

Title: <b>Listing Sheet</b>	Document No: <b>F 625</b>
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**LISTING INFORMATION**

**Consolidated Systems Inc, 650 Rosewood Drive, Columbia SC 29201**  
**Consolidated Systems Inc. 2990 Tem Tex Blvd. Terrell, TX 75160**  
**Consolidated Systems Inc. 4900 Hungerford Road, Memphis, TN 38181**  
**Consolidated Systems Inc. 4524 N 44<sup>th</sup> Avenue, Suite 100 Phoenix, AZ 85033**

Trade Name: **F-Dek**  
Type: F Intermediate Rib  
Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0298 in. [1.52, 1.2, 0.91, 0.76 mm])  
Depth: 1.5 in. (40 mm)  
Max Spans: 5 ft 3 in. (1.6 m) for 22 ga. (0.0295 in. [0.75 mm])  
6 ft 0 in. (1.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
7 ft 2 in. (2.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
8 ft 2 in. (2.5 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **B-Dek**  
Type: B Wide Rib  
Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0298 in. [1.52, 1.2, 0.91, 0.76 mm])  
Depth: 1.5 in. (40 mm)  
Max Spans: 6 ft 3 in. (1.9 m) for 22 ga. (0.0295 in. [0.75 mm])  
7 ft 1 in. (2.2 m) for 20 ga. (0.0358 in. [0.91 mm])  
8 ft 4 in. (2.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
9 ft 4 in. (2.8 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **B-Dek Acoustical**  
Type: B Wide Rib  
Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0298 in. [1.52, 1.2, 0.91, 0.76 mm])  
Depth: 1.5 in. (40 mm)  
Max Spans: 5 ft 2 in. (1.6 m) for 22 ga. (0.0295 in. [0.75 mm])  
5 ft 10 in. (1.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
7 ft 0 in. (2.1 m) for 18 ga. (0.0474 in. [1.20 mm])  
8 ft 1 in. (2.5 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **Versa-Dek<sup>®</sup> S and Versa-Dek<sup>®</sup> LS**  
Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0295 in. [1.5, 1.2, 0.91, 0.75 mm])  
Depth: 2 in. (50 mm)  
Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
9 ft 4 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
10 ft 10 in. (3.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
12 ft 3 in. (3.7 m) for 16 ga. (0.0598 in. [1.50 mm])

Trade Name: **Versa-Dek<sup>®</sup> S and Versa-Dek<sup>®</sup> LS Acoustical**  
Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0295 in. [1.5, 1.2, 0.91, 0.75 mm])  
Depth: 2 in. (50 mm)  
Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
9 ft 2 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
10 ft 7 in. (3.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
11 ft 11 in. (3.6 m) for 16 ga. (0.0598 in. [1.50 mm])

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Trade Name: **Versa-Dek® 3.5LS**  
 Thickness: 16, 18, 20 (0.0598, 0.0474, 0.0358, [1.52, 1.20, 0.91 mm])  
 Depth: 3.5 in. (89 mm)  
 Max Spans: 16 ft 6 in. (5.0 m) for 20 ga. (0.0358 in. [0.91 mm])  
 21 ft 0 in. (6.4 m) for 18 ga. (0.0474 in. [1.20 mm])  
 23 ft 0 in. (7.0 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **Versa-Dek® 3.5LS Acoustical**  
 Thickness: 16, 18, 20 (0.0598, 0.0474, 0.0358 in. [1.52, 1.20, 0.91 mm])  
 Depth: 3.5 in. (89 mm)  
 Max Spans: 15 ft 8 in. (4.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 19 ft 11 in. (6.0 m) for 18 ga. (0.0474 in. [1.20 mm])  
 21 ft 10 in. (6.7 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **N-Dek and N-Dek Interlocking**  
 Thickness: 16, 18, 20, 22 (0.0598, 0.0474, 0.0358, 0.0295 [1.52, 1.20, 0.91, 0.75 mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 10 ft 5 in. (3.2 m) for 22 ga. (0.0295 in [0.75 mm])  
 11 ft 9 in. (3.6 m) for 20 ga. (0.0358 in. [0.91 mm])  
 14 ft 2 in. (4.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 5 in. (5.0 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **N-Dek Cellular**  
 Thickness: 16, 18, 20 (0.0598, 0.0474, 0.0358 [1.52, 1.20, 0.91mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 11 ft 9 in. (3.6 m) for 20 ga. (0.0358 in. [0.91 mm])  
 14 ft 2 in. (4.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 5 in. (5.0 m) for 16 ga. (0.0598 in. [1.52 mm])  
 Deck/Panel Gauge: 16 ga. (0.0598 in. [1.52 mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20 mm])/18 ga. (0.0474 in. [1.20 mm])  
 18 ga. (0.0474 in. [1.20 mm])/20 ga. (0.0358 in. [0.91 mm])  
 20 ga. (0.0358 in. [0.91 mm])/18 ga. (0.0474 in. [1.20 mm])  
 20 ga. (0.0358 in. [0.91 mm])/20 ga. (0.0358 in. [0.91 mm])

