.5+155R	-0.2+135R	0.7+120R	1.5+108R		
	VSC2 @ 4"	q	699	699	698	698	697	697	697	–	–
		F	-10+271R	-6.6+217R	-4.3+181R	-2.7+155R	-1.4+136R	-0.5+121R	0.3+109R		
20	VSC2 @ 24"	q	612	639	577	604	558	583	546	568	538
		F	-0.7+170R	1.5+136R	4.2+113R	5+96R	6.9+84R	7.2+75R	8.6+67R	8.6+61R	9.8+55R
	VSC2 @ 18"	q	707	710	655	666	674	636	646	654	626
		F	-1.9+171R	0.4+136R	2.9+113R	3.9+97R	4.7+85R	6.1+75R	6.5+68R	6.8+61R	7.8+56R
	VSC2 @ 12"	q	766	758	753	749	745	743	741	739	737
		F	-2.8+171R	-0.3+137R	1.3+114R	2.5+97R	3.4+85R	4.1+76R	4.7+68R	5.2+62R	5.6+57R
	VSC2 @ 8"	q	830	835	824	829	821	825	819	823	817
		F	-3.9+171R	-1.7+137R	0+114R	0.9+98R	1.9+86R	2.4+76R	3.1+68R	3.4+62R	3.9+57R
	VSC2 @ 6"	q	861	859	858	857	856	855	855	855	854
		F	-4.5+172R	-2.3+137R	-0.8+114R	0.3+98R	1.1+86R	1.7+76R	2.2+69R	2.6+62R	2.9+57R
	VSC2 @ 4"	q	887	886	886	886	885	885	885	885	885
		F	-5.3+172R	-3.1+137R	-1.6+115R	-0.6+98R	0.2+86R	0.8+76R	1.3+69R	1.7+62R	2+57R
18	VSC2 @ 24"	q	759	791	734	764	720	747	711	735	705
		F	1.6+83R	2.4+66R	3.9+55R	4.1+47R	5.1+41R	5.1+37R	5.9+33R	5.8+30R	6.4+27R
	VSC2 @ 18"	q	849	854	809	821	829	797	807	815	791
		F	0.6+83R	1.7+67R	3+55R	3.4+47R	3.7+42R	4.5+37R	4.6+33R	4.7+30R	5.2+28R
	VSC2 @ 12"	q	898	894	890	888	887	885	884	883	882
		F	0+84R	1.1+67R	1.9+56R	2.5+48R	2.9+42R	3.2+37R	3.5+33R	3.7+30R	3.9+28R
	VSC2 @ 8"	q	944	948	941	945	940	943	939	941	938
		F	-0.7+84R	0.3+67R	1.1+56R	1.5+48R	2+42R	2.3+37R	2.6+34R	2.7+30R	2.9+28R
	VSC2 @ 6"	q	964	963	963	962	962	962	961	961	961
		F	-1.1+84R	-0.1+67R	0.6+56R	1.2+48R	1.5+42R	1.8+37R	2.1+34R	2.3+31R	2.4+28R
	VSC2 @ 4"	q	980	980	980	979	979	979	979	979	979
		F	-1.6+84R	-0.5+67R	0.2+56R	0.7+48R	1+42R	1.3+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	830	859	814	840	805	828	800	820	796
		F	2.7+47R	3.1+38R	4.2+31R	4.2+27R	4.9+23R	4.9+21R	5.4+19R	5.3+17R	5.8+15R
	VSC2 @ 18"	q	901	906	874	884	890	867	875	881	864
		F	1.8+47R	2.4+38R	3.4+31R	3.6+27R	3.7+24R	4.3+21R	4.3+19R	4.4+17R	4.8+16R
	VSC2 @ 12"	q	935	933	932	930	930	929	928	928	928
		F	1.3+48R	2+38R	2.4+32R	2.8+27R	3+24R	3.2+21R	3.4+19R	3.5+17R	3.6+16R
	VSC2 @ 8"	q	965	968	964	966	963	965	963	964	962
		F	0.7+48R	1.2+38R	1.7+32R	2+27R	2.3+24R	2.4+21R	2.6+19R	2.7+17R	2.8+16R
	VSC2 @ 6"	q	977	977	977	976	976	976	976	976	976
		F	0.3+48R	0.9+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	986	986	986	986	986	986	986	986	986
		F	0+48R	0.6+38R	1+32R	1.2+27R	1.5+24R	1.6+21R	1.8+19R	1.9+17R	2+16R

Page 84 has the footnotes.

(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ATTACHMENT PATTERN FOR HILTI X-EDNK22 OR X-HSN 24 AT SUPPORTS EQUAL TO OR GREATER THAN 1/8" AND LESS THAN 3/16" THICK											
22	VSC2 @ 24"	q	579	605	523	551	493	519	475	–	–
		F	9.6+27R	10.4+21R	12.2+16R	12.4+14R	13.9+11R	13.8+10R	15.1+8R		
	VSC2 @ 18"	q	712	710	622	634	642	587	599	–	–
		F	8.4+28R	9.3+22R	10.9+17R	11.3+14R	11.5+12R	12.7+10R	12.8+9R		
	VSC2 @ 12"	q	818	797	782	771	763	756	751	–	–
		F	7.6+28R	8.5+22R	9.1+18R	9.6+15R	10+13R	10.3+11R	10.6+10R		
	VSC2 @ 8"	q	965	975	943	954	932	942	924	–	–
		F	6.4+29R	6.9+23R	7.6+19R	7.7+16R	8.2+14R	8.3+12R	8.6+11R		
	VSC2 @ 6"	q	1056	1048	1042	1038	1035	1032	1001	–	–
		F	5.7+29R	6.2+23R	6.6+19R	6.9+17R	7.1+14R	7.3+13R	7.4+11R		
	VSC2 @ 4"	q	1150	1147	1145	1143	1141	1140	1001	–	–
		F	4.7+30R	5.2+24R	5.5+20R	5.8+17R	5.9+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	768	807	700	740	664	700	642	674	627
		F	8.3+16R	8.7+13R	10.1+10R	10.1+8R	11.3+6R	11.1+6R	12.1+5R	11.8+4R	12.7+3R
	VSC2 @ 18"	q	943	943	832	849	862	790	807	821	769
		F	7.2+17R	7.7+13R	9+10R	9.1+9R	9.3+8R	10.1+6R	10.1+6R	10.1+5R	10.8+4R
	VSC2 @ 12"	q	1078	1054	1037	1025	1015	1008	1002	997	912
		F	6.4+18R	7+14R	7.5+11R	7.8+10R	8+8R	8.2+7R	8.4+6R	8.5+6R	8.6+5R
	VSC2 @ 8"	q	1259	1273	1236	1249	1223	1236	1215	1085	912
		F	5.4+18R	5.7+15R	6.2+12R	6.3+10R	6.6+9R	6.6+8R	6.8+7R	6.8+6R	7+6R
	VSC2 @ 6"	q	1366	1357	1351	1347	1344	1341	1313	1085	912
		F	4.8+19R	5.2+15R	5.4+12R	5.6+10R	5.7+9R	5.8+8R	5.9+7R	6+7R	6.1+6R
	VSC2 @ 4"	q	1473	1469	1467	1465	1464	1463	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.7+11R	4.8+9R	4.9+8R	5+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1004	1066	944	1001	912	962	892	936	879
		F	6+8R	6+6R	6.8+5R	6.7+4R	7.3+3R	7.1+3R	7.7+2R	7.4+2R	7.9+2R
	VSC2 @ 18"	q	1211	1221	1104	1129	1148	1070	1093	1110	1053
		F	5.1+8R	5.3+7R	6+5R	6+4R	6+4R	6.4+3R	6.4+3R	6.3+3R	6.7+2R
	VSC2 @ 12"	q	1351	1334	1323	1314	1308	1303	1299	1295	1292
		F	4.5+9R	4.8+7R	4.9+6R	5.1+5R	5.2+4R	5.2+4R	5.3+3R	5.4+3R	5.4+3R
	VSC2 @ 8"	q	1512	1526	1499	1511	1492	1503	1487	1497	1394
		F	3.8+9R	3.9+7R	4.1+6R	4.1+5R	4.3+4R	4.3+4R	4.4+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	1594	1590	1587	1585	1583	1582	1581	1580	1394
		F	3.4+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	1667	1665	1664	1664	1663	1663	1662	1659	1394
		F	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1162	1232	1116	1178	1091	1145	1076	1123	1066
		F	5.2+4R	5.1+3R	5.8+2R	5.6+2R	6.2+1R	6+1R	6.4+1R	6.2+1R	6.6+1R
	VSC2 @ 18"	q	1360	1375	1273	1300	1319	1250	1273	1290	1238
		F	4.4+5R	4.5+4R	5.1+3R	5+2R	5+2R	5.4+2R	5.3+1R	5.3+1R	5.6+1R
	VSC2 @ 12"	q	1478	1469	1462	1457	1454	1451	1448	1446	1445
		F	3.9+5R	4+4R	4.2+3R	4.3+3R	4.3+2R	4.4+2R	4.4+2R	4.5+2R	4.5+1R
	VSC2 @ 8"	q	1599	1610	1592	1601	1588	1596	1586	1593	1585
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+2R	3.6+2R	3.6+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	1653	1651	1650	1649	1648	1648	1647	1647	1646
		F	2.9+5R	3+4R	3.1+3R	3.2+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	1699	1698	1697	1697	1697	1697	1696	1696	1696
		F	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

Page 84 has the footnotes.

(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ATTACHMENT PATTERN FOR HILTI X-EDNK22 OR X-HSN 24 AT SUPPORTS EQUAL TO OR GREATER THAN 1/8" AND LESS THAN 3/16" THICK											
22	VSC2 @ 24"	q	607	627	543	568	509	533	488	–	–
		F	8.3+28R	9.2+22R	10.7+18R	11.1+15R	12.4+12R	12.5+11R	13.6+9R		
	VSC2 @ 18"	q	734	728	639	648	655	599	610	–	–
		F	7.5+29R	8.4+23R	9.8+18R	10.2+15R	10.6+13R	11.6+11R	11.8+10R		
	VSC2 @ 12"	q	835	811	795	782	773	765	759	–	–
		F	6.8+29R	7.7+23R	8.4+19R	8.9+16R	9.4+14R	9.7+12R	10+11R		
	VSC2 @ 8"	q	976	983	951	961	938	947	929	–	–
		F	5.9+30R	6.5+24R	7.1+19R	7.4+17R	7.8+14R	7.9+13R	8.3+11R		
	VSC2 @ 6"	q	1062	1053	1047	1042	1039	1036	1001	–	–
		F	5.3+30R	5.9+24R	6.3+20R	6.7+17R	6.9+15R	7.1+13R	7.2+12R		
	VSC2 @ 4"	q	1153	1149	1147	1145	1143	1142	1001	–	–
		F	4.6+30R	5.1+24R	5.4+20R	5.6+17R	5.8+15R	6+13R	6.1+12R		
20	VSC2 @ 24"	q	802	833	725	760	683	717	658	688	640
		F	7.3+18R	7.8+14R	9.1+11R	9.2+9R	10.2+8R	10.2+7R	11.1+6R	11+5R	11.7+4R
	VSC2 @ 18"	q	969	964	853	866	877	805	820	832	780
		F	6.5+18R	7.1+14R	8.2+11R	8.4+10R	8.6+8R	9.4+7R	9.5+6R	9.5+6R	10.2+5R
	VSC2 @ 12"	q	1098	1071	1052	1038	1027	1018	1011	1006	912
		F	5.9+18R	6.5+14R	7+12R	7.3+10R	7.6+9R	7.8+8R	8+7R	8.2+6R	8.3+6R
	VSC2 @ 8"	q	1271	1281	1244	1256	1230	1241	1221	1085	912
		F	5.1+19R	5.4+15R	5.9+12R	6+10R	6.3+9R	6.4+8R	6.6+7R	6.6+7R	6.8+6R
	VSC2 @ 6"	q	1373	1363	1357	1352	1348	1345	1313	1085	912
		F	4.6+19R	5+15R	5.3+12R	5.5+11R	5.6+9R	5.7+8R	5.8+7R	5.9+7R	6+6R
	VSC2 @ 4"	q	1476	1472	1469	1467	1466	1464	1313	1085	912
		F	4+19R	4.3+15R	4.5+13R	4.7+11R	4.8+9R	4.9+8R	4.9+8R	5+7R	5.1+6R
18	VSC2 @ 24"	q	1034	1087	966	1018	929	976	906	948	890
		F	5.5+8R	5.6+7R	6.3+5R	6.3+4R	6.9+4R	6.7+3R	7.2+3R	7.1+3R	7.5+2R
	VSC2 @ 18"	q	1231	1237	1121	1143	1159	1082	1103	1119	1062
		F	4.8+9R	5+7R	5.6+6R	5.7+5R	5.7+4R	6.2+4R	6.1+3R	6.1+3R	6.5+3R
	VSC2 @ 12"	q	1364	1346	1333	1323	1316	1310	1305	1301	1298
		F	4.3+9R	4.6+7R	4.7+6R	4.9+5R	5+4R	5.1+4R	5.2+3R	5.2+3R	5.3+3R
	VSC2 @ 8"	q	1519	1531	1504	1515	1495	1506	1490	1500	1394
		F	3.7+9R	3.8+7R	4+6R	4.1+5R	4.2+5R	4.2+4R	4.3+4R	4.3+3R	4.4+3R
	VSC2 @ 6"	q	1597	1593	1589	1587	1585	1583	1582	1581	1394
		F	3.3+9R	3.5+7R	3.6+6R	3.7+5R	3.8+5R	3.8+4R	3.9+4R	3.9+3R	3.9+3R
	VSC2 @ 4"	q	1668	1666	1665	1664	1664	1663	1663	1659	1394
		F	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1184	1247	1132	1191	1104	1156	1087	1132	1075
		F	4.7+5R	4.8+4R	5.4+3R	5.3+2R	5.8+2R	5.7+2R	6.1+1R	5.9+1R	6.3+1R
	VSC2 @ 18"	q	1373	1385	1285	1309	1327	1258	1280	1296	1244
		F	4.1+5R	4.2+4R	4.8+3R	4.8+3R	4.8+2R	5.2+2R	5.1+2R	5.1+2R	5.4+1R
	VSC2 @ 12"	q	1486	1476	1468	1462	1458	1455	1452	1450	1448
		F	3.7+5R	3.9+4R	4+3R	4.1+3R	4.2+2R	4.3+2R	4.3+2R	4.4+2R	4.4+2R
	VSC2 @ 8"	q	1602	1612	1594	1603	1590	1598	1588	1594	1586
		F	3.2+5R	3.2+4R	3.4+3R	3.4+3R	3.5+3R	3.5+2R	3.6+2R	3.6+2R	3.6+2R
	VSC2 @ 6"	q	1655	1653	1651	1650	1649	1648	1648	1647	1647
		F	2.9+5R	3+4R	3.1+3R	3.1+3R	3.1+3R	3.2+2R	3.2+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	1699	1698	1698	1697	1697	1697	1697	1697	1696
		F	2.5+5R	2.6+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

Page 84 has the footnotes.

(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/9 ATTACHMENT PATTERN FOR HILTI X-EDNK22 OR X-HSN 24 AT SUPPORTS EQUAL TO OR GREATER THAN 1/8" AND LESS THAN 3/16" THICK											
22	VSC2 @ 24"	q	762	759	655	668	596	614	560	–	–
		F	6.8+29R	7.7+23R	9+18R	9.5+15R	10.5+13R	10.8+11R	11.8+9R		
	VSC2 @ 18"	q	896	868	757	755	754	686	692	–	–
		F	6.3+29R	7.2+23R	8.4+18R	8.9+16R	9.3+13R	10.2+11R	10.5+10R		
	VSC2 @ 12"	q	1007	963	931	907	889	874	862	–	–
		F	5.9+29R	6.8+23R	7.5+19R	8+16R	8.5+14R	8.8+12R	9.2+11R		
	VSC2 @ 8"	q	1177	1175	1124	1131	1095	1104	1001	–	–
		F	5.3+30R	5.9+24R	6.6+19R	6.9+17R	7.3+14R	7.5+13R	7.8+11R		
	VSC2 @ 6"	q	***1292**	***1271**	***1256**	***1245**	***1237**	***1230**	1001	–	–
		F	4.9+30R	5.5+24R	6+20R	6.3+17R	6.6+15R	6.8+13R	6.9+12R		
	VSC2 @ 4"	q	***1427**	***1417**	***1409**	***1404**	***1400**	***1236**	1001	–	–
		F	4.3+30R	4.8+24R	5.2+20R	5.4+17R	5.7+15R	5.8+13R	5.9+12R		
20	VSC2 @ 24"	q	999	1002	867	890	796	823	752	778	722
		F	6.1+18R	6.7+14R	7.7+11R	8+9R	8.9+8R	9+7R	9.8+6R	9.8+5R	10.4+4R
	VSC2 @ 18"	q	1177	1147	1005	1006	1008	919	929	937	874
		F	5.6+18R	6.3+14R	7.2+11R	7.5+10R	7.8+8R	8.5+7R	8.6+6R	8.7+6R	9.3+5R
	VSC2 @ 12"	q	1322	1270	1233	1205	1184	1167	1153	1085	912
		F	5.3+18R	5.9+14R	6.3+12R	6.7+10R	7+9R	7.2+8R	7.5+7R	7.6+6R	7.8+5R
	VSC2 @ 8"	q	***1536**	***1537**	1477	1487	1445	1457	1313	1085	912
		F	4.7+19R	5.1+15R	5.5+12R	5.7+10R	6+9R	6.1+8R	6.3+7R	6.4+6R	6.5+6R
	VSC2 @ 6"	q	***1676**	***1653**	***1637**	***1625**	***1616**	***1609**	1313	1085	912
		F	4.3+19R	4.7+15R	5+12R	5.2+11R	5.4+9R	5.5+8R	5.6+7R	5.7+7R	5.8+6R
	VSC2 @ 4"	q	***1834**	***1823**	***1816**	***1810**	***1806**	***1621**	1313	1085	912
		F	3.8+19R	4.2+15R	4.4+13R	4.5+11R	4.7+9R	4.8+8R	4.9+8R	4.9+7R	5+6R
18	VSC2 @ 24"	q	1257	1291	1135	1181	1068	1113	1026	1068	998
		F	4.8+8R	5+7R	5.7+5R	5.7+4R	6.2+4R	6.2+3R	6.7+3R	6.6+2R	7+2R
	VSC2 @ 18"	q	1481	1468	1313	1328	1339	1238	1257	1273	1198
		F	4.3+9R	4.6+7R	5.2+5R	5.3+5R	5.3+4R	5.8+3R	5.8+3R	5.8+3R	6.1+2R
	VSC2 @ 12"	q	1647	1607	1579	1558	1542	1529	1518	1510	1394
		F	4+9R	4.3+7R	4.5+6R	4.6+5R	4.8+4R	4.9+4R	5+3R	5+3R	5.1+3R
	VSC2 @ 8"	q	***1860**	***1870**	***1823**	***1836**	***1802**	***1816**	***1789**	1659	1394
		F	3.5+9R	3.7+7R	3.9+6R	3.9+5R	4.1+4R	4.1+4R	4.2+4R	4.2+3R	4.3+3R
	VSC2 @ 6"	q	***1981**	***1968**	***1959**	***1952**	***1947**	***1943**	***1940**	1659	1394
		F	3.2+9R	3.4+7R	3.5+6R	3.6+5R	3.7+5R	3.8+4R	3.8+4R	3.8+3R	3.9+3R
	VSC2 @ 4"	q	***2100**	***2095**	***2091**	***2089**	***2087**	***2085**	***2007**	1659	1394
		F	2.9+9R	3+7R	3.1+6R	3.2+5R	3.3+5R	3.3+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1426	1481	1327	1387	1272	1328	1237	1288	1214
		F	4.2+5R	4.3+4R	4.8+3R	4.8+2R	5.3+2R	5.2+2R	5.6+1R	5.5+1R	5.9+1R
	VSC2 @ 18"	q	1659	1659	1516	1540	1557	1460	1484	1502	1430
		F	3.7+5R	3.9+4R	4.4+3R	4.5+2R	4.5+2R	4.9+2R	4.9+2R	4.9+1R	5.1+1R
	VSC2 @ 12"	q	***1813**	***1787**	***1769**	***1756**	***1745**	***1737**	***1730**	***1724**	***1719**
		F	3.4+5R	3.6+4R	3.8+3R	3.9+3R	4+2R	4.1+2R	4.2+2R	4.2+2R	4.3+1R
	VSC2 @ 8"	q	***1988**	***2000**	***1968**	***1980**	***1956**	***1968**	***1949**	***1960**	***1941**
		F	3+5R	3.1+4R	3.3+3R	3.3+3R	3.4+2R	3.4+2R	3.5+2R	3.5+2R	3.6+2R
	VSC2 @ 6"	q	***2077**	***2070**	***2066**	***2063**	***2060**	***2058**	***2056**	***2055**	***1941**
		F	2.8+5R	2.9+4R	3+3R	3+3R	3.1+3R	3.1+2R	3.2+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	***2156**	***2154**	***2152**	***2151**	***2150**	***2149**	***2149**	***2148**	***1941**
		F	2.5+5R	2.6+4R	2.6+4R	2.7+3R	2.7+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1200 plf, 1500 plf, 1700 plf or 1700 plf for No. 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

See Page 84 for footnotes.

(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 3/16" THROUGH 1/4" THICK OR X-HSN 24 AT SUPPORTS 3/16" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	497	516	460	482	440	460	428	–	–
		F	-4.7+269R	-1.1+215R	2.8+178R	4.3+153R	6.9+133R	7.6+118R	9.6+106R		
	VSC2 @ 18"	q	582	582	529	537	543	508	516	–	–
		F	-6+270R	-2.3+216R	1.4+179R	3.1+153R	4.4+134R	6.4+119R	7.1+107R		
	VSC2 @ 12"	q	639	629	622	617	613	610	607	–	–
		F	-7+270R	-3.2+216R	-0.6+180R	1.3+154R	2.8+135R	3.9+120R	4.8+107R		
	VSC2 @ 8"	q	706	710	698	702	693	698	690	–	–
		F	-8.3+271R	-4.9+217R	-2.2+180R	-0.7+155R	0.8+135R	1.7+120R	2.7+108R		
	VSC2 @ 6"	q	740	738	736	734	733	733	732	–	–
		F	-9.1+271R	-5.6+217R	-3.2+181R	-1.5+155R	-0.2+135R	0.7+120R	1.5+108R		
	VSC2 @ 4"	q	772	771	770	770	769	769	769	–	–
		F	-10+271R	-6.6+217R	-4.3+181R	-2.7+155R	-1.4+136R	-0.5+121R	0.3+109R		
20	VSC2 @ 24"	q	631	658	593	620	572	597	558	581	549
		F	-0.7+170R	1.5+136R	4.2+113R	5+96R	6.9+84R	7.2+75R	8.6+67R	8.6+61R	9.8+55R
	VSC2 @ 18"	q	732	734	675	686	694	654	664	673	642
		F	-1.9+171R	0.4+136R	2.9+113R	3.9+97R	4.7+85R	6.1+75R	6.5+68R	6.8+61R	7.8+56R
	VSC2 @ 12"	q	796	787	780	775	771	768	766	764	762
		F	-2.8+171R	-0.3+137R	1.3+114R	2.5+97R	3.4+85R	4.1+76R	4.7+68R	5.2+62R	5.6+57R
	VSC2 @ 8"	q	866	871	859	864	855	860	853	857	851
		F	-3.9+171R	-1.7+137R	0+114R	0.9+98R	1.9+86R	2.4+76R	3.1+68R	3.4+62R	3.9+57R
	VSC2 @ 6"	q	900	898	896	895	894	894	893	893	892
		F	-4.5+172R	-2.3+137R	-0.8+114R	0.3+98R	1.1+86R	1.7+76R	2.2+69R	2.6+62R	2.9+57R
	VSC2 @ 4"	q	930	929	929	928	928	928	928	927	912
		F	-5.3+172R	-3.1+137R	-1.6+115R	-0.6+98R	0.2+86R	0.8+76R	1.3+69R	1.7+62R	2+57R
18	VSC2 @ 24"	q	886	925	844	882	820	855	805	836	795
		F	1.6+83R	2.4+66R	3.9+55R	4.1+47R	5.1+41R	5.1+37R	5.9+33R	5.8+30R	6.4+27R
	VSC2 @ 18"	q	1014	1019	949	964	975	926	940	951	915
		F	0.6+83R	1.7+67R	3+55R	3.4+47R	3.7+42R	4.5+37R	4.6+33R	4.7+30R	5.2+28R
	VSC2 @ 12"	q	1089	1081	1074	1070	1066	1063	1061	1059	1057
		F	0+84R	1.1+67R	1.9+56R	2.5+48R	2.9+42R	3.2+37R	3.5+33R	3.7+30R	3.9+28R
	VSC2 @ 8"	q	1167	1173	1161	1167	1158	1163	1155	1160	1154
		F	-0.7+84R	0.3+67R	1.1+56R	1.5+48R	2+42R	2.3+37R	2.6+34R	2.7+30R	2.9+28R
	VSC2 @ 6"	q	1203	1201	1200	1199	1198	1198	1197	1197	1197
		F	-1.1+84R	-0.1+67R	0.6+56R	1.2+48R	1.5+42R	1.8+37R	2.1+34R	2.3+31R	2.4+28R
	VSC2 @ 4"	q	1233	1233	1232	1232	1232	1232	1231	1231	1231
		F	-1.6+84R	-0.5+67R	0.2+56R	0.7+48R	1+42R	1.3+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	1134	1184	1087	1135	1061	1104	1044	1083	1033
		F	2.7+47R	3.1+38R	4.2+31R	4.2+27R	4.9+23R	4.9+21R	5.4+19R	5.3+17R	5.8+15R
	VSC2 @ 18"	q	1286	1293	1213	1232	1245	1189	1206	1219	1176
		F	1.8+47R	2.4+38R	3.4+31R	3.6+27R	3.7+24R	4.3+21R	4.3+19R	4.4+17R	4.8+16R
	VSC2 @ 12"	q	1373	1364	1357	1353	1349	1346	1344	1342	1340
		F	1.3+48R	2+38R	2.4+32R	2.8+27R	3+24R	3.2+21R	3.4+19R	3.5+17R	3.6+16R
	VSC2 @ 8"	q	1459	1466	1453	1459	1449	1455	1447	1452	1446
		F	0.7+48R	1.2+38R	1.7+32R	2+27R	2.3+24R	2.4+21R	2.6+19R	2.7+17R	2.8+16R
	VSC2 @ 6"	q	1498	1496	1495	1494	1493	1492	1492	1492	1491
		F	0.3+48R	0.9+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	1529	1529	1528	1528	1528	1528	1528	1527	1527
		F	0+48R	0.6+38R	1+32R	1.2+27R	1.5+24R	1.6+21R	1.8+19R	1.9+17R	2+16R

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(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 3/16" THROUGH 1/4" THICK OR X-HSN 24 AT SUPPORTS 3/16" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	610	634	545	573	511	537	490	–	–
		F	9.6+27R	10.4+21R	12.2+16R	12.4+14R	13.9+11R	13.8+10R	15.1+8R		
	VSC2 @ 18"	q	750	745	649	660	668	608	620	–	–
		F	8.4+28R	9.3+22R	10.9+17R	11.3+14R	11.5+12R	12.7+10R	12.8+9R		
	VSC2 @ 12"	q	865	839	821	808	798	790	783	–	–
		F	7.6+28R	8.5+22R	9.1+18R	9.6+15R	10+13R	10.3+11R	10.6+10R		
	VSC2 @ 8"	q	1032	1042	1003	1015	988	1000	979	–	–
		F	6.4+29R	6.9+23R	7.6+19R	7.7+16R	8.2+14R	8.3+12R	8.6+11R		
	VSC2 @ 6"	q	1139	1128	1120	1115	1111	1107	1001	–	–
		F	5.7+29R	6.2+23R	6.6+19R	6.9+17R	7.1+14R	7.3+13R	7.4+11R		
	VSC2 @ 4"	q	1256	1251	1247	1245	1243	1236	1001	–	–
		F	4.7+30R	5.2+24R	5.5+20R	5.8+17R	5.9+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	787	825	714	754	676	712	652	684	636
		F	8.3+16R	8.7+13R	10.1+10R	10.1+8R	11.3+6R	11.1+6R	12.1+5R	11.8+4R	12.7+3R
	VSC2 @ 18"	q	968	966	849	866	878	804	821	835	781
		F	7.2+17R	7.7+13R	9+10R	9.1+9R	9.3+8R	10.1+6R	10.1+6R	10.1+5R	10.8+4R
	VSC2 @ 12"	q	1109	1082	1063	1050	1039	1031	1024	1019	912
		F	6.4+18R	7+14R	7.5+11R	7.8+10R	8+8R	8.2+7R	8.4+6R	8.5+6R	8.6+5R
	VSC2 @ 8"	q	1302	1316	1275	1290	1261	1274	1252	1085	912
		F	5.4+18R	5.7+15R	6.2+12R	6.3+10R	6.6+9R	6.6+8R	6.8+7R	6.8+6R	7+6R
	VSC2 @ 6"	q	1418	1408	1402	1397	1393	1390	1313	1085	912
		F	4.8+19R	5.2+15R	5.4+12R	5.6+10R	5.7+9R	5.8+8R	5.9+7R	6+7R	6.1+6R
	VSC2 @ 4"	q	1537	1533	1530	1528	1527	1526	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.7+11R	4.8+9R	4.9+8R	5+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1130	1193	1041	1103	994	1049	965	1014	946
		F	6+8R	6+6R	6.8+5R	6.7+4R	7.3+3R	7.1+3R	7.7+2R	7.4+2R	7.9+2R
	VSC2 @ 18"	q	1382	1387	1232	1259	1279	1179	1205	1225	1152
		F	5.1+8R	5.3+7R	6+5R	6+4R	6+4R	6.4+3R	6.4+3R	6.3+3R	6.7+2R
	VSC2 @ 12"	q	1568	1539	1519	1504	1493	1484	1476	1470	1394
		F	4.5+9R	4.8+7R	4.9+6R	5.1+5R	5.2+4R	5.2+4R	5.3+3R	5.4+3R	5.4+3R
	VSC2 @ 8"	q	1806	1825	1780	1798	1765	1782	1757	1659	1394
		F	3.8+9R	3.9+7R	4.1+6R	4.1+5R	4.3+4R	4.3+4R	4.4+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	1939	1930	1924	1919	1916	1913	1911	1659	1394
		F	3.4+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	2068	2064	2062	2060	2058	2057	2007	1659	1394
		F	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1467	1553	1363	1445	1308	1381	1274	1338	1251
		F	5.2+4R	5.1+3R	5.8+2R	5.6+2R	6.2+1R	6+1R	6.4+1R	6.2+1R	6.6+1R
	VSC2 @ 18"	q	1785	1796	1607	1643	1670	1546	1580	1606	1515
		F	4.4+5R	4.5+4R	5.1+3R	5+2R	5+2R	5.4+2R	5.3+1R	5.3+1R	5.6+1R
	VSC2 @ 12"	q	2013	1981	1959	1943	1931	1921	1913	1906	1901
		F	3.9+5R	4+4R	4.2+3R	4.3+3R	4.3+2R	4.4+2R	4.4+2R	4.5+2R	4.5+1R
	VSC2 @ 8"	q	2292	2315	2264	2286	2249	2269	2240	2258	1941
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+2R	3.6+2R	3.6+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	2441	2432	2426	2421	2418	2415	2413	2310	1941
		F	2.9+5R	3+4R	3.1+3R	3.2+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	2581	2577	2575	2573	2572	2571	2570	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

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TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 3/16" THROUGH 1/4" THICK OR X-HSN 24 AT SUPPORTS 3/16" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	642	659	568	592	529	552	505	–	–
		F	8.3+28R	9.2+22R	10.7+18R	11.1+15R	12.4+12R	12.5+11R	13.6+9R		
	VSC2 @ 18"	q	777	766	669	677	683	622	633	–	–
		F	7.5+29R	8.4+23R	9.8+18R	10.2+15R	10.6+13R	11.6+11R	11.8+10R		
	VSC2 @ 12"	q	887	857	837	822	810	801	793	–	–
		F	6.8+29R	7.7+23R	8.4+19R	8.9+16R	9.4+14R	9.7+12R	10+11R		
	VSC2 @ 8"	q	1045	1052	1014	1024	996	1007	985	–	–
		F	5.9+30R	6.5+24R	7.1+19R	7.4+17R	7.8+14R	7.9+13R	8.3+11R		
	VSC2 @ 6"	q	1148	1135	1127	1121	1116	1112	1001	–	–
		F	5.3+30R	5.9+24R	6.3+20R	6.7+17R	6.9+15R	7.1+13R	7.2+12R		
	VSC2 @ 4"	q	1260	1254	1250	1247	1245	1236	1001	–	–
		F	4.6+30R	5.1+24R	5.4+20R	5.6+17R	5.8+15R	6+13R	6.1+12R		
20	VSC2 @ 24"	q	823	853	740	775	696	729	669	699	650
		F	7.3+18R	7.8+14R	9.1+11R	9.2+9R	10.2+8R	10.2+7R	11.1+6R	11+5R	11.7+4R
	VSC2 @ 18"	q	996	989	872	885	895	820	835	847	793
		F	6.5+18R	7.1+14R	8.2+11R	8.4+10R	8.6+8R	9.4+7R	9.5+6R	9.5+6R	10.2+5R
	VSC2 @ 12"	q	1131	1101	1080	1064	1052	1042	1035	1028	912
		F	5.9+18R	6.5+14R	7+12R	7.3+10R	7.6+9R	7.8+8R	8+7R	8.2+6R	8.3+6R
	VSC2 @ 8"	q	1315	1326	1285	1298	1268	1281	1258	1085	912
		F	5.1+19R	5.4+15R	5.9+12R	6+10R	6.3+9R	6.4+8R	6.6+7R	6.6+7R	6.8+6R
	VSC2 @ 6"	q	1426	1415	1408	1402	1398	1394	1313	1085	912
		F	4.6+19R	5+15R	5.3+12R	5.5+11R	5.6+9R	5.7+8R	5.8+7R	5.9+7R	6+6R
	VSC2 @ 4"	q	1541	1536	1533	1531	1529	1527	1313	1085	912
		F	4+19R	4.3+15R	4.5+13R	4.7+11R	4.8+9R	4.9+8R	4.9+8R	5+7R	5.1+6R
18	VSC2 @ 24"	q	1174	1226	1073	1128	1019	1070	986	1032	963
		F	5.5+8R	5.6+7R	6.3+5R	6.3+4R	6.9+4R	6.7+3R	7.2+3R	7.1+3R	7.5+2R
	VSC2 @ 18"	q	1414	1413	1259	1281	1298	1198	1221	1240	1166
		F	4.8+9R	5+7R	5.6+6R	5.7+5R	5.7+4R	6.2+4R	6.1+3R	6.1+3R	6.5+3R
	VSC2 @ 12"	q	1592	1560	1537	1520	1507	1496	1488	1481	1394
		F	4.3+9R	4.6+7R	4.7+6R	4.9+5R	5+4R	5.1+4R	5.2+3R	5.2+3R	5.3+3R
	VSC2 @ 8"	q	1820	1835	1789	1806	1773	1788	1763	1659	1394
		F	3.7+9R	3.8+7R	4+6R	4.1+5R	4.2+5R	4.2+4R	4.3+4R	4.3+3R	4.4+3R
	VSC2 @ 6"	q	1947	1937	1929	1924	1920	1917	1914	1659	1394
		F	3.3+9R	3.5+7R	3.6+6R	3.7+5R	3.8+5R	3.8+4R	3.9+4R	3.9+3R	3.9+3R
	VSC2 @ 4"	q	2071	2067	2064	2062	2060	2059	2007	1659	1394
		F	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1518	1591	1400	1475	1337	1405	1298	1359	1271
		F	4.7+5R	4.8+4R	5.4+3R	5.3+2R	5.8+2R	5.7+2R	6.1+1R	5.9+1R	6.3+1R
	VSC2 @ 18"	q	1822	1825	1637	1668	1691	1568	1598	1623	1531
		F	4.1+5R	4.2+4R	4.8+3R	4.8+3R	4.8+2R	5.2+2R	5.1+2R	5.1+2R	5.4+1R
	VSC2 @ 12"	q	2039	2004	1979	1960	1946	1935	1925	1918	1911
		F	3.7+5R	3.9+4R	4+3R	4.1+3R	4.2+2R	4.3+2R	4.3+2R	4.4+2R	4.4+2R
	VSC2 @ 8"	q	2305	2325	2274	2294	2257	2275	2247	2263	1941
		F	3.2+5R	3.2+4R	3.4+3R	3.4+3R	3.5+3R	3.5+2R	3.6+2R	3.6+2R	3.6+2R
	VSC2 @ 6"	q	2449	2439	2431	2426	2422	2419	2416	2310	1941
		F	2.9+5R	3+4R	3.1+3R	3.1+3R	3.1+3R	3.2+2R	3.2+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	2584	2580	2577	2575	2574	2572	2571	2310	1941
		F	2.5+5R	2.6+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

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TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/9 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 3/16" THROUGH 1/4" THICK OR X-HSN 24 AT SUPPORTS 3/16" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	814	804	691	701	625	641	584	–	–
		F	6.8+29R	7.7+23R	9+18R	9.5+15R	10.5+13R	10.8+11R	11.8+9R		
	VSC2 @ 18"	q	953	918	797	792	788	715	720	–	–
		F	6.3+29R	7.2+23R	8.4+18R	8.9+16R	9.3+13R	10.2+11R	10.5+10R		
	VSC2 @ 12"	q	1073	1019	981	953	931	914	899	–	–
		F	5.9+29R	6.8+23R	7.5+19R	8+16R	8.5+14R	8.8+12R	9.2+11R		
	VSC2 @ 8"	q	1259	1253	1193	1199	1157	1166	1001	–	–
		F	5.3+30R	5.9+24R	6.6+19R	6.9+17R	7.3+14R	7.5+13R	7.8+11R		
	VSC2 @ 6"	q	***1390**	***1363**	***1344**	***1330**	***1319**	1236	1001	–	–
		F	4.9+30R	5.5+24R	6+20R	6.3+17R	6.6+15R	6.8+13R	6.9+12R		
	VSC2 @ 4"	q	***1551**	***1537**	***1527**	***1520**	***1514**	1236	1001	–	–
		F	4.3+30R	4.8+24R	5.2+20R	5.4+17R	5.7+15R	5.8+13R	5.9+12R		
20	VSC2 @ 24"	q	1030	1030	889	910	813	839	766	792	734
		F	6.1+18R	6.7+14R	7.7+11R	8+9R	8.9+8R	9+7R	9.8+6R	9.8+5R	10.4+4R
	VSC2 @ 18"	q	1212	1178	1029	1029	1029	937	947	954	889
		F	5.6+18R	6.3+14R	7.2+11R	7.5+10R	7.8+8R	8.5+7R	8.6+6R	8.7+6R	9.3+5R
	VSC2 @ 12"	q	1363	1306	1265	1235	1211	1192	1177	1085	912
		F	5.3+18R	5.9+14R	6.3+12R	6.7+10R	7+9R	7.2+8R	7.5+7R	7.6+6R	7.8+5R
	VSC2 @ 8"	q	1587	1587	1522	1532	1486	1498	1313	1085	912
		F	4.7+19R	5.1+15R	5.5+12R	5.7+10R	6+9R	6.1+8R	6.3+7R	6.4+6R	6.5+6R
	VSC2 @ 6"	q	***1738**	***1712**	***1694**	***1680**	***1670**	***1621**	1313	1085	912
		F	4.3+19R	4.7+15R	5+12R	5.2+11R	5.4+9R	5.5+8R	5.6+7R	5.7+7R	5.8+6R
	VSC2 @ 4"	q	***1910**	***1898**	***1889**	***1883**	***1878**	***1621**	1313	1085	912
		F	3.8+19R	4.2+15R	4.4+13R	4.5+11R	4.7+9R	4.8+8R	4.9+8R	4.9+7R	5+6R
18	VSC2 @ 24"	q	1448	1466	1275	1315	1180	1224	1121	1163	1081
		F	4.8+8R	5+7R	5.7+5R	5.7+4R	6.2+4R	6.2+3R	6.7+3R	6.6+2R	7+2R
	VSC2 @ 18"	q	1709	1676	1478	1486	1492	1366	1384	1399	1308
		F	4.3+9R	4.6+7R	5.2+5R	5.3+5R	5.3+4R	5.8+3R	5.8+3R	5.8+3R	6.1+2R
	VSC2 @ 12"	q	1916	1851	1805	1771	1744	1723	1705	1659	1394
		F	4+9R	4.3+7R	4.5+6R	4.6+5R	4.8+4R	4.9+4R	5+3R	5+3R	5.1+3R
	VSC2 @ 8"	q	***2207**	***2214**	***2139**	***2154**	***2101**	***2118**	2007	1659	1394
		F	3.5+9R	3.7+7R	3.9+6R	3.9+5R	4.1+4R	4.1+4R	4.2+4R	4.2+3R	4.3+3R
	VSC2 @ 6"	q	***2389**	***2364**	***2346**	***2332**	***2322**	***2314**	2007	1659	1394
		F	3.2+9R	3.4+7R	3.5+6R	3.6+5R	3.7+5R	3.8+4R	3.8+4R	3.8+3R	3.9+3R
	VSC2 @ 4"	q	***2585**	***2574**	***2566**	***2560**	***2555**	***2478**	2007	1659	1394
		F	2.9+9R	3+7R	3.1+6R	3.2+5R	3.3+5R	3.3+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1861	1896	1655	1714	1543	1604	1473	1531	1425
		F	4.2+5R	4.3+4R	4.8+3R	4.8+2R	5.3+2R	5.2+2R	5.6+1R	5.5+1R	5.9+1R
	VSC2 @ 18"	q	2196	2164	1918	1934	1946	1789	1814	1835	1720
		F	3.7+5R	3.9+4R	4.4+3R	4.5+2R	4.5+2R	4.9+2R	4.9+2R	4.9+1R	5.1+1R
	VSC2 @ 12"	q	2455	2383	2331	2292	2262	2238	2219	2203	1941
		F	3.4+5R	3.6+4R	3.8+3R	3.9+3R	4+2R	4.1+2R	4.2+2R	4.2+2R	4.3+1R
	VSC2 @ 8"	q	***2807**	***2819**	***2733**	***2754**	***2693**	***2715**	***2667**	2310	1941
		F	3+5R	3.1+4R	3.3+3R	3.3+3R	3.4+2R	3.4+2R	3.5+2R	3.5+2R	3.6+2R
	VSC2 @ 6"	q	***3018**	***2992**	***2973**	***2960**	***2949**	***2940**	***2795**	2310	1941
		F	2.8+5R	2.9+4R	3+3R	3+3R	3.1+3R	3.1+2R	3.2+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	***3238**	***3226**	***3218**	***3213**	***3208**	***3205**	***2795**	2310	1941
		F	2.5+5R	2.6+4R	2.6+4R	2.7+3R	2.7+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1300 plf, 1600 plf, 2100 plf or 2600 plf for 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

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(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ATTACHMENT PATTERN FOR HILTI X-ENP19 AT SUPPORTS 1/4" AND THICKER											
22	VSC2 @ 24"	q	519	538	478	499	455	475	440	–	–
		F	-6.9+270R	-3.1+215R	0.4+179R	2.2+153R	4.5+133R	5.5+118R	7.3+106R		
	VSC2 @ 18"	q	610	608	550	558	564	526	535	–	–
		F	-7.6+270R	-3.8+216R	-0.4+179R	1.4+153R	2.9+134R	4.7+119R	5.6+107R		
	VSC2 @ 12"	q	673	661	653	646	641	637	634	–	–
		F	-8.2+270R	-4.3+216R	-1.7+180R	0.3+154R	1.7+134R	2.9+119R	3.9+107R		
	VSC2 @ 8"	q	749	753	738	744	733	738	729	–	–
		F	-9+271R	-5.5+216R	-2.9+180R	-1.2+154R	0.3+135R	1.2+120R	2.2+108R		
	VSC2 @ 6"	q	789	785	783	781	780	779	778	–	–
		F	-9.6+271R	-6+217R	-3.6+180R	-1.9+155R	-0.6+135R	0.4+120R	1.2+108R		
	VSC2 @ 4"	q	826	825	824	823	823	823	822	–	–
		F	-10.3+271R	-6.9+217R	-4.5+181R	-2.9+155R	-1.6+136R	-0.6+120R	0.1+108R		
20	VSC2 @ 24"	q	660	687	616	644	591	618	576	600	566
		F	-2.4+170R	0.1+136R	2.5+113R	3.6+96R	5.2+84R	5.8+75R	7+67R	7.3+61R	8.3+55R
	VSC2 @ 18"	q	769	770	704	715	724	679	690	699	666
		F	-3.1+171R	-0.6+136R	1.7+113R	2.9+97R	3.7+85R	5+75R	5.5+67R	5.9+61R	6.8+56R
	VSC2 @ 12"	q	840	829	821	815	811	807	804	801	799
		F	-3.6+171R	-1.1+137R	0.6+114R	1.8+97R	2.8+85R	3.5+75R	4.1+68R	4.6+62R	5.1+56R
	VSC2 @ 8"	q	921	927	912	918	907	912	904	909	902
		F	-4.4+171R	-2.1+137R	-0.4+114R	0.6+98R	1.6+85R	2.1+76R	2.8+68R	3.1+62R	3.6+57R
	VSC2 @ 6"	q	961	958	956	955	954	953	952	952	912
		F	-4.8+172R	-2.6+137R	-1.1+114R	0+98R	0.9+86R	1.5+76R	2+68R	2.4+62R	2.8+57R
	VSC2 @ 4"	q	997	996	995	995	994	994	994	994	912
		F	-5.4+172R	-3.2+137R	-1.8+114R	-0.7+98R	0.1+86R	0.7+76R	1.2+69R	1.6+62R	1.9+57R
18	VSC2 @ 24"	q	928	969	878	919	851	888	834	867	822
		F	0.7+83R	1.8+66R	3.1+55R	3.5+47R	4.4+41R	4.6+36R	5.3+33R	5.3+30R	5.9+27R
	VSC2 @ 18"	q	1068	1073	993	1010	1021	967	982	994	953
		F	0.1+83R	1.2+67R	2.5+55R	3+47R	3.3+41R	4+37R	4.2+33R	4.4+30R	4.9+27R
	VSC2 @ 12"	q	1154	1143	1135	1129	1125	1121	1118	1116	1114
		F	-0.4+84R	0.8+67R	1.6+56R	2.2+48R	2.7+42R	3+37R	3.3+33R	3.5+30R	3.7+28R
	VSC2 @ 8"	q	1245	1251	1236	1243	1232	1238	1229	1235	1227
		F	-0.9+84R	0.1+67R	0.9+56R	1.4+48R	1.9+42R	2.2+37R	2.5+33R	2.6+30R	2.9+28R
	VSC2 @ 6"	q	1287	1285	1283	1282	1281	1280	1280	1279	1279
		F	-1.3+84R	-0.2+67R	0.6+56R	1.1+48R	1.5+42R	1.8+37R	2+34R	2.2+30R	2.4+28R
	VSC2 @ 4"	q	1324	1323	1322	1322	1322	1321	1321	1321	1321
		F	-1.6+84R	-0.6+67R	0.1+56R	0.6+48R	1+42R	1.3+37R	1.5+34R	1.7+31R	1.9+28R
16	VSC2 @ 24"	q	1189	1242	1134	1185	1103	1149	1084	1125	1070
		F	2+47R	2.6+38R	3.5+31R	3.7+27R	4.4+23R	4.4+21R	4.9+18R	4.9+17R	5.3+15R
	VSC2 @ 18"	q	1357	1365	1273	1293	1308	1244	1263	1277	1229
		F	1.4+47R	2.1+38R	2.9+31R	3.2+27R	3.4+24R	3.9+21R	4+19R	4.1+17R	4.5+15R
	VSC2 @ 12"	q	1456	1445	1437	1431	1427	1423	1420	1418	1415
		F	1+48R	1.7+38R	2.2+32R	2.6+27R	2.8+24R	3.1+21R	3.2+19R	3.4+17R	3.5+16R
	VSC2 @ 8"	q	1558	1566	1549	1557	1545	1552	1542	1548	1541
		F	0.5+48R	1.1+38R	1.6+32R	1.9+27R	2.2+24R	2.3+21R	2.5+19R	2.6+17R	2.8+16R
	VSC2 @ 6"	q	1604	1601	1600	1599	1598	1597	1596	1596	1595
		F	0.2+48R	0.9+38R	1.3+32R	1.6+27R	1.8+24R	2+21R	2.1+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	1642	1642	1641	1641	1640	1640	1640	1640	1640
		F	-0.1+48R	0.5+38R	0.9+32R	1.2+27R	1.4+24R	1.6+21R	1.7+19R	1.9+17R	2+16R

Page 84 has the footnotes.

(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
			36/7/4 ATTACHMENT PATTERN FOR HILTI X-ENP19 AT SUPPORTS 1/4" AND THICKER								
22	VSC2 @ 24"	q	633	654	561	588	524	549	501	–	–
		F	7.5+28R	8.4+21R	9.8+17R	10.3+14R	11.4+11R	11.7+10R	12.7+8R		
	VSC2 @ 18"	q	778	770	668	678	685	623	634	–	–
		F	6.8+28R	7.8+22R	9+17R	9.6+14R	10+12R	10.9+10R	11.2+9R		
	VSC2 @ 12"	q	899	869	849	833	822	813	805	–	–
		F	6.4+29R	7.3+22R	8+18R	8.5+15R	8.9+13R	9.3+11R	9.6+10R		
	VSC2 @ 8"	q	1079	1089	1046	1058	1028	1040	1001	–	–
		F	5.6+29R	6.2+23R	6.9+19R	7.2+16R	7.6+14R	7.7+12R	8.1+11R		
	VSC2 @ 6"	q	1198	1185	1176	1169	1164	1160	1001	–	–
		F	5.1+29R	5.7+23R	6.2+19R	6.5+16R	6.8+14R	7+13R	7.1+11R		
	VSC2 @ 4"	q	1333	1327	1322	1319	1317	1236	1001	–	–
		F	4.4+30R	5+24R	5.3+20R	5.6+17R	5.8+15R	5.9+13R	6+12R		
20	VSC2 @ 24"	q	817	852	735	774	693	729	666	699	649
		F	6.7+17R	7.3+13R	8.4+10R	8.6+8R	9.6+7R	9.6+6R	10.4+5R	10.4+4R	11.1+3R
	VSC2 @ 18"	q	1004	1000	875	891	903	825	842	855	798
		F	6.1+17R	6.7+14R	7.7+11R	8+9R	8.2+8R	9+6R	9.1+5R	9.2+5R	9.8+4R
	VSC2 @ 12"	q	1155	1124	1102	1086	1074	1064	1056	1050	912
		F	5.6+18R	6.2+14R	6.7+11R	7+9R	7.3+8R	7.6+7R	7.8+6R	7.9+6R	8.1+5R
	VSC2 @ 8"	q	1366	1380	1334	1349	1316	1331	1306	1085	912
		F	4.9+18R	5.3+14R	5.7+12R	5.9+10R	6.2+9R	6.3+8R	6.5+7R	6.5+6R	6.7+6R
	VSC2 @ 6"	q	1497	1486	1477	1471	1466	1463	1313	1085	912
		F	4.5+19R	4.9+15R	5.2+12R	5.4+10R	5.5+9R	5.6+8R	5.7+7R	5.8+6R	5.9+6R
	VSC2 @ 4"	q	1636	1631	1628	1625	1623	1621	1313	1085	912
		F	3.9+19R	4.2+15R	4.5+12R	4.6+11R	4.7+9R	4.8+8R	4.9+7R	5+7R	5+6R
18	VSC2 @ 24"	q	1172	1233	1072	1134	1020	1076	988	1037	966
		F	5.1+8R	5.3+6R	6+5R	6+4R	6.6+3R	6.5+3R	7+2R	6.9+2R	7.3+2R
	VSC2 @ 18"	q	1436	1439	1272	1299	1319	1212	1238	1259	1181
		F	4.5+8R	4.8+7R	5.4+5R	5.5+4R	5.6+4R	6+3R	6+3R	6+2R	6.3+2R
	VSC2 @ 12"	q	1638	1604	1580	1562	1549	1538	1530	1523	1394
		F	4.1+9R	4.4+7R	4.6+6R	4.8+5R	4.9+4R	5+4R	5.1+3R	5.2+3R	5.2+3R
	VSC2 @ 8"	q	1903	1923	1870	1890	1852	1871	1842	1659	1394
		F	3.6+9R	3.7+7R	4+6R	4+5R	4.2+4R	4.2+4R	4.3+3R	4.3+3R	4.4+3R
	VSC2 @ 6"	q	2055	2044	2036	2030	2026	2022	2007	1659	1394
		F	3.3+9R	3.5+7R	3.6+6R	3.7+5R	3.8+4R	3.8+4R	3.8+4R	3.9+3R	3.9+3R
	VSC2 @ 4"	q	2207	2202	2199	2196	2195	2193	2007	1659	1394
		F	2.9+9R	3.1+7R	3.2+6R	3.2+5R	3.3+5R	3.3+4R	3.4+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1521	1607	1405	1488	1343	1417	1305	1371	1279
		F	4.4+4R	4.5+3R	5.1+2R	5.1+2R	5.6+1R	5.5+1R	5.9+1R	5.8+1R	6.1+1R
	VSC2 @ 18"	q	1858	1866	1661	1698	1725	1592	1626	1654	1556
		F	3.9+5R	4.1+3R	4.6+3R	4.6+2R	4.7+2R	5+1R	5+1R	5+1R	5.3+1R
	VSC2 @ 12"	q	2106	2069	2043	2023	2008	1997	1987	1979	1941
		F	3.6+5R	3.8+4R	3.9+3R	4+2R	4.1+2R	4.2+2R	4.3+2R	4.3+1R	4.3+1R
	VSC2 @ 8"	q	2419	2444	2385	2409	2367	2389	2355	2310	1941
		F	3.1+5R	3.2+4R	3.4+3R	3.4+3R	3.5+2R	3.5+2R	3.6+2R	3.6+2R	3.6+2R
	VSC2 @ 6"	q	2592	2581	2573	2567	2562	2559	2556	2310	1941
		F	2.8+5R	3+4R	3+3R	3.1+3R	3.1+2R	3.2+2R	3.2+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	2758	2753	2750	2748	2746	2745	2744	2310	1941
		F	2.5+5R	2.6+4R	2.7+3R	2.7+3R	2.7+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

Page 84 has the footnotes.

(continued)

TABLE 28 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II SYSTEM (VSC2)[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ATTACHMENT PATTERN FOR HILTI X-ENP19 AT SUPPORTS 1/4" AND THICKER											
22	VSC2 @ 24"	q	668	682	587	609	544	567	517	–	–
		F	6.4+29R	7.3+23R	8.5+18R	9.1+15R	10+13R	10.4+11R	11.2+10R		
	VSC2 @ 18"	q	808	794	691	697	702	639	649	–	–
		F	6+29R	6.9+23R	8+18R	8.6+16R	9+13R	9.8+11R	10.1+10R		
	VSC2 @ 12"	q	924	890	867	849	836	825	817	–	–
		F	5.7+29R	6.5+23R	7.2+19R	7.8+16R	8.2+14R	8.6+12R	8.9+11R		
	VSC2 @ 8"	q	1095	1102	1058	1068	1037	1048	1001	–	–
		F	5.1+30R	5.8+24R	6.4+19R	6.7+17R	7.1+14R	7.3+13R	7.6+11R		
	VSC2 @ 6"	q	1209	1194	1184	1176	1170	1166	1001	–	–
		F	4.7+30R	5.4+24R	5.8+20R	6.2+17R	6.4+15R	6.7+13R	6.8+12R		
	VSC2 @ 4"	q	1338	1331	1326	1322	1320	1236	1001	–	–
		F	4.2+30R	4.7+24R	5.1+20R	5.4+17R	5.6+15R	5.8+13R	5.9+12R		
20	VSC2 @ 24"	q	857	883	764	798	715	748	685	715	664
		F	5.8+18R	6.4+14R	7.4+11R	7.7+9R	8.5+8R	8.7+7R	9.4+6R	9.5+5R	10.1+4R
	VSC2 @ 18"	q	1037	1026	900	913	922	842	857	869	812
		F	5.4+18R	6+14R	6.9+11R	7.2+10R	7.5+8R	8.2+7R	8.3+6R	8.5+6R	9+5R
	VSC2 @ 12"	q	1180	1145	1121	1103	1089	1078	1069	1061	912
		F	5.1+18R	5.7+14R	6.2+12R	6.5+10R	6.8+9R	7.1+8R	7.3+7R	7.5+6R	7.6+5R
	VSC2 @ 8"	q	1382	1392	1345	1359	1326	1339	1313	1085	912
		F	4.6+19R	5+15R	5.4+12R	5.6+10R	5.9+9R	6+8R	6.2+7R	6.3+6R	6.5+6R
	VSC2 @ 6"	q	1507	1494	1484	1477	1472	1468	1313	1085	912
		F	4.2+19R	4.6+15R	4.9+12R	5.2+11R	5.3+9R	5.5+8R	5.6+7R	5.7+7R	5.7+6R
	VSC2 @ 4"	q	1641	1635	1631	1628	1625	1621	1313	1085	912
		F	3.8+19R	4.1+15R	4.3+13R	4.5+11R	4.6+9R	4.7+8R	4.8+8R	4.9+7R	5+6R
18	VSC2 @ 24"	q	1220	1270	1108	1163	1048	1099	1010	1057	985
		F	4.6+9R	4.9+7R	5.5+5R	5.6+4R	6.1+4R	6+3R	6.5+3R	6.4+2R	6.8+2R
	VSC2 @ 18"	q	1474	1469	1302	1324	1340	1233	1257	1276	1197
		F	4.2+9R	4.5+7R	5+5R	5.1+5R	5.2+4R	5.6+3R	5.7+3R	5.7+3R	6+2R
	VSC2 @ 12"	q	1666	1628	1601	1581	1565	1553	1543	1535	1394
		F	3.9+9R	4.2+7R	4.4+6R	4.6+5R	4.7+4R	4.8+4R	4.9+3R	5+3R	5+3R
	VSC2 @ 8"	q	1919	1935	1882	1900	1862	1879	1849	1659	1394
		F	3.5+9R	3.6+7R	3.8+6R	3.9+5R	4.1+4R	4.1+4R	4.2+4R	4.2+3R	4.3+3R
	VSC2 @ 6"	q	2065	2052	2043	2036	2031	2027	2007	1659	1394
		F	3.2+9R	3.4+7R	3.5+6R	3.6+5R	3.7+5R	3.7+4R	3.8+4R	3.8+3R	3.9+3R
	VSC2 @ 4"	q	2210	2205	2202	2199	2197	2195	2007	1659	1394
		F	2.9+9R	3+7R	3.1+6R	3.2+5R	3.3+5R	3.3+4R	3.3+4R	3.4+3R	3.4+3R
16	VSC2 @ 24"	q	1579	1650	1446	1522	1376	1445	1331	1394	1301
		F	4+5R	4.2+4R	4.7+3R	4.7+2R	5.1+2R	5.1+2R	5.5+1R	5.4+1R	5.7+1R
	VSC2 @ 18"	q	1901	1900	1695	1727	1749	1616	1648	1673	1575
		F	3.6+5R	3.8+4R	4.3+3R	4.4+2R	4.4+2R	4.8+2R	4.8+2R	4.8+1R	5+1R
	VSC2 @ 12"	q	2137	2095	2065	2043	2026	2013	2002	1993	1941
		F	3.3+5R	3.6+4R	3.7+3R	3.9+3R	4+2R	4+2R	4.1+2R	4.2+2R	4.2+1R
	VSC2 @ 8"	q	2436	2457	2397	2419	2376	2397	2363	2310	1941
		F	3+5R	3.1+4R	3.2+3R	3.3+3R	3.4+2R	3.4+2R	3.5+2R	3.5+2R	3.6+2R
	VSC2 @ 6"	q	2602	2589	2580	2573	2568	2564	2561	2310	1941
		F	2.8+5R	2.9+4R	3+3R	3+3R	3.1+3R	3.1+2R	3.1+2R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	2762	2756	2753	2750	2748	2747	2746	2310	1941
		F	2.5+5R	2.6+4R	2.6+4R	2.7+3R	2.7+3R	2.7+2R	2.8+2R	2.8+2R	2.8+2R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21F of this report shall be referenced for adjustment factors when using acoustical deck profiles.

