New Millennium Building Systems B-Dek Acoustical steel roof deck is secured to the structural supports. Nominal 0.75 pcf (12 kg/m^3) fiberglass insulation, 1.5 x 1.75 in. (38 x 45 mm), is loose laid within each rib opening. Minimum 0.5 in. (13 mm) thick Dens Deck is then loose laid on the deck followed by minimum 2 in. (50 mm) thick polyisocyanurate insulation and an FM Approved fully or partially adhered roof covering or with a mechanically attached roof covering when the in-row fastener spacing is less than or equal to one-half of the deck span, per proprietary listings.

Go to www.roofnav.com to obtain up to date information.

The maximum allowable span is the lesser of:

- the span shown in the tables below,
- the maximum span for the selected proprietary fastener used to secure the deck or
- the maximum span shown in the specified RoofNav assembly

The wind uplift rating of the completed roof assembly cannot exceed the wind rating of the above deck components shown in the specified RoofNav assembly.

The decks are secured to structural supports using fasteners FM Approved for securing steel deck to structural supports. Steel deck side laps are secured using fasteners FM Approved for securing steel deck laps. Refer to RoofNav product listings for fastener details.

In lieu of mechanical fasteners, the decks are secured to supports with puddle welds as noted in Tables below. The spacing shown is the maximum spacing permitted and the weld diameter shown is the minimum visible weld diameter. Maximum four sheets of 22 ga. (0.0295 in. [0.75 mm]) and 20 ga. (0.0358 in. [0.91 mm]) thick decks can be welded and maximum three sheets of 18 ga. (0.0474 in. [1.2 mm]) and two sheets of 16 ga. (0.0598 in. [1.52 mm]) thick decks can be welded.

B-Dek Acoustical Secured with FM Approved fasteners						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	69	1753	69	1753	69	1753
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.20])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	101	2565	101	2565	101	2565
Deck Design Thickness	Wind Rating - Two or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	83	2108	83	2108	83	2108
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.20])	106	2692	106	2692	106	2692
16 (0.0598 [1.52])	119	3023	119	3023	119	3023

B-Dek Acoustical Secured with 0.625 in. (15 mm) diameter welds spaced 12 in. (305 mm) o.c.						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	69	1753	69	1753	69	1753
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.20])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	101	2565	101	2565	101	2565
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	83	2108	65	1651	54	1372
20 (0.0358 [0.91])	92	2337	79	2007	66	1676
18 (0.0474 [1.20])	106	2692	105	2667	86	2184
16 (0.0598 [1.52])	119	3023	119	3023	109	2769
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	83	2108	82	2083	68	1727
20 (0.0358 [0.91])	92	2337	92	2337	82	2083
18 (0.0474 [1.20])	106	2692	106	2692	106	2692
16 (0.0598 [1.52])	119	3023	119	3023	119	3023

B-Dek Acoustical Secured with 0.625 in. (15 mm) diameter welds spaced 6 in. (150 mm) o.c.						
Deck Design Thickness	Wind Rating - Two or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	83	2108	83	2108	83	2108
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.20])	106	2692	106	2692	106	2692
16 (0.0598 [1.52])	119	3023	119	3023	119	3023

B-Dek Acoustical Secured with 0.75 in. (19 mm) diameter welds spaced 12 in. (305 mm) o.c.						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	83	2108	79	2007	66	1676
20 (0.0358 [0.91])	92	2337	92	2337	80	2032
18 (0.0474 [1.20])	106	2692	106	2692	105	2667
16 (0.0598 [1.52])	119	3023	119	3023	119	3023
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	83	2108	83	2108	82	2083
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.20])	106	2692	106	2692	106	2692
16 (0.0598 [1.52])	119	3023	119	3023	119	3023