Trade Name: **N-Dek Acoustical and N-Dek Interlocking Acoustical**  
 Thickness: 16, 18, 20, 22 (0.0598, 0.0474, 0.0358, 0.0295 in. [1.52, 1.20, 0.91, 0.75 mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 10 ft 2 in. (3.0 m) for 22 ga. (0.0295 in [0.75 mm])  
 11 ft 6 in. (3.5 m) for 20 ga. (0.0358 in. [0.91 mm])  
 13 ft 9 in. (4.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 0 in. (4.9 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **N-Dek Cellular Acoustical**  
 Thickness: 16, 18, 20 (0.0598, 0.0474, 0.0358 [1.52, 1.20, 0.91mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 11 ft 6 in. (3.5 m) for 20 ga. (0.0358 in. [0.91 mm])  
 13 ft 9 in. (4.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 0 in. (4.9 m) for 16 ga. (0.0598 in. [1.52 mm])  
 Deck/Panel Gauge: 16 ga. (0.0598 in. [1.52 mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20 mm])/18 ga. (0.0474 in. [1.20 mm])  
 18 ga. (0.0474 in. [1.20 mm])/20 ga. (0.0358 in. [0.91 mm])  
 20 ga. (0.0358 in. [0.91 mm])/18 ga. (0.0474 in. [1.20 mm])  
 20 ga. (0.0358 in. [0.91 mm])/20 ga. (0.0358 in. [0.91 mm])

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Trade Name: **B-Dek ES and B-Dek ES Interlocking**  
 Type: B Wide Rib  
 Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0298 in. [1.52, 1.2, 0.91, 0.76 mm])  
 Depth: 1.5 in. (40 mm)  
 Max Spans: 6 ft 3 in. (1.9 m) for 22 ga. (0.0295 in. [0.75 mm])  
 7 ft 1 in. (2.2 m) for 20 ga. (0.0358 in. [0.91 mm])  
 8 ft 4 in. (2.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 9 ft 4 in. (2.8 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **B-Dek ES Acoustical & B-Dek ES Interlocking Acoustical**  
 Type: B Wide Rib  
 Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0298 in. [1.52, 1.2, 0.91, 0.76 mm])  
 Depth: 1.5 in. (40 mm)  
 Max Spans: 5 ft 2 in. (1.6 m) for 22 ga. (0.0295 in. [0.75 mm])  
 5 ft 10 in. (1.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 7 ft 0 in. (2.1 m) for 18 ga. (0.0474 in. [1.20 mm])  
 8 ft 1 in. (2.5 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **Versa-Dek® S ES and Versa-Dek® LS ES**  
 Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0295 in. [1.5, 1.2, 0.91, 0.75 mm])  
 Depth: 2 in. (50 mm)  
 Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
 9 ft 4 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 10 ft 10 in. (3.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 12 ft 3 in. (3.7 m) for 16 ga. (0.0598 in. [1.50 mm])

Trade Name: **Versa-Dek® S ES Acoustical and Versa-Dek® LS ES Acoustical**  
 Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0295 in. [1.5, 1.2, 0.91, 0.75 mm])  
 Depth: 2 in. (50 mm)  
 Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
 9 ft 2 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 10 ft 7 in. (3.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 11 ft 11 in. (3.6 m) for 16 ga. (0.0598 in. [1.50 mm])

Trade Name: **N-Dek ES Interlocking**  
 Thickness: 16, 18, 20, 22 (0.0598, 0.0474, 0.0358, 0.0295 [1.52, 1.20, 0.91, 0.75 mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 10 ft 5 in. (3.2 m) for 22 ga. (0.0295 in [0.75 mm])  
 11 ft 9 in. (3.6 m) for 20 ga. (0.0358 in. [0.91 mm])  
 14 ft 2 in. (4.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 5 in. (5.0 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **N-Dek ES Interlocking Acoustical**  
 Thickness: 16, 18, 20, 22 (0.0598, 0.0474, 0.0358, 0.0295 in. [1.52, 1.20, 0.91, 0.75 mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 10 ft 2 in. (3.0 m) for 22 ga. (0.0295 in [0.75 mm])  
 11 ft 6 in. (3.5 m) for 20 ga. (0.0358 in. [0.91 mm])  
 13 ft 9 in. (4.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 0 in. (4.9 m) for 16 ga. (0.0598 in. [1.52 mm])

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Trade Name: **N-Dek ES Cellular**  
 Depth: 3 in. (76 mm)  
 Max Spans: 11 ft 9 in. (3.6 m) for 20 ga. (0.0358 in. [0.91 mm])  
 14 ft 2 in. (4.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 5 in. (5.0 m) for 16 ga. (0.0598 in. [1.52 mm])  
 Deck/Panel Gauge: 16 ga. (0.0598 in. [1.52 mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20 mm])/18 ga. (0.0474 in. [1.20 mm])  
 18 ga. (0.0474 in. [1.20 mm])/20 ga. (0.0358 in. [0.91 mm])  
 20 ga. (0.0358 in. [0.91 mm])/18 ga. (0.0474 in. [1.20 mm])  
 20 ga. (0.0358 in. [0.91 mm])/20 ga. (0.0358 in. [0.91 mm])

Trade Name: **N-Dek ES Cellular Acoustical**  
 Thickness: 16, 18, 20 (0.0598, 0.0474, 0.0358 [1.52, 1.20, 0.91mm])  
 Depth: 3 in. (76 mm)  
 Max Spans: 11 ft 6 in. (3.5 m) for 20 ga. (0.0358 in. [0.91 mm])  
 13 ft 9 in. (4.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 16 ft 0 in. (4.9 m) for 16 ga. (0.0598 in. [1.52 mm])  
 Deck/Panel Gauge: 16 ga. (0.0598 in. [1.52 mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20mm])/16 ga. (0.0598 in. [1.52 mm])  
 18 ga. (0.0474 in. [1.20 mm])/18 ga. (0.0474 in. [1.20 mm])  
 18 ga. (0.0474 in. [1.20 mm])/20 ga. (0.0358 in. [0.91 mm])  
 20 ga. (0.0358 in. [0.91 mm])/18 ga. (0.0474 in. [1.20 mm])  
 20 ga. (0.0358 in. [0.91 mm])/20 ga. (0.0358 in. [0.91 mm])