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	504	524	466	487	445	465	432	–	–
		F	-0.6+269R	2.1+215R	6.6+178R	7.4+153R	10.4+133R	10.4+119R	12.7+106R		
	VSC2 @ 18"	q	591	590	536	544	550	514	522	–	–
		F	-3.5+270R	-0.1+216R	3.9+179R	5.3+154R	6.3+135R	8.5+119R	8.9+107R		
	VSC2 @ 12"	q	650	640	632	627	622	619	616	–	–
		F	-5.3+271R	-1.6+216R	0.9+180R	2.6+154R	4+135R	5+120R	5.8+108R		
	VSC2 @ 8"	q	720	725	711	716	706	711	703	–	–
		F	-7.3+271R	-4.1+217R	-1.5+181R	0+155R	1.4+135R	2.2+120R	3.2+108R		
	VSC2 @ 6"	q	756	753	751	750	749	748	747	–	–
		F	-8.5+271R	-5.1+217R	-2.8+181R	-1.1+155R	0.1+136R	1.1+121R	1.8+108R		
	VSC2 @ 4"	q	790	788	788	787	787	786	786	–	–
		F	-9.8+272R	-6.4+217R	-4.1+181R	-2.5+155R	-1.3+136R	-0.3+121R	0.4+109R		
20	VSC2 @ 24"	q	638	665	598	626	576	602	563	586	553
		F	2.1+170R	3.6+136R	6.7+113R	6.9+97R	9.1+84R	8.9+75R	10.5+67R	10.2+61R	11.5+56R
	VSC2 @ 18"	q	741	743	682	693	701	660	671	679	648
		F	-0.3+171R	1.8+137R	4.6+114R	5.3+97R	5.9+85R	7.4+76R	7.6+68R	7.8+62R	8.9+57R
	VSC2 @ 12"	q	807	797	790	785	781	778	775	773	771
		F	-1.7+171R	0.6+137R	2.2+114R	3.3+98R	4.1+86R	4.8+76R	5.3+68R	5.7+62R	6.1+57R
	VSC2 @ 8"	q	879	884	872	877	868	872	865	869	863
		F	-3.3+172R	-1.3+137R	0.4+114R	1.3+98R	2.3+86R	2.7+76R	3.4+69R	3.7+62R	4.1+57R
	VSC2 @ 6"	q	915	912	911	910	909	908	907	907	907
		F	-4.2+172R	-2+137R	-0.5+115R	0.5+98R	1.3+86R	1.9+76R	2.4+69R	2.8+62R	3.1+57R
	VSC2 @ 4"	q	946	945	945	944	944	944	944	943	912
		F	-5.1+172R	-3+138R	-1.5+115R	-0.5+98R	0.3+86R	0.9+76R	1.3+69R	1.7+63R	2+57R
18	VSC2 @ 24"	q	889	928	846	884	822	857	807	838	796
		F	2.8+83R	3.2+67R	4.9+55R	4.8+48R	5.9+41R	5.7+37R	6.6+33R	6.4+30R	7+28R
	VSC2 @ 18"	q	1017	1022	951	967	978	929	943	954	917
		F	1.2+84R	2.2+67R	3.6+56R	3.9+48R	4.1+42R	4.9+37R	5+33R	5+30R	5.6+28R
	VSC2 @ 12"	q	1093	1084	1078	1073	1070	1067	1064	1062	1061
		F	0.4+84R	1.5+67R	2.2+56R	2.7+48R	3.1+42R	3.4+37R	3.7+34R	3.9+30R	4.1+28R
	VSC2 @ 8"	q	1172	1178	1166	1171	1162	1167	1160	1164	1158
		F	-0.5+84R	0.4+67R	1.2+56R	1.6+48R	2.1+42R	2.3+37R	2.7+34R	2.8+31R	3+28R
	VSC2 @ 6"	q	1208	1206	1205	1204	1203	1203	1202	1202	1202
		F	-1+84R	0+67R	0.7+56R	1.2+48R	1.6+42R	1.9+37R	2.1+34R	2.3+31R	2.5+28R
	VSC2 @ 4"	q	1239	1238	1238	1237	1237	1237	1237	1237	1237
		F	-1.5+84R	-0.5+67R	0.2+56R	0.7+48R	1.1+42R	1.4+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	1127	1176	1081	1128	1055	1098	1039	1077	1028
		F	3.6+47R	3.7+38R	4.9+31R	4.8+27R	5.6+24R	5.3+21R	6+19R	5.7+17R	6.3+16R
	VSC2 @ 18"	q	1277	1284	1205	1224	1237	1182	1199	1212	1170
		F	2.3+48R	2.8+38R	3.8+32R	3.9+27R	4+24R	4.6+21R	4.6+19R	4.6+17R	5+16R
	VSC2 @ 12"	q	1362	1353	1347	1343	1339	1336	1334	1332	1330
		F	1.6+48R	2.2+38R	2.7+32R	3+27R	3.2+24R	3.4+21R	3.5+19R	3.7+17R	3.8+16R
	VSC2 @ 8"	q	1447	1453	1441	1447	1437	1443	1435	1440	1434
		F	0.8+48R	1.3+38R	1.9+32R	2.1+27R	2.4+24R	2.5+21R	2.7+19R	2.7+17R	2.9+16R
	VSC2 @ 6"	q	1484	1483	1481	1480	1480	1479	1479	1478	1478
		F	0.4+48R	1+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	1515	1515	1514	1514	1514	1514	1514	1513	1513
		F	0+48R	0.6+38R	1+32R	1.3+27R	1.5+24R	1.7+21R	1.8+19R	1.9+17R	2+16R

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	618	640	550	578	515	541	494	–	–
		F	13.8+26R	13.7+21R	16.2+16R	15.6+14R	17.5+11R	16.9+10R	18.5+8R		
	VSC2 @ 18"	q	760	753	655	666	673	613	625	–	–
		F	11.1+28R	11.6+22R	13.6+17R	13.6+15R	13.6+13R	15+11R	14.8+10R		
	VSC2 @ 12"	q	876	849	830	816	806	797	791	–	–
		F	9.4+29R	10.1+23R	10.7+19R	11+16R	11.3+14R	11.5+12R	11.7+11R		
	VSC2 @ 8"	q	1047	1057	1018	1030	1002	1013	992	–	–
		F	7.4+29R	7.7+24R	8.4+19R	8.4+17R	8.8+15R	8.8+13R	9.1+12R		
	VSC2 @ 6"	q	1158	1147	1139	1133	1129	1125	1001	–	–
		F	6.3+30R	6.8+24R	7.1+20R	7.3+17R	7.5+15R	7.6+13R	7.8+12R		
	VSC2 @ 4"	q	1281	1276	1272	1269	1267	1236	1001	–	–
		F	5.1+30R	5.5+24R	5.8+20R	6+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	794	832	719	759	680	716	655	688	639
		F	11.2+16R	10.9+13R	12.8+10R	12.2+9R	13.6+7R	13+6R	14.2+5R	13.6+5R	14.6+4R
	VSC2 @ 18"	q	977	974	855	872	884	809	826	840	785
		F	9+17R	9.2+14R	10.7+11R	10.6+9R	10.5+8R	11.5+7R	11.3+6R	11.2+6R	12+5R
	VSC2 @ 12"	q	1120	1092	1073	1059	1048	1039	1032	1026	912
		F	7.6+18R	8.1+14R	8.4+12R	8.6+10R	8.8+9R	8.9+8R	9+7R	9.1+6R	9.2+6R
	VSC2 @ 8"	q	1318	1331	1289	1304	1274	1288	1265	1085	912
		F	6.1+19R	6.2+15R	6.6+12R	6.6+11R	6.9+9R	6.9+8R	7.1+7R	7.1+7R	7.2+6R
	VSC2 @ 6"	q	1437	1427	1420	1415	1411	1408	1313	1085	912
		F	5.2+19R	5.5+15R	5.7+13R	5.9+11R	6+9R	6+8R	6.1+8R	6.2+7R	6.2+6R
	VSC2 @ 4"	q	1561	1557	1554	1552	1550	1549	1313	1085	912
		F	4.3+19R	4.6+15R	4.7+13R	4.9+11R	5+10R	5+8R	5.1+8R	5.1+7R	5.2+6R
18	VSC2 @ 24"	q	1133	1195	1043	1105	996	1051	967	1015	947
		F	7.3+8R	6.8+7R	7.9+5R	7.4+5R	8.2+4R	7.8+3R	8.4+3R	8+3R	8.5+2R
	VSC2 @ 18"	q	1385	1390	1235	1262	1282	1182	1207	1228	1154
		F	5.8+9R	5.8+7R	6.6+6R	6.5+5R	6.4+4R	6.9+4R	6.8+3R	6.7+3R	7.1+3R
	VSC2 @ 12"	q	1573	1543	1523	1508	1496	1487	1480	1474	1394
		F	4.9+9R	5.1+7R	5.3+6R	5.4+5R	5.4+4R	5.5+4R	5.5+4R	5.6+3R	5.6+3R
	VSC2 @ 8"	q	1812	1831	1785	1804	1771	1788	1762	1659	1394
		F	4+9R	4.1+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R	4.5+4R	4.5+3R	4.5+3R
	VSC2 @ 6"	q	1946	1937	1931	1926	1923	1920	1917	1659	1394
		F	3.6+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	4+4R	4+3R	4+3R
	VSC2 @ 4"	q	2076	2072	2070	2068	2067	2066	2007	1659	1394
		F	3.1+9R	3.2+8R	3.3+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1460	1546	1358	1440	1304	1376	1270	1334	1247
		F	6.2+4R	5.8+4R	6.6+3R	6.2+2R	6.9+2R	6.5+2R	7+1R	6.7+1R	7.1+1R
	VSC2 @ 18"	q	1776	1787	1600	1636	1663	1540	1574	1600	1510
		F	4.9+5R	4.9+4R	5.6+3R	5.4+3R	5.3+2R	5.8+2R	5.7+2R	5.6+2R	5.9+1R
	VSC2 @ 12"	q	2001	1970	1949	1933	1921	1911	1903	1897	1891
		F	4.2+5R	4.3+4R	4.4+3R	4.5+3R	4.5+2R	4.6+2R	4.6+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2276	2298	2249	2270	2234	2253	2225	2242	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.6+3R	3.7+3R	3.6+2R	3.7+2R	3.7+2R	3.8+2R
	VSC2 @ 6"	q	2422	2413	2407	2403	2399	2397	2394	2310	1941
		F	3+5R	3.1+4R	3.2+4R	3.2+3R	3.2+3R	3.3+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	2559	2555	2553	2551	2550	2549	2548	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	651	666	574	598	534	557	509	–	–
		F	12.3+28R	12.6+22R	14.8+17R	14.5+15R	16.3+12R	15.9+11R	17.3+10R		
	VSC2 @ 18"	q	787	775	677	684	689	628	638	–	–
		F	10.2+29R	10.8+23R	12.7+18R	12.8+16R	12.9+14R	14.2+12R	14.1+11R		
	VSC2 @ 12"	q	899	868	847	831	819	809	801	–	–
		F	8.8+29R	9.6+23R	10.2+19R	10.6+16R	10.9+14R	11.1+13R	11.3+11R		
	VSC2 @ 8"	q	1062	1069	1028	1039	1010	1021	999	–	–
		F	7.1+30R	7.4+24R	8.1+20R	8.2+17R	8.6+15R	8.6+13R	8.9+12R		
	VSC2 @ 6"	q	1168	1155	1146	1139	1134	1130	1001	–	–
		F	6.1+30R	6.6+24R	6.9+20R	7.2+17R	7.4+15R	7.5+13R	7.7+12R		
	VSC2 @ 4"	q	1285	1279	1275	1272	1270	1236	1001	–	–
		F	5+30R	5.4+24R	5.7+20R	5.9+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	831	860	746	781	701	734	672	703	653
		F	10.2+17R	10.2+14R	11.9+11R	11.5+9R	12.8+8R	12.4+7R	13.5+6R	13+6R	13.9+5R
	VSC2 @ 18"	q	1006	998	879	892	901	826	841	853	798
		F	8.4+18R	8.7+14R	10.1+11R	10.1+10R	10.1+9R	11.1+7R	10.9+7R	10.8+6R	11.6+5R
	VSC2 @ 12"	q	1143	1112	1090	1074	1061	1051	1043	1036	912
		F	7.2+18R	7.7+15R	8.1+12R	8.3+10R	8.5+9R	8.7+8R	8.8+7R	8.9+6R	9+6R
	VSC2 @ 8"	q	1331	1342	1300	1313	1282	1295	1271	1085	912
		F	5.9+19R	6+15R	6.5+12R	6.5+11R	6.8+9R	6.8+8R	7+7R	7+7R	7.1+6R
	VSC2 @ 6"	q	1446	1434	1426	1420	1416	1412	1313	1085	912
		F	5.1+19R	5.4+15R	5.6+13R	5.8+11R	5.9+9R	6+8R	6.1+8R	6.1+7R	6.2+6R
	VSC2 @ 4"	q	1565	1560	1556	1554	1552	1550	1313	1085	912
		F	4.2+19R	4.5+15R	4.7+13R	4.8+11R	4.9+10R	5+9R	5.1+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1176	1228	1075	1131	1021	1072	987	1033	964
		F	6.8+8R	6.6+7R	7.5+5R	7.2+5R	7.9+4R	7.5+4R	8.2+3R	7.8+3R	8.3+3R
	VSC2 @ 18"	q	1418	1416	1261	1284	1301	1200	1224	1242	1168
		F	5.6+9R	5.6+7R	6.4+6R	6.3+5R	6.2+4R	6.8+4R	6.7+3R	6.6+3R	7+3R
	VSC2 @ 12"	q	1597	1564	1541	1524	1510	1500	1491	1484	1394
		F	4.8+9R	5+7R	5.2+6R	5.3+5R	5.3+4R	5.4+4R	5.4+4R	5.5+3R	5.5+3R
	VSC2 @ 8"	q	1826	1841	1795	1812	1778	1794	1768	1659	1394
		F	4+9R	4+7R	4.2+6R	4.2+5R	4.4+5R	4.3+4R	4.5+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	1954	1944	1936	1931	1927	1924	1921	1659	1394
		F	3.5+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	3.9+4R	4+3R	4+3R
	VSC2 @ 4"	q	2079	2075	2072	2070	2068	2067	2007	1659	1394
		F	3+9R	3.2+8R	3.2+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1510	1583	1394	1469	1332	1400	1294	1354	1267
		F	5.9+5R	5.6+4R	6.4+3R	6+3R	6.6+2R	6.3+2R	6.8+2R	6.5+2R	7+1R
	VSC2 @ 18"	q	1812	1815	1629	1661	1683	1561	1592	1616	1526
		F	4.7+5R	4.8+4R	5.4+3R	5.3+3R	5.2+2R	5.7+2R	5.6+2R	5.5+2R	5.8+2R
	VSC2 @ 12"	q	2026	1992	1967	1949	1935	1924	1915	1908	1902
		F	4.1+5R	4.2+4R	4.3+3R	4.4+3R	4.5+3R	4.5+2R	4.5+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2289	2308	2258	2278	2242	2260	2232	2248	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.7+2R	3.7+2R
	VSC2 @ 6"	q	2429	2419	2413	2407	2403	2400	2398	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	2561	2558	2555	2553	2551	2550	2549	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/9 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	827	815	700	710	632	647	589	–	–
		F	10.4+28R	11+22R	13+17R	13.1+15R	14.6+12R	14.5+11R	15.8+9R		
	VSC2 @ 18"	q	968	930	807	801	796	722	726	–	–
		F	9+29R	9.8+23R	11.4+18R	11.7+15R	11.9+13R	13.1+11R	13.2+10R		
	VSC2 @ 12"	q	1088	1033	993	964	941	923	908	–	–
		F	8+29R	8.8+23R	9.4+19R	9.9+16R	10.3+14R	10.6+12R	10.8+11R		
	VSC2 @ 8"	q	1278	1272	1210	1215	1172	1180	1001	–	–
		F	6.6+30R	7+24R	7.7+20R	7.9+17R	8.3+15R	8.4+13R	8.7+12R		
	VSC2 @ 6"	q	***1414**	***1385**	***1365**	***1350**	***1338**	1236	1001	–	–
		F	5.8+30R	6.3+24R	6.7+20R	7+17R	7.2+15R	7.4+13R	7.5+12R		
	VSC2 @ 4"	q	***1581**	***1566**	***1556**	***1548**	***1542**	1236	1001	–	–
		F	4.8+30R	5.3+24R	5.6+20R	5.8+17R	6+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	1041	1040	898	918	820	845	771	797	738
		F	8.9+17R	9.2+14R	10.6+11R	10.5+9R	11.7+8R	11.5+7R	12.5+6R	12.2+5R	13+5R
	VSC2 @ 18"	q	1225	1189	1038	1038	1037	944	953	961	894
		F	7.6+18R	8+14R	9.3+11R	9.4+10R	9.5+8R	10.4+7R	10.4+6R	10.3+6R	11+5R
	VSC2 @ 12"	q	1378	1319	1277	1245	1221	1202	1186	1085	912
		F	6.7+18R	7.2+14R	7.6+12R	7.9+10R	8.2+9R	8.3+8R	8.5+7R	8.6+6R	8.7+6R
	VSC2 @ 8"	q	***1606**	***1605**	1538	1548	1501	1513	1313	1085	912
		F	5.6+19R	5.8+15R	6.3+12R	6.3+11R	6.6+9R	6.6+8R	6.9+7R	6.8+7R	7+6R
	VSC2 @ 6"	q	***1760**	***1734**	***1714**	***1700**	***1689**	***1621**	1313	1085	912
		F	4.9+19R	5.2+15R	5.5+13R	5.7+11R	5.8+9R	5.9+8R	6+8R	6+7R	6.1+6R
	VSC2 @ 4"	q	***1939**	***1926**	***1916**	***1910**	***1904**	***1621**	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.8+11R	4.9+10R	4.9+8R	5+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1452	1470	1277	1317	1183	1226	1123	1165	1083
		F	6.3+8R	6.2+7R	7+5R	6.8+5R	7.5+4R	7.2+3R	7.8+3R	7.5+3R	8+2R
	VSC2 @ 18"	q	1714	1680	1481	1489	1495	1369	1387	1401	1310
		F	5.2+9R	5.4+7R	6.1+6R	6.1+5R	6+4R	6.5+4R	6.5+3R	6.4+3R	6.8+3R
	VSC2 @ 12"	q	1921	1856	1810	1775	1748	1726	1709	1659	1394
		F	4.6+9R	4.8+7R	5+6R	5.1+5R	5.2+4R	5.3+4R	5.3+4R	5.4+3R	5.4+3R
	VSC2 @ 8"	q	***2214**	***2221**	***2145**	***2161**	***2106**	***2124**	2007	1659	1394
		F	3.9+9R	3.9+7R	4.2+6R	4.2+5R	4.3+5R	4.3+4R	4.4+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	***2398**	***2372**	***2354**	***2340**	***2330**	***2321**	2007	1659	1394
		F	3.5+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	***2595**	***2584**	***2576**	***2570**	***2565**	***2478**	2007	1659	1394
		F	3+9R	3.1+8R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1850	1886	1647	1706	1537	1598	1468	1525	1420
		F	5.4+5R	5.2+4R	6+3R	5.7+2R	6.3+2R	6.1+2R	6.5+2R	6.3+1R	6.7+1R
	VSC2 @ 18"	q	2183	2152	1909	1926	1938	1782	1807	1828	1714
		F	4.5+5R	4.6+4R	5.2+3R	5.1+3R	5.1+2R	5.5+2R	5.4+2R	5.3+2R	5.7+1R
	VSC2 @ 12"	q	2440	2369	2318	2281	2251	2228	2209	2193	1941
		F	3.9+5R	4.1+4R	4.2+3R	4.3+3R	4.4+2R	4.4+2R	4.5+2R	4.5+2R	4.5+2R
	VSC2 @ 8"	q	***2788**	***2800**	***2716**	***2737**	***2676**	***2698**	***2651**	2310	1941
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	***2995**	***2970**	***2952**	***2938**	***2928**	***2920**	***2795**	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	***3211**	***3200**	***3192**	***3186**	***3182**	***3179**	***2795**	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1300 plf, 1600 plf, 2100 plf or 2600 plf for No. 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	538	557	492	514	467	488	451	–	–
		F	-0.6+269R	2.1+215R	6.6+178R	7.4+153R	10.4+133R	10.4+119R	12.7+106R		
	VSC2 @ 18"	q	634	631	568	576	582	541	550	–	–
		F	-3.5+270R	-0.1+216R	3.9+179R	5.3+154R	6.3+135R	8.5+119R	8.9+107R		
	VSC2 @ 12"	q	702	688	678	671	665	661	657	–	–
		F	-5.3+271R	-1.6+216R	0.9+180R	2.6+154R	4+135R	5+120R	5.8+108R		
	VSC2 @ 8"	q	786	791	773	779	767	772	762	–	–
		F	-7.3+271R	-4.1+217R	-1.5+181R	0+155R	1.4+135R	2.2+120R	3.2+108R		
	VSC2 @ 6"	q	831	827	824	822	821	819	818	–	–
		F	-8.5+271R	-5.1+217R	-2.8+181R	-1.1+155R	0.1+136R	1.1+121R	1.8+108R		
	VSC2 @ 4"	q	874	873	872	871	870	870	869	–	–
		F	-9.8+272R	-6.4+217R	-4.1+181R	-2.5+155R	-1.3+136R	-0.3+121R	0.4+109R		
20	VSC2 @ 24"	q	668	695	622	651	597	624	581	605	570
		F	2.1+170R	3.6+136R	6.7+113R	6.9+97R	9.1+84R	8.9+75R	10.5+67R	10.2+61R	11.5+56R
	VSC2 @ 18"	q	779	780	712	723	732	686	697	706	672
		F	-0.3+171R	1.8+137R	4.6+114R	5.3+97R	5.9+85R	7.4+76R	7.6+68R	7.8+62R	8.9+57R
	VSC2 @ 12"	q	852	841	832	826	821	817	814	811	809
		F	-1.7+171R	0.6+137R	2.2+114R	3.3+98R	4.1+86R	4.8+76R	5.3+68R	5.7+62R	6.1+57R
	VSC2 @ 8"	q	936	942	926	932	921	927	918	923	912
		F	-3.3+172R	-1.3+137R	0.4+114R	1.3+98R	2.3+86R	2.7+76R	3.4+69R	3.7+62R	4.1+57R
	VSC2 @ 6"	q	978	975	973	971	970	969	969	968	912
		F	-4.2+172R	-2+137R	-0.5+115R	0.5+98R	1.3+86R	1.9+76R	2.4+69R	2.8+62R	3.1+57R
	VSC2 @ 4"	q	1016	1015	1014	1013	1013	1013	1012	1012	912
		F	-5.1+172R	-3+138R	-1.5+115R	-0.5+98R	0.3+86R	0.9+76R	1.3+69R	1.7+63R	2+57R
18	VSC2 @ 24"	q	898	938	853	892	829	864	813	845	802
		F	2.8+83R	3.2+67R	4.9+55R	4.8+48R	5.9+41R	5.7+37R	6.6+33R	6.4+30R	7+28R
	VSC2 @ 18"	q	1029	1034	961	977	988	938	952	963	925
		F	1.2+84R	2.2+67R	3.6+56R	3.9+48R	4.1+42R	4.9+37R	5+33R	5+30R	5.6+28R
	VSC2 @ 12"	q	1108	1098	1091	1086	1083	1079	1077	1075	1073
		F	0.4+84R	1.5+67R	2.2+56R	2.7+48R	3.1+42R	3.4+37R	3.7+34R	3.9+30R	4.1+28R
	VSC2 @ 8"	q	1189	1195	1182	1188	1178	1184	1176	1181	1174
		F	-0.5+84R	0.4+67R	1.2+56R	1.6+48R	2.1+42R	2.3+37R	2.7+34R	2.8+31R	3+28R
	VSC2 @ 6"	q	1227	1225	1223	1222	1221	1221	1220	1220	1219
		F	-1+84R	0+67R	0.7+56R	1.2+48R	1.6+42R	1.9+37R	2.1+34R	2.3+31R	2.5+28R
	VSC2 @ 4"	q	1259	1258	1257	1257	1257	1257	1256	1256	1256
		F	-1.5+84R	-0.5+67R	0.2+56R	0.7+48R	1.1+42R	1.4+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	1106	1154	1063	1108	1039	1080	1023	1060	1013
		F	3.6+47R	3.7+38R	4.9+31R	4.8+27R	5.6+24R	5.3+21R	6+19R	5.7+17R	6.3+16R
	VSC2 @ 18"	q	1249	1257	1182	1200	1213	1160	1176	1189	1149
		F	2.3+48R	2.8+38R	3.8+32R	3.9+27R	4+24R	4.6+21R	4.6+19R	4.6+17R	5+16R
	VSC2 @ 12"	q	1330	1322	1316	1312	1309	1306	1304	1303	1301
		F	1.6+48R	2.2+38R	2.7+32R	3+27R	3.2+24R	3.4+21R	3.5+19R	3.7+17R	3.8+16R
	VSC2 @ 8"	q	1409	1416	1404	1410	1401	1406	1399	1404	1398
		F	0.8+48R	1.3+38R	1.9+32R	2.1+27R	2.4+24R	2.5+21R	2.7+19R	2.7+17R	2.9+16R
	VSC2 @ 6"	q	1444	1443	1442	1441	1440	1440	1440	1439	1439
		F	0.4+48R	1+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	1473	1473	1472	1472	1472	1472	1472	1471	1471
		F	0+48R	0.6+38R	1+32R	1.3+27R	1.5+24R	1.7+21R	1.8+19R	1.9+17R	2+16R

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	653	672	576	601	535	560	510	–	–
		F	13.8+26R	13.7+21R	16.2+16R	15.6+14R	17.5+11R	16.9+10R	18.5+8R		
	VSC2 @ 18"	q	802	791	685	693	700	635	646	–	–
		F	11.1+28R	11.6+22R	13.6+17R	13.6+15R	13.6+13R	15+11R	14.8+10R		
	VSC2 @ 12"	q	928	895	872	855	842	832	823	–	–
		F	9.4+29R	10.1+23R	10.7+19R	11+16R	11.3+14R	11.5+12R	11.7+11R		
	VSC2 @ 8"	q	1119	1128	1081	1094	1060	1073	1001	–	–
		F	7.4+29R	7.7+24R	8.4+19R	8.4+17R	8.8+15R	8.8+13R	9.1+12R		
	VSC2 @ 6"	q	1249	1234	1223	1215	1209	1204	1001	–	–
		F	6.3+30R	6.8+24R	7.1+20R	7.3+17R	7.5+15R	7.6+13R	7.8+12R		
	VSC2 @ 4"	q	1399	1392	1387	1383	1380	1236	1001	–	–
		F	5.1+30R	5.5+24R	5.8+20R	6+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	825	859	741	780	697	734	670	703	652
		F	11.2+16R	10.9+13R	12.8+10R	12.2+9R	13.6+7R	13+6R	14.2+5R	13.6+5R	14.6+4R
	VSC2 @ 18"	q	1014	1009	882	898	910	830	847	861	803
		F	9+17R	9.2+14R	10.7+11R	10.6+9R	10.5+8R	11.5+7R	11.3+6R	11.2+6R	12+5R
	VSC2 @ 12"	q	1167	1135	1112	1096	1083	1073	1065	1058	912
		F	7.6+18R	8.1+14R	8.4+12R	8.6+10R	8.8+9R	8.9+8R	9+7R	9.1+6R	9.2+6R
	VSC2 @ 8"	q	1384	1398	1349	1365	1331	1346	1313	1085	912
		F	6.1+19R	6.2+15R	6.6+12R	6.6+11R	6.9+9R	6.9+8R	7.1+7R	7.1+7R	7.2+6R
	VSC2 @ 6"	q	1519	1506	1498	1491	1486	1482	1313	1085	912
		F	5.2+19R	5.5+15R	5.7+13R	5.9+11R	6+9R	6+8R	6.1+8R	6.2+7R	6.2+6R
	VSC2 @ 4"	q	1664	1658	1654	1651	1649	1621	1313	1085	912
		F	4.3+19R	4.6+15R	4.7+13R	4.9+11R	5+10R	5+8R	5.1+8R	5.1+7R	5.2+6R
18	VSC2 @ 24"	q	1142	1204	1050	1112	1002	1057	972	1021	951
		F	7.3+8R	6.8+7R	7.9+5R	7.4+5R	8.2+4R	7.8+3R	8.4+3R	8+3R	8.5+2R
	VSC2 @ 18"	q	1397	1401	1244	1271	1291	1189	1215	1235	1160
		F	5.8+9R	5.8+7R	6.6+6R	6.5+5R	6.4+4R	6.9+4R	6.8+3R	6.7+3R	7.1+3R
	VSC2 @ 12"	q	1588	1558	1536	1521	1509	1499	1492	1485	1394
		F	4.9+9R	5.1+7R	5.3+6R	5.4+5R	5.4+4R	5.5+4R	5.5+4R	5.6+3R	5.6+3R
	VSC2 @ 8"	q	1834	1853	1805	1824	1790	1807	1781	1659	1394
		F	4+9R	4.1+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R	4.5+4R	4.5+3R	4.5+3R
	VSC2 @ 6"	q	1972	1962	1956	1951	1947	1944	1941	1659	1394
		F	3.6+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	4+4R	4+3R	4+3R
	VSC2 @ 4"	q	2106	2103	2100	2098	2097	2095	2007	1659	1394
		F	3.1+9R	3.2+8R	3.3+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1439	1525	1342	1423	1290	1362	1258	1321	1236
		F	6.2+4R	5.8+4R	6.6+3R	6.2+2R	6.9+2R	6.5+2R	7+1R	6.7+1R	7.1+1R
	VSC2 @ 18"	q	1747	1759	1578	1614	1641	1522	1555	1581	1493
		F	4.9+5R	4.9+4R	5.6+3R	5.4+3R	5.3+2R	5.8+2R	5.7+2R	5.6+2R	5.9+1R
	VSC2 @ 12"	q	1965	1936	1916	1901	1890	1881	1873	1867	1862
		F	4.2+5R	4.3+4R	4.4+3R	4.5+3R	4.5+2R	4.6+2R	4.6+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2227	2248	2202	2222	2189	2207	2180	2197	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.6+3R	3.7+3R	3.6+2R	3.7+2R	3.7+2R	3.8+2R
	VSC2 @ 6"	q	2365	2357	2351	2347	2344	2341	2339	2310	1941
		F	3+5R	3.1+4R	3.2+4R	3.2+3R	3.2+3R	3.3+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	2492	2489	2487	2485	2484	2483	2482	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	692	703	603	625	556	579	527	–	–
		F	12.3+28R	12.6+22R	14.8+17R	14.5+15R	16.3+12R	15.9+11R	17.3+10R		
	VSC2 @ 18"	q	835	818	710	715	719	652	662	–	–
		F	10.2+29R	10.8+23R	12.7+18R	12.8+16R	12.9+14R	14.2+12R	14.1+11R		
	VSC2 @ 12"	q	955	918	892	872	858	846	836	–	–
		F	8.8+29R	9.6+23R	10.2+19R	10.6+16R	10.9+14R	11.1+13R	11.3+11R		
	VSC2 @ 8"	q	1138	1143	1094	1105	1071	1082	1001	–	–
		F	7.1+30R	7.4+24R	8.1+20R	8.2+17R	8.6+15R	8.6+13R	8.9+12R		
	VSC2 @ 6"	q	1262	1244	1232	1223	1216	1211	1001	–	–
		F	6.1+30R	6.6+24R	6.9+20R	7.2+17R	7.4+15R	7.5+13R	7.7+12R		
	VSC2 @ 4"	q	1406	1397	1391	1387	1384	1236	1001	–	–
		F	5+30R	5.4+24R	5.7+20R	5.9+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	866	891	771	805	720	754	689	720	668
		F	10.2+17R	10.2+14R	11.9+11R	11.5+9R	12.8+8R	12.4+7R	13.5+6R	13+6R	13.9+5R
	VSC2 @ 18"	q	1048	1036	908	920	929	848	863	875	817
		F	8.4+18R	8.7+14R	10.1+11R	10.1+10R	10.1+9R	11.1+7R	10.9+7R	10.8+6R	11.6+5R
	VSC2 @ 12"	q	1194	1157	1132	1113	1098	1087	1078	1070	912
		F	7.2+18R	7.7+15R	8.1+12R	8.3+10R	8.5+9R	8.7+8R	8.8+7R	8.9+6R	9+6R
	VSC2 @ 8"	q	1400	1410	1362	1376	1341	1355	1313	1085	912
		F	5.9+19R	6+15R	6.5+12R	6.5+11R	6.8+9R	6.8+8R	7+7R	7+7R	7.1+6R
	VSC2 @ 6"	q	1530	1515	1505	1498	1492	1488	1313	1085	912
		F	5.1+19R	5.4+15R	5.6+13R	5.8+11R	5.9+9R	6+8R	6.1+8R	6.1+7R	6.2+6R
	VSC2 @ 4"	q	1668	1662	1657	1654	1652	1621	1313	1085	912
		F	4.2+19R	4.5+15R	4.7+13R	4.8+11R	4.9+10R	5+9R	5.1+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1187	1238	1083	1138	1027	1079	993	1039	969
		F	6.8+8R	6.6+7R	7.5+5R	7.2+5R	7.9+4R	7.5+4R	8.2+3R	7.8+3R	8.3+3R
	VSC2 @ 18"	q	1431	1429	1271	1294	1310	1208	1232	1250	1175
		F	5.6+9R	5.6+7R	6.4+6R	6.3+5R	6.2+4R	6.8+4R	6.7+3R	6.6+3R	7+3R
	VSC2 @ 12"	q	1613	1579	1555	1537	1523	1512	1504	1496	1394
		F	4.8+9R	5+7R	5.2+6R	5.3+5R	5.3+4R	5.4+4R	5.4+4R	5.5+3R	5.5+3R
	VSC2 @ 8"	q	1847	1863	1815	1833	1798	1814	1787	1659	1394
		F	4+9R	4+7R	4.2+6R	4.2+5R	4.4+5R	4.3+4R	4.5+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	1980	1969	1961	1956	1951	1948	1945	1659	1394
		F	3.5+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	3.9+4R	4+3R	4+3R
	VSC2 @ 4"	q	2110	2105	2102	2100	2098	2097	2007	1659	1394
		F	3+9R	3.2+8R	3.2+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1487	1560	1377	1451	1317	1384	1280	1340	1255
		F	5.9+5R	5.6+4R	6.4+3R	6+3R	6.6+2R	6.3+2R	6.8+2R	6.5+2R	7+1R
	VSC2 @ 18"	q	1781	1786	1606	1638	1660	1542	1572	1596	1508
		F	4.7+5R	4.8+4R	5.4+3R	5.3+3R	5.2+2R	5.7+2R	5.6+2R	5.5+2R	5.8+2R
	VSC2 @ 12"	q	1988	1956	1933	1916	1904	1893	1885	1878	1872
		F	4.1+5R	4.2+4R	4.3+3R	4.4+3R	4.5+3R	4.5+2R	4.5+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2239	2257	2211	2229	2196	2213	2186	2201	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.7+2R	3.7+2R
	VSC2 @ 6"	q	2371	2362	2356	2351	2348	2345	2342	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	2494	2491	2489	2487	2486	2484	2484	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/9 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	889	867	743	748	665	678	616	–	–
		F	10.4+28R	11+22R	13+17R	13.1+15R	14.6+12R	14.5+11R	15.8+9R		
	VSC2 @ 18"	q	1034	987	853	842	834	755	757	–	–
		F	9+29R	9.8+23R	11.4+18R	11.7+15R	11.9+13R	13.1+11R	13.2+10R		
	VSC2 @ 12"	q	1162	1096	1049	1014	986	965	947	–	–
		F	8+29R	8.8+23R	9.4+19R	9.9+16R	10.3+14R	10.6+12R	10.8+11R		
	VSC2 @ 8"	q	1369	1357	1284	1287	1237	1236	1001	–	–
		F	6.6+30R	7+24R	7.7+20R	7.9+17R	8.3+15R	8.4+13R	8.7+12R		
	VSC2 @ 6"	q	***1523**	***1486**	***1460**	***1440**	***1425**	1236	1001	–	–
		F	5.8+30R	6.3+24R	6.7+20R	7+17R	7.2+15R	7.4+13R	7.5+12R		
	VSC2 @ 4"	q	***1721**	***1700**	***1686**	***1675**	***1564**	1236	1001	–	–
		F	4.8+30R	5.3+24R	5.6+20R	5.8+17R	6+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	1092	1083	933	950	847	871	794	819	758
		F	8.9+17R	9.2+14R	10.6+11R	10.5+9R	11.7+8R	11.5+7R	12.5+6R	12.2+5R	13+5R
	VSC2 @ 18"	q	1281	1238	1077	1073	1070	972	980	987	912
		F	7.6+18R	8+14R	9.3+11R	9.4+10R	9.5+8R	10.4+7R	10.4+6R	10.3+6R	11+5R
	VSC2 @ 12"	q	1441	1374	1326	1290	1263	1241	1223	1085	912
		F	6.7+18R	7.2+14R	7.6+12R	7.9+10R	8.2+9R	8.3+8R	8.5+7R	8.6+6R	8.7+6R
	VSC2 @ 8"	q	1687	1683	1607	1615	1562	1575	1313	1085	912
		F	5.6+19R	5.8+15R	6.3+12R	6.3+11R	6.6+9R	6.6+8R	6.9+7R	6.8+7R	7+6R
	VSC2 @ 6"	q	***1857**	***1825**	***1801**	***1784**	***1771**	1621	1313	1085	912
		F	4.9+19R	5.2+15R	5.5+13R	5.7+11R	5.8+9R	5.9+8R	6+8R	6+7R	6.1+6R
	VSC2 @ 4"	q	***2060**	***2044**	***2032**	***2024**	***2017**	1621	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.8+11R	4.9+10R	4.9+8R	5+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1467	1482	1288	1327	1191	1234	1130	1172	1089
		F	6.3+8R	6.2+7R	7+5R	6.8+5R	7.5+4R	7.2+3R	7.8+3R	7.5+3R	8+2R
	VSC2 @ 18"	q	1730	1695	1493	1500	1506	1378	1395	1410	1317
		F	5.2+9R	5.4+7R	6.1+6R	6.1+5R	6+4R	6.5+4R	6.5+3R	6.4+3R	6.8+3R
	VSC2 @ 12"	q	1941	1874	1825	1790	1762	1740	1721	1659	1394
		F	4.6+9R	4.8+7R	5+6R	5.1+5R	5.2+4R	5.3+4R	5.3+4R	5.4+3R	5.4+3R
	VSC2 @ 8"	q	***2239**	***2246**	2167	2183	2127	2145	2007	1659	1394
		F	3.9+9R	3.9+7R	4.2+6R	4.2+5R	4.3+5R	4.3+4R	4.4+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	***2428**	***2401**	***2382**	***2367**	***2356**	***2348**	2007	1659	1394
		F	3.5+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	***2632**	***2620**	***2611**	***2605**	***2600**	***2478**	2007	1659	1394
		F	3+9R	3.1+8R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1819	1857	1624	1684	1518	1579	1452	1510	1407
		F	5.4+5R	5.2+4R	6+3R	5.7+2R	6.3+2R	6.1+2R	6.5+2R	6.3+1R	6.7+1R
	VSC2 @ 18"	q	2146	2118	1882	1899	1912	1760	1786	1807	1696
		F	4.5+5R	4.6+4R	5.2+3R	5.1+3R	5.1+2R	5.5+2R	5.4+2R	5.3+2R	5.7+1R
	VSC2 @ 12"	q	2395	2329	2281	2245	2218	2195	2177	2162	1941
		F	3.9+5R	4.1+4R	4.2+3R	4.3+3R	4.4+2R	4.4+2R	4.5+2R	4.5+2R	4.5+2R
	VSC2 @ 8"	q	***2730**	***2743**	***2663**	***2684**	***2627**	***2648**	***2603**	2310	1941
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	***2927**	***2904**	***2887**	***2875**	***2866**	***2858**	***2795**	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	***3130**	***3120**	***3113**	***3108**	***3104**	***3101**	***2795**	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1400 plf, 1700 plf, 2200 plf or 2500 plf for No. 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

Page 100 has the footnotes.

(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	539	558	493	515	468	488	452	–	–
		F	-0.6+269R	2.1+215R	6.6+178R	7.4+153R	10.4+133R	10.4+119R	12.7+106R		
	VSC2 @ 18"	q	635	633	569	578	583	542	551	–	–
		F	-3.5+270R	-0.1+216R	3.9+179R	5.3+154R	6.3+135R	8.5+119R	8.9+107R		
	VSC2 @ 12"	q	704	690	680	672	667	662	658	–	–
		F	-5.3+271R	-1.6+216R	0.9+180R	2.6+154R	4+135R	5+120R	5.8+108R		
	VSC2 @ 8"	q	788	793	775	781	769	774	764	–	–
		F	-7.3+271R	-4.1+217R	-1.5+181R	0+155R	1.4+135R	2.2+120R	3.2+108R		
	VSC2 @ 6"	q	834	830	827	825	823	822	821	–	–
		F	-8.5+271R	-5.1+217R	-2.8+181R	-1.1+155R	0.1+136R	1.1+121R	1.8+108R		
	VSC2 @ 4"	q	877	876	875	874	873	873	872	–	–
		F	-9.8+272R	-6.4+217R	-4.1+181R	-2.5+155R	-1.3+136R	-0.3+121R	0.4+109R		
20	VSC2 @ 24"	q	714	741	658	688	628	656	608	634	595
		F	2.1+170R	3.6+136R	6.7+113R	6.9+97R	9.1+84R	8.9+75R	10.5+67R	10.2+61R	11.5+56R
	VSC2 @ 18"	q	838	837	758	769	778	725	737	747	708
		F	-0.3+171R	1.8+137R	4.6+114R	5.3+97R	5.9+85R	7.4+76R	7.6+68R	7.8+62R	8.9+57R
	VSC2 @ 12"	q	924	908	897	889	882	877	873	869	866
		F	-1.7+171R	0.6+137R	2.2+114R	3.3+98R	4.1+86R	4.8+76R	5.3+68R	5.7+62R	6.1+57R
	VSC2 @ 8"	q	1026	1032	1012	1020	1005	1012	1000	1007	912
		F	-3.3+172R	-1.3+137R	0.4+114R	1.3+98R	2.3+86R	2.7+76R	3.4+69R	3.7+62R	4.1+57R
	VSC2 @ 6"	q	1079	1075	1072	1070	1068	1067	1066	1065	912
		F	-4.2+172R	-2+137R	-0.5+115R	0.5+98R	1.3+86R	1.9+76R	2.4+69R	2.8+62R	3.1+57R
	VSC2 @ 4"	q	1129	1127	1126	1125	1125	1124	1124	1085	912
		F	-5.1+172R	-3+138R	-1.5+115R	-0.5+98R	0.3+86R	0.9+76R	1.3+69R	1.7+63R	2+57R
18	VSC2 @ 24"	q	1027	1069	958	1003	920	962	897	934	880
		F	2.8+83R	3.2+67R	4.9+55R	4.8+48R	5.9+41R	5.7+37R	6.6+33R	6.4+30R	7+28R
	VSC2 @ 18"	q	1195	1197	1095	1113	1126	1057	1074	1088	1036
		F	1.2+84R	2.2+67R	3.6+56R	3.9+48R	4.1+42R	4.9+37R	5+33R	5+30R	5.6+28R
	VSC2 @ 12"	q	1306	1289	1276	1267	1260	1255	1250	1246	1243
		F	0.4+84R	1.5+67R	2.2+56R	2.7+48R	3.1+42R	3.4+37R	3.7+34R	3.9+30R	4.1+28R
	VSC2 @ 8"	q	1431	1439	1417	1426	1409	1418	1405	1412	1394
		F	-0.5+84R	0.4+67R	1.2+56R	1.6+48R	2.1+42R	2.3+37R	2.7+34R	2.8+31R	3+28R
	VSC2 @ 6"	q	1493	1489	1486	1483	1482	1480	1479	1478	1394
		F	-1+84R	0+67R	0.7+56R	1.2+48R	1.6+42R	1.9+37R	2.1+34R	2.3+31R	2.5+28R
	VSC2 @ 4"	q	1548	1547	1546	1545	1544	1544	1543	1543	1394
		F	-1.5+84R	-0.5+67R	0.2+56R	0.7+48R	1.1+42R	1.4+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	1312	1368	1235	1293	1193	1246	1167	1214	1148
		F	3.6+47R	3.7+38R	4.9+31R	4.8+27R	5.6+24R	5.3+21R	6+19R	5.7+17R	6.3+16R
	VSC2 @ 18"	q	1516	1521	1403	1426	1442	1361	1383	1400	1339
		F	2.3+48R	2.8+38R	3.8+32R	3.9+27R	4+24R	4.6+21R	4.6+19R	4.6+17R	5+16R
	VSC2 @ 12"	q	1645	1627	1614	1605	1598	1592	1587	1583	1580
		F	1.6+48R	2.2+38R	2.7+32R	3+27R	3.2+24R	3.4+21R	3.5+19R	3.7+17R	3.8+16R
	VSC2 @ 8"	q	1784	1794	1770	1780	1763	1772	1758	1767	1755
		F	0.8+48R	1.3+38R	1.9+32R	2.1+27R	2.4+24R	2.5+21R	2.7+19R	2.7+17R	2.9+16R
	VSC2 @ 6"	q	1851	1847	1844	1842	1840	1839	1838	1837	1836
		F	0.4+48R	1+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	1909	1907	1906	1906	1905	1905	1904	1904	1904
		F	0+48R	0.6+38R	1+32R	1.3+27R	1.5+24R	1.7+21R	1.8+19R	1.9+17R	2+16R

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TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	654	673	576	602	536	561	511	–	–
		F	13.8+26R	13.7+21R	16.2+16R	15.6+14R	17.5+11R	16.9+10R	18.5+8R		
	VSC2 @ 18"	q	803	792	686	694	701	636	647	–	–
		F	11.1+28R	11.6+22R	13.6+17R	13.6+15R	13.6+13R	15+11R	14.8+10R		
	VSC2 @ 12"	q	929	896	873	856	843	833	824	–	–
		F	9.4+29R	10.1+23R	10.7+19R	11+16R	11.3+14R	11.5+12R	11.7+11R		
	VSC2 @ 8"	q	1121	1131	1083	1096	1062	1075	1001	–	–
		F	7.4+29R	7.7+24R	8.4+19R	8.4+17R	8.8+15R	8.8+13R	9.1+12R		
	VSC2 @ 6"	q	1252	1237	1226	1218	1212	1207	1001	–	–
		F	6.3+30R	6.8+24R	7.1+20R	7.3+17R	7.5+15R	7.6+13R	7.8+12R		
	VSC2 @ 4"	q	1403	1396	1391	1387	1384	1236	1001	–	–
		F	5.1+30R	5.5+24R	5.8+20R	6+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	873	903	775	813	725	760	693	726	672
		F	11.2+16R	10.9+13R	12.8+10R	12.2+9R	13.6+7R	13+6R	14.2+5R	13.6+5R	14.6+4R
	VSC2 @ 18"	q	1073	1062	923	937	947	861	878	891	829
		F	9+17R	9.2+14R	10.7+11R	10.6+9R	10.5+8R	11.5+7R	11.3+6R	11.2+6R	12+5R
	VSC2 @ 12"	q	1239	1199	1171	1151	1135	1123	1113	1085	912
		F	7.6+18R	8.1+14R	8.4+12R	8.6+10R	8.8+9R	8.9+8R	9+7R	9.1+6R	9.2+6R
	VSC2 @ 8"	q	1484	1498	1440	1457	1416	1433	1313	1085	912
		F	6.1+19R	6.2+15R	6.6+12R	6.6+11R	6.9+9R	6.9+8R	7.1+7R	7.1+7R	7.2+6R
	VSC2 @ 6"	q	1646	1628	1616	1607	1601	1595	1313	1085	912
		F	5.2+19R	5.5+15R	5.7+13R	5.9+11R	6+9R	6+8R	6.1+8R	6.2+7R	6.2+6R
	VSC2 @ 4"	q	1826	1818	1812	1808	1805	1621	1313	1085	912
		F	4.3+19R	4.6+15R	4.7+13R	4.9+11R	5+10R	5+8R	5.1+8R	5.1+7R	5.2+6R
18	VSC2 @ 24"	q	1271	1326	1145	1206	1079	1135	1038	1089	1010
		F	7.3+8R	6.8+7R	7.9+5R	7.4+5R	8.2+4R	7.8+3R	8.4+3R	8+3R	8.5+2R
	VSC2 @ 18"	q	1563	1556	1362	1387	1406	1284	1310	1332	1243
		F	5.8+9R	5.8+7R	6.6+6R	6.5+5R	6.4+4R	6.9+4R	6.8+3R	6.7+3R	7.1+3R
	VSC2 @ 12"	q	1796	1748	1715	1690	1671	1657	1644	1634	1394
		F	4.9+9R	5.1+7R	5.3+6R	5.4+5R	5.4+4R	5.5+4R	5.5+4R	5.6+3R	5.6+3R
	VSC2 @ 8"	q	2124	2146	2074	2099	2047	2070	2007	1659	1394
		F	4+9R	4.1+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R	4.5+4R	4.5+3R	4.5+3R
	VSC2 @ 6"	q	2328	2309	2296	2287	2280	2274	2007	1659	1394
		F	3.6+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	4+4R	4+3R	4+3R
	VSC2 @ 4"	q	2542	2534	2529	2525	2521	2478	2007	1659	1394
		F	3.1+9R	3.2+8R	3.3+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1643	1724	1495	1580	1418	1494	1370	1438	1337
		F	6.2+4R	5.8+4R	6.6+3R	6.2+2R	6.9+2R	6.5+2R	7+1R	6.7+1R	7.1+1R
	VSC2 @ 18"	q	2017	2017	1776	1813	1839	1686	1722	1751	1639
		F	4.9+5R	4.9+4R	5.6+3R	5.4+3R	5.3+2R	5.8+2R	5.7+2R	5.6+2R	5.9+1R
	VSC2 @ 12"	q	2308	2255	2218	2191	2170	2154	2141	2130	1941
		F	4.2+5R	4.3+4R	4.4+3R	4.5+3R	4.5+2R	4.6+2R	4.6+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2699	2728	2647	2677	2619	2646	2602	2310	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.6+3R	3.7+3R	3.6+2R	3.7+2R	3.7+2R	3.8+2R
	VSC2 @ 6"	q	2931	2912	2899	2890	2883	2877	2795	2310	1941
		F	3+5R	3.1+4R	3.2+4R	3.2+3R	3.2+3R	3.3+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	3165	3158	3152	3148	3145	3143	2795	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	693	704	604	625	557	580	528	–	–
		F	12.3+28R	12.6+22R	14.8+17R	14.5+15R	16.3+12R	15.9+11R	17.3+10R		
	VSC2 @ 18"	q	836	819	711	716	720	653	663	–	–
		F	10.2+29R	10.8+23R	12.7+18R	12.8+16R	12.9+14R	14.2+12R	14.1+11R		
	VSC2 @ 12"	q	957	920	893	874	859	847	837	–	–
		F	8.8+29R	9.6+23R	10.2+19R	10.6+16R	10.9+14R	11.1+13R	11.3+11R		
	VSC2 @ 8"	q	1140	1145	1097	1107	1073	1084	1001	–	–
		F	7.1+30R	7.4+24R	8.1+20R	8.2+17R	8.6+15R	8.6+13R	8.9+12R		
	VSC2 @ 6"	q	1265	1247	1235	1226	1219	1214	1001	–	–
		F	6.1+30R	6.6+24R	6.9+20R	7.2+17R	7.4+15R	7.5+13R	7.7+12R		
	VSC2 @ 4"	q	1410	1401	1395	1391	1387	1236	1001	–	–
		F	5+30R	5.4+24R	5.7+20R	5.9+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	921	941	810	842	751	784	715	745	690
		F	10.2+17R	10.2+14R	11.9+11R	11.5+9R	12.8+8R	12.4+7R	13.5+6R	13+6R	13.9+5R
	VSC2 @ 18"	q	1113	1095	954	963	970	883	897	909	846
		F	8.4+18R	8.7+14R	10.1+11R	10.1+10R	10.1+9R	11.1+7R	10.9+7R	10.8+6R	11.6+5R
	VSC2 @ 12"	q	1272	1227	1195	1172	1154	1140	1129	1085	912
		F	7.2+18R	7.7+15R	8.1+12R	8.3+10R	8.5+9R	8.7+8R	8.8+7R	8.9+6R	9+6R
	VSC2 @ 8"	q	1506	1515	1456	1470	1429	1444	1313	1085	912
		F	5.9+19R	6+15R	6.5+12R	6.5+11R	6.8+9R	6.8+8R	7+7R	7+7R	7.1+6R
	VSC2 @ 6"	q	1660	1640	1627	1617	1609	1603	1313	1085	912
		F	5.1+19R	5.4+15R	5.6+13R	5.8+11R	5.9+9R	6+8R	6.1+8R	6.1+7R	6.2+6R
	VSC2 @ 4"	q	1832	1823	1817	1812	1809	1621	1313	1085	912
		F	4.2+19R	4.5+15R	4.7+13R	4.8+11R	4.9+10R	5+9R	5.1+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1333	1374	1190	1243	1113	1165	1066	1114	1034
		F	6.8+8R	6.6+7R	7.5+5R	7.2+5R	7.9+4R	7.5+4R	8.2+3R	7.8+3R	8.3+3R
	VSC2 @ 18"	q	1613	1596	1401	1420	1435	1312	1335	1354	1265
		F	5.6+9R	5.6+7R	6.4+6R	6.3+5R	6.2+4R	6.8+4R	6.7+3R	6.6+3R	7+3R
	VSC2 @ 12"	q	1836	1782	1744	1716	1694	1677	1663	1652	1394
		F	4.8+9R	5+7R	5.2+6R	5.3+5R	5.3+4R	5.4+4R	5.4+4R	5.5+3R	5.5+3R
	VSC2 @ 8"	q	2149	2165	2092	2113	2062	2082	2007	1659	1394
		F	4+9R	4+7R	4.2+6R	4.2+5R	4.4+5R	4.3+4R	4.5+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	2343	2322	2307	2297	2288	2282	2007	1659	1394
		F	3.5+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	3.9+4R	4+3R	4+3R
	VSC2 @ 4"	q	2549	2540	2533	2529	2525	2478	2007	1659	1394
		F	3+9R	3.2+8R	3.2+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1716	1780	1548	1623	1458	1529	1403	1468	1365
		F	5.9+5R	5.6+4R	6.4+3R	6+3R	6.6+2R	6.3+2R	6.8+2R	6.5+2R	7+1R
	VSC2 @ 18"	q	2074	2062	1822	1851	1872	1718	1750	1776	1664
		F	4.7+5R	4.8+4R	5.4+3R	5.3+3R	5.2+2R	5.7+2R	5.6+2R	5.5+2R	5.8+2R
	VSC2 @ 12"	q	2351	2292	2250	2219	2196	2177	2161	2149	1941
		F	4.1+5R	4.2+4R	4.3+3R	4.4+3R	4.5+3R	4.5+2R	4.5+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2725	2747	2666	2692	2634	2659	2614	2310	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.7+2R	3.7+2R
	VSC2 @ 6"	q	2946	2925	2910	2900	2891	2885	2795	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	3172	3163	3157	3152	3149	3146	2795	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/9 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	891	869	744	749	666	679	617	–	–
		F	10.4+28R	11+22R	13+17R	13.1+15R	14.6+12R	14.5+11R	15.8+9R		
	VSC2 @ 18"	q	1037	989	854	844	836	756	758	–	–
		F	9+29R	9.8+23R	11.4+18R	11.7+15R	11.9+13R	13.1+11R	13.2+10R		
	VSC2 @ 12"	q	1165	1098	1050	1015	988	966	949	–	–
		F	8+29R	8.8+23R	9.4+19R	9.9+16R	10.3+14R	10.6+12R	10.8+11R		
	VSC2 @ 8"	q	1372	1360	1286	1289	1239	1236	1001	–	–
		F	6.6+30R	7+24R	7.7+20R	7.9+17R	8.3+15R	8.4+13R	8.7+12R		
	VSC2 @ 6"	q	***1526**	***1489**	***1463**	***1443**	***1428**	1236	1001	–	–
		F	5.8+30R	6.3+24R	6.7+20R	7+17R	7.2+15R	7.4+13R	7.5+12R		
	VSC2 @ 4"	q	***1725**	***1705**	***1690**	***1679**	***1564**	1236	1001	–	–
		F	4.8+30R	5.3+24R	5.6+20R	5.8+17R	6+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	1173	1153	990	1002	891	912	830	853	788
		F	8.9+17R	9.2+14R	10.6+11R	10.5+9R	11.7+8R	11.5+7R	12.5+6R	12.2+5R	13+5R
	VSC2 @ 18"	q	1371	1315	1140	1130	1123	1017	1022	1027	912
		F	7.6+18R	8+14R	9.3+11R	9.4+10R	9.5+8R	10.4+7R	10.4+6R	10.3+6R	11+5R
	VSC2 @ 12"	q	1542	1460	1403	1360	1327	1300	1279	1085	912
		F	6.7+18R	7.2+14R	7.6+12R	7.9+10R	8.2+9R	8.3+8R	8.5+7R	8.6+6R	8.7+6R
	VSC2 @ 8"	q	1812	1802	1711	1718	1655	1621	1313	1085	912
		F	5.6+19R	5.8+15R	6.3+12R	6.3+11R	6.6+9R	6.6+8R	6.9+7R	6.8+7R	7+6R
	VSC2 @ 6"	q	***2008**	***1965**	***1935**	***1912**	1895	1621	1313	1085	912
		F	4.9+19R	5.2+15R	5.5+13R	5.7+11R	5.8+9R	5.9+8R	6+8R	6+7R	6.1+6R
	VSC2 @ 4"	q	***2251**	***2229**	***2213**	***2201**	***2052**	1621	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.8+11R	4.9+10R	4.9+8R	5+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1677	1667	1437	1465	1307	1345	1227	1266	1172
		F	6.3+8R	6.2+7R	7+5R	6.8+5R	7.5+4R	7.2+3R	7.8+3R	7.5+3R	8+2R
	VSC2 @ 18"	q	1969	1906	1660	1656	1652	1502	1515	1525	1394
		F	5.2+9R	5.4+7R	6.1+6R	6.1+5R	6+4R	6.5+4R	6.5+3R	6.4+3R	6.8+3R
	VSC2 @ 12"	q	2215	2114	2043	1990	1948	1915	1889	1659	1394
		F	4.6+9R	4.8+7R	5+6R	5.1+5R	5.2+4R	5.3+4R	5.3+4R	5.4+3R	5.4+3R
	VSC2 @ 8"	q	2590	2585	2471	2485	2406	2425	2007	1659	1394
		F	3.9+9R	3.9+7R	4.2+6R	4.2+5R	4.3+5R	4.3+4R	4.4+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	***2847**	***2799**	***2765**	***2740**	***2720**	2478	2007	1659	1394
		F	3.5+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	***3151**	***3127**	***3110**	***3098**	***3088**	2478	2007	1659	1394
		F	3+9R	3.1+8R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	2139	2144	1855	1901	1701	1756	1605	1661	1540
		F	5.4+5R	5.2+4R	6+3R	5.7+2R	6.3+2R	6.1+2R	6.5+2R	6.3+1R	6.7+1R
	VSC2 @ 18"	q	2519	2453	2148	2150	2152	1962	1983	2001	1865
		F	4.5+5R	4.6+4R	5.2+3R	5.1+3R	5.1+2R	5.5+2R	5.4+2R	5.3+2R	5.7+1R
	VSC2 @ 12"	q	2831	2718	2637	2577	2530	2493	2462	2310	1941
		F	3.9+5R	4.1+4R	4.2+3R	4.3+3R	4.4+2R	4.4+2R	4.5+2R	4.5+2R	4.5+2R
	VSC2 @ 8"	q	***3291**	***3294**	3163	3185	3093	3118	2795	2310	1941
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	***3595**	***3545**	***3510**	***3484**	***3463**	***3447**	2795	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	***3938**	***3915**	***3898**	***3886**	***3877**	***3451**	2795	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1400 plf, 1900 plf, 2600 plf or 3200 plf for No. 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
			36/4 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER								
22	VSC2 @ 24"	q	559	576	507	529	479	500	462	–	–
		F	-0.6+269R	2.1+215R	6.6+178R	7.4+153R	10.4+133R	10.4+119R	12.7+106R		
	VSC2 @ 18"	q	659	655	587	595	601	556	565	–	–
		F	-3.5+270R	-0.1+216R	3.9+179R	5.3+154R	6.3+135R	8.5+119R	8.9+107R		
	VSC2 @ 12"	q	732	716	705	696	690	685	680	–	–
		F	-5.3+271R	-1.6+216R	0.9+180R	2.6+154R	4+135R	5+120R	5.8+108R		
	VSC2 @ 8"	q	825	830	810	816	802	808	797	–	–
		F	-7.3+271R	-4.1+217R	-1.5+181R	0+155R	1.4+135R	2.2+120R	3.2+108R		
	VSC2 @ 6"	q	876	871	868	865	863	861	860	–	–
		F	-8.5+271R	-5.1+217R	-2.8+181R	-1.1+155R	0.1+136R	1.1+121R	1.8+108R		
	VSC2 @ 4"	q	926	924	922	921	921	920	920	–	–
		F	-9.8+272R	-6.4+217R	-4.1+181R	-2.5+155R	-1.3+136R	-0.3+121R	0.4+109R		
20	VSC2 @ 24"	q	722	749	664	694	633	661	613	639	599
		F	2.1+170R	3.6+136R	6.7+113R	6.9+97R	9.1+84R	8.9+75R	10.5+67R	10.2+61R	11.5+56R
	VSC2 @ 18"	q	848	846	765	777	785	732	744	754	713
		F	-0.3+171R	1.8+137R	4.6+114R	5.3+97R	5.9+85R	7.4+76R	7.6+68R	7.8+62R	8.9+57R
	VSC2 @ 12"	q	936	919	908	899	892	887	882	879	876
		F	-1.7+171R	0.6+137R	2.2+114R	3.3+98R	4.1+86R	4.8+76R	5.3+68R	5.7+62R	6.1+57R
	VSC2 @ 8"	q	1041	1048	1027	1034	1019	1026	1014	1021	912
		F	-3.3+172R	-1.3+137R	0.4+114R	1.3+98R	2.3+86R	2.7+76R	3.4+69R	3.7+62R	4.1+57R
	VSC2 @ 6"	q	1097	1092	1089	1087	1085	1083	1082	1081	912
		F	-4.2+172R	-2+137R	-0.5+115R	0.5+98R	1.3+86R	1.9+76R	2.4+69R	2.8+62R	3.1+57R
	VSC2 @ 4"	q	1149	1147	1146	1145	1144	1144	1143	1085	912
		F	-5.1+172R	-3+138R	-1.5+115R	-0.5+98R	0.3+86R	0.9+76R	1.3+69R	1.7+63R	2+57R
18	VSC2 @ 24"	q	1051	1094	978	1023	937	979	912	950	894
		F	2.8+83R	3.2+67R	4.9+55R	4.8+48R	5.9+41R	5.7+37R	6.6+33R	6.4+30R	7+28R
	VSC2 @ 18"	q	1227	1228	1120	1138	1151	1078	1096	1110	1056
		F	1.2+84R	2.2+67R	3.6+56R	3.9+48R	4.1+42R	4.9+37R	5+33R	5+30R	5.6+28R
	VSC2 @ 12"	q	1344	1325	1311	1301	1293	1287	1282	1278	1274
		F	0.4+84R	1.5+67R	2.2+56R	2.7+48R	3.1+42R	3.4+37R	3.7+34R	3.9+30R	4.1+28R
	VSC2 @ 8"	q	1478	1487	1463	1472	1454	1463	1449	1457	1394
		F	-0.5+84R	0.4+67R	1.2+56R	1.6+48R	2.1+42R	2.3+37R	2.7+34R	2.8+31R	3+28R
	VSC2 @ 6"	q	1546	1541	1538	1535	1533	1532	1531	1530	1394
		F	-1+84R	0+67R	0.7+56R	1.2+48R	1.6+42R	1.9+37R	2.1+34R	2.3+31R	2.5+28R
	VSC2 @ 4"	q	1607	1605	1604	1603	1603	1602	1602	1601	1394
		F	-1.5+84R	-0.5+67R	0.2+56R	0.7+48R	1.1+42R	1.4+37R	1.6+34R	1.8+31R	1.9+28R
16	VSC2 @ 24"	q	1393	1451	1301	1362	1250	1306	1218	1269	1196
		F	3.6+47R	3.7+38R	4.9+31R	4.8+27R	5.6+24R	5.3+21R	6+19R	5.7+17R	6.3+16R
	VSC2 @ 18"	q	1622	1625	1487	1511	1528	1435	1459	1478	1407
		F	2.3+48R	2.8+38R	3.8+32R	3.9+27R	4+24R	4.6+21R	4.6+19R	4.6+17R	5+16R
	VSC2 @ 12"	q	1772	1748	1732	1720	1710	1702	1696	1691	1687
		F	1.6+48R	2.2+38R	2.7+32R	3+27R	3.2+24R	3.4+21R	3.5+19R	3.7+17R	3.8+16R
	VSC2 @ 8"	q	1940	1952	1921	1933	1911	1922	1905	1915	1901
		F	0.8+48R	1.3+38R	1.9+32R	2.1+27R	2.4+24R	2.5+21R	2.7+19R	2.7+17R	2.9+16R
	VSC2 @ 6"	q	2024	2018	2014	2011	2009	2007	2005	2004	1941
		F	0.4+48R	1+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R	2.3+17R	2.4+16R
	VSC2 @ 4"	q	2098	2096	2095	2093	2093	2092	2092	2091	1941
		F	0+48R	0.6+38R	1+32R	1.3+27R	1.5+24R	1.7+21R	1.8+19R	1.9+17R	2+16R

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(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER											
22	VSC2 @ 24"	q	675	691	591	615	547	571	520	–	–
		F	13.8+26R	13.7+21R	16.2+16R	15.6+14R	17.5+11R	16.9+10R	18.5+8R		
	VSC2 @ 18"	q	827	813	702	710	715	648	659	–	–
		F	11.1+28R	11.6+22R	13.6+17R	13.6+15R	13.6+13R	15+11R	14.8+10R		
	VSC2 @ 12"	q	958	921	895	876	862	851	841	–	–
		F	9.4+29R	10.1+23R	10.7+19R	11+16R	11.3+14R	11.5+12R	11.7+11R		
	VSC2 @ 8"	q	1160	1169	1116	1129	1093	1106	1001	–	–
		F	7.4+29R	7.7+24R	8.4+19R	8.4+17R	8.8+15R	8.8+13R	9.1+12R		
	VSC2 @ 6"	q	1301	1283	1271	1262	1255	1236	1001	–	–
		F	6.3+30R	6.8+24R	7.1+20R	7.3+17R	7.5+15R	7.6+13R	7.8+12R		
	VSC2 @ 4"	q	1469	1460	1454	1449	1446	1236	1001	–	–
		F	5.1+30R	5.5+24R	5.8+20R	6+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	881	910	781	818	729	765	697	730	675
		F	11.2+16R	10.9+13R	12.8+10R	12.2+9R	13.6+7R	13+6R	14.2+5R	13.6+5R	14.6+4R
	VSC2 @ 18"	q	1083	1071	930	944	954	867	883	896	834
		F	9+17R	9.2+14R	10.7+11R	10.6+9R	10.5+8R	11.5+7R	11.3+6R	11.2+6R	12+5R
	VSC2 @ 12"	q	1251	1210	1181	1160	1144	1131	1121	1085	912
		F	7.6+18R	8.1+14R	8.4+12R	8.6+10R	8.8+9R	8.9+8R	9+7R	9.1+6R	9.2+6R
	VSC2 @ 8"	q	1501	1515	1455	1472	1430	1447	1313	1085	912
		F	6.1+19R	6.2+15R	6.6+12R	6.6+11R	6.9+9R	6.9+8R	7.1+7R	7.1+7R	7.2+6R
	VSC2 @ 6"	q	1667	1649	1636	1627	1620	1614	1313	1085	912
		F	5.2+19R	5.5+15R	5.7+13R	5.9+11R	6+9R	6+8R	6.1+8R	6.2+7R	6.2+6R
	VSC2 @ 4"	q	1853	1845	1839	1835	1831	1621	1313	1085	912
		F	4.3+19R	4.6+15R	4.7+13R	4.9+11R	5+10R	5+8R	5.1+8R	5.1+7R	5.2+6R
18	VSC2 @ 24"	q	1296	1349	1163	1223	1093	1150	1050	1101	1021
		F	7.3+8R	6.8+7R	7.9+5R	7.4+5R	8.2+4R	7.8+3R	8.4+3R	8+3R	8.5+2R
	VSC2 @ 18"	q	1594	1585	1384	1409	1427	1301	1327	1349	1258
		F	5.8+9R	5.8+7R	6.6+6R	6.5+5R	6.4+4R	6.9+4R	6.8+3R	6.7+3R	7.1+3R
	VSC2 @ 12"	q	1835	1783	1747	1721	1700	1684	1671	1659	1394
		F	4.9+9R	5.1+7R	5.3+6R	5.4+5R	5.4+4R	5.5+4R	5.5+4R	5.6+3R	5.6+3R
	VSC2 @ 8"	q	2179	2201	2124	2149	2094	2118	2007	1659	1394
		F	4+9R	4.1+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R	4.5+4R	4.5+3R	4.5+3R
	VSC2 @ 6"	q	2396	2375	2361	2350	2342	2335	2007	1659	1394
		F	3.6+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	4+4R	4+3R	4+3R
	VSC2 @ 4"	q	2628	2619	2613	2608	2604	2478	2007	1659	1394
		F	3.1+9R	3.2+8R	3.3+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1726	1802	1556	1639	1466	1543	1411	1480	1374
		F	6.2+4R	5.8+4R	6.6+3R	6.2+2R	6.9+2R	6.5+2R	7+1R	6.7+1R	7.1+1R
	VSC2 @ 18"	q	2122	2114	1851	1885	1911	1745	1781	1810	1690
		F	4.9+5R	4.9+4R	5.6+3R	5.4+3R	5.3+2R	5.8+2R	5.7+2R	5.6+2R	5.9+1R
	VSC2 @ 12"	q	2439	2374	2329	2296	2271	2251	2234	2221	1941
		F	4.2+5R	4.3+4R	4.4+3R	4.5+3R	4.5+2R	4.6+2R	4.6+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2883	2913	2816	2849	2780	2811	2757	2310	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.6+3R	3.7+3R	3.6+2R	3.7+2R	3.7+2R	3.8+2R
	VSC2 @ 6"	q	3157	3133	3115	3103	3093	3085	2795	2310	1941
		F	3+5R	3.1+4R	3.2+4R	3.2+3R	3.2+3R	3.3+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	3447	3436	3428	3423	3419	3416	2795	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

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TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
			36/7 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER								
22	VSC2 @ 24"	q	716	724	620	641	570	592	539	–	–
		F	12.3+28R	12.6+22R	14.8+17R	14.5+15R	16.3+12R	15.9+11R	17.3+10R		
	VSC2 @ 18"	q	863	842	729	733	736	667	676	–	–
		F	10.2+29R	10.8+23R	12.7+18R	12.8+16R	12.9+14R	14.2+12R	14.1+11R		
	VSC2 @ 12"	q	988	947	918	896	880	866	856	–	–
		F	8.8+29R	9.6+23R	10.2+19R	10.6+16R	10.9+14R	11.1+13R	11.3+11R		
	VSC2 @ 8"	q	1182	1186	1132	1143	1105	1117	1001	–	–
		F	7.1+30R	7.4+24R	8.1+20R	8.2+17R	8.6+15R	8.6+13R	8.9+12R		
	VSC2 @ 6"	q	1316	1296	1282	1271	1263	1236	1001	–	–
		F	6.1+30R	6.6+24R	6.9+20R	7.2+17R	7.4+15R	7.5+13R	7.7+12R		
	VSC2 @ 4"	q	1477	1467	1459	1454	1450	1236	1001	–	–
		F	5+30R	5.4+24R	5.7+20R	5.9+17R	6.1+15R	6.2+13R	6.3+12R		
20	VSC2 @ 24"	q	930	949	817	848	757	789	719	750	694
		F	10.2+17R	10.2+14R	11.9+11R	11.5+9R	12.8+8R	12.4+7R	13.5+6R	13+6R	13.9+5R
	VSC2 @ 18"	q	1124	1105	962	971	977	889	903	914	851
		F	8.4+18R	8.7+14R	10.1+11R	10.1+10R	10.1+9R	11.1+7R	10.9+7R	10.8+6R	11.6+5R
	VSC2 @ 12"	q	1285	1239	1206	1182	1163	1149	1137	1085	912
		F	7.2+18R	7.7+15R	8.1+12R	8.3+10R	8.5+9R	8.7+8R	8.8+7R	8.9+6R	9+6R
	VSC2 @ 8"	q	1524	1532	1471	1486	1443	1458	1313	1085	912
		F	5.9+19R	6+15R	6.5+12R	6.5+11R	6.8+9R	6.8+8R	7+7R	7+7R	7.1+6R
	VSC2 @ 6"	q	1682	1661	1647	1636	1628	1621	1313	1085	912
		F	5.1+19R	5.4+15R	5.6+13R	5.8+11R	5.9+9R	6+8R	6.1+8R	6.1+7R	6.2+6R
	VSC2 @ 4"	q	1860	1851	1844	1839	1835	1621	1313	1085	912
		F	4.2+19R	4.5+15R	4.7+13R	4.8+11R	4.9+10R	5+9R	5.1+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1361	1400	1210	1263	1130	1181	1080	1128	1046
		F	6.8+8R	6.6+7R	7.5+5R	7.2+5R	7.9+4R	7.5+4R	8.2+3R	7.8+3R	8.3+3R
	VSC2 @ 18"	q	1647	1628	1426	1444	1457	1330	1353	1372	1281
		F	5.6+9R	5.6+7R	6.4+6R	6.3+5R	6.2+4R	6.8+4R	6.7+3R	6.6+3R	7+3R
	VSC2 @ 12"	q	1878	1819	1779	1748	1725	1707	1692	1659	1394
		F	4.8+9R	5+7R	5.2+6R	5.3+5R	5.3+4R	5.4+4R	5.4+4R	5.5+3R	5.5+3R
	VSC2 @ 8"	q	2206	2222	2144	2165	2110	2131	2007	1659	1394
		F	4+9R	4+7R	4.2+6R	4.2+5R	4.4+5R	4.3+4R	4.5+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	2413	2389	2373	2361	2352	2344	2007	1659	1394
		F	3.5+9R	3.7+7R	3.8+6R	3.8+5R	3.9+5R	3.9+4R	3.9+4R	4+3R	4+3R
	VSC2 @ 4"	q	2636	2625	2618	2613	2609	2478	2007	1659	1394
		F	3+9R	3.2+8R	3.2+6R	3.3+5R	3.4+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	1809	1867	1616	1689	1513	1584	1449	1514	1406
		F	5.9+5R	5.6+4R	6.4+3R	6+3R	6.6+2R	6.3+2R	6.8+2R	6.5+2R	7+1R
	VSC2 @ 18"	q	2190	2168	1904	1930	1949	1783	1814	1840	1719
		F	4.7+5R	4.8+4R	5.4+3R	5.3+3R	5.2+2R	5.7+2R	5.6+2R	5.5+2R	5.8+2R
	VSC2 @ 12"	q	2492	2420	2369	2331	2302	2279	2260	2244	1941
		F	4.1+5R	4.2+4R	4.3+3R	4.4+3R	4.5+3R	4.5+2R	4.5+2R	4.6+2R	4.6+2R
	VSC2 @ 8"	q	2916	2938	2840	2869	2799	2827	2773	2310	1941
		F	3.4+5R	3.4+4R	3.6+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.7+2R	3.7+2R
	VSC2 @ 6"	q	3178	3150	3130	3116	3105	3096	2795	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.3+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	3456	3443	3435	3429	3424	3420	2795	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.8+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.9+2R

Page 100 has the footnotes.

