New Millennium Building Systems LLC Type F steel roof deck is secured to the structural supports. The deck is 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.
Go to www.roofnav.com to obtain up to date information.

The maximum allowable span is the lesser of:

- the span shown in the table 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 deck is secured to structural supports using fasteners FM Approved for securing steel deck to structural supports or with welds as described below. 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 A through F. The weld diameter shown is the minimum visible weld diameter for a single sheet of deck for spans shown in. See Table G for the equivalent visible weld diameter needed when welding through multiple sheets of deck.

Maximum Spans for Type F

Deck Design Thickness	Wind Rating - Three Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	64	1626	64	1626	64	1626
0.0358 in. (0.91 mm, 20 ga.)	79	2007	79	2007	79	2007
0.0474 in. (1.20 mm, 18 ga.)	91	2311	91	2311	91	2311
0.0598 in. (1.52 mm, 16 ga.)	102	2591	102	2591	102	2591

Deck Design Thickness	Wind Rating - Two Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	63	1600	63	1600	63	1600
0.0358 in. (0.91 mm, 20 ga.)	78	1981	78	1981	78	1981
0.0474 in. (1.20 mm, 18 ga.)	91	2311	91	2311	91	2311
0.0598 in. (1.52 mm, 16 ga.)	102	2591	102	2591	100	2540

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	52	1321	52	1321	52	1321
0.0358 in. (0.91 mm, 20 ga.)	65	1651	65	1651	65	1651
0.0474 in. (1.20 mm, 18 ga.)	77	1956	77	1956	77	1956
0.0598 in. (1.52 mm, 16 ga.)	87	2210	87	2210	87	2210

Table A							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.5	12.7	6	152.4	60000	414

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	148	3759	118	2997	99	2515
0.0358 in. (0.91 mm, 20 ga.)	177	4496	142	3607	118	2997
0.0474 in. (1.20 mm, 18 ga.)	229	5817	183	4648	153	3886
0.0598 in. (1.52 mm, 16 ga.)	281	7137	225	5715	187	4750

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	118	2997	95	2413	79	2007
0.0358 in. (0.91 mm, 20 ga.)	142	3607	113	2870	94	2388
0.0474 in. (1.20 mm, 18 ga.)	183	4674	147	3734	122	3099
0.0598 in. (1.52 mm, 16 ga.)	225	5715	180	4572	150	3810

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	135	3429	108	2743	90	2286
0.0358 in. (0.91 mm, 20 ga.)	161	4089	129	3277	107	2718
0.0474 in. (1.20 mm, 18 ga.)	208	5309	167	4242	139	3531
0.0598 in. (1.52 mm, 16 ga.)	256	6502	205	5207	170	3353

Table B							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.5	12.7	12	304.8	60000	414

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	74	1880	59	1499	49	1245
0.0358 in. (0.91 mm, 20 ga.)	88	2235	71	1803	59	1499
0.0474 in. (1.20 mm, 18 ga.)	114	2896	91	2311	76	1930
0.0598 in. (1.52 mm, 16 ga.)	140	3556	112	2845	93	2362

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	59	1499	47	1194	39	991
0.0358 in. (0.91 mm, 20 ga.)	71	1803	56	1422	47	1194
0.0474 in. (1.20 mm, 18 ga.)	91	2311	73	1854	61	1549
0.0598 in. (1.52 mm, 16 ga.)	112	2845	90	2286	75	1905

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	67	1702	54	1372	45	1143
0.0358 in. (0.91 mm, 20 ga.)	80	2032	64	1626	53	1346
0.0474 in. (1.20 mm, 18 ga.)	104	2642	83	2108	69	1753
0.0598 in. (1.52 mm, 16 ga.)	128	3251	102	2591	85	2159

Table C							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.625	15.875	6	152.4	60000	414

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	188	4775	150	3810	125	3175
0.0358 in. (0.91 mm, 20 ga.)	225	5715	180	4572	150	3810
0.0474 in. (1.20 mm, 18 ga.)	293	7442	234	5944	195	4953
0.0598 in. (1.52 mm, 16 ga.)	362	9195	289	7341	241	6121

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	150	3810	120	3048	100	2540
0.0358 in. (0.91 mm, 20 ga.)	180	4572	144	3658	120	3048
0.0474 in. (1.20 mm, 18 ga.)	234	5944	187	4750	156	3962
0.0598 in. (1.52 mm, 16 ga.)	289	7341	231	5867	193	4902

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	171	4343	136	3454	114	2896
0.0358 in. (0.91 mm, 20 ga.)	205	5207	164	4166	136	3454
0.0474 in. (1.20 mm, 18 ga.)	266	6756	213	5410	177	4496
0.0598 in. (1.52 mm, 16 ga.)	329	8357	263	6680	219	5563