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Deck: **F-Dek**  
 Max Spans: 5 ft 3 in. (1.6 m) for 22 ga. (0.0295 in. [0.75 mm])  
 6 ft 0 in. (1.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 7 ft 2 in. (2.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 8 ft 2 in. (2.5 m) for 16 ga. (0.0598 in. [1.52 mm])

Deck: **B -Dek**  
 Max Spans: 6 ft 3 in. (1.9 m) for 22 ga. (0.0295 in. [0.75 mm])  
 7 ft 1 in. (2.2 m) for 20 ga. (0.0358 in. [0.91 mm])  
 8 ft 4 in. (2.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 9 ft 4 in. (2.8 m) for 16 ga. (0.0598 in. [1.52 mm])

Trade Name: **B-Dek Acoustical**  
 Thickness: 16, 18, 20 or 22 ga. (0.0598, 0.0474, 0.0358, 0.0298 in. [1.52, 1.2, 0.91, 0.76 mm])  
 Depth: 1.5 in. (40 mm)  
 Max Spans: 5 ft 2 in. (1.6 m) for 22 ga. (0.0295 in. [0.75 mm])  
 5 ft 10 in. (1.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 7 ft 0 in. (2.1 m) for 18 ga. (0.0474 in. [1.20 mm])  
 8 ft 1 in. (2.5 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with Hilti S-MD 10-16x7/8 HHWH Pilot Point, S-MD 12-14x1 HHWH Stitch, ITW Buildex Tek 1, ICH Traxx/1 or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 or Elco Fastening Systems LLC 10-16x3/4 in. HWH Type 3 Drilltite®R, 12-14x3/4 in. HWH Type 3 Drilltite®R, 10-16x3/4 in. HWH Type 1 fasteners for use with 18, 20 and 22 ga. (MSG) [0.0474, 0.0358, and 0.0295 in. (1.2, 0.91, and 0.75 mm) thick], fasteners spaced at max 36 in. (914 mm) o.c. An insulation and roof covering is then applied per proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets Class 1-60/1-90 per deck securement and above deck components. Fasteners: 1) Construction Fasteners 12x3/4 HWH Impax (meets Class 1-75 at spans greater than 7 ft [2.1 m]), 12-24x7/8 HWH SD, 12-24x1-1/4 HWH Impax 45, 12x1-1/4 HWH Impax 5 S/D. 2) Hilti X-EDN19 THQ12, X-EDNK22 THQ12, ENP2-21 L15, ENPH2-21 L15, X-ENP-19 L15. 3) ITW Buildex Tek 4, Tek 5, ICH Traxx/4, ICH Traxx/5, BX 12, BX 14. 4) Pneutek SDK62075, SDK61075, SDK63075, K64062, K64075, K66062, K66075, K66082. 5) SFS Intec SD5-5.5x25 (meets Class 1-75 at spans greater than 7 ft [2.1 m]), SD5-H15-5.5x22, SD12-5.5x36, SD12-H15-5.5x32, SD8-5.5x25, SD4-5.5x25. 6) Elco Fastening Systems LLC 12 24 HWH Type 5 Drilltite®R, 12 24 HWH Type 4 point, 12 24 HWH Type 5 point.

Construction #2: 16 ga. [0.0590 in. (1.50 mm)] thick decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with ITW Buildex Tek 1 fasteners spaced at max 36 in. (914 mm) o.c. An insulation and roof covering is then applied per proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets Class 1-60/1-90 per deck securement and above deck components.

Construction #3: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with Hilti S-MD 10-16x7/8 HHWH Pilot Point, S-MD 12-14x1 HHWH Stitch, ITW Buildex Tek 1, ICH Traxx/1 or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 or Elco Fastening Systems LLC 10-16x3/4 in. HWH Type 3 Drilltite®R, 12-14x3/4 in. HWH Type 3 Drilltite®R, 10-16x3/4 in. HWH Type 1 fasteners for use with 18, 20 and 22 ga. (MSG) [0.0474, 0.0358, and 0.0295 in. (1.2, 0.91, and 0.75 mm) thick], fasteners spaced at max 36 in. (914 mm) o.c. Nominal 0.75 pcf (12 kg/m3) fiberglass insulation, 1-3/4 in. (45 mm) wide x 1.5 in. (38 mm) thick is placed within each rib opening. Minimum 1/2 in. (13 mm) Dens Deck is loose laid. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using Approved fasteners applied at the Approved density as specified in the proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

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Deck:	<b>N-Dek, N-Dek Interlocking and N-Dek Cellular</b>
Max Spans:	10 ft 5 in. (3.2 m) for 22 ga. (0.0295 in. [0.75 mm]) 11 ft 9 in. (3.6 m) for 20 ga. (0.0358 in. [0.91 mm]) 14 ft 2 in. (4.3 m) for 18 ga. (0.0474 in. [1.20 mm]) 16 ft 5 in. (5.0 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with min 3/4 in. (19 mm) diameter puddle welds for 22 gauge (0.0295 in. [0.75 mm]) and 20 gauge (0.0358 in. [0.91 mm]), 5/8 in. (16 mm) diameter puddle welds for 18 gauge (0.0474 in. [1.20 mm]) and 16 gauge (0.0598 in. [1.52 mm]), placed at the bottom of each rib at average 8 in. (203 mm) o.c. Deck side laps are secured with a button punching spaced at max 36 in. (914 mm) o.c. or ITW Buildex Tek 1 or ICH Traxx/1 fasteners or SFS Intec 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 (for use with max 20 ga. [0.0358 in. (0.91 mm) thick] deck only) placed at all supports and at max 36 in. (914 mm) o.c. Minimum 2 in. (50 mm) thick polyisocyanurate insulation boards are placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using Approved fasteners applied at the Approved density as specified in the proprietary listings. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. Roof covering is then applied per proprietary listings. The minimum thickness insulation is based on the greater of 1) the min thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. Approved above-deck systems are generally targeted to be used with Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

