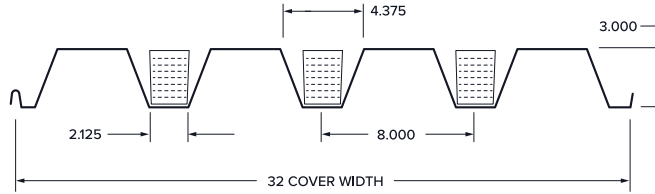


## PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	32	1.78
20	0.0358		2.16
18	0.0474		2.86
16	0.0598		3.60



## ASD

### SECTION PROPERTIES

### DESIGN STRENGTHS

Gage	F <sub>y</sub> (ksi)	I <sub>D</sub> 1 Span (in <sup>4</sup> /ft)	I <sub>D</sub> 2+ Span (in <sup>4</sup> /ft)	I <sub>p</sub> (in <sup>4</sup> /ft)	I <sub>n</sub> (in <sup>4</sup> /ft)	S <sub>p</sub> (in <sup>3</sup> /ft)	S <sub>n</sub> (in <sup>3</sup> /ft)	M <sub>n,p</sub> /Ω (in-lb/ft)	M <sub>n,n</sub> /Ω (in-lb/ft)	V <sub>n</sub> /Ω (lb/ft)	*R <sub>be</sub> /Ω (lb/ft)	*R <sub>bi</sub> /Ω (lb/ft)
22	50	0.666	0.740	0.622	0.732	0.331	0.384	9902	11498	1637	511	1080
20	50	0.840	0.909	0.803	0.906	0.432	0.490	12930	14663	2832	742	1550
18	50	1.167	1.208	1.147	1.208	0.640	0.691	19172	20687	4958	1267	2610
16	50	1.507	1.519	1.502	1.519	0.862	0.898	25816	26881	6857	1965	4012

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers applied in accordance with SDI white paper "Perforated Metal Deck Design with Commentary".
  - Web crippling design strengths\* are based on minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing.

## ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		8 - 0	10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	
Single	22	103 / 85	66 / 44	55 / 33	46 / 25	39 / 20	34 / 16	29 / 13	26 / 11	-	-	16 - 6
	20	135 / 108	86 / 55	71 / 41	60 / 32	51 / 25	44 / 20	38 / 16	34 / 13	27 / 9	-	21 - 6
	18	200 / 149	128 / 77	106 / 57	89 / 44	76 / 35	65 / 28	57 / 23	50 / 19	39 / 13	32 / 10	31 - 11
	16	269 / 193	172 / 99	142 / 74	120 / 57	102 / 45	88 / 36	76 / 29	67 / 24	53 / 17	43 / 12	40 - 0
Double	22	108 / 228	74 / 117	61 / 88	52 / 68	44 / 53	38 / 43	33 / 35	29 / 29	23 / 20	-	20 - 3
	20	147 / 281	96 / 144	79 / 108	67 / 83	57 / 65	49 / 52	43 / 43	38 / 35	30 / 25	24 / 18	26 - 6
	18	211 / 373	136 / 191	113 / 143	95 / 110	81 / 87	70 / 70	61 / 57	54 / 47	42 / 33	34 / 24	39 - 4
	16	274 / 469	177 / 240	146 / 180	123 / 139	105 / 109	91 / 87	79 / 71	70 / 59	55 / 41	45 / 30	40 - 0
Triple	22	123 / 179	90 / 91	75 / 69	64 / 53	55 / 42	47 / 33	41 / 27	-	-	-	20 - 7
	20	176 / 220	118 / 112	98 / 85	83 / 65	71 / 51	61 / 41	54 / 33	-	-	-	26 - 11
	18	261 / 292	169 / 149	140 / 112	118 / 86	101 / 68	87 / 54	76 / 44	-	-	-	39 - 11
	16	340 / 367	220 / 188	182 / 141	154 / 109	131 / 86	113 / 68	99 / 56	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
    - ANSI/SDI RD-2017 Standard for Steel Roof Deck
    - Minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing. Check web crippling if minimums are not met.
  - Maximum construction spans shown include a check for a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria, which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
  - Values in RED are shown for use in determining deck capacity under deflection limits more stringent than Span/240. The total loads shown are not to be exceeded.
  - See website at [www.newmill.com](http://www.newmill.com) for Factory Mutual approved deck types and maximum FM construction spans.

## MAXIMUM CANTILEVER SPANS

Gage	F <sub>y</sub> (ksi)	Back-Span Condition		
		Single	Double	Triple
22	50	4 - 2	4 - 1	4 - 0
20	50	5 - 3	5 - 2	4 - 4
18	50	5 - 8	5 - 11	4 - 4
16	50	6 - 0	5 - 11	4 - 4

- Notes:**
- Maximum cantilever spans shown are based on the following criteria:
    - ANSI/SDI RD-2017 Standard for Steel Roof Deck
    - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
    - Bearing width at perimeter support assumed to be 3" minimum
    - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.