(continued)

TABLE 29 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
			36/9 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER								
22	VSC2 @ 24"	q	926	899	769	771	685	696	630	–	–
		F	10.4+28R	11+22R	13+17R	13.1+15R	14.6+12R	14.5+11R	15.8+9R		
	VSC2 @ 18"	q	1075	1021	880	867	857	774	775	–	–
		F	9+29R	9.8+23R	11.4+18R	11.7+15R	11.9+13R	13.1+11R	13.2+10R		
	VSC2 @ 12"	q	1206	1133	1081	1043	1013	989	970	–	–
		F	8+29R	8.8+23R	9.4+19R	9.9+16R	10.3+14R	10.6+12R	10.8+11R		
	VSC2 @ 8"	q	1423	1406	1327	1328	1274	1236	1001	–	–
		F	6.6+30R	7+24R	7.7+20R	7.9+17R	8.3+15R	8.4+13R	8.7+12R		
	VSC2 @ 6"	q	***1587**	***1544**	***1514**	1492	1474	1236	1001	–	–
		F	5.8+30R	6.3+24R	6.7+20R	7+17R	7.2+15R	7.4+13R	7.5+12R		
	VSC2 @ 4"	q	***1803**	***1779**	***1762**	***1749**	***1564**	1236	1001	–	–
		F	4.8+30R	5.3+24R	5.6+20R	5.8+17R	6+15R	6.1+13R	6.2+12R		
20	VSC2 @ 24"	q	1187	1165	1000	1010	899	919	836	859	794
		F	8.9+17R	9.2+14R	10.6+11R	10.5+9R	11.7+8R	11.5+7R	12.5+6R	12.2+5R	13+5R
	VSC2 @ 18"	q	1386	1329	1150	1140	1131	1025	1030	1034	912
		F	7.6+18R	8+14R	9.3+11R	9.4+10R	9.5+8R	10.4+7R	10.4+6R	10.3+6R	11+5R
	VSC2 @ 12"	q	1559	1475	1416	1371	1337	1310	1288	1085	912
		F	6.7+18R	7.2+14R	7.6+12R	7.9+10R	8.2+9R	8.3+8R	8.5+7R	8.6+6R	8.7+6R
	VSC2 @ 8"	q	1834	1821	1729	1735	1671	1621	1313	1085	912
		F	5.6+19R	5.8+15R	6.3+12R	6.3+11R	6.6+9R	6.6+8R	6.9+7R	6.8+7R	7+6R
	VSC2 @ 6"	q	***2033**	***1989**	***1957**	***1933**	***1915**	1621	1313	1085	912
		F	4.9+19R	5.2+15R	5.5+13R	5.7+11R	5.8+9R	5.9+8R	6+8R	6+7R	6.1+6R
	VSC2 @ 4"	q	***2284**	***2260**	***2243**	***2231**	***2052**	1621	1313	1085	912
		F	4.1+19R	4.4+15R	4.6+13R	4.8+11R	4.9+10R	4.9+8R	5+8R	5.1+7R	5.1+6R
18	VSC2 @ 24"	q	1719	1704	1466	1492	1330	1367	1246	1284	1188
		F	6.3+8R	6.2+7R	7+5R	6.8+5R	7.5+4R	7.2+3R	7.8+3R	7.5+3R	8+2R
	VSC2 @ 18"	q	2016	1947	1693	1686	1680	1526	1537	1547	1394
		F	5.2+9R	5.4+7R	6.1+6R	6.1+5R	6+4R	6.5+4R	6.5+3R	6.4+3R	6.8+3R
	VSC2 @ 12"	q	2268	2161	2084	2027	1983	1948	1919	1659	1394
		F	4.6+9R	4.8+7R	5+6R	5.1+5R	5.2+4R	5.3+4R	5.3+4R	5.4+3R	5.4+3R
	VSC2 @ 8"	q	2657	2649	2528	2541	2456	2476	2007	1659	1394
		F	3.9+9R	3.9+7R	4.2+6R	4.2+5R	4.3+5R	4.3+4R	4.4+4R	4.4+3R	4.5+3R
	VSC2 @ 6"	q	***2927**	***2875**	***2838**	***2810**	***2788**	2478	2007	1659	1394
		F	3.5+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	3.9+3R	4+3R
	VSC2 @ 4"	q	***3252**	***3226**	***3207**	***3193**	***3136**	2478	2007	1659	1394
		F	3+9R	3.1+8R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R	3.4+3R	3.5+3R
16	VSC2 @ 24"	q	2276	2263	1951	1990	1776	1828	1667	1720	1593
		F	5.4+5R	5.2+4R	6+3R	5.7+2R	6.3+2R	6.1+2R	6.5+2R	6.3+1R	6.7+1R
	VSC2 @ 18"	q	2673	2588	2255	2249	2245	2041	2059	2073	1928
		F	4.5+5R	4.6+4R	5.2+3R	5.1+3R	5.1+2R	5.5+2R	5.4+2R	5.3+2R	5.7+1R
	VSC2 @ 12"	q	3007	2871	2775	2703	2647	2603	2566	2310	1941
		F	3.9+5R	4.1+4R	4.2+3R	4.3+3R	4.4+2R	4.4+2R	4.5+2R	4.5+2R	4.5+2R
	VSC2 @ 8"	q	***3515**	***3509**	3355	3374	3267	3293	2795	2310	1941
		F	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	***3862**	***3798**	***3753**	***3719**	***3692**	3451	2795	2310	1941
		F	3+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R	3.2+2R	3.2+2R	3.3+2R	3.3+2R
	VSC2 @ 4"	q	***4273**	***4241**	***4218**	***4202**	***4189**	3451	2795	2310	1941
		F	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1500 plf, 1900 plf, 2700 plf or 3500 plf for No. 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexiblity factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21F of this report shall be referenced for adjustment factors when using acoustical deck profiles.

TABLE 30 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
			36/4 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS								
22	VSC2 @ 24"	q	535	548	476	495	444	464	426	445	415
		F	-24.1+542R	-12.1+360R	-4.5+269R	-0.9+215R	3+178R	4.5+153R	7.1+133R	7.8+118R	9.8+106R
	VSC2 @ 18"	q	632	548	555	555	508	516	522	489	498
		F	-25.2+542R	-12.1+360R	-5.9+270R	-2.2+216R	1.5+179R	3.2+153R	4.5+134R	6.5+119R	7.2+107R
	VSC2 @ 12"	q	632	616	606	598	592	588	585	582	580
		F	-25.2+542R	-13.2+361R	-6.9+270R	-3.1+216R	-0.5+180R	1.4+154R	2.8+135R	4+120R	4.9+108R
	VSC2 @ 8"	q	678	681	665	669	658	663	655	659	653
		F	-26+543R	-14.5+361R	-8.2+271R	-4.8+217R	-2.2+180R	-0.6+155R	0.9+135R	1.8+120R	2.7+108R
	VSC2 @ 6"	q	701	697	694	692	691	690	689	688	688
		F	-26.5+543R	-14.9+362R	-9.1+271R	-5.5+217R	-3.2+181R	-1.5+155R	-0.2+135R	0.8+120R	1.6+108R
	VSC2 @ 4"	q	723	722	721	720	719	719	719	719	718
		F	-27.1+543R	-15.7+362R	-10+271R	-6.6+217R	-4.3+181R	-2.7+155R	-1.4+136R	-0.5+121R	0.3+109R
20	VSC2 @ 24"	q	668	689	606	632	572	599	554	578	542
		F	-13.4+342R	-5.7+228R	-0.6+170R	1.6+136R	4.3+113R	5.1+96R	7+84R	7.3+75R	8.7+67R
	VSC2 @ 18"	q	781	689	699	702	648	659	667	630	640
		F	-14.4+343R	-5.7+228R	-1.9+171R	0.5+136R	3+113R	4+97R	4.8+85R	6.2+75R	6.6+68R
	VSC2 @ 12"	q	781	765	757	749	743	739	736	734	732
		F	-14.4+343R	-6.7+228R	-2.7+171R	-0.3+137R	1.4+114R	2.5+97R	3.4+85R	4.2+76R	4.7+68R
	VSC2 @ 8"	q	829	833	818	823	812	817	809	813	807
		F	-15.1+343R	-7.8+229R	-3.8+171R	-1.7+137R	0+114R	1+98R	1.9+86R	2.5+76R	3.1+68R
	VSC2 @ 6"	q	853	850	848	846	845	844	843	842	842
		F	-15.5+344R	-8.2+229R	-4.5+172R	-2.3+137R	-0.8+114R	0.3+98R	1.1+86R	1.7+76R	2.2+69R
	VSC2 @ 4"	q	875	874	873	872	872	871	871	871	871
		F	-16.1+344R	-8.9+229R	-5.3+172R	-3.1+137R	-1.6+115R	-0.6+98R	0.2+86R	0.8+76R	1.3+69R
18	VSC2 @ 24"	q	926	960	856	894	818	854	797	830	784
		F	-4.7+167R	-1.2+111R	1.6+83R	2.5+66R	4+55R	4.2+47R	5.2+41R	5.2+37R	5.9+33R
	VSC2 @ 18"	q	1068	960	974	980	916	930	941	897	910
		F	-5.7+168R	-1.2+111R	0.6+83R	1.7+67R	3+55R	3.4+47R	3.7+42R	4.5+37R	4.6+33R
	VSC2 @ 12"	q	1068	1052	1043	1036	1030	1026	1023	1021	1019
		F	-5.7+168R	-1.9+112R	0+84R	1.2+67R	1.9+56R	2.5+48R	2.9+42R	3.2+37R	3.5+33R
	VSC2 @ 8"	q	1123	1129	1113	1118	1107	1112	1104	1109	1103
		F	-6.2+168R	-2.7+112R	-0.7+84R	0.3+67R	1.1+56R	1.5+48R	2+42R	2.3+37R	2.6+34R
	VSC2 @ 6"	q	1149	1146	1144	1143	1141	1141	1140	1140	1139
		F	-6.5+168R	-2.9+112R	-1.1+84R	-0.1+67R	0.6+56R	1.2+48R	1.5+42R	1.8+37R	2.1+34R
	VSC2 @ 4"	q	1172	1171	1170	1170	1169	1169	1169	1169	1169
		F	-6.8+168R	-3.3+112R	-1.6+84R	-0.5+67R	0.2+56R	0.7+48R	1+42R	1.3+37R	1.6+34R
16	VSC2 @ 24"	q	1182	1227	1104	1152	1061	1106	1037	1078	1022
		F	-1.2+95R	0.8+63R	2.7+47R	3.1+38R	4.2+31R	4.2+27R	5+23R	4.9+21R	5.5+19R
	VSC2 @ 18"	q	1352	1227	1246	1254	1179	1197	1210	1158	1174
		F	-2+96R	0.8+63R	1.8+47R	2.4+38R	3.4+31R	3.6+27R	3.7+24R	4.3+21R	4.3+19R
	VSC2 @ 12"	q	1352	1336	1327	1319	1313	1309	1306	1303	1301
		F	-2+96R	0.2+64R	1.3+48R	2+38R	2.5+32R	2.8+27R	3+24R	3.2+21R	3.4+19R
	VSC2 @ 8"	q	1416	1423	1405	1412	1400	1406	1397	1402	1395
		F	-2.5+96R	-0.5+64R	0.7+48R	1.2+38R	1.7+32R	2+27R	2.3+24R	2.4+21R	2.6+19R
	VSC2 @ 6"	q	1445	1442	1440	1438	1437	1437	1436	1436	1435
		F	-2.8+96R	-0.7+64R	0.3+48R	1+38R	1.4+32R	1.7+27R	1.9+24R	2.1+21R	2.2+19R
	VSC2 @ 4"	q	1470	1469	1469	1468	1468	1467	1467	1467	1467
		F	-3.1+96R	-1.1+64R	0+48R	0.6+38R	1+32R	1.2+27R	1.5+24R	1.6+21R	1.8+19R

Pages 104 has the footnotes.
(continued)

TABLE 30 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
	36/7/4 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS										
22	VSC2 @ 24"	q	687	712	588	614	529	558	499	525	479
		F	5.1+59R	7.3+38R	9.8+27R	10.5+21R	12.4+16R	12.6+14R	14.1+11R	14+10R	15.3+8R
	VSC2 @ 18"	q	895	712	724	720	630	642	650	593	606
		F	4.1+59R	7.3+38R	8.6+28R	9.4+22R	11+17R	11.4+14R	11.6+12R	12.8+10R	12.9+9R
	VSC2 @ 12"	q	895	854	832	810	794	782	773	766	761
		F	4.1+59R	6.4+39R	7.7+28R	8.6+22R	9.2+18R	9.7+15R	10.1+13R	10.4+12R	10.7+10R
	VSC2 @ 8"	q	1024	1034	985	995	962	973	949	960	941
		F	3.5+60R	5.2+39R	6.5+29R	6.9+23R	7.6+19R	7.8+16R	8.2+14R	8.3+12R	8.6+11R
	VSC2 @ 6"	q	1105	1089	1081	1072	1066	1061	1058	1055	1001
		F	3.1+60R	4.8+40R	5.7+29R	6.3+23R	6.7+19R	6.9+17R	7.2+14R	7.3+13R	7.5+12R
	VSC2 @ 4"	q	1193	1186	1182	1178	1175	1173	1172	1171	1001
		F	2.5+60R	4+40R	4.8+30R	5.2+24R	5.6+20R	5.8+17R	6+15R	6.1+13R	6.2+12R
20	VSC2 @ 24"	q	873	915	762	801	696	735	661	697	639
		F	5.1+37R	6.5+24R	8.5+16R	8.8+13R	10.2+10R	10.2+8R	11.4+6R	11.2+6R	12.2+5R
	VSC2 @ 18"	q	1132	915	935	936	826	843	856	785	802
		F	4.2+37R	6.5+24R	7.3+17R	7.8+13R	9.1+10R	9.2+9R	9.3+8R	10.2+6R	10.2+6R
	VSC2 @ 12"	q	1132	1091	1068	1045	1028	1016	1007	1000	994
		F	4.2+37R	5.6+24R	6.5+18R	7.1+14R	7.5+11R	7.8+10R	8.1+8R	8.3+7R	8.4+6R
	VSC2 @ 8"	q	1282	1296	1245	1258	1222	1236	1210	1222	1202
		F	3.6+38R	4.6+25R	5.5+18R	5.7+15R	6.2+12R	6.3+10R	6.6+9R	6.6+8R	6.8+7R
	VSC2 @ 6"	q	1370	1356	1348	1340	1334	1330	1327	1325	1313
		F	3.2+38R	4.3+25R	4.8+19R	5.2+15R	5.4+12R	5.6+11R	5.8+9R	5.9+8R	5.9+7R
	VSC2 @ 4"	q	1461	1454	1451	1448	1446	1444	1443	1442	1313
		F	2.7+38R	3.6+25R	4.1+19R	4.4+15R	4.6+13R	4.7+11R	4.9+9R	4.9+8R	5+8R
18	VSC2 @ 24"	q	1235	1308	1100	1163	1019	1079	975	1030	949
		F	4.3+18R	4.8+11R	6.1+8R	6+6R	6.9+5R	6.7+4R	7.4+3R	7.1+3R	7.7+2R
	VSC2 @ 18"	q	1588	1308	1342	1349	1203	1230	1250	1155	1180
		F	3.4+18R	4.8+11R	5.1+8R	5.3+7R	6+5R	6+4R	6+4R	6.5+3R	6.4+3R
	VSC2 @ 12"	q	1588	1542	1517	1492	1474	1461	1451	1443	1436
		F	3.4+18R	4.1+12R	4.5+9R	4.8+7R	5+6R	5.1+5R	5.2+4R	5.3+4R	5.3+3R
	VSC2 @ 8"	q	1775	1795	1737	1754	1714	1731	1701	1717	1694
		F	3+18R	3.4+12R	3.8+9R	3.9+7R	4.1+6R	4.2+5R	4.3+4R	4.3+4R	4.4+4R
	VSC2 @ 6"	q	1878	1864	1856	1848	1843	1839	1836	1834	1832
		F	2.7+19R	3.2+12R	3.4+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R
	VSC2 @ 4"	q	1978	1972	1969	1966	1964	1963	1962	1961	1960
		F	2.3+19R	2.8+12R	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R
16	VSC2 @ 24"	q	1597	1698	1437	1522	1340	1421	1288	1360	1257
		F	3.9+10R	4.2+6R	5.2+4R	5.1+3R	5.9+2R	5.7+2R	6.2+1R	6+1R	6.5+1R
	VSC2 @ 18"	q	2040	1698	1744	1756	1576	1612	1638	1520	1553
		F	3.1+10R	4.2+6R	4.4+5R	4.5+4R	5.1+3R	5+2R	5+2R	5.4+2R	5.4+1R
	VSC2 @ 12"	q	2040	1988	1961	1932	1912	1897	1886	1877	1870
		F	3.1+10R	3.6+7R	3.9+5R	4.1+4R	4.2+3R	4.3+3R	4.3+2R	4.4+2R	4.4+2R
	VSC2 @ 8"	q	2262	2288	2221	2243	2197	2217	2183	2202	2175
		F	2.7+10R	3+7R	3.3+5R	3.3+4R	3.5+3R	3.5+3R	3.6+2R	3.6+2R	3.7+2R
	VSC2 @ 6"	q	2381	2366	2358	2350	2345	2341	2338	2335	2333
		F	2.5+10R	2.8+7R	2.9+5R	3+4R	3.1+3R	3.2+3R	3.2+3R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	2493	2487	2484	2481	2479	2478	2477	2476	2475
		F	2.2+11R	2.4+7R	2.6+5R	2.7+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R

Pages 104 has the footnotes.
(continued)

TABLE 30 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
	36/7 ATTACHMENT PATTERN FOR APPROVED SDI RECOGNIZED SCREWS										
22	VSC2 @ 24"	q	747	747	617	636	550	575	515	539	493
		F	4.1+60R	6.3+39R	8.5+28R	9.3+22R	10.9+18R	11.3+15R	12.6+12R	12.7+11R	13.8+9R
	VSC2 @ 18"	q	933	747	747	739	648	657	664	606	617
		F	3.5+60R	6.3+39R	7.6+29R	8.5+23R	9.9+18R	10.4+15R	10.7+13R	11.8+11R	11.9+10R
	VSC2 @ 12"	q	933	880	851	825	808	794	784	776	770
		F	3.5+60R	5.6+39R	6.9+29R	7.8+23R	8.5+19R	9+16R	9.4+14R	9.8+12R	10.1+11R
	VSC2 @ 8"	q	1048	1048	997	1004	970	980	956	965	947
		F	3+60R	4.7+40R	6+30R	6.5+24R	7.2+19R	7.4+17R	7.9+14R	8+13R	8.3+11R
	VSC2 @ 6"	q	1120	1100	1088	1078	1071	1066	1062	1059	1001
		F	2.7+60R	4.4+40R	5.4+30R	6+24R	6.4+20R	6.7+17R	6.9+15R	7.1+13R	7.3+12R
	VSC2 @ 4"	q	1200	1190	1185	1181	1178	1175	1174	1172	1001
		F	2.2+61R	3.8+40R	4.6+30R	5.1+24R	5.4+20R	5.7+17R	5.8+15R	6+13R	6.1+12R
20	VSC2 @ 24"	q	940	954	795	826	719	755	679	712	654
		F	4.3+37R	5.8+24R	7.5+17R	7.9+14R	9.2+11R	9.3+9R	10.4+8R	10.3+7R	11.2+6R
	VSC2 @ 18"	q	1171	954	960	956	846	860	870	800	815
		F	3.7+38R	5.8+24R	6.6+18R	7.2+14R	8.3+11R	8.5+10R	8.7+8R	9.5+7R	9.6+6R
	VSC2 @ 12"	q	1171	1117	1087	1061	1043	1029	1018	1010	1003
		F	3.7+38R	5.1+25R	6+18R	6.6+14R	7+12R	7.4+10R	7.6+9R	7.9+8R	8+7R
	VSC2 @ 8"	q	1305	1309	1256	1266	1230	1242	1216	1228	1208
		F	3.2+38R	4.3+25R	5.2+19R	5.5+15R	5.9+12R	6.1+11R	6.4+9R	6.4+8R	6.6+7R
	VSC2 @ 6"	q	1384	1365	1354	1345	1339	1335	1331	1328	1313
		F	2.9+38R	4+25R	4.6+19R	5+15R	5.3+12R	5.5+11R	5.6+9R	5.7+8R	5.8+7R
	VSC2 @ 4"	q	1467	1458	1454	1450	1448	1446	1444	1443	1313
		F	2.5+38R	3.5+25R	4+19R	4.3+15R	4.5+13R	4.7+11R	4.8+9R	4.9+8R	4.9+8R
18	VSC2 @ 24"	q	1317	1354	1140	1193	1048	1103	998	1049	967
		F	3.8+18R	4.5+12R	5.5+8R	5.6+7R	6.4+5R	6.3+5R	6.9+4R	6.8+3R	7.3+3R
	VSC2 @ 18"	q	1632	1354	1371	1372	1227	1250	1267	1172	1195
		F	3.2+18R	4.5+12R	4.8+9R	5+7R	5.7+6R	5.7+5R	5.7+4R	6.2+4R	6.2+3R
	VSC2 @ 12"	q	1632	1572	1539	1510	1490	1475	1463	1454	1446
		F	3.2+18R	3.9+12R	4.3+9R	4.6+7R	4.8+6R	4.9+5R	5+4R	5.1+4R	5.2+3R
	VSC2 @ 8"	q	1798	1808	1748	1763	1722	1737	1708	1722	1699
		F	2.8+19R	3.3+12R	3.7+9R	3.8+7R	4+6R	4.1+5R	4.2+5R	4.2+4R	4.3+4R
	VSC2 @ 6"	q	1891	1873	1862	1854	1848	1843	1840	1837	1835
		F	2.6+19R	3.1+12R	3.4+9R	3.5+7R	3.6+6R	3.7+5R	3.8+5R	3.8+4R	3.9+4R
	VSC2 @ 4"	q	1983	1976	1972	1968	1966	1964	1963	1962	1961
		F	2.3+19R	2.7+12R	3+9R	3.1+7R	3.2+6R	3.3+5R	3.3+5R	3.4+4R	3.4+4R
16	VSC2 @ 24"	q	1694	1751	1484	1558	1375	1449	1316	1383	1279
		F	3.5+10R	3.9+7R	4.8+5R	4.8+4R	5.4+3R	5.3+2R	5.9+2R	5.7+2R	6.1+1R
	VSC2 @ 18"	q	2088	1751	1778	1783	1603	1635	1658	1540	1570
		F	2.9+10R	3.9+7R	4.1+5R	4.3+4R	4.8+3R	4.8+3R	4.8+2R	5.2+2R	5.2+2R
	VSC2 @ 12"	q	2088	2021	1984	1952	1929	1913	1900	1890	1881
		F	2.9+10R	3.4+7R	3.7+5R	3.9+4R	4+3R	4.1+3R	4.2+2R	4.3+2R	4.3+2R
	VSC2 @ 8"	q	2287	2301	2233	2252	2205	2224	2190	2207	2181
		F	2.6+11R	2.9+7R	3.2+5R	3.2+4R	3.4+3R	3.4+3R	3.5+3R	3.5+2R	3.6+2R
	VSC2 @ 6"	q	2395	2375	2365	2356	2349	2345	2341	2339	2336
		F	2.4+11R	2.7+7R	2.9+5R	3+4R	3.1+3R	3.1+3R	3.2+3R	3.2+2R	3.2+2R
	VSC2 @ 4"	q	2499	2491	2487	2484	2481	2479	2478	2477	2476
		F	2.1+11R	2.4+7R	2.5+5R	2.6+4R	2.7+4R	2.7+3R	2.8+3R	2.8+2R	2.8+2R

Pages 104 has the footnotes.

(continued)

TABLE 30 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-36 DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
36/9 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	VSC2 @ 24"	q	987	939	778	772	665	678	605	622	567
		F	3+60R	5.1+39R	6.9+29R	7.8+22R	9.1+18R	9.6+15R	10.7+13R	11+11R	11.9+9R
	VSC2 @ 18"	q	1174	939	913	883	769	766	764	695	701
		F	2.7+60R	5.1+39R	6.4+29R	7.3+23R	8.5+18R	9+15R	9.5+13R	10.4+11R	10.6+10R
	VSC2 @ 12"	q	1174	1081	1027	980	946	921	902	886	874
		F	2.7+60R	4.7+40R	6+29R	6.9+23R	7.6+19R	8.1+16R	8.6+14R	8.9+12R	9.3+11R
	VSC2 @ 8"	q	***1303**	***1279**	***1201**	1199	1145	1152	1114	1123	1001
		F	2.4+60R	4.2+40R	5.4+30R	6+24R	6.6+19R	6.9+17R	7.4+14R	7.5+13R	7.8+11R
	VSC2 @ 6"	q	***1392**	***1347**	***1321**	***1299**	***1283**	***1271**	***1262**	1236	1001
		F	2.2+60R	4+40R	4.9+30R	5.6+24R	6+20R	6.3+17R	6.6+15R	6.8+13R	7+12R
	VSC2 @ 4"	q	***1500**	***1477**	***1464**	***1453**	***1445**	***1439**	***1434**	1236	1001
		F	1.9+61R	3.5+40R	4.3+30R	4.8+24R	5.2+20R	5.5+17R	5.7+15R	5.8+13R	6+12R
20	VSC2 @ 24"	q	1227	1186	988	993	860	883	791	817	747
		F	3.4+38R	4.8+25R	6.2+18R	6.8+14R	7.9+11R	8.2+9R	9+8R	9.1+7R	9.9+6R
	VSC2 @ 18"	q	1465	1186	1165	1136	996	999	1000	913	923
		F	3+38R	4.8+25R	5.7+18R	6.3+14R	7.3+11R	7.6+10R	7.9+8R	8.6+7R	8.7+6R
	VSC2 @ 12"	q	1465	1366	1309	1258	1222	1195	1174	1158	1144
		F	3+38R	4.5+25R	5.3+18R	5.9+14R	6.4+12R	6.8+10R	7.1+9R	7.3+8R	7.5+7R
	VSC2 @ 8"	q	***1620**	***1603**	***1518**	***1520**	1462	1472	1431	1443	1313
		F	2.8+38R	3.9+25R	4.7+19R	5.1+15R	5.6+12R	5.7+10R	6+9R	6.1+8R	6.3+7R
	VSC2 @ 6"	q	***1722**	***1679**	***1655**	***1633**	***1618**	***1607**	***1598**	***1591**	1313
		F	2.6+38R	3.7+25R	4.3+19R	4.8+15R	5+12R	5.2+11R	5.4+9R	5.5+8R	5.7+7R
	VSC2 @ 4"	q	***1840**	***1819**	***1808**	***1798**	***1791**	***1785**	***1781**	***1621**	1313
		F	2.3+38R	3.3+25R	3.8+19R	4.2+15R	4.4+13R	4.6+11R	4.7+9R	4.8+8R	4.9+8R
18	VSC2 @ 24"	q	1698	1669	1402	1424	1241	1283	1154	1198	1099
		F	3.2+18R	3.9+12R	4.9+8R	5.1+7R	5.7+5R	5.8+4R	6.3+4R	6.3+3R	6.7+3R
	VSC2 @ 18"	q	***2032**	1669	1654	1627	1439	1449	1457	1337	1355
		F	2.8+18R	3.9+12R	4.4+9R	4.6+7R	5.2+5R	5.3+5R	5.4+4R	5.8+3R	5.8+3R
	VSC2 @ 12"	q	***2032**	1918	1852	1794	1752	1721	1697	1678	1663
		F	2.8+18R	3.6+12R	4+9R	4.3+7R	4.5+6R	4.7+5R	4.8+4R	4.9+4R	5+3R
	VSC2 @ 8"	q	***2234**	***2223**	***2124**	***2133**	***2064**	***2080**	***2031**	***2048**	***2007**
		F	2.6+19R	3.1+12R	3.5+9R	3.7+7R	3.9+6R	4+5R	4.1+4R	4.1+4R	4.2+4R
	VSC2 @ 6"	q	***2360**	***2316**	***2291**	***2269**	***2254**	***2242**	***2234**	***2227**	***2007**
		F	2.4+19R	3+12R	3.2+9R	3.4+7R	3.6+6R	3.6+5R	3.7+5R	3.8+4R	3.8+4R
	VSC2 @ 4"	q	***2498**	***2478**	***2467**	***2457**	***2451**	***2446**	***2442**	***2439**	***2007**
		F	2.2+19R	2.7+12R	2.9+9R	3.1+7R	3.2+6R	3.2+5R	3.3+5R	3.3+4R	3.4+4R
16	VSC2 @ 24"	q	2171	2151	1815	1854	1622	1681	1516	1577	1450
		F	3+10R	3.5+7R	4.2+5R	4.3+4R	4.9+3R	4.9+2R	5.4+2R	5.3+2R	5.7+1R
	VSC2 @ 18"	q	***2596**	2151	2141	2114	1879	1896	1909	1758	1784
		F	2.6+10R	3.5+7R	3.8+5R	4+4R	4.4+3R	4.5+2R	4.5+2R	4.9+2R	4.9+2R
	VSC2 @ 12"	q	***2596**	2466	2390	2324	2277	2241	2214	2192	2174
		F	2.6+10R	3.1+7R	3.5+5R	3.7+4R	3.8+3R	3.9+3R	4+2R	4.1+2R	4.2+2R
	VSC2 @ 8"	q	***2844**	***2837**	***2723**	***2736**	***2657**	***2678**	***2621**	***2642**	***2598**
		F	2.4+11R	2.7+7R	3+5R	3.1+4R	3.3+3R	3.3+3R	3.4+2R	3.4+2R	3.5+2R
	VSC2 @ 6"	q	***2994**	***2947**	***2920**	***2897**	***2880**	***2868**	***2859**	***2851**	***2795**
		F	2.3+11R	2.6+7R	2.8+5R	2.9+4R	3+3R	3.1+3R	3.1+3R	3.1+2R	3.2+2R
	VSC2 @ 4"	q	***3153**	***3132**	***3121**	***3111**	***3104**	***3099**	***3095**	***3092**	***2795**
		F	2+11R	2.3+7R	2.5+5R	2.6+4R	2.7+4R	2.7+3R	2.7+3R	2.8+2R	2.8+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 36/14 pattern) or shall be limited to 1200 plf, 1500 plf, 2000 plf or 2500 plf for No. 22, 20, 18 or 16 gage steel deck, respectively. Bearing at supports shall allow for proper end distance and fastener spacing.

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexiblity factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21B of this report provides a guide to proper selection of support fastening screws.

8 Table 21C of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 in. thick.

9 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 31 – ALLOWABLE DIAPHRAGM SHEAR, q (plf), AND FLEXIBILITY FACTORS, F, FOR VERCO SHEARTRANZ® II-42 AND PLB™-36 DECK PANELS WITH SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	700	693	581	594	516	535	482	–	–
		F	9.9-2R	10.4-2R	11.6-3R	11.8-3R	12.9-3R	13-3R	14-3R		
	VSC2 @ 18"	q	842	808	688	685	682	613	618	–	–
		F	9.1-2R	9.6-2R	10.7-2R	11-2R	11.3-2R	12.2-2R	12.3-2R		
	VSC2 @ 12"	q	971	914	875	847	825	808	794	–	–
		F	8.5-1R	9.1-1R	9.5-2R	9.8-1R	10.1-1R	10.4-1R	10.6-1R		
	VSC2 @ 8"	q	1193	1188	1116	1123	1074	1085	1001	–	–
		F	7.7-1R	7.9-1R	8.3-1R	8.4-1R	8.7-1R	8.7-1R	8.9-1R		
	VSC2 @ 6"	q	1370	1334	1309	1290	1276	1236	1001	–	–
		F	7.1-1R	7.3-1R	7.5-1R	7.7-1R	7.8-1R	7.9-1R	7.9-1R		
	VSC2 @ 4"	q	1617	1595	1579	1568	1559	1236	1001	–	–
		F	6.4+0R	6.5+0R	6.6+0R	6.7+0R	6.7+0R	6.8+0R	6.8+0R		
20	VSC2 @ 24"	q	970	960	815	830	727	751	676	703	644
		F	8.3-2R	8.6-2R	9.6-2R	9.7-2R	10.5-2R	10.5-2R	11.3-2R	11.2-2R	11.9-2R
	VSC2 @ 18"	q	1162	1116	953	949	945	850	857	863	797
		F	7.5-1R	7.9-1R	8.8-2R	8.9-1R	9.1-1R	9.8-2R	9.8-1R	9.8-1R	10.4-2R
	VSC2 @ 12"	q	1337	1261	1208	1170	1140	1117	1098	1082	912
		F	7-1R	7.4-1R	7.6-1R	7.9-1R	8.1-1R	8.2-1R	8.4-1R	8.5-1R	8.6-1R
	VSC2 @ 8"	q	1634	1627	1531	1541	1476	1491	1313	1085	912
		F	6.2-1R	6.3-1R	6.6-1R	6.6-1R	6.9-1R	6.9-1R	7-1R	7+0R	7.1+0R
	VSC2 @ 6"	q	1866	1819	1786	1762	1743	1621	1313	1085	912
		F	5.7-1R	5.9+0R	6+0R	6.1+0R	6.2+0R	6.2+0R	6.3+0R	6.3+0R	6.3+0R
	VSC2 @ 4"	q	2184	2156	2137	2122	2052	1621	1313	1085	912
		F	5.1+0R	5.2+0R	5.3+0R	5.3+0R	5.4+0R	5.4+0R	5.4+0R	5.4+0R	5.4+0R
18	VSC2 @ 24"	q	1575	1548	1315	1333	1179	1208	1092	1127	1035
		F	5.9-1R	5.9-1R	6.6-1R	6.5-1R	7-1R	6.9-1R	7.4-1R	7.2-1R	7.6-1R
	VSC2 @ 18"	q	1872	1789	1530	1517	1507	1356	1364	1371	1266
		F	5.2-1R	5.4-1R	5.9-1R	5.9-1R	5.9-1R	6.3-1R	6.3-1R	6.3-1R	6.6-1R
	VSC2 @ 12"	q	2141	2013	1924	1859	1809	1770	1738	1659	1394
		F	4.8-1R	5-1R	5.1+0R	5.2+0R	5.3+0R	5.3+0R	5.4+0R	5.4+0R	5.4+0R
	VSC2 @ 8"	q	2596	2579	2424	2436	2331	2352	2007	1659	1394
		F	4.2+0R	4.2+0R	4.4+0R	4.4+0R	4.5+0R	4.5+0R	4.5+0R	4.5+0R	4.6+0R
	VSC2 @ 6"	q	2954	2875	2820	2778	2747	2478	2007	1659	1394
		F	3.9+0R	4+0R	4+0R	4+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R	4.1+0R
	VSC2 @ 4"	q	3446	3398	3365	3340	3136	2478	2007	1659	1394
		F	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R
16	VSC2 @ 24"	q	2037	2018	1717	1749	1548	1593	1445	1492	1376
		F	4.9-1R	4.9-1R	5.5-1R	5.4-1R	5.9-1R	5.7-1R	6.1-1R	6-1R	6.3-1R
	VSC2 @ 18"	q	2434	2340	2005	1996	1989	1792	1807	1819	1682
		F	4.4-1R	4.4-1R	4.9-1R	4.9-1R	4.9-1R	5.3-1R	5.2-1R	5.2+0R	5.5-1R
	VSC2 @ 12"	q	2789	2635	2529	2450	2390	2342	2304	2272	1941
		F	4+0R	4.1+0R	4.2+0R	4.3+0R	4.3+0R	4.4+0R	4.4+0R	4.4+0R	4.5+0R
	VSC2 @ 8"	q	3381	3369	3178	3199	3069	3098	2795	2310	1941
		F	3.5+0R	3.5+0R	3.6+0R	3.6+0R	3.7+0R	3.6+0R	3.7+0R	3.7+0R	3.7+0R
	VSC2 @ 6"	q	3833	3743	3679	3632	3596	3451	2795	2310	1941
		F	3.2+0R	3.2+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R	3.3+0R
	VSC2 @ 4"	q	4436	4384	4347	4320	4300	3451	2795	2310	1941
		F	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

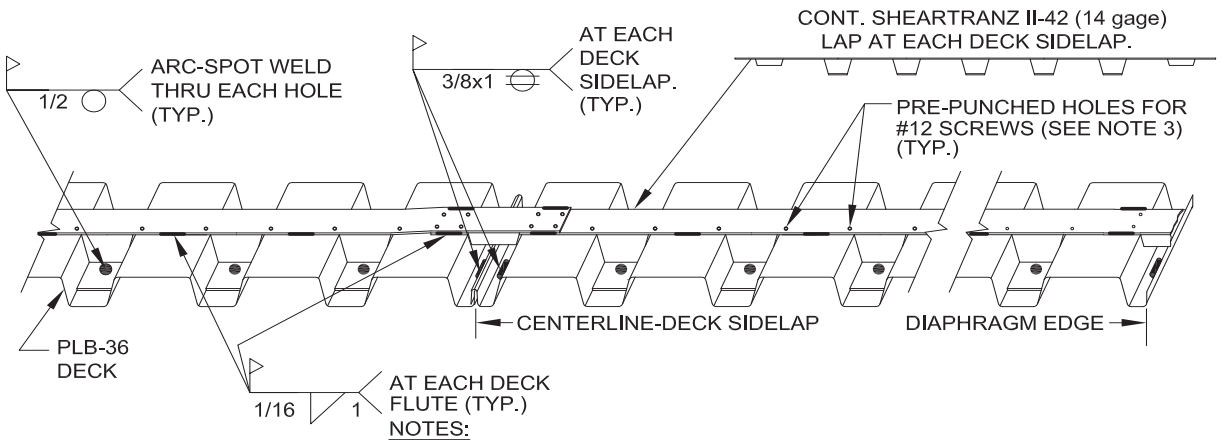
5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections)

7 A 1 inch x 3/8 inch effective arc seam weld is required at supports adjacent to sidelap and a 1/2 inch effective diameter arc spot welds are required at supports in interior flutes.

8 Figure 19 of this report provides SHEARTRANZ II-42 details.

FIGURE 19 - DETAILS FOR SHEARTRANZ® II-42 FOR PLB™-36 DECK



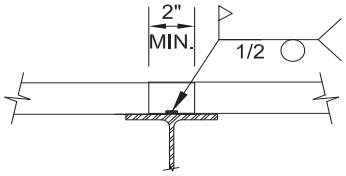
NOTES:
1) WELD BOTH SIDES ADJACENT TO DECK SIDELAP.
2) WELD BOTH SIDES AT EDGE OF DIAPHRAGM.

ALTERNATE ATTACHMENT:
3) #12 SCREWS THRU PRE-PUNCHED HOLES AT LOCATIONS SHOWN ARE PERMITTED TO REPLACE WELDS

NOTE: CONTINUOUS RIB IN TOP FLANGE OF SHEARTRANZ II-42 NOT SHOWN FOR CLARITY.

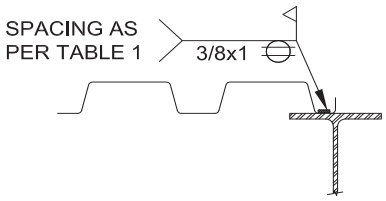
SHEARTRANZ® II-42 FOR PLB™-36 DECK with THE PUNCHLOK® II SYSTEM
with VSC2 SIDELAP CONNECTIONS MADE WITH THE PUNCHLOK® II TOOL

SECTION 1

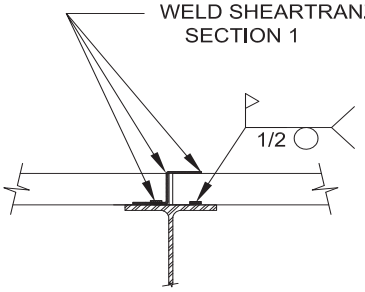


NOTE: LAP DECK MIN. 2" AT END LAPS.

TYPICAL INTERIOR SUPPORT

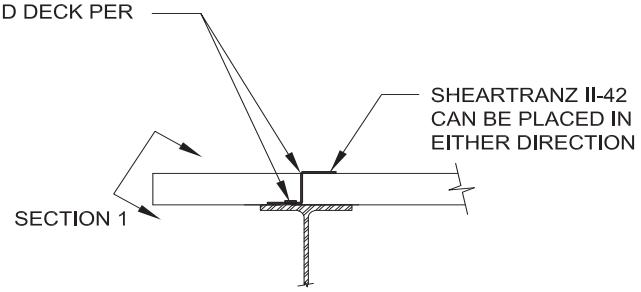


ATTACHMENT AT PARALLEL SUPPORTS



TYPICAL BUTT JOINT

SHEARTRANZ II-42 CONTINUOUS AT BUTT JOINTS. WELD TOP FLANGE OF SHEARTRANZ II-42 TO BOTH PIECES OF DECK AT BUTT JOINTS.



DETAIL AT DIAPHRAGM PERIMETER

DECK MAY BE CANTILEVERED OR STOP AT BEAM.

TYPICAL DETAILS

TABLE 32 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-CD CELLULAR DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
20/20	VSC2 @ 24"	q	1759	1607	1356	1301	1138	1116	1004	1002	918
		F	6.3-2R	6.6-2R	7.6-2R	7.7-2R	8.6-2R	8.5-2R	9.3-2R	9.2-2R	9.9-2R
	VSC2 @ 18"	q	1963	1775	1503	1428	1371	1225	1199	1178	1081
		F	5.5-1R	5.9-1R	6.8-2R	6.9-1R	7.1-1R	7.8-2R	7.8-1R	7.8-1R	8.4-2R
	VSC2 @ 12"	q	2158	1938	1786	1674	1589	1522	1467	1356	1139
		F	5-1R	5.4-1R	5.7-1R	5.9-1R	6.1-1R	6.2-1R	6.4-1R	6.5-1R	6.6-1R
	VSC2 @ 8"	q	2520	2394	2182	2135	2001	1983	1641	1356	1139
		F	4.2-1R	4.3-1R	4.6-1R	4.7-1R	4.9-1R	4.9-1R	5-1R	5+0R	5.2+0R
	VSC2 @ 6"	q	2847	2668	2543	2450	2379	2026	1641	1356	1139
		F	3.8-1R	3.9+0R	4+0R	4.1+0R	4.2+0R	4.2+0R	4.3+0R	4.3+0R	4.3+0R
	VSC2 @ 4"	q	3394	3254	3155	3081	2564	2026	1641	1356	1139
		F	3.2+0R	3.2+0R	3.3+0R	3.3+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R
20/18	VSC2 @ 24"	q	2103	1983	1678	1650	1455	1458	1311	1328	1217
		F	4.8-1R	4.7-1R	5.5-1R	5.3-1R	5.9-1R	5.7-1R	6.2-1R	6-1R	6.4-1R
	VSC2 @ 18"	q	2411	2236	1901	1842	1797	1612	1598	1450	1219
		F	4-1R	4.1-1R	4.7-1R	4.7-1R	4.7-1R	5.1-1R	5-1R	5-1R	5.3-1R
	VSC2 @ 12"	q	2700	2477	2323	2209	2122	2054	1755	1450	1219
		F	3.5-1R	3.7+0R	3.8+0R	3.9+0R	4+0R	4+0R	4.1+0R	4.1+0R	4.1+0R
	VSC2 @ 8"	q	3218	3126	2892	2870	2717	2166	1755	1450	1219
		F	2.9+0R	2.9+0R	3.1+0R	3+0R	3.2+0R	3.1+0R	3.2+0R	3.2+0R	3.2+0R
	VSC2 @ 6"	q	3659	3497	3382	3298	2742	2166	1755	1450	1219
		F	2.6+0R	2.6+0R	2.7+0R	2.7+0R	2.7+0R	2.7+0R	2.7+0R	2.8+0R	2.8+0R
	VSC2 @ 4"	q	4341	4228	4147	3581	2742	2166	1755	1450	1219
		F	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.3+0R	2.3+0R	2.3+0R
18/20	VSC2 @ 24"	q	1861	1690	1426	1361	1191	1163	1047	1040	954
		F	5.7-2R	6-2R	6.9-2R	7.1-2R	7.9-2R	7.9-2R	8.7-2R	8.6-2R	9.3-2R
	VSC2 @ 18"	q	2065	1859	1573	1488	1424	1272	1242	1217	1116
		F	5-1R	5.4-1R	6.2-2R	6.4-1R	6.6-1R	7.3-2R	7.3-2R	7.4-1R	7.9-2R
	VSC2 @ 12"	q	2261	2023	1857	1736	1643	1571	1512	1463	1422
		F	4.6-1R	5-1R	5.3-1R	5.5-1R	5.7-1R	5.9-1R	6-1R	6.1-1R	6.3-1R
	VSC2 @ 8"	q	2628	2484	2258	2202	2060	2037	1937	1930	1647
		F	3.9-1R	4-1R	4.3-1R	4.4-1R	4.6-1R	4.6-1R	4.8-1R	4.7-1R	4.9-1R
	VSC2 @ 6"	q	2961	2764	2625	2523	2444	2382	2332	1960	1647
		F	3.5-1R	3.6+0R	3.8+0R	3.8+0R	3.9+0R	4+0R	4+0R	4.1+0R	4.1+0R
	VSC2 @ 4"	q	3526	3368	3257	3174	3111	2928	2372	1960	1647
		F	2.9+0R	3+0R	3.1+0R	3.1+0R	3.2+0R	3.2+0R	3.2+0R	3.2+0R	3.3+0R
18/18	VSC2 @ 24"	q	2103	1983	1678	1650	1455	1458	1311	1328	1217
		F	4.4-1R	4.4-1R	5.1-1R	5-1R	5.6-1R	5.4-1R	5.9-1R	5.7-1R	6.1-1R
	VSC2 @ 18"	q	2411	2236	1901	1842	1797	1612	1598	1587	1462
		F	3.8-1R	3.9-1R	4.4-1R	4.4-1R	4.4-1R	4.9-1R	4.8-1R	4.8-1R	5.1-1R
	VSC2 @ 12"	q	2700	2477	2323	2209	2122	2054	1998	1953	1765
		F	3.3-1R	3.5-1R	3.6+0R	3.7+0R	3.8+0R	3.8+0R	3.9+0R	3.9+0R	4+0R
	VSC2 @ 8"	q	3218	3126	2892	2870	2717	2718	2541	2100	1765
		F	2.8+0R	2.8+0R	2.9+0R	2.9+0R	3+0R	3+0R	3+0R	3+0R	3.1+0R
	VSC2 @ 6"	q	3659	3497	3382	3298	3232	3138	2541	2100	1765
		F	2.4+0R	2.5+0R	2.5+0R	2.5+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R	2.6+0R
	VSC2 @ 4"	q	4341	4228	4147	4087	3971	3138	2541	2100	1765
		F	2+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R

Page 108 has the footnotes.

(continued)

TABLE 32 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLB™-CD CELLULAR DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
18/16	VSC2 @ 24"	q	2345	2273	1929	1936	1711	1741	1577	1614	1483
		F	4-1R	3.9-1R	4.5-1R	4.4-1R	4.9-1R	4.7-1R	5.1-1R	5-1R	5.3-1R
	VSC2 @ 18"	q	2751	2605	2224	2189	2163	1945	1948	1950	1800
		F	3.3-1R	3.4-1R	3.9-1R	3.9-1R	3.9+0R	4.2-1R	4.2+0R	4.1+0R	4.4+0R
	VSC2 @ 12"	q	3123	2916	2771	2665	2583	2519	2467	2219	1865
		F	2.9+0R	3+0R	3.1+0R	3.2+0R	3.3+0R	3.3+0R	3.3+0R	3.4+0R	3.4+0R
	VSC2 @ 8"	q	3765	3715	3477	3481	3322	3315	2685	2219	1865
		F	2.4+0R	2.4+0R	2.5+0R	2.5+0R	2.6+0R	2.5+0R	2.6+0R	2.6+0R	2.6+0R
	VSC2 @ 6"	q	4280	4145	4050	3979	3925	3315	2685	2219	1865
		F	2.1+0R	2.1+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R
	VSC2 @ 4"	q	5014	4929	4869	4825	4196	3315	2685	2219	1865
		F	1.8+0R	1.8+0R	1.8+0R	1.8+0R	1.8+0R	1.8+0R	1.8+0R	1.8+0R	1.8+0R
16/18	VSC2 @ 24"	q	2103	1983	1678	1650	1455	1458	1311	1328	1217
		F	4.1-1R	4.2-1R	4.8-1R	4.7-1R	5.3-1R	5.1-1R	5.6-1R	5.5-1R	5.9-1R
	VSC2 @ 18"	q	2411	2236	1901	1842	1797	1612	1598	1587	1462
		F	3.5-1R	3.7-1R	4.2-1R	4.2-1R	4.2-1R	4.6-1R	4.6-1R	4.6-1R	4.9-1R
	VSC2 @ 12"	q	2700	2477	2323	2209	2122	2054	1998	1953	1914
		F	3.1-1R	3.3-1R	3.4+0R	3.5+0R	3.6+0R	3.7+0R	3.7+0R	3.8+0R	3.8+0R
	VSC2 @ 8"	q	3218	3126	2892	2870	2717	2718	2607	2619	2355
		F	2.6+0R	2.6+0R	2.8+0R	2.7+0R	2.9+0R	2.8+0R	2.9+0R	2.9+0R	3+0R
	VSC2 @ 6"	q	3659	3497	3382	3298	3232	3181	3138	2802	2355
		F	2.3+0R	2.3+0R	2.4+0R	2.4+0R	2.4+0R	2.5+0R	2.5+0R	2.5+0R	2.5+0R
	VSC2 @ 4"	q	4341	4228	4147	4087	4041	4004	3391	2802	2355
		F	1.9+0R	1.9+0R	2+0R	2+0R	2+0R	2+0R	2+0R	2+0R	2+0R
16/16	VSC2 @ 24"	q	2345	2273	1929	1936	1711	1741	1577	1614	1483
		F	3.7-1R	3.7-1R	4.3-1R	4.2-1R	4.7-1R	4.5-1R	4.9-1R	4.8-1R	5.1-1R
	VSC2 @ 18"	q	2751	2605	2224	2189	2163	1945	1948	1950	1800
		F	3.2-1R	3.2-1R	3.7-1R	3.7-1R	3.7-1R	4.1-1R	4-1R	4+0R	4.3-1R
	VSC2 @ 12"	q	3123	2916	2771	2665	2583	2519	2467	2424	2388
		F	2.8+0R	2.9+0R	3+0R	3.1+0R	3.1+0R	3.2+0R	3.2+0R	3.3+0R	3.3+0R
	VSC2 @ 8"	q	3765	3715	3477	3481	3322	3343	3225	2964	2491
		F	2.3+0R	2.3+0R	2.4+0R	2.4+0R	2.5+0R	2.4+0R	2.5+0R	2.5+0R	2.6+0R
	VSC2 @ 6"	q	4280	4145	4050	3979	3925	3882	3587	2964	2491
		F	2+0R	2+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.1+0R	2.2+0R
	VSC2 @ 4"	q	5014	4929	4869	4825	4791	4428	3587	2964	2491
		F	1.7+0R	1.7+0R	1.7+0R	1.7+0R	1.7+0R	1.7+0R	1.7+0R	1.7+0R	1.7+0R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexiblity factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

7 A 1 inch x 3/8 inch effective arc seam weld is required at supports adjacent to sidelap and a 1/2 inch effective diameter arc spot welds are required at supports in interior flutes.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 33 – ALLOWABLE DIAPHRAGM STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE HSB®-36 DECK ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH BUTTON PUNCHES (BP) OR 1½" TOP SEAM WELDS (TSW) AT SIDELAPS[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	282	234	190	169	144	135	121	–	–
		F	-1.3+267R	4.2+212R	9.1+174R	12.6+148R	16.3+127R	18.9+112R	22.1+98R		
	BP @ 12"	q	318	262	226	199	180	167	157	–	–
		F	-2.3+267R	3.1+212R	7.2+175R	10.5+149R	13.3+129R	15.7+114R	17.9+101R		
	TSW @ 24"	q	628	649	562	588	526	552	505	–	–
		F	-9.4+271R	-6.3+217R	-3.5+181R	-2.2+155R	-0.5+135R	0.1+120R	1.2+108R		
	TSW @ 18"	q	763	756	663	673	681	622	633	–	–
		F	-10.2+271R	-6.9+217R	-4.2+181R	-2.8+155R	-1.7+136R	-0.4+121R	0.2+108R		
	TSW @ 12"	q	871	846	828	815	805	798	791	–	–
		F	-10.7+272R	-7.3+217R	-5.1+181R	-3.5+155R	-2.3+136R	-1.3+121R	-0.6+109R		
	TSW @ 6"	q	1117	1107	1101	1096	1092	1089	1001	–	–
		F	-11.6+272R	-8.2+217R	-6+181R	-4.4+155R	-3.2+136R	-2.3+121R	-1.5+109R		
20	BP @ 24"	q	403	336	275	246	211	195	175	169	155
		F	3.1+167R	7.2+132R	11.1+108R	13.8+91R	16.9+78R	19+68R	21.7+59R	23.4+53R	25.8+47R
	BP @ 12"	q	454	378	326	290	262	241	227	216	206
		F	2.2+168R	6.2+133R	9.3+109R	11.9+93R	14.2+80R	16.1+70R	17.8+62R	19.4+55R	20.8+50R
	TSW @ 24"	q	824	846	733	764	685	715	654	683	634
		F	-4.2+171R	-2.3+137R	-0.4+114R	0.3+98R	1.5+86R	1.9+76R	2.7+68R	2.8+62R	3.4+57R
	TSW @ 18"	q	993	981	861	872	879	804	818	829	774
		F	-5+172R	-2.9+137R	-1.1+114R	-0.2+98R	0.5+86R	1.4+76R	1.8+69R	2.1+62R	2.6+57R
	TSW @ 12"	q	1127	1093	1069	1051	1037	1026	1018	1010	912
		F	-5.5+172R	-3.3+137R	-1.9+115R	-0.8+98R	0+86R	0.6+76R	1+69R	1.4+62R	1.8+57R
	TSW @ 6"	q	1435	1422	1412	1406	1400	1396	1313	1085	912
		F	-6.2+172R	-4.1+138R	-2.7+115R	-1.7+98R	-0.9+86R	-0.3+76R	0.1+69R	0.5+63R	0.8+57R
18	BP @ 24"	q	704	592	487	438	379	353	314	300	275
		F	6.3+80R	9.1+63R	11.9+51R	13.9+42R	16.3+35R	17.8+30R	20+26R	21.3+22R	23.3+19R
	BP @ 12"	q	794	666	579	517	470	434	405	383	366
		F	5.5+81R	8.2+63R	10.4+52R	12.2+43R	13.9+37R	15.3+32R	16.7+28R	17.9+24R	19+22R
	TSW @ 24"	q	1272	1293	1121	1160	1040	1081	989	1028	955
		F	0+84R	0.8+67R	1.9+56R	2.2+48R	2.9+42R	3+37R	3.5+33R	3.5+30R	3.9+28R
	TSW @ 18"	q	1513	1486	1306	1316	1323	1210	1227	1241	1160
		F	-0.7+84R	0.3+67R	1.3+56R	1.7+48R	2+42R	2.6+37R	2.7+33R	2.9+30R	3.2+28R
	TSW @ 12"	q	1705	1648	1607	1577	1554	1535	1520	1508	1394
		F	-1.1+84R	-0.1+67R	0.7+56R	1.2+48R	1.6+42R	1.9+37R	2.1+34R	2.3+30R	2.5+28R
	TSW @ 6"	q	2150	2127	2111	2099	2090	2083	2007	1659	1394
		F	-1.8+84R	-0.8+67R	-0.1+56R	0.4+48R	0.8+42R	1.1+37R	1.3+34R	1.5+31R	1.7+28R
16	BP @ 24"	q	912	778	641	584	506	477	425	408	371
		F	7.1+44R	9.2+34R	11.5+27R	13.1+22R	15.1+18R	16.4+15R	18.3+12R	19.4+10R	21.2+8R
	BP @ 12"	q	1041	893	784	707	649	604	568	538	514
		F	6.4+45R	8.4+35R	10.1+28R	11.6+23R	13+19R	14.2+16R	15.3+14R	16.3+12R	17.3+10R
	TSW @ 24"	q	1643	1679	1460	1515	1361	1417	1299	1352	1257
		F	1.4+48R	1.8+38R	2.6+32R	2.7+27R	3.2+24R	3.2+21R	3.6+19R	3.5+17R	3.8+16R
	TSW @ 18"	q	1957	1929	1702	1718	1731	1586	1610	1630	1525
		F	0.8+48R	1.3+38R	2.1+32R	2.3+27R	2.4+24R	2.8+21R	2.9+19R	2.9+17R	3.2+16R
	TSW @ 12"	q	2203	2136	2088	2053	2026	2004	1986	1971	1941
		F	0.4+48R	1+38R	1.5+32R	1.8+27R	2+24R	2.2+21R	2.3+19R	2.4+17R	2.5+16R
	TSW @ 6"	q	2753	2727	2710	2696	2686	2678	2671	2310	1941
		F	-0.2+48R	0.4+38R	0.8+32R	1.1+27R	1.3+24R	1.5+21R	1.6+19R	1.7+17R	1.8+16R

Page 112 has the footnotes.

(continued)

TABLE 33 – ALLOWABLE DIAPHRAGM STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE HSB®-36 DECK ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH BUTTON PUNCHES (BP) OR 1½" TOP SEAM WELDS (TSW) AT SIDELAPS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	369	303	248	218	187	174	156	–	–
		F	1.5+187R	5.7+148R	9.5+122R	12.3+103R	15.2+88R	17.3+77R	19.9+68R		
	BP @ 12"	q	405	332	284	249	223	205	192	–	–
		F	0.8+188R	5+149R	8.2+123R	10.8+104R	13.1+90R	15.1+79R	16.9+70R		
	TSW @ 24"	q	714	724	623	644	575	598	545	–	–
		F	-4.6+191R	-2.5+153R	-0.4+127R	0.5+109R	1.8+95R	2.2+85R	3.1+76R		
	TSW @ 18"	q	857	839	731	736	739	672	682	–	–
		F	-5.4+191R	-3.1+153R	-1.1+127R	0+109R	0.8+95R	1.7+85R	2.2+76R		
	TSW @ 12"	q	977	939	913	894	879	867	857	–	–
		F	-5.9+191R	-3.5+153R	-1.8+127R	-0.7+109R	0.2+96R	0.9+85R	1.4+76R		
	TSW @ 6"	q	1275	1258	1246	1237	1231	1225	1001	–	–
		F	-6.7+191R	-4.3+153R	-2.7+128R	-1.6+109R	-0.8+96R	-0.1+85R	0.4+77R		
20	BP @ 24"	q	524	433	356	315	271	249	224	213	195
		F	4.3+117R	7.5+92R	10.5+75R	12.7+63R	15.2+54R	17+47R	19.2+40R	20.6+36R	22.7+31R
	BP @ 12"	q	576	475	407	359	323	295	275	260	247
		F	3.7+118R	6.8+93R	9.3+76R	11.4+64R	13.3+55R	14.9+48R	16.4+42R	17.8+38R	19+34R
	TSW @ 24"	q	944	951	819	843	752	779	711	737	683
		F	-1.2+121R	0+96R	1.5+80R	2+69R	3+60R	3.2+53R	3.8+48R	3.9+44R	4.4+40R
	TSW @ 18"	q	1125	1097	956	959	962	874	885	894	832
		F	-2+121R	-0.5+97R	0.9+80R	1.5+69R	2+60R	2.7+54R	3+48R	3.2+44R	3.6+40R
	TSW @ 12"	q	1276	1224	1188	1160	1139	1123	1109	1085	912
		F	-2.4+121R	-0.8+97R	0.2+81R	0.9+69R	1.5+60R	1.9+54R	2.3+48R	2.5+44R	2.8+40R
	TSW @ 6"	q	1655	1631	1615	1602	1593	1585	1313	1085	912
		F	-3.1+121R	-1.6+97R	-0.6+81R	0.1+69R	0.6+61R	1+54R	1.4+48R	1.7+44R	1.9+40R
18	BP @ 24"	q	909	757	624	556	482	444	396	375	343
		F	6.2+56R	8.4+44R	10.6+35R	12.2+29R	14.2+24R	15.6+20R	17.3+17R	18.5+14R	20.2+12R
	BP @ 12"	q	989	830	716	634	573	525	487	458	435
		F	5.6+56R	7.8+44R	9.6+36R	11.1+29R	12.5+25R	13.8+21R	15+18R	16+16R	17+14R
	TSW @ 24"	q	1479	1472	1269	1295	1155	1190	1085	1120	1037
		F	1.3+59R	1.9+47R	2.8+39R	3+33R	3.6+29R	3.6+26R	4+23R	4+21R	4.4+19R
	TSW @ 18"	q	1739	1685	1468	1465	1462	1329	1341	1351	1257
		F	0.7+59R	1.4+47R	2.3+39R	2.5+34R	2.7+29R	3.2+26R	3.3+23R	3.4+21R	3.7+20R
	TSW @ 12"	q	1958	1871	1808	1762	1725	1697	1673	1654	1394
		F	0.3+59R	1.1+47R	1.6+39R	2+34R	2.3+29R	2.5+26R	2.7+24R	2.8+21R	3+20R
	TSW @ 6"	q	2520	2479	2449	2427	2410	2397	2007	1659	1394
		F	-0.3+59R	0.4+47R	0.9+39R	1.3+34R	1.6+30R	1.8+26R	1.9+24R	2.1+22R	2.2+20R
16	BP @ 24"	q	1161	984	812	731	634	591	527	501	457
		F	6.4+31R	8.2+24R	10+18R	11.4+15R	13+12R	14.2+9R	15.7+7R	16.7+6R	18.2+4R
	BP @ 12"	q	1285	1098	955	854	777	718	670	631	600
		F	6+31R	7.6+24R	9.1+19R	10.4+15R	11.5+13R	12.6+11R	13.6+9R	14.5+7R	15.4+6R
	TSW @ 24"	q	1904	1907	1647	1687	1508	1557	1422	1471	1363
		F	2.1+33R	2.4+27R	3.1+22R	3.1+19R	3.5+17R	3.5+15R	3.8+13R	3.8+12R	4+11R
	TSW @ 18"	q	2246	2185	1909	1910	1911	1741	1759	1774	1652
		F	1.6+34R	2+27R	2.6+22R	2.7+19R	2.8+17R	3.1+15R	3.2+13R	3.2+12R	3.4+11R
	TSW @ 12"	q	2529	2424	2350	2295	2252	2218	2190	2167	1941
		F	1.2+34R	1.7+27R	2+22R	2.2+19R	2.4+17R	2.5+15R	2.6+13R	2.7+12R	2.8+11R
	TSW @ 6"	q	3232	3185	3152	3127	3108	3093	2795	2310	1941
		F	0.7+34R	1.1+27R	1.4+23R	1.6+19R	1.7+17R	1.9+15R	2+14R	2+12R	2.1+11R

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TABLE 33 – ALLOWABLE DIAPHRAGM STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE HSB®-36 DECK ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH BUTTON PUNCHES (BP) OR 1½" TOP SEAM WELDS (TSW) AT SIDELAPS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	340	280	229	202	173	161	145	–	–
		F	12.3+24R	14.7+17R	17.3+12R	19.3+8R	21.8+4R	23.4+2R	25.7-1R		
	BP @ 12"	q	376	309	264	233	209	192	180	–	–
		F	11.5+25R	13.8+18R	15.8+13R	17.6+9R	19.3+6R	20.8+4R	22.3+2R		
	TSW @ 24"	q	722	739	627	654	572	604	543	–	–
		F	5.4+30R	5.5+24R	6.3+19R	6.2+17R	6.8+15R	6.7+13R	7.1+12R		
	TSW @ 18"	q	894	876	750	758	764	688	700	–	–
		F	4.6+30R	4.9+24R	5.6+20R	5.7+17R	5.7+15R	6.2+13R	6.2+12R		
	TSW @ 12"	q	1047	1002	971	948	931	918	907	–	–
		F	4.1+30R	4.5+24R	4.8+20R	5+17R	5.2+15R	5.3+13R	5.4+12R		
	TSW @ 6"	q	1484	1458	1441	1428	1418	1236	1001	–	–
		F	3.2+30R	3.6+24R	3.9+20R	4.1+17R	4.2+15R	4.3+14R	4.4+12R		
20	BP @ 24"	q	484	401	329	292	251	231	208	198	182
		F	11.4+14R	13.5+9R	15.8+5R	17.6+2R	19.8+0R	21.3-2R	23.4-4R	24.7-5R	26.7-7R
	BP @ 12"	q	535	442	380	336	303	277	259	245	233
		F	10.7+14R	12.7+10R	14.5+6R	16.1+4R	17.5+2R	18.9+0R	20.2-1R	21.4-3R	22.5-4R
	TSW @ 24"	q	958	973	826	856	754	789	710	746	684
		F	5.1+18R	5.1+15R	5.8+12R	5.7+10R	6.2+9R	6+8R	6.4+7R	6.2+7R	6.6+6R
	TSW @ 18"	q	1177	1149	983	989	995	896	910	921	852
		F	4.4+19R	4.6+15R	5.1+12R	5.2+11R	5.2+9R	5.5+8R	5.5+7R	5.5+7R	5.7+6R
	TSW @ 12"	q	1373	1310	1266	1234	1210	1191	1176	1085	912
		F	3.9+19R	4.2+15R	4.4+13R	4.5+11R	4.6+9R	4.7+8R	4.8+8R	4.8+7R	4.9+6R
	TSW @ 6"	q	1940	1904	1879	1861	1847	1621	1313	1085	912
		F	3.1+19R	3.4+15R	3.6+13R	3.7+11R	3.8+10R	3.8+9R	3.9+8R	3.9+7R	4+6R
18	BP @ 24"	q	842	702	579	517	447	414	368	350	321
		F	9.9+5R	11.7+2R	13.6-1R	15.1-2R	17-4R	18.2-5R	20-6R	21.1-7R	22.9-8R
	BP @ 12"	q	933	775	670	595	539	495	460	433	412
		F	9.3+5R	11+2R	12.4+1R	13.8-1R	15-2R	16.2-3R	17.3-4R	18.3-5R	19.3-6R
	TSW @ 24"	q	1504	1508	1280	1315	1163	1204	1088	1132	1040
		F	4.5+9R	4.4+7R	4.9+6R	4.8+5R	5.2+4R	5+4R	5.3+3R	5.2+3R	5.4+3R
	TSW @ 18"	q	1826	1768	1510	1512	1514	1362	1378	1392	1286
		F	3.8+9R	3.9+7R	4.4+6R	4.3+5R	4.3+4R	4.6+4R	4.6+3R	4.5+3R	4.7+3R
	TSW @ 12"	q	2117	2008	1932	1877	1835	1802	1775	1659	1394
		F	3.4+9R	3.6+7R	3.7+6R	3.8+5R	3.8+5R	3.9+4R	3.9+4R	4+3R	4+3R
	TSW @ 6"	q	2981	2916	2870	2837	2811	2478	2007	1659	1394
		F	2.8+9R	2.9+7R	3+6R	3+5R	3.1+5R	3.1+4R	3.2+4R	3.2+3R	3.2+3R
16	BP @ 24"	q	1083	915	755	682	591	553	493	470	428
		F	8.8+1R	10.3-1R	12.1-2R	13.4-4R	15-5R	16.2-6R	17.8-7R	18.7-8R	20.3-9R
	BP @ 12"	q	1227	1030	898	805	734	680	636	600	571
		F	8.3+2R	9.7+0R	11-2R	12.2-3R	13.3-4R	14.3-4R	15.3-5R	16.2-5R	17.1-6R
	TSW @ 24"	q	1945	1963	1668	1721	1524	1583	1435	1492	1376
		F	4+5R	3.8+4R	4.3+3R	4.1+3R	4.5+2R	4.3+2R	4.6+2R	4.4+2R	4.7+1R
	TSW @ 18"	q	2372	2306	1974	1983	1989	1792	1817	1837	1699
		F	3.4+5R	3.4+4R	3.8+3R	3.7+3R	3.7+2R	4+2R	3.9+2R	3.9+2R	4.1+2R
	TSW @ 12"	q	2753	2621	2529	2462	2411	2371	2339	2310	1941
		F	3+5R	3.1+4R	3.2+3R	3.3+3R	3.3+3R	3.3+2R	3.3+2R	3.4+2R	3.4+2R
	TSW @ 6"	q	3855	3780	3727	3689	3659	3451	2795	2310	1941
		F	2.4+5R	2.5+4R	2.6+4R	2.6+3R	2.6+3R	2.6+2R	2.7+2R	2.7+2R	2.7+2R

Page 112 has the footnotes.