Trade Name:	<b>N-Dek Acoustical, N-Dek Interlocking Acoustical and N-Dek Cellular Acoustical</b>
Max Spans:	10 ft 2 in. (3.0 m) for 22 ga. (0.0295 in. [0.75 mm]) 11 ft 6 in. (3.5 m) for 20 ga. (0.0358 in. [0.91 mm]) 13 ft 9 in. (4.2 m) for 18 ga. (0.0474 in. [1.20 mm]) 16 ft 0 in. (4.9 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with min 3/4 in. (19 mm) diameter puddle welds for 22 gauge (0.0295 in. [0.75 mm]) and 20 gauge (0.0358 in. [0.91 mm]) 5/8 in. (16 mm) diameter puddle welds for 18 gauge (0.0474 in. [1.20 mm]) and 16 gauge (0.0598 in. [1.52 mm]) placed at the bottom of each rib at average 8 in. (203 mm) o.c. Deck side laps are secured with a button punching spaced at max 36 in. (914 mm) o.c. or ITW Buildex Tek 1 or ICH Traxx/1 fasteners or SFS Intec 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 (for use with max 20 ga. [0.0358 in. (0.91 mm) thick] deck only) placed at all supports and at max 36 in. (914 mm) o.c. N-Dek Acoustical an N-Dek Interlocking Acoustical, nominal 1.65 pcf (26.4 kg/m<sup>3</sup>) fiberglass insulation, 2 in. (51 mm) wide x 3.0 in. (76 mm) thick is placed within each rib opening. N-Dek Cellular Acoustical 0.125 in. (3.2 mm) thick polyethylene lathe, loose laid in the bottom of the ribs with nominal 3.0 pcf (48.1 kg/m<sup>3</sup>) fiberglass insulation, 5-1/4 in. (133.3 mm) wide x 2.0 in. (50.8 mm) thick is placed within each cell. Minimum 1/2 in. (13 mm) Dens Deck is loose laid. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using Approved fasteners applied at the Approved density as specified in the proprietary listings. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. Roof covering is then applied per proprietary listings. The minimum thickness insulation is based on the greater of 1) the min thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. Approved above-deck systems are generally targeted to be used with Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.



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Deck: **Versa-Dek® 3.5LS**  
Max Spans: 16 ft 6 in. (5.0 m) for 20 ga. (0.0358 in. [0.91 mm])  
21 ft 0 in. (6.4 m) for 18 ga. (0.0474 in. [1.20 mm])  
23 ft 0 in. (7.0 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with min 7/8 in. (22 mm) diameter puddle welds for 20 gauge (0.0358 in. [0.91 mm]), 3/4 in. (19 mm) diameter puddle welds for 18 gauge (0.0474 in. [1.20 mm]) and 3/4 in. (19 mm) puddle welds for 16 gauge (0.0598 in. [1.52 mm]), placed at the bottom of each rib at average 8 in. (203 mm) o.c. Deck side laps are secured with ITW Buildex Tek's 1 or ICH Traxx/1 fasteners or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Stadler SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 (for use with max 20 ga. [0.0358 in. (0.91 mm) thick] deck only) placed at all supports and at max 36 in. (914 mm) o.c. Minimum 2 in. (50 mm) thick polyisocyanurate insulation boards are placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using FM Approved fasteners applied at the FM Approved density as specified in the proprietary listings. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. Roof covering is then applied per proprietary listings. The minimum thickness insulation is based on the greater of 1) the min thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. FM Approved above-deck systems are generally targeted to be used with FM Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an FM Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., FM Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; FM Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

Trade Name: **Versa-Dek® 3.5LS Acoustical**  
Max Spans: 15 ft 8 in. (6.0 m) for 20 ga. (0.0358 in. [0.91 mm])  
19 ft 11 in. (6.0 m) for 18 ga. (0.0474 in. [1.20 mm])  
21 ft 10 in. (6.7 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with min 7/8 in. (22 mm) diameter puddle welds for 20 gauge (0.0358 in. [0.91 mm]), 3/4 in. (19 mm) diameter puddle welds for 18 gauge (0.0474 in. [1.20 mm]) and 3/4 in. (19 mm) puddle welds for 16 gauge (0.0598 in. [1.52 mm]) placed at the bottom of each rib at average 8 in. (203 mm) o.c. Deck side laps are secured with ITW Buildex Tek's 1 or ICH Traxx/1 fasteners or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Stadler SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 (for use with max 20 ga. [0.0358 in. (0.91 mm) thick] deck only) placed at all supports and at max 36 in. (914 mm) o.c. Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation, 5.5 in. (140 mm) wide x 2.0 in. (50 mm) thick is placed over continuous expanded metal mesh spacers within each rib opening. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using FM Approved fasteners applied at the FM Approved density as specified in the proprietary listings. 0.5 in. (13 mm) thick Retro-Fit Board secured with hot asphalt at 25 lb/sq (38 kg/m<sup>2</sup>) is placed over the insulation. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. Roof covering is then applied per proprietary listings. The minimum thickness insulation is based on the greater of 1) the min thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. FM Approved above-deck systems are generally targeted to be used with FM Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an FM Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., FM Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; FM Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

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Construction #2: Versa-Dek 3.5LS Acoustical. See RoofNav for approved spans and deck securement. 0.125 in. (3.2 mm) thick polyethylene lathe, loose laid in the bottom of the ribs. Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation 5.5 in. x 2.0 in. (140 mm x 50 mm) is loose laid within each rib opening. Minimum 2.0 in. (50 mm) thick FM Approved polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using FM Approved fasteners applied at the FM Approved density as specified in the proprietary listings. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. The minimum thickness insulation is based on the greater of 1) the minimum thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. FM Approved above-deck systems are generally targeted to be used with FM Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an FM Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., FM Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; FM Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). 0.5 in. (13 mm) thick Retro-Fit Board mechanically attached or secured with hot asphalt applied at 25 lb/sq (1.2 kg/m<sup>2</sup>) is placed over the insulation. A three or four ply BUR or two, three or four Modified Bitumen roof cover mechanically attached or adhered with hot asphalt at 25 lb/sq (1.2 kg/m<sup>2</sup>) or Single Ply roof cover, FM Approved for use with the insulation and cover board is then applied per proprietary listings. See RoofNav. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.

