New Millennium Building Systems LLC N-Dek Cellular steel roof deck is secured to the structural supports and covered with 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.

N-Dek Cellular has an 8 in. (203 mm) rib module spacing and require minimum 2 in. (38 mm) thick polyisocyanurate insulation board be installed with edges along the centerline of the top flange. The spacing between edge ribs of two adjacent panels is 8.5 in. (216 mm); therefore insulation boards must be trimmed to provide proper edge bearing along the centerline of the top flange. When utilizing an FM Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than 8 in. (203 mm) and reduce the 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).

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.

N-Dek Cellular 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
20/20 (0.0716 [1.82])	218	5537	218	5537	218	5537
20/18 (0.0832 [2.11])	227	5766	227	5766	227	5766
18/20 (0.0832 [2.11])	249	6325	249	6325	249	6325
18/18 (0.0948 [2.41])	260	6604	260	6604	260	6604
18/16 (0.1072 [2.72])	270	6858	270	6858	270	6858
16/18 (0.1072 [2.72])	290	7366	290	7366	290	7366
16/16 (0.1196 [3.04])	301	7645	301	7645	301	7645
16/14 (0.1345 [3.42])	312	7925	312	7925	312	7925
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20/20 (0.0716 [1.82])	221	5613	194	4928	176	4470
20/18 (0.0832 [2.11])	223	5664	196	4978	177	4496
18/20 (0.0832 [2.11])	274	6960	241	6121	217	5512
18/18 (0.0948 [2.41])	281	7137	246	6248	222	5639
18/16 (0.1072 [2.72])	287	7290	251	6375	226	5740
16/18 (0.1072 [2.72])	335	8509	293	7442	263	6680
16/16 (0.1196 [3.04])	343	8712	298	7569	268	6807
16/14 (0.1345 [3.42])	352	8941	305	7747	273	6934
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20/20 (0.0716 [1.82])	247	6274	217	5512	196	4948
20/18 (0.0832 [2.11])	249	6325	219	5563	197	5004
18/20 (0.0832 [2.11])	297	7544	270	6858	243	6172
18/18 (0.0948 [2.41])	314	7976	275	6985	248	6299
18/16 (0.1072 [2.72])	321	8153	281	7137	252	6401
16/18 (0.1072 [2.72])	342	8687	327	8306	294	7468
16/16 (0.1196 [3.04])	361	9169	334	8484	299	7595
16/14 (0.1345 [3.42])	380	9652	341	8661	305	7747

N-Dek Cellular Secured with 0.75 in. (19 mm) diameter welds spaced 8 in. (203 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
20/20 (0.0716 [1.82])	218	5537	218	5537	218	5537
20/18 (0.0832 [2.11])	227	5766	227	5766	227	5766
18/20 (0.0832 [2.11])	249	6325	249	6325	241	6121
18/18 (0.0948 [2.41])	260	6604	260	6604	260	6604
18/16 (0.1072 [2.72])	270	6858	270	6858	270	6858
16/18 (0.1072 [2.72])	290	7366	290	7366	290	7366
16/16 (0.1196 [3.04])	301	7645	301	7645	301	7645
16/14 (0.1345 [3.42])	312	7925	312	7925	312	7925
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20/20 (0.0716 [1.82])	221	5613	194	4928	176	4470
20/18 (0.0832 [2.11])	223	5664	196	4978	177	4496
18/20 (0.0832 [2.11])	274	6960	241	6121	217	5512
18/18 (0.0948 [2.41])	281	7137	246	6248	222	5639
18/16 (0.1072 [2.72])	287	7290	251	6375	226	5740
16/18 (0.1072 [2.72])	335	8509	293	7442	263	6680
16/16 (0.1196 [3.04])	343	8712	298	7569	268	6807
16/14 (0.1345 [3.42])	352	8941	305	7747	273	6934
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20/20 (0.0716 [1.82])	247	6274	217	5512	196	4978
20/18 (0.0832 [2.11])	249	6325	219	5563	197	5004
18/20 (0.0832 [2.11])	297	7544	270	6858	243	6172
18/18 (0.0948 [2.41])	314	7976	275	6985	248	6299
18/16 (0.1072 [2.72])	321	8153	281	7137	252	6401
16/18 (0.1072 [2.72])	342	8687	327	8306	294	7468
16/16 (0.1196 [3.04])	361	9169	334	8484	299	7595
16/14 (0.1345 [3.42])	380	9652	341	8661	305	7747