(continued)

TABLE 33 – ALLOWABLE DIAPHRAGM STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE HSB®-36 DECK ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH BUTTON PUNCHES (BP) OR 1½" TOP SEAM WELDS (TSW) AT SIDELAPS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	398	327	267	235	202	186	168	–	–
		F	9.9+27R	11.9+20R	14+15R	15.7+12R	17.6+9R	19.1+7R	20.9+5R		
	BP @ 12"	q	434	355	303	266	238	218	204	–	–
		F	9.5+27R	11.4+21R	13.1+16R	14.6+13R	16.1+10R	17.4+8R	18.7+6R		
	TSW @ 24"	q	770	777	661	682	601	627	566	–	–
		F	5.1+30R	5.3+24R	6.1+20R	6.1+17R	6.6+15R	6.5+13R	7+12R		
	TSW @ 18"	q	937	911	781	785	787	710	720	–	–
		F	4.4+30R	4.8+24R	5.4+20R	5.5+17R	5.6+15R	6+13R	6.1+12R		
	TSW @ 12"	q	1084	1033	998	972	952	936	924	–	–
		F	4+30R	4.4+24R	4.7+20R	4.9+17R	5.1+15R	5.2+13R	5.3+12R		
	TSW @ 6"	q	1504	1476	1456	1442	1430	1236	1001	–	–
		F	3.2+30R	3.6+24R	3.8+20R	4+17R	4.2+15R	4.3+14R	4.4+12R		
20	BP @ 24"	q	564	466	383	338	292	267	240	228	209
		F	9.3+16R	11+12R	12.8+8R	14.3+6R	16+4R	17.3+2R	19+1R	20.1+0R	21.7-1R
	BP @ 12"	q	616	507	434	382	343	313	292	274	260
		F	8.8+16R	10.5+12R	12+9R	13.3+7R	14.6+5R	15.8+3R	16.9+2R	18+1R	19+0R
	TSW @ 24"	q	1024	1026	873	896	793	821	742	772	711
		F	4.8+19R	4.9+15R	5.6+12R	5.5+11R	6+9R	5.8+8R	6.2+7R	6.1+7R	6.4+6R
	TSW @ 18"	q	1236	1197	1026	1027	1028	926	937	946	875
		F	4.2+19R	4.4+15R	5+13R	5+11R	5.1+9R	5.4+8R	5.4+7R	5.4+7R	5.7+6R
	TSW @ 12"	q	1425	1354	1304	1267	1239	1217	1200	1085	912
		F	3.8+19R	4.1+15R	4.3+13R	4.5+11R	4.6+10R	4.7+8R	4.7+8R	4.8+7R	4.8+6R
	TSW @ 6"	q	1970	1930	1901	1880	1864	1621	1313	1085	912
		F	3.1+19R	3.4+15R	3.5+13R	3.7+11R	3.7+10R	3.8+9R	3.9+8R	3.9+7R	4+6R
18	BP @ 24"	q	979	812	670	595	516	475	423	400	366
		F	8.1+7R	9.5+4R	11+2R	12.2+1R	13.7+0R	14.8-1R	16.2-2R	17.2-3R	18.6-4R
	BP @ 12"	q	1070	885	761	673	607	556	515	483	458
		F	7.7+7R	9+5R	10.3+3R	11.4+2R	12.5+1R	13.5+0R	14.4-1R	15.3-2R	16.2-2R
	TSW @ 24"	q	1617	1598	1359	1383	1224	1258	1141	1177	1085
		F	4.3+9R	4.2+7R	4.7+6R	4.6+5R	5+4R	4.9+4R	5.2+3R	5+3R	5.3+3R
	TSW @ 18"	q	1928	1851	1586	1577	1570	1414	1425	1434	1326
		F	3.7+9R	3.8+7R	4.2+6R	4.2+5R	4.2+4R	4.5+4R	4.5+4R	4.4+3R	4.7+3R
	TSW @ 12"	q	2208	2084	1998	1935	1886	1848	1817	1659	1394
		F	3.4+9R	3.5+7R	3.6+6R	3.7+5R	3.8+5R	3.8+4R	3.9+4R	3.9+3R	3.9+3R
	TSW @ 6"	q	3036	2962	2910	2872	2842	2478	2007	1659	1394
		F	2.7+9R	2.9+8R	3+6R	3+5R	3.1+5R	3.1+4R	3.1+4R	3.2+3R	3.2+3R
16	BP @ 24"	q	1255	1052	869	780	677	629	561	532	485
		F	7.2+3R	8.4+1R	9.7+0R	10.8-1R	12.1-2R	13.1-2R	14.3-3R	15.2-4R	16.4-4R
	BP @ 12"	q	1395	1167	1013	902	820	756	704	662	628
		F	6.8+3R	8+2R	9.1+1R	10.1+0R	11-1R	11.9-2R	12.7-2R	13.5-3R	14.3-3R
	TSW @ 24"	q	2083	2073	1766	1805	1599	1649	1497	1548	1428
		F	3.7+5R	3.7+4R	4.1+3R	4+3R	4.3+2R	4.2+2R	4.5+2R	4.3+2R	4.6+1R
	TSW @ 18"	q	2496	2408	2067	2062	2058	1856	1874	1889	1748
		F	3.2+5R	3.3+4R	3.7+3R	3.6+3R	3.6+2R	3.9+2R	3.8+2R	3.8+2R	4+2R
	TSW @ 12"	q	2862	2713	2609	2532	2473	2427	2389	2310	1941
		F	2.9+5R	3.1+4R	3.1+3R	3.2+3R	3.2+3R	3.3+2R	3.3+2R	3.3+2R	3.4+2R
	TSW @ 6"	q	3918	3833	3773	3729	3695	3451	2795	2310	1941
		F	2.4+5R	2.5+4R	2.5+4R	2.6+3R	2.6+3R	2.6+2R	2.6+2R	2.7+2R	2.7+2R

1 BP = Button Punch; TSW = Top Seam Weld

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (LV) of the deck to the length (LS) of the deck sheet: R = LV / LS

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

7 1 inch x 3/8 inch effective arc seam weld is required at supports adjacent to sidelap and a 1/2 inch effective diameter arc spot welds in all other

8 locations. Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 34 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
			36/4 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS								
22	#10 @ 24"	q	394	355	290	277	235	233	203	206	185
		F	-24.9+542R	-13.3+361R	-6.2+270R	-2.9+216R	0.5+179R	1.8+154R	4.1+134R	4.6+119R	6.2+107R
	#10 @ 18"	q	458	355	334	314	269	263	258	232	231
		F	-26.1+543R	-13.3+361R	-7.5+271R	-4.1+216R	-0.8+180R	0.7+154R	1.9+135R	3.6+120R	4.2+108R
	#10 @ 12"	q	458	405	374	348	329	315	305	296	289
		F	-26.1+543R	-14.4+361R	-8.4+271R	-4.9+217R	-2.4+180R	-0.7+155R	0.6+135R	1.6+120R	2.4+108R
	#10 @ 8"	q	510	485	443	434	406	405	386	387	373
		F	-26.8+543R	-15.5+362R	-9.5+271R	-6.2+217R	-3.7+181R	-2.2+155R	-0.8+136R	0+120R	0.9+108R
	#10 @ 6"	q	551	517	498	481	468	459	452	447	442
		F	-27.2+543R	-15.9+362R	-10.2+271R	-6.8+217R	-4.5+181R	-2.8+155R	-1.6+136R	-0.7+121R	0.1+109R
	#10 @ 4"	q	609	588	575	565	557	552	547	544	541
		F	-27.8+543R	-16.5+362R	-10.9+272R	-7.5+217R	-5.3+181R	-3.6+155R	-2.4+136R	-1.5+121R	-0.7+109R
20	#10 @ 24"	q	481	438	359	346	295	295	258	262	236
		F	-13.7+343R	-6.3+228R	-1.3+170R	0.7+136R	3.3+113R	4+97R	5.7+84R	6+75R	7.2+67R
	#10 @ 18"	q	563	438	415	393	337	331	326	294	294
		F	-14.8+343R	-6.3+228R	-2.5+171R	-0.3+137R	2.1+114R	3+97R	3.7+85R	5+75R	5.4+68R
	#10 @ 12"	q	563	502	466	436	414	398	386	376	368
		F	-14.8+343R	-7.2+229R	-3.4+171R	-1+137R	0.6+114R	1.7+98R	2.6+85R	3.2+76R	3.8+68R
	#10 @ 8"	q	628	602	552	544	511	511	488	491	474
		F	-15.4+344R	-8.3+229R	-4.4+172R	-2.3+137R	-0.6+114R	0.3+98R	1.2+86R	1.8+76R	2.4+69R
	#10 @ 6"	q	677	640	619	600	587	577	569	563	558
		F	-15.8+344R	-8.6+229R	-4.9+172R	-2.8+137R	-1.3+114R	-0.2+98R	0.5+86R	1.1+76R	1.6+69R
	#10 @ 4"	q	746	724	711	699	691	685	681	677	674
		F	-16.3+344R	-9.2+229R	-5.6+172R	-3.4+138R	-2+115R	-1+98R	-0.2+86R	0.4+76R	0.9+69R
18	#10 @ 24"	q	659	611	502	490	419	422	375	383	346
		F	-4.3+167R	-0.5+111R	2.5+83R	3.4+66R	5.1+55R	5.4+47R	6.5+41R	6.5+36R	7.5+32R
	#10 @ 18"	q	779	611	585	559	482	476	472	427	428
		F	-5.2+167R	-0.5+111R	1.4+83R	2.5+66R	4+55R	4.5+47R	4.8+41R	5.7+36R	5.8+33R
	#10 @ 12"	q	779	703	659	621	594	574	559	547	537
		F	-5.2+167R	-1.3+111R	0.7+83R	1.9+67R	2.8+55R	3.4+48R	3.8+42R	4.2+37R	4.5+33R
	#10 @ 8"	q	868	842	779	772	730	732	703	708	686
		F	-5.8+168R	-2.2+112R	-0.2+84R	0.8+67R	1.7+56R	2.2+48R	2.7+42R	2.9+37R	3.3+33R
	#10 @ 6"	q	935	893	869	847	832	821	812	805	799
		F	-6.1+168R	-2.5+112R	-0.7+84R	0.4+67R	1.1+56R	1.7+48R	2.1+42R	2.4+37R	2.6+34R
	#10 @ 4"	q	1023	999	985	973	965	958	953	949	946
		F	-6.6+168R	-3+112R	-1.3+84R	-0.2+67R	0.5+56R	1+48R	1.4+42R	1.7+37R	1.9+34R
16	#10 @ 24"	q	844	793	654	644	553	561	499	511	466
		F	-0.7+95R	1.5+63R	3.6+47R	4.2+37R	5.4+31R	5.5+26R	6.4+23R	6.3+20R	7.1+18R
	#10 @ 18"	q	1004	793	766	737	638	634	630	571	575
		F	-1.6+95R	1.5+63R	2.7+47R	3.4+38R	4.5+31R	4.7+27R	4.9+23R	5.6+21R	5.7+19R
	#10 @ 12"	q	1004	915	864	819	788	764	746	732	720
		F	-1.6+95R	0.8+63R	2+47R	2.8+38R	3.3+31R	3.7+27R	4+24R	4.2+21R	4.4+19R
	#10 @ 8"	q	1119	1092	1018	1013	963	967	933	940	913
		F	-2.1+96R	0+64R	1.3+48R	1.8+38R	2.4+32R	2.6+27R	3+24R	3.1+21R	3.3+19R
	#10 @ 6"	q	1201	1156	1129	1106	1090	1077	1068	1060	1054
		F	-2.4+96R	-0.3+64R	0.8+48R	1.5+38R	1.9+32R	2.2+27R	2.4+24R	2.6+21R	2.8+19R
	#10 @ 4"	q	1306	1281	1267	1255	1246	1240	1235	1231	1227
		F	-2.8+96R	-0.7+64R	0.3+48R	0.9+38R	1.3+32R	1.6+27R	1.9+24R	2+21R	2.2+19R

Pages 116 has the footnotes.

(continued)

TABLE 34 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
36/7/4 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	#10 @ 24"	q	471	421	343	318	263	257	223	224	202
		F	4.5+59R	6.2+39R	8.4+28R	8.7+22R	10.2+18R	10.1+15R	11.3+13R	11+11R	12+10R
	#10 @ 18"	q	562	421	396	364	302	291	282	250	249
		F	3.4+60R	6.2+39R	7.1+29R	7.7+23R	8.9+18R	9.1+16R	9.2+14R	10+12R	10+11R
	#10 @ 12"	q	562	486	445	405	377	357	341	328	319
		F	3.4+60R	5.3+39R	6.3+29R	6.9+23R	7.4+19R	7.7+16R	8+14R	8.2+13R	8.3+11R
	#10 @ 8"	q	643	603	539	520	476	471	444	443	424
		F	2.8+60R	4.2+40R	5.2+30R	5.6+24R	6.1+20R	6.2+17R	6.6+15R	6.6+13R	6.8+12R
	#10 @ 6"	q	717	656	623	590	567	550	537	527	519
		F	2.4+60R	3.9+40R	4.6+30R	5.1+24R	5.4+20R	5.6+17R	5.8+15R	5.9+13R	6+12R
	#10 @ 4"	q	838	791	765	739	721	707	697	689	682
		F	1.8+61R	3.2+40R	3.9+30R	4.3+24R	4.6+20R	4.8+17R	5+15R	5.1+13R	5.2+12R
20	#10 @ 24"	q	576	521	425	400	331	326	283	284	256
		F	4.8+37R	6+24R	7.8+17R	8+13R	9.3+10R	9.2+9R	10.2+7R	10+6R	10.8+5R
	#10 @ 18"	q	694	521	492	456	382	370	360	319	317
		F	3.8+37R	6+24R	6.7+18R	7.1+14R	8.2+11R	8.3+9R	8.3+8R	9.1+7R	9+6R
	#10 @ 12"	q	694	605	557	509	477	453	435	420	409
		F	3.8+37R	5.2+25R	5.9+18R	6.4+14R	6.7+12R	7+10R	7.2+9R	7.3+8R	7.5+7R
	#10 @ 8"	q	799	755	677	657	604	600	566	567	542
		F	3.3+38R	4.2+25R	5+19R	5.2+15R	5.6+12R	5.7+10R	5.9+9R	5.9+8R	6.1+7R
	#10 @ 6"	q	891	821	784	746	719	700	685	673	664
		F	2.9+38R	3.9+25R	4.4+19R	4.7+15R	4.9+12R	5.1+11R	5.2+9R	5.3+8R	5.4+7R
	#10 @ 4"	q	1041	989	960	931	911	896	884	875	868
		F	2.4+38R	3.3+25R	3.8+19R	4.1+15R	4.2+13R	4.4+11R	4.5+10R	4.5+8R	4.6+8R
18	#10 @ 24"	q	792	729	594	568	475	472	411	416	373
		F	4.7+17R	5.4+11R	6.8+7R	6.9+6R	8+4R	7.8+3R	8.7+3R	8.5+2R	9.2+2R
	#10 @ 18"	q	969	729	696	651	551	538	529	469	468
		F	3.8+18R	5.4+11R	5.8+8R	6.1+6R	7+5R	7+4R	7+3R	7.7+3R	7.6+2R
	#10 @ 12"	q	969	854	793	731	688	658	634	616	601
		F	3.8+18R	4.7+11R	5.2+8R	5.5+7R	5.8+5R	5.9+4R	6.1+4R	6.2+3R	6.3+3R
	#10 @ 8"	q	1122	1074	969	949	877	875	829	833	799
		F	3.3+18R	3.8+12R	4.4+9R	4.5+7R	4.8+6R	4.8+5R	5+4R	4.9+4R	5.1+3R
	#10 @ 6"	q	1254	1169	1123	1076	1043	1019	1001	986	975
		F	3+18R	3.6+12R	3.9+9R	4.1+7R	4.2+6R	4.3+5R	4.4+4R	4.4+4R	4.5+4R
	#10 @ 4"	q	1461	1400	1367	1333	1309	1291	1278	1267	1259
		F	2.6+19R	3.1+12R	3.3+9R	3.5+7R	3.6+6R	3.6+5R	3.7+5R	3.7+4R	3.8+4R
16	#10 @ 24"	q	1019	950	774	748	631	633	552	562	504
		F	4.3+9R	4.9+6R	6.1+3R	6.1+3R	7+2R	6.9+1R	7.6+1R	7.4+1R	8+0R
	#10 @ 18"	q	1260	950	914	862	731	719	709	635	636
		F	3.6+10R	4.9+6R	5.2+4R	5.4+3R	6.1+2R	6.1+2R	6.1+2R	6.7+1R	6.6+1R
	#10 @ 12"	q	1260	1121	1046	971	920	882	853	831	813
		F	3.6+10R	4.2+6R	4.6+4R	4.8+3R	5+3R	5.2+2R	5.3+2R	5.4+2R	5.4+1R
	#10 @ 8"	q	1466	1416	1284	1265	1175	1176	1117	1124	1081
		F	3.1+10R	3.4+7R	3.8+5R	3.9+4R	4.1+3R	4.1+3R	4.3+2R	4.3+2R	4.4+2R
	#10 @ 6"	q	1639	1540	1486	1431	1393	1366	1344	1327	1314
		F	2.8+10R	3.2+7R	3.4+5R	3.5+4R	3.6+3R	3.7+3R	3.7+2R	3.8+2R	3.8+2R
	#10 @ 4"	q	1901	1833	1796	1758	1732	1712	1697	1686	1676
		F	2.5+11R	2.8+7R	2.9+5R	3+4R	3.1+3R	3.1+3R	3.2+3R	3.2+2R	3.2+2R

Page 116 has the footnotes.

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TABLE 34 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
36/7 ATTACHMENT PATTERN FOR APPROVED SDI RECOGNIZED SCREWS											
22	#10 @ 24"	q	551	473	381	352	291	281	244	243	218
		F	3.7+60R	5.5+39R	7.4+29R	7.9+23R	9.3+19R	9.4+16R	10.4+13R	10.3+12R	11.2+10R
	#10 @ 18"	q	634	473	431	393	330	314	303	269	265
		F	3+60R	5.5+39R	6.5+29R	7.1+23R	8.3+19R	8.5+16R	8.7+14R	9.5+12R	9.5+11R
	#10 @ 12"	q	634	534	479	433	401	378	360	347	335
		F	3+60R	4.8+40R	5.8+30R	6.5+24R	7+20R	7.3+17R	7.6+14R	7.8+13R	8+12R
	#10 @ 8"	q	709	645	569	545	498	491	461	459	438
		F	2.5+61R	3.9+40R	5+30R	5.4+24R	5.9+20R	6.1+17R	6.4+15R	6.5+13R	6.7+12R
	#10 @ 6"	q	774	695	651	613	587	567	553	541	531
		F	2.2+61R	3.7+40R	4.5+30R	4.9+24R	5.3+20R	5.5+17R	5.7+15R	5.8+13R	5.9+12R
	#10 @ 4"	q	882	821	787	757	737	721	709	700	693
		F	1.7+61R	3.1+40R	3.8+30R	4.3+24R	4.6+20R	4.8+17R	4.9+15R	5+13R	5.1+12R
20	#10 @ 24"	q	672	582	469	437	364	354	308	306	276
		F	4.1+38R	5.4+25R	7+18R	7.3+14R	8.5+11R	8.5+10R	9.4+8R	9.3+7R	10.1+6R
	#10 @ 18"	q	780	582	534	491	415	398	385	341	337
		F	3.4+38R	5.4+25R	6.1+18R	6.6+14R	7.6+12R	7.7+10R	7.9+9R	8.6+7R	8.6+7R
	#10 @ 12"	q	780	662	597	543	505	478	457	440	427
		F	3.4+38R	4.8+25R	5.5+18R	6+15R	6.4+12R	6.7+10R	6.9+9R	7.1+8R	7.2+7R
	#10 @ 8"	q	874	804	713	687	630	622	586	585	559
		F	3+38R	4+25R	4.7+19R	5+15R	5.4+12R	5.5+11R	5.8+9R	5.8+8R	6+7R
	#10 @ 6"	q	957	866	816	772	742	720	703	689	679
		F	2.7+38R	3.7+25R	4.3+19R	4.6+15R	4.8+13R	5+11R	5.1+9R	5.2+8R	5.3+8R
	#10 @ 4"	q	1091	1023	984	951	928	911	898	888	879
		F	2.3+38R	3.2+26R	3.7+19R	4+15R	4.2+13R	4.3+11R	4.4+10R	4.5+8R	4.6+8R
18	#10 @ 24"	q	918	809	651	615	519	510	444	446	400
		F	4.1+18R	4.9+12R	6.1+8R	6.3+6R	7.2+5R	7.2+4R	8+3R	7.9+3R	8.5+2R
	#10 @ 18"	q	1079	809	751	696	590	572	559	499	494
		F	3.5+18R	4.9+12R	5.4+8R	5.7+7R	6.5+5R	6.6+4R	6.6+4R	7.2+3R	7.2+3R
	#10 @ 12"	q	1079	928	844	774	725	690	663	641	624
		F	3.5+18R	4.3+12R	4.8+9R	5.2+7R	5.5+6R	5.7+5R	5.8+4R	5.9+4R	6+3R
	#10 @ 8"	q	1217	1135	1014	986	910	903	854	855	820
		F	3.1+18R	3.6+12R	4.2+9R	4.3+7R	4.6+6R	4.6+5R	4.8+4R	4.8+4R	5+3R
	#10 @ 6"	q	1335	1224	1162	1109	1072	1044	1023	1006	993
		F	2.8+19R	3.4+12R	3.7+9R	4+7R	4.1+6R	4.2+5R	4.3+5R	4.3+4R	4.4+4R
	#10 @ 4"	q	1518	1439	1395	1356	1329	1310	1294	1282	1272
		F	2.5+19R	3+12R	3.3+9R	3.4+7R	3.5+6R	3.6+5R	3.7+5R	3.7+4R	3.7+4R
16	#10 @ 24"	q	1174	1048	845	806	682	676	593	599	537
		F	3.8+10R	4.4+6R	5.4+4R	5.6+3R	6.4+2R	6.3+2R	7+1R	6.9+1R	7.5+1R
	#10 @ 18"	q	1393	1048	982	918	779	760	746	669	666
		F	3.2+10R	4.4+6R	4.7+5R	5+4R	5.7+3R	5.7+2R	5.8+2R	6.3+1R	6.3+1R
	#10 @ 12"	q	1393	1210	1109	1024	965	921	888	862	841
		F	3.2+10R	3.9+7R	4.3+5R	4.6+4R	4.8+3R	4.9+3R	5+2R	5.1+2R	5.2+2R
	#10 @ 8"	q	1578	1487	1338	1308	1214	1209	1147	1151	1106
		F	2.9+10R	3.3+7R	3.7+5R	3.8+4R	4+3R	4+3R	4.2+2R	4.2+2R	4.3+2R
	#10 @ 6"	q	1731	1603	1531	1470	1427	1395	1370	1351	1335
		F	2.7+10R	3.1+7R	3.3+5R	3.4+4R	3.5+3R	3.6+3R	3.7+3R	3.7+2R	3.7+2R
	#10 @ 4"	q	1964	1877	1827	1785	1755	1733	1716	1702	1691
		F	2.4+11R	2.7+7R	2.9+5R	3+4R	3+3R	3.1+3R	3.1+3R	3.2+2R	3.2+2R

Page 116 has the footnotes.

(continued)

TABLE 34 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
36/9 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	#10 @ 24"	q	805	668	544	480	395	368	319	309	278
		F	2.8+60R	4.7+40R	6.3+29R	7+23R	8.1+19R	8.3+16R	9.2+13R	9.3+12R	10.1+10R
	#10 @ 18"	q	881	668	593	526	434	402	378	335	325
		F	2.4+60R	4.7+40R	5.7+29R	6.4+23R	7.4+19R	7.7+16R	8+14R	8.7+12R	8.8+11R
	#10 @ 12"	q	881	727	640	565	512	469	436	413	395
		F	2.4+60R	4.2+40R	5.3+30R	6+24R	6.5+19R	6.9+17R	7.2+14R	7.4+13R	7.6+11R
	#10 @ 8"	q	950	835	729	678	612	590	549	538	510
		F	2.1+61R	3.6+40R	4.6+30R	5.1+24R	5.6+20R	5.8+17R	6.1+15R	6.2+13R	6.5+12R
	#10 @ 6"	q	1013	885	812	748	703	670	645	625	608
		F	1.9+61R	3.4+40R	4.2+30R	4.7+24R	5.1+20R	5.3+17R	5.5+15R	5.7+13R	5.8+12R
	#10 @ 4"	q	1121	1016	956	903	865	837	816	799	785
		F	1.6+61R	3+40R	3.7+30R	4.2+24R	4.5+20R	4.7+17R	4.8+15R	5+13R	5.1+12R
20	#10 @ 24"	q	976	816	664	595	491	460	399	386	347
		F	3.3+38R	4.6+25R	6+18R	6.4+14R	7.4+11R	7.6+10R	8.4+8R	8.4+7R	9.1+6R
	#10 @ 18"	q	1075	816	728	650	542	505	476	420	409
		F	2.9+38R	4.6+25R	5.4+18R	5.9+14R	6.8+12R	7+10R	7.2+9R	7.8+7R	7.9+7R
	#10 @ 12"	q	1075	892	789	701	640	593	554	523	501
		F	2.9+38R	4.2+25R	5+19R	5.5+15R	5.9+12R	6.2+10R	6.5+9R	6.7+8R	6.8+7R
	#10 @ 8"	q	1164	1032	905	847	767	743	693	682	647
		F	2.6+38R	3.7+25R	4.4+19R	4.7+15R	5.1+12R	5.3+11R	5.5+9R	5.6+8R	5.8+7R
	#10 @ 6"	q	1243	1095	1010	936	884	846	816	792	773
		F	2.4+38R	3.5+25R	4.1+19R	4.4+15R	4.7+13R	4.8+11R	5+9R	5.1+8R	5.2+7R
	#10 @ 4"	q	1379	1260	1191	1131	1089	1057	1032	1013	997
		F	2.1+38R	3.1+26R	3.6+19R	3.9+15R	4.1+13R	4.2+11R	4.4+10R	4.4+8R	4.5+8R
18	#10 @ 24"	q	1321	1118	911	827	690	655	568	554	495
		F	3.4+18R	4.2+12R	5.2+8R	5.6+6R	6.3+5R	6.4+4R	7.1+3R	7.1+3R	7.7+2R
	#10 @ 18"	q	1469	1118	1007	908	769	722	687	607	590
		F	3+18R	4.2+12R	4.7+9R	5.1+7R	5.8+5R	6+4R	6.1+4R	6.6+3R	6.7+3R
	#10 @ 12"	q	1469	1233	1100	985	905	847	802	765	733
		F	3+18R	3.9+12R	4.4+9R	4.8+7R	5+6R	5.3+5R	5.4+4R	5.6+4R	5.7+3R
	#10 @ 8"	q	1600	1439	1271	1202	1095	1068	1000	988	941
		F	2.8+18R	3.4+12R	3.9+9R	4.1+7R	4.4+6R	4.4+5R	4.6+4R	4.7+4R	4.8+3R
	#10 @ 6"	q	1715	1531	1425	1332	1267	1218	1181	1151	1127
		F	2.6+19R	3.2+12R	3.6+9R	3.8+7R	3.9+6R	4.1+5R	4.1+4R	4.2+4R	4.3+4R
	#10 @ 4"	q	1906	1764	1681	1609	1557	1519	1489	1466	1446
		F	2.4+19R	2.9+12R	3.2+9R	3.3+7R	3.5+6R	3.5+5R	3.6+5R	3.7+4R	3.7+4R
16	#10 @ 24"	q	1675	1434	1169	1071	903	864	751	737	659
		F	3.1+10R	3.8+6R	4.6+4R	4.9+3R	5.5+2R	5.6+2R	6.2+1R	6.2+1R	6.7+1R
	#10 @ 18"	q	1878	1434	1302	1182	1004	956	917	811	792
		F	2.8+10R	3.8+6R	4.2+5R	4.5+4R	5.1+3R	5.2+2R	5.3+2R	5.7+1R	5.8+1R
	#10 @ 12"	q	1878	1592	1429	1289	1191	1119	1064	1020	985
		F	2.8+10R	3.5+7R	3.9+5R	4.2+4R	4.4+3R	4.6+2R	4.7+2R	4.8+2R	4.9+2R
	#10 @ 8"	q	2055	1870	1661	1583	1449	1419	1334	1323	1262
		F	2.6+10R	3+7R	3.4+5R	3.6+4R	3.8+3R	3.8+3R	4+2R	4+2R	4.1+2R
	#10 @ 6"	q	2208	1991	1866	1756	1679	1621	1577	1541	1513
		F	2.5+10R	2.9+7R	3.1+5R	3.3+4R	3.4+3R	3.5+3R	3.6+2R	3.6+2R	3.7+2R
	#10 @ 4"	q	2455	2293	2199	2117	2058	2014	1980	1953	1931
		F	2.2+11R	2.6+7R	2.8+5R	2.9+4R	3+3R	3+3R	3.1+3R	3.1+2R	3.1+2R

1 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

2 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

3 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

4 Diaphragm shear values for #10 screw spacings other than those in the table should be determined based on the number of fasteners in span.

5 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

6 Table 21B of this report provides a guide to proper selection of support fastening screws.

7 Table 21C of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 inch thick.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 35 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	#10 @ 24"	q	344	308	252	240	206	204	183	–	–
		F	-6.5+270R	-3.2+216R	0.2+179R	1.6+154R	3.8+134R	4.4+119R	6+107R		
	#10 @ 18"	q	393	347	285	268	255	226	223	–	–
		F	-7.8+271R	-4.3+216R	-1+180R	0.5+154R	1.7+135R	3.4+120R	4+108R		
	#10 @ 12"	q	442	386	350	323	304	291	281	–	–
		F	-8.6+271R	-5+217R	-2.6+180R	-0.8+155R	0.5+135R	1.5+120R	2.3+108R		
	#10 @ 8"	q	524	496	448	435	402	399	379	–	–
		F	-9.6+271R	-6.3+217R	-3.8+181R	-2.3+155R	-0.9+136R	0+120R	0.9+108R		
	#10 @ 6"	q	597	557	529	508	492	480	470	–	–
		F	-10.2+271R	-6.8+217R	-4.5+181R	-2.9+155R	-1.6+136R	-0.7+121R	0.1+109R		
	#10 @ 4"	q	726	692	668	651	638	627	619	–	–
		F	-10.9+272R	-7.5+217R	-5.3+181R	-3.7+155R	-2.5+136R	-1.5+121R	-0.8+109R		
20	#10 @ 24"	q	480	429	352	334	288	281	252	253	232
		F	-1.6+170R	0.5+136R	3+113R	3.8+97R	5.4+84R	5.7+75R	7+67R	7+61R	8+56R
	#10 @ 18"	q	544	480	395	371	352	309	304	300	275
		F	-2.8+171R	-0.5+137R	1.8+113R	2.8+97R	3.6+85R	4.8+75R	5.2+68R	5.5+62R	6.4+56R
	#10 @ 12"	q	601	532	481	444	417	395	381	370	361
		F	-3.5+171R	-1.1+137R	0.4+114R	1.6+98R	2.5+85R	3.1+76R	3.7+68R	4.1+62R	4.5+57R
	#10 @ 8"	q	703	663	602	587	545	538	510	510	489
		F	-4.4+172R	-2.3+137R	-0.7+114R	0.3+98R	1.2+86R	1.7+76R	2.3+69R	2.7+62R	3.1+57R
	#10 @ 6"	q	797	742	703	675	654	637	623	612	602
		F	-5+172R	-2.8+137R	-1.3+114R	-0.3+98R	0.5+86R	1.1+76R	1.6+69R	2+62R	2.4+57R
	#10 @ 4"	q	960	914	883	859	841	827	815	806	798
		F	-5.6+172R	-3.5+137R	-2+115R	-1+98R	-0.2+86R	0.4+76R	0.8+69R	1.2+62R	1.6+57R
18	#10 @ 24"	q	807	720	594	560	485	471	420	416	381
		F	2.2+83R	3.2+66R	4.8+55R	5.1+47R	6.3+41R	6.3+36R	7.3+32R	7.2+29R	7.9+27R
	#10 @ 18"	q	890	797	660	616	584	515	499	488	447
		F	1.2+83R	2.4+66R	3.9+55R	4.3+47R	4.7+41R	5.6+36R	5.7+33R	5.8+30R	6.5+27R
	#10 @ 12"	q	970	864	790	729	683	647	618	596	579
		F	0.6+83R	1.8+67R	2.7+55R	3.3+47R	3.7+42R	4.1+37R	4.4+33R	4.6+30R	4.8+28R
	#10 @ 8"	q	1121	1053	954	927	866	854	810	806	773
		F	-0.2+84R	0.8+67R	1.7+56R	2.1+48R	2.6+42R	2.9+37R	3.2+33R	3.4+30R	3.6+28R
	#10 @ 6"	q	1259	1169	1107	1060	1025	996	974	955	939
		F	-0.7+84R	0.4+67R	1.1+56R	1.6+48R	2+42R	2.4+37R	2.6+33R	2.8+30R	3+28R
	#10 @ 4"	q	1497	1424	1372	1334	1304	1281	1262	1246	1233
		F	-1.3+84R	-0.2+67R	0.5+56R	1+48R	1.4+42R	1.7+37R	1.9+34R	2.1+31R	2.3+28R
16	#10 @ 24"	q	1033	939	775	737	639	625	558	554	505
		F	3.4+47R	4+37R	5.2+31R	5.3+26R	6.2+23R	6.2+20R	6.9+18R	6.8+16R	7.4+15R
	#10 @ 18"	q	1149	1036	867	816	778	687	669	654	597
		F	2.5+47R	3.2+38R	4.3+31R	4.6+27R	4.8+23R	5.5+21R	5.5+18R	5.6+17R	6.1+15R
	#10 @ 12"	q	1259	1129	1038	971	916	871	835	805	782
		F	1.9+47R	2.7+38R	3.2+31R	3.6+27R	3.9+24R	4.2+21R	4.3+19R	4.5+17R	4.6+16R
	#10 @ 8"	q	1466	1388	1264	1234	1156	1144	1088	1085	1043
		F	1.2+48R	1.8+38R	2.4+32R	2.6+27R	3+24R	3.1+21R	3.3+19R	3.4+17R	3.6+16R
	#10 @ 6"	q	1653	1545	1470	1414	1372	1338	1310	1287	1268
		F	0.8+48R	1.4+38R	1.9+32R	2.2+27R	2.4+24R	2.6+21R	2.8+19R	2.9+17R	3+16R
	#10 @ 4"	q	1968	1883	1823	1778	1744	1716	1694	1675	1660
		F	0.3+48R	0.9+38R	1.3+32R	1.6+27R	1.8+24R	2+21R	2.2+19R	2.3+17R	2.4+16R

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(continued)

TABLE 35 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	#10 @ 24"	q	431	378	310	289	249	242	218	–	–
		F	-2.3+190R	0.2+152R	2.9+126R	3.9+108R	5.6+94R	6.1+83R	7.4+75R		
	#10 @ 18"	q	480	417	343	317	298	264	257	–	–
		F	-3.3+190R	-0.7+152R	1.8+126R	3+108R	3.8+95R	5.2+84R	5.7+75R		
	#10 @ 12"	q	527	456	408	373	347	329	316	–	–
		F	-4+190R	-1.3+152R	0.5+127R	1.8+109R	2.8+95R	3.5+84R	4.1+76R		
	#10 @ 8"	q	607	565	506	485	445	438	414	–	–
		F	-4.8+191R	-2.5+153R	-0.6+127R	0.4+109R	1.5+95R	2.1+85R	2.8+76R		
	#10 @ 6"	q	682	627	589	561	539	522	509	–	–
		F	-5.4+191R	-2.9+153R	-1.3+127R	-0.1+109R	0.8+95R	1.5+85R	2+76R		
	#10 @ 4"	q	817	769	736	712	693	678	666	–	–
		F	-6+191R	-3.6+153R	-2+127R	-0.9+109R	0+96R	0.7+85R	1.2+76R		
20	#10 @ 24"	q	601	526	433	403	349	335	301	297	272
		F	0.9+120R	2.5+95R	4.5+79R	5.1+68R	6.5+59R	6.7+52R	7.7+47R	7.8+43R	8.6+39R
	#10 @ 18"	q	662	577	476	440	413	363	352	344	315
		F	0+120R	1.7+96R	3.5+79R	4.3+68R	4.8+60R	5.9+53R	6.2+47R	6.4+43R	7.1+39R
	#10 @ 12"	q	716	629	561	513	477	449	430	414	401
		F	-0.6+120R	1.1+96R	2.3+80R	3.2+68R	3.8+60R	4.3+53R	4.8+48R	5.1+43R	5.4+40R
	#10 @ 8"	q	820	760	683	658	606	592	558	554	530
		F	-1.5+121R	0+96R	1.3+80R	2+69R	2.7+60R	3+54R	3.5+48R	3.7+44R	4.1+40R
	#10 @ 6"	q	916	841	788	750	720	697	678	662	649
		F	-2+121R	-0.4+97R	0.7+80R	1.4+69R	2+60R	2.5+54R	2.8+48R	3.1+44R	3.4+40R
	#10 @ 4"	q	1089	1024	979	945	920	899	883	869	857
		F	-2.5+121R	-1+97R	0+81R	0.8+69R	1.3+60R	1.7+54R	2.1+48R	2.4+44R	2.6+40R
18	#10 @ 24"	q	1002	885	731	677	588	562	502	491	450
		F	3.2+58R	4+46R	5.4+38R	5.6+33R	6.6+28R	6.6+25R	7.4+22R	7.4+20R	8+18R
	#10 @ 18"	q	1085	956	797	734	687	606	581	563	516
		F	2.4+58R	3.3+46R	4.5+38R	4.9+33R	5.2+29R	6+25R	6.1+23R	6.2+21R	6.7+19R
	#10 @ 12"	q	1166	1024	925	847	786	738	700	670	647
		F	1.9+58R	2.8+47R	3.5+39R	4+33R	4.3+29R	4.6+26R	4.9+23R	5.1+21R	5.2+19R
	#10 @ 8"	q	1321	1219	1094	1049	973	951	898	886	845
		F	1.1+59R	1.9+47R	2.6+39R	2.9+34R	3.3+29R	3.5+26R	3.8+23R	3.9+21R	4.1+19R
	#10 @ 6"	q	1465	1340	1253	1189	1139	1100	1068	1042	1020
		F	0.7+59R	1.5+47R	2.1+39R	2.5+34R	2.8+29R	3+26R	3.2+24R	3.3+21R	3.4+20R
	#10 @ 4"	q	1721	1615	1540	1484	1441	1407	1379	1356	1337
		F	0.2+59R	1+47R	1.5+39R	1.9+34R	2.1+30R	2.4+26R	2.5+24R	2.7+21R	2.8+20R
16	#10 @ 24"	q	1277	1139	946	884	768	739	661	647	590
		F	3.8+33R	4.3+26R	5.3+21R	5.4+18R	6.2+16R	6.2+14R	6.9+12R	6.8+11R	7.3+10R
	#10 @ 18"	q	1393	1235	1038	963	906	801	771	748	683
		F	3.1+33R	3.7+26R	4.6+22R	4.8+18R	5+16R	5.6+14R	5.7+13R	5.7+12R	6.2+10R
	#10 @ 12"	q	1505	1330	1208	1118	1044	985	937	899	867
		F	2.6+33R	3.2+26R	3.6+22R	4+19R	4.2+16R	4.4+15R	4.6+13R	4.7+12R	4.8+11R
	#10 @ 8"	q	1717	1597	1440	1389	1292	1268	1200	1188	1138
		F	2+33R	2.4+27R	2.9+22R	3+19R	3.3+17R	3.4+15R	3.6+13R	3.6+12R	3.8+11R
	#10 @ 6"	q	1914	1763	1658	1580	1520	1472	1433	1402	1375
		F	1.6+34R	2.1+27R	2.4+22R	2.6+19R	2.8+17R	2.9+15R	3.1+13R	3.2+12R	3.2+11R
	#10 @ 4"	q	2258	2132	2043	1977	1926	1886	1853	1825	1802
		F	1.1+34R	1.6+27R	1.9+22R	2.1+19R	2.3+17R	2.4+15R	2.5+13R	2.6+12R	2.6+11R

Page 120 has the footnotes.

(continued)

TABLE 35 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
			36/7/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS								
22	#10 @ 24"	q	402	355	291	273	235	230	207	–	–
		F	8+28R	8.4+22R	9.8+18R	9.8+15R	10.9+12R	10.8+11R	11.7+10R		
	#10 @ 18"	q	451	394	323	301	284	251	246	–	–
		F	6.9+29R	7.5+23R	8.7+18R	8.9+16R	9+14R	9.8+12R	9.8+10R		
	#10 @ 12"	q	500	433	388	357	333	317	304	–	–
		F	6.1+29R	6.8+23R	7.2+19R	7.6+16R	7.8+14R	8.1+12R	8.2+11R		
	#10 @ 8"	q	597	550	486	468	431	425	402	–	–
		F	5.1+30R	5.5+24R	6+20R	6.2+17R	6.5+15R	6.6+13R	6.8+12R		
	#10 @ 6"	q	686	628	584	552	528	512	500	–	–
		F	4.6+30R	5+24R	5.4+20R	5.6+17R	5.8+15R	5.9+13R	6+12R		
	#10 @ 4"	q	845	792	756	730	710	695	682	–	–
		F	3.9+30R	4.3+24R	4.6+20R	4.8+17R	5+15R	5.1+13R	5.2+12R		
20	#10 @ 24"	q	561	494	406	380	328	317	285	282	259
		F	7.5+17R	7.8+13R	9+10R	8.9+9R	9.9+7R	9.7+6R	10.6+5R	10.3+5R	11+4R
	#10 @ 18"	q	625	545	449	417	393	345	336	329	302
		F	6.5+18R	6.9+14R	7.9+11R	8.1+9R	8.2+8R	8.9+7R	8.9+6R	8.9+6R	9.4+5R
	#10 @ 12"	q	689	596	534	490	457	431	413	399	387
		F	5.8+18R	6.3+14R	6.6+12R	6.9+10R	7.1+9R	7.3+8R	7.4+7R	7.5+6R	7.6+6R
	#10 @ 8"	q	814	751	663	637	586	574	542	540	516
		F	4.9+19R	5.1+15R	5.5+12R	5.6+10R	5.9+9R	5.9+8R	6.1+7R	6.1+7R	6.2+6R
	#10 @ 6"	q	925	846	791	748	714	689	671	657	645
		F	4.4+19R	4.7+15R	4.9+12R	5.1+11R	5.2+9R	5.3+8R	5.4+7R	5.4+7R	5.5+6R
	#10 @ 4"	q	1132	1060	1010	974	946	924	907	892	880
		F	3.8+19R	4+15R	4.2+13R	4.4+11R	4.5+9R	4.5+8R	4.6+8R	4.7+7R	4.7+6R
18	#10 @ 24"	q	948	830	685	638	554	532	475	466	427
		F	6.5+7R	6.7+6R	7.7+4R	7.6+3R	8.4+3R	8.2+2R	8.9+2R	8.7+2R	9.3+1R
	#10 @ 18"	q	1047	909	751	695	652	576	554	538	493
		F	5.7+8R	5.9+6R	6.8+5R	6.9+4R	6.9+3R	7.5+3R	7.5+2R	7.4+2R	7.9+2R
	#10 @ 12"	q	1144	988	883	808	751	707	672	645	625
		F	5.1+8R	5.4+6R	5.6+5R	5.8+4R	6+4R	6.1+3R	6.2+3R	6.3+3R	6.3+2R
	#10 @ 8"	q	1319	1215	1080	1034	949	927	870	861	822
		F	4.3+9R	4.4+7R	4.7+6R	4.7+5R	4.9+4R	4.9+4R	5.1+3R	5+3R	5.1+3R
	#10 @ 6"	q	1488	1354	1262	1195	1145	1103	1068	1041	1020
		F	3.8+9R	4+7R	4.2+6R	4.3+5R	4.3+4R	4.4+4R	4.4+4R	4.5+3R	4.5+3R
	#10 @ 4"	q	1804	1681	1597	1535	1489	1452	1422	1398	1377
		F	3.3+9R	3.5+7R	3.6+6R	3.6+5R	3.7+5R	3.7+4R	3.8+4R	3.8+3R	3.8+3R
16	#10 @ 24"	q	1217	1076	889	835	725	701	627	616	562
		F	5.8+4R	5.9+3R	6.8+2R	6.7+1R	7.4+1R	7.2+1R	7.8+0R	7.6+0R	8.1+0R
	#10 @ 18"	q	1355	1186	981	914	863	763	737	717	654
		F	5+4R	5.2+3R	6+2R	6+2R	6+1R	6.6+1R	6.5+1R	6.5+1R	6.9+1R
	#10 @ 12"	q	1482	1297	1166	1072	1002	947	903	867	839
		F	4.5+4R	4.7+3R	4.9+3R	5.1+2R	5.2+2R	5.3+2R	5.4+1R	5.4+1R	5.5+1R
	#10 @ 8"	q	1725	1602	1436	1387	1278	1254	1180	1169	1115
		F	3.8+5R	3.9+4R	4.1+3R	4.1+3R	4.2+2R	4.2+2R	4.3+2R	4.3+2R	4.4+1R
	#10 @ 6"	q	1957	1793	1680	1598	1536	1488	1448	1416	1389
		F	3.4+5R	3.5+4R	3.6+3R	3.7+3R	3.7+2R	3.8+2R	3.8+2R	3.8+2R	3.8+2R
	#10 @ 4"	q	2388	2240	2138	2063	2007	1962	1926	1897	1872
		F	2.9+5R	3+4R	3.1+3R	3.1+3R	3.2+3R	3.2+2R	3.2+2R	3.2+2R	3.2+2R

Page 120 has the footnotes.

(continued)

TABLE 35 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSB®-36-SS DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
36/7 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	#10 @ 24"	q	460	401	329	306	264	255	230	–	–
		F	7.1+29R	7.6+23R	8.9+19R	9.1+16R	10.1+13R	10+12R	10.9+10R		
	#10 @ 18"	q	509	440	362	334	313	277	269	–	–
		F	6.3+29R	6.9+23R	8+19R	8.3+16R	8.5+14R	9.3+12R	9.3+11R		
	#10 @ 12"	q	558	479	427	390	362	342	328	–	–
		F	5.7+30R	6.4+24R	6.8+19R	7.2+17R	7.5+14R	7.7+13R	7.9+11R		
	#10 @ 8"	q	652	597	525	502	460	451	425	–	–
		F	4.9+30R	5.3+24R	5.8+20R	6+17R	6.3+15R	6.4+13R	6.6+12R		
	#10 @ 6"	q	735	669	623	585	557	538	523	–	–
		F	4.4+30R	4.9+24R	5.2+20R	5.5+17R	5.6+15R	5.8+13R	5.9+12R		
	#10 @ 4"	q	889	829	788	757	734	716	702	–	–
		F	3.8+30R	4.2+24R	4.5+20R	4.7+17R	4.9+15R	5+13R	5.1+12R		
20	#10 @ 24"	q	642	558	460	426	369	353	317	312	286
		F	6.7+18R	7.1+14R	8.1+11R	8.2+10R	9.1+8R	9.1+7R	9.8+6R	9.7+6R	10.3+5R
	#10 @ 18"	q	706	610	503	463	433	381	369	358	329
		F	5.9+18R	6.4+14R	7.3+12R	7.5+10R	7.7+9R	8.4+7R	8.4+7R	8.4+6R	9+5R
	#10 @ 12"	q	770	661	588	536	497	467	446	429	414
		F	5.4+18R	5.9+15R	6.3+12R	6.6+10R	6.8+9R	7+8R	7.1+7R	7.2+6R	7.3+6R
	#10 @ 8"	q	884	812	717	683	626	610	574	569	543
		F	4.7+19R	4.9+15R	5.3+12R	5.4+11R	5.7+9R	5.7+8R	5.9+7R	5.9+7R	6.1+6R
	#10 @ 6"	q	992	901	839	793	755	724	703	686	672
		F	4.2+19R	4.5+15R	4.8+13R	5+11R	5.1+9R	5.2+8R	5.3+8R	5.3+7R	5.4+6R
	#10 @ 4"	q	1193	1110	1053	1011	979	954	934	917	903
		F	3.7+19R	4+15R	4.2+13R	4.3+11R	4.4+10R	4.5+8R	4.6+8R	4.6+7R	4.7+6R
18	#10 @ 24"	q	1085	939	776	716	622	593	530	516	473
		F	5.8+8R	6.1+6R	7+5R	7+4R	7.7+3R	7.7+3R	8.3+2R	8.1+2R	8.7+2R
	#10 @ 18"	q	1178	1018	842	773	721	637	609	588	539
		F	5.2+8R	5.5+7R	6.3+5R	6.4+4R	6.5+4R	7+3R	7.1+3R	7.1+3R	7.5+2R
	#10 @ 12"	q	1266	1098	974	886	820	768	727	695	670
		F	4.7+9R	5.1+7R	5.3+6R	5.5+5R	5.7+4R	5.8+4R	5.9+3R	6+3R	6.1+3R
	#10 @ 8"	q	1437	1312	1167	1112	1018	988	925	911	868
		F	4.1+9R	4.2+7R	4.5+6R	4.6+5R	4.8+4R	4.8+4R	4.9+3R	4.9+3R	5+3R
	#10 @ 6"	q	1600	1447	1342	1265	1206	1160	1123	1091	1066
		F	3.7+9R	3.9+7R	4+6R	4.2+5R	4.2+4R	4.3+4R	4.4+4R	4.4+3R	4.4+3R
	#10 @ 4"	q	1906	1767	1670	1599	1545	1503	1468	1440	1394
		F	3.2+9R	3.4+7R	3.5+6R	3.6+5R	3.6+5R	3.7+4R	3.7+4R	3.8+3R	3.8+3R
16	#10 @ 24"	q	1387	1212	1003	933	811	777	695	678	619
		F	5.2+4R	5.4+3R	6.1+2R	6.1+2R	6.8+1R	6.7+1R	7.2+1R	7.1+1R	7.6+1R
	#10 @ 18"	q	1511	1323	1095	1012	949	839	806	779	711
		F	4.6+5R	4.8+3R	5.5+3R	5.6+2R	5.6+2R	6.1+1R	6.1+1R	6.1+1R	6.5+1R
	#10 @ 12"	q	1633	1428	1280	1170	1087	1023	972	930	896
		F	4.2+5R	4.4+4R	4.7+3R	4.8+2R	4.9+2R	5.1+2R	5.1+2R	5.2+1R	5.3+1R
	#10 @ 8"	q	1869	1721	1538	1475	1364	1330	1248	1231	1172
		F	3.6+5R	3.7+4R	3.9+3R	4+3R	4.1+2R	4.1+2R	4.2+2R	4.2+2R	4.3+2R
	#10 @ 6"	q	2095	1907	1778	1684	1612	1555	1510	1472	1441
		F	3.2+5R	3.4+4R	3.5+3R	3.6+3R	3.6+2R	3.7+2R	3.7+2R	3.8+2R	3.8+2R
	#10 @ 4"	q	2511	2343	2226	2141	2076	2024	1982	1948	1919
		F	2.8+5R	2.9+4R	3+3R	3.1+3R	3.1+3R	3.1+2R	3.2+2R	3.2+2R	3.2+2R

1 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

2 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

3 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

4 Diaphragm shear values for #10 screw spacings other than those in the table should be determined based on the number of fasteners in span.

5 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

6 A 1 inch x 3/8 inch effective arc seam weld is required at supports adjacent to sidelap and a 1/2 inch effective diameter arc spot welds are required at supports in interior flutes.

7 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 36 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	601	516	474	449	433	421	412	405	400
		F	8.1+68R	11.6+44R	13.9+32R	15.5+25R	16.7+20R	17.6+17R	18.4+15R	19+13R	19.5+11R
	VSC2 @ 18"	q	758	631	636	581	543	559	534	513	528
		F	6.9+68R	10.3+45R	11.4+33R	13+26R	14.3+21R	14.4+18R	15.3+16R	16+14R	15.9+12R
	VSC2 @ 12"	q	881	810	772	749	734	722	714	665	538
		F	6+69R	8.4+45R	9.8+34R	10.7+27R	11.4+22R	11.8+19R	12.2+16R	12.5+15R	12.7+13R
	VSC2 @ 8"	q	1086	1031	1002	984	971	963	841	665	538
		F	4.7+70R	6.8+46R	7.9+34R	8.6+27R	9+23R	9.4+20R	9.6+17R	9.8+15R	10+14R
	VSC2 @ 6"	q	1241	1200	1178	1164	1155	1099	841	665	538
		F	3.9+70R	5.8+46R	6.7+35R	7.3+28R	7.7+23R	8+20R	8.2+17R	8.4+15R	8.5+14R
	VSC2 @ 4"	q	1444	1421	1409	1401	1396	1099	841	665	538
		F	3+70R	4.6+47R	5.5+35R	6+28R	6.3+23R	6.5+20R	6.7+17R	6.9+16R	7+14R
20	VSC2 @ 24"	q	854	726	666	630	606	589	577	566	557
		F	7.6+43R	10+27R	11.5+20R	12.6+16R	13.4+13R	14+11R	14.4+9R	14.8+8R	15.2+7R
	VSC2 @ 18"	q	1042	871	878	803	752	774	738	711	708
		F	6.4+43R	8.8+28R	9.4+21R	10.5+16R	11.4+13R	11.3+11R	11.9+10R	12.4+9R	12.3+8R
	VSC2 @ 12"	q	1206	1112	1062	1031	1010	994	983	874	708
		F	5.6+44R	7.2+29R	8.1+21R	8.6+17R	9+14R	9.3+12R	9.5+10R	9.7+9R	9.9+8R
	VSC2 @ 8"	q	1473	1402	1365	1341	1325	1313	1106	874	708
		F	4.5+44R	5.8+29R	6.5+22R	6.9+17R	7.2+14R	7.4+12R	7.6+11R	7.7+10R	7.8+9R
	VSC2 @ 6"	q	1671	1619	1591	1573	1562	1444	1106	874	708
		F	3.9+44R	5+29R	5.6+22R	6+18R	6.2+15R	6.4+13R	6.6+11R	6.7+10R	6.7+9R
	VSC2 @ 4"	q	1922	1894	1879	1869	1863	1444	1106	874	708
		F	3.1+44R	4.1+30R	4.7+22R	5+18R	5.2+15R	5.3+13R	5.5+11R	5.5+10R	5.6+9R
18	VSC2 @ 24"	q	1379	1179	1075	1011	967	936	912	894	879
		F	5.8+21R	7+13R	7.7+10R	8.1+8R	8.5+6R	8.7+5R	8.9+5R	9+4R	9.1+4R
	VSC2 @ 18"	q	1661	1386	1389	1269	1187	1218	1162	1118	1085
		F	4.9+21R	6.1+14R	6.2+10R	6.8+8R	7.2+7R	7.1+6R	7.3+5R	7.6+4R	7.4+4R
	VSC2 @ 12"	q	1909	1753	1670	1619	1584	1558	1539	1339	1085
		F	4.3+21R	5+14R	5.4+11R	5.6+8R	5.8+7R	5.9+6R	6+5R	6+5R	6.1+4R
	VSC2 @ 8"	q	2309	2193	2131	2092	2065	2046	1695	1339	1085
		F	3.5+22R	4.1+14R	4.4+11R	4.6+9R	4.7+7R	4.8+6R	4.9+5R	4.9+5R	5+4R
	VSC2 @ 6"	q	2602	2518	2472	2444	2424	2213	1695	1339	1085
		F	3.1+22R	3.6+14R	3.9+11R	4.1+9R	4.2+7R	4.2+6R	4.3+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	2973	2928	2903	2888	2878	2213	1695	1339	1085
		F	2.6+22R	3.1+14R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1790	1545	1417	1338	1284	1246	1217	1194	1176
		F	5.2+11R	6.1+7R	6.6+5R	6.9+4R	7.1+3R	7.3+3R	7.5+2R	7.6+2R	7.7+2R
	VSC2 @ 18"	q	2165	1821	1836	1684	1578	1623	1551	1494	1514
		F	4.4+12R	5.3+8R	5.3+6R	5.7+4R	6.1+4R	5.9+3R	6.2+3R	6.3+2R	6.2+2R
	VSC2 @ 12"	q	2490	2305	2206	2144	2102	2072	2048	1869	1514
		F	3.8+12R	4.3+8R	4.6+6R	4.7+5R	4.8+4R	4.9+3R	5+3R	5+3R	5.1+2R
	VSC2 @ 8"	q	3004	2870	2798	2753	2722	2699	2365	1869	1514
		F	3.2+12R	3.6+8R	3.8+6R	3.9+5R	4+4R	4+3R	4.1+3R	4.1+3R	4.1+2R
	VSC2 @ 6"	q	3369	3274	3223	3191	3169	3089	2365	1869	1514
		F	2.8+12R	3.2+8R	3.3+6R	3.4+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R	3.6+2R
	VSC2 @ 4"	q	3817	3768	3741	3725	3714	3089	2365	1869	1514
		F	2.4+12R	2.7+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.1+2R

1 VSC2 = Verco Sidelap Connection 2.
2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.
3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$
4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.
5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.
6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).
7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.
8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 37 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 1/8" THROUGH 1/4" THICK, OR X-HSN 24 AT SUPPORTS 1/8" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	569	515	487	469	457	448	441	436	432
		F	8.5+68R	12.1+44R	14.3+32R	15.9+25R	17.1+20R	18+17R	18.7+15R	19.3+13R	19.9+11R
	VSC2 @ 18"	q	689	607	625	585	557	575	555	539	538
		F	7.2+68R	10.6+45R	11.7+33R	13.3+26R	14.6+21R	14.6+18R	15.5+16R	16.2+14R	16+12R
	VSC2 @ 12"	q	781	749	732	721	713	708	704	665	538
		F	6.2+69R	8.6+45R	10+34R	10.9+27R	11.5+22R	12+19R	12.3+17R	12.6+15R	12.8+13R
	VSC2 @ 8"	q	903	884	875	868	864	861	841	665	538
		F	4.9+70R	6.9+46R	8+34R	8.6+27R	9.1+23R	9.4+20R	9.7+17R	9.9+15R	10+14R
	VSC2 @ 6"	q	974	963	958	954	951	950	841	665	538
		F	4+70R	5.9+46R	6.8+35R	7.4+28R	7.8+23R	8+20R	8.3+17R	8.4+15R	8.6+14R
	VSC2 @ 4"	q	1047	1042	1040	1038	1037	1036	841	665	538
		F	3+70R	4.7+47R	5.5+35R	6+28R	6.3+23R	6.6+20R	6.7+17R	6.9+16R	7+14R
20	VSC2 @ 24"	q	731	672	640	621	607	597	590	584	580
		F	7.9+42R	10.3+27R	11.8+20R	12.9+16R	13.6+13R	14.2+11R	14.7+9R	15+8R	15.4+7R
	VSC2 @ 18"	q	881	788	814	767	734	758	734	715	708
		F	6.6+43R	9+28R	9.6+21R	10.7+16R	11.5+13R	11.5+12R	12.1+10R	12.6+9R	12.4+8R
	VSC2 @ 12"	q	989	958	941	930	923	917	913	874	708
		F	5.7+44R	7.3+29R	8.2+21R	8.7+17R	9.1+14R	9.4+12R	9.6+10R	9.8+9R	9.9+8R
	VSC2 @ 8"	q	1126	1109	1100	1094	1090	1087	1085	874	708
		F	4.6+44R	5.9+29R	6.6+22R	7+17R	7.3+14R	7.5+12R	7.6+11R	7.8+10R	7.9+9R
	VSC2 @ 6"	q	1200	1191	1186	1183	1180	1179	1106	874	708
		F	3.9+44R	5.1+29R	5.7+22R	6+18R	6.3+15R	6.4+13R	6.6+11R	6.7+10R	6.8+9R
	VSC2 @ 4"	q	1272	1268	1266	1265	1264	1263	1106	874	708
		F	3.1+44R	4.2+30R	4.7+22R	5+18R	5.2+15R	5.4+13R	5.5+11R	5.6+10R	5.6+9R
18	VSC2 @ 24"	q	1042	972	935	911	895	884	875	868	862
		F	6+21R	7.1+13R	7.8+10R	8.2+8R	8.5+6R	8.8+5R	9+5R	9.1+4R	9.2+4R
	VSC2 @ 18"	q	1244	1130	1170	1112	1070	1104	1073	1048	1075
		F	5+21R	6.2+14R	6.3+10R	6.8+8R	7.2+7R	7.1+6R	7.4+5R	7.6+4R	7.5+4R
	VSC2 @ 12"	q	1381	1348	1331	1320	1312	1307	1303	1299	1085
		F	4.3+21R	5+14R	5.4+11R	5.6+8R	5.8+7R	5.9+6R	6+5R	6+5R	6.1+4R
	VSC2 @ 8"	q	1542	1526	1517	1512	1508	1506	1504	1339	1085
		F	3.5+22R	4.1+14R	4.4+11R	4.6+9R	4.7+7R	4.8+6R	4.9+5R	4.9+5R	5+4R
	VSC2 @ 6"	q	1624	1615	1611	1608	1606	1605	1604	1339	1085
		F	3.1+22R	3.6+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	1699	1695	1694	1693	1692	1691	1691	1339	1085
		F	2.6+22R	3.1+14R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1346	1266	1223	1196	1178	1164	1154	1146	1140
		F	5.3+11R	6.2+7R	6.7+5R	7+4R	7.2+3R	7.4+3R	7.5+3R	7.6+2R	7.7+2R
	VSC2 @ 18"	q	1595	1463	1514	1446	1396	1439	1402	1372	1405
		F	4.5+12R	5.4+8R	5.4+6R	5.8+5R	6.1+4R	6+3R	6.2+3R	6.4+2R	6.2+2R
	VSC2 @ 12"	q	1759	1724	1706	1694	1686	1680	1676	1672	1514
		F	3.9+12R	4.4+8R	4.6+6R	4.8+5R	4.9+4R	4.9+3R	5+3R	5+3R	5.1+2R
	VSC2 @ 8"	q	1943	1926	1918	1913	1909	1906	1904	1869	1514
		F	3.2+12R	3.6+8R	3.8+6R	3.9+5R	4+4R	4+3R	4.1+3R	4.1+3R	4.1+2R
	VSC2 @ 6"	q	2033	2025	2020	2018	2016	2014	2013	1869	1514
		F	2.9+12R	3.2+8R	3.3+6R	3.4+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R	3.6+2R
	VSC2 @ 4"	q	2113	2110	2108	2108	2107	2106	2106	1869	1514
		F	2.5+12R	2.7+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.1+2R

Page 124 has the footnotes.

(continued)

TABLE 37 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/7 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 1/8" THROUGH 1/4" THICK, OR X-HSN 24 AT SUPPORTS 1/8" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	747	644	588	554	530	513	500	490	481
		F	6.1+68R	9.5+44R	11.6+32R	13.3+25R	14.5+20R	15.5+17R	16.4+14R	17.1+12R	17.7+11R
	VSC2 @ 18"	q	879	745	745	684	642	657	628	605	538
		F	5.4+69R	8.6+45R	10+33R	11.5+26R	12.8+21R	13.1+18R	14+15R	14.7+13R	14.8+12R
	VSC2 @ 12"	q	989	917	877	852	835	822	812	665	538
		F	4.8+69R	7.4+45R	8.8+34R	9.8+27R	10.5+22R	11.1+19R	11.5+16R	11.8+14R	12.1+13R
	VSC2 @ 8"	q	***1155**	***1106**	1079	1062	1050	1041	841	665	538
		F	4+70R	6.2+46R	7.3+34R	8.1+27R	8.6+23R	9+19R	9.3+17R	9.5+15R	9.7+13R
	VSC2 @ 6"	q	***1266**	***1233**	***1215**	***1203**	***1195**	1099	841	665	538
		F	3.4+70R	5.4+46R	6.4+35R	7+28R	7.4+23R	7.8+20R	8+17R	8.2+15R	8.3+14R
	VSC2 @ 4"	q	***1395**	***1379**	***1370**	***1365**	***1361**	1099	841	665	538
		F	2.7+70R	4.4+47R	5.3+35R	5.8+28R	6.2+23R	6.4+20R	6.6+17R	6.8+15R	6.9+14R
20	VSC2 @ 24"	q	947	831	767	728	701	681	667	655	645
		F	6+43R	8.4+28R	9.9+20R	11.1+15R	11.9+13R	12.6+10R	13.2+9R	13.6+8R	14+7R
	VSC2 @ 18"	q	1118	963	971	899	849	871	836	807	708
		F	5.3+43R	7.6+28R	8.4+21R	9.5+16R	10.4+13R	10.5+11R	11.1+10R	11.6+8R	11.6+8R
	VSC2 @ 12"	q	1255	1179	1138	1111	1093	1079	1069	874	708
		F	4.8+44R	6.5+29R	7.4+21R	8.1+17R	8.5+14R	8.9+12R	9.1+10R	9.3+9R	9.5+8R
	VSC2 @ 8"	q	***1451**	***1403**	***1377**	***1360**	***1348**	***1340**	1106	874	708
		F	4.1+44R	5.4+29R	6.2+22R	6.6+17R	7+14R	7.2+12R	7.4+11R	7.5+9R	7.6+9R
	VSC2 @ 6"	q	***1575**	***1544**	***1527**	***1517**	***1509**	***1444**	1106	874	708
		F	3.5+44R	4.8+29R	5.4+22R	5.8+17R	6.1+15R	6.3+12R	6.4+11R	6.5+10R	6.6+9R
	VSC2 @ 4"	q	***1710**	***1696**	***1689**	***1684**	***1681**	***1444**	1106	874	708
		F	2.9+44R	4+30R	4.6+22R	4.9+18R	5.1+15R	5.3+13R	5.4+11R	5.5+10R	5.6+9R
18	VSC2 @ 24"	q	1335	1192	1115	1066	1033	1009	990	976	964
		F	5+21R	6.2+13R	7+10R	7.5+8R	7.9+6R	8.2+5R	8.4+4R	8.6+4R	8.7+3R
	VSC2 @ 18"	q	1576	1382	1405	1312	1246	1281	1234	1196	1085
		F	4.4+21R	5.6+14R	5.8+10R	6.4+8R	6.8+7R	6.8+6R	7.1+5R	7.3+4R	7.2+4R
	VSC2 @ 12"	q	***1761**	1676	1630	1600	1580	1565	1554	1339	1085
		F	3.9+21R	4.7+14R	5.1+10R	5.4+8R	5.6+7R	5.7+6R	5.8+5R	5.9+5R	6+4R
	VSC2 @ 8"	q	***2008**	***1959**	***1932**	***1915**	***1903**	***1894**	1695	1339	1085
		F	3.3+21R	4+14R	4.3+11R	4.5+9R	4.6+7R	4.7+6R	4.8+5R	4.9+5R	4.9+4R
	VSC2 @ 6"	q	***2154**	***2124**	***2108**	***2098**	***2091**	***2086**	1695	1339	1085
		F	3+22R	3.5+14R	3.8+11R	4+9R	4.1+7R	4.2+6R	4.3+5R	4.3+5R	4.4+4R
	VSC2 @ 4"	q	***2304**	***2291**	***2285**	***2280**	***2278**	***2213**	1695	1339	1085
		F	2.6+22R	3.1+14R	3.3+11R	3.5+9R	3.6+7R	3.6+6R	3.7+5R	3.7+5R	3.8+4R
16	VSC2 @ 24"	q	1717	1549	1458	1400	1361	1332	1310	1293	1279
		F	4.5+12R	5.4+7R	6+5R	6.4+4R	6.7+3R	6.9+3R	7.1+2R	7.2+2R	7.3+2R
	VSC2 @ 18"	q	2024	1793	1829	1716	1635	1682	1624	1578	1514
		F	4+12R	4.9+8R	5+6R	5.4+4R	5.8+4R	5.7+3R	5.9+3R	6.1+2R	6+2R
	VSC2 @ 12"	q	***2252**	2159	2107	2075	2052	2036	2023	1869	1514
		F	3.6+12R	4.1+8R	4.4+6R	4.6+5R	4.7+4R	4.8+3R	4.9+3R	4.9+3R	5+2R
	VSC2 @ 8"	q	***2545**	***2494**	***2466**	***2448**	***2436**	***2427**	***2365**	1869	1514
		F	3.1+12R	3.5+8R	3.7+6R	3.8+5R	3.9+4R	4+3R	4+3R	4+3R	4.1+2R
	VSC2 @ 6"	q	***2713**	***2683**	***2666**	***2656**	***2649**	***2644**	***2365**	1869	1514
		F	2.8+12R	3.1+8R	3.3+6R	3.4+5R	3.5+4R	3.5+3R	3.6+3R	3.6+3R	3.6+2R
	VSC2 @ 4"	q	***2878**	***2866**	***2860**	***2856**	***2853**	***2851**	***2365**	1869	1514
		F	2.4+12R	2.7+8R	2.9+6R	2.9+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.1+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 32/10 pattern) or shall be limited to 1100 plf, 1300 plf, 1700 plf or 2200 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.

Bearing at supports shall allow for proper end distance and fastener spacing.

Page 124 has the footnotes.