Trade Name: **Versa-Dek® S and Versa-Dek® LS**  
 Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
 9 ft 4 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 10 ft 10 in. (3.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 12 ft 3 in. (3.7 m) for 16 ga. (0.0598 in. [1.50 mm])

Trade Name: **Versa-Dek® S Acoustical and Versa-Dek® LS Acoustical**  
 Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
 9 ft 2 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 10 ft 7 in. (3.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 11 ft 11 in. (3.6 m) for 16 ga. (0.0598 in. [1.50 mm])

Construction #1: Deck is secured to the structural supports spaced at the max center to center spans shown above, with the end joints butted, using the fasteners shown below or with minimum 5/8 in. (16 mm) diameter puddle welds placed at each bottom rib [average 6-1/8 in. (156 mm) o.c.]. Deck side laps are secured with Hilti S-MD 10-16x7/8 HHWH Pilot Point, S-MD 12-14x1 HHWH Stitch, ITW Buildex Teks 1, ICH Traxx/1 or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 fasteners spaced at max 36 in. (914 mm) o.c. Side lap fasteners are offset approximately 0.5 in. (13 mm) from the centerline of the top rib so as not to interfere with the placement of the roof insulation screws. Min 2 in. (50 mm) thick polyisocyanurate insulation boards are placed over the deck with insulation board edges bearing along the centerline of the deck top flange. To accomplish this the boards must be trimmed as follows: When 48x48 in. (1220x1220 mm) boards are used, each board must be saw trimmed to provide for a board size of approximately 48x42 – 7/8 in. (1220x1090 mm) and when 48x96 in. (1220x2440 mm) boards are used, each board must be saw trimmed to provide for a board size of approximately 48x91 – 7/8 in. (1220x2330 mm). The board is secured to the deck with the trimmed edge and its opposite parallel edge centered above and parallel to the top flange of the deck. Insulation is applied to the deck per proprietary using the same number of FM Approved fasteners as specified for the untrimmed board.

Fasteners: 1) Construction Fasteners 12x3/4 HWH Impax (meets Class 1-75 at spans greater than 7 ft [2.1 m]), 12-24x7/8 HWH SD, 12-24x1-1/4 HWH Impax 45, 12x1-1/4 HWH Impax 5 S/D. 2) Hilti X-EDN19 THQ12, X-EDNK22 THQ12, ENP2-21 L15, ENPH2-21 L15, X-ENP-19 L15. 3) ITW Buildex Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, BX 12, BX 14. 4) Pneutek SDK62075, SDK61075, SDK63075, K64062, K64075, K66062, K66075, K66082. 5) SFS Intec SD5-5.5x25 (meets Class 1-75 at spans greater than 7 ft [2.1 m]), SD5-H15-5.5x22, SD12-5.5x36, SD12-H15-5.5x32, SD8-5.5x25, SD4-5.5x25.

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Construction #1a: Versa-Dek® S and Versa-Dek® LS – A roof cover FM Approved for use with the insulation and steel deck is applied per proprietary listings. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.

Construction #1b: Versa-Dek® S Acoustical and Versa-Dek® LS Acoustical – Metal lathe strips Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation, 4.5 in. (114 mm) wide × 2.0 in. (50 mm) thick is placed over continuous expanded metal mesh spacers within each rib opening. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation FM Approved are installed per construction #1, Insulation is fastened to the deck using Approved fasteners applied at the FM Approved density as specified in the proprietary listings. 0.5 in. (13 mm) thick Retro-Fit Board secured with hot asphalt at 25 lb/sq (38 kg/m<sup>2</sup>) is placed over the insulation. A single ply roof covering or a BUR roof covering, FM Approved for use with the insulation and steel deck is then applied per proprietary listings. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.

Construction #2: Versa-Dek® S Acoustical and Versa-Dek® LS Acoustical. See RoofNav for approved spans and deck securement. 0.125 in. (3.2 mm) thick polyethylene lathe, loose laid in the bottom of the ribs. Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation 4.5 in. × 2.0 in. (114 mm x 50 mm) is loose laid within each rib opening. Minimum 2.0 in. (50 mm) thick FM Approved polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. The deck is provided with a 6.125 in. (156 mm) rib modules. To accomplish this the boards must be trimmed as follows: When 48×48 in. (1220×1220 mm) boards are used, each board must be saw trimmed to provide for a board size of approximately 48×42 – 7/8 in. (1220×1090 mm) and when 48×96 in. (1220×2440 mm) boards are used, each board must be saw trimmed to provide for a board size of approximately 48×91 – 7/8 in. (1220×2330 mm). The board is secured to the deck with the trimmed edge and its opposite parallel edge centered above and parallel to the top flange of the deck. Insulation is fastened to the deck using Approved fasteners applied at the FM Approved density as specified in the proprietary listings. 0.5 in. (13 mm) thick Retro-Fit Board mechanically attached or secured with hot asphalt applied at 25 lb/sq (1.2 kg/m<sup>2</sup>) is placed over the insulation. A three or four ply BUR or two, three or four Modified Bitumen roof cover is mechanically attached or fully adhered with hot asphalt at 25 lb/sq (1.2 kg/m<sup>2</sup>) or Single Ply roof cover, FM Approved for use with the insulation and cover board is then applied per proprietary listings. See RoofNav. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.