Table D							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.625	15.875	12	304.8	60000	414

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	94	2388	75	1905	62	1575
0.0358 in. (0.91 mm, 20 ga.)	112	2845	90	2286	75	1905
0.0474 in. (1.20 mm, 18 ga.)	146	3708	117	2972	97	2464
0.0598 in. (1.52 mm, 16 ga.)	181	4597	144	3658	120	3048

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	75	1905	60	1524	50	1270
0.0358 in. (0.91 mm, 20 ga.)	90	2286	72	1829	60	1524
0.0474 in. (1.20 mm, 18 ga.)	117	2972	93	2362	78	1981
0.0598 in. (1.52 mm, 16 ga.)	144	3658	115	2921	96	2438

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	85	2159	68	1727	57	1448
0.0358 in. (0.91 mm, 20 ga.)	102	2591	82	2083	68	1727
0.0474 in. (1.20 mm, 18 ga.)	133	3378	106	2692	88	2235
0.0598 in. (1.52 mm, 16 ga.)	164	4166	131	3327	109	2769

Table E							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.75	19.05	6	152.4	60000	414

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	227	5766	182	4623	151	3835
0.0358 in. (0.91 mm, 20 ga.)	273	6934	219	5563	182	4623
0.0474 in. (1.20 mm, 18 ga.)	356	9042	285	7239	237	6020
0.0598 in. (1.52 mm, 16 ga.)	442	11227	353	8966	294	7468

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	182	4623	145	3683	121	3073
0.0358 in. (0.91 mm, 20 ga.)	219	5563	175	4445	146	3708
0.0474 in. (1.20 mm, 18 ga.)	285	7239	228	5791	190	4826
0.0598 in. (1.52 mm, 16 ga.)	353	8966	282	7163	235	5969

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	206	5232	165	4191	137	3480
0.0358 in. (0.91 mm, 20 ga.)	248	6299	199	5055	165	4191
0.0474 in. (1.20 mm, 18 ga.)	324	8230	259	6579	216	5486
0.0598 in. (1.52 mm, 16 ga.)	401	10185	321	8153	267	6782

Table F							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.75	19.05	12	304.8	60000	414

Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	113	2870	91	2311	75	1905
0.0358 in. (0.91 mm, 20 ga.)	136	3454	109	2769	91	2311
0.0474 in. (1.20 mm, 18 ga.)	178	4521	142	3607	118	2997
0.0598 in. (1.52 mm, 16 ga.)	221	5613	176	4470	147	3734

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	91	2311	72	1829	60	1524
0.0358 in. (0.91 mm, 20 ga.)	109	2769	87	2210	73	1854
0.0474 in. (1.20 mm, 18 ga.)	142	3607	114	2896	95	2413
0.0598 in. (1.52 mm, 16 ga.)	176	4470	141	3581	117	2972

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
	in.	mm	in.	mm	in.	mm
0.0295 in. (0.75 mm, 22 ga.)	103	2616	82	2083	68	1727
0.0358 in. (0.91 mm, 20 ga.)	124	3150	99	2515	82	2083
0.0474 in. (1.20 mm, 18 ga.)	162	4115	129	3277	108	2743
0.0598 in. (1.52 mm, 16 ga.)	200	5080	160	4064	133	3378

The equivalent visible weld diameter needed when welding through multiple sheets of deck

Table G						
Deck Design Thickness	Number of Welded Sheets					
	2	4	2	4	2	4
	in. (mm)		in. (mm)		in. (mm)	
	Visible Weld Diameter Through Single Sheet					
	0.5 (12.7)		0.625 (15.9)		0.75 (19.1)	
	Equivalent Visible Weld Diameter for Multiple Sheets					
0.0295 in. (0.75 mm, 22 ga.)	0.500 (12.7)		0.625 (15.9)		0.750 (19.1)	
0.0358 in. (0.91 mm, 20 ga.)	0.500 (12.7)	†	0.625 (15.9)		0.750 (19.1)	
0.0474 in. (1.20 mm, 18 ga.)	0.500 (12.7)	N/A	0.625 (15.9)	N/A	0.750 (19.1)	N/A
0.0598 in. (1.52 mm, 16 ga.)	‡	N/A	0.625 (15.9)	N/A	0.750 (19.1)	N/A

† = 0.526 in. (13.4 mm) with 60,000 psi (414 MPa) weld electrode and 0.510 in. (13.0 mm) with 70,000 psi (483 MPa) weld electrode

‡ = 0.533 in. (13.5 mm) with 60,000 psi (414 MPa) weld electrode and 0.512 in. (13.0 mm) with 70,000 psi (483 MPa) weld electrode