(continued)

TABLE 37 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ATTACHMENT PATTERN FOR HILTI X-ENP-19 AT SUPPORTS 1/4" AND THICKER											
22	VSC2 @ 24"	q	592	532	500	480	467	457	450	444	440
		F	6.1+68R	9.4+44R	11.6+32R	13.2+25R	14.5+20R	15.5+17R	16.4+14R	17.1+12R	17.7+11R
	VSC2 @ 18"	q	717	627	644	601	570	589	568	550	538
		F	5.4+69R	8.6+45R	10+33R	11.5+26R	12.8+21R	13.1+18R	14+15R	14.7+13R	14.7+12R
	VSC2 @ 12"	q	815	778	758	745	737	731	726	665	538
		F	4.8+69R	7.4+45R	8.8+34R	9.8+27R	10.5+22R	11+19R	11.5+16R	11.8+14R	12.1+13R
	VSC2 @ 8"	q	950	928	916	908	903	899	841	665	538
		F	4+70R	6.1+46R	7.3+34R	8.1+27R	8.6+23R	9+19R	9.3+17R	9.5+15R	9.7+13R
	VSC2 @ 6"	q	1031	1018	1010	1006	1003	1000	841	665	538
		F	3.4+70R	5.4+46R	6.4+35R	7+28R	7.4+23R	7.8+20R	8+17R	8.2+15R	8.3+14R
	VSC2 @ 4"	q	1116	1110	1107	1105	1103	1099	841	665	538
		F	2.7+70R	4.4+47R	5.3+35R	5.8+28R	6.2+23R	6.4+20R	6.6+17R	6.8+15R	6.9+14R
20	VSC2 @ 24"	q	760	694	658	636	621	610	602	596	590
		F	6+43R	8.4+28R	9.9+20R	11.1+15R	11.9+13R	12.6+10R	13.1+9R	13.6+8R	14+7R
	VSC2 @ 18"	q	918	815	841	790	754	779	753	732	708
		F	5.3+43R	7.6+28R	8.4+21R	9.5+16R	10.4+13R	10.5+11R	11.1+10R	11.6+8R	11.6+8R
	VSC2 @ 12"	q	1036	999	978	966	957	951	946	874	708
		F	4.8+44R	6.5+29R	7.4+21R	8.1+17R	8.5+14R	8.8+12R	9.1+10R	9.3+9R	9.5+8R
	VSC2 @ 8"	q	1188	1167	1156	1149	1145	1141	1106	874	708
		F	4+44R	5.4+29R	6.2+22R	6.6+17R	7+14R	7.2+12R	7.4+11R	7.5+9R	7.6+9R
	VSC2 @ 6"	q	1274	1262	1256	1252	1249	1247	1106	874	708
		F	3.5+44R	4.8+29R	5.4+22R	5.8+17R	6.1+15R	6.3+12R	6.4+11R	6.5+10R	6.6+9R
	VSC2 @ 4"	q	1358	1354	1351	1350	1348	1348	1106	874	708
		F	2.9+44R	4+30R	4.6+22R	4.9+18R	5.1+15R	5.3+13R	5.4+11R	5.5+10R	5.6+9R
18	VSC2 @ 24"	q	1084	1005	962	936	918	905	895	887	881
		F	5+21R	6.2+13R	7+10R	7.5+8R	7.9+6R	8.2+5R	8.4+4R	8.6+4R	8.7+3R
	VSC2 @ 18"	q	1299	1173	1213	1149	1103	1139	1105	1078	1085
		F	4.4+21R	5.6+14R	5.8+10R	6.4+8R	6.8+7R	6.8+6R	7.1+5R	7.3+4R	7.2+4R
	VSC2 @ 12"	q	1451	1411	1390	1377	1368	1361	1356	1339	1085
		F	3.9+21R	4.7+14R	5.1+10R	5.4+8R	5.6+7R	5.7+6R	5.8+5R	5.9+5R	6+4R
	VSC2 @ 8"	q	1633	1613	1602	1596	1591	1588	1585	1339	1085
		F	3.3+21R	4+14R	4.3+11R	4.5+9R	4.6+7R	4.7+6R	4.8+5R	4.9+5R	4.9+4R
	VSC2 @ 6"	q	1729	1718	1712	1708	1706	1704	1695	1339	1085
		F	3+22R	3.5+14R	3.8+11R	4+9R	4.1+7R	4.2+6R	4.3+5R	4.3+5R	4.4+4R
	VSC2 @ 4"	q	1818	1814	1812	1810	1809	1809	1695	1339	1085
		F	2.6+22R	3.1+14R	3.3+11R	3.5+9R	3.6+7R	3.6+6R	3.7+5R	3.7+5R	3.8+4R
16	VSC2 @ 24"	q	1401	1310	1261	1230	1209	1194	1183	1174	1166
		F	4.5+12R	5.4+7R	6+5R	6.4+4R	6.7+3R	6.9+3R	7.1+2R	7.2+2R	7.3+2R
	VSC2 @ 18"	q	1670	1521	1574	1498	1442	1488	1447	1414	1450
		F	4+12R	4.8+8R	5+6R	5.4+4R	5.8+4R	5.7+3R	5.9+3R	6.1+2R	6+2R
	VSC2 @ 12"	q	1851	1809	1787	1773	1763	1756	1750	1746	1514
		F	3.6+12R	4.1+8R	4.4+6R	4.6+5R	4.7+4R	4.8+3R	4.9+3R	4.9+3R	5+2R
	VSC2 @ 8"	q	2061	2041	2030	2023	2019	2015	2013	1869	1514
		F	3.1+12R	3.5+8R	3.7+6R	3.8+5R	3.9+4R	4+3R	4+3R	4+3R	4.1+2R
	VSC2 @ 6"	q	2168	2157	2151	2148	2145	2143	2142	1869	1514
		F	2.8+12R	3.1+8R	3.3+6R	3.4+5R	3.5+4R	3.5+3R	3.6+3R	3.6+3R	3.6+2R
	VSC2 @ 4"	q	2264	2260	2258	2256	2255	2255	2254	1869	1514
		F	2.4+12R	2.7+8R	2.9+6R	2.9+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.1+2R

[1] VSC2 = Verco Sidelap Connection 2.

[2] The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

[3] R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

[4] Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

[5] Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

[6] The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

[7] Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	577	521	491	473	460	451	444	439	435
		F	13.1+67R	16.5+44R	18.4+32R	19.6+26R	20.5+21R	21.1+18R	21.6+16R	22+14R	22.4+12R
	VSC2 @ 18"	q	698	614	631	590	561	580	559	543	538
		F	10.1+69R	13.7+45R	14+34R	15.5+27R	16.7+22R	16.4+19R	17.2+16R	17.8+15R	17.4+13R
	VSC2 @ 12"	q	792	759	740	729	721	716	711	665	538
		F	8.2+69R	10.4+46R	11.5+34R	12.1+27R	12.6+23R	12.9+19R	13.2+17R	13.4+15R	13.5+14R
	VSC2 @ 8"	q	918	899	888	882	877	874	841	665	538
		F	6+70R	7.8+46R	8.7+35R	9.3+28R	9.6+23R	9.9+20R	10.1+17R	10.3+15R	10.4+14R
	VSC2 @ 6"	q	993	981	975	971	968	967	841	665	538
		F	4.7+70R	6.4+47R	7.2+35R	7.7+28R	8.1+23R	8.3+20R	8.5+17R	8.6+16R	8.8+14R
	VSC2 @ 4"	q	1069	1064	1062	1060	1059	1058	841	665	538
		F	3.4+70R	4.9+47R	5.7+35R	6.2+28R	6.5+23R	6.7+20R	6.9+18R	7+16R	7.1+14R
20	VSC2 @ 24"	q	738	677	645	624	611	601	593	587	582
		F	11.1+42R	13.2+28R	14.4+21R	15.2+16R	15.7+13R	16.1+11R	16.4+10R	16.7+9R	16.8+8R
	VSC2 @ 18"	q	890	794	820	773	739	764	739	719	708
		F	8.6+43R	11+28R	11+21R	12.1+17R	12.9+14R	12.5+12R	13.1+10R	13.5+9R	13.2+8R
	VSC2 @ 12"	q	1001	968	950	939	931	926	922	874	708
		F	7.1+44R	8.4+29R	9.1+22R	9.5+17R	9.8+14R	10+12R	10.1+11R	10.3+10R	10.3+9R
	VSC2 @ 8"	q	1141	1123	1114	1108	1104	1101	1098	874	708
		F	5.3+44R	6.4+29R	7+22R	7.4+18R	7.6+15R	7.8+13R	7.9+11R	8+10R	8+9R
	VSC2 @ 6"	q	1218	1208	1203	1199	1197	1195	1106	874	708
		F	4.4+44R	5.4+30R	5.9+22R	6.2+18R	6.5+15R	6.6+13R	6.7+11R	6.8+10R	6.9+9R
	VSC2 @ 4"	q	1293	1289	1286	1285	1284	1284	1106	874	708
		F	3.3+45R	4.3+30R	4.8+22R	5.1+18R	5.3+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1044	974	936	913	897	885	876	869	864
		F	7.4+21R	8.3+14R	8.8+10R	9.1+8R	9.3+7R	9.4+6R	9.5+5R	9.6+4R	9.7+4R
	VSC2 @ 18"	q	1247	1133	1172	1114	1072	1106	1075	1050	1077
		F	5.7+21R	6.9+14R	6.8+11R	7.3+8R	7.7+7R	7.4+6R	7.7+5R	7.9+5R	7.7+4R
	VSC2 @ 12"	q	1385	1352	1334	1323	1316	1310	1306	1303	1085
		F	4.8+22R	5.4+14R	5.7+11R	5.9+9R	6+7R	6.1+6R	6.1+5R	6.2+5R	6.2+4R
	VSC2 @ 8"	q	1547	1531	1522	1517	1513	1511	1509	1339	1085
		F	3.8+22R	4.3+14R	4.6+11R	4.7+9R	4.8+7R	4.9+6R	5+5R	5+5R	5+4R
	VSC2 @ 6"	q	1630	1622	1617	1614	1612	1611	1610	1339	1085
		F	3.3+22R	3.7+14R	4+11R	4.1+9R	4.2+7R	4.3+6R	4.4+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	1706	1702	1701	1700	1699	1699	1695	1339	1085
		F	2.7+22R	3.2+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1339	1260	1218	1191	1173	1160	1150	1143	1136
		F	6.5+12R	7.1+8R	7.5+6R	7.7+5R	7.8+4R	7.9+3R	8+3R	8.1+2R	8.1+2R
	VSC2 @ 18"	q	1586	1456	1507	1439	1390	1432	1396	1366	1399
		F	5.1+12R	5.9+8R	5.7+6R	6.1+5R	6.4+4R	6.2+3R	6.4+3R	6.6+3R	6.5+2R
	VSC2 @ 12"	q	1747	1714	1695	1684	1676	1670	1666	1663	1514
		F	4.3+12R	4.7+8R	4.8+6R	5+5R	5+4R	5.1+3R	5.1+3R	5.2+3R	5.2+2R
	VSC2 @ 8"	q	1927	1912	1904	1898	1895	1892	1890	1869	1514
		F	3.4+12R	3.7+8R	3.9+6R	4+5R	4.1+4R	4.1+4R	4.1+3R	4.2+3R	4.2+2R
	VSC2 @ 6"	q	2016	2008	2004	2001	1999	1998	1997	1869	1514
		F	3+12R	3.3+8R	3.4+6R	3.5+5R	3.6+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	2094	2091	2090	2089	2088	2088	2087	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

Page 132 has the footnotes.

(continued)

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/7 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	759	652	595	559	534	517	503	493	484
		F	10.4+67R	14+44R	16.2+32R	17.7+25R	18.7+21R	19.5+17R	20.2+15R	20.7+13R	21.1+12R
	VSC2 @ 18"	q	892	754	752	691	647	662	633	609	538
		F	8.5+68R	12+45R	12.8+33R	14.4+26R	15.6+22R	15.5+18R	16.3+16R	17+14R	16.8+13R
	VSC2 @ 12"	q	1004	928	887	861	843	829	819	665	538
		F	7.1+69R	9.5+46R	10.7+34R	11.5+27R	12.1+22R	12.5+19R	12.8+17R	13+15R	13.2+13R
	VSC2 @ 8"	q	***1173**	***1122**	1093	1075	1063	1053	841	665	538
		F	5.4+70R	7.3+46R	8.3+35R	9+28R	9.4+23R	9.7+20R	9.9+17R	10.1+15R	10.2+14R
	VSC2 @ 6"	q	***1288**	***1253**	***1234**	***1222**	***1213**	1099	841	665	538
		F	4.4+70R	6.1+47R	7+35R	7.6+28R	7.9+23R	8.2+20R	8.4+17R	8.5+15R	8.7+14R
	VSC2 @ 4"	q	***1423**	***1406**	***1396**	***1391**	***1386**	1099	841	665	538
		F	3.2+70R	4.8+47R	5.6+35R	6.1+28R	6.4+23R	6.6+20R	6.8+18R	6.9+16R	7.1+14R
20	VSC2 @ 24"	q	958	838	773	733	705	685	670	658	648
		F	9.3+42R	11.7+27R	13.1+20R	14+16R	14.7+13R	15.2+11R	15.5+9R	15.9+8R	16.1+7R
	VSC2 @ 18"	q	1130	972	979	906	854	876	840	812	708
		F	7.5+43R	9.9+28R	10.3+21R	11.4+17R	12.2+14R	12+12R	12.6+10R	13.1+9R	12.8+8R
	VSC2 @ 12"	q	1269	1191	1147	1120	1101	1087	1077	874	708
		F	6.4+44R	7.8+29R	8.6+22R	9.1+17R	9.5+14R	9.7+12R	9.9+11R	10+9R	10.1+8R
	VSC2 @ 8"	q	***1469**	***1419**	***1391**	***1374**	***1362**	***1353**	1106	874	708
		F	5+44R	6.2+29R	6.8+22R	7.2+18R	7.4+15R	7.6+12R	7.8+11R	7.9+10R	8+9R
	VSC2 @ 6"	q	***1596**	***1564**	***1546**	***1535**	***1528**	***1444**	1106	874	708
		F	4.1+44R	5.2+29R	5.8+22R	6.1+18R	6.4+15R	6.5+13R	6.6+11R	6.7+10R	6.8+9R
	VSC2 @ 4"	q	***1736**	***1722**	***1714**	***1709**	***1705**	***1444**	1106	874	708
		F	3.2+44R	4.2+30R	4.7+22R	5+18R	5.2+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1339	1195	1117	1068	1034	1010	991	977	965
		F	6.6+21R	7.7+14R	8.3+10R	8.7+8R	8.9+7R	9.1+6R	9.3+5R	9.4+4R	9.5+4R
	VSC2 @ 18"	q	1581	1385	1408	1314	1248	1283	1236	1198	1085
		F	5.3+21R	6.5+14R	6.5+10R	7.1+8R	7.5+7R	7.3+6R	7.6+5R	7.8+5R	7.6+4R
	VSC2 @ 12"	q	1766	1681	1634	1604	1584	1569	1557	1339	1085
		F	4.6+21R	5.2+14R	5.5+11R	5.8+8R	5.9+7R	6+6R	6.1+5R	6.1+5R	6.2+4R
	VSC2 @ 8"	q	***2014**	***1965**	***1938**	***1920**	***1908**	***1900**	1695	1339	1085
		F	3.7+22R	4.2+14R	4.5+11R	4.7+9R	4.8+7R	4.9+6R	4.9+5R	5+5R	5+4R
	VSC2 @ 6"	q	***2162**	***2132**	***2116**	***2105**	***2098**	***2093**	1695	1339	1085
		F	3.2+22R	3.7+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	***2313**	***2300**	***2294**	***2289**	***2287**	***2213**	1695	1339	1085
		F	2.7+22R	3.1+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1707	1542	1452	1395	1356	1328	1306	1290	1276
		F	5.9+12R	6.6+7R	7.1+5R	7.3+4R	7.5+4R	7.7+3R	7.8+3R	7.8+2R	7.9+2R
	VSC2 @ 18"	q	2012	1784	1820	1709	1629	1676	1619	1573	1514
		F	4.8+12R	5.6+8R	5.6+6R	6+5R	6.3+4R	6.1+3R	6.3+3R	6.5+3R	6.4+2R
	VSC2 @ 12"	q	***2237**	***2146**	2096	2064	2042	2026	2014	1869	1514
		F	4.1+12R	4.5+8R	4.7+6R	4.9+5R	5+4R	5+3R	5.1+3R	5.1+3R	5.1+2R
	VSC2 @ 8"	q	***2527**	***2477**	***2450**	***2432**	***2420**	***2411**	***2365**	1869	1514
		F	3.3+12R	3.7+8R	3.8+6R	3.9+5R	4+4R	4.1+3R	4.1+3R	4.1+3R	4.2+2R
	VSC2 @ 6"	q	***2692**	***2662**	***2647**	***2637**	***2630**	***2625**	***2365**	1869	1514
		F	2.9+12R	3.2+8R	3.4+6R	3.5+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	***2854**	***2842**	***2836**	***2832**	***2829**	***2827**	***2365**	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 32/10 pattern) or shall be limited to 1100 plf, 1300 plf, 1800 plf or 2100 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

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(continued)

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	612	546	512	490	475	465	457	451	446
		F	13.1+67R	16.5+44R	18.4+32R	19.6+26R	20.5+21R	21.1+18R	21.6+16R	22+14R	22.4+12R
	VSC2 @ 18"	q	741	644	660	614	582	601	578	560	538
		F	10.1+69R	13.7+45R	14+34R	15.5+27R	16.7+22R	16.4+19R	17.2+16R	17.8+15R	17.4+13R
	VSC2 @ 12"	q	845	803	780	766	756	749	744	665	538
		F	8.2+69R	10.4+46R	11.5+34R	12.1+27R	12.6+23R	12.9+19R	13.2+17R	13.4+15R	13.5+14R
	VSC2 @ 8"	q	990	964	950	941	935	931	841	665	538
		F	6+70R	7.8+46R	8.7+35R	9.3+28R	9.6+23R	9.9+20R	10.1+17R	10.3+15R	10.4+14R
	VSC2 @ 6"	q	1080	1064	1055	1050	1046	1043	841	665	538
		F	4.7+70R	6.4+47R	7.2+35R	7.7+28R	8.1+23R	8.3+20R	8.5+17R	8.6+16R	8.8+14R
	VSC2 @ 4"	q	1176	1169	1165	1163	1161	1099	841	665	538
		F	3.4+70R	4.9+47R	5.7+35R	6.2+28R	6.5+23R	6.7+20R	6.9+18R	7+16R	7.1+14R
20	VSC2 @ 24"	q	768	700	663	640	625	614	605	599	593
		F	11.1+42R	13.2+28R	14.4+21R	15.2+16R	15.7+13R	16.1+11R	16.4+10R	16.7+9R	16.8+8R
	VSC2 @ 18"	q	928	822	848	796	759	785	758	737	708
		F	8.6+43R	11+28R	11+21R	12.1+17R	12.9+14R	12.5+12R	13.1+10R	13.5+9R	13.2+8R
	VSC2 @ 12"	q	1048	1009	988	975	966	960	955	874	708
		F	7.1+44R	8.4+29R	9.1+22R	9.5+17R	9.8+14R	10+12R	10.1+11R	10.3+10R	10.3+9R
	VSC2 @ 8"	q	1205	1183	1171	1164	1159	1155	1106	874	708
		F	5.3+44R	6.4+29R	7+22R	7.4+18R	7.6+15R	7.8+13R	7.9+11R	8+10R	8+9R
	VSC2 @ 6"	q	1294	1281	1275	1270	1268	1265	1106	874	708
		F	4.4+44R	5.4+30R	5.9+22R	6.2+18R	6.5+15R	6.6+13R	6.7+11R	6.8+10R	6.9+9R
	VSC2 @ 4"	q	1382	1377	1375	1373	1372	1371	1106	874	708
		F	3.3+45R	4.3+30R	4.8+22R	5.1+18R	5.3+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1054	981	942	918	902	890	881	874	868
		F	7.4+21R	8.3+14R	8.8+10R	9.1+8R	9.3+7R	9.4+6R	9.5+5R	9.6+4R	9.7+4R
	VSC2 @ 18"	q	1259	1142	1182	1123	1079	1114	1082	1057	1084
		F	5.7+21R	6.9+14R	6.8+11R	7.3+8R	7.7+7R	7.4+6R	7.7+5R	7.9+5R	7.7+4R
	VSC2 @ 12"	q	1401	1366	1348	1336	1328	1322	1318	1314	1085
		F	4.8+22R	5.4+14R	5.7+11R	5.9+9R	6+7R	6.1+6R	6.1+5R	6.2+5R	6.2+4R
	VSC2 @ 8"	q	1567	1550	1541	1535	1532	1529	1527	1339	1085
		F	3.8+22R	4.3+14R	4.6+11R	4.7+9R	4.8+7R	4.9+6R	5+5R	5+5R	5+4R
	VSC2 @ 6"	q	1653	1644	1639	1636	1634	1633	1632	1339	1085
		F	3.3+22R	3.7+14R	4+11R	4.1+9R	4.2+7R	4.3+6R	4.4+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	1732	1728	1727	1725	1725	1724	1695	1339	1085
		F	2.7+22R	3.2+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1318	1243	1203	1178	1161	1148	1139	1131	1125
		F	6.5+12R	7.1+8R	7.5+6R	7.7+5R	7.8+4R	7.9+3R	8+3R	8.1+2R	8.1+2R
	VSC2 @ 18"	q	1557	1433	1483	1418	1371	1412	1377	1349	1381
		F	5.1+12R	5.9+8R	5.7+6R	6.1+5R	6.4+4R	6.2+3R	6.4+3R	6.6+3R	6.5+2R
	VSC2 @ 12"	q	1712	1680	1664	1653	1646	1641	1637	1634	1514
		F	4.3+12R	4.7+8R	4.8+6R	5+5R	5+4R	5.1+3R	5.1+3R	5.2+3R	5.2+2R
	VSC2 @ 8"	q	1882	1868	1860	1856	1852	1850	1848	1847	1514
		F	3.4+12R	3.7+8R	3.9+6R	4+5R	4.1+4R	4.1+4R	4.1+3R	4.2+3R	4.2+2R
	VSC2 @ 6"	q	1965	1958	1954	1952	1950	1949	1948	1869	1514
		F	3+12R	3.3+8R	3.4+6R	3.5+5R	3.6+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	2038	2035	2034	2033	2032	2032	2032	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

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TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/7 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	813	690	624	583	555	535	520	508	498
		F	10.4+67R	14+44R	16.2+32R	17.7+25R	18.7+21R	19.5+17R	20.2+15R	20.7+13R	21.1+12R
	VSC2 @ 18"	q	953	797	788	720	672	685	653	627	538
		F	8.5+68R	12+45R	12.8+33R	14.4+26R	15.6+22R	15.5+18R	16.3+16R	17+14R	16.8+13R
	VSC2 @ 12"	q	1073	981	931	899	878	862	841	665	538
		F	7.1+69R	9.5+46R	10.7+34R	11.5+27R	12.1+22R	12.5+19R	12.8+17R	13+15R	13.2+13R
	VSC2 @ 8"	q	***1260**	1194	1158	1135	1120	1099	841	665	538
		F	5.4+70R	7.3+46R	8.3+35R	9+28R	9.4+23R	9.7+20R	9.9+17R	10.1+15R	10.2+14R
	VSC2 @ 6"	q	***1392**	***1346**	***1320**	***1304**	***1293**	1099	841	665	538
		F	4.4+70R	6.1+47R	7+35R	7.6+28R	7.9+23R	8.2+20R	8.4+17R	8.5+15R	8.7+14R
	VSC2 @ 4"	q	***1554**	***1530**	***1517**	***1509**	***1496**	1099	841	665	538
		F	3.2+70R	4.8+47R	5.6+35R	6.1+28R	6.4+23R	6.6+20R	6.8+18R	6.9+16R	7.1+14R
20	VSC2 @ 24"	q	1003	870	798	754	723	701	684	671	661
		F	9.3+42R	11.7+27R	13.1+20R	14+16R	14.7+13R	15.2+11R	15.5+9R	15.9+8R	16.1+7R
	VSC2 @ 18"	q	1182	1008	1011	932	876	898	859	829	708
		F	7.5+43R	9.9+28R	10.3+21R	11.4+17R	12.2+14R	12+12R	12.6+10R	13.1+9R	12.8+8R
	VSC2 @ 12"	q	1329	1238	1189	1157	1135	1120	1106	874	708
		F	6.4+44R	7.8+29R	8.6+22R	9.1+17R	9.5+14R	9.7+12R	9.9+11R	10+9R	10.1+8R
	VSC2 @ 8"	q	***1545**	***1486**	***1453**	***1432**	***1418**	***1407**	1106	874	708
		F	5+44R	6.2+29R	6.8+22R	7.2+18R	7.4+15R	7.6+12R	7.8+11R	7.9+10R	8+9R
	VSC2 @ 6"	q	***1688**	***1648**	***1627**	***1613**	***1604**	***1444**	1106	874	708
		F	4.1+44R	5.2+29R	5.8+22R	6.1+18R	6.4+15R	6.5+13R	6.6+11R	6.7+10R	6.8+9R
	VSC2 @ 4"	q	***1849**	***1831**	***1820**	***1814**	***1810**	***1444**	1106	874	708
		F	3.2+44R	4.2+30R	4.7+22R	5+18R	5.2+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1352	1205	1125	1074	1040	1015	996	981	969
		F	6.6+21R	7.7+14R	8.3+10R	8.7+8R	8.9+7R	9.1+6R	9.3+5R	9.4+4R	9.5+4R
	VSC2 @ 18"	q	1596	1397	1418	1323	1255	1290	1243	1204	1085
		F	5.3+21R	6.5+14R	6.5+10R	7.1+8R	7.5+7R	7.3+6R	7.6+5R	7.8+5R	7.6+4R
	VSC2 @ 12"	q	1784	1696	1648	1617	1596	1580	1568	1339	1085
		F	4.6+21R	5.2+14R	5.5+11R	5.8+8R	5.9+7R	6+6R	6.1+5R	6.1+5R	6.2+4R
	VSC2 @ 8"	q	***2038**	***1987**	***1958**	***1940**	***1928**	***1919**	1695	1339	1085
		F	3.7+22R	4.2+14R	4.5+11R	4.7+9R	4.8+7R	4.9+6R	4.9+5R	5+5R	5+4R
	VSC2 @ 6"	q	***2190**	***2159**	***2141**	***2131**	***2123**	***2118**	1695	1339	1085
		F	3.2+22R	3.7+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	***2346**	***2333**	***2326**	***2322**	***2319**	***2213**	1695	1339	1085
		F	2.7+22R	3.1+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1678	1520	1434	1380	1343	1316	1295	1279	1266
		F	5.9+12R	6.6+7R	7.1+5R	7.3+4R	7.5+4R	7.7+3R	7.8+3R	7.8+2R	7.9+2R
	VSC2 @ 18"	q	1976	1758	1795	1688	1610	1657	1602	1557	1514
		F	4.8+12R	5.6+8R	5.6+6R	6+5R	6.3+4R	6.1+3R	6.3+3R	6.5+3R	6.4+2R
	VSC2 @ 12"	q	***2195**	***2110**	2062	2033	2012	1997	1986	1869	1514
		F	4.1+12R	4.5+8R	4.7+6R	4.9+5R	5+4R	5+3R	5.1+3R	5.1+3R	5.1+2R
	VSC2 @ 8"	q	***2473**	***2426**	***2401**	***2385**	***2374**	***2366**	***2360**	1869	1514
		F	3.3+12R	3.7+8R	3.8+6R	3.9+5R	4+4R	4.1+3R	4.1+3R	4.1+3R	4.2+2R
	VSC2 @ 6"	q	***2628**	***2601**	***2587**	***2578**	***2572**	***2567**	***2365**	1869	1514
		F	2.9+12R	3.2+8R	3.4+6R	3.5+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	***2780**	***2769**	***2764**	***2760**	***2758**	***2756**	***2365**	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 32/10 pattern) or shall be limited to 1200 plf, 1400 plf, 1800 plf or 2100 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

Page 132 has the footnotes.

(continued)

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	613	547	512	491	476	465	457	451	446
		F	13.1+67R	16.5+44R	18.4+32R	19.6+26R	20.5+21R	21.1+18R	21.6+16R	22+14R	22.4+12R
	VSC2 @ 18"	q	743	645	661	615	582	601	579	560	538
		F	10.1+69R	13.7+45R	14+34R	15.5+27R	16.7+22R	16.4+19R	17.2+16R	17.8+15R	17.4+13R
	VSC2 @ 12"	q	846	804	781	767	757	750	745	665	538
		F	8.2+69R	10.4+46R	11.5+34R	12.1+27R	12.6+23R	12.9+19R	13.2+17R	13.4+15R	13.5+14R
	VSC2 @ 8"	q	992	966	952	943	937	933	841	665	538
		F	6+70R	7.8+46R	8.7+35R	9.3+28R	9.6+23R	9.9+20R	10.1+17R	10.3+15R	10.4+14R
	VSC2 @ 6"	q	1083	1066	1058	1052	1048	1046	841	665	538
		F	4.7+70R	6.4+47R	7.2+35R	7.7+28R	8.1+23R	8.3+20R	8.5+17R	8.6+16R	8.8+14R
	VSC2 @ 4"	q	1179	1172	1168	1166	1164	1099	841	665	538
		F	3.4+70R	4.9+47R	5.7+35R	6.2+28R	6.5+23R	6.7+20R	6.9+18R	7+16R	7.1+14R
20	VSC2 @ 24"	q	815	734	691	665	646	633	623	616	609
		F	11.1+42R	13.2+28R	14.4+21R	15.2+16R	15.7+13R	16.1+11R	16.4+10R	16.7+9R	16.8+8R
	VSC2 @ 18"	q	988	865	889	831	789	815	786	762	708
		F	8.6+43R	11+28R	11+21R	12.1+17R	12.9+14R	12.5+12R	13.1+10R	13.5+9R	13.2+8R
	VSC2 @ 12"	q	1122	1072	1046	1029	1017	1009	1003	874	708
		F	7.1+44R	8.4+29R	9.1+22R	9.5+17R	9.8+14R	10+12R	10.1+11R	10.3+10R	10.3+9R
	VSC2 @ 8"	q	1304	1275	1259	1249	1243	1238	1106	874	708
		F	5.3+44R	6.4+29R	7+22R	7.4+18R	7.6+15R	7.8+13R	7.9+11R	8+10R	8+9R
	VSC2 @ 6"	q	1414	1396	1386	1381	1376	1373	1106	874	708
		F	4.4+44R	5.4+30R	5.9+22R	6.2+18R	6.5+15R	6.6+13R	6.7+11R	6.8+10R	6.9+9R
	VSC2 @ 4"	q	1526	1519	1515	1512	1511	1444	1106	874	708
		F	3.3+45R	4.3+30R	4.8+22R	5.1+18R	5.3+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1183	1080	1025	991	967	950	938	928	920
		F	7.4+21R	8.3+14R	8.8+10R	9.1+8R	9.3+7R	9.4+6R	9.5+5R	9.6+4R	9.7+4R
	VSC2 @ 18"	q	1428	1268	1308	1230	1174	1213	1173	1140	1085
		F	5.7+21R	6.9+14R	6.8+11R	7.3+8R	7.7+7R	7.4+6R	7.7+5R	7.9+5R	7.7+4R
	VSC2 @ 12"	q	1611	1553	1522	1503	1489	1480	1472	1339	1085
		F	4.8+22R	5.4+14R	5.7+11R	5.9+9R	6+7R	6.1+6R	6.1+5R	6.2+5R	6.2+4R
	VSC2 @ 8"	q	1846	1815	1798	1787	1780	1774	1695	1339	1085
		F	3.8+22R	4.3+14R	4.6+11R	4.7+9R	4.8+7R	4.9+6R	5+5R	5+5R	5+4R
	VSC2 @ 6"	q	1980	1961	1951	1945	1941	1938	1695	1339	1085
		F	3.3+22R	3.7+14R	4+11R	4.1+9R	4.2+7R	4.3+6R	4.4+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	2110	2102	2099	2096	2095	2093	1695	1339	1085
		F	2.7+22R	3.2+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1523	1405	1341	1301	1275	1255	1240	1229	1219
		F	6.5+12R	7.1+8R	7.5+6R	7.7+5R	7.8+4R	7.9+3R	8+3R	8.1+2R	8.1+2R
	VSC2 @ 18"	q	1832	1644	1699	1605	1538	1588	1539	1500	1514
		F	5.1+12R	5.9+8R	5.7+6R	6.1+5R	6.4+4R	6.2+3R	6.4+3R	6.6+3R	6.5+2R
	VSC2 @ 12"	q	2054	1992	1959	1938	1923	1913	1905	1869	1514
		F	4.3+12R	4.7+8R	4.8+6R	5+5R	5+4R	5.1+3R	5.1+3R	5.2+3R	5.2+2R
	VSC2 @ 8"	q	2327	2295	2277	2267	2259	2254	2250	1869	1514
		F	3.4+12R	3.7+8R	3.9+6R	4+5R	4.1+4R	4.1+4R	4.1+3R	4.2+3R	4.2+2R
	VSC2 @ 6"	q	2475	2457	2447	2441	2437	2434	2365	1869	1514
		F	3+12R	3.3+8R	3.4+6R	3.5+5R	3.6+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	2614	2607	2604	2601	2600	2599	2365	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

Page 132 has the footnotes.

(continued)

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/7 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	815	692	625	584	556	536	520	508	498
		F	10.4+67R	14+44R	16.2+32R	17.7+25R	18.7+21R	19.5+17R	20.2+15R	20.7+13R	21.1+12R
	VSC2 @ 18"	q	955	798	789	720	673	686	654	628	538
		F	8.5+68R	12+45R	12.8+33R	14.4+26R	15.6+22R	15.5+18R	16.3+16R	17+14R	16.8+13R
	VSC2 @ 12"	q	1075	983	932	901	879	863	841	665	538
		F	7.1+69R	9.5+46R	10.7+34R	11.5+27R	12.1+22R	12.5+19R	12.8+17R	13+15R	13.2+13R
	VSC2 @ 8"	q	***1262**	1197	1160	1137	1121	1099	841	665	538
		F	5.4+70R	7.3+46R	8.3+35R	9+28R	9.4+23R	9.7+20R	9.9+17R	10.1+15R	10.2+14R
	VSC2 @ 6"	q	***1395**	***1349**	***1323**	***1307**	***1295**	1099	841	665	538
		F	4.4+70R	6.1+47R	7+35R	7.6+28R	7.9+23R	8.2+20R	8.4+17R	8.5+15R	8.7+14R
	VSC2 @ 4"	q	***1558**	***1534**	***1521**	***1513**	***1496**	1099	841	665	538
		F	3.2+70R	4.8+47R	5.6+35R	6.1+28R	6.4+23R	6.6+20R	6.8+18R	6.9+16R	7.1+14R
20	VSC2 @ 24"	q	1076	922	839	787	752	726	707	692	679
		F	9.3+42R	11.7+27R	13.1+20R	14+16R	14.7+13R	15.2+11R	15.5+9R	15.9+8R	16.1+7R
	VSC2 @ 18"	q	1264	1065	1060	972	910	930	888	855	708
		F	7.5+43R	9.9+28R	10.3+21R	11.4+17R	12.2+14R	12+12R	12.6+10R	13.1+9R	12.8+8R
	VSC2 @ 12"	q	1423	1312	1251	1213	1186	1167	1106	874	708
		F	6.4+44R	7.8+29R	8.6+22R	9.1+17R	9.5+14R	9.7+12R	9.9+11R	10+9R	10.1+8R
	VSC2 @ 8"	q	***1665**	1588	1546	1519	1501	1444	1106	874	708
		F	5+44R	6.2+29R	6.8+22R	7.2+18R	7.4+15R	7.6+12R	7.8+11R	7.9+10R	8+9R
	VSC2 @ 6"	q	***1831**	***1778**	***1749**	***1731**	***1718**	1444	1106	874	708
		F	4.1+44R	5.2+29R	5.8+22R	6.1+18R	6.4+15R	6.5+13R	6.6+11R	6.7+10R	6.8+9R
	VSC2 @ 4"	q	***2028**	***2002**	***1988**	***1979**	***1965**	1444	1106	874	708
		F	3.2+44R	4.2+30R	4.7+22R	5+18R	5.2+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1541	1341	1232	1165	1119	1085	1060	1040	1024
		F	6.6+21R	7.7+14R	8.3+10R	8.7+8R	8.9+7R	9.1+6R	9.3+5R	9.4+4R	9.5+4R
	VSC2 @ 18"	q	1817	1554	1560	1440	1355	1389	1331	1284	1085
		F	5.3+21R	6.5+14R	6.5+10R	7.1+8R	7.5+7R	7.3+6R	7.6+5R	7.8+5R	7.6+4R
	VSC2 @ 12"	q	2042	1907	1833	1786	1753	1730	1695	1339	1085
		F	4.6+21R	5.2+14R	5.5+11R	5.8+8R	5.9+7R	6+6R	6.1+5R	6.1+5R	6.2+4R
	VSC2 @ 8"	q	***2371**	***2283**	***2235**	***2204**	2183	2167	1695	1339	1085
		F	3.7+22R	4.2+14R	4.5+11R	4.7+9R	4.8+7R	4.9+6R	4.9+5R	5+5R	5+4R
	VSC2 @ 6"	q	***2586**	***2528**	***2496**	***2476**	***2463**	***2213**	1695	1339	1085
		F	3.2+22R	3.7+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	***2826**	***2799**	***2785**	***2776**	***2769**	***2213**	1695	1339	1085
		F	2.7+22R	3.1+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1969	1733	1605	1525	1471	1431	1401	1377	1358
		F	5.9+12R	6.6+7R	7.1+5R	7.3+4R	7.5+4R	7.7+3R	7.8+3R	7.8+2R	7.9+2R
	VSC2 @ 18"	q	2325	2010	2030	1884	1779	1827	1755	1697	1514
		F	4.8+12R	5.6+8R	5.6+6R	6+5R	6.3+4R	6.1+3R	6.3+3R	6.5+3R	6.4+2R
	VSC2 @ 12"	q	2608	2457	2374	2321	2285	2259	2239	1869	1514
		F	4.1+12R	4.5+8R	4.7+6R	4.9+5R	5+4R	5+3R	5.1+3R	5.1+3R	5.1+2R
	VSC2 @ 8"	q	***3006**	***2912**	***2861**	***2828**	***2806**	***2789**	2365	1869	1514
		F	3.3+12R	3.7+8R	3.8+6R	3.9+5R	4+4R	4.1+3R	4.1+3R	4.1+3R	4.2+2R
	VSC2 @ 6"	q	***3254**	***3195**	***3163**	***3143**	***3129**	***3089**	2365	1869	1514
		F	2.9+12R	3.2+8R	3.4+6R	3.5+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	***3522**	***3496**	***3482**	***3473**	***3467**	***3089**	2365	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 32/10 pattern) or shall be limited to 1200 plf, 1600 plf, 2200 plf or 2700 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

Page 132 has the footnotes.

(continued)

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
			32/5 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER								
22	VSC2 @ 24"	q	633	561	523	500	484	473	464	457	452
		F	13.1+67R	16.5+44R	18.4+32R	19.6+26R	20.5+21R	21.1+18R	21.6+16R	22+14R	22.4+12R
	VSC2 @ 18"	q	766	662	676	627	593	612	588	569	538
		F	10.1+69R	13.7+45R	14+34R	15.5+27R	16.7+22R	16.4+19R	17.2+16R	17.8+15R	17.4+13R
	VSC2 @ 12"	q	875	828	802	786	775	767	761	665	538
		F	8.2+69R	10.4+46R	11.5+34R	12.1+27R	12.6+23R	12.9+19R	13.2+17R	13.4+15R	13.5+14R
	VSC2 @ 8"	q	1031	1001	985	975	968	963	841	665	538
		F	6+70R	7.8+46R	8.7+35R	9.3+28R	9.6+23R	9.9+20R	10.1+17R	10.3+15R	10.4+14R
	VSC2 @ 6"	q	1131	1112	1101	1095	1090	1087	841	665	538
		F	4.7+70R	6.4+47R	7.2+35R	7.7+28R	8.1+23R	8.3+20R	8.5+17R	8.6+16R	8.8+14R
	VSC2 @ 4"	q	1239	1231	1226	1223	1221	1099	841	665	538
		F	3.4+70R	4.9+47R	5.7+35R	6.2+28R	6.5+23R	6.7+20R	6.9+18R	7+16R	7.1+14R
20	VSC2 @ 24"	q	824	740	696	669	650	637	626	618	612
		F	11.1+42R	13.2+28R	14.4+21R	15.2+16R	15.7+13R	16.1+11R	16.4+10R	16.7+9R	16.8+8R
	VSC2 @ 18"	q	998	873	896	836	794	820	790	766	708
		F	8.6+43R	11+28R	11+21R	12.1+17R	12.9+14R	12.5+12R	13.1+10R	13.5+9R	13.2+8R
	VSC2 @ 12"	q	1134	1083	1055	1037	1026	1017	1010	874	708
		F	7.1+44R	8.4+29R	9.1+22R	9.5+17R	9.8+14R	10+12R	10.1+11R	10.3+10R	10.3+9R
	VSC2 @ 8"	q	1321	1290	1274	1263	1256	1251	1106	874	708
		F	5.3+44R	6.4+29R	7+22R	7.4+18R	7.6+15R	7.8+13R	7.9+11R	8+10R	8+9R
	VSC2 @ 6"	q	1434	1415	1405	1399	1395	1391	1106	874	708
		F	4.4+44R	5.4+30R	5.9+22R	6.2+18R	6.5+15R	6.6+13R	6.7+11R	6.8+10R	6.9+9R
	VSC2 @ 4"	q	1551	1543	1539	1536	1535	1444	1106	874	708
		F	3.3+45R	4.3+30R	4.8+22R	5.1+18R	5.3+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1208	1098	1040	1004	979	961	948	937	929
		F	7.4+21R	8.3+14R	8.8+10R	9.1+8R	9.3+7R	9.4+6R	9.5+5R	9.6+4R	9.7+4R
	VSC2 @ 18"	q	1460	1292	1331	1249	1191	1230	1188	1155	1085
		F	5.7+21R	6.9+14R	6.8+11R	7.3+8R	7.7+7R	7.4+6R	7.7+5R	7.9+5R	7.7+4R
	VSC2 @ 12"	q	1650	1588	1554	1532	1518	1507	1499	1339	1085
		F	4.8+22R	5.4+14R	5.7+11R	5.9+9R	6+7R	6.1+6R	6.1+5R	6.2+5R	6.2+4R
	VSC2 @ 8"	q	1900	1865	1845	1834	1825	1819	1695	1339	1085
		F	3.8+22R	4.3+14R	4.6+11R	4.7+9R	4.8+7R	4.9+6R	5+5R	5+5R	5+4R
	VSC2 @ 6"	q	2043	2022	2011	2004	2000	1996	1695	1339	1085
		F	3.3+22R	3.7+14R	4+11R	4.1+9R	4.2+7R	4.3+6R	4.4+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	2186	2177	2173	2170	2168	2167	1695	1339	1085
		F	2.7+22R	3.2+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	1606	1467	1393	1347	1315	1292	1275	1262	1251
		F	6.5+12R	7.1+8R	7.5+6R	7.7+5R	7.8+4R	7.9+3R	8+3R	8.1+2R	8.1+2R
	VSC2 @ 18"	q	1939	1723	1778	1672	1596	1649	1594	1550	1514
		F	5.1+12R	5.9+8R	5.7+6R	6.1+5R	6.4+4R	6.2+3R	6.4+3R	6.6+3R	6.5+2R
	VSC2 @ 12"	q	2187	2109	2067	2041	2023	2010	2000	1869	1514
		F	4.3+12R	4.7+8R	4.8+6R	5+5R	5+4R	5.1+3R	5.1+3R	5.2+3R	5.2+2R
	VSC2 @ 8"	q	2505	2462	2439	2425	2415	2408	2365	1869	1514
		F	3.4+12R	3.7+8R	3.9+6R	4+5R	4.1+4R	4.1+4R	4.1+3R	4.2+3R	4.2+2R
	VSC2 @ 6"	q	2684	2660	2647	2638	2633	2629	2365	1869	1514
		F	3+12R	3.3+8R	3.4+6R	3.5+5R	3.6+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	2860	2850	2845	2841	2839	2838	2365	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

Page 132 has the footnotes.

(continued)

TABLE 38 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/7 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER											
22	VSC2 @ 24"	q	847	714	642	598	568	546	529	516	506
		F	10.4+67R	14+44R	16.2+32R	17.7+25R	18.7+21R	19.5+17R	20.2+15R	20.7+13R	21.1+12R
	VSC2 @ 18"	q	989	822	809	736	686	698	665	638	538
		F	8.5+68R	12+45R	12.8+33R	14.4+26R	15.6+22R	15.5+18R	16.3+16R	17+14R	16.8+13R
	VSC2 @ 12"	q	1113	1012	956	922	898	880	841	665	538
		F	7.1+69R	9.5+46R	10.7+34R	11.5+27R	12.1+22R	12.5+19R	12.8+17R	13+15R	13.2+13R
	VSC2 @ 8"	q	***1310**	1236	1195	1169	1151	1099	841	665	538
		F	5.4+70R	7.3+46R	8.3+35R	9+28R	9.4+23R	9.7+20R	9.9+17R	10.1+15R	10.2+14R
	VSC2 @ 6"	q	***1453**	***1399**	***1369**	***1351**	***1338**	1099	841	665	538
		F	4.4+70R	6.1+47R	7+35R	7.6+28R	7.9+23R	8.2+20R	8.4+17R	8.5+15R	8.7+14R
	VSC2 @ 4"	q	***1631**	***1603**	***1587**	***1577**	***1496**	1099	841	665	538
		F	3.2+70R	4.8+47R	5.6+35R	6.1+28R	6.4+23R	6.6+20R	6.8+18R	6.9+16R	7.1+14R
20	VSC2 @ 24"	q	1088	930	845	792	756	730	711	695	683
		F	9.3+42R	11.7+27R	13.1+20R	14+16R	14.7+13R	15.2+11R	15.5+9R	15.9+8R	16.1+7R
	VSC2 @ 18"	q	1278	1075	1069	979	916	936	893	859	708
		F	7.5+43R	9.9+28R	10.3+21R	11.4+17R	12.2+14R	12+12R	12.6+10R	13.1+9R	12.8+8R
	VSC2 @ 12"	q	1439	1324	1261	1222	1194	1175	1106	874	708
		F	6.4+44R	7.8+29R	8.6+22R	9.1+17R	9.5+14R	9.7+12R	9.9+11R	10+9R	10.1+8R
	VSC2 @ 8"	q	***1685**	***1605**	1561	1533	1514	1444	1106	874	708
		F	5+44R	6.2+29R	6.8+22R	7.2+18R	7.4+15R	7.6+12R	7.8+11R	7.9+10R	8+9R
	VSC2 @ 6"	q	***1855**	***1800**	***1770**	***1750**	***1737**	1444	1106	874	708
		F	4.1+44R	5.2+29R	5.8+22R	6.1+18R	6.4+15R	6.5+13R	6.6+11R	6.7+10R	6.8+9R
	VSC2 @ 4"	q	***2058**	***2031**	***2016**	***2006**	***1965**	1444	1106	874	708
		F	3.2+44R	4.2+30R	4.7+22R	5+18R	5.2+15R	5.4+13R	5.5+11R	5.6+10R	5.7+9R
18	VSC2 @ 24"	q	1579	1368	1253	1182	1134	1099	1072	1051	1034
		F	6.6+21R	7.7+14R	8.3+10R	8.7+8R	8.9+7R	9.1+6R	9.3+5R	9.4+4R	9.5+4R
	VSC2 @ 18"	q	1860	1584	1587	1462	1373	1407	1346	1298	1085
		F	5.3+21R	6.5+14R	6.5+10R	7.1+8R	7.5+7R	7.3+6R	7.6+5R	7.8+5R	7.6+4R
	VSC2 @ 12"	q	2092	1947	1867	1816	1781	1756	1695	1339	1085
		F	4.6+21R	5.2+14R	5.5+11R	5.8+8R	5.9+7R	6+6R	6.1+5R	6.1+5R	6.2+4R
	VSC2 @ 8"	q	***2435**	***2339**	***2286**	***2252**	***2229**	***2212**	1695	1339	1085
		F	3.7+22R	4.2+14R	4.5+11R	4.7+9R	4.8+7R	4.9+6R	4.9+5R	5+5R	5+4R
	VSC2 @ 6"	q	***2662**	***2598**	***2563**	***2541**	***2525**	***2213**	1695	1339	1085
		F	3.2+22R	3.7+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R
	VSC2 @ 4"	q	***2921**	***2890**	***2874**	***2864**	***2856**	***2213**	1695	1339	1085
		F	2.7+22R	3.1+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R	3.8+4R
16	VSC2 @ 24"	q	2092	1821	1674	1583	1521	1475	1441	1414	1393
		F	5.9+12R	6.6+7R	7.1+5R	7.3+4R	7.5+4R	7.7+3R	7.8+3R	7.8+2R	7.9+2R
	VSC2 @ 18"	q	2466	2110	2120	1957	1842	1888	1809	1746	1514
		F	4.8+12R	5.6+8R	5.6+6R	6+5R	6.3+4R	6.1+3R	6.3+3R	6.5+3R	6.4+2R
	VSC2 @ 12"	q	2772	2590	2490	2426	2383	2351	2327	1869	1514
		F	4.1+12R	4.5+8R	4.7+6R	4.9+5R	5+4R	5+3R	5.1+3R	5.1+3R	5.1+2R
	VSC2 @ 8"	q	***3218**	***3100**	***3034**	***2993**	***2964**	***2943**	2365	1869	1514
		F	3.3+12R	3.7+8R	3.8+6R	3.9+5R	4+4R	4.1+3R	4.1+3R	4.1+3R	4.2+2R
	VSC2 @ 6"	q	***3508**	***3430**	***3388**	***3361**	***3342**	***3089**	2365	1869	1514
		F	2.9+12R	3.2+8R	3.4+6R	3.5+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R	3.7+2R
	VSC2 @ 4"	q	***3832**	***3796**	***3776**	***3764**	***3756**	***3089**	2365	1869	1514
		F	2.5+12R	2.8+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R	3.2+2R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 32/10 pattern) or shall be limited to 1300 plf, 1600 plf, 2200 plf or 2900 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexiblity factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections)
with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 39 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
			32/5 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS								
22	VSC2 @ 24"	q	641	548	500	474	458	447	439	433	428
		F	1.2+139R	8.7+68R	12.3+44R	14.5+32R	16.1+25R	17.3+20R	18.2+17R	18.9+15R	19.5+13R
	VSC2 @ 18"	q	799	662	587	605	569	543	561	542	527
		F	0.1+140R	7.3+68R	10.8+45R	11.8+33R	13.4+26R	14.7+21R	14.7+18R	15.6+16R	16.3+14R
	VSC2 @ 12"	q	799	747	720	705	696	690	685	681	665
		F	0.1+140R	6.3+69R	8.7+45R	10.1+34R	11+27R	11.6+22R	12+19R	12.4+17R	12.6+15R
	VSC2 @ 8"	q	886	857	842	834	829	825	823	821	665
		F	-0.6+140R	4.9+70R	7+46R	8+34R	8.7+27R	9.1+23R	9.5+20R	9.7+17R	9.9+15R
	VSC2 @ 6"	q	937	920	911	906	904	902	900	841	665
		F	-1.1+140R	4.1+70R	5.9+46R	6.8+35R	7.4+28R	7.8+23R	8.1+20R	8.3+17R	8.4+15R
	VSC2 @ 4"	q	989	981	978	976	975	974	974	841	665
		F	-1.8+141R	3+70R	4.7+47R	5.5+35R	6+28R	6.3+23R	6.6+20R	6.8+17R	6.9+16R
20	VSC2 @ 24"	q	808	706	653	624	606	594	585	579	574
		F	2.8+88R	8+42R	10.5+27R	12+20R	13+16R	13.7+13R	14.3+11R	14.8+9R	15.1+8R
	VSC2 @ 18"	q	999	847	763	789	746	715	739	717	699
		F	1.8+88R	6.7+43R	9.1+28R	9.7+21R	10.8+16R	11.6+13R	11.5+12R	12.1+10R	12.6+9R
	VSC2 @ 12"	q	999	948	921	906	897	891	887	883	874
		F	1.8+88R	5.8+44R	7.4+29R	8.2+21R	8.8+17R	9.2+14R	9.4+12R	9.7+11R	9.8+9R
	VSC2 @ 8"	q	1097	1070	1057	1049	1044	1041	1039	1037	874
		F	1.1+89R	4.7+44R	5.9+29R	6.6+22R	7+17R	7.3+14R	7.5+12R	7.6+11R	7.8+10R
	VSC2 @ 6"	q	1151	1136	1128	1124	1122	1120	1119	1106	874
		F	0.7+89R	4+44R	5.1+29R	5.7+22R	6+18R	6.3+15R	6.5+13R	6.6+11R	6.7+10R
	VSC2 @ 4"	q	1203	1197	1194	1193	1192	1191	1190	1106	874
		F	0.1+89R	3.1+44R	4.2+30R	4.7+22R	5+18R	5.2+15R	5.4+13R	5.5+11R	5.6+10R
18	VSC2 @ 24"	q	1133	1012	948	914	893	878	868	860	853
		F	3.4+43R	6+21R	7.2+13R	7.9+10R	8.3+8R	8.6+6R	8.8+5R	9+5R	9.1+4R
	VSC2 @ 18"	q	1385	1203	1099	1137	1084	1045	1077	1049	1026
		F	2.4+43R	5+21R	6.2+14R	6.3+10R	6.8+8R	7.3+7R	7.1+6R	7.4+5R	7.6+4R
	VSC2 @ 12"	q	1385	1331	1302	1287	1277	1271	1266	1262	1259
		F	2.4+43R	4.3+21R	5+14R	5.4+11R	5.6+8R	5.8+7R	5.9+6R	6+5R	6.1+5R
	VSC2 @ 8"	q	1503	1476	1463	1456	1451	1448	1446	1444	1339
		F	1.9+43R	3.6+22R	4.1+14R	4.4+11R	4.6+9R	4.7+7R	4.8+6R	4.9+5R	4.9+5R
	VSC2 @ 6"	q	1564	1549	1542	1538	1536	1535	1533	1533	1339
		F	1.6+43R	3.1+22R	3.6+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R
	VSC2 @ 4"	q	1620	1615	1612	1611	1610	1609	1609	1609	1339
		F	1.2+44R	2.6+22R	3.1+15R	3.4+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.8+5R
16	VSC2 @ 24"	q	1456	1315	1241	1201	1176	1159	1147	1138	1130
		F	3.5+24R	5.4+11R	6.2+7R	6.7+5R	7+4R	7.3+3R	7.4+3R	7.6+3R	7.7+2R
	VSC2 @ 18"	q	1767	1554	1430	1480	1416	1369	1410	1375	1347
		F	2.7+24R	4.5+12R	5.4+8R	5.4+6R	5.8+5R	6.1+4R	6+3R	6.2+3R	6.4+2R
	VSC2 @ 12"	q	1767	1708	1677	1660	1650	1642	1637	1633	1630
		F	2.7+24R	3.9+12R	4.4+8R	4.6+6R	4.8+5R	4.9+4R	5+3R	5+3R	5.1+3R
	VSC2 @ 8"	q	1905	1877	1863	1856	1851	1848	1845	1844	1842
		F	2.2+25R	3.3+12R	3.6+8R	3.8+6R	3.9+5R	4+4R	4+3R	4.1+3R	4.1+3R
	VSC2 @ 6"	q	1974	1960	1952	1948	1946	1944	1943	1942	1869
		F	1.9+25R	2.9+12R	3.2+8R	3.4+6R	3.4+5R	3.5+4R	3.6+4R	3.6+3R	3.6+3R
	VSC2 @ 4"	q	2037	2032	2029	2028	2027	2026	2026	2025	1869
		F	1.6+25R	2.5+12R	2.7+8R	2.9+6R	3+5R	3+4R	3.1+4R	3.1+3R	3.1+3R

Page 134 has the footnotes.
(continued)

TABLE 39 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™ DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
32/7 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	VSC2 @ 24"	q	889	714	621	570	539	517	501	490	480
		F	-0.6+140R	6.3+68R	9.6+44R	11.9+32R	13.5+25R	14.7+20R	15.7+17R	16.6+14R	17.3+12R
	VSC2 @ 18"	q	1062	842	719	722	666	626	642	615	593
		F	-1.1+140R	5.5+69R	8.8+45R	10.1+33R	11.7+26R	12.9+21R	13.2+18R	14.1+15R	14.8+13R
	VSC2 @ 12"	q	1062	947	883	848	826	811	800	792	665
		F	-1.1+140R	4.9+69R	7.5+45R	8.9+34R	9.9+27R	10.6+22R	11.1+19R	11.5+16R	11.9+14R
	VSC2 @ 8"	q	***1176**	***1100**	***1059**	***1036**	***1021**	***1011**	***1004**	841	665
		F	-1.5+140R	4.1+70R	6.2+46R	7.4+34R	8.1+27R	8.6+23R	9+19R	9.3+17R	9.5+15R
	VSC2 @ 6"	q	***1251**	***1201**	***1173**	***1158**	***1149**	***1142**	***1099**	841	665
		F	-1.8+140R	3.5+70R	5.4+46R	6.4+35R	7+28R	7.5+23R	7.8+20R	8+17R	8.2+15R
	VSC2 @ 4"	q	***1338**	***1314**	***1301**	***1294**	***1290**	***1287**	***1099**	841	665
		F	-2.2+141R	2.7+70R	4.4+47R	5.3+35R	5.8+28R	6.2+23R	6.4+20R	6.6+17R	6.8+15R
20	VSC2 @ 24"	q	1107	910	804	746	710	686	668	654	643
		F	1.4+88R	6.2+43R	8.6+28R	10.1+20R	11.2+15R	12.1+13R	12.7+10R	13.3+9R	13.7+8R
	VSC2 @ 18"	q	***1325**	1075	932	943	876	829	851	818	792
		F	0.9+88R	5.4+43R	7.7+28R	8.5+21R	9.6+16R	10.5+13R	10.6+11R	11.2+10R	11.7+8R
	VSC2 @ 12"	q	***1325**	***1205**	1138	1101	1078	1062	1050	1041	874
		F	0.9+88R	4.9+44R	6.5+29R	7.5+21R	8.1+17R	8.6+14R	8.9+12R	9.2+10R	9.4+9R
	VSC2 @ 8"	q	***1459**	***1385**	***1345**	***1322**	***1308**	1298	1291	1106	874
		F	0.5+89R	4.1+44R	5.5+29R	6.2+22R	6.7+17R	7+14R	7.2+12R	7.4+11R	7.6+9R
	VSC2 @ 6"	q	***1544**	***1497**	***1471**	***1457**	***1449**	***1443**	***1438**	1106	874
		F	0.2+89R	3.6+44R	4.8+29R	5.4+22R	5.8+17R	6.1+15R	6.3+12R	6.4+11R	6.6+10R
	VSC2 @ 4"	q	***1637**	***1615**	***1604**	***1598**	***1594**	***1592**	***1444**	1106	874
		F	-0.2+89R	2.9+44R	4+30R	4.6+22R	4.9+18R	5.1+15R	5.3+13R	5.4+11R	5.5+10R
18	VSC2 @ 24"	q	1534	1293	1161	1090	1045	1014	991	974	961
		F	2.5+43R	5.1+21R	6.3+13R	7.1+10R	7.6+8R	7.9+6R	8.2+5R	8.4+4R	8.6+4R
	VSC2 @ 18"	q	***1836**	1525	1345	1370	1283	1220	1255	1211	1175
		F	1.9+43R	4.4+21R	5.6+14R	5.9+10R	6.4+8R	6.8+7R	6.8+6R	7.1+5R	7.3+4R
	VSC2 @ 12"	q	***1836**	1700	1625	1584	1557	1539	1526	1516	1339
		F	1.9+43R	3.9+21R	4.7+14R	5.1+10R	5.4+8R	5.6+7R	5.7+6R	5.8+5R	5.9+5R
	VSC2 @ 8"	q	***2007**	***1929**	***1887**	***1864**	***1849**	***1839**	***1831**	1695	1339
		F	1.6+43R	3.3+21R	4+14R	4.3+11R	4.5+9R	4.6+7R	4.7+6R	4.8+5R	4.9+5R
	VSC2 @ 6"	q	***2109**	***2062**	***2037**	***2023**	***2015**	***2009**	***2004**	1695	1339
		F	1.4+43R	3+22R	3.5+14R	3.8+11R	4+9R	4.1+7R	4.2+6R	4.3+5R	4.3+5R
	VSC2 @ 4"	q	***2215**	***2195**	***2185**	***2179**	***2176**	***2174**	***2172**	1695	1339
		F	1.1+44R	2.6+22R	3.1+14R	3.3+11R	3.5+9R	3.6+7R	3.7+6R	3.7+5R	3.7+5R
16	VSC2 @ 24"	q	1962	1675	1518	1432	1378	1341	1314	1294	1278
		F	2.8+24R	4.6+12R	5.5+7R	6.1+5R	6.5+4R	6.7+3R	6.9+3R	7.1+2R	7.3+2R
	VSC2 @ 18"	q	***2344**	1972	1755	1792	1686	1608	1655	1600	1555
		F	2.3+24R	4+12R	4.9+8R	5+6R	5.5+4R	5.8+4R	5.7+3R	6+3R	6.1+2R
	VSC2 @ 12"	q	***2344**	***2190**	***2105**	2059	2029	2009	1994	1982	1869
		F	2.3+24R	3.6+12R	4.1+8R	4.4+6R	4.6+5R	4.7+4R	4.8+3R	4.9+3R	4.9+3R
	VSC2 @ 8"	q	***2551**	***2466**	***2421**	***2395**	***2379**	***2368**	***2361**	***2354**	1869
		F	2+25R	3.1+12R	3.5+8R	3.7+6R	3.8+5R	3.9+4R	4+3R	4+3R	4.1+3R
	VSC2 @ 6"	q	***2671**	***2621**	***2595**	***2580**	***2571**	***2565**	***2561**	***2365**	1869
		F	1.8+25R	2.8+12R	3.1+8R	3.3+6R	3.4+5R	3.5+4R	3.5+3R	3.6+3R	3.6+3R
	VSC2 @ 4"	q	***2793**	***2772**	***2761**	***2756**	***2752**	***2750**	***2748**	***2365**	1869
		F	1.5+25R	2.4+12R	2.7+8R	2.9+6R	2.9+5R	3+4R	3.1+4R	3.1+3R	3.1+3R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 32/10 pattern) or shall be limited to 1000 plf, 1200 plf, 1700 plf or 2100 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21B of this report provides a guide to proper selection of support fastening screws.

8 Table 21C of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 in. thick.

9 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 40 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™-CD CELLULAR DECK PANELS ATTACHED TO SUPPORTS WITH WELDS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
20/20	VSC2 @ 24"	q	1470	1159	991	891	823	775	739	711	689
		F	8-2R	9.5-2R	10.6-2R	11.4-2R	12-2R	12.5-2R	12.8-2R	13.2-2R	13.4-2R
	VSC2 @ 18"	q	1665	1304	1217	1078	982	978	918	871	879
		F	6.9-2R	8.3-2R	8.5-2R	9.3-2R	10-2R	9.8-1R	10.3-1R	10.7-1R	10.5-1R
	VSC2 @ 12"	q	1847	1573	1426	1334	1272	1228	1194	1167	1094
		F	6-1R	6.7-1R	7.2-1R	7.5-1R	7.7-1R	7.8-1R	7.9-1R	8-1R	8.1-1R
	VSC2 @ 8"	q	2175	1937	1807	1727	1672	1632	1601	1350	1094
		F	5-1R	5.4-1R	5.6-1R	5.8-1R	5.9+0R	5.9+0R	6+0R	6+0R	6.1+0R
	VSC2 @ 6"	q	2457	2253	2141	2071	2023	1988	1709	1350	1094
		F	4.3-1R	4.6+0R	4.7+0R	4.8+0R	4.9+0R	4.9+0R	4.9+0R	5+0R	5+0R
	VSC2 @ 4"	q	2897	2751	2671	2620	2586	2232	1709	1350	1094
		F	3.5+0R	3.7+0R	3.7+0R	3.8+0R	3.8+0R	3.8+0R	3.9+0R	3.9+0R	3.9+0R
20/18	VSC2 @ 24"	q	1789	1465	1293	1186	1115	1064	1026	997	973
		F	5.8-1R	6.5-1R	7-1R	7.3-1R	7.5-1R	7.6-1R	7.7-1R	7.8-1R	7.9-1R
	VSC2 @ 18"	q	2081	1679	1623	1459	1346	1361	1288	1230	1164
		F	4.8-1R	5.5-1R	5.4-1R	5.8-1R	6.1-1R	5.9+0R	6.2+0R	6.4+0R	6.2+0R
	VSC2 @ 12"	q	2347	2074	1928	1837	1775	1730	1696	1437	1164
		F	4.1-1R	4.4+0R	4.5+0R	4.6+0R	4.6+0R	4.7+0R	4.7+0R	4.8+0R	4.8+0R
	VSC2 @ 8"	q	2805	2583	2462	2387	2335	2298	1819	1437	1164
		F	3.3+0R	3.4+0R	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R
	VSC2 @ 6"	q	3171	2994	2897	2836	2795	2376	1819	1437	1164
		F	2.9+0R	2.9+0R	3+0R	3+0R	3+0R	3+0R	3+0R	3.1+0R	3.1+0R
	VSC2 @ 4"	q	3690	3579	3519	3481	3234	2376	1819	1437	1164
		F	2.4+0R	2.4+0R	2.4+0R	2.4+0R	2.5+0R	2.5+0R	2.5+0R	2.5+0R	2.5+0R
18/20	VSC2 @ 24"	q	1550	1215	1033	924	851	799	760	730	706
		F	7.3-2R	8.8-2R	9.9-2R	10.7-2R	11.4-2R	11.9-2R	12.3-2R	12.6-2R	12.9-2R
	VSC2 @ 18"	q	1744	1359	1260	1112	1011	1003	940	890	897
		F	6.3-2R	7.8-2R	8-2R	8.8-2R	9.5-2R	9.4-1R	9.9-1R	10.3-1R	10.2-1R
	VSC2 @ 12"	q	1928	1630	1470	1371	1303	1254	1217	1189	1165
		F	5.6-1R	6.3-1R	6.8-1R	7.1-1R	7.3-1R	7.5-1R	7.6-1R	7.7-1R	7.8-1R
	VSC2 @ 8"	q	2261	1999	1857	1768	1708	1664	1630	1604	1582
		F	4.7-1R	5.1-1R	5.3-1R	5.5-1R	5.6+0R	5.7+0R	5.8+0R	5.8+0R	5.9+0R
	VSC2 @ 6"	q	2549	2322	2199	2121	2068	2029	2000	1953	1582
		F	4.1-1R	4.3+0R	4.5+0R	4.6+0R	4.6+0R	4.7+0R	4.7+0R	4.8+0R	4.8+0R
	VSC2 @ 4"	q	3006	2841	2750	2693	2653	2624	2471	1953	1582
		F	3.3+0R	3.5+0R	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.7+0R	3.7+0R	3.7+0R
18/18	VSC2 @ 24"	q	1789	1465	1293	1186	1115	1064	1026	997	973
		F	5.4-1R	6.2-1R	6.6-1R	6.9-1R	7.2-1R	7.4-1R	7.5-1R	7.6-1R	7.7-1R
	VSC2 @ 18"	q	2081	1679	1623	1459	1346	1361	1288	1230	1253
		F	4.5-1R	5.3-1R	5.2-1R	5.6-1R	5.9-1R	5.7+0R	6+0R	6.2+0R	6+0R
	VSC2 @ 12"	q	2347	2074	1928	1837	1775	1730	1696	1669	1648
		F	3.9-1R	4.1+0R	4.3+0R	4.4+0R	4.5+0R	4.5+0R	4.6+0R	4.6+0R	4.6+0R
	VSC2 @ 8"	q	2805	2583	2462	2387	2335	2298	2269	2083	1687
		F	3.1+0R	3.3+0R	3.4+0R	3.4+0R	3.4+0R	3.5+0R	3.5+0R	3.5+0R	3.5+0R
	VSC2 @ 6"	q	3171	2994	2897	2836	2795	2764	2636	2083	1687
		F	2.7+0R	2.8+0R	2.8+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R
	VSC2 @ 4"	q	3690	3579	3519	3481	3455	3436	2636	2083	1687
		F	2.2+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R

Page 136 has the footnotes.