Deck:	<b>B-Dek ES and B-Dek ES Interlocking</b>
Max Spans:	6 ft 3 in. (1.9 m) for 22 ga. (0.0295 in. [0.75 mm])
	7 ft 1 in. (2.2 m) for 20 ga. (0.0358 in. [0.91 mm])
	8 ft 4 in. (2.3 m) for 18 ga. (0.0474 in. [1.20 mm])
	9 ft 4 in. (2.8 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with Hilti S-MD 10-16×7/8 HHWH Pilot Point, S-MD 12-14×1 HHWH Stitch, ITW Buildex Tek 1, ICH Traxx/1 or Construction Fasteners 14×7/8 HWH Lap-SD, 10×1/2 HWH S/D or 12×3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8×20, SL2-S-4.8×20, SL2-H15-6.3×22, SXL2-5.5×22, SD2-4.8×20 or Elco Fastening Systems LLC 10-16×3/4 in. HWH Type 3 Drillite®R, 12-14×3/4 in. HWH Type 3 Drillite®R, 10-16×3/4 in. HWH Type 1 fasteners for use with 18, 20 and 22 ga. (MSG) [0.0474, 0.0358, and 0.0295 in. (1.2, 0.91, and 0.75 mm) thick], fasteners spaced at max 36 in. (914 mm) o.c. An insulation and roof covering is then applied per proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets Class 1-60/1-90 per deck securement and above deck components.

Fasteners: 1) Construction Fasteners 12×3/4 HWH Impax (meets Class 1-75 at spans greater than 7 ft [2.1 m]), 12-24×7/8 HWH SD, 12-24×1-1/4 HWH Impax 45, 12×1-1/4 HWH Impax 5 S/D. 2) Hilti X-EDN19 THQ12, X-EDNK22 THQ12, ENP2-21 L15, ENPH2-21 L15, X-ENP-19 L15. 3) ITW Buildex Tek 4, Tek 5, ICH Traxx/4, ICH Traxx/5, BX 12, BX 14. 4) Pneutek SDK62075, SDK61075, SDK63075, K64062, K64075, K66062, K66075, K66082. 5) SFS Intec SD5-5.5×25 (meets Class 1-75 at spans greater than 7 ft [2.1 m]), SD5-H15-5.5×22, SD12-5.5×36, SD12-H15-5.5×32, SD8-5.5×25, SD4-5.5×25. 6) Elco Fastening Systems LLC 12 24 HWH Type 5 Drillite®R, 12 24 HWH Type 4 point, 12 24 HWH Type 5 point.

Construction #2: 16 ga. [0.0590 in. (1.50 mm)] thick decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with ITW Buildex Tek 1 fasteners spaced at max 36 in. (914 mm) o.c. An insulation and roof covering is then applied per proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets Class 1-60/1-90 per deck securement and above deck components.

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Deck:	<b>B-Dek Acoustical, B-Dek ES &amp; B-Dek ES Interlocking</b>
Max Spans:	5 ft 2 in. (1.6 m) for 22 ga. (0.0295 in. [0.75 mm]) 5 ft 10 in. (1.8 m) for 20 ga. (0.0358 in. [0.91 mm]) 7 ft 0 in. (2.1 m) for 18 ga. (0.0474 in. [1.20 mm]) 8 ft 1 in. (2.5 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with Hilti S-MD 10-16x7/8 HHWH Pilot Point, S-MD 12-14x1 HHWH Stitch, ITW Buildex Tek 1, ICH Traxx/1 or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 or Elco Fastening Systems LLC 10-16x3/4 in. HWH Type 3 Drillite\R, 12-14x3/4 in. HWH Type 3 Drillite\R, 10-16x3/4 in. HWH Type 1 fasteners for use with 18, 20 and 22 ga. (MSG) [0.0474, 0.0358, and 0.0295 in. (1.2, 0.91, and 0.75 mm) thick], fasteners spaced at max 36 in. (914 mm) o.c. An insulation and roof covering is then applied per proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets Class 1-60/1-90 per deck securement and above deck components.

Fasteners: 1) Construction Fasteners 12x3/4 HWH Impax (meets Class 1-75 at spans greater than 7 ft [2.1 m]), 12-24x7/8 HWH SD, 12-24x1-1/4 HWH Impax 45, 12x1-1/4 HWH Impax 5 S/D. 2) Hilti X-EDN19 THQ12, X-EDNK22 THQ12, ENP2-21 L15, ENPH2-21 L15, X-ENP-19 L15. 3) ITW Buildex Tek 4, Tek 5, ICH Traxx/4, ICH Traxx/5, BX 12, BX 14. 4) Pneutek SDK62075, SDK61075, SDK63075, K64062, K64075, K66062, K66075, K66082. 5) SFS Intec SD5-5.5x25 (meets Class 1-75 at spans greater than 7 ft [2.1 m]), SD5-H15-5.5x22, SD12-5.5x36, SD12-H15-5.5x32, SD8-5.5x25, SD4-5.5x25. 6) Elco Fastening Systems LLC 12 24 HWH Type 5 Drillite\R, 12 24 HWH Type 4 point, 12 24 HWH Type 5 point.

Construction #2: 16 ga. [0.0590 in. (1.50 mm)] thick decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with ITW Buildex Tek 1 fasteners spaced at max 36 in. (914 mm) o.c. An insulation and roof covering is then applied per proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets Class 1-60/1-90 per deck securement and above deck components.

