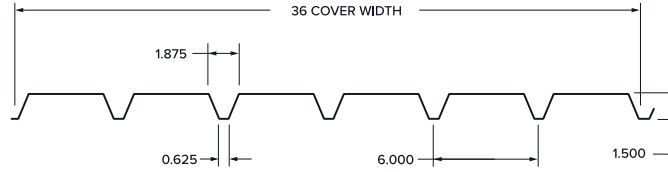


1.5" F Deck (F)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	36	1.58
20	0.0358		1.92
18	0.0474		2.54
16	0.0598		3.21



ICC-ES APPROVED
REFER TO ESR-3818

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
22	40	0.121	0.128	0.118	0.128	0.110	0.121	2629	2890	2132	622	1144
20	40	0.151	0.155	0.149	0.155	0.136	0.146	3266	3494	2579	887	1641
18	40	0.205	0.205	0.205	0.205	0.186	0.192	4447	4595	3395	1483	2761
16	40	0.259	0.259	0.259	0.259	0.238	0.240	5700	5755	4257	2269	4240

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16.
 - 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)										
		4 - 0	4 - 6	5 - 0	5 - 6	6 - 0	6 - 6	7 - 0	8 - 0	9 - 0	10 - 0	
Single	22	110 / 124	87 / 87	-	-	-	-	-	-	-	-	4 - 3
	20	136 / 155	108 / 109	87 / 79	72 / 60	-	-	-	-	-	-	5 - 3
	18	185 / 210	146 / 147	119 / 107	98 / 81	82 / 62	70 / 49	61 / 39	46 / 26	-	-	7 - 1
	16	238 / 265	188 / 186	152 / 136	126 / 102	106 / 78	90 / 62	78 / 49	59 / 33	47 / 23	-	8 - 10
Double	22	119 / 316	94 / 222	77 / 162	63 / 122	-	-	-	-	-	-	5 - 3
	20	144 / 383	114 / 269	93 / 196	77 / 147	64 / 114	55 / 89	-	-	-	-	6 - 6
	18	190 / 507	150 / 356	122 / 260	101 / 195	85 / 150	72 / 118	62 / 95	48 / 63	38 / 45	-	8 - 8
	16	237 / 639	188 / 449	153 / 327	126 / 246	106 / 189	90 / 149	78 / 119	60 / 80	47 / 56	38 / 41	10 - 9
Triple	22	148 / 247	118 / 174	95 / 127	79 / 95	-	-	-	-	-	-	5 - 4
	20	179 / 300	142 / 211	115 / 154	96 / 115	80 / 89	69 / 70	59 / 56	-	-	-	6 - 7
	18	236 / 397	187 / 279	152 / 203	126 / 153	106 / 118	90 / 92	78 / 74	60 / 50	47 / 35	-	8 - 9
	16	296 / 500	234 / 351	190 / 256	157 / 192	132 / 148	113 / 117	97 / 93	75 / 62	59 / 44	48 / 32	10 - 11

- 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 deck self-weight plus 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.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
22	40	1 - 1	1 - 1	1 - 1
20	40	1 - 4	1 - 4	1 - 4
18	40	1 - 9	1 - 9	1 - 9
16	40	2 - 2	2 - 2	2 - 2

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.