(continued)

TABLE 40 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN3™-CD CELLULAR DECK PANELS ATTACHED TO SUPPORTS WITH WELDS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
18/16	VSC2 @ 24"	q	2029	1713	1546	1443	1374	1324	1286	1256	1232
		F	4.9-1R	5.4-1R	5.8-1R	6-1R	6.2-1R	6.3-1R	6.4-1R	6.5-1R	6.6-1R
	VSC2 @ 18"	q	2413	1995	1977	1799	1675	1712	1629	1564	1601
		F	3.9-1R	4.6-1R	4.5+0R	4.8+0R	5.1+0R	4.9+0R	5.1+0R	5.3+0R	5.1+0R
	VSC2 @ 12"	q	2753	2501	2366	2282	2225	2184	2152	2128	1773
		F	3.4+0R	3.6+0R	3.7+0R	3.8+0R	3.8+0R	3.9+0R	3.9+0R	3.9+0R	3.9+0R
	VSC2 @ 8"	q	3310	3118	3015	2950	2906	2873	2771	2189	1773
		F	2.7+0R	2.8+0R	2.9+0R	2.9+0R	2.9+0R	3+0R	3+0R	3+0R	3+0R
	VSC2 @ 6"	q	3727	3584	3507	3458	3425	3401	2771	2189	1773
		F	2.3+0R	2.4+0R	2.4+0R	2.5+0R	2.5+0R	2.5+0R	2.5+0R	2.5+0R	2.5+0R
	VSC2 @ 4"	q	4270	4190	4147	4120	4101	3619	2771	2189	1773
		F	1.9+0R	2+0R	2+0R	2+0R	2+0R	2+0R	2+0R	2+0R	2+0R
16/18	VSC2 @ 24"	q	1789	1465	1293	1186	1115	1064	1026	997	973
		F	5.1-1R	5.9-1R	6.4-1R	6.7-1R	6.9-1R	7.1-1R	7.3-1R	7.4-1R	7.5-1R
	VSC2 @ 18"	q	2081	1679	1623	1459	1346	1361	1288	1230	1253
		F	4.3-1R	5-1R	5-1R	5.4-1R	5.7-1R	5.6-1R	5.8-1R	6-1R	5.8+0R
	VSC2 @ 12"	q	2347	2074	1928	1837	1775	1730	1696	1669	1648
		F	3.7-1R	4+0R	4.1+0R	4.3+0R	4.3+0R	4.4+0R	4.4+0R	4.5+0R	4.5+0R
	VSC2 @ 8"	q	2805	2583	2462	2387	2335	2298	2269	2247	2229
		F	3+0R	3.1+0R	3.2+0R	3.3+0R	3.3+0R	3.3+0R	3.4+0R	3.4+0R	3.4+0R
	VSC2 @ 6"	q	3171	2994	2897	2836	2795	2764	2741	2723	2251
		F	2.6+0R	2.7+0R	2.7+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R
	VSC2 @ 4"	q	3690	3579	3519	3481	3455	3436	3421	2779	2251
		F	2.1+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R	2.2+0R
16/16	VSC2 @ 24"	q	2029	1713	1546	1443	1374	1324	1286	1256	1232
		F	4.6-1R	5.2-1R	5.6-1R	5.8-1R	6-1R	6.2-1R	6.3-1R	6.4-1R	6.4-1R
	VSC2 @ 18"	q	2413	1995	1977	1799	1675	1712	1629	1564	1601
		F	3.8-1R	4.4-1R	4.3-1R	4.7-1R	4.9+0R	4.8+0R	5+0R	5.1+0R	5+0R
	VSC2 @ 12"	q	2753	2501	2366	2282	2225	2184	2152	2128	2108
		F	3.2+0R	3.5+0R	3.6+0R	3.7+0R	3.7+0R	3.8+0R	3.8+0R	3.8+0R	3.8+0R
	VSC2 @ 8"	q	3310	3118	3015	2950	2906	2873	2849	2830	2369
		F	2.6+0R	2.7+0R	2.8+0R	2.8+0R	2.8+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R
	VSC2 @ 6"	q	3727	3584	3507	3458	3425	3401	3382	2925	2369
		F	2.2+0R	2.3+0R	2.3+0R	2.4+0R	2.4+0R	2.4+0R	2.4+0R	2.4+0R	2.4+0R
	VSC2 @ 4"	q	4270	4190	4147	4120	4101	4088	3702	2925	2369
		F	1.8+0R	1.9+0R	1.9+0R	1.9+0R	1.9+0R	1.9+0R	1.9+0R	1.9+0R	1.9+0R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 41 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE HSN3™ DECK ATTACHED TO SUPPORTS WITH WELDS AND FASTENED WITH BUTTON PUNCHES (BP) OR 1½" TOP SEAM WELDS (TSW) AT SIDELAPS[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	287	201	160	135	119	107	98	91	85
		F	11.6+66R	18+40R	23.4+26R	28.1+18R	32.3+12R	36.2+7R	39.8+3R	43.1+0R	46.2-2R
	BP @ 12"	q	322	237	196	171	154	143	134	127	121
		F	10.7+66R	16.3+41R	20.5+28R	24.1+20R	27.1+15R	29.7+11R	32+8R	34.1+6R	35.9+4R
	TSW @ 24"	q	685	600	559	534	515	502	493	485	479
		F	3.7+70R	5.5+46R	6.5+35R	7+28R	7.4+23R	7.7+20R	7.9+17R	8.1+15R	8.2+14R
	TSW @ 18"	q	849	721	736	679	638	660	632	610	538
		F	2.8+70R	4.7+47R	5.3+35R	5.9+28R	6.4+23R	6.5+20R	6.8+17R	7+16R	7+14R
	TSW @ 12"	q	987	924	891	870	856	846	838	665	538
		F	2.3+70R	3.8+47R	4.6+35R	5.1+28R	5.4+23R	5.6+20R	5.8+18R	5.9+16R	6+14R
	TSW @ 6"	q	1354	1323	1306	1296	1289	1099	841	665	538
		F	1.3+71R	2.8+47R	3.5+35R	4+28R	4.3+24R	4.5+20R	4.6+18R	4.8+16R	4.9+14R
20	BP @ 24"	q	418	290	230	195	171	154	141	131	123
		F	11.4+40R	16.9+23R	21.6+14R	25.7+8R	29.5+4R	33+1R	36.2-2R	39.2-4R	42-6R
	BP @ 12"	q	470	341	282	246	222	205	193	183	175
		F	10.6+41R	15.3+24R	19+16R	22.1+11R	24.8+7R	27.1+4R	29.2+2R	31+1R	32.6+0R
	TSW @ 24"	q	909	792	732	694	669	651	637	626	618
		F	4.3+44R	5.5+29R	6.2+22R	6.6+17R	6.8+15R	7+12R	7.2+11R	7.3+10R	7.4+9R
	TSW @ 18"	q	1112	941	956	879	826	852	816	786	708
		F	3.4+44R	4.8+29R	5+22R	5.6+18R	5.9+15R	5.9+13R	6.1+11R	6.3+10R	6.2+9R
	TSW @ 12"	q	1287	1200	1153	1124	1105	1090	1080	874	708
		F	2.9+44R	3.9+30R	4.4+22R	4.8+18R	5+15R	5.1+13R	5.2+11R	5.3+10R	5.4+9R
	TSW @ 6"	q	1756	1712	1688	1674	1664	1444	1106	874	708
		F	2.1+45R	3+30R	3.5+22R	3.8+18R	3.9+15R	4.1+13R	4.2+11R	4.3+10R	4.3+9R
18	BP @ 24"	q	748	513	407	344	302	272	249	232	218
		F	10.5+18R	14.9+9R	18.8+4R	22.3+0R	25.5-2R	28.5-4R	31.2-6R	33.8-7R	36.2-8R
	BP @ 12"	q	839	604	499	436	394	363	341	323	309
		F	9.8+18R	13.5+10R	16.5+5R	19.1+2R	21.4+0R	23.3-1R	25.1-2R	26.7-3R	28.1-4R
	TSW @ 24"	q	1419	1222	1119	1055	1012	981	958	940	925
		F	4.3+21R	5+14R	5.4+11R	5.7+8R	5.8+7R	5.9+6R	6+5R	6.1+5R	6.2+4R
	TSW @ 18"	q	1713	1439	1448	1327	1244	1278	1221	1176	1085
		F	3.6+22R	4.4+14R	4.5+11R	4.8+9R	5+7R	5+6R	5.1+5R	5.3+5R	5.2+4R
	TSW @ 12"	q	1970	1820	1740	1690	1656	1632	1613	1339	1085
		F	3.1+22R	3.7+14R	3.9+11R	4.1+9R	4.2+7R	4.3+6R	4.3+5R	4.4+5R	4.4+4R
	TSW @ 6"	q	2666	2589	2547	2521	2503	2213	1695	1339	1085
		F	2.4+22R	2.9+15R	3.1+11R	3.2+9R	3.3+7R	3.4+6R	3.4+5R	3.5+5R	3.5+4R
16	BP @ 24"	q	970	667	536	458	405	368	340	318	300
		F	9.6+9R	13.3+3R	16.7+0R	19.8-3R	22.7-4R	25.3-6R	27.8-7R	30-8R	32.2-9R
	BP @ 12"	q	1113	810	679	601	548	511	483	461	443
		F	8.9+9R	12.1+4R	14.7+1R	17-1R	19-2R	20.7-3R	22.3-4R	23.7-4R	24.9-5R
	TSW @ 24"	q	1834	1593	1466	1388	1335	1297	1268	1245	1227
		F	4+12R	4.5+8R	4.8+6R	5+5R	5.1+4R	5.2+3R	5.2+3R	5.3+3R	5.3+2R
	TSW @ 18"	q	2223	1879	1901	1748	1641	1690	1616	1558	1514
		F	3.3+12R	3.9+8R	3.9+6R	4.2+5R	4.4+4R	4.3+3R	4.4+3R	4.5+3R	4.5+2R
	TSW @ 12"	q	2556	2377	2281	2221	2181	2151	2129	1869	1514
		F	3+12R	3.3+8R	3.5+6R	3.6+5R	3.6+4R	3.7+3R	3.7+3R	3.8+3R	3.8+2R
	TSW @ 6"	q	3435	3347	3299	3270	3249	3089	2365	1869	1514
		F	2.3+12R	2.6+8R	2.7+6R	2.8+5R	2.8+4R	2.9+4R	2.9+3R	2.9+3R	3+2R

1 BP = Button Punch; TSW = Top Seam Weld

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for side seam fasteners placed at spacings other than those in the table should be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

8 Table 21F of this report adjustment factors when using acoustical deck profiles.

TABLE 42 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSN3™-NS DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8,9]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
32/5 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	#10 @ 24"	q	434	312	247	214	195	182	173	166	160
		F	0.5+140R	7.1+69R	9.8+45R	11.4+33R	12.4+26R	13.2+22R	13.7+19R	14.1+16R	14.5+14R
	#10 @ 18"	q	501	360	286	272	242	221	223	210	200
		F	-0.7+140R	5.6+69R	8.4+46R	9.1+34R	10.2+27R	11.1+22R	11.1+19R	11.6+17R	12.1+15R
	#10 @ 12"	q	501	401	348	320	302	290	281	274	269
		F	-0.7+140R	4.7+70R	6.7+46R	7.7+35R	8.3+28R	8.8+23R	9.1+20R	9.3+17R	9.5+15R
	#10 @ 8"	q	556	474	430	406	391	380	373	367	362
		F	-1.4+141R	3.6+70R	5.3+47R	6.2+35R	6.7+28R	7.1+23R	7.3+20R	7.5+17R	7.7+15R
	#10 @ 6"	q	601	534	498	478	465	456	450	445	442
		F	-1.9+141R	2.9+70R	4.5+47R	5.3+35R	5.8+28R	6.1+23R	6.4+20R	6.5+18R	6.7+16R
	#10 @ 4"	q	666	623	599	585	577	571	567	564	561
		F	-2.5+141R	2.1+70R	3.6+47R	4.4+35R	4.9+28R	5.2+23R	5.4+20R	5.6+18R	5.7+16R
20	#10 @ 24"	q	529	389	310	271	248	232	221	213	206
		F	2.5+88R	7.3+43R	9.4+28R	10.6+21R	11.5+16R	12.1+13R	12.5+11R	12.8+10R	13.1+9R
	#10 @ 18"	q	615	447	359	343	308	283	285	269	256
		F	1.4+88R	6+43R	8.1+28R	8.5+21R	9.5+17R	10.2+14R	10.1+12R	10.6+10R	11+9R
	#10 @ 12"	q	615	500	438	405	384	370	360	352	346
		F	1.4+88R	5.1+44R	6.5+29R	7.3+22R	7.7+17R	8.1+14R	8.3+12R	8.5+11R	8.6+10R
	#10 @ 8"	q	684	592	541	514	496	484	476	469	464
		F	0.8+89R	4.1+44R	5.3+29R	5.9+22R	6.2+18R	6.5+15R	6.7+13R	6.8+11R	6.9+10R
	#10 @ 6"	q	739	665	625	603	589	579	572	566	562
		F	0.3+89R	3.5+44R	4.5+30R	5.1+22R	5.4+18R	5.6+15R	5.8+13R	5.9+11R	6+10R
	#10 @ 4"	q	818	771	745	731	722	716	711	708	705
		F	-0.2+89R	2.8+45R	3.8+30R	4.3+22R	4.6+18R	4.8+15R	4.9+13R	5+11R	5.1+10R
18	#10 @ 24"	q	724	542	444	392	361	341	326	315	306
		F	3.8+42R	6.9+20R	8.4+13R	9.3+9R	9.9+7R	10.4+6R	10.7+5R	11+4R	11.2+4R
	#10 @ 18"	q	849	628	511	496	447	414	418	397	379
		F	2.9+43R	5.8+21R	7.3+13R	7.5+10R	8.2+8R	8.7+6R	8.6+5R	9+5R	9.3+4R
	#10 @ 12"	q	849	706	629	587	560	542	529	519	512
		F	2.9+43R	5.1+21R	5.9+14R	6.4+10R	6.7+8R	6.9+7R	7+6R	7.1+5R	7.2+4R
	#10 @ 8"	q	947	836	775	742	721	706	696	688	682
		F	2.3+43R	4.2+21R	4.8+14R	5.2+11R	5.4+8R	5.5+7R	5.6+6R	5.7+5R	5.8+5R
	#10 @ 6"	q	1021	936	889	863	847	836	828	821	817
		F	1.9+43R	3.6+22R	4.2+14R	4.5+11R	4.7+9R	4.8+7R	4.9+6R	4.9+5R	5+5R
	#10 @ 4"	q	1123	1072	1045	1030	1020	1013	1008	1005	1002
		F	1.5+43R	3+22R	3.5+14R	3.8+11R	3.9+9R	4+7R	4.1+6R	4.2+5R	4.2+5R
16	#10 @ 24"	q	926	705	588	526	487	461	443	428	417
		F	4+24R	6.3+11R	7.5+7R	8.3+5R	8.8+4R	9.1+3R	9.4+2R	9.6+2R	9.8+2R
	#10 @ 18"	q	1094	822	676	662	600	557	566	538	515
		F	3.2+24R	5.4+12R	6.5+7R	6.6+5R	7.2+4R	7.7+3R	7.5+3R	7.9+2R	8.1+2R
	#10 @ 12"	q	1094	925	834	784	753	731	716	704	695
		F	3.2+24R	4.7+12R	5.3+8R	5.7+6R	5.9+5R	6+4R	6.1+3R	6.2+3R	6.3+2R
	#10 @ 8"	q	1220	1094	1025	986	962	946	934	925	917
		F	2.7+24R	3.9+12R	4.3+8R	4.6+6R	4.7+5R	4.8+4R	4.9+3R	4.9+3R	5+3R
	#10 @ 6"	q	1314	1220	1168	1140	1122	1109	1100	1093	1088
		F	2.3+25R	3.4+12R	3.8+8R	4+6R	4.1+5R	4.2+4R	4.2+3R	4.3+3R	4.3+3R
	#10 @ 4"	q	1438	1384	1355	1339	1329	1322	1317	1313	1310
		F	1.9+25R	2.8+12R	3.2+8R	3.3+6R	3.4+5R	3.5+4R	3.5+4R	3.6+3R	3.6+3R

Page 139 has the footnotes.
(continued)

TABLE 42 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSN3™-NS DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8,9] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
32/7 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	#10 @ 24"	q	643	461	345	288	254	231	215	203	193
		F	-0.9+140R	5.4+69R	8.2+45R	9.8+33R	11+26R	11.8+21R	12.5+18R	13+16R	13.4+14R
	#10 @ 18"	q	697	503	384	347	301	270	265	247	232
		F	-1.5+140R	4.5+69R	7.2+46R	8.2+34R	9.4+27R	10.2+22R	10.4+19R	10.9+16R	11.4+14R
	#10 @ 12"	q	697	542	451	401	369	347	331	318	309
		F	-1.5+140R	3.9+70R	6+46R	7.1+34R	7.8+27R	8.3+23R	8.7+19R	9+17R	9.2+15R
	#10 @ 8"	q	742	610	532	488	460	440	426	415	406
		F	-2+141R	3.1+70R	4.9+46R	5.9+35R	6.4+28R	6.8+23R	7.1+20R	7.3+17R	7.5+15R
	#10 @ 6"	q	780	669	602	564	539	522	510	500	493
		F	-2.3+141R	2.6+70R	4.3+47R	5.1+35R	5.6+28R	6+23R	6.3+20R	6.4+17R	6.6+15R
	#10 @ 4"	q	841	761	713	685	667	655	645	638	633
		F	-2.7+141R	1.9+70R	3.5+47R	4.3+35R	4.8+28R	5.1+23R	5.3+20R	5.5+18R	5.6+16R
20	#10 @ 24"	q	779	565	428	359	318	291	272	257	246
		F	1.2+88R	5.8+43R	7.9+28R	9.2+20R	10.1+16R	10.8+13R	11.4+11R	11.8+9R	12.1+8R
	#10 @ 18"	q	848	618	479	437	380	343	338	315	297
		F	0.7+89R	5+43R	7.1+28R	7.7+21R	8.7+17R	9.4+14R	9.4+12R	9.9+10R	10.3+9R
	#10 @ 12"	q	848	667	562	502	465	439	420	405	394
		F	0.7+89R	4.4+44R	5.9+29R	6.8+21R	7.3+17R	7.6+14R	7.9+12R	8.1+11R	8.3+9R
	#10 @ 8"	q	905	754	664	613	581	558	542	529	519
		F	0.3+89R	3.7+44R	4.9+29R	5.6+22R	6+17R	6.3+15R	6.5+12R	6.6+11R	6.8+10R
	#10 @ 6"	q	953	827	752	709	681	662	647	636	628
		F	0+89R	3.2+44R	4.3+29R	4.9+22R	5.3+18R	5.5+15R	5.7+13R	5.8+11R	5.9+10R
	#10 @ 4"	q	1026	939	886	856	837	823	813	805	799
		F	-0.4+89R	2.6+44R	3.7+30R	4.2+22R	4.5+18R	4.7+15R	4.9+13R	5+11R	5.1+10R
18	#10 @ 24"	q	1052	774	601	510	456	419	393	374	359
		F	2.7+43R	5.6+20R	7.1+13R	8.1+9R	8.8+7R	9.3+6R	9.7+5R	10+4R	10.3+3R
	#10 @ 18"	q	1154	854	677	625	550	498	495	463	438
		F	2.2+43R	4.9+21R	6.4+13R	6.8+10R	7.5+8R	8+6R	8+5R	8.4+4R	8.8+4R
	#10 @ 12"	q	1154	926	792	717	669	635	611	593	578
		F	2.2+43R	4.4+21R	5.4+14R	5.9+10R	6.3+8R	6.5+7R	6.7+6R	6.9+5R	7+4R
	#10 @ 8"	q	1236	1051	941	878	837	809	789	773	761
		F	1.9+43R	3.8+21R	4.5+14R	4.9+10R	5.2+8R	5.4+7R	5.5+6R	5.6+5R	5.6+5R
	#10 @ 6"	q	1302	1153	1063	1012	978	955	938	925	915
		F	1.6+43R	3.4+21R	4+14R	4.3+11R	4.6+9R	4.7+7R	4.8+6R	4.9+5R	4.9+5R
	#10 @ 4"	q	1401	1302	1243	1209	1187	1172	1161	1152	1145
		F	1.3+43R	2.9+22R	3.4+14R	3.7+11R	3.9+9R	4+7R	4.1+6R	4.1+5R	4.2+5R
16	#10 @ 24"	q	1333	993	787	673	605	560	527	503	484
		F	3+24R	5.2+11R	6.4+7R	7.2+5R	7.7+4R	8.2+3R	8.5+2R	8.8+2R	9+1R
	#10 @ 18"	q	1470	1101	883	824	734	670	665	626	594
		F	2.6+24R	4.6+12R	5.7+7R	6+5R	6.6+4R	7.1+3R	7+3R	7.4+2R	7.7+2R
	#10 @ 12"	q	1470	1199	1038	948	890	850	820	798	781
		F	2.6+24R	4.1+12R	4.8+8R	5.3+6R	5.5+4R	5.7+4R	5.9+3R	6+3R	6.1+2R
	#10 @ 8"	q	1578	1363	1235	1161	1114	1081	1057	1039	1024
		F	2.3+24R	3.6+12R	4.1+8R	4.4+6R	4.5+5R	4.7+4R	4.7+3R	4.8+3R	4.9+3R
	#10 @ 6"	q	1663	1494	1392	1334	1296	1270	1250	1235	1224
		F	2.1+25R	3.2+12R	3.6+8R	3.8+6R	4+5R	4.1+4R	4.1+3R	4.2+3R	4.2+3R
	#10 @ 4"	q	1786	1678	1615	1578	1555	1538	1526	1517	1509
		F	1.8+25R	2.7+12R	3.1+8R	3.3+6R	3.4+5R	3.4+4R	3.5+3R	3.5+3R	3.6+3R

[1] The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

[2] R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

[3] Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

[4] Diaphragm shear values for #10 screw spacings other than those in the table should be determined based on the number of fasteners in span.

[5] The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

[6] Table 21B of this report provides a guide to proper selection of support fastening screws.

[7] Table 21C of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 inch thick.

[8] HSN3™-SS deck panels may be used in lieu of HSN3™-NS deck panels.

[9] Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 43 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR HSN3™-NS DECK PANELS ATTACHED WITH WELDS TO SUPPORTS AND SIDELAPS FASTENED WITH THE #10 SCREWS[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
32/5 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	#10 @ 24"	q	349	264	222	197	181	169	160	153	148
		F	6.6+69R	9.4+45R	11+33R	12.1+26R	12.9+22R	13.4+18R	13.9+16R	14.2+14R	14.5+13R
	#10 @ 18"	q	398	296	271	236	213	211	197	186	187
		F	5.4+69R	8.1+46R	8.9+34R	10+27R	10.9+22R	10.9+19R	11.5+17R	12+15R	11.8+13R
	#10 @ 12"	q	446	361	320	295	278	267	258	251	245
		F	4.5+70R	6.5+46R	7.6+34R	8.2+28R	8.7+23R	9+20R	9.3+17R	9.4+15R	9.6+14R
	#10 @ 8"	q	544	459	418	393	376	364	356	349	343
		F	3.5+70R	5.2+47R	6.1+35R	6.6+28R	7+23R	7.3+20R	7.5+17R	7.6+15R	7.7+14R
	#10 @ 6"	q	622	546	506	481	464	452	443	435	429
		F	2.8+70R	4.4+47R	5.3+35R	5.8+28R	6.1+23R	6.3+20R	6.5+17R	6.7+16R	6.8+14R
	#10 @ 4"	q	746	683	649	628	614	603	595	589	538
		F	2.1+70R	3.6+47R	4.4+35R	4.8+28R	5.2+23R	5.4+20R	5.5+18R	5.7+16R	5.8+14R
20	#10 @ 24"	q	495	367	307	272	248	231	218	208	200
		F	6.9+43R	9+28R	10.3+20R	11.2+16R	11.8+13R	12.3+11R	12.6+10R	12.9+9R	13.2+8R
	#10 @ 18"	q	560	410	372	323	291	286	266	251	252
		F	5.8+43R	7.9+28R	8.4+21R	9.3+17R	10+14R	9.9+12R	10.4+10R	10.8+9R	10.7+8R
	#10 @ 12"	q	624	496	436	400	377	360	347	337	329
		F	5+44R	6.4+29R	7.2+22R	7.6+17R	8+14R	8.2+12R	8.4+11R	8.5+9R	8.6+9R
	#10 @ 8"	q	744	624	565	529	505	488	475	465	457
		F	4+44R	5.2+29R	5.8+22R	6.2+18R	6.4+15R	6.6+12R	6.8+11R	6.9+10R	7+9R
	#10 @ 6"	q	837	732	676	642	618	601	588	578	570
		F	3.4+44R	4.5+30R	5.1+22R	5.4+18R	5.6+15R	5.8+13R	5.9+11R	6+10R	6.1+9R
	#10 @ 4"	q	998	912	865	835	815	801	789	781	708
		F	2.7+45R	3.7+30R	4.2+22R	4.5+18R	4.7+15R	4.9+13R	5+11R	5.1+10R	5.2+9R
18	#10 @ 24"	q	854	619	514	451	408	378	356	338	324
		F	6.6+20R	8.1+13R	9+9R	9.7+7R	10.1+6R	10.5+5R	10.8+4R	11+4R	11.2+3R
	#10 @ 18"	q	953	685	613	530	474	463	430	404	403
		F	5.6+21R	7.1+13R	7.3+10R	8+8R	8.6+6R	8.5+5R	8.9+5R	9.2+4R	9+4R
	#10 @ 12"	q	1049	817	712	648	606	576	553	536	522
		F	4.9+21R	5.8+14R	6.3+10R	6.6+8R	6.8+7R	7+6R	7.1+5R	7.2+4R	7.3+4R
	#10 @ 8"	q	1201	1011	909	846	803	772	749	731	716
		F	4.1+21R	4.8+14R	5.1+11R	5.3+8R	5.5+7R	5.6+6R	5.7+5R	5.7+5R	5.8+4R
	#10 @ 6"	q	1343	1166	1072	1013	972	943	921	904	890
		F	3.6+22R	4.2+14R	4.5+11R	4.6+9R	4.8+7R	4.9+6R	4.9+5R	5+5R	5+4R
	#10 @ 4"	q	1590	1442	1362	1312	1277	1252	1233	1218	1085
		F	3+22R	3.5+14R	3.8+11R	3.9+9R	4+7R	4.1+6R	4.2+5R	4.2+5R	4.2+4R
16	#10 @ 24"	q	1104	801	670	591	539	501	473	451	434
		F	6.1+11R	7.3+7R	8+5R	8.5+4R	8.9+3R	9.2+2R	9.5+2R	9.6+2R	9.8+1R
	#10 @ 18"	q	1242	893	808	702	631	620	577	544	545
		F	5.2+11R	6.4+7R	6.5+5R	7.1+4R	7.5+3R	7.4+3R	7.8+2R	8+2R	7.9+2R
	#10 @ 12"	q	1357	1078	947	868	815	778	750	728	711
		F	4.6+12R	5.2+8R	5.6+6R	5.8+4R	6+4R	6.1+3R	6.2+3R	6.3+2R	6.3+2R
	#10 @ 8"	q	1567	1335	1211	1134	1081	1043	1015	992	974
		F	3.8+12R	4.3+8R	4.5+6R	4.7+5R	4.8+4R	4.9+3R	4.9+3R	5+3R	5+2R
	#10 @ 6"	q	1758	1546	1432	1361	1312	1277	1250	1229	1212
		F	3.3+12R	3.7+8R	3.9+6R	4.1+5R	4.1+4R	4.2+3R	4.2+3R	4.3+3R	4.3+2R
	#10 @ 4"	q	2086	1914	1820	1761	1720	1691	1668	1651	1514
		F	2.8+12R	3.1+8R	3.3+6R	3.4+5R	3.5+4R	3.5+4R	3.6+3R	3.6+3R	3.6+2R

1 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

2 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

3 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

4 Diaphragm shear values for #10 screw spacings other than those in the table shall be determined based on the number of fasteners in span.

5 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

6 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

7 HSN3™-SS deck panels may be used in lieu of HSN3™-NS deck panels.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 44 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE PLN™-24 DECK ATTACHED WITH WELDS TO SUPPORTS AND WITH SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	VSC2 @ 24"	q	559	488	453	433	419	409	402	396	391
		F	4.3+191R	11.2+125R	15.2+93R	17.9+73R	19.9+61R	21.4+51R	22.5+45R	23.5+39R	24.3+35R
	VSC2 @ 18"	q	734	604	626	573	535	554	529	509	525
		F	2.4+192R	9.1+126R	11.5+95R	14.3+75R	16.4+62R	16.7+53R	18.1+46R	19.2+41R	19.1+37R
	VSC2 @ 12"	q	873	805	771	749	735	724	717	690	559
		F	1.1+193R	6.4+128R	9.2+95R	11+76R	12.2+63R	13.1+54R	13.8+47R	14.3+42R	14.8+38R
	VSC2 @ 8"	q	1103	1049	1021	1003	991	983	873	690	559
		F	-0.8+193R	4+129R	6.5+96R	8+77R	9+64R	9.7+55R	10.2+48R	10.7+43R	11+38R
	VSC2 @ 6"	q	1285	1242	1220	1207	1197	1140	873	690	559
		F	-1.9+194R	2.6+129R	4.9+97R	6.2+77R	7.2+64R	7.8+55R	8.3+48R	8.7+43R	9+39R
	VSC2 @ 4"	q	1534	1509	1496	1488	1482	1140	873	690	559
		F	-3.3+194R	1+129R	3.1+97R	4.4+78R	5.2+65R	5.8+55R	6.3+48R	6.7+43R	7+39R
20	VSC2 @ 24"	q	796	687	637	607	587	573	562	554	547
		F	5.8+120R	10.4+79R	13.1+58R	14.8+46R	16.1+38R	17+32R	17.8+28R	18.4+25R	18.9+22R
	VSC2 @ 18"	q	1016	849	865	792	742	767	732	705	726
		F	4.1+121R	8.6+80R	10+60R	11.8+47R	13.2+39R	13.3+34R	14.2+29R	15+26R	14.8+23R
	VSC2 @ 12"	q	1195	1106	1059	1031	1011	997	987	906	734
		F	2.9+122R	6.3+81R	8.1+60R	9.2+48R	10+40R	10.5+34R	10.9+30R	11.3+27R	11.5+24R
	VSC2 @ 8"	q	1496	1426	1390	1367	1352	1341	1146	906	734
		F	1.3+122R	4.4+81R	5.9+61R	6.8+49R	7.5+41R	7.9+35R	8.3+30R	8.5+27R	8.7+24R
	VSC2 @ 6"	q	1727	1674	1646	1628	1617	1497	1146	906	734
		F	0.4+123R	3.2+82R	4.7+61R	5.5+49R	6.1+41R	6.5+35R	6.8+31R	7.1+27R	7.3+24R
	VSC2 @ 4"	q	2033	2002	1986	1977	1970	1497	1146	906	734
		F	-0.7+123R	2+82R	3.3+61R	4.1+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R	5.8+25R
18	VSC2 @ 24"	q	1312	1116	1027	973	938	912	893	877	864
		F	5.4+59R	7.6+39R	8.8+29R	9.6+23R	10.1+19R	10.5+16R	10.8+14R	11+12R	11.2+11R
	VSC2 @ 18"	q	1613	1347	1364	1247	1168	1204	1149	1106	1124
		F	4+59R	6.3+39R	6.7+29R	7.6+23R	8.3+19R	8.2+17R	8.7+14R	9+13R	8.9+12R
	VSC2 @ 12"	q	1882	1736	1659	1612	1580	1557	1540	1387	1124
		F	3.2+60R	4.7+40R	5.5+30R	6+24R	6.4+20R	6.6+17R	6.8+15R	6.9+13R	7+12R
	VSC2 @ 8"	q	2327	2215	2156	2119	2094	2076	1756	1387	1124
		F	2.1+60R	3.5+40R	4.2+30R	4.7+24R	5+20R	5.2+17R	5.3+15R	5.4+13R	5.5+12R
	VSC2 @ 6"	q	2664	2580	2535	2507	2488	2294	1756	1387	1124
		F	1.5+60R	2.9+40R	3.5+30R	3.9+24R	4.2+20R	4.4+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	3102	3055	3030	3015	3004	2294	1756	1387	1124
		F	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.4+20R	3.6+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1711	1477	1367	1300	1255	1221	1195	1175	1159
		F	5.6+33R	7+22R	7.8+16R	8.4+13R	8.7+11R	9+9R	9.2+8R	9.4+7R	9.5+6R
	VSC2 @ 18"	q	2113	1777	1809	1660	1557	1609	1538	1482	1526
		F	4.3+34R	5.9+22R	6.1+17R	6.7+13R	7.2+11R	7.1+9R	7.4+8R	7.7+7R	7.6+7R
	VSC2 @ 12"	q	2468	2292	2200	2143	2105	2077	2056	1936	1568
		F	3.6+34R	4.5+22R	5+17R	5.4+13R	5.6+11R	5.7+10R	5.8+8R	5.9+7R	6+7R
	VSC2 @ 8"	q	3043	2912	2843	2800	2771	2750	2450	1936	1568
		F	2.7+34R	3.5+23R	3.9+17R	4.2+14R	4.4+11R	4.5+10R	4.6+8R	4.7+8R	4.7+7R
	VSC2 @ 6"	q	3466	3371	3320	3288	3267	3200	2450	1936	1568
		F	2.2+34R	2.9+23R	3.3+17R	3.6+14R	3.7+11R	3.9+10R	3.9+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	4000	3948	3921	3904	3893	3200	2450	1936	1568
		F	1.6+34R	2.4+23R	2.7+17R	2.9+14R	3.1+11R	3.2+10R	3.3+9R	3.3+8R	3.4+7R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexiblity factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 3.0$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 45 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 1/8" THROUGH 1/4" THICK OR X-HSN 24 AT SUPPORTS 1/8" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	556	506	480	464	453	445	439	435	431
		F	4.9+191R	11.8+125R	15.8+93R	18.4+73R	20.4+61R	21.8+52R	23+45R	23.9+40R	24.7+35R
	VSC2 @ 18"	q	688	604	627	586	558	578	558	541	558
		F	2.8+192R	9.5+126R	11.9+95R	14.7+75R	16.7+62R	17+53R	18.4+46R	19.5+41R	19.4+37R
	VSC2 @ 12"	q	791	760	743	733	726	721	717	690	559
		F	1.4+193R	6.6+128R	9.5+95R	11.2+76R	12.4+63R	13.3+54R	13.9+47R	14.5+42R	14.9+38R
	VSC2 @ 8"	q	932	913	903	897	893	890	873	690	559
		F	-0.6+193R	4.1+129R	6.6+96R	8.1+77R	9.1+64R	9.8+55R	10.3+48R	10.7+43R	11.1+38R
	VSC2 @ 6"	q	1016	1005	999	996	993	991	873	690	559
		F	-1.8+194R	2.7+129R	4.9+97R	6.3+77R	7.2+64R	7.9+55R	8.4+48R	8.8+43R	9.1+39R
	VSC2 @ 4"	q	1103	1099	1096	1095	1094	1093	873	690	559
		F	-3.2+194R	1+129R	3.1+97R	4.4+78R	5.3+65R	5.9+55R	6.3+48R	6.7+43R	7+39R
20	VSC2 @ 24"	q	720	665	635	617	605	596	590	585	580
		F	6.3+120R	10.8+79R	13.4+59R	15.2+46R	16.4+38R	17.3+33R	18.1+28R	18.6+25R	19.1+22R
	VSC2 @ 18"	q	886	790	822	774	740	767	742	722	734
		F	4.4+121R	8.9+80R	10.2+60R	12.1+47R	13.5+39R	13.5+34R	14.4+29R	15.2+26R	15+23R
	VSC2 @ 12"	q	1010	979	962	952	945	940	936	906	734
		F	3.1+122R	6.5+81R	8.2+60R	9.3+48R	10.1+40R	10.6+34R	11+30R	11.3+27R	11.6+24R
	VSC2 @ 8"	q	1169	1152	1143	1137	1133	1130	1128	906	734
		F	1.5+122R	4.4+81R	6+61R	6.9+49R	7.5+41R	8+35R	8.3+30R	8.6+27R	8.8+24R
	VSC2 @ 6"	q	1258	1248	1243	1240	1238	1236	1146	906	734
		F	0.5+123R	3.3+82R	4.7+61R	5.6+49R	6.1+41R	6.6+35R	6.9+31R	7.1+27R	7.3+24R
	VSC2 @ 4"	q	1344	1340	1338	1337	1336	1336	1146	906	734
		F	-0.7+123R	2+82R	3.3+61R	4.2+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R	5.8+25R
18	VSC2 @ 24"	q	1035	969	934	913	898	887	879	873	868
		F	5.6+59R	7.8+39R	9+29R	9.7+23R	10.2+19R	10.6+16R	10.9+14R	11.1+13R	11.3+11R
	VSC2 @ 18"	q	1262	1142	1190	1129	1085	1123	1091	1065	1095
		F	4.2+59R	6.4+39R	6.8+29R	7.7+23R	8.4+19R	8.3+17R	8.7+15R	9.1+13R	8.9+12R
	VSC2 @ 12"	q	1420	1388	1370	1360	1352	1347	1343	1340	1124
		F	3.2+60R	4.8+40R	5.6+30R	6.1+24R	6.4+20R	6.6+17R	6.8+15R	7+13R	7.1+12R
	VSC2 @ 8"	q	1610	1594	1585	1580	1576	1573	1571	1387	1124
		F	2.2+60R	3.6+40R	4.3+30R	4.7+24R	5+20R	5.2+17R	5.3+15R	5.4+13R	5.5+12R
	VSC2 @ 6"	q	1709	1700	1696	1693	1691	1689	1688	1387	1124
		F	1.5+60R	2.9+40R	3.6+30R	4+24R	4.2+20R	4.4+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	1800	1796	1795	1794	1793	1792	1756	1387	1124
		F	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.4+20R	3.6+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1344	1268	1228	1203	1186	1173	1164	1157	1151
		F	5.7+33R	7.2+22R	8+16R	8.5+13R	8.8+11R	9.1+9R	9.3+8R	9.5+7R	9.6+6R
	VSC2 @ 18"	q	1627	1485	1547	1474	1421	1469	1430	1398	1436
		F	4.4+34R	6+22R	6.1+17R	6.8+13R	7.3+11R	7.1+9R	7.5+8R	7.7+7R	7.6+7R
	VSC2 @ 12"	q	1817	1782	1763	1752	1744	1738	1734	1730	1568
		F	3.6+34R	4.6+23R	5.1+17R	5.4+13R	5.6+11R	5.7+10R	5.8+8R	5.9+7R	6+7R
	VSC2 @ 8"	q	2035	2018	2009	2004	2000	1997	1995	1936	1568
		F	2.7+34R	3.5+23R	4+17R	4.2+14R	4.4+11R	4.5+10R	4.6+9R	4.7+8R	4.7+7R
	VSC2 @ 6"	q	2144	2135	2131	2128	2126	2125	2124	1936	1568
		F	2.2+34R	3+23R	3.4+17R	3.6+14R	3.8+11R	3.9+10R	3.9+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	2242	2238	2237	2236	2235	2235	2234	1936	1568
		F	1.6+34R	2.4+23R	2.7+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.3+8R	3.4+7R

Page 144 has the footnotes.

(continued)

TABLE 45 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/6 ATTACHMENT PATTERN FOR HILTI X-EDNK22 AT SUPPORTS 1/8" THROUGH 1/4" THICK OR X-HSN 24 AT SUPPORTS 1/8" THROUGH 3/8" THICK											
22	VSC2 @ 24"	q	740	637	583	549	527	510	498	488	480
		F	1.3+192R	7.9+126R	11.8+93R	14.6+73R	16.7+60R	18.4+51R	19.7+44R	20.8+39R	21.7+35R
	VSC2 @ 18"	q	890	748	751	688	645	662	633	609	559
		F	0.2+192R	6.6+127R	9.5+94R	12.2+75R	14.2+62R	14.9+53R	16.3+46R	17.4+40R	17.6+36R
	VSC2 @ 12"	q	1018	940	899	873	855	842	832	690	559
		F	-0.6+193R	4.8+128R	7.8+95R	9.7+76R	11+63R	12+54R	12.8+47R	13.4+42R	13.9+37R
	VSC2 @ 8"	q	***1220**	***1164**	***1134**	***1115**	***1102**	1093	873	690	559
		F	-1.8+193R	3.1+128R	5.7+96R	7.3+77R	8.4+64R	9.1+55R	9.8+48R	10.2+42R	10.6+38R
	VSC2 @ 6"	q	***1363**	***1324**	***1302**	***1289**	***1280**	1140	873	690	559
		F	-2.6+194R	2+129R	4.4+96R	5.8+77R	6.8+64R	7.5+55R	8+48R	8.5+43R	8.8+38R
	VSC2 @ 4"	q	***1537**	***1517**	***1506**	***1499**	***1494**	1140	873	690	559
		F	-3.7+194R	0.6+129R	2.8+97R	4.2+77R	5.1+65R	5.7+55R	6.2+48R	6.5+43R	6.8+39R
20	VSC2 @ 24"	q	946	828	765	727	700	682	667	656	647
		F	3.5+121R	8+79R	10.8+59R	12.6+46R	14+38R	15.1+32R	16+28R	16.7+24R	17.2+22R
	VSC2 @ 18"	q	1141	974	988	912	858	884	847	818	734
		F	2.5+121R	6.9+80R	8.6+60R	10.5+47R	11.9+39R	12.2+33R	13.1+29R	13.9+25R	13.9+23R
	VSC2 @ 12"	q	1304	1221	1177	1149	1129	1116	1105	906	734
		F	1.7+122R	5.3+81R	7.2+60R	8.4+48R	9.2+40R	9.9+34R	10.3+30R	10.7+26R	11+24R
	VSC2 @ 8"	q	***1549**	***1493**	***1463**	***1444**	***1431**	***1421**	1146	906	734
		F	0.7+122R	3.8+81R	5.4+61R	6.4+49R	7.1+40R	7.6+35R	8+30R	8.3+27R	8.5+24R
	VSC2 @ 6"	q	***1712**	***1674**	***1654**	***1641**	***1633**	***1497**	1146	906	734
		F	-0.1+123R	2.9+82R	4.4+61R	5.3+49R	5.9+41R	6.3+35R	6.7+30R	6.9+27R	7.1+24R
	VSC2 @ 4"	q	***1898**	***1880**	***1871**	***1865**	***1861**	***1497**	1146	906	734
		F	-0.9+123R	1.8+82R	3.2+61R	4+49R	4.6+41R	5+35R	5.3+31R	5.5+27R	5.7+25R
18	VSC2 @ 24"	q	1345	1198	1120	1072	1039	1015	998	983	972
		F	4.3+59R	6.5+39R	7.8+29R	8.7+23R	9.3+19R	9.8+16R	10.1+14R	10.4+12R	10.7+11R
	VSC2 @ 18"	q	1626	1411	1443	1342	1270	1311	1261	1221	1124
		F	3.3+59R	5.5+39R	6.2+29R	7.1+23R	7.8+19R	7.8+16R	8.3+14R	8.7+13R	8.6+11R
	VSC2 @ 12"	q	***1850**	1756	1704	1672	1651	1635	1623	1387	1124
		F	2.7+59R	4.3+39R	5.2+29R	5.7+24R	6.1+20R	6.4+17R	6.6+15R	6.7+13R	6.9+12R
	VSC2 @ 8"	q	***2166**	***2108**	***2076**	***2056**	***2043**	***2033**	1756	1387	1124
		F	1.9+60R	3.3+40R	4.1+30R	4.5+24R	4.8+20R	5.1+17R	5.2+15R	5.4+13R	5.5+12R
	VSC2 @ 6"	q	***2363**	***2327**	***2307**	***2294**	***2286**	***2280**	1756	1387	1124
		F	1.4+60R	2.7+40R	3.4+30R	3.9+24R	4.1+20R	4.3+17R	4.5+15R	4.6+13R	4.7+12R
	VSC2 @ 4"	q	***2574**	***2557**	***2549**	***2543**	***2540**	***2294**	1756	1387	1124
		F	0.8+60R	2.1+40R	2.8+30R	3.1+24R	3.4+20R	3.6+17R	3.7+15R	3.9+13R	3.9+12R
16	VSC2 @ 24"	q	1738	1564	1472	1414	1375	1347	1325	1309	1295
		F	4.6+33R	6.1+22R	7+16R	7.7+13R	8.1+10R	8.4+9R	8.7+8R	8.9+7R	9.1+6R
	VSC2 @ 18"	q	2100	1840	1889	1765	1677	1731	1669	1618	1568
		F	3.7+34R	5.3+22R	5.6+16R	6.3+13R	6.8+11R	6.8+9R	7.1+8R	7.4+7R	7.3+6R
	VSC2 @ 12"	q	2381	2275	2218	2182	2158	2140	2126	1936	1568
		F	3.2+34R	4.2+22R	4.8+17R	5.1+13R	5.4+11R	5.5+9R	5.7+8R	5.8+7R	5.9+7R
	VSC2 @ 8"	q	***2763**	***2701**	***2667**	***2646**	***2631**	***2621**	***2450**	1936	1568
		F	2.5+34R	3.3+23R	3.8+17R	4.1+14R	4.3+11R	4.4+10R	4.5+8R	4.6+7R	4.7+7R
	VSC2 @ 6"	q	***2991**	***2954**	***2933**	***2920**	***2912**	***2905**	***2450**	1936	1568
		F	2+34R	2.8+23R	3.3+17R	3.5+14R	3.7+11R	3.8+10R	3.9+9R	4+8R	4+7R
	VSC2 @ 4"	q	***3226**	***3210**	***3202**	***3196**	***3193**	***3190**	***2450**	1936	1568
		F	1.5+34R	2.3+23R	2.7+17R	2.9+14R	3.1+11R	3.2+10R	3.3+9R	3.3+8R	3.4+7R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 24/8 pattern) or shall be limited to 1100 plf, 1400 plf, 1800 plf or 2300 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.

Bearing at supports shall allow for proper end distance and fastener spacing.

Page 144 has the footnotes.

(continued)

TABLE 45 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH HILTI FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ATTACHMENT PATTERN FOR HILTI X-ENP-19 AT SUPPORTS 1/4" AND THICKER											
22	VSC2 @ 24"	q	576	521	492	474	462	453	447	441	437
		F	1.6+192R	8.2+126R	12.2+93R	14.9+73R	17+60R	18.7+51R	20+44R	21+39R	22+35R
	VSC2 @ 18"	q	713	622	644	600	570	591	569	552	559
		F	0.4+192R	6.9+127R	9.7+94R	12.4+75R	14.5+62R	15.1+53R	16.5+46R	17.6+40R	17.7+36R
	VSC2 @ 12"	q	823	787	767	756	748	742	737	690	559
		F	-0.4+193R	5+128R	7.9+95R	9.8+76R	11.2+63R	12.1+54R	12.9+47R	13.5+42R	14+37R
	VSC2 @ 8"	q	977	955	943	936	931	927	873	690	559
		F	-1.7+193R	3.2+128R	5.8+96R	7.3+77R	8.4+64R	9.2+55R	9.8+48R	10.3+42R	10.7+38R
	VSC2 @ 6"	q	1073	1059	1052	1047	1044	1042	873	690	559
		F	-2.6+194R	2+129R	4.4+96R	5.9+77R	6.8+64R	7.5+55R	8.1+48R	8.5+43R	8.8+38R
	VSC2 @ 4"	q	1174	1168	1165	1163	1162	1140	873	690	559
		F	-3.7+194R	0.7+129R	2.9+97R	4.2+77R	5.1+65R	5.7+55R	6.2+48R	6.6+43R	6.9+39R
20	VSC2 @ 24"	q	746	684	651	631	618	608	600	595	590
		F	3.8+121R	8.3+79R	11+58R	12.8+46R	14.2+38R	15.3+32R	16.1+28R	16.8+24R	17.4+22R
	VSC2 @ 18"	q	920	814	846	794	758	786	759	738	734
		F	2.7+121R	7+80R	8.7+60R	10.6+47R	12+39R	12.3+33R	13.2+29R	14+25R	14+23R
	VSC2 @ 12"	q	1053	1017	997	985	977	971	966	906	734
		F	1.8+122R	5.4+81R	7.3+60R	8.5+48R	9.3+40R	9.9+34R	10.4+30R	10.8+26R	11.1+24R
	VSC2 @ 8"	q	1230	1209	1198	1191	1186	1183	1146	906	734
		F	0.7+122R	3.8+81R	5.5+61R	6.5+49R	7.1+40R	7.6+35R	8+30R	8.3+27R	8.5+24R
	VSC2 @ 6"	q	1332	1320	1314	1309	1307	1305	1146	906	734
		F	0+123R	2.9+82R	4.4+61R	5.3+49R	5.9+41R	6.4+35R	6.7+30R	6.9+27R	7.2+24R
	VSC2 @ 4"	q	1434	1429	1427	1425	1424	1423	1146	906	734
		F	-0.9+123R	1.8+82R	3.2+61R	4+49R	4.6+41R	5+35R	5.3+31R	5.5+27R	5.7+25R
18	VSC2 @ 24"	q	1073	998	959	935	918	906	897	890	885
		F	4.4+59R	6.6+39R	7.9+29R	8.8+23R	9.4+19R	9.8+16R	10.2+14R	10.5+12R	10.7+11R
	VSC2 @ 18"	q	1314	1181	1230	1163	1115	1156	1120	1092	1124
		F	3.4+59R	5.6+39R	6.2+29R	7.2+23R	7.9+19R	7.9+16R	8.3+14R	8.7+13R	8.6+11R
	VSC2 @ 12"	q	1487	1448	1427	1414	1406	1399	1394	1387	1124
		F	2.7+59R	4.4+39R	5.2+30R	5.8+24R	6.1+20R	6.4+17R	6.6+15R	6.8+13R	6.9+12R
	VSC2 @ 8"	q	1701	1681	1670	1663	1659	1655	1653	1387	1124
		F	1.9+60R	3.3+40R	4.1+30R	4.5+24R	4.8+20R	5.1+17R	5.2+15R	5.4+13R	5.5+12R
	VSC2 @ 6"	q	1816	1805	1799	1795	1793	1791	1756	1387	1124
		F	1.4+60R	2.8+40R	3.4+30R	3.9+24R	4.2+20R	4.4+17R	4.5+15R	4.6+13R	4.7+12R
	VSC2 @ 4"	q	1924	1920	1918	1916	1915	1915	1756	1387	1124
		F	0.8+60R	2.1+40R	2.8+30R	3.2+24R	3.4+20R	3.6+17R	3.7+15R	3.9+13R	3.9+12R
16	VSC2 @ 24"	q	1394	1307	1262	1233	1214	1200	1190	1181	1175
		F	4.7+33R	6.2+22R	7.1+16R	7.7+13R	8.2+10R	8.5+9R	8.7+8R	9+7R	9.1+6R
	VSC2 @ 18"	q	1696	1539	1603	1522	1464	1515	1473	1438	1478
		F	3.8+34R	5.3+22R	5.7+16R	6.4+13R	6.9+11R	6.8+9R	7.2+8R	7.4+7R	7.3+6R
	VSC2 @ 12"	q	1906	1864	1842	1828	1818	1811	1806	1802	1568
		F	3.2+34R	4.3+22R	4.8+17R	5.2+13R	5.4+11R	5.6+9R	5.7+8R	5.8+7R	5.9+7R
	VSC2 @ 8"	q	2154	2133	2122	2116	2111	2107	2105	1936	1568
		F	2.5+34R	3.4+23R	3.8+17R	4.1+14R	4.3+11R	4.4+10R	4.5+8R	4.6+8R	4.7+7R
	VSC2 @ 6"	q	2283	2271	2265	2262	2259	2258	2256	1936	1568
		F	2+34R	2.9+23R	3.3+17R	3.5+14R	3.7+11R	3.8+10R	3.9+9R	4+8R	4+7R
	VSC2 @ 4"	q	2399	2395	2393	2392	2391	2390	2390	1936	1568
		F	1.5+34R	2.3+23R	2.7+17R	2.9+14R	3.1+11R	3.2+10R	3.3+9R	3.3+8R	3.4+7R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	563	511	484	467	456	448	442	437	433
		F	11+190R	17.4+126R	20.9+94R	23.1+75R	24.6+62R	25.7+53R	26.5+46R	27.2+41R	27.7+37R
	VSC2 @ 18"	q	696	610	632	591	562	583	562	545	559
		F	6.6+192R	13.4+127R	14.7+95R	17.4+76R	19.4+63R	19.1+54R	20.4+47R	21.5+42R	21+38R
	VSC2 @ 12"	q	801	769	751	740	733	728	724	690	559
		F	3.9+193R	8.8+128R	11.2+96R	12.7+77R	13.7+64R	14.5+55R	15+48R	15.4+43R	15.8+38R
	VSC2 @ 8"	q	947	927	917	910	906	903	873	690	559
		F	0.8+194R	5.2+129R	7.5+97R	8.8+77R	9.7+64R	10.3+55R	10.8+48R	11.2+43R	11.5+39R
	VSC2 @ 6"	q	1035	1023	1017	1013	1010	1008	873	690	559
		F	-0.9+194R	3.3+129R	5.5+97R	6.7+78R	7.6+65R	8.2+55R	8.7+48R	9+43R	9.3+39R
	VSC2 @ 4"	q	1127	1122	1119	1117	1116	1115	873	690	559
		F	-2.8+195R	1.3+130R	3.4+97R	4.6+78R	5.4+65R	6+56R	6.5+49R	6.8+43R	7.1+39R
20	VSC2 @ 24"	q	726	669	639	621	608	599	592	587	583
		F	10.5+120R	14.5+80R	16.7+59R	18.1+47R	19+39R	19.7+34R	20.2+29R	20.6+26R	20.9+23R
	VSC2 @ 18"	q	894	796	828	779	744	771	746	726	734
		F	6.8+122R	11.4+80R	11.9+60R	13.7+48R	15.1+40R	14.8+34R	15.6+30R	16.3+27R	16+24R
	VSC2 @ 12"	q	1020	988	971	960	953	947	943	906	734
		F	4.7+122R	7.8+81R	9.3+61R	10.2+49R	10.8+41R	11.3+35R	11.6+30R	11.9+27R	12.1+24R
	VSC2 @ 8"	q	1184	1166	1156	1150	1146	1143	1141	906	734
		F	2.3+123R	5.1+82R	6.5+61R	7.3+49R	7.9+41R	8.3+35R	8.6+31R	8.8+27R	9+25R
	VSC2 @ 6"	q	1276	1266	1260	1257	1254	1253	1146	906	734
		F	1+123R	3.7+82R	5+61R	5.8+49R	6.4+41R	6.7+35R	7+31R	7.3+27R	7.4+25R
	VSC2 @ 4"	q	1366	1362	1360	1358	1357	1357	1146	906	734
		F	-0.4+123R	2.2+82R	3.5+62R	4.3+49R	4.8+41R	5.2+35R	5.4+31R	5.7+27R	5.8+25R
18	VSC2 @ 24"	q	1038	971	936	914	899	889	880	874	869
		F	7.4+59R	9.2+39R	10.2+29R	10.7+23R	11.1+19R	11.4+17R	11.6+15R	11.8+13R	11.9+12R
	VSC2 @ 18"	q	1265	1145	1193	1131	1087	1125	1093	1067	1096
		F	5.1+60R	7.3+40R	7.4+30R	8.3+24R	8.9+20R	8.7+17R	9.1+15R	9.5+13R	9.2+12R
	VSC2 @ 12"	q	1425	1392	1374	1363	1356	1350	1346	1343	1124
		F	3.8+60R	5.2+40R	5.9+30R	6.4+24R	6.7+20R	6.9+17R	7+15R	7.1+13R	7.2+12R
	VSC2 @ 8"	q	1616	1599	1590	1585	1581	1578	1576	1387	1124
		F	2.5+60R	3.8+40R	4.4+30R	4.8+24R	5.1+20R	5.3+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	1716	1707	1702	1699	1697	1695	1694	1387	1124
		F	1.7+60R	3+40R	3.6+30R	4+24R	4.3+20R	4.5+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	1807	1804	1802	1801	1800	1800	1756	1387	1124
		F	1+60R	2.2+40R	2.9+30R	3.2+24R	3.5+20R	3.7+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1338	1263	1223	1199	1182	1170	1161	1153	1148
		F	7.2+33R	8.3+22R	8.9+17R	9.3+13R	9.5+11R	9.7+9R	9.9+8R	10+7R	10.1+7R
	VSC2 @ 18"	q	1618	1478	1540	1468	1415	1463	1425	1393	1430
		F	5.2+34R	6.7+22R	6.6+17R	7.2+13R	7.7+11R	7.5+10R	7.8+8R	8+7R	7.8+7R
	VSC2 @ 12"	q	1805	1771	1753	1742	1734	1729	1724	1721	1568
		F	4.1+34R	4.9+23R	5.4+17R	5.6+14R	5.8+11R	5.9+10R	6+9R	6.1+8R	6.1+7R
	VSC2 @ 8"	q	2019	2003	1995	1989	1986	1983	1981	1936	1568
		F	2.9+34R	3.7+23R	4.1+17R	4.3+14R	4.5+11R	4.6+10R	4.7+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	2127	2118	2114	2111	2109	2108	2107	1936	1568
		F	2.3+34R	3.1+23R	3.4+17R	3.7+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	2222	2219	2217	2216	2215	2215	2215	1936	1568
		F	1.7+34R	2.4+23R	2.8+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

Page 152 has the footnotes.

(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/6 ATTACHMENT PATTERN FOR PNEUTEK SDK61 AT SUPPORTS 0.113" TO 0.155" THICK											
22	VSC2 @ 24"	q	751	645	589	554	531	514	501	491	483
		F	7.2+190R	14+125R	17.9+93R	20.4+74R	22.2+61R	23.5+52R	24.5+45R	25.4+40R	26+36R
	VSC2 @ 18"	q	901	756	758	694	650	667	636	613	559
		F	4.3+192R	11.1+127R	13.1+95R	15.8+75R	17.9+62R	18+54R	19.3+47R	20.4+41R	20.1+37R
	VSC2 @ 12"	q	1032	951	907	880	862	849	838	690	559
		F	2.4+193R	7.5+128R	10.2+96R	11.9+76R	13+64R	13.8+54R	14.4+48R	14.9+42R	15.3+38R
	VSC2 @ 8"	q	***1237**	1179	1147	1128	1114	1104	873	690	559
		F	0+194R	4.6+129R	7+96R	8.4+77R	9.3+64R	10+55R	10.5+48R	11+43R	11.3+38R
	VSC2 @ 6"	q	***1385**	***1343**	***1321**	***1306**	***1297**	1140	873	690	559
		F	-1.4+194R	3+129R	5.2+97R	6.5+77R	7.4+65R	8+55R	8.5+48R	8.9+43R	9.2+39R
	VSC2 @ 4"	q	***1566**	***1544**	***1533**	***1525**	***1520**	1140	873	690	559
		F	-3+194R	1.1+130R	3.2+97R	4.5+78R	5.3+65R	5.9+55R	6.4+49R	6.7+43R	7+39R
20	VSC2 @ 24"	q	955	835	771	731	704	685	670	659	650
		F	7.9+120R	12.3+79R	14.8+59R	16.4+47R	17.5+39R	18.4+33R	19+29R	19.5+25R	19.9+23R
	VSC2 @ 18"	q	1152	982	995	917	863	888	851	821	734
		F	5.4+121R	9.9+80R	10.9+60R	12.8+48R	14.2+39R	14.1+34R	15+30R	15.7+26R	15.4+24R
	VSC2 @ 12"	q	1317	1232	1185	1157	1137	1123	1112	906	734
		F	3.8+122R	7+81R	8.7+61R	9.7+48R	10.4+40R	10.9+34R	11.3+30R	11.6+27R	11.8+24R
	VSC2 @ 8"	q	***1566**	***1508**	***1476**	***1457**	***1443**	***1433**	1146	906	734
		F	1.8+122R	4.7+82R	6.2+61R	7.1+49R	7.7+41R	8.1+35R	8.4+31R	8.7+27R	8.9+24R
	VSC2 @ 6"	q	***1733**	***1694**	***1673**	***1660**	***1651**	***1497**	1146	906	734
		F	0.7+123R	3.5+82R	4.8+61R	5.7+49R	6.2+41R	6.6+35R	6.9+31R	7.2+27R	7.4+25R
	VSC2 @ 4"	q	***1925**	***1907**	***1897**	***1890**	***1886**	***1497**	1146	906	734
		F	-0.5+123R	2.1+82R	3.4+62R	4.2+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R	5.8+25R
18	VSC2 @ 24"	q	1348	1201	1122	1074	1041	1017	999	985	973
		F	6.4+59R	8.4+39R	9.5+29R	10.2+23R	10.6+19R	11+16R	11.2+14R	11.4+13R	11.6+11R
	VSC2 @ 18"	q	1630	1414	1445	1344	1272	1313	1263	1222	1124
		F	4.6+59R	6.8+39R	7.1+30R	8+24R	8.6+20R	8.5+17R	8.9+15R	9.3+13R	9.1+12R
	VSC2 @ 12"	q	1855	1760	1708	1676	1654	1638	1625	1387	1124
		F	3.5+60R	5+40R	5.7+30R	6.2+24R	6.5+20R	6.7+17R	6.9+15R	7+13R	7.1+12R
	VSC2 @ 8"	q	***2173**	***2114**	***2082**	***2062**	***2048**	***2038**	1756	1387	1124
		F	2.3+60R	3.7+40R	4.3+30R	4.7+24R	5+20R	5.2+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	***2371**	***2334**	***2314**	***2302**	***2293**	***2287**	1756	1387	1124
		F	1.6+60R	2.9+40R	3.6+30R	4+24R	4.3+20R	4.4+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	***2584**	***2567**	***2558**	***2553**	***2549**	***2294**	1756	1387	1124
		F	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.5+20R	3.6+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1729	1558	1466	1410	1371	1343	1322	1305	1292
		F	6.3+33R	7.7+22R	8.4+16R	8.8+13R	9.2+11R	9.4+9R	9.6+8R	9.7+7R	9.8+6R
	VSC2 @ 18"	q	2089	1832	1882	1759	1671	1726	1664	1614	1568
		F	4.8+34R	6.3+22R	6.3+17R	7+13R	7.5+11R	7.3+9R	7.6+8R	7.9+7R	7.7+7R
	VSC2 @ 12"	q	***2368**	2264	2208	2173	2149	2131	2118	1936	1568
		F	3.8+34R	4.7+23R	5.2+17R	5.5+14R	5.7+11R	5.8+10R	5.9+8R	6+7R	6.1+7R
	VSC2 @ 8"	q	***2745**	***2684**	***2651**	***2630**	***2616**	***2606**	***2450**	1936	1568
		F	2.8+34R	3.6+23R	4+17R	4.3+14R	4.4+11R	4.5+10R	4.6+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	***2969**	***2933**	***2913**	***2900**	***2892**	***2886**	***2450**	1936	1568
		F	2.2+34R	3+23R	3.4+17R	3.6+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	***3199**	***3184**	***3176**	***3171**	***3167**	***3165**	***2450**	1936	1568
		F	1.6+34R	2.4+23R	2.7+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 24/8 pattern) or shall be limited to 1200 plf, 1400 plf, 1900 plf or 2300 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.

Bearing at supports shall allow for proper end distance and fastener spacing.

Page 152 has the footnotes.

(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	593	533	502	482	469	460	453	447	443
		F	11+190R	17.4+126R	20.9+94R	23.1+75R	24.6+62R	25.7+53R	26.5+46R	27.2+41R	27.7+37R
	VSC2 @ 18"	q	734	637	658	612	580	601	578	560	559
		F	6.6+192R	13.4+127R	14.7+95R	17.4+76R	19.4+63R	19.1+54R	20.4+47R	21.5+42R	21+38R
	VSC2 @ 12"	q	850	809	788	774	765	759	754	690	559
		F	3.9+193R	8.8+128R	11.2+96R	12.7+77R	13.7+64R	14.5+55R	15+48R	15.4+43R	15.8+38R
	VSC2 @ 8"	q	1016	990	976	967	962	957	873	690	559
		F	0.8+194R	5.2+129R	7.5+97R	8.8+77R	9.7+64R	10.3+55R	10.8+48R	11.2+43R	11.5+39R
	VSC2 @ 6"	q	1121	1105	1096	1091	1087	1084	873	690	559
		F	-0.9+194R	3.3+129R	5.5+97R	6.7+78R	7.6+65R	8.2+55R	8.7+48R	9+43R	9.3+39R
	VSC2 @ 4"	q	1236	1228	1225	1222	1221	1140	873	690	559
		F	-2.8+195R	1.3+130R	3.4+97R	4.6+78R	5.4+65R	6+56R	6.5+49R	6.8+43R	7.1+39R
20	VSC2 @ 24"	q	753	689	656	635	621	611	603	597	592
		F	10.5+120R	14.5+80R	16.7+59R	18.1+47R	19+39R	19.7+34R	20.2+29R	20.6+26R	20.9+23R
	VSC2 @ 18"	q	929	821	853	800	762	791	763	742	734
		F	6.8+122R	11.4+80R	11.9+60R	13.7+48R	15.1+40R	14.8+34R	15.6+30R	16.3+27R	16+24R
	VSC2 @ 12"	q	1065	1027	1007	994	985	979	974	906	734
		F	4.7+122R	7.8+81R	9.3+61R	10.2+49R	10.8+41R	11.3+35R	11.6+30R	11.9+27R	12.1+24R
	VSC2 @ 8"	q	1247	1225	1213	1206	1201	1197	1146	906	734
		F	2.3+123R	5.1+82R	6.5+61R	7.3+49R	7.9+41R	8.3+35R	8.6+31R	8.8+27R	9+25R
	VSC2 @ 6"	q	1353	1340	1333	1328	1325	1323	1146	906	734
		F	1+123R	3.7+82R	5+61R	5.8+49R	6.4+41R	6.7+35R	7+31R	7.3+27R	7.4+25R
	VSC2 @ 4"	q	1459	1454	1451	1449	1448	1447	1146	906	734
		F	-0.4+123R	2.2+82R	3.5+62R	4.3+49R	4.8+41R	5.2+35R	5.4+31R	5.7+27R	5.8+25R
18	VSC2 @ 24"	q	1046	978	941	919	904	893	885	878	873
		F	7.4+59R	9.2+39R	10.2+29R	10.7+23R	11.1+19R	11.4+17R	11.6+15R	11.8+13R	11.9+12R
	VSC2 @ 18"	q	1277	1153	1202	1139	1094	1133	1100	1073	1103
		F	5.1+60R	7.3+40R	7.4+30R	8.3+24R	8.9+20R	8.7+17R	9.1+15R	9.5+13R	9.2+12R
	VSC2 @ 12"	q	1439	1405	1387	1375	1367	1362	1358	1354	1124
		F	3.8+60R	5.2+40R	5.9+30R	6.4+24R	6.7+20R	6.9+17R	7+15R	7.1+13R	7.2+12R
	VSC2 @ 8"	q	1636	1618	1609	1603	1599	1597	1594	1387	1124
		F	2.5+60R	3.8+40R	4.4+30R	4.8+24R	5.1+20R	5.3+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	1739	1730	1725	1722	1719	1718	1717	1387	1124
		F	1.7+60R	3+40R	3.6+30R	4+24R	4.3+20R	4.5+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	1835	1831	1829	1828	1827	1827	1756	1387	1124
		F	1+60R	2.2+40R	2.9+30R	3.2+24R	3.5+20R	3.7+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1319	1247	1210	1186	1170	1159	1150	1143	1138
		F	7.2+33R	8.3+22R	8.9+17R	9.3+13R	9.5+11R	9.7+9R	9.9+8R	10+7R	10.1+7R
	VSC2 @ 18"	q	1590	1457	1517	1448	1398	1444	1407	1377	1413
		F	5.2+34R	6.7+22R	6.6+17R	7.2+13R	7.7+11R	7.5+10R	7.8+8R	8+7R	7.8+7R
	VSC2 @ 12"	q	1770	1739	1722	1712	1705	1699	1696	1693	1568
		F	4.1+34R	4.9+23R	5.4+17R	5.6+14R	5.8+11R	5.9+10R	6+9R	6.1+8R	6.1+7R
	VSC2 @ 8"	q	1974	1959	1951	1946	1943	1941	1939	1936	1568
		F	2.9+34R	3.7+23R	4.1+17R	4.3+14R	4.5+11R	4.6+10R	4.7+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	2074	2066	2062	2060	2058	2057	2056	1936	1568
		F	2.3+34R	3.1+23R	3.4+17R	3.7+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	2163	2160	2158	2157	2157	2156	2156	1936	1568
		F	1.7+34R	2.4+23R	2.8+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

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(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/6 ATTACHMENT PATTERN FOR PNEUTEK SDK63 AT SUPPORTS 0.155" TO 0.25" THICK											
22	VSC2 @ 24"	q	801	673	610	572	546	528	515	504	495
		F	7.2+190R	14+125R	17.9+93R	20.4+74R	22.2+61R	23.5+52R	24.5+45R	25.4+40R	26+36R
	VSC2 @ 18"	q	957	794	790	720	671	687	654	628	559
		F	4.3+192R	11.1+127R	13.1+95R	15.8+75R	17.9+62R	18+54R	19.3+47R	20.4+41R	20.1+37R
	VSC2 @ 12"	q	1094	998	947	915	893	877	865	690	559
		F	2.4+193R	7.5+128R	10.2+96R	11.9+76R	13+64R	13.8+54R	14.4+48R	14.9+42R	15.3+38R
	VSC2 @ 8"	q	***1319**	1246	1207	1182	1165	1140	873	690	559
		F	0+194R	4.6+129R	7+96R	8.4+77R	9.3+64R	10+55R	10.5+48R	11+43R	11.3+38R
	VSC2 @ 6"	q	***1485**	***1432**	***1402**	***1384**	***1372**	1140	873	690	559
		F	-1.4+194R	3+129R	5.2+97R	6.5+77R	7.4+65R	8+55R	8.5+48R	8.9+43R	9.2+39R
	VSC2 @ 4"	q	***1700**	***1670**	***1654**	***1644**	***1552**	1140	873	690	559
		F	-3+194R	1.1+130R	3.2+97R	4.5+78R	5.3+65R	5.9+55R	6.4+49R	6.7+43R	7+39R
20	VSC2 @ 24"	q	997	863	793	750	720	699	683	670	660
		F	7.9+120R	12.3+79R	14.8+59R	16.4+47R	17.5+39R	18.4+33R	19+29R	19.5+25R	19.9+23R
	VSC2 @ 18"	q	1200	1014	1023	940	882	907	868	836	734
		F	5.4+121R	9.9+80R	10.9+60R	12.8+48R	14.2+39R	14.1+34R	15+30R	15.7+26R	15.4+24R
	VSC2 @ 12"	q	1373	1275	1222	1189	1167	1151	1139	906	734
		F	3.8+122R	7+81R	8.7+61R	9.7+48R	10.4+40R	10.9+34R	11.3+30R	11.6+27R	11.8+24R
	VSC2 @ 8"	q	***1639**	***1571**	***1534**	***1511**	1495	1483	1146	906	734
		F	1.8+122R	4.7+82R	6.2+61R	7.1+49R	7.7+41R	8.1+35R	8.4+31R	8.7+27R	8.9+24R
	VSC2 @ 6"	q	***1824**	***1777**	***1751**	***1735**	***1724**	1497	1146	906	734
		F	0.7+123R	3.5+82R	4.8+61R	5.7+49R	6.2+41R	6.6+35R	6.9+31R	7.2+27R	7.4+25R
	VSC2 @ 4"	q	***2043**	***2020**	***2007**	***1999**	***1994**	1497	1146	906	734
		F	-0.5+123R	2.1+82R	3.4+62R	4.2+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R	5.8+25R
18	VSC2 @ 24"	q	1360	1209	1129	1079	1046	1021	1003	988	977
		F	6.4+59R	8.4+39R	9.5+29R	10.2+23R	10.6+19R	11+16R	11.2+14R	11.4+13R	11.6+11R
	VSC2 @ 18"	q	1644	1424	1455	1352	1279	1320	1269	1228	1124
		F	4.6+59R	6.8+39R	7.1+30R	8+24R	8.6+20R	8.5+17R	8.9+15R	9.3+13R	9.1+12R
	VSC2 @ 12"	q	1872	1774	1721	1687	1665	1648	1636	1387	1124
		F	3.5+60R	5+40R	5.7+30R	6.2+24R	6.5+20R	6.7+17R	6.9+15R	7+13R	7.1+12R
	VSC2 @ 8"	q	***2196**	***2135**	***2102**	***2081**	***2066**	***2056**	1756	1387	1124
		F	2.3+60R	3.7+40R	4.3+30R	4.7+24R	5+20R	5.2+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	***2400**	***2361**	***2340**	***2327**	***2318**	***2294**	1756	1387	1124
		F	1.6+60R	2.9+40R	3.6+30R	4+24R	4.3+20R	4.4+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	***2619**	***2602**	***2593**	***2587**	***2583**	***2294**	1756	1387	1124
		F	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.5+20R	3.6+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1703	1538	1451	1396	1359	1332	1312	1296	1283
		F	6.3+33R	7.7+22R	8.4+16R	8.8+13R	9.2+11R	9.4+9R	9.6+8R	9.7+7R	9.8+6R
	VSC2 @ 18"	q	2056	1809	1859	1740	1655	1709	1649	1600	1568
		F	4.8+34R	6.3+22R	6.3+17R	7+13R	7.5+11R	7.3+9R	7.6+8R	7.9+7R	7.7+7R
	VSC2 @ 12"	q	***2327**	***2230**	2177	2144	2121	2104	2092	1936	1568
		F	3.8+34R	4.7+23R	5.2+17R	5.5+14R	5.7+11R	5.8+10R	5.9+8R	6+7R	6.1+7R
	VSC2 @ 8"	q	***2690**	***2634**	***2603**	***2584**	***2571**	***2561**	***2450**	1936	1568
		F	2.8+34R	3.6+23R	4+17R	4.3+14R	4.4+11R	4.5+10R	4.6+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	***2904**	***2870**	***2852**	***2840**	***2832**	***2827**	***2450**	1936	1568
		F	2.2+34R	3+23R	3.4+17R	3.6+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	***3120**	***3106**	***3098**	***3094**	***3091**	***3088**	***2450**	1936	1568
		F	1.6+34R	2.4+23R	2.7+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 24/8 pattern) or shall be limited to 1300 plf, 1500 plf, 1900 plf or 2200 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

Page 152 has the footnotes.

