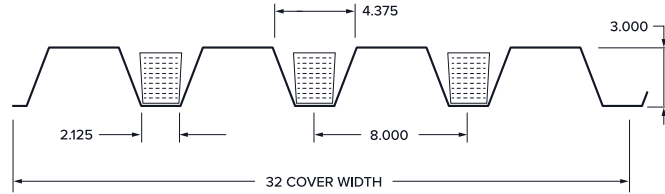


## PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	32	1.76
20	0.0358		2.14
18	0.0474		2.82
16	0.0598		3.56



## 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	0.673	0.733	0.629	0.718	0.335	0.361	10024	10805	1637	511	1080
20	50	0.850	0.908	0.813	0.900	0.438	0.470	13099	14085	2832	742	1550
18	50	1.181	1.219	1.161	1.218	0.649	0.680	19423	20354	4958	1267	2610
16	50	1.526	1.537	1.520	1.537	0.874	0.900	26176	26954	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	104 / 86	67 / 44	55 / 33	46 / 26	40 / 20	34 / 16	30 / 13	26 / 11	-	-	16 - 8
	20	136 / 109	87 / 56	72 / 42	61 / 32	52 / 25	45 / 20	39 / 17	34 / 14	27 / 10	-	21 - 9
	18	202 / 151	129 / 77	107 / 58	90 / 45	77 / 35	66 / 28	58 / 23	51 / 19	40 / 13	32 / 10	32 - 4
	16	273 / 195	175 / 100	144 / 75	121 / 58	103 / 46	89 / 36	78 / 30	68 / 24	54 / 17	44 / 13	40 - 0
Double	22	106 / 226	69 / 116	58 / 87	49 / 67	42 / 53	36 / 42	31 / 34	28 / 28	22 / 20	-	20 - 6
	20	142 / 280	92 / 144	76 / 108	64 / 83	55 / 65	47 / 52	41 / 43	36 / 35	29 / 25	23 / 18	26 - 10
	18	207 / 376	134 / 193	111 / 145	93 / 112	80 / 88	69 / 70	60 / 57	53 / 47	42 / 33	34 / 24	39 - 10
	16	275 / 475	177 / 243	147 / 183	124 / 141	105 / 111	91 / 89	79 / 72	70 / 59	55 / 42	45 / 30	40 - 0
Triple	22	123 / 177	86 / 91	71 / 68	60 / 52	52 / 41	45 / 33	39 / 27	-	-	-	20 - 10
	20	175 / 219	114 / 112	95 / 84	80 / 65	68 / 51	59 / 41	51 / 33	-	-	-	27 - 3
	18	257 / 295	166 / 151	138 / 113	116 / 87	99 / 69	86 / 55	75 / 45	-	-	-	40 - 0
	16	341 / 371	220 / 190	183 / 143	154 / 110	131 / 87	113 / 69	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 - 0	4 - 0	4 - 0
20	50	5 - 1	5 - 1	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.

