New Millennium Building Systems LLC Type N 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. For all constructions, minimum 2 in. (38 mm) thick polyisocyanurate insulation board is installed with edges along the centerline of the top flange.
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 C. The weld diameter shown is the minimum visible weld diameter for a single sheet of deck for spans shown in. See Table D for the equivalent visible weld diameter needed when welding through multiple sheets of deck.

Maximum Spans for Type N

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.)	174	4420	156	3962	142	3607
0.0329 in. (0.84 mm, 21 ga.)	188	4775	168	4267	154	3912
0.0358 in. (0.91 mm, 20 ga.)	200	5080	179	4547	163	4140
0.0418 in. (1.10 mm, 19 ga.)	218	5537	195	4953	178	4521
0.0474 in. (1.20 mm, 18 ga.)	234	5944	209	5309	191	4851
0.0598 in. (1.52 mm, 16 ga.)	267	6782	238	6045	218	5537

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.)	156	3962	139	3531	127	3226
0.0329 in. (0.84 mm, 21 ga.)	168	4267	150	3810	137	3480
0.0358 in. (0.91 mm, 20 ga.)	179	4547	160	4064	146	3708
0.0418 in. (1.10 mm, 19 ga.)	195	4953	175	4445	159	4039
0.0474 in. (1.20 mm, 18 ga.)	209	5309	187	4750	171	4343
0.0598 in. (1.52 mm, 16 ga.)	238	6045	213	5410	195	4953

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.)	152	3861	148	3759	135	3429
0.0329 in. (0.84 mm, 21 ga.)	171	4343	159	4039	145	3683
0.0358 in. (0.91 mm, 20 ga.)	179	4547	168	4267	153	3886
0.0418 in. (1.10 mm, 19 ga.)	193	4902	183	4648	167	4242
0.0474 in. (1.20 mm, 18 ga.)	206	5232	195	4953	178	4521
0.0598 in. (1.52 mm, 16 ga.)	231	5867	219	5563	200	5080

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Table A - Type N							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.5	12.7	8	203.2	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.)	111	2819	89	2261	74	1880
0.0329 in. (0.84 mm, 21 ga.)	123	3124	98	2489	82	2083
0.0358 in. (0.91 mm, 20 ga.)	133	3378	106	2692	88	2235
0.0418 in. (1.10 mm, 19 ga.)	153	3886	123	3124	102	2591
0.0474 in. (1.20 mm, 18 ga.)	172	4369	137	3480	114	2896
0.0598 in. (1.52 mm, 16 ga.)	211	5359	169	4293	140	3556

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.)	89	2261	71	1803	59	1499
0.0329 in. (0.84 mm, 21 ga.)	98	2489	79	2007	65	1651
0.0358 in. (0.91 mm, 20 ga.)	106	2692	85	2159	71	1803
0.0418 in. (1.10 mm, 19 ga.)	123	3124	98	2489	82	2083
0.0474 in. (1.20 mm, 18 ga.)	137	3480	110	2794	91	2311
0.0598 in. (1.52 mm, 16 ga.)	169	4293	135	3429	112	2845

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.)	101	2565	81	2057	67	1702
0.0329 in. (0.84 mm, 21 ga.)	112	2845	89	2261	74	1880
0.0358 in. (0.91 mm, 20 ga.)	121	3073	97	2464	80	2032
0.0418 in. (1.10 mm, 19 ga.)	139	3531	111	2819	93	2362
0.0474 in. (1.20 mm, 18 ga.)	156	3962	125	3175	104	2642
0.0598 in. (1.52 mm, 16 ga.)	192	4877	153	3886	128	3251

Table B - Type N							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.625	15.875	8	203.2	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.)	141	3581	112	2845	94	2388
0.0329 in. (0.84 mm, 21 ga.)	156	3962	125	3175	104	2642
0.0358 in. (0.91 mm, 20 ga.)	169	4293	135	3429	112	2845
0.0418 in. (1.10 mm, 19 ga.)	195	4953	156	3962	130	3302
0.0474 in. (1.20 mm, 18 ga.)	219	5563	175	4445	146	3708
0.0598 in. (1.52 mm, 16 ga.)	271	6883	217	5512	181	4597

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.)	112	2845	90	2286	75	1905
0.0329 in. (0.84 mm, 21 ga.)	125	3175	100	2540	83	2108
0.0358 in. (0.91 mm, 20 ga.)	135	3429	108	2743	90	2286
0.0418 in. (1.10 mm, 19 ga.)	156	3962	125	3175	104	2642
0.0474 in. (1.20 mm, 18 ga.)	175	4445	140	3556	117	2972
0.0598 in. (1.52 mm, 16 ga.)	217	5512	173	4394	144	3658

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.)	128	3251	102	2591	85	2159
0.0329 in. (0.84 mm, 21 ga.)	142	3607	113	2870	94	2388
0.0358 in. (0.91 mm, 20 ga.)	154	3912	123	3124	102	2591
0.0418 in. (1.10 mm, 19 ga.)	178	4521	142	3607	118	2997
0.0474 in. (1.20 mm, 18 ga.)	199	5055	159	4039	133	3378
0.0598 in. (1.52 mm, 16 ga.)	246	6248	197	5004	164	4166

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Table C - Type N							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
33000	228	0.75	19.05	8	203.2	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.)	170	4318	136	3454	113	2870
0.0329 in. (0.84 mm, 21 ga.)	189	4801	151	3835	126	3200
0.0358 in. (0.91 mm, 20 ga.)	205	5207	164	4166	136	3454
0.0418 in. (1.10 mm, 19 ga.)	237	6020	190	4826	158	4013
0.0474 in. (1.20 mm, 18 ga.)	267	6782	214	5436	178	4521
0.0598 in. (1.52 mm, 16 ga.)	331	8407	265	6731	221	5613

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.)	136	3454	109	2769	91	2311
0.0329 in. (0.84 mm, 21 ga.)	151	3835	121	3073	101	2565
0.0358 in. (0.91 mm, 20 ga.)	164	4166	131	3327	109	2769
0.0418 in. (1.10 mm, 19 ga.)	190	4826	152	3861	126	3200
0.0474 in. (1.20 mm, 18 ga.)	214	5436	171	4343	142	3607
0.0598 in. (1.52 mm, 16 ga.)	265	6731	212	5385	176	4470

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.)	155	3937	124	3150	103	2616
0.0329 in. (0.84 mm, 21 ga.)	172	4369	137	3480	114	2896
0.0358 in. (0.91 mm, 20 ga.)	186	4724	149	3785	124	3150
0.0418 in. (1.10 mm, 19 ga.)	216	5486	172	4369	144	3658
0.0474 in. (1.20 mm, 18 ga.)	243	6172	194	4928	162	4115
0.0598 in. (1.52 mm, 16 ga.)	301	7645	241	6121	200	5080

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

Table D - Type N						
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)	
0.0329 in. (0.84 mm, 21 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)	
0.0418 in. (1.10 mm, 19 ga.)	0.500 (12.7)	N/A	0.625 (15.9)	N/A	0.750 (19.1)	N/A
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