Construction #3: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with fasteners or min 0.5 in. (13 mm) diameter puddle welds for Class 1-60 or 5/8 in. (16 mm) diameter puddle welds for Class 1-90 placed at alternating bottom ribs [average 12 in. (305 mm) o.c.] and at supports where deck sides lap. Deck side laps are secured with Hilti S-MD 10-16x7/8 HHWH Pilot Point, S-MD 12-14x1 HHWH Stitch, ITW Buildex Tek 1, ICH Traxx/1 or Construction Fasteners 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 or Elco Fastening Systems LLC 10-16x3/4 in. HWH Type 3 Drillite\R, 12-14x3/4 in. HWH Type 3 Drillite\R, 10-16x3/4 in. HWH Type 1 fasteners for use with 18, 20 and 22 ga. (MSG) [0.0474, 0.0358, and 0.0295 in. (1.2, 0.91, and 0.75 mm) thick], fasteners spaced at max 36 in. (914 mm) o.c. Nominal 0.75 pcf (12 kg/m3) fiberglass insulation, 1-3/4 in. (45 mm) wide x 1.5 in. (38 mm) thick is placed within each rib opening. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using Approved fasteners applied at the Approved density as specified in the proprietary listings. Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

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Deck:	<b>N Dek ES Interlocking, and N-Dek ES Cellular</b>
Max Spans:	10 ft 5 in. (3.2 m) for 22 ga. (0.0295 in. [0.75 mm]) 11 ft 9 in. (3.6 m) for 20 ga. (0.0358 in. [0.91 mm]) 14 ft 2 in. (4.3 m) for 18 ga. (0.0474 in. [1.20 mm]) 16 ft 5 in. (5.0 m) for 16 ga. (0.0598 in. [1.52 mm])

Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with min 3/4 in. (19 mm) diameter puddle welds for 22 gauge (0.0295 in. [0.75 mm]) and 20 gauge (0.0358 in. [0.91 mm]), 5/8 in. (16 mm) diameter puddle welds for 18 gauge (0.0474 in. [1.20 mm]) and 16 gauge (0.0598 in. [1.52 mm]), placed at the bottom of each rib at average 8 in. (203 mm) o.c. Deck side laps are secured with a button punching spaced at max 36 in. (914 mm) o.c. or ITW Buildex Tek 1 or ICH Traxx/1 fasteners or SFS Intec 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 (for use with max 20 ga. [0.0358 in. (0.91 mm) thick] deck only) placed at all supports and at max 36 in. (914 mm) o.c. Minimum 2 in. (50 mm) thick polyisocyanurate insulation boards are placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using Approved fasteners applied at the Approved density as specified in the proprietary listings. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. Roof covering is then applied per proprietary listings. The minimum thickness insulation is based on the greater of 1) the min thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. Approved above-deck systems are generally targeted to be used with Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

Trade Name: **N-Dek ES Interlocking Acoustical, and N-Dek ES Cellular Acoustical**

Max Spans:	10 ft 2 in. (3.0 m) for 22 ga. (0.0295 in. [0.75 mm]) 11 ft 6 in. (3.5 m) for 20 ga. (0.0358 in. [0.91 mm]) 13 ft 9 in. (4.2 m) for 18 ga. (0.0474 in. [1.20 mm]) 16 ft 0 in. (4.9 m) for 16 ga. (0.0598 in. [1.52 mm])
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Construction #1: Decking is secured to the structural supports spaced at the maximum center to center spans shown above with min 3/4 in. (19 mm) diameter puddle welds for 22 gauge (0.0295 in. [0.75 mm]) and 20 gauge (0.0358 in. [0.91 mm]) 5/8 in. (16 mm) diameter puddle welds for 18 gauge (0.0474 in. [1.20 mm]) and 16 gauge (0.0598 in. [1.52 mm]) placed at the bottom of each rib at average 8 in. (203 mm) o.c. Deck side laps are secured with a button punching spaced at max 36 in. (914 mm) o.c. or ITW Buildex Tek 1 or ICH Traxx/1 fasteners or SFS Intec 14x7/8 HWH Lap-SD, 10x1/2 HWH S/D or 12x3/4 HWH SP Stitch or SFS Intec SL2-4.8x20, SL2-S-4.8x20, SL2-H15-6.3x22, SXL2-5.5x22, SD2-4.8x20 (for use with max 20 ga. [0.0358 in. (0.91 mm) thick] deck only) placed at all supports and at max 36 in. (914 mm) o.c. N-Dek ES Interlocking Acoustical, nominal 1.65 pcf (26.4 kg/m<sup>3</sup>) fiberglass insulation, 2 in. (51 mm) wide x 3.0 in. (76 mm) thick is placed within each rib opening. N-Dek ES Cellular Acoustical 0.125 in. (3.2 mm) thick Polyethylene lathe, loose laid in the bottom of the ribs with nominal 3.0 lbf (48.1 kg/m<sup>3</sup>) fiberglass insulation, 5-1/4 in. (133.3 mm) wide x 2.0 in. (50 mm) thick is placed within each cell. Minimum 1/2 in. (13 mm) Dens Deck is loose laid. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. Insulation is fastened to the deck using Approved fasteners applied at the Approved density as specified in the proprietary listings. This deck is provided with an 8 in. (203 mm) rib module. Consideration of this module must be given. Roof covering is then applied per proprietary listings. The minimum thickness insulation is based on the greater of 1) the min thickness listed for this deck, or 2) the minimum thickness as described in the proprietary listings for the intended wind uplift rating. Approved above-deck systems are generally targeted to be used with Approved steel decks of 1.5 in. (40 mm) depth and their related 6 in. (152 mm) rib modules. Therefore, when utilizing an Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) rib module, and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing). Refer to the use of steel roof decks throughout listings for details. Meets max Class 1-90 per deck securement and above deck components.