(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	594	534	502	483	470	460	453	447	443
		F	11+190R	17.4+126R	20.9+94R	23.1+75R	24.6+62R	25.7+53R	26.5+46R	27.2+41R	27.7+37R
	VSC2 @ 18"	q	736	638	659	613	580	602	579	560	559
		F	6.6+192R	13.4+127R	14.7+95R	17.4+76R	19.4+63R	19.1+54R	20.4+47R	21.5+42R	21+38R
	VSC2 @ 12"	q	851	810	789	775	766	760	755	690	559
		F	3.9+193R	8.8+128R	11.2+96R	12.7+77R	13.7+64R	14.5+55R	15+48R	15.4+43R	15.8+38R
	VSC2 @ 8"	q	1018	992	978	969	963	959	873	690	559
		F	0.8+194R	5.2+129R	7.5+97R	8.8+77R	9.7+64R	10.3+55R	10.8+48R	11.2+43R	11.5+39R
	VSC2 @ 6"	q	1124	1107	1099	1093	1089	1087	873	690	559
		F	-0.9+194R	3.3+129R	5.5+97R	6.7+78R	7.6+65R	8.2+55R	8.7+48R	9+43R	9.3+39R
	VSC2 @ 4"	q	1239	1232	1228	1226	1224	1140	873	690	559
		F	-2.8+195R	1.3+130R	3.4+97R	4.6+78R	5.4+65R	6+56R	6.5+49R	6.8+43R	7.1+39R
20	VSC2 @ 24"	q	795	720	680	656	640	628	619	612	607
		F	10.5+120R	14.5+80R	16.7+59R	18.1+47R	19+39R	19.7+34R	20.2+29R	20.6+26R	20.9+23R
	VSC2 @ 18"	q	983	859	890	831	789	818	788	764	734
		F	6.8+122R	11.4+80R	11.9+60R	13.7+48R	15.1+40R	14.8+34R	15.6+30R	16.3+27R	16+24R
	VSC2 @ 12"	q	1133	1085	1059	1044	1033	1025	1019	906	734
		F	4.7+122R	7.8+81R	9.3+61R	10.2+49R	10.8+41R	11.3+35R	11.6+30R	11.9+27R	12.1+24R
	VSC2 @ 8"	q	1343	1314	1298	1288	1282	1277	1146	906	734
		F	2.3+123R	5.1+82R	6.5+61R	7.3+49R	7.9+41R	8.3+35R	8.6+31R	8.8+27R	9+25R
	VSC2 @ 6"	q	1472	1454	1444	1438	1434	1431	1146	906	734
		F	1+123R	3.7+82R	5+61R	5.8+49R	6.4+41R	6.7+35R	7+31R	7.3+27R	7.4+25R
	VSC2 @ 4"	q	1608	1600	1596	1593	1591	1497	1146	906	734
		F	-0.4+123R	2.2+82R	3.5+62R	4.3+49R	4.8+41R	5.2+35R	5.4+31R	5.7+27R	5.8+25R
18	VSC2 @ 24"	q	1161	1065	1014	983	962	947	935	926	919
		F	7.4+59R	9.2+39R	10.2+29R	10.7+23R	11.1+19R	11.4+17R	11.6+15R	11.8+13R	11.9+12R
	VSC2 @ 18"	q	1432	1268	1317	1237	1180	1223	1182	1149	1124
		F	5.1+60R	7.3+40R	7.4+30R	8.3+24R	8.9+20R	8.7+17R	9.1+15R	9.5+13R	9.2+12R
	VSC2 @ 12"	q	1638	1582	1552	1533	1520	1511	1504	1387	1124
		F	3.8+60R	5.2+40R	5.9+30R	6.4+24R	6.7+20R	6.9+17R	7+15R	7.1+13R	7.2+12R
	VSC2 @ 8"	q	1912	1880	1863	1852	1845	1840	1756	1387	1124
		F	2.5+60R	3.8+40R	4.4+30R	4.8+24R	5.1+20R	5.3+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	2071	2052	2041	2035	2031	2028	1756	1387	1124
		F	1.7+60R	3+40R	3.6+30R	4+24R	4.3+20R	4.5+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	2228	2220	2216	2214	2212	2211	1756	1387	1124
		F	1+60R	2.2+40R	2.9+30R	3.2+24R	3.5+20R	3.7+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1503	1392	1333	1297	1272	1254	1241	1230	1222
		F	7.2+33R	8.3+22R	8.9+17R	9.3+13R	9.5+11R	9.7+9R	9.9+8R	10+7R	10.1+7R
	VSC2 @ 18"	q	1847	1651	1719	1621	1551	1608	1557	1516	1561
		F	5.2+34R	6.7+22R	6.6+17R	7.2+13R	7.7+11R	7.5+10R	7.8+8R	8+7R	7.8+7R
	VSC2 @ 12"	q	2099	2038	2006	1986	1972	1962	1954	1936	1568
		F	4.1+34R	4.9+23R	5.4+17R	5.6+14R	5.8+11R	5.9+10R	6+9R	6.1+8R	6.1+7R
	VSC2 @ 8"	q	2419	2386	2369	2358	2351	2345	2341	1936	1568
		F	2.9+34R	3.7+23R	4.1+17R	4.3+14R	4.5+11R	4.6+10R	4.7+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	2596	2577	2567	2561	2557	2554	2450	1936	1568
		F	2.3+34R	3.1+23R	3.4+17R	3.7+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	2765	2758	2754	2752	2750	2749	2450	1936	1568
		F	1.7+34R	2.4+23R	2.8+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

Page 152 has the footnotes.

(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/6 ATTACHMENT PATTERN FOR PNEUTEK K64 AT SUPPORTS 0.187" TO 0.312" THICK											
22	VSC2 @ 24"	q	803	674	610	572	547	529	515	504	495
		F	7.2+190R	14+125R	17.9+93R	20.4+74R	22.2+61R	23.5+52R	24.5+45R	25.4+40R	26+36R
	VSC2 @ 18"	q	959	795	791	720	672	688	655	629	559
		F	4.3+192R	11.1+127R	13.1+95R	15.8+75R	17.9+62R	18+54R	19.3+47R	20.4+41R	20.1+37R
	VSC2 @ 12"	q	1097	1000	948	916	894	878	866	690	559
		F	2.4+193R	7.5+128R	10.2+96R	11.9+76R	13+64R	13.8+54R	14.4+48R	14.9+42R	15.3+38R
	VSC2 @ 8"	q	***1321**	1248	1209	1184	1167	1140	873	690	559
		F	0+194R	4.6+129R	7+96R	8.4+77R	9.3+64R	10+55R	10.5+48R	11+43R	11.3+38R
	VSC2 @ 6"	q	***1489**	***1434**	***1405**	***1387**	***1374**	1140	873	690	559
		F	-1.4+194R	3+129R	5.2+97R	6.5+77R	7.4+65R	8+55R	8.5+48R	8.9+43R	9.2+39R
	VSC2 @ 4"	q	***1704**	***1674**	***1658**	***1648**	***1552**	1140	873	690	559
		F	-3+194R	1.1+130R	3.2+97R	4.5+78R	5.3+65R	5.9+55R	6.4+49R	6.7+43R	7+39R
20	VSC2 @ 24"	q	1063	909	828	779	745	721	703	688	677
		F	7.9+120R	12.3+79R	14.8+59R	16.4+47R	17.5+39R	18.4+33R	19+29R	19.5+25R	19.9+23R
	VSC2 @ 18"	q	1275	1066	1067	976	912	936	893	859	734
		F	5.4+121R	9.9+80R	10.9+60R	12.8+48R	14.2+39R	14.1+34R	15+30R	15.7+26R	15.4+24R
	VSC2 @ 12"	q	1459	1341	1278	1239	1212	1192	1146	906	734
		F	3.8+122R	7+81R	8.7+61R	9.7+48R	10.4+40R	10.9+34R	11.3+30R	11.6+27R	11.8+24R
	VSC2 @ 8"	q	***1752**	***1666**	***1619**	1590	1570	1497	1146	906	734
		F	1.8+122R	4.7+82R	6.2+61R	7.1+49R	7.7+41R	8.1+35R	8.4+31R	8.7+27R	8.9+24R
	VSC2 @ 6"	q	***1964**	***1902**	***1869**	***1848**	***1833**	1497	1146	906	734
		F	0.7+123R	3.5+82R	4.8+61R	5.7+49R	6.2+41R	6.6+35R	6.9+31R	7.2+27R	7.4+25R
	VSC2 @ 4"	q	***2228**	***2196**	***2178**	***2167**	***2038**	1497	1146	906	734
		F	-0.5+123R	2.1+82R	3.4+62R	4.2+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R	5.8+25R
18	VSC2 @ 24"	q	1533	1332	1225	1159	1115	1083	1058	1039	1024
		F	6.4+59R	8.4+39R	9.5+29R	10.2+23R	10.6+19R	11+16R	11.2+14R	11.4+13R	11.6+11R
	VSC2 @ 18"	q	1847	1565	1581	1454	1366	1405	1345	1297	1124
		F	4.6+59R	6.8+39R	7.1+30R	8+24R	8.6+20R	8.5+17R	8.9+15R	9.3+13R	9.1+12R
	VSC2 @ 12"	q	2113	1966	1888	1838	1805	1781	1756	1387	1124
		F	3.5+60R	5+40R	5.7+30R	6.2+24R	6.5+20R	6.7+17R	6.9+15R	7+13R	7.1+12R
	VSC2 @ 8"	q	***2519**	***2418**	***2363**	***2329**	***2305**	2288	1756	1387	1124
		F	2.3+60R	3.7+40R	4.3+30R	4.7+24R	5+20R	5.2+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	***2798**	***2729**	***2691**	***2668**	***2652**	2294	1756	1387	1124
		F	1.6+60R	2.9+40R	3.6+30R	4+24R	4.3+20R	4.4+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	***3127**	***3092**	***3074**	***3063**	***3055**	2294	1756	1387	1124
		F	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.5+20R	3.6+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1969	1730	1603	1525	1472	1433	1404	1382	1363
		F	6.3+33R	7.7+22R	8.4+16R	8.8+13R	9.2+11R	9.4+9R	9.6+8R	9.7+7R	9.8+6R
	VSC2 @ 18"	q	2378	2036	2069	1913	1803	1858	1782	1721	1568
		F	4.8+34R	6.3+22R	6.3+17R	7+13R	7.5+11R	7.3+9R	7.6+8R	7.9+7R	7.7+7R
	VSC2 @ 12"	q	2716	2550	2461	2405	2367	2340	2318	1936	1568
		F	3.8+34R	4.7+23R	5.2+17R	5.5+14R	5.7+11R	5.8+10R	5.9+8R	6+7R	6.1+7R
	VSC2 @ 8"	q	***3215**	***3106**	***3047**	***3010**	***2985**	***2966**	2450	1936	1568
		F	2.8+34R	3.6+23R	4+17R	4.3+14R	4.4+11R	4.5+10R	4.6+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	***3544**	***3472**	***3433**	***3409**	***3392**	***3200**	2450	1936	1568
		F	2.2+34R	3+23R	3.4+17R	3.6+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	***3915**	***3881**	***3863**	***3852**	***3844**	***3200**	2450	1936	1568
		F	1.6+34R	2.4+23R	2.7+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 24/8 pattern) or shall be limited to 1300 plf, 1600 plf, 2300 plf or 2600 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

Page 152 has the footnotes.

(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
			24/4 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER								
22	VSC2 @ 24"	q	612	546	512	491	477	467	459	453	448
		F	11+190R	17.4+126R	20.9+94R	23.1+75R	24.6+62R	25.7+53R	26.5+46R	27.2+41R	27.7+37R
	VSC2 @ 18"	q	757	653	673	624	590	611	587	568	559
		F	6.6+192R	13.4+127R	14.7+95R	17.4+76R	19.4+63R	19.1+54R	20.4+47R	21.5+42R	21+38R
	VSC2 @ 12"	q	877	832	808	793	783	775	770	690	559
		F	3.9+193R	8.8+128R	11.2+96R	12.7+77R	13.7+64R	14.5+55R	15+48R	15.4+43R	15.8+38R
	VSC2 @ 8"	q	1055	1025	1009	999	993	988	873	690	559
		F	0.8+194R	5.2+129R	7.5+97R	8.8+77R	9.7+64R	10.3+55R	10.8+48R	11.2+43R	11.5+39R
	VSC2 @ 6"	q	1171	1152	1141	1135	1130	1127	873	690	559
		F	-0.9+194R	3.3+129R	5.5+97R	6.7+78R	7.6+65R	8.2+55R	8.7+48R	9+43R	9.3+39R
	VSC2 @ 4"	q	1301	1292	1287	1284	1282	1140	873	690	559
		F	-2.8+195R	1.3+130R	3.4+97R	4.6+78R	5.4+65R	6+56R	6.5+49R	6.8+43R	7.1+39R
20	VSC2 @ 24"	q	802	725	684	660	643	631	622	615	609
		F	10.5+120R	14.5+80R	16.7+59R	18.1+47R	19+39R	19.7+34R	20.2+29R	20.6+26R	20.9+23R
	VSC2 @ 18"	q	992	866	896	836	793	822	792	768	734
		F	6.8+122R	11.4+80R	11.9+60R	13.7+48R	15.1+40R	14.8+34R	15.6+30R	16.3+27R	16+24R
	VSC2 @ 12"	q	1145	1095	1068	1052	1040	1032	1026	906	734
		F	4.7+122R	7.8+81R	9.3+61R	10.2+49R	10.8+41R	11.3+35R	11.6+30R	11.9+27R	12.1+24R
	VSC2 @ 8"	q	1359	1329	1312	1302	1295	1290	1146	906	734
		F	2.3+123R	5.1+82R	6.5+61R	7.3+49R	7.9+41R	8.3+35R	8.6+31R	8.8+27R	9+25R
	VSC2 @ 6"	q	1492	1473	1463	1457	1452	1449	1146	906	734
		F	1+123R	3.7+82R	5+61R	5.8+49R	6.4+41R	6.7+35R	7+31R	7.3+27R	7.4+25R
	VSC2 @ 4"	q	1633	1625	1620	1617	1616	1497	1146	906	734
		F	-0.4+123R	2.2+82R	3.5+62R	4.3+49R	4.8+41R	5.2+35R	5.4+31R	5.7+27R	5.8+25R
18	VSC2 @ 24"	q	1183	1081	1028	995	972	956	944	935	927
		F	7.4+59R	9.2+39R	10.2+29R	10.7+23R	11.1+19R	11.4+17R	11.6+15R	11.8+13R	11.9+12R
	VSC2 @ 18"	q	1460	1288	1338	1254	1195	1239	1196	1162	1124
		F	5.1+60R	7.3+40R	7.4+30R	8.3+24R	8.9+20R	8.7+17R	9.1+15R	9.5+13R	9.2+12R
	VSC2 @ 12"	q	1675	1614	1581	1561	1547	1537	1529	1387	1124
		F	3.8+60R	5.2+40R	5.9+30R	6.4+24R	6.7+20R	6.9+17R	7+15R	7.1+13R	7.2+12R
	VSC2 @ 8"	q	1964	1929	1910	1898	1890	1884	1756	1387	1124
		F	2.5+60R	3.8+40R	4.4+30R	4.8+24R	5.1+20R	5.3+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	2134	2113	2102	2095	2090	2087	1756	1387	1124
		F	1.7+60R	3+40R	3.6+30R	4+24R	4.3+20R	4.5+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	2306	2297	2293	2290	2288	2286	1756	1387	1124
		F	1+60R	2.2+40R	2.9+30R	3.2+24R	3.5+20R	3.7+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	1577	1447	1379	1337	1308	1288	1272	1260	1250
		F	7.2+33R	8.3+22R	8.9+17R	9.3+13R	9.5+11R	9.7+9R	9.9+8R	10+7R	10.1+7R
	VSC2 @ 18"	q	1944	1722	1790	1681	1604	1663	1607	1562	1568
		F	5.2+34R	6.7+22R	6.6+17R	7.2+13R	7.7+11R	7.5+10R	7.8+8R	8+7R	7.8+7R
	VSC2 @ 12"	q	2224	2148	2108	2083	2066	2053	2044	1936	1568
		F	4.1+34R	4.9+23R	5.4+17R	5.6+14R	5.8+11R	5.9+10R	6+9R	6.1+8R	6.1+7R
	VSC2 @ 8"	q	2595	2551	2528	2514	2504	2497	2450	1936	1568
		F	2.9+34R	3.7+23R	4.1+17R	4.3+14R	4.5+11R	4.6+10R	4.7+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	2808	2783	2769	2761	2755	2751	2450	1936	1568
		F	2.3+34R	3.1+23R	3.4+17R	3.7+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	3020	3010	3004	3001	2999	2997	2450	1936	1568
		F	1.7+34R	2.4+23R	2.8+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

Page 152 has the footnotes.

(continued)

TABLE 46 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH PNEUTEK FASTENERS TO SUPPORTS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
			24/6 ATTACHMENT PATTERN FOR PNEUTEK K66 AT SUPPORTS 0.281" AND THICKER								
22	VSC2 @ 24"	q	827	689	622	582	555	535	521	510	501
		F	7.2+190R	14+125R	17.9+93R	20.4+74R	22.2+61R	23.5+52R	24.5+45R	25.4+40R	26+36R
	VSC2 @ 18"	q	990	816	808	735	684	699	664	638	559
		F	4.3+192R	11.1+127R	13.1+95R	15.8+75R	17.9+62R	18+54R	19.3+47R	20.4+41R	20.1+37R
	VSC2 @ 12"	q	1132	1026	969	934	910	893	873	690	559
		F	2.4+193R	7.5+128R	10.2+96R	11.9+76R	13+64R	13.8+54R	14.4+48R	14.9+42R	15.3+38R
	VSC2 @ 8"	q	***1366**	1284	1240	1213	1194	1140	873	690	559
		F	0+194R	4.6+129R	7+96R	8.4+77R	9.3+64R	10+55R	10.5+48R	11+43R	11.3+38R
	VSC2 @ 6"	q	***1544**	***1482**	***1448**	***1428**	***1413**	1140	873	690	559
		F	-1.4+194R	3+129R	5.2+97R	6.5+77R	7.4+65R	8+55R	8.5+48R	8.9+43R	9.2+39R
	VSC2 @ 4"	q	***1778**	***1743**	***1724**	***1712**	***1552**	1140	873	690	559
		F	-3+194R	1.1+130R	3.2+97R	4.5+78R	5.3+65R	5.9+55R	6.4+49R	6.7+43R	7+39R
20	VSC2 @ 24"	q	1075	915	833	783	750	725	706	691	680
		F	7.9+120R	12.3+79R	14.8+59R	16.4+47R	17.5+39R	18.4+33R	19+29R	19.5+25R	19.9+23R
	VSC2 @ 18"	q	1288	1075	1074	982	917	940	897	863	734
		F	5.4+121R	9.9+80R	10.9+60R	12.8+48R	14.2+39R	14.1+34R	15+30R	15.7+26R	15.4+24R
	VSC2 @ 12"	q	1474	1352	1287	1247	1219	1199	1146	906	734
		F	3.8+122R	7+81R	8.7+61R	9.7+48R	10.4+40R	10.9+34R	11.3+30R	11.6+27R	11.8+24R
	VSC2 @ 8"	q	***1771**	1682	1633	1603	1582	1497	1146	906	734
		F	1.8+122R	4.7+82R	6.2+61R	7.1+49R	7.7+41R	8.1+35R	8.4+31R	8.7+27R	8.9+24R
	VSC2 @ 6"	q	***1988**	***1923**	***1888**	***1866**	***1851**	1497	1146	906	734
		F	0.7+123R	3.5+82R	4.8+61R	5.7+49R	6.2+41R	6.6+35R	6.9+31R	7.2+27R	7.4+25R
	VSC2 @ 4"	q	***2260**	***2225**	***2206**	***2195**	***2038**	1497	1146	906	734
		F	-0.5+123R	2.1+82R	3.4+62R	4.2+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R	5.8+25R
18	VSC2 @ 24"	q	1568	1356	1244	1175	1128	1095	1069	1049	1033
		F	6.4+59R	8.4+39R	9.5+29R	10.2+23R	10.6+19R	11+16R	11.2+14R	11.4+13R	11.6+11R
	VSC2 @ 18"	q	1886	1592	1604	1474	1383	1421	1358	1309	1124
		F	4.6+59R	6.8+39R	7.1+30R	8+24R	8.6+20R	8.5+17R	8.9+15R	9.3+13R	9.1+12R
	VSC2 @ 12"	q	2158	2002	1918	1865	1830	1804	1756	1387	1124
		F	3.5+60R	5+40R	5.7+30R	6.2+24R	6.5+20R	6.7+17R	6.9+15R	7+13R	7.1+12R
	VSC2 @ 8"	q	***2580**	***2470**	***2410**	***2373**	***2348**	2294	1756	1387	1124
		F	2.3+60R	3.7+40R	4.3+30R	4.7+24R	5+20R	5.2+17R	5.4+15R	5.5+13R	5.6+12R
	VSC2 @ 6"	q	***2874**	***2797**	***2756**	***2730**	***2712**	2294	1756	1387	1124
		F	1.6+60R	2.9+40R	3.6+30R	4+24R	4.3+20R	4.4+17R	4.6+15R	4.7+13R	4.8+12R
	VSC2 @ 4"	q	***3225**	***3187**	***3166**	***3153**	***3122**	2294	1756	1387	1124
		F	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.5+20R	3.6+17R	3.8+15R	3.9+13R	4+12R
16	VSC2 @ 24"	q	2081	1809	1665	1576	1516	1472	1439	1414	1393
		F	6.3+33R	7.7+22R	8.4+16R	8.8+13R	9.2+11R	9.4+9R	9.6+8R	9.7+7R	9.8+6R
	VSC2 @ 18"	q	2508	2126	2148	1977	1858	1911	1829	1763	1568
		F	4.8+34R	6.3+22R	6.3+17R	7+13R	7.5+11R	7.3+9R	7.6+8R	7.9+7R	7.7+7R
	VSC2 @ 12"	q	2869	2671	2565	2499	2453	2420	2396	1936	1568
		F	3.8+34R	4.7+23R	5.2+17R	5.5+14R	5.7+11R	5.8+10R	5.9+8R	6+7R	6.1+7R
	VSC2 @ 8"	q	***3420**	***3283**	***3210**	***3163**	***3132**	***3109**	2450	1936	1568
		F	2.8+34R	3.6+23R	4+17R	4.3+14R	4.4+11R	4.5+10R	4.6+9R	4.7+8R	4.8+7R
	VSC2 @ 6"	q	***3797**	***3704**	***3653**	***3622**	***3600**	***3200**	2450	1936	1568
		F	2.2+34R	3+23R	3.4+17R	3.6+14R	3.8+11R	3.9+10R	4+9R	4+8R	4.1+7R
	VSC2 @ 4"	q	***4240**	***4194**	***4170**	***4154**	***4144**	***3200**	2450	1936	1568
		F	1.6+34R	2.4+23R	2.7+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R	3.4+7R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 24/8 pattern) or shall be limited to 1300 plf, 1700 plf, 2300 plf or 3100 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).

7 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 47 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
24/4 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	VSC2 @ 24"	q	627	537	492	469	454	444	437	432	428
		F	-11.3+387R	5.2+191R	12+125R	16+93R	18.7+74R	20.6+61R	22.1+52R	23.2+45R	24.1+40R
	VSC2 @ 18"	q	812	663	586	609	572	545	565	546	531
		F	-12.9+388R	3+192R	9.7+126R	12+95R	14.8+75R	16.9+62R	17.1+53R	18.5+46R	19.6+41R
	VSC2 @ 12"	q	812	759	733	718	710	704	699	696	690
		F	-12.9+388R	1.5+193R	6.8+128R	9.6+95R	11.3+76R	12.5+63R	13.3+54R	14+47R	14.5+42R
	VSC2 @ 8"	q	917	887	872	864	859	855	853	851	690
		F	-14+388R	-0.5+193R	4.2+129R	6.6+96R	8.1+77R	9.1+64R	9.8+55R	10.4+48R	10.8+43R
	VSC2 @ 6"	q	980	962	953	948	945	943	942	873	690
		F	-14.8+389R	-1.7+194R	2.7+129R	5+97R	6.3+77R	7.2+64R	7.9+55R	8.4+48R	8.8+43R
	VSC2 @ 4"	q	1044	1036	1032	1031	1029	1029	1028	873	690
		F	-15.8+389R	-3.2+194R	1+129R	3.1+97R	4.4+78R	5.3+65R	5.9+55R	6.3+49R	6.7+43R
20	VSC2 @ 24"	q	797	698	648	621	605	594	586	580	575
		F	-4.5+244R	6.5+120R	11+79R	13.6+59R	15.3+46R	16.6+38R	17.5+33R	18.2+28R	18.8+25R
	VSC2 @ 18"	q	1023	856	767	799	754	723	749	726	707
		F	-6.1+245R	4.5+121R	9+80R	10.3+60R	12.2+47R	13.6+39R	13.6+34R	14.5+29R	15.2+26R
	VSC2 @ 12"	q	1023	971	944	929	921	915	910	907	904
		F	-6.1+245R	3.2+122R	6.5+81R	8.3+60R	9.4+48R	10.1+40R	10.7+34R	11.1+30R	11.4+27R
	VSC2 @ 8"	q	1142	1114	1100	1092	1088	1085	1082	1081	906
		F	-7.1+246R	1.5+122R	4.5+81R	6+61R	6.9+49R	7.5+41R	8+35R	8.3+30R	8.6+27R
	VSC2 @ 6"	q	1209	1193	1185	1180	1178	1176	1175	1146	906
		F	-7.7+246R	0.5+123R	3.3+82R	4.7+61R	5.6+49R	6.2+41R	6.6+35R	6.9+31R	7.1+27R
	VSC2 @ 4"	q	1273	1267	1264	1262	1261	1260	1260	1146	906
		F	-8.6+246R	-0.6+123R	2+82R	3.4+61R	4.2+49R	4.7+41R	5.1+35R	5.4+31R	5.6+27R
18	VSC2 @ 24"	q	1127	1008	948	916	896	883	873	866	860
		F	0.3+119R	5.7+59R	7.9+39R	9+29R	9.8+23R	10.3+19R	10.7+16R	10.9+14R	11.2+13R
	VSC2 @ 18"	q	1428	1224	1113	1160	1103	1062	1099	1068	1044
		F	-1.2+120R	4.2+59R	6.5+39R	6.8+29R	7.8+23R	8.4+19R	8.3+17R	8.8+15R	9.1+13R
	VSC2 @ 12"	q	1428	1372	1343	1328	1319	1312	1307	1304	1301
		F	-1.2+120R	3.3+60R	4.8+40R	5.6+30R	6.1+24R	6.4+20R	6.7+17R	6.8+15R	7+13R
	VSC2 @ 8"	q	1572	1544	1531	1523	1519	1515	1513	1512	1387
		F	-1.9+120R	2.2+60R	3.6+40R	4.3+30R	4.7+24R	5+20R	5.2+17R	5.3+15R	5.5+13R
	VSC2 @ 6"	q	1648	1633	1625	1621	1619	1617	1616	1615	1387
		F	-2.4+120R	1.6+60R	2.9+40R	3.6+30R	4+24R	4.2+20R	4.4+17R	4.6+15R	4.7+13R
	VSC2 @ 4"	q	1718	1712	1709	1708	1707	1706	1706	1706	1387
		F	-2.9+120R	0.9+60R	2.2+40R	2.8+30R	3.2+24R	3.5+20R	3.6+17R	3.8+15R	3.9+13R
16	VSC2 @ 24"	q	1456	1317	1246	1208	1185	1169	1158	1149	1142
		F	2.2+68R	5.8+33R	7.2+22R	8+16R	8.5+13R	8.9+11R	9.1+9R	9.3+8R	9.5+7R
	VSC2 @ 18"	q	1828	1587	1455	1515	1446	1396	1442	1405	1375
		F	0.9+68R	4.5+34R	6+22R	6.2+17R	6.8+13R	7.3+11R	7.2+9R	7.5+8R	7.8+7R
	VSC2 @ 12"	q	1828	1767	1735	1719	1708	1701	1696	1692	1689
		F	0.9+68R	3.7+34R	4.6+23R	5.1+17R	5.4+13R	5.6+11R	5.7+10R	5.9+8R	5.9+7R
	VSC2 @ 8"	q	1998	1968	1954	1946	1941	1938	1936	1934	1933
		F	0.3+68R	2.7+34R	3.5+23R	4+17R	4.2+14R	4.4+11R	4.5+10R	4.6+9R	4.7+8R
	VSC2 @ 6"	q	2084	2068	2061	2057	2054	2052	2051	2050	1936
		F	-0.1+69R	2.2+34R	3+23R	3.4+17R	3.6+14R	3.8+11R	3.9+10R	4+9R	4+8R
	VSC2 @ 4"	q	2162	2156	2153	2152	2151	2150	2150	2150	1936
		F	-0.6+69R	1.6+34R	2.4+23R	2.7+17R	3+14R	3.1+11R	3.2+10R	3.3+9R	3.4+8R

Page 154 has the footnotes.
(continued)

TABLE 47 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR PLN™-24 DECK PANELS ATTACHED WITH SDI RECOGNIZED #12 OR #14 SCREWS TO SUPPORTS 0.0385" AND THICKER AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8,9] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
24/6 ATTACHMENT PATTERN FOR SDI RECOGNIZED SCREWS											
22	VSC2 @ 24"	q	895	710	616	567	536	515	500	489	480
		F	-14+387R	1.5+192R	8.1+126R	12.1+93R	14.9+73R	17+60R	18.6+51R	19.9+44R	21+39R
	VSC2 @ 18"	q	***1110**	856	724	731	672	631	649	621	599
		F	-14.7+388R	0.4+192R	6.8+127R	9.6+94R	12.4+75R	14.4+62R	15.1+53R	16.4+46R	17.6+40R
	VSC2 @ 12"	q	***1110**	979	910	873	850	834	823	814	690
		F	-14.7+388R	-0.5+193R	5+128R	7.9+95R	9.8+76R	11.2+63R	12.1+54R	12.9+47R	13.5+42R
	VSC2 @ 8"	q	***1258**	***1168**	***1120**	1094	1078	1067	1059	873	690
		F	-15.3+388R	-1.7+193R	3.2+128R	5.7+96R	7.3+77R	8.4+64R	9.2+55R	9.8+48R	10.3+42R
	VSC2 @ 6"	q	***1361**	***1299**	***1266**	***1248**	***1237**	***1229**	***1140**	873	690
		F	-15.7+389R	-2.6+194R	2+129R	4.4+96R	5.9+77R	6.8+64R	7.5+55R	8.1+48R	8.5+43R
	VSC2 @ 4"	q	***1484**	***1453**	***1436**	***1428**	***1422**	***1418**	***1140**	873	690
		F	-16.4+389R	-3.7+194R	0.7+129R	2.9+97R	4.2+77R	5.1+65R	5.7+55R	6.2+48R	6.6+43R
20	VSC2 @ 24"	q	1122	912	804	746	711	687	669	656	646
		F	-6.7+245R	3.7+121R	8.2+79R	10.9+58R	12.8+46R	14.2+38R	15.3+32R	16.1+28R	16.8+24R
	VSC2 @ 18"	q	***1397**	1101	946	963	891	841	867	832	804
		F	-7.5+245R	2.6+121R	7+80R	8.7+60R	10.6+47R	12+39R	12.3+33R	13.2+29R	14+25R
	VSC2 @ 12"	q	***1397**	1257	1184	1144	1119	1102	1090	1080	906
		F	-7.5+245R	1.8+122R	5.4+81R	7.3+60R	8.5+48R	9.3+40R	9.9+34R	10.4+30R	10.8+26R
	VSC2 @ 8"	q	***1576**	***1485**	***1437**	***1411**	***1395**	***1384**	***1376**	1146	906
		F	-8+246R	0.7+122R	3.8+81R	5.5+61R	6.5+49R	7.1+40R	7.6+35R	8+30R	8.3+27R
	VSC2 @ 6"	q	***1693**	***1633**	***1602**	***1585**	***1574**	***1567**	***1497**	1146	906
		F	-8.4+246R	0+123R	2.9+82R	4.4+61R	5.3+49R	5.9+41R	6.4+35R	6.7+30R	6.9+27R
	VSC2 @ 4"	q	***1826**	***1798**	***1783**	***1775**	***1771**	***1767**	***1497**	1146	906
		F	-9+246R	-0.9+123R	1.8+82R	3.2+61R	4+49R	4.6+41R	5+35R	5.3+31R	5.5+27R
18	VSC2 @ 24"	q	1568	1306	1170	1098	1053	1023	1001	984	971
		F	-1+119R	4.4+59R	6.6+39R	7.9+29R	8.8+23R	9.4+19R	9.8+16R	10.2+14R	10.5+12R
	VSC2 @ 18"	q	***1953**	1578	1377	1412	1316	1248	1289	1241	1203
		F	-1.8+120R	3.4+59R	5.6+39R	6.2+29R	7.2+23R	7.9+19R	7.9+16R	8.3+14R	8.7+13R
	VSC2 @ 12"	q	***1953**	1793	1708	1662	1633	1614	1599	1589	1387
		F	-1.8+120R	2.7+59R	4.4+39R	5.2+30R	5.8+24R	6.1+20R	6.4+17R	6.6+15R	6.8+13R
	VSC2 @ 8"	q	***2186**	***2089**	***2038**	***2010**	***1993**	***1981**	***1972**	1756	1387
		F	-2.3+120R	1.9+60R	3.3+40R	4.1+30R	4.5+24R	4.8+20R	5.1+17R	5.2+15R	5.4+13R
	VSC2 @ 6"	q	***2330**	***2269**	***2237**	***2221**	***2210**	***2203**	***2197**	1756	1387
		F	-2.7+120R	1.4+60R	2.8+40R	3.4+30R	3.9+24R	4.1+20R	4.4+17R	4.5+15R	4.6+13R
	VSC2 @ 4"	q	***2484**	***2457**	***2444**	***2436**	***2432**	***2429**	***2294**	1756	1387
		F	-3.1+120R	0.8+60R	2.1+40R	2.8+30R	3.2+24R	3.4+20R	3.6+17R	3.7+15R	3.9+13R
16	VSC2 @ 24"	q	2015	1700	1536	1449	1395	1358	1331	1311	1295
		F	1.1+68R	4.6+33R	6.2+22R	7.1+16R	7.7+13R	8.2+10R	8.5+9R	8.7+8R	8.9+7R
	VSC2 @ 18"	q	***2506**	2052	1806	1857	1738	1653	1707	1647	1599
		F	0.4+68R	3.8+34R	5.3+22R	5.7+16R	6.3+13R	6.9+11R	6.8+9R	7.2+8R	7.4+7R
	VSC2 @ 12"	q	***2506**	***2323**	***2226**	2173	2140	2118	2101	2089	1936
		F	0.4+68R	3.2+34R	4.2+22R	4.8+17R	5.1+13R	5.4+11R	5.6+9R	5.7+8R	5.8+7R
	VSC2 @ 8"	q	***2791**	***2684**	***2628**	***2598**	***2579**	***2566**	***2556**	***2450**	1936
		F	-0.1+68R	2.5+34R	3.4+23R	3.8+17R	4.1+14R	4.3+11R	4.4+10R	4.5+8R	4.6+8R
	VSC2 @ 6"	q	***2961**	***2896**	***2863**	***2845**	***2833**	***2826**	***2820**	***2450**	1936
		F	-0.4+69R	2+34R	2.9+23R	3.3+17R	3.5+14R	3.7+11R	3.8+10R	3.9+9R	4+8R
	VSC2 @ 4"	q	***3139**	***3111**	***3097**	***3090**	***3085**	***3082**	***3080**	***2450**	1936
		F	-0.7+69R	1.5+34R	2.3+23R	2.7+17R	2.9+14R	3.1+11R	3.2+10R	3.3+9R	3.3+8R

* For diaphragm shear strengths in bold and marked with *, the fastening pattern shall be increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib (i.e. 24/8 pattern) or shall be limited to 1100 plf, 1300 plf, 1800 plf or 2200 plf for No. 22, 20, 18 or 16 gage steel deck, respectively.
Bearing at supports shall allow for proper end distance and fastener spacing.

1 VSC2 = Verco Sidelap Connection 2.
2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.
3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$
4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexibility factor for the closest adjacent span length.
5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.
6 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of $\Omega = 2.0$ (limited by panel buckling).
7 Table 21B of this report provides a guide to proper selection of support fastening screws.
8 Table 21C of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 in. thick.
9 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 48 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE PLN™-24-CD CELLULAR DECK PANELS ATTACHED TO SUPPORTS WITH WELDS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
20/20	VSC2 @ 24"	q	1350	1063	919	833	775	734	703	679	660
		F	10.9-3R	12.9-3R	14.3-3R	15.3-3R	16.1-3R	16.7-3R	17.1-3R	17.5-2R	17.8-2R
	VSC2 @ 18"	q	1552	1221	1154	1026	937	940	884	841	852
		F	9.1-2R	11.1-2R	11.2-2R	12.3-2R	13.2-2R	12.9-2R	13.6-2R	14.1-2R	13.8-1R
	VSC2 @ 12"	q	1742	1496	1366	1286	1231	1192	1162	1139	1120
		F	7.9-2R	8.8-1R	9.3-1R	9.7-1R	9.9-1R	10.1-1R	10.3-1R	10.4-1R	10.5-1R
	VSC2 @ 8"	q	2086	1871	1756	1685	1636	1601	1574	1466	1187
		F	6.4-1R	6.9-1R	7.1-1R	7.3-1R	7.4-1R	7.5+0R	7.6+0R	7.7+0R	7.7+0R
	VSC2 @ 6"	q	2383	2198	2098	2036	1994	1963	1855	1466	1187
		F	5.4-1R	5.7-1R	5.9+0R	6+0R	6.1+0R	6.1+0R	6.2+0R	6.2+0R	6.2+0R
	VSC2 @ 4"	q	2850	2717	2645	2600	2569	2423	1855	1466	1187
		F	4.3+0R	4.5+0R	4.6+0R	4.6+0R	4.7+0R	4.7+0R	4.7+0R	4.7+0R	4.7+0R
20/18	VSC2 @ 24"	q	1668	1366	1215	1124	1063	1020	987	962	942
		F	7.7-2R	8.6-1R	9.1-1R	9.5-1R	9.7-1R	9.9-1R	10.1-1R	10.2-1R	10.3-1R
	VSC2 @ 18"	q	1973	1597	1561	1408	1303	1324	1255	1201	1227
		F	6.1-1R	7.2-1R	6.9-1R	7.5-1R	7.9-1R	7.6-1R	7.9-1R	8.2-1R	7.9+0R
	VSC2 @ 12"	q	2254	2006	1875	1794	1739	1699	1669	1573	1274
		F	5.2-1R	5.5-1R	5.7+0R	5.8+0R	5.9+0R	5.9+0R	6+0R	6+0R	6+0R
	VSC2 @ 8"	q	2742	2538	2428	2361	2314	2281	1990	1573	1274
		F	4.1+0R	4.3+0R	4.3+0R	4.4+0R	4.4+0R	4.4+0R	4.5+0R	4.5+0R	4.5+0R
	VSC2 @ 6"	q	3138	2973	2884	2829	2791	2599	1990	1573	1274
		F	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.7+0R	3.7+0R	3.7+0R	3.7+0R	3.7+0R
	VSC2 @ 4"	q	3705	3601	3544	3509	3485	2599	1990	1573	1274
		F	2.8+0R	2.8+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R
18/20	VSC2 @ 24"	q	1419	1111	955	862	799	755	721	695	674
		F	10-3R	12-3R	13.5-3R	14.5-3R	15.3-3R	15.9-3R	16.4-3R	16.9-3R	17.2-3R
	VSC2 @ 18"	q	1621	1268	1191	1055	962	961	903	858	867
		F	8.5-2R	10.4-2R	10.7-2R	11.8-2R	12.7-2R	12.5-2R	13.1-2R	13.7-2R	13.4-2R
	VSC2 @ 12"	q	1812	1545	1404	1317	1258	1215	1183	1158	1137
		F	7.4-2R	8.3-2R	8.9-1R	9.3-1R	9.6-1R	9.8-1R	10-1R	10.1-1R	10.2-1R
	VSC2 @ 8"	q	2160	1924	1798	1720	1667	1628	1599	1576	1558
		F	6-1R	6.5-1R	6.8-1R	7-1R	7.2-1R	7.3-1R	7.4-1R	7.4+0R	7.5+0R
	VSC2 @ 6"	q	2462	2258	2148	2079	2032	1998	1972	1952	1702
		F	5.1-1R	5.5-1R	5.7+0R	5.8+0R	5.9+0R	5.9+0R	6+0R	6+0R	6+0R
	VSC2 @ 4"	q	2943	2794	2713	2662	2627	2602	2582	2101	1702
		F	4.1+0R	4.3+0R	4.4+0R	4.4+0R	4.5+0R	4.5+0R	4.5+0R	4.5+0R	4.5+0R
18/18	VSC2 @ 24"	q	1668	1366	1215	1124	1063	1020	987	962	942
		F	7.2-2R	8.2-2R	8.7-1R	9.1-1R	9.4-1R	9.6-1R	9.8-1R	9.9-1R	10.1-1R
	VSC2 @ 18"	q	1973	1597	1561	1408	1303	1324	1255	1201	1227
		F	5.8-1R	6.8-1R	6.7-1R	7.2-1R	7.6-1R	7.4-1R	7.7-1R	8-1R	7.7+0R
	VSC2 @ 12"	q	2254	2006	1875	1794	1739	1699	1669	1645	1627
		F	4.9-1R	5.3-1R	5.5-1R	5.6+0R	5.7+0R	5.8+0R	5.8+0R	5.8+0R	5.9+0R
	VSC2 @ 8"	q	2742	2538	2428	2361	2314	2281	2255	2235	1831
		F	3.9+0R	4.1+0R	4.2+0R	4.2+0R	4.3+0R	4.3+0R	4.3+0R	4.3+0R	4.4+0R
	VSC2 @ 6"	q	3138	2973	2884	2829	2791	2764	2743	2260	1831
		F	3.3+0R	3.4+0R	3.5+0R	3.5+0R	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R
	VSC2 @ 4"	q	3705	3601	3544	3509	3485	3468	2860	2260	1831
		F	2.7+0R	2.7+0R	2.7+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R	2.8+0R

Page 156 has the footnotes.

(continued)

TABLE 48 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE PLN™-24-CD CELLULAR DECK PANELS ATTACHED TO SUPPORTS WITH WELDS AND SIDELAPS FASTENED WITH THE PUNCHLOK® II (VSC2) SYSTEM[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ARC SPOT AND SEAM WELD PATTERN AT SUPPORTS											
18/16	VSC2 @ 24"	q	1917	1623	1476	1388	1329	1287	1254	1228	1207
		F	6.4-1R	7.2-1R	7.6-1R	7.9-1R	8.1-1R	8.3-1R	8.4-1R	8.5-1R	8.6-1R
	VSC2 @ 18"	q	2324	1924	1927	1756	1639	1682	1603	1540	1581
		F	5.1-1R	6-1R	5.7-1R	6.2-1R	6.6-1R	6.3+0R	6.6+0R	6.8+0R	6.6+0R
	VSC2 @ 12"	q	2688	2456	2332	2257	2205	2168	2140	2118	1937
		F	4.3-1R	4.6+0R	4.7+0R	4.8+0R	4.9+0R	4.9+0R	4.9+0R	5+0R	5+0R
	VSC2 @ 8"	q	3297	3116	3019	2959	2918	2889	2866	2391	1937
		F	3.4+0R	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.7+0R	3.7+0R	3.7+0R	3.7+0R
	VSC2 @ 6"	q	3762	3624	3551	3505	3474	3451	3026	2391	1937
		F	2.8+0R	2.9+0R	3+0R	3+0R	3+0R	3+0R	3+0R	3+0R	3+0R
	VSC2 @ 4"	q	4380	4301	4259	4233	4215	3953	3026	2391	1937
		F	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.4+0R	2.4+0R	2.4+0R	2.4+0R	2.4+0R
16/18	VSC2 @ 24"	q	1668	1366	1215	1124	1063	1020	987	962	942
		F	6.9-2R	7.8-2R	8.4-1R	8.9-1R	9.2-1R	9.4-1R	9.6-1R	9.7-1R	9.8-1R
	VSC2 @ 18"	q	1973	1597	1561	1408	1303	1324	1255	1201	1227
		F	5.6-1R	6.6-1R	6.5-1R	7-1R	7.4-1R	7.2-1R	7.5-1R	7.8-1R	7.6-1R
	VSC2 @ 12"	q	2254	2006	1875	1794	1739	1699	1669	1645	1627
		F	4.7-1R	5.1-1R	5.3-1R	5.4+0R	5.5+0R	5.6+0R	5.7+0R	5.7+0R	5.7+0R
	VSC2 @ 8"	q	2742	2538	2428	2361	2314	2281	2255	2235	2219
		F	3.8+0R	3.9+0R	4+0R	4.1+0R	4.2+0R	4.2+0R	4.2+0R	4.2+0R	4.2+0R
	VSC2 @ 6"	q	3138	2973	2884	2829	2791	2764	2743	2727	2427
		F	3.2+0R	3.3+0R	3.4+0R	3.4+0R	3.4+0R	3.4+0R	3.5+0R	3.5+0R	3.5+0R
	VSC2 @ 4"	q	3705	3601	3544	3509	3485	3468	3454	2996	2427
		F	2.5+0R	2.6+0R	2.6+0R	2.6+0R	2.7+0R	2.7+0R	2.7+0R	2.7+0R	2.7+0R
16/16	VSC2 @ 24"	q	1917	1623	1476	1388	1329	1287	1254	1228	1207
		F	6.1-1R	6.9-1R	7.4-1R	7.7-1R	7.9-1R	8.1-1R	8.2-1R	8.3-1R	8.4-1R
	VSC2 @ 18"	q	2324	1924	1927	1756	1639	1682	1603	1540	1581
		F	4.9-1R	5.8-1R	5.6-1R	6-1R	6.4-1R	6.2+0R	6.4+0R	6.6+0R	6.4+0R
	VSC2 @ 12"	q	2688	2456	2332	2257	2205	2168	2140	2118	2100
		F	4.1-1R	4.4+0R	4.6+0R	4.7+0R	4.7+0R	4.8+0R	4.8+0R	4.9+0R	4.9+0R
	VSC2 @ 8"	q	3297	3116	3019	2959	2918	2889	2866	2849	2571
		F	3.3+0R	3.4+0R	3.5+0R	3.5+0R	3.5+0R	3.6+0R	3.6+0R	3.6+0R	3.6+0R
	VSC2 @ 6"	q	3762	3624	3551	3505	3474	3451	3434	3174	2571
		F	2.7+0R	2.8+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	2.9+0R	3+0R	3+0R
	VSC2 @ 4"	q	4380	4301	4259	4233	4215	4202	4018	3174	2571
		F	2.2+0R	2.2+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R	2.3+0R

1 VSC2 = Verco Sidelap Connection 2.

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for VSC2 spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections) with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 49 – ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR TYPE N-24 DECK ATTACHED TO SUPPORTS WITH WELDS AND FASTENED WITH BUTTON PUNCHES (BP) OR 1½" TOP SEAM WELDS (TSW) AT SIDELAPS[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.)								
			4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
24/4 ARC SPOT AND ARC SEAM WELD PATTERN AT SUPPORTS											
22	BP @ 24"	q	245	174	139	119	105	95	88	82	77
		F	10+187R	21.4+119R	30.1+84R	37.4+62R	43.9+48R	49.7+37R	55+28R	59.8+22R	64.3+16R
	BP @ 12"	q	281	210	175	154	141	131	123	118	113
		F	8.5+188R	18.4+121R	25.5+87R	31+67R	35.6+53R	39.4+43R	42.8+35R	45.7+30R	48.3+25R
	TSW @ 24"	q	644	572	538	517	503	494	486	480	474
		F	-2.2+194R	2.2+129R	4.5+97R	5.9+77R	6.8+64R	7.4+55R	7.9+48R	8.3+43R	8.6+39R
	TSW @ 18"	q	837	710	732	674	635	659	631	609	559
		F	-3.5+194R	1.1+129R	2.8+97R	4.4+78R	5.4+65R	5.7+55R	6.4+48R	6.9+43R	6.9+39R
	TSW @ 12"	q	990	930	898	879	865	856	849	690	559
		F	-4.3+194R	-0.2+130R	1.9+97R	3.2+78R	4+65R	4.6+56R	5+49R	5.4+43R	5.6+39R
	TSW @ 6"	q	1422	1389	1371	1361	1353	1140	873	690	559
		F	-5.6+195R	-1.5+130R	0.5+97R	1.7+78R	2.5+65R	3.1+56R	3.5+49R	3.8+43R	4.1+39R
20	BP @ 24"	q	360	251	201	171	151	137	126	118	112
		F	12.1+116R	21.3+73R	28.7+50R	35.1+35R	40.8+25R	45.9+18R	50.6+12R	54.9+8R	58.9+4R
	BP @ 12"	q	412	303	253	223	203	189	178	170	163
		F	10.7+117R	18.7+74R	24.5+52R	29.2+39R	33.2+30R	36.6+24R	39.5+19R	42.1+15R	44.4+12R
	TSW @ 24"	q	863	754	704	674	654	640	628	619	611
		F	1+122R	3.9+82R	5.4+61R	6.3+49R	6.9+41R	7.3+35R	7.7+30R	7.9+27R	8.1+24R
	TSW @ 18"	q	1092	923	947	871	819	849	812	783	734
		F	-0.3+123R	2.8+82R	3.9+61R	4.9+49R	5.7+41R	5.8+35R	6.3+31R	6.6+27R	6.6+24R
	TSW @ 12"	q	1286	1202	1158	1131	1112	1099	1089	906	734
		F	-1+123R	1.7+82R	3+61R	3.8+49R	4.4+41R	4.7+35R	5+31R	5.3+27R	5.4+25R
	TSW @ 6"	q	1829	1783	1759	1744	1734	1497	1146	906	734
		F	-2.1+123R	0.4+82R	1.7+62R	2.5+49R	3+41R	3.4+35R	3.6+31R	3.8+27R	4+25R
18	BP @ 24"	q	650	447	358	305	269	244	225	210	198
		F	12.9+54R	19.9+32R	25.9+20R	31.1+12R	35.8+6R	40.2+2R	44.1-1R	47.8-4R	51.2-6R
	BP @ 12"	q	741	539	450	396	361	335	316	301	290
		F	11.7+55R	17.6+33R	22.2+22R	26+15R	29.2+10R	32+7R	34.5+5R	36.6+3R	38.6+1R
	TSW @ 24"	q	1354	1167	1078	1024	988	961	940	924	911
		F	3.2+60R	4.8+40R	5.6+30R	6.1+24R	6.5+20R	6.7+17R	6.9+15R	7+13R	7.1+12R
	TSW @ 18"	q	1670	1402	1426	1307	1226	1266	1210	1165	1124
		F	2.2+60R	3.9+40R	4.3+30R	4.9+24R	5.4+20R	5.4+17R	5.7+15R	5.9+13R	5.8+12R
	TSW @ 12"	q	1949	1808	1733	1688	1657	1634	1617	1387	1124
		F	1.6+60R	2.9+40R	3.6+30R	4+24R	4.3+20R	4.5+17R	4.6+15R	4.7+13R	4.8+12R
	TSW @ 6"	q	2738	2661	2620	2594	2576	2294	1756	1387	1124
		F	0.5+60R	1.8+40R	2.4+30R	2.8+24R	3.1+20R	3.3+17R	3.4+15R	3.5+13R	3.6+12R
16	BP @ 24"	q	848	586	475	409	364	333	309	291	276
		F	12.4+29R	18.3+15R	23.4+8R	28+3R	32.2-1R	36-4R	39.5-6R	42.7-8R	45.7-9R
	BP @ 12"	q	991	729	618	552	507	476	452	434	419
		F	11.4+30R	16.2+17R	20.2+10R	23.4+6R	26.2+3R	28.7+1R	30.8-1R	32.7-2R	34.4-3R
	TSW @ 24"	q	1758	1535	1423	1354	1307	1273	1247	1227	1211
		F	3.8+34R	4.8+22R	5.3+17R	5.7+13R	5.9+11R	6+10R	6.2+8R	6.3+7R	6.3+7R
	TSW @ 18"	q	2175	1838	1877	1726	1622	1677	1605	1548	1568
		F	2.8+34R	4+23R	4.2+17R	4.6+14R	4.9+11R	4.9+10R	5.1+8R	5.2+7R	5.2+7R
	TSW @ 12"	q	2540	2370	2280	2225	2188	2161	2140	1936	1568
		F	2.3+34R	3.1+23R	3.5+17R	3.8+14R	3.9+11R	4+10R	4.1+9R	4.2+8R	4.2+7R
	TSW @ 6"	q	3543	3454	3407	3378	3358	3200	2450	1936	1568
		F	1.4+34R	2.1+23R	2.5+17R	2.7+14R	2.9+11R	3+10R	3+9R	3.1+8R	3.2+7R

1 BP = Button Punch; TSW = Top Seam Weld

2 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

3 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

4 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, the flexibility factor for the closest adjacent span length shall be used.

5 Diaphragm shear values for side seam fasteners placed at spacings other than those in the table shall be determined based on the number of fasteners in each span.

6 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 3.0 (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

7 1" x 3/8" effective arc seam weld is required at supports adjacent to sidelap and a 1/2" effective diameter arc spot welds in all other locations.

8 Table 21F of this report provides adjustment factors when using acoustical deck profiles.

TABLE 50 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR 9/16" (SHALLOW) VERCOR™ DECK PANELS ATTACHED TO SUPPORTS 0.0385" AND THICKER WITH SDI RECOGNIZED #12 OR #14 SCREWS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7]

DECK GAGE	SIDELAP ATTACHMENT		SPAN (ft-in.)						
			1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"
36/4 ATTACHMENT PATTERN									
26	(none)	q	295	243	204	178	158	–	–
		F	-53.8+1038R	-30.3+690R	-17.4+516R	-8.8+411R	-2.3+340R		
	#10 @ 12"	q	316	292	257	249	226	223	207
		F	-55.4+1039R	-33.9+692R	-22.2+519R	-15.9+415R	-10.8+345R	-8+296R	-5+259R
	#10 @ 8"	q	331	308	276	266	258	252	236
		F	-56.2+1039R	-34.5+693R	-23.1+519R	-16.6+415R	-12.3+346R	-9.2+296R	-6.4+259R
	#10 @ 6"	q	331	308	291	280	271	264	259
		F	-56.2+1039R	-34.5+693R	-23.6+519R	-17.1+415R	-12.7+346R	-9.6+297R	-7.2+260R
	#10 @ 4"	q	340	329	314	310	301	299	292
		F	-56.6+1039R	-35.3+693R	-24.3+520R	-18+416R	-13.5+346R	-10.5+297R	-8.1+260R
24	(none)	q	394	324	273	237	211	–	–
		F	-22.9+503R	-10.7+334R	-3.6+249R	1.4+197R	5.4+163R		
	#10 @ 12"	q	426	397	352	343	313	311	289
		F	-24.3+504R	-13.8+336R	-7.7+251R	-4.7+201R	-1.9+167R	-0.6+143R	1.1+125R
	#10 @ 8"	q	446	419	379	367	358	352	330
		F	-25+504R	-14.4+336R	-8.5+252R	-5.3+201R	-3.2+168R	-1.7+144R	-0.1+126R
	#10 @ 6"	q	446	419	400	386	376	368	362
		F	-25+504R	-14.4+336R	-9+252R	-5.7+201R	-3.6+168R	-2+144R	-0.8+126R
	#10 @ 4"	q	459	447	429	426	415	414	406
		F	-25.4+504R	-15+336R	-9.6+252R	-6.5+202R	-4.3+168R	-2.8+144R	-1.6+126R
22	(none)	q	493	406	342	297	264	–	–
		F	-10.9+287R	-3.3+190R	1.4+141R	4.9+111R	7.8+91R		
	#10 @ 12"	q	536	504	449	441	403	403	375
		F	-12.2+288R	-6+192R	-2.3+143R	-0.6+115R	1.2+95R	1.9+82R	3.1+71R
	#10 @ 8"	q	563	532	484	471	462	454	428
		F	-12.7+288R	-6.6+192R	-3+144R	-1.1+115R	0.1+96R	1+82R	2+72R
	#10 @ 6"	q	563	532	510	495	484	475	468
		F	-12.7+288R	-6.6+192R	-3.4+144R	-1.5+115R	-0.2+96R	0.7+82R	1.4+72R
	#10 @ 4"	q	579	567	547	544	531	531	522
		F	-13.1+288R	-7.1+192R	-4+144R	-2.2+115R	-0.9+96R	-0.1+82R	0.6+72R
36/7 ATTACHMENT PATTERN									
26	(none)	q	499	383	311	272	232	–	–
		F	-10+301R	-2.3+200R	2.3+148R	5.6+117R	8.3+97R		
	#10 @ 12"	q	540	464	386	369	319	315	282
		F	-10.8+302R	-4.2+201R	-0.3+150R	1.6+120R	3.6+100R	4.4+85R	5.6+74R
	#10 @ 8"	q	573	497	419	396	370	359	323
		F	-11.3+302R	-4.7+201R	-0.9+150R	1.1+120R	2.5+100R	3.4+86R	4.5+75R
	#10 @ 6"	q	573	497	448	422	393	380	362
		F	-11.3+302R	-4.7+201R	-1.3+151R	0.7+120R	2.1+100R	3.1+86R	3.9+75R
	#10 @ 4"	q	600	550	499	487	454	451	428
		F	-11.6+302R	-5.2+201R	-1.9+151R	0+121R	1.4+100R	2.3+86R	3.1+75R
24	(none)	q	667	512	415	364	309	–	–
		F	-2.2+146R	2.1+96R	4.8+71R	7+56R	8.9+45R		
	#10 @ 12"	q	729	634	529	510	443	440	394
		F	-2.9+146R	0.4+97R	2.6+72R	3.6+58R	4.8+48R	5.2+41R	6+36R
	#10 @ 8"	q	777	682	578	551	518	505	456
		F	-3.4+146R	0+97R	2.1+73R	3.1+58R	3.8+48R	4.3+41R	5+36R
	#10 @ 6"	q	777	682	621	588	552	535	512
		F	-3.4+146R	0+97R	1.7+73R	2.8+58R	3.5+48R	4+41R	4.5+36R
	#10 @ 4"	q	815	757	693	681	639	637	608
		F	-3.6+146R	-0.5+98R	1.2+73R	2.2+58R	2.9+49R	3.3+42R	3.8+36R
22	(none)	q	834	640	519	455	387	–	–
		F	0.5+83R	3.4+54R	5.4+40R	7+31R	8.5+25R		
	#10 @ 12"	q	920	809	677	656	571	570	512
		F	-0.1+83R	1.9+55R	3.4+41R	4+33R	4.8+27R	5+23R	5.7+20R
	#10 @ 8"	q	984	873	743	712	674	659	596
		F	-0.5+83R	1.5+55R	2.9+41R	3.6+33R	4+27R	4.3+23R	4.8+20R
	#10 @ 6"	q	984	873	801	762	719	699	672
		F	-0.5+83R	1.5+55R	2.6+41R	3.3+33R	3.7+28R	4.1+24R	4.3+21R
	#10 @ 4"	q	1034	970	894	882	832	832	796
		F	-0.7+84R	1.1+56R	2.2+42R	2.7+33R	3.2+28R	3.4+24R	3.7+21R

Page 160 has the footnotes.

(continued)

TABLE 50 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR 9/16" (SHALLOW) VERCOR™ DECK PANELS ATTACHED TO SUPPORTS 0.0385" AND THICKER WITH SDI RECOGNIZED #12 OR #14 SCREWS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7] (Cont'd.)

DECK GAGE	SIDELAP ATTACHMENT		SPAN (ft-in.)						
			1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"
36/9 ATTACHMENT PATTERN									
26	(none)	q	696	542	443	390	332	–	–
		F	-4.9+205R	0.3+136R	3.5+101R	5.8+80R	7.7+66R		
	#10 @ 12"	q	733	620	516	484	419	408	364
		F	-5.4+205R	-0.8+137R	2+102R	3.5+81R	4.9+68R	5.5+58R	6.5+50R
	#10 @ 8"	q	765	654	549	513	471	454	407
		F	-5.7+205R	-1.1+137R	1.6+102R	3.1+82R	4.1+68R	4.8+58R	5.6+51R
	#10 @ 6"	q	765	654	580	540	495	475	447
		F	-5.7+205R	-1.1+137R	1.3+102R	2.8+82R	3.8+68R	4.5+58R	5.1+51R
	#10 @ 4"	q	792	710	634	611	562	554	520
		F	-5.9+206R	-1.5+137R	0.9+103R	2.2+82R	3.2+68R	3.8+59R	4.4+51R
24	(none)	q	929	724	591	520	444	–	–
		F	-0.1+99R	2.8+65R	4.8+48R	6.3+38R	7.6+31R		
	#10 @ 12"	q	986	842	703	665	576	564	504
		F	-0.5+99R	1.9+66R	3.5+49R	4.3+39R	5.2+32R	5.5+28R	6.1+24R
	#10 @ 8"	q	1033	892	753	707	654	633	569
		F	-0.7+100R	1.6+66R	3.1+49R	3.9+39R	4.5+33R	4.9+28R	5.4+24R
	#10 @ 6"	q	1033	892	798	747	690	665	629
		F	-0.7+100R	1.6+66R	2.9+49R	3.7+39R	4.2+33R	4.6+28R	4.9+24R
	#10 @ 4"	q	1073	974	877	850	787	779	735
		F	-0.9+100R	1.3+66R	2.5+50R	3.2+40R	3.7+33R	4+28R	4.4+25R
22	(none)	q	1162	905	739	651	555	–	–
		F	1.5+56R	3.5+37R	4.9+27R	6+21R	7.1+17R		
	#10 @ 12"	q	1241	1069	895	851	739	727	650
		F	1.1+57R	2.6+37R	3.7+28R	4.2+22R	4.9+18R	5.1+16R	5.6+13R
	#10 @ 8"	q	1305	1136	962	909	846	820	739
		F	0.9+57R	2.4+38R	3.4+28R	3.9+22R	4.3+18R	4.5+16R	4.9+14R
	#10 @ 6"	q	1305	1136	1024	962	894	863	820
		F	0.9+57R	2.4+38R	3.2+28R	3.7+22R	4+19R	4.3+16R	4.5+14R
	#10 @ 4"	q	1357	1244	1129	1099	1023	1015	962
		F	0.8+57R	2.1+38R	2.8+28R	3.2+23R	3.6+19R	3.8+16R	4+14R
36/13 ATTACHMENT PATTERN									
26	(none)	q	880	652	520	453	383	–	–
		F	6.5+12R	7.6+7R	8.6+5R	9.6+3R	10.5+2R		
	#10 @ 12"	q	935	752	607	562	478	463	409
		F	6.2+12R	6.9+8R	7.6+6R	7.9+4R	8.4+3R	8.6+3R	9+2R
	#10 @ 8"	q	985	798	647	596	539	515	457
		F	6+12R	6.6+8R	7.3+6R	7.6+4R	7.8+4R	8+3R	8.3+2R
	#10 @ 6"	q	985	798	687	629	568	541	503
		F	6+12R	6.6+8R	7+6R	7.3+5R	7.6+4R	7.7+3R	7.9+3R
	#10 @ 4"	q	1029	881	760	722	651	637	591
		F	5.9+12R	6.3+8R	6.7+6R	6.8+5R	7.1+4R	7.1+3R	7.3+3R
24	(none)	q	1175	871	694	605	511	–	–
		F	5.3+6R	6.2+3R	7+2R	7.7+1R	8.5+0R		
	#10 @ 12"	q	1260	1024	827	771	658	640	567
		F	5+6R	5.5+4R	6.1+2R	6.3+2R	6.7+1R	6.8+1R	7.2+1R
	#10 @ 8"	q	1334	1092	889	823	750	720	639
		F	4.9+6R	5.3+4R	5.8+2R	6+2R	6.2+1R	6.3+1R	6.6+1R
	#10 @ 6"	q	1334	1092	948	873	794	758	709
		F	4.9+6R	5.3+4R	5.6+3R	5.8+2R	6+2R	6.1+1R	6.2+1R
	#10 @ 4"	q	1400	1215	1057	1012	918	903	841
		F	4.7+6R	5+4R	5.3+3R	5.4+2R	5.6+2R	5.6+1R	5.7+1R
22	(none)	q	1471	1090	869	757	640	–	–
		F	4.5+3R	5.2+1R	5.9+1R	6.6+0R	7.2-1R		
	#10 @ 12"	q	1588	1302	1054	988	844	825	731
		F	4.2+3R	4.6+2R	5.1+1R	5.3+1R	5.7+0R	5.7+0R	6.1+0R
	#10 @ 8"	q	1690	1396	1139	1060	971	935	831
		F	4.1+3R	4.4+2R	4.8+1R	5+1R	5.2+1R	5.3+0R	5.6+0R
	#10 @ 6"	q	1690	1396	1220	1128	1031	988	928
		F	4.1+3R	4.4+2R	4.7+1R	4.8+1R	5+1R	5.1+1R	5.2+0R
	#10 @ 4"	q	1778	1561	1367	1316	1200	1184	1107
		F	3.9+3R	4.2+2R	4.4+1R	4.5+1R	4.6+1R	4.6+1R	4.7+1R

Page 160 has the footnotes.
(continued)

TABLE 50 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR 9/16" (SHALLOW) VERCOR™ DECK PANELS ATTACHED TO SUPPORTS 0.0385" AND THICKER WITH SDI RECOGNIZED #12 OR #14 SCREWS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7] (Cont'd.)

1 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

2 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

3 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexiblity factor for the closest adjacent span length.

4 Diaphragm shear values for #10 screw spacings other than those in the table shall be determined based on the number of fasteners in span.

5 The allowable diaphragm shear values in the table utilize a factor of safety, $\Omega = 2.5$ (limited by connections).

6 Table 21B of this report provides a guide to proper selection of support fastening screws.

7 Table 21D of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 inch thick.

TABLE 51 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR 1 5/16" (DEEP) VERCOR™ DECK PANELS (NORMAL AND INVERTED[8]) ATTACHED TO SUPPORTS 0.0385" AND THICKER WITH SDI RECOGNIZED #12 OR #14 SCREWS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8]

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
36/5 (NORMAL POSITION) ATTACHMENT PATTERN									
26	#10 @ 24"	q	214	197	165	157	137	135	122
		F	-4.2+280R	-0.8+224R	3+186R	4.4+159R	6.8+139R	7.4+124R	9.2+111R
	#10 @ 18"	q	237	216	185	175	168	149	147
		F	-5.8+281R	-2.1+225R	1.5+187R	3.1+160R	4.3+140R	6.2+124R	6.9+112R
	#10 @ 12"	q	259	235	218	205	195	187	181
		F	-6.8+281R	-3+225R	-0.4+187R	1.4+161R	2.8+140R	3.9+125R	4.8+112R
	#10 @ 6"	q	332	314	301	292	284	278	273
		F	-8.8+282R	-5.2+226R	-2.8+188R	-1.1+161R	0.2+141R	1.2+125R	2+113R
24	#10 @ 24"	q	287	267	227	220	191	189	170
		F	1.9+144R	3.7+115R	6.2+95R	6.8+82R	8.5+71R	8.7+63R	10+57R
	#10 @ 18"	q	321	295	253	243	235	209	207
		F	0.6+145R	2.6+115R	4.8+96R	5.7+82R	6.3+72R	7.6+64R	7.9+57R
	#10 @ 12"	q	353	322	301	285	272	263	255
		F	-0.3+145R	1.8+116R	3.2+96R	4.2+83R	5+72R	5.6+64R	6.1+58R
	#10 @ 6"	q	454	433	418	406	397	390	384
		F	-2.1+146R	-0.2+116R	1.1+97R	2+83R	2.7+73R	3.2+65R	3.6+58R
22	#10 @ 24"	q	365	342	292	285	250	249	223
		F	4.1+84R	5.1+67R	7+55R	7.3+48R	8.6+41R	8.6+37R	9.7+33R
	#10 @ 18"	q	411	380	326	315	306	276	273
		F	2.9+85R	4.1+68R	5.8+56R	6.3+48R	6.7+42R	7.7+37R	7.8+33R
	#10 @ 12"	q	452	416	390	371	356	345	335
		F	2.1+85R	3.4+68R	4.3+56R	5+48R	5.5+42R	5.9+38R	6.2+34R
	#10 @ 6"	q	583	559	542	529	519	511	504
		F	0.5+86R	1.7+68R	2.5+57R	3+49R	3.4+43R	3.7+38R	4+34R
20	#10 @ 24"	q	445	420	359	353	313	313	280
		F	4.9+54R	5.6+43R	7.1+35R	7.2+30R	8.4+26R	8.3+23R	9.2+21R
	#10 @ 18"	q	503	469	403	391	382	344	341
		F	3.8+54R	4.7+43R	6+36R	6.3+31R	6.5+27R	7.4+24R	7.5+21R
	#10 @ 12"	q	556	514	485	462	445	432	421
		F	3.1+55R	4+44R	4.7+36R	5.1+31R	5.5+27R	5.7+24R	6+22R
	#10 @ 6"	q	717	691	671	657	646	637	629
		F	1.7+55R	2.4+44R	2.9+37R	3.3+31R	3.6+28R	3.8+24R	4+22R
36/9 (NORMAL POSITION) ATTACHMENT PATTERN									
26	#10 @ 24"	q	305	268	222	206	180	173	156
		F	10.8+6R	11.1+5R	12.4+3R	12.5+3R	13.5+2R	13.4+2R	14.4+1R
	#10 @ 18"	q	332	293	242	224	210	187	181
		F	9.9+7R	10.3+5R	11.4+4R	11.6+3R	11.7+3R	12.6+2R	12.6+2R
	#10 @ 12"	q	359	314	284	259	241	228	218
		F	9.2+7R	9.7+6R	10.1+4R	10.4+4R	10.6+3R	10.8+3R	11+2R
	#10 @ 6"	q	457	418	390	370	355	343	279
		F	7.7+8R	8+6R	8.2+5R	8.3+4R	8.4+4R	8.5+3R	8.6+3R
24	#10 @ 24"	q	407	364	302	283	246	238	215
		F	9+3R	9.3+2R	10.4+1R	10.4+1R	11.3+0R	11.2+0R	12+0R
	#10 @ 18"	q	447	397	333	310	292	259	251
		F	8.2+3R	8.6+2R	9.5+1R	9.7+1R	9.8+1R	10.5+0R	10.5+0R
	#10 @ 12"	q	486	429	390	362	338	320	306
		F	7.6+3R	8+2R	8.3+2R	8.6+2R	8.8+1R	8.9+1R	9.1+1R
	#10 @ 6"	q	629	579	545	520	500	485	413
		F	6.4+4R	6.5+3R	6.7+2R	6.8+2R	6.9+2R	6.9+2R	7+1R

Page 162 has the footnotes.
(continued)

TABLE 51 - ALLOWABLE DIAPHRAGM SHEAR STRENGTH, q (plf), AND FLEXIBILITY FACTORS, F, FOR 1 5/16" (DEEP) VERCOR™ DECK PANELS (NORMAL AND INVERTED[8])ATTACHED TO SUPPORTS 0.0385" AND THICKER WITH SDI RECOGNIZED #12 OR #14 SCREWS AND SIDELAPS FASTENED WITH #10 SCREWS[1,2,3,4,5,6,7,8] (Cont'd.)

DECK GAGE	SIDELAP ATTACH-MENT		SPAN (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
36/9 (NORMAL POSITION) ATTACHMENT PATTERN (Cont'd.)									
22	#10 @ 24"	q	515	464	387	366	319	310	278
		F	7.8+1R	8+1R	9+0R	9+0R	9.8-1R	9.8-1R	10.5-1R
	#10 @ 18"	q	569	509	430	402	382	338	328
		F	7.1+1R	7.4+1R	8.2+0R	8.3+0R	8.4+0R	9.1+0R	9.1+0R
	#10 @ 12"	q	622	553	505	470	444	422	404
		F	6.6+2R	6.9+1R	7.2+1R	7.4+1R	7.5+0R	7.7+0R	7.8+0R
	#10 @ 6"	q	813	754	713	683	659	641	567
		F	5.4+2R	5.6+2R	5.7+1R	5.7+1R	5.8+1R	5.9+1R	5.9+1R
20	#10 @ 24"	q	625	568	477	453	395	386	346
		F	6.9+0R	7.1+0R	8-1R	8-1R	8.8-1R	8.7-1R	9.3-1R
	#10 @ 18"	q	695	625	528	500	477	422	411
		F	6.3+1R	6.5+0R	7.3+0R	7.4+0R	7.5+0R	8.1+0R	8.1+0R
	#10 @ 12"	q	763	682	626	585	553	529	509
		F	5.8+1R	6.1+0R	6.3+0R	6.5+0R	6.7+0R	6.8+0R	6.9+0R
	#10 @ 6"	q	1006	938	891	856	829	807	738
		F	4.7+1R	4.9+1R	4.9+1R	5+1R	5.1+1R	5.1+0R	5.2+0R

1 The dimension from the first and last sidelap connection within each span is to be no more than one-half of specified spacing.

2 R is the ratio of vertical span (L_V) of the deck to the length (L_S) of the deck sheet: $R = L_V / L_S$

3 Interpolation of diaphragm shear strength between adjacent spans or sidelap spacings is permissible. For interpolation of the diaphragm flexibility factor between adjacent spans, use the flexibility factor for the closest adjacent span length.

4 Diaphragm shear values for #10 screw spacings other than those in the table shall be determined based on the number of fasteners in span.

5 The allowable diaphragm shear values in the table utilize a factor of safety, Ω = 2.5 (limited by connections), with the exception of the shaded table values, which utilize a factor of safety of Ω = 2.0 (limited by panel buckling).

6 Table 21B of this report provides a guide to proper selection of support fastening screws.

7 Table 21E of this report provides adjustment factors when using generic screws and/or steel supports less than 0.0385 inch thick.

8 To obtain allowable diaphragm shear strength and flexibility factors for Deep VERCOR in the Inverted Position, the values for Deep VERCOR in the normal position shall be multiplied by the following adjustment factors based on attachment pattern and sidelap fastener spacing:

Normal Position Pattern	Inverted Position Pattern	Adjustment Factor	Sidelap Fastener Spacing 24" o.c.	18" o.c.	12" o.c.	6" o.c.
36/5	36/4	R_q	0.81	0.84	0.87	0.92
		R_F	1.47	1.47	1.47	1.47
36/9	36/8	R_q	0.75	0.79	0.81	0.87
		R_F	1.08	1.06	1.05	1.02

These adjustment factors are based on the maximum adjustment for tabulated span length and fastener patterns. To calculate a specific condition, the design equations listed in Section A of this report shall be referenced.

TABLE 52 - ALLOWABLE INTERIOR DIAPHRAGM SHEAR STRENGTH, q (plf), FOR 9/16" (SHALLOW VERCOR)™ DECK PANELS WITH NORMAL WEIGHT (145 pcf) CONCRETE FILL[1-9]

DECK GAGE	TOTAL SLAB THICKNESS	INTERIOR ATTACHMENT PATTERN[1]	SPAN (ft-in.)								
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
26	3.0"	q - 3 screws	1629	1600	1582	1566	1559	1549	1541	1535	1529
		q - 4 screws	1642	1611	1591	1574	1566	1555	1547	1540	1534
		q - 5 screws	1658	1624	1603	1584	1575	1564	1554	1547	1541
		q - 6 screws	1694	1653	1628	1606	1595	1582	1571	1562	1554
	Thickness ≥ 3.5"	q - 3 screws	1931	1902	1884	1868	1860	1851	1843	1837	1831
24	3.0"	q - 3 screws	1691	1651	1625	1603	1592	1579	1568	1559	1552
		q - 4 screws	1708	1665	1637	1614	1602	1588	1576	1566	1558
		q - 5 screws	1730	1682	1653	1627	1614	1598	1586	1575	1567
		q - 6 screws	1777	1721	1687	1656	1641	1623	1607	1595	1585
	3.5"	q - 3 screws	1993	1952	1927	1905	1894	1881	1870	1861	1854
		q - 4 screws	2010	1967	1939	1915	1904	1889	1878	1868	1860
		q - 5 screws	2032	1984	1955	1929	1916	1900	1888	1877	1868
		q - 6 screws	2079	2023	1988	1958	1943	1924	1909	1897	1887
	Thickness ≥ 4"	q - 3 screws	2295	2254	2229	2207	2196	2182	2172	2163	2155
22	3.0"	q - 3 screws	1756	1703	1670	1642	1627	1610	1596	1585	1575
		q - 4 screws	1777	1721	1685	1655	1640	1621	1606	1594	1584
		q - 5 screws	1804	1743	1705	1671	1655	1635	1618	1605	1594
		q - 6 screws	1863	1792	1747	1708	1689	1665	1645	1630	1616
	3.5"	q - 3 screws	2057	2005	1972	1943	1929	1912	1898	1887	1877
		q - 4 screws	2079	2023	1987	1957	1941	1923	1908	1896	1885
		q - 5 screws	2106	2045	2007	1973	1957	1936	1920	1907	1896
		q - 6 screws	2165	2094	2049	2009	1991	1967	1947	1931	1918
	4"	q - 3 screws	2359	2307	2274	2245	2231	2214	2200	2188	2179
		q - 4 screws	2381	2325	2289	2258	2243	2225	2210	2197	2187
		q - 5 screws	2408	2347	2308	2275	2259	2238	2222	2209	2197
		q - 6 screws	2467	2396	2351	2311	2293	2268	2249	2233	2220
	Thickness ≥ 4.5"	q - 3 screws	2661	2609	2576	2547	2533	2515	2502	2490	2481

1 Interior connections may be #12, #14 or Shearflex® screws.

2 Connections at diaphragm perimeter or other collector elements are to be based on the actual shear to be transferred and the capacity of the connections used.

Allowable Shear Capacity per Connection (lbs)	Fastener Type	9/16" SV - Deck Gage		
		26	24	22
	#12 Screw	199 lbs	266 lbs	333 lbs
	#14 Screw or Shearflex®	230 lbs	308 lbs	385 lbs

3 If higher shear values than those shown are required, please contact Verco Engineering Dept.

4 Total slab depth is nominal depth from top of concrete to bottom of steel deck.

5 Concrete fill to be normal weight (145 pcf) and have minimum compressive strength f'_c = 3,000 psi.

6 Shallow Vercor decks with structural concrete fill have a Flexibility Factor of F <1

7 Sidelap connections - minimum 1 - #10 screw per span, maximum 36" oc spacing.

8 A continuous 3 span condition is assumed for all span lengths 4 feet and greater. For span lengths less than 4 feet, a 12 foot long sheet is assumed, with a maximum of 7 continuous spans.

9 To convert to nominal values, the tabulated values are multiplied by Ω_d (ASD) = 3.25. To convert to LRFD values, the nominal values are multiplied by Φ_d = 0.50

Table 52 of this report has additional footnotes.

(continued)

TABLE 52 - ALLOWABLE INTERIOR DIAPHRAGM SHEAR STRENGTH, q (plf), FOR 9/16" (SHALLOW VERCOR)™ DECK PANELS WITH NORMAL WEIGHT (145 pcf) CONCRETE FILL[1-9] (Cont'd)

Table 52A - Maximum Unshored Clear Span (ft-in) [1-2]								
Gage	Span	Total Slab Depth Normal Weight Conc. (145 pcf)						
		3.0" NW	3.5" NW	4.0" NW	4.5" NW	5.0" NW	5.5" NW	6.0" NW
26	1:	2'-5"	2'-5"	2'-4"	2'-3"	2'-2"	2'-2"	2'-1"
	2:	2'-11"	2'-10"	2'-9"	2'-8"	2'-7"	2'-7"	2'-6"
	3:	3'-0"	2'-11"	2'-9"	2'-9"	2'-8"	2'-7"	2'-6"
24	1:	3'-3"	3'-2"	3'-1"	3'-0"	2'-11"	2'-10"	2'-9"
	2:	3'-11"	3'-9"	3'-8"	3'-6"	3'-5"	3'-4"	3'-3"
	3:	3'-11"	3'-10"	3'-8"	3'-7"	3'-6"	3-4"	3'-3"
22	1:	3'-8"	3'-6"	3'-4"	3'-2"	3'-1"	3'-0"	2'-11"
	2:	4'-7"	4'-5"	4'-3"	4'-1"	4'-0"	3'-10"	3'-9"
	3:	4'-6"	4'-3"	4'-1"	3'-11"	3'-10"	3'-8"	3'-7"

[1] Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions for unshored spans due to dead loads and uniform construction live loads shall be evaluated based on the allowable reactions set forth in Table 8 of this report.

[2] Shoring is required at midspan for spans greater than those shown.

TABLE 53 - ALLOWABLE INTERIOR DIAPHRAGM SHEAR STRENGTH, q (plf), FOR 1-5/16" (DEEP VERCOR)™ DECK PANELS WITH NORMAL WEIGHT (145 pcf) CONCRETE FILL[1-9]

DECK GAGE	TOTAL SLAB THICKNESS	INTERIOR ATTACHMENT PATTERN[1]	SPAN (ft-in.)								
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
26	4.0"	q - 3 screws	1796	1764	1744	1727	1718	1708	1699	1692	1686
		q - 4 screws	1804	1771	1750	1732	1723	1712	1703	1695	1689
		q - 5 screws	1828	1790	1767	1746	1736	1724	1714	1705	1698
		q - 6 screws	1875	1829	1801	1775	1763	1748	1735	1725	1716
	Thickness ≥ 4.5"	q - 3 screws	2098	2066	2046	2029	2020	2009	2001	1994	1988
24	4.0"	q - 3 screws	1858	1814	1787	1764	1752	1737	1726	1716	1709
		q - 4 screws	1868	1823	1794	1770	1758	1743	1731	1721	1712
		q - 5 screws	1899	1848	1817	1789	1775	1758	1745	1734	1724
		q - 6 screws	1961	1899	1861	1827	1811	1790	1773	1759	1748
	4.5"	q - 3 screws	2160	2116	2089	2065	2054	2039	2028	2018	2010
		q - 4 screws	2170	2125	2096	2072	2059	2044	2032	2022	2014
		q - 5 screws	2201	2150	2118	2091	2077	2060	2046	2035	2026
		q - 6 screws	2263	2201	2162	2128	2112	2091	2075	2061	2050
	Thickness ≥ 5.0"	q - 3 screws	2461	2418	2391	2367	2355	2341	2329	2320	2312
22	4.0"	q - 3 screws	1923	1868	1833	1802	1787	1769	1754	1742	1732
		q - 4 screws	1936	1878	1842	1810	1795	1775	1760	1748	1737
		q - 5 screws	1974	1910	1869	1834	1816	1795	1778	1763	1752
		q - 6 screws	2051	1972	1924	1880	1860	1834	1812	1795	1781
	4.5"	q - 3 screws	2225	2169	2134	2104	2089	2071	2056	2044	2034
		q - 4 screws	2238	2180	2143	2112	2096	2077	2062	2049	2039
		q - 5 screws	2276	2211	2171	2135	2118	2097	2079	2065	2053
		q - 6 screws	2352	2274	2225	2182	2162	2135	2114	2097	2083
	5.0"	q - 3 screws	2527	2471	2436	2406	2391	2372	2358	2346	2336
		q - 4 screws	2539	2482	2445	2414	2398	2379	2364	2351	2341
		q - 5 screws	2578	2513	2473	2437	2420	2398	2381	2367	2355
		q - 6 screws	2654	2576	2527	2484	2464	2437	2416	2399	2384
	Thickness ≥ 5.5"	q - 3 screws	2829	2773	2738	2708	2693	2674	2660	2648	2638
20	4.0"	q - 3 screws	1991	1923	1880	1843	1824	1802	1784	1769	1757
		q - 4 screws	2006	1935	1891	1852	1833	1809	1791	1775	1763
		q - 5 screws	2052	1973	1923	1880	1859	1832	1811	1794	1780
		q - 6 screws	2143	2048	1988	1936	1911	1879	1853	1832	1815
	4.5"	q - 3 screws	2293	2225	2182	2145	2126	2103	2085	2071	2059
		q - 4 screws	2308	2237	2192	2154	2135	2111	2092	2077	2064
		q - 5 screws	2354	2275	2225	2182	2161	2134	2113	2096	2082
		q - 6 screws	2445	2350	2290	2238	2213	2180	2155	2134	2116
	5.0"	q - 3 screws	2595	2527	2483	2447	2428	2405	2387	2373	2360
		q - 4 screws	2610	2539	2494	2456	2436	2413	2394	2379	2366
		q - 5 screws	2656	2577	2527	2484	2462	2436	2415	2398	2383
		q - 6 screws	2747	2651	2592	2539	2514	2482	2457	2436	2418
	5.5"	q - 3 screws	2897	2828	2785	2748	2729	2707	2689	2674	2662
		q - 4 screws	2912	2841	2796	2758	2738	2715	2696	2681	2668
		q - 5 screws	2957	2878	2829	2786	2764	2738	2717	2700	2685
		q - 6 screws	3048	2953	2894	2841	2816	2784	2758	2737	2720
	Thickness ≥ 6.0"	q - 3 screws	3198	3130	3087	3050	3031	3009	2991	2976	2964

1 Interior connections may be #12, #14 or Shearflex® screws.

2 Connections at diaphragm perimeter or other collector elements are to be based on the actual shear to be transferred and the capacity of the connections used.

Allowable Shear Capacity per Connection (lbs)	Fastener Type	1-516" DV Deck Gage			
		26	24	22	20
	#12 Screw	217 lbs	283 lbs	349 lbs	416 lbs
	#14 Screw	251 lbs	327 lbs	404 lbs	482 lbs
	Shearflex®	See Table 55			

3 If higher shear values than those shown are required, please contact Verco Engineering Dept.

4 Total slab depth is nominal depth from top of concrete to bottom of steel deck.

5 Concrete fill to be normal weight (145 pcf) and have minimum compressive strength f'_c = 3,000 psi.

6 DV decks with structural concrete fill have a Flexibility Factor of F <1

7 Sidelap connections - minimum 1 - #10 screw per span, maximum 36" oc spacing.

Table Page 166 for additional footnotes.

(continued)

TABLE 53 - ALLOWABLE INTERIOR DIAPHRAGM SHEAR STRENGTH, q (plf), FOR 1-5/16" (DEEP VERCOR)™ DECK PANELS WITH NORMAL WEIGHT (145 pcf) CONCRETE FILL[1-9] (Cont'd)

8 A continuous 3 span condition is assumed for all span lengths 4 ft and greater. For span lengths less than 4 ft, a 12 ft long sheet is assumed, with a maximum of 7 continuous spans.

9 To convert to nominal values multiply by Ωd (ASD) = 3.25. To convert to LRFD multiple nominal value by Φd = .5

Table 53A - Maximum Unshored Clear Span (ft-in) [1-2]

Gage	Span	Total Slab Depth Normal Weight Conc. (145 pcf)						
		4.0" NW	4.5" NW	5.0" NW	5.5" NW	6.0" NW	6.5" NW	7.0" NW
26	1:	4'-7"	4'-5"	4'-3"	4'-2"	4'-0"	3'-11"	3'-10"
	2:	5'-5"	5'-3"	5'-0"	4'-10"	4'-9"	4'-7"	4'-6"
	3:	5'-6"	5'-3"	5'-1"	4'-11"	4'-9"	4'-8"	4'-6"
24	1:	5'-8"	5'-5"	5'-3"	5'-1"	4'-11"	4'-9"	4'-8"
	2:	6'-9"	6'-6"	6'-3"	6'-0"	5'-10"	5'-8"	5'-6"
	3:	6'-10"	6'-7"	6'-4"	6'-1"	5'-11"	5'-9"	5'-7"
22	1:	6'-1"	5'-10"	5'-7"	5'-5"	5'-3"	5'-1"	5'-0"
	2:	7'-10"	7'-6"	7'-2"	6'-11"	6'-8"	6'-6"	6'-3"
	3:	7'-6"	7'-2"	6'-11"	6'-8"	6'-6"	6'-4"	6'-2"
20	1:	6'-5"	6'-2"	5'-11"	5'-9"	5'-7"	5'-5"	5'-3"
	2:	8'-6"	8'-2"	7'-10"	7'-7"	7'-4"	7'-1"	6'-10"
	3:	7'-11"	7'-7"	7'-4"	7'-1"	6'-11"	6'-8"	6'-6"

1 Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions for unshored spans due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8.

2 Shoring is required at midspan for spans greater than those shown.

TABLE 54 - ALLOWABLE INTERIOR DIAPHRAGM SHEAR STRENGTH, q (plf), PLB™ AND B FORMLOK™ DECK PANELS WITH NORMAL WEIGHT (145 pcf) CONCRETE FILL[1-9]

DECK GAGE	TOTAL SLAB THICKNESS	INTERIOR ATTACHMENT PATTERN[1]	SPAN (ft-in.)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	3.5"	q - 4 screws	1377	1343	1321	1304	1292	1283	1275	1269	1264
		q - 5 screws	1416	1374	1346	1327	1312	1300	1291	1283	1277
		q - 7 screws	1429	1385	1355	1334	1318	1306	1296	1288	1281
	4.0"	q - 4 screws	1679	1645	1622	1606	1594	1585	1577	1571	1566
		q - 5 screws	1718	1676	1648	1628	1613	1602	1593	1585	1579
		q - 7 screws	1731	1686	1657	1636	1620	1608	1598	1590	1583
	4.5"	q - 4 screws	1981	1947	1924	1908	1896	1886	1879	1873	1868
		q - 5 screws	2020	1978	1950	1930	1915	1904	1894	1887	1880
		q - 7 screws	2033	1988	1959	1938	1922	1909	1900	1891	1885
	5.0"	q - 4 screws	2283	2249	2226	2210	2198	2188	2181	2174	2169
		q - 5 screws	2322	2280	2252	2232	2217	2205	2196	2189	2182
		q - 7 screws	2334	2290	2260	2239	2224	2211	2201	2193	2187
	Thickness ≥ 5.5"	q - 4 screws	2585	2551	2528	2512	2499	2490	2482	2476	2471
20	3.5"	q - 4 screws	1417	1375	1347	1327	1312	1300	1291	1283	1277
		q - 5 screws	1463	1412	1378	1354	1335	1321	1310	1300	1293
		q - 7 screws	1479	1425	1388	1362	1343	1328	1316	1306	1298
	4.0"	q - 4 screws	1719	1677	1649	1629	1614	1602	1593	1585	1579
		q - 5 screws	1765	1714	1680	1655	1637	1623	1612	1602	1594
		q - 7 screws	1781	1726	1690	1664	1645	1630	1618	1608	1600
	4.5"	q - 4 screws	2021	1979	1951	1931	1916	1904	1895	1887	1881
		q - 5 screws	2067	2016	1982	1957	1939	1925	1913	1904	1896
		q - 7 screws	2083	2028	1992	1966	1947	1932	1920	1910	1901
	5.0"	q - 4 screws	2322	2280	2252	2232	2217	2206	2197	2189	2183
		q - 5 screws	2369	2318	2283	2259	2241	2227	2215	2206	2198
		q - 7 screws	2384	2330	2294	2268	2248	2233	2221	2211	2203
	Thickness ≥ 5.5"	q - 4 screws	2624	2582	2554	2534	2519	2508	2498	2491	2484
18	3.5"	q - 4 screws	1499	1441	1402	1374	1353	1337	1324	1313	1305
		q - 5 screws	1561	1490	1443	1409	1384	1365	1349	1336	1325
		q - 7 screws	1582	1507	1457	1421	1395	1374	1357	1343	1332
	4.0"	q - 4 screws	1801	1743	1704	1676	1655	1639	1626	1615	1606
		q - 5 screws	1863	1792	1745	1711	1686	1666	1651	1638	1627
		q - 7 screws	1884	1809	1759	1723	1696	1675	1659	1645	1634
	4.5"	q - 4 screws	2103	2044	2005	1978	1957	1941	1928	1917	1908
		q - 5 screws	2165	2094	2047	2013	1988	1968	1952	1940	1929
		q - 7 screws	2185	2110	2061	2025	1998	1977	1961	1947	1936
	5.0"	q - 4 screws	2405	2346	2307	2279	2259	2242	2229	2219	2210
		q - 5 screws	2467	2396	2349	2315	2290	2270	2254	2241	2231
		q - 7 screws	2487	2412	2362	2327	2300	2279	2262	2249	2237
	Thickness ≥ 5.5"	q - 4 screws	2706	2648	2609	2581	2560	2544	2531	2521	2512
16	3.5"	q - 4 screws	1587	1511	1460	1424	1397	1376	1359	1345	1334
		q - 5 screws	1623	1573	1512	1468	1436	1410	1390	1373	1360
		q - 7 screws	1630	1593	1529	1483	1449	1422	1400	1383	1368
	4.0"	q - 4 screws	1888	1813	1762	1726	1699	1678	1661	1647	1636
		q - 5 screws	1966	1875	1814	1770	1737	1712	1692	1675	1661
		q - 7 screws	1992	1895	1831	1785	1750	1724	1702	1685	1670
	4.5"	q - 4 screws	2190	2114	2064	2028	2001	1979	1963	1949	1937
		q - 5 screws	2268	2176	2115	2072	2039	2014	1994	1977	1963
		q - 7 screws	2294	2197	2133	2087	2052	2025	2004	1986	1972
	5.0"	q - 4 screws	2492	2416	2366	2329	2302	2281	2264	2251	2239
		q - 5 screws	2570	2478	2417	2374	2341	2316	2295	2279	2265
		q - 7 screws	2595	2499	2434	2389	2354	2327	2306	2288	2274
	Thickness ≥ 5.5"	q - 4 screws	2794	2718	2667	2631	2604	2583	2566	2552	2541

1 Interior connections may be #12, #14 or Shearflex® screws.

2 Connections at diaphragm perimeter or other collector elements are to be based on the actual shear to be transferred and the capacity of the connections used.

	Fastener Type	PLB & B- FORMLOK Deck Gage			
		22	20	18	16
Allowable Shear Capacity per Connection (lbs)	#12 Screw	348	418	557	697
	#14 Screw	403	484	645	807
	Shearflex®	See Table 55			

Table 54 of this report has additional footnotes.

(continued)

TABLE 54 - ALLOWABLE INTERIOR DIAPHRAGM SHEAR STRENGTH, q (plf), PLB™ AND B FORMLOK™ DECK PANELS WITH NORMAL WEIGHT (145 pcf) CONCRETE FILL[1-9] (Cont'd)

3 If higher shear values than those shown are required, please contact Verco Engineering Dept.
4 Total slab depth is nominal depth from top of concrete to bottom of steel deck.
5 Concrete fill to be normal weight (145 pcf) and have minimum compressive strength f'_c = 3,000 psi.
6 PLB and B Formlok decks with structural concrete fill have a Flexibility Factor of F <1
7 Sidelap connections - minimum 1 - #10 screw per span, maximum 36" oc spacing.
8 A continuous 3 span condition is assumed for all span lengths 4 ft and greater. For span lengths less than 4 ft, a 12 ft long sheet is assumed, with a maximum of 7 continuous spans.
9 To convert to nominal values multiply times Ωd (ASD) = 3.25. To convert to LRFD multiple nominal value by Φd = .5

Table 54A - Maximum Unshored Clear Span (ft-in) [1-2]

Gage	Span	Total Slab Depth Normal Weight Conc. (145 pcf)							
		3.5" NW	4.0" NW	4.5" NW	5.0" NW	5.5" NW	6.0" NW	6.5" NW	7.0" NW
22	1:	6'-6"	6'-2"	5'-11"	5'-8"	5'-6"	5'-4"	5-2"	5'-0"
	2:	7'-8"	7'-3"	6'-11"	6'-8"	6'-5"	6'-3"	6'-0"	5'-10"
	3:	7'-9"	7'-4"	7'-0"	6'-9"	6'-6"	6'-3"	6'-1"	5'-11"
20	1:	7'-9"	7'-5"	7'-1"	6'-9"	6'-6"	6'-4"	6'-1"	5'-11"
	2:	9'-1"	8'-8"	8'-3"	7'-11"	7'-7"	7'-4"	7'-1"	6'-10"
	3:	9'-3"	8'-9"	8'-4"	8'-0"	7'-8"	7'-5"	7'-2"	7'-0"
18	1:	8'-10"	8'-5"	8'-1"	7'-9"	7'-6"	7'-3"	7'-1"	6'-11"
	2:	10'-8"	10'-2"	9'-9"	9'-4"	9'-0"	8'-8"	8'-4"	8'-1"
	3:	11'-0"	10'-5"	10'-0"	9'-7"	9'-3"	8'-11"	8'-8"	8'-5"
16	1:	9'-6"	9'-1"	8'-8"	8'-4"	8'-1"	7'-10"	7'-7"	7'-5"
	2:	11'-10"	11'-3"	10'-9"	10'-4"	9'-11"	9'-7"	9'-3"	9'-0"
	3:	11'-7"	11'-2"	10'-9"	10'-4"	10'-0"	9'-8"	9'-5"	9'-2"

1 Shoring calculations based on the following:
- Deck supporting dead load of concrete plus 20 psf uniform or 150 pound concentrated construction live load for flexure.
- Dead load deflection limited to L/180 of span length, not to exceed 3/4-inch.
- Allowable reactions based on maximum bearing length permitted by AISI S100. Support reactions for unshored spans due to dead loads and uniform construction live loads must be evaluated based on the allowable reactions set forth in Table 8.

2 Shoring is required at midspan for spans greater than those shown.

TABLE 55 - ALLOWABLE INTERIOR SHEAR STRENGTH FOR SHEARFLEX SCREWS AS PART OF DIAPHRAGM SYSTEM[1-7]

Screw Designation	Thread Diameter (in.)	Screw Length (in).	Steel Deck Panel	Allowable Shear Strength per Connection (lbs) Design Thickness of Structural Support (in.)					
				0.113	0.155	0.187	0.212	0.250	0.313
Shearflex® Standoff Screw	3/8	3	PLB™, HSB, PLB™-FORMLOK, B-FORMLOK™	1335	1387	1486	1470	1455	1409
Shearflex® Standoff Screw	3/8	3	BR, BR-FORMLOK™	2144	---	2187	---	2169	1956
Shearflex® Standoff Screw	3/8	3	Deep VERCOR™	1283	1356	1461	1495	1464	1418

1 Support connection shear strength in accordance with AISI-S310 Sections D1.1(b) and D4.4.
2 To convert from ASD to nominal values, multiply by Ωd = 3.25. To convert to LRFD multiply nominal by Φd = .5.
3 Concrete fill to be normal weight (145 pcf) and have minimum compressive strength f'_c = 3,000 psi.
4 Shear Strengths shown in table are based on testing of Shearflex® screws in light weight concrete. Normal weight concrete will provide equivalent or greater shear strengths.
5 Values shown are based on a maximum of one Shearflex® screw per steel deck rib with the fastener installed at the center of the steel deck rib.
6 Connections at diaphragm perimeter or other collector elements are to be based on the actual shear to be transferred and the capacity of the connections used.
7 IAPMO UES ER-0366 Report has further details on Shearflex® screws.

DESIGN EQUATIONS FOR THE DETERMINATION OF DIAPHRAGM SHEAR STRENGTH AND STIFFNESS FOR VERCO STEEL DECK PROFILES WITHOUT CONCRETE FILL

The following design equations were used to calculate diaphragm shear strength and stiffness in the tables of this report for Verco steel deck profiles without concrete fill. These design equations are based on the Steel Deck Institute Diaphragm Design Manual Third Edition (SDI DDM03), Steel Deck Institute Perforated Metal Deck Design with Commentary, Steel Deck Institute Deeper Steel Deck and Cellular Diaphragms (Supplement to 2005 paper), American Iron and Steel Institute North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100), and proprietary test reports.

Section A: Steel Deck Diaphragm Strength Design Equations

The diaphragm strength calculated per this section is applicable to Verco steel deck diaphragms where the Verco steel deck panels are attached to the diaphragm perimeter frame (parallel to the steel deck panel flutes) with fasteners installed at the same or closer spacing as the interior sidelap connectors.

Section A1: Diaphragm Nominal Unit Shear Strength

The available unit shear strength of a diaphragm shall be the lower value obtained from the limit states controlled by either fastener strength or panel shear buckling strength

$$\frac{S_n}{\Omega} = \min\left(\frac{S_{nf}}{\Omega_{df}}, \frac{S_{nb}}{\Omega_{db}}\right) \quad \text{for ASD} \quad \text{[Eq. A1-1]}$$

$$\phi \cdot S_n = \min\left(S_{nf} \cdot \phi_{df}, S_{nb} \cdot \phi_{db}\right) \quad \text{for LRFD and LSD} \quad \text{[Eq. A1-2]}$$

Where

S_n = Nominal unit shear strength of diaphragm system
S_{nf} = Nominal unit shear strength of diaphragm system controlled by connections
S_{nb} = Nominal unit shear strength of diaphragm system controlled by panel out-of-plane buckling
ϕ = Resistance factor for diaphragm strength
ϕ_{df} = Resistance factor for diaphragm strength controlled by connections and determined in accordance with AISI S100 Table D5
ϕ_{db} = Resistance factor for diaphragm strength controlled by panel out-of-plane buckling and determined in accordance with AISI S100 Table D5
Ω = Safety factor for diaphragm strength
Ω_{df} = Safety factor for diaphragm strength controlled by connections and determined in accordance with AISI S100 Table D5
Ω_{db} = Safety factor for diaphragm strength controlled by panel out-of-plane buckling and determined in accordance with AISI S100 Table D5

Section A2: Diaphragm Unit Shear Strength Controlled by Connection Strength

The nominal unit shear strength of a diaphragm or wall diaphragm controlled by connection strength, S_{nf}, shall be the smallest of S_{ni}, S_{nc}, and S_{ne}.

$$S_{ni} = [2 \cdot A \cdot (\lambda - 1) + B] \cdot \frac{Q_f}{L} \quad \text{[Eq. A2-1]}$$

$$S_{nc} = \sqrt{\frac{N^2 \cdot B^2}{L^2 \cdot N^2 + B^2}} \cdot Q_f \quad \text{[Eq. A2-2]}$$

$$S_{ne} = \left(2 \cdot \alpha_1 + n_p \cdot \alpha_2 + n_e\right) \cdot \frac{Q_f}{L} \quad \text{[Eq. A2-3]}$$

Where S_{ni} = Nominal unit shear strength of diaphragm controlled by support connections at interior panels or edge panels, kip/ft
S_{nc} = Nominal unit shear strength of diaphragm controlled by support connections at the corners of interior panels or edge panels, kip/ft
S_{ne} = Nominal unit shear strength of diaphragm controlled by connections along the edge parallel to the panel span in an edge panel and located at a diaphragm reaction line, kip/ft

For diaphragms with welds supports:

$$A = \frac{\text{Strength of Weld at the corner flute of the panel}}{\text{Strength of Weld at the interior flute of the panel}} \quad \text{[Eq. A2-4]}$$

For diaphragms with mechanical fasteners to supports:

A = 1 for patterns with one fastener at the corner of the deck panel
A = 2 for patterns with two fasteners at the corner of the deck panel
λ = Strength reduction factor at corner fastener, unit-less

$$= 1 - \frac{h \cdot L_v}{240 \cdot \sqrt{t}} \geq 0.7 \quad \text{[Eq. A2-5]}$$

Where h = Depth of panel, in
L_v = Span of panel between supports with fasteners, ft.
$t = t_b$, Base steel thickness of bottom plate in cellular deck, in.
$t = t_d$, Base steel thickness of deck panel, or the top deck panel in cellular deck, in.

B = Factor defining connection contribution and interaction to diaphragm unit shear strength

$$= n_s \cdot \alpha_s + \frac{1}{w^2} \cdot \left(2 \cdot n_p \cdot \sum x_p^{\,2} + 4 \cdot \sum x_e^{\,2}\right) \quad \text{[Eq. A2-6]}$$

Where n_s = Number of sidelap connections along a total panel length, L and not into supports

$$\alpha_s = \frac{Q_s}{Q_f} \quad \text{[Eq. A2-7]}$$

Where
Q_s = Nominal shear strength of a sidelap connection per fastener
Q_f = Nominal shear strength of a support connection per fastener
w = Panel cover width, in.
n_p = Number of interior supports along a total panel length, L
x_p = Distance from panel centerline to an interior support structural connection in a panel, in.
x_e = Distance from panel centerline to an exterior support structural connection in a panel, in.
L = Total panel length, ft.
N = Number of equivalent support fasteners per unit width at an interior or edge panel's end
α_1 = Measure of exterior support fastener group distribution across a panel width, w at an edge panel

$$= \frac{\sum x_e}{w} \quad \text{[Eq. A2-8]}$$

α_2 = Measure of interior support fastener group distribution across a panel width, w at an edge panel

$$= \frac{\sum x_p}{w} \quad \text{[Eq. A2-9]}$$

n_e = Number of edge support connections between transverse supports and along an edge panel length, L.

Section A3: Diaphragm Unit Shear Strength Controlled by Panel Buckling

The nominal unit shear strength, S_{nb}, of a diaphragm system controlled by panel buckling for either acoustic or non-acoustic fluted panels shall be calculated using the following equations:

$$S_{nb} = \frac{7890}{L_v^{\,2}} \cdot \left(\frac{I_x^{\,3} \cdot t^3 \cdot d}{s}\right)^{0.25} \quad \text{for all deck profiles except Type B} \quad \text{[Eq. A3-1]}$$

$$S_{nb} = \frac{6 \times 10^6 \cdot I_x \cdot \sqrt{t}}{L_v^{\,2} \cdot 1000} \quad \text{for Type B deck profiles only} \quad \text{[Eq. A3-2]}$$

B-Type deck profiles are limited to the following: PLB-36, PLB FORMLOK, PLB-36 AC, HSB-36, B FORMLOK, HSB-36 AC, HSB-36-SS and HSB-36 AC-SS. This excludes B-Type cellular deck profiles

Where S_{nb} = Nominal unit shear strength of a diaphragm system controlled by out of plane buckling, kip/ft
L_v = Span of panel between supports with fasteners, ft
I_x = Gross moment of inertia of panel per unit width, in^4/ft
t = Base metal thickness of panel, in
d = Panel corrugation pitch, in
s = Developed flute width per pitch, in

$$= 2 \cdot (e + web) + f \quad \text{[Eq. A3-3]}$$

Where
e = One half the bottom flat width of panel measured between points of intercept, in
web = Web flat width of panel measured between points of intercept, in
f = Top flat width of panel measured between points of intercept, in

For fluted acoustical panels: the modified panel moment of inertia, I_x shall be used in Eqs. A3-1 and A3-2. The developed flute width, s, shall be determined in accordance with Eq. A3-4. Other parameters in Eqs. A3-1 and A3-2 shall not be modified.

$$s_{p\,web} = 2 \cdot \left(e + web_p\right) + f \quad \text{[Eq. A3-4]}$$

Where

$s_{p\ web}$ = Modified developed flute width, in

web_p = Modified Web Length, in

$$= \left(K_{E\ web}\right)^{1/3} \cdot web \geq web \qquad \text{[Eq. A3-5]}$$

Where

$K_{E\ web}$ = Indicator of relative flexural stiffness of the web element without perforations to the stiffness of the web element with perforations over part of its length

$$= 1 + A_{web}^{\ 3} \cdot \left(\frac{1}{k_{web}} - 1\right) \qquad \text{[Eq. A3-6]}$$

Where

A_{web} = Ratio of perforated width to full web element width

k_{web} = Ratio of perforated web element stiffness to un-perforated web element stiffness

$$= 1 - 2.175 \cdot p_{o\ web} \quad \text{for } p_{o\ web} < 0.20$$
$$= 0.9 + p_{o\ web}^{\ 2} - 1.875 \cdot p_{o\ web} \quad \text{for } 0.20 \leq p_{o\ web} \leq 0.58 \qquad \text{[Eq. A3-7]}$$

Where

$p_{o\ web}$ = Ratio of the area of perforations to the total area in the perforated band of the web

For cellular deck profiles, the nominal unit shear strength of the diaphragm system controlled by out-of-plane buckling, S_{nb}, for either acoustic cellular deck or cellular deck shall be calculated using Eq. A3-1 for all span applications as modified below:

I_x = Moment of inertia of fully effective panel per unit width, in^4/ft

t, s, d = Properties of the top fluted deck in cellular deck

Section A4: Perimeter and Intermediate Connections

The maximum spacing of fasteners on perimeter or intermediate support elements, e, such as chords, struts, or other shear transfer elements shall be determined according to Eq. A4-1

$$e = \frac{Q_f}{\min\left(S_{ni}, S_{nc}, S_{ne}, S_{nb}\right)} \leq \text{Sidelap Spacing} \qquad \text{[Eq. A4-1]}$$

Note: To keep the same diaphragm rigidity, the spacing of attachment of panels parallel to the deck flutes should not be larger than that for the interior sidelap fasteners.

Section B: Steel Deck Diaphragm Stiffness Design Equations

The diaphragm stiffness calculated per this section is applicable to Verco steel deck diaphragms where the Verco steel deck panels are attached to the diaphragm perimeter frame (parallel to the steel deck panel flutes) with fasteners installed at the same or closer spacing as the interior sidelap connectors.

The diaphragm Flexibility Factor, F, is determined by Eq. B-1:

$$F = \frac{1000}{G'} \quad \text{(micro-in/lb)} \qquad \text{[Eq. B-1]}$$

Where

G' = Diaphragm stiffness, kip/in

Section B1: Stiffness of Fluted Deck or Panels without Perforated Elements

For diaphragm or wall diaphragm systems with fluted deck or panels, the diaphragm stiffness, G', shall be calculated in accordance with Eq. B1-1:

$$G' = \left(\frac{E \cdot t}{2.6 \cdot (s/d) \cdot + \rho \cdot D_n + C}\right) \quad \text{(kip/in)} \qquad \text{[Eq. B1-1]}$$

Where

E = Modulus of elasticity of steel, 29,500 ksi, (203,000 Mpa)

t = Base steel thickness of panel, in.

d = Panel corrugation pitch, in.

s = Developed flute width per pitch, see Eq. A3-3, in.

D_n = Warping factor considering distortion at panel ends determined in accordance with Section D

ρ = Support Factor for warping determined in accordance with table B1

Table B1: Support Factor, ρ							
Spans	1	2	3	4	5	6	7
ρ	1.00	1.00	0.90	0.80	0.71	0.64	0.58

C = Slip constant considering slippage at sidelap connections and distortion at support connections, unitless

$$= E \cdot \frac{t}{w} \cdot S_f \cdot \left(\frac{2}{2 \cdot \alpha_1 + n_p \cdot \alpha_2 + 2 \cdot n_s \cdot (S_f / S_s)} \right) \cdot L \qquad \text{[Eq. B1-2]}$$

Where

L = Total panel length, in

S_f = Structural support connection flexibility determined in accordance with Section C, in/kip

S_s = Sidelap connection flexibility determined in accordance with Section C, in/kip

w = Panel cover width, in

α_1, α_2 = Factors defined in Section A2

n_p, n_s = Factors defined in Section A2

Section B2: Stiffness of Fluted Acoustic Panels with Perforated Elements

For diaphragm or wall diaphragm with acoustic panels, the diaphragm stiffness, G', shall be calculated in accordance with Eq. B1-1 modified for the perforation effect as follows:

(a) D_n shall be determined in accordance with Section D, see Table D1-2 for Warping Factor Coefficient, D

(b) s, the developed flute width per pitch modified for perforation, shall be determined using Eq. B2-1

$$s_{p\,web} = 2 \cdot e + 2 \cdot web + f + 2 \cdot P_{web} \cdot \left(\frac{1}{k_{web}} - 1 \right) \qquad \text{[Eq. B2-1]}$$

Where

P_{web} = Width of perforation band in the web flat of width, web, in (mm)

k_{web} = Ratio of perforated element stiffness to that of a solid element of the same thickness, determined in accordance with Eq. A3-7

Other parameters are defined in Section A3

Section B3: Stiffness of Cellular Deck Without Perforations

For diaphragms with cellular deck without perforations, the diaphragm stiffness, G', shall be calculated in accordance with Eq. B3-1

$$G' = \frac{E \cdot t_d}{A_a + C} \qquad \text{[Eq. B3-1]}$$

Where

A_a = Material shear deformation component for cellular deck

$$= \frac{2.6 \cdot (s/d)}{1 + (s/w_d) \cdot (t_b / t_d)} \qquad \text{[Eq. B3-2]}$$

Where

s = Developed flute width of top deck in cellular deck determined in accordance with Eq. A3-3

d = Panel corrugation pitch of top fluted deck in cellular deck, in

w_d = Distance between longitudinal rows of fasteners connecting the top deck to the bottom plate, in. d where top deck to bottom plate fasteners are at the flute centerlines

t_b = Base steel thickness of bottom plate in cellular deck, in.

t_d = Base steel thickness of top deck in cellular deck, in.

C = Slip constant considering slippage at sidelap connections and distortion at support connections, see Eq. B1-2 in which:

(a) Structural support connection flexibility, S_f, is based on the thickness of the bottom plate, t_b

(b) Sidelap connection flexibility, S_s, is based on the thickness of the bottom plate, t_b

Section B4: Stiffness of Cellular Deck With Perforations

For diaphragms with cellular deck with perforations, the diaphragm stiffness, G', shall be calculated in accordance with Eq. B3-1 as modified by this section:

A_a = Material shear deformation component for cellular deck

$$= \frac{2.6 \cdot (s/d)}{1 + (s/d') \cdot (t_b / t_d)} \qquad \text{[Eq. B4-1]}$$

Where

d' = Equivalent width of cellular deck bottom plate adjusted for perforations and measured between longitudinal rows of fasteners connecting the top deck to the bottom plate, in

$$= w_d + P_{pan} \cdot \left(\frac{1}{k_{pan}} - 1 \right) \qquad \text{[Eq. B4-2]}$$

Where

P_{pan} = Total width of perforation bands in bottom plate width, w_d, in

k_{pan} = Ratio of shear stiffness of perforated zone in bottom plate of cellular deck to a solid zone of the same thickness, t_b, and determined in accordance with Eq. 3-7

Section C: Connection Strength and Flexibility

The nominal shear strength and flexibility of support and sidelap fasteners for attaching Verco steel deck panels shall be determined according to this section

Section C1: Support Connection Strength and Flexibility

The support connection strength, Q_f, and the support connection flexibility, S_f, shall be determined in accordance with this section

Where

t_b = Base steel thickness of bottom plate in cellular deck, in

t_d = Base steel thickness of deck panel, or the top deck panel in cellular deck, in

Section C1.1: Arc Spot Welds

The connection strength, Q_f, for arc spot welds shall be determined in accordance with AISI S100 Section E2.2.1.2 with the following conditions:

(a) For bare deck panels, both acoustic and non-acoustic, $t = t_d$

(b) For cellular deck panels, both acoustic and non-acoustic, $t = t_b + t_d$

The connection flexibility, S_f, for arc spot welds shall be determined in accordance with Eq. C1.1-1

$$S_f = \frac{1.15}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.1-1]}$$

Where

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in

Section C1.2: Arc Spot Weld with Weld Washer

The connection strength, Q_f, for arc spot welds with washers shall be determined in accordance with Eq. C1.2-1

$$Q_f = 99 \cdot t \cdot (1.33 \cdot d_o + 0.3 \cdot F_{xx} \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.2-1]}$$

Where

d_o = hole diameter in weld washer, in

F_{xx} = Electrode Strength, ksi

$t = t_d < 0.0280$ in

The connection flexibility, S_f, for arc spot welds with washers shall be determined in accordance with Eq. C1.1-1

Section C1.3: Arc Seam Welds

Arc seam welds are used at the sidelap locations where they are required by the profile dimensions. The connection strength, Q_f, for arc seam welds shall be determined in accordance with AISI S100 Section E2.3 with the following conditions:

(a) For bare deck panels, both acoustic and non-acoustic, $t = t_d$

(b) For cellular deck panels, both acoustic and non-acoustic, $t = t_b$

The connection flexibility, S_f, for arc seam welds shall be determined in accordance with Eq. C1.1-1

Section C1.4: Hilti Powder Actuated Fasteners

Hilti offers several powder actuated fasteners (PAF's) for attaching Verco deck to substrate material. The choice of fastener is based on substrate thickness, see Table C1.4:

Table C1.4: Hilti PAF's

Hilti PAF Name	Applicaple Substrate Thickness, t_f
Hilti X-EDNK22	1/8 in (3 mm) ≤ t_f ≤ 1/4 in (6 mm)
Hilti X-HSN 24	1/8 in (3 mm) ≤ t_f ≤ 3/8 in (10 mm)
Hilti X-ENP-19	t_f ≥ 1/4 in (6 mm)

Section C1.4.1: Hilti X-EDNK22, and X-HSN 24 PAF's

The connection strength, Q_f, for Hilti X-EDNK22 and X-HSN 24 PAF's shall be determined in accordance with Eq. C1.4.1-1

$$Q_f = 52.0 \cdot t \cdot (1 - t) \quad \text{(kip)} \qquad \text{[Eq. C1.4.1-1]}$$

Where

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in

When used in conjunction with PunchLok II (VSC2) and PLB-36 Deck, Hilti X-EDNK22 and X-HSN 24 connection shear strengths are limited to the following for the purposes of calculating diaphragm shear strength only:

Gage	Q_f (kips)	Applicaple Substrate Thickness, t_f
22	1.357	1/8" ≤ t_f < 3/16"
20	1.712	
18 or 16	1.865	

For all other conditions, use Eq. C1.4.1-1

The connection flexibility, S_f, for Hilti X-EDNK22 and X-HSN 24 PAF's shall be determined in accordance with Eq. C1.4.1-2

$$S_f = \frac{1.25}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.4.1-2]}$$

Where

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in

Section C1.4.2: Hilti X-ENP-19 PAF's

The connection strength, Q_f, for Hilti X-ENP-19 PAF's shall be determined in accordance with Eqs. C1.4.2-1 and C1.4.2-2

For 0.0280 in ≤ t ≤ 0.060 in

$$Q_f = 56.0 \cdot t \cdot (1 - t) \quad \text{(kip)} \qquad \text{[Eq. C1.4.2-1]}$$

For t < 0.0280 in

$$Q_f = 61.1 \cdot t \cdot (1 - 4 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.4.2-2]}$$

Where

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in

The connection flexibility, S_f, for Hilti X-ENP-19 PAF's shall be determined in accordance with Eqs. C1.4.2-3 and C1.4.2-4

For 0.0280 in ≤ t ≤ 0.060 in

$$S_f = \frac{0.75}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.4.2-3]}$$

For t < 0.0280 in

$$S_f = \frac{1.25}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.4.2-4]}$$

Where

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in

Section C1.5: Pneutek Pneumatic Actuated Fasteners

Pneutek offers several pneumatic actuated fasteners (PAF's) for attaching Verco deck to substrate material. The choice of fastener is based on substrate thickness, see Table C1.5:

Table C1.5: Pneutek PAF's

Pneutek PAF Name	Applicaple Substrate Thickness, t_f
SDK61	0.113 in (2.9 mm) ≤ t_f ≤ 0.155 in (3.9 mm)
SDK63	0.155 in (3.9 mm) ≤ t_f ≤ 0.25 in (6.4 mm)
K64	0.187 in (4.7 mm) ≤ t_f ≤ 0.312 in (7.9 mm)
K66	t_f ≥ 0.281 in (7.1 mm)

Section C1.5.1: Pneutek SDK61 PAF's

The connection strength, Q_f, for Pneutek SDK61 PAF's shall be determined in accordance with Eqs. C1.5.1-1 and C1.5.1-2

For 0.0280 in ≤ t ≤ 0.060 in

$$Q_f = 55.0 \cdot t \cdot (1 - 2 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.5.1-1]}$$

For t < 0.0280 in

$$Q_f = 33.2 \cdot t \cdot (1 + 20 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.5.1-2]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in.

The connection flexibility, S_f, for Pneutek SDK61 PAF's shall be determined in accordance with Eq. C1.5.1-3

$$S_f = \frac{3.0}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.5.1-3]}$$

Where

t = t_d for bare deck panels and t_b for cellular deck panels, in.

Section C1.5.2: Pneutek SDK63 PAF's

The connection strength, Q_f, for Pneutek SDK63 PAF's shall be determined in accordance with Eqs. C1.5.2-1 and C1.5.2-2

For 0.0280 in ≤ t ≤ 0.060 in

$$Q_f = 42.4 \cdot \left[\left(\frac{t - 0.006}{4.95} \right) \right]^{0.6} \quad \text{(kip)} \qquad \text{[Eq. C1.5.2-1]}$$

For t < 0.0280 in

$$Q_f = 37.5 \cdot t \cdot (1 + 20 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.5.2-2]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in.

The connection flexibility, S_f, for Pneutek SDK63 PAF's shall be determined in accordance with Eq. C1.5.1-3

Section C1.5.3: Pneutek K64 PAF's

The connection strength, Q_f, for Pneutek K64 PAF's shall be determined in accordance with Eqs. C1.5.3-1 and C1.5.3-2

For 0.0280 in ≤ t ≤ 0.060 in

$$Q_f = 42.4 \cdot \left[\left(\frac{t - 0.018}{2.45} \right) \right]^{0.6} \quad \text{(kip)} \qquad \text{[Eq. C1.5.3-1]}$$

For t < 0.0280 in

$$Q_f = 37.7 \cdot t \cdot (1 + 20 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.5.3-2]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in

The connection flexibility, S_f, for Pneutek K64 PAF's shall be determined in accordance with Eq. C1.5.1-3

Section C1.5.4: Pneutek K66 PAF's

The connection strength, Q_f, for Pneutek K66 PAF's shall be determined in accordance with Eqs. C1.5.4-1 and C1.5.4-2

For 0.0280 in ≤ t ≤ 0.060 in

$$Q_f = 55.0 \cdot t \cdot (1 + 4 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.5.4-1]}$$

For t < 0.0280 in

$$Q_f = 32.1 \cdot t \cdot (1 + 20 \cdot t) \quad \text{(kip)} \qquad \text{[Eq. C1.5.4-2]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in

The connection flexibility, S_f, for Pneutek K66 PAF's shall be determined in accordance with Eq. C1.5.1-3

Section C1.6: SDI Recognized #12 or #14 Screws

SDI recognized screws for attachment to structural supports are defined for the purposes of this report as screws specifically listed in SDI DDM03. Currently four brands are described in Section 4.5 of DDM03: Buildex, Elco, Hilti, Simpson Strong-Tie or Triangle. The recognized screws are #12 or #14 self-drilling, self-tapping screws.

The connection strength, Q_f, for SDI Recognized #12 or #14 Screws shall be determined in accordance with Eq. C1.6-1

For substrate thickness, $t_f \geq 0.0385$ in.

$$Q_f = 1.25 \cdot F_y \cdot t \cdot (1 - 0.005 \cdot F_y) \quad \text{(kip)} \qquad \text{[Eq. C1.6-1]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in.

F_y = Yield strength of sheet steel, ksi

The connection flexibility, S_f, for SDI Recognized #12 or #14 Screws shall be determined in accordance with Eq. C1.6-2

For substrate thickness, $t_f \geq 0.0385$ in.

$$S_f = \frac{1.3}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.6-2]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in.

Section C1.7: Generic #12 or #14 Screws at Cold-Formed (CFS) Supports

Generic screws are defined for purposes of this report as either screws that are not specifically recognized in SDI DDM03, or any screw, recognized or not, used outside the parameters of the SDI recognition, such as when used in CFS framing thinner than the 0.0385 inch minimum support thickness recognized by SDI.

The connection strength, Q_f, for Generic #12 or #14 Screws at Cold-Formed (CFS) Supports shall be determined in accordance with AISI S100 Section E4.3.1 with the following conditions:

(a) For bare deck panels, both acoustic and non-acoustic, $t_1 = t_d$

(b) For cellular deck panels, both acoustic and non-acoustic, $t_1 = t_b$

The connection flexibility, S_f, for Generic #12 or #14 Screws at Cold-Formed (CFS) Supports shall be determined in accordance with Eqs. C1.7-1 and C1.7-2

For $t_2 \geq t_{limit}$,

$$S_f = \frac{1.3}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.7-1]}$$

For $t_2 < t_{limit}$,

$$S_f = \frac{1.3 + (3.0 - 1.3) \cdot [(t_{limit} - t_2)/(t_{limit} - t_1)]}{1000 \cdot \sqrt{t_1}} \quad \text{(in/kip)} \qquad \text{[Eq. C1.7-2]}$$

Where:

t = t_d for bare deck panels and t_b for cellular deck panels, in.

t_1 = Thickness of member in contact with screw head per AISI S100 Section E4.3.1

t_2 = Thickness of member not in contact with screw head per AISI S100 Section E4.3.1

t_{limit} = Minimum support thickness to prevent tilting per AISI S100 Section E4.3.1

Section C2: Sidelap Connection Strength and Flexibility

The sidelap connection strength, Q_s, and flexibility, S_s, shall be determined in accordance with this section.

Section C2.1: PunchLok II (VSC2)

The connection strength, Q_s, for PunchLok II (VSC2) shall be determined in accordance with Eq. C2.1-1

$$Q_s = 137.42 \cdot t - 2.01 \quad \text{(kips)} \qquad \text{[Eq. C2.1-1]}$$

Where:

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in.

When PunchLok II (VSC2) is used with the following mechanical fasteners, deck types, and end panel attachment patterns, the diaphragm shear strength is limited to the following values (kips per foot) unless the fastening pattern is increased at the building perimeter, chords, collectors or other shear transfer elements to two fasteners per rib:

Diaphragm Shear Strength Limitation (klf) [ASD, Ω = 2.5]												
FASTENER	**PLB-36 ≥(36/9)**				**PLN3 ≥(32/7)**				**PLN-24 ≥(24/6)**			
	22	**20**	**18**	**16**	**22**	**20**	**18**	**16**	**22**	**20**	**18**	**16**
HILTI X-EDNK22 or X-HSN 24[1]	1.2	1.5	1.7	1.7	1.1	1.3	1.7	2.2	1.1	1.4	1.8	2.3
HILTI X-EDNK22 or X-HSN 24[2]	1.3	1.6	2.1	2.6								
HILTI X-ENP-19	1.4	1.7	2.3	2.8	1.2	1.4	1.9	2.3	1.2	1.5	2.0	2.4
PNEUTEK SDK61	1.3	1.6	2.1	2.6	1.1	1.3	1.8	2.1	1.2	1.4	1.9	2.3
PNEUTEK SDK63	1.4	1.7	2.2	2.5	1.2	1.4	1.8	2.1	1.3	1.5	1.9	2.2
PNEUTEK K64	1.4	1.9	2.6	3.2	1.2	1.6	2.2	2.7	1.3	1.6	2.3	2.6
PNEUTEK K66	1.5	1.9	2.7	3.5	1.3	1.6	2.2	2.9	1.3	1.7	2.3	3.1
SDI RECOGNIZED SCREWS	1.2	1.5	2.0	2.5	1.0	1.2	1.7	2.1	1.1	1.3	1.8	2.2
#12 GENERIC SCREWS	1.0	1.2	1.6	2.0	0.8	1.0	1.3	1.6	0.9	1.0	1.4	1.7
#14 GENERIC SCREWS	1.1	1.4	1.8	2.3	0.9	1.1	1.5	1.9	1.0	1.2	1.6	2.0
0.148" NAIL	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
#9 WOOD SCREW	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
#10 WOOD SCREW	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
#12 WOOD SCREW	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
#14 WOOD SCREW	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7

[1] X-EDNK22: 1/8 in ≤ substrate thickness < 3/16 in; X-HSN24: 1/8 in ≤ substrate thickness < 3/16 in

[2] X-EDNK22: 3/16 in ≤ substrate thickness ≤ 1/4 in; X-HSN24: 3/16 in ≤ substrate thickness ≤ 3/8 in

The connection stiffness, S_s, PunchLok II (VSC2) shall be determined in accordance with Eq. C2.1-2:

$$S_s = 28.84 \cdot t^2 - 3.24 \cdot t + 0.099 \quad \text{(in/kip)} \qquad \text{[Eq. C2.1-2]}$$

Where:

$t = t_d$ for bare deck panels and t_b for cellular deck panels, in

Section C2.2: Non-Piercing Button Punch

The connection strength, Q_s, for Non-Piercing Button Punch connections shall be determined in accordance with Eq. C2.2-1:

$$Q_s = 240 \cdot t^2 \quad \text{(kips)} \qquad \text{[Eq. C2.2-1]}$$

Where

t = t_d for bare deck panels, in.

Q_s = 0 for cellular deck panels, kips

The connection stiffness, S_s, for Non-Piercing Button Punch connections shall be determined in accordance with Eq. C2.2-2:

$$S_s = \frac{30.0}{1000 \cdot \sqrt{t}} \quad \text{(in/kip)} \qquad \text{[Eq. C2.2-2]}$$

Section C2.3: Top Arc Seam Sidelap Welds

The connection strength, Q_s, for Top Arc Seam Sidelap Welds shall be determined in accordance with AISI S100 Section E2.4.1

The minimum weld spacing, s, for Top Arc Seam Sidelap Welds shall be determined in accordance with AISI S100 Section E2.4.1

The connection stiffness, S_s, for Top Arc Seam Sidelap Welds shall be determined in accordance with Eq. C2.3-1

$$S_s = \frac{1.12}{1000 \cdot \sqrt{t}} \cdot \left(\frac{L_w}{1.5} \right)^{0.25} \quad \text{(in/kip)} \qquad \text{[Eq. C2.3-1]}$$

Section C2.4: Sidelap Screws

The connection strength, Q_s, for Sidelap Screws shall be determined in accordance with AISI S100 Section E4.3.1

Where:

$t = t_1 = t_2$

$F_u = F_{u1} = F_{u2}$

d = Nominal Screw Diameter, in., from Table C2.4

Table C2.4: Screw Diameters	
Screw Type	**Diameter, d**
No. 8	0.164 in
No. 10	0.190 in
No. 12	0.216 in
1/4 in (No. 14)	0.250 in

The connection stiffness, S_s, for Sidelap Screws shall be determined in accordance with Eq. C2.4-1:

$$S_s = \frac{3.0}{1000 \cdot \sqrt{t}} \qquad \text{[Eq. C2.4-1]}$$

Section D: Determination of Warping Factor

The warping factor is influenced by the attachment pattern at the ends of panels and deck gage. The warping factor considering distortion at panel ends, D_n, shall be determined in accordance with Eq. D-1:

$$D_n = \frac{D}{L} \cdot \beta \qquad D_n = 0 \text{ for Type B-36 Deck Panels with ShearTranz II-42} \qquad \text{[Eq. D-1]}$$

Where:

L = Total panel length, in

β = Warping adjustment factor (Applies to VERCOR decks only)

$= \frac{f+g}{f}$ (for VERCOR decks) [Eq. D-2]

= 1.00 (for deck types other than VERCOR)

f = Width of top flange, in.

g = Horizontal run of web, in.

D = Warping factor coefficient, as given in Tables D1-1 though D1-4 of this report

Table D1-1: Warping Factor Coefficient, D for Unperforated Deck Profiles

Deck Gage	Deck Type and Fastener Pattern at Panel Ends				
	B-36			N3	N-24
	36/4	36/5	36/7, 36/9, 36/11 and 36/13	32/7 or 32/5	24/6 or 24/4
22 ga	10673.6	7515.8	1200.3	2774.0	7651.1
20 ga	8112.9	5712.7	912.3	2108.5	5815.6
18 ga	5280.5	3718.3	593.8	1372.4	3785.2
16 ga	3773.7	2657.2	424.4	980.8	2705.1

Table D1-2: Warping Factor Coefficient, D for Web Perforated Deck Profiles

Deck Gage	Deck Type and Fastener Pattern at Panel Ends				
	B-36 AC			N3 AC	N-24 AC
	36/4	36/5	36/7, 36/9, 36/11 and 36/13	32/7 or 32/5	24/6 or 24/4
22 ga	10707.5	7540.4	1206.3	2801.1	7726.4
20 ga	8138.7	5731.4	916.9	2129.1	5872.8
18 ga	5297.3	3730.4	596.8	1385.8	3822.5
16 ga	3785.7	2665.9	426.5	990.3	2731.7

Table D1-3: Warping Factor Coefficient, D for Unperforated Deck Profiles

Deck Gage	Deck Type and Fastener Pattern at Panel Ends	
	W2	W3
	36/4 or 36/6	36/4 or 36/6
22 ga	1624.3	2277.7
21 ga	1407.9	1964.4
20 ga	1235.6	1731.2
19 ga	980.5	1368.1
18 ga	828.3	1126.8
16 ga	588.9	805.3

Table D1-4: Warping Factor Coefficient, D for Unperforated Deck Profiles

Deck Gage	Deck Type and Fastener Pattern at Panel Ends							
	Shallow VERCOR				Deep VERCOR			
					Normal		Inverted	
	36/4	36/7	36/9	36/13	36/5	36/9	36/4	36/8
26 ga	3565.0	1037.1	706.0	43.9	3215.9	95.4	4778.9	95.4
24 ga	2310.0	672.2	457.6	28.5	2163.2	64.2	3214.6	64.2
22 ga	1651.3	480.4	327.0	20.3	1573.8	46.7	2338.8	46.7
20 ga	-	-	-	-	1210.7	35.9	1799.2	35.9