Title: <b>Listing Sheet</b>	Document No: <b>F 625</b>
Issue Date: <b>01/April/2009</b>	Issue No: <b>0</b>

Trade Name: **Versa-Dek® S ES and Versa-Dek® LS ES**  
 Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
 9 ft 4 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 10 ft 10 in. (3.3 m) for 18 ga. (0.0474 in. [1.20 mm])  
 12 ft 3 in. (3.7 m) for 16 ga. (0.0598 in. [1.50 mm])

Trade Name: **Versa-Dek® S ES Acoustical and Versa-Dek® LS ES Acoustical**  
 Max Spans: 8 ft 3 in. (2.5 m) for 22 ga. (0.0295 in. [0.75 mm])  
 9 ft 2 in. (2.8 m) for 20 ga. (0.0358 in. [0.91 mm])  
 10 ft 7 in. (3.2 m) for 18 ga. (0.0474 in. [1.20 mm])  
 11 ft 11 in. (3.6 m) for 16 ga. (0.0598 in. [1.50 mm])

Construction #1: Deck is secured to the structural supports spaced at the max center to center spans shown above, with the end joints butted, using the fasteners shown below or with minimum 5/8 in. (16 mm) diameter puddle welds placed at each bottom rib [average 6 in. (150 mm) o.c.]. Deck side laps are secured with Hilti S-MD 10-16×7/8 HHWH Pilot Point, S-MD 12-14×1 HHWH Stitch, ITW Buildex Teks 1, ICH Traxx/1 or Construction Fasteners 14×7/8 HWH Lap-SD, 10×1/2 HWH S/D or 12×3/4 HWH SP Stitch or SFS Intec (all fasteners for use with 20 and 22 ga. [0.0358 and 0.0295 in. (0.91 and 0.75 mm)] thick deck) SL2-4.8×20, SL2-S-4.8×20, SL2-H15-6.3×22, SXL2-5.5×22, SD2-4.8×20 fasteners spaced at max 36 in. (914 mm) o.c. Side lap fasteners are offset approximately 0.5 in. (13 mm) from the centerline of the top rib so as not to interfere with the placement of the roof insulation screws. Min 2 in. (50 mm) thick polyisocyanurate insulation boards are placed over the deck with insulation board edges bearing along the centerline of the deck top flange. The board is secured to the deck with the trimmed edge and its opposite parallel edge centered above and parallel to the top flange of the deck. Insulation is applied to the deck per proprietary using the same number of FM Approved fasteners as specified for the untrimmed board.

Fasteners: 1) Construction Fasteners 12×3/4 HWH Impax (meets Class 1-75 at spans greater than 7 ft [2.1 m]), 12-24×7/8 HWH SD, 12-24×1-1/4 HWH Impax 45, 12×1-1/4 HWH Impax 5 S/D. 2) Hilti X-EDN19 THQ12, X-EDNK22 THQ12, ENP2-21 L15, ENPH2-21 L15, X-ENP-19 L15. 3) ITW Buildex Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, BX 12, BX 14. 4) Pneutek SDK62075, SDK61075, SDK63075, K64062, K64075, K66062, K66075, K66082. 5) SFS Intec SD5-5.5×25 (meets Class 1-75 at spans greater than 7 ft [2.1 m]), SD5-H15-5.5×22, SD12-5.5×36, SD12-H15-5.5×32, SD8-5.5×25, SD4-5.5×25.

Construction #1a: Versa-Dek® S ES Acoustical and Versa-Dek® LS ES Acoustical – A roof cover FM Approved for use with the insulation and steel deck is applied per proprietary listings. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.

Construction #1b: Versa-Dek® S ES Acoustical and Versa-Dek® LS ES Acoustical – Metal lathe strips Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation, 4.5 in. (114 mm) wide × 2.0 in. (50 mm) thick is placed over continuous expanded metal mesh spacers within each rib opening. Minimum 2.0 in. (50 mm) thick polyisocyanurate insulation FM Approved are installed per construction #1, Insulation is fastened to the deck using Approved fasteners applied at the FM Approved density as specified in the proprietary listings. 0.5 in. (13 mm) thick Retro-Fit Board secured with hot asphalt at 25 lb/sq (38 kg/m<sup>2</sup>) is placed over the insulation. A single ply roof covering or a BUR roof covering, FM Approved for use with the insulation and steel deck is then applied per proprietary listings. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.

Construction #2: Versa-Dek® S ES Acoustical and Versa-Dek® LS ES Acoustical. See RoofNav for approved spans and deck securement. 0.125 in. (3.2 mm) polyethylene lathe, loose laid in the bottom of the ribs. Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation, 4.5 in. (114 mm) wide × 2.0 in. (50 mm) thick is loose laid within each rib opening. Minimum 2 in. (50 mm) thick FM Approved polyisocyanurate insulation boards are placed over the deck with insulation board edges bearing along the centerline of the deck top flange. The board is secured to the deck using FM Approved fasteners applied at the FM Approved density as specified in the proprietary listings. The deck is provided with a 6 in. (152 mm) rib modules. 0.5 in. (13 mm) thick Retro-Fit Board mechanically attached or secured with hot asphalt at 25 lb/sq (1.2 kg/m<sup>2</sup>) is placed over the insulation. A three or four ply BUR or two, three or four ply Modified Bitumen roof cover mechanically attached or adhered with hot asphalt at 25 lb/sq (0.38 kg/m<sup>2</sup>) or Single Ply roof cover, FM Approved for use with the insulation and cover board is then applied per proprietary listings. See RoofNav. Meets Class 1-60/1-75/1-90 per deck securement and securement of the above deck components.