

Aluminum Grating

I-BAR SWAGE-LOCKED

15/16" Center to Center of Bearing Bars



15-SI-4
Cross Rods 4" C/C



15-SI-2
Cross Rods 2" C/C

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight psf	Sec. Mod Per Ft. Of Width	SPAN (Length of Bearing Bar)					
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"
1" x 1/4"	15-4-44	2.45	0.400	U 800	512	356	261	200	158
	15-2-44	2.75		D 0.144	0.225	0.324	0.441	0.576	0.729
				C 800	640	533	457	400	356
				D 0.115	0.180	0.259	0.353	0.461	0.583
1-1/4" x 1/4"	15-4-54	2.91	0.625	U 1250	800	556	408	313	247
	15-2-54	3.21		D 0.115	0.180	0.259	0.353	0.461	0.583
				C 1250	1000	833	714	625	556
				D 0.092	0.144	0.207	0.282	0.369	0.467
1-1/2" x 1/4"	15-4-64	3.36	0.900	U 1800	1152	800	588	450	356
	15-2-64	3.66		D 0.096	0.150	0.216	0.294	0.384	0.486
				C 1800	1440	1200	1029	900	800
				D 0.077	0.120	0.173	0.235	0.307	0.389
1-3/4" x 1/4"	15-4-74	3.80	1.225	U 2450	1568	1089	800	613	484
	15-2-74	4.10		D 0.082	0.129	0.185	0.252	0.329	0.417
				C 2450	1960	1633	1400	1225	1089
				D 0.066	0.103	0.148	0.202	0.263	0.333
2" x 1/4"	15-4-84	4.30	1.600	U 3200	2048	1422	1045	800	632
	15-2-84	4.60		D 0.072	0.113	0.162	0.221	0.288	0.365
				C 3200	2560	2133	1829	1600	1422
				D 0.058	0.090	0.130	0.176	0.230	0.292
2-1/4" x 1/4"	15-4-94	4.74	2.025	U 4050	2592	1800	1322	1013	800
	15-2-94	5.04		D 0.064	0.100	0.144	0.196	0.256	0.324
				C 4050	3240	2700	2314	2025	1800
				D 0.051	0.080	0.115	0.157	0.205	0.259
2-1/2" x 1/4"	15-4-104	5.23	2.500	U 5000	3200	2222	1633	1250	988
	15-2-104	5.53		D 0.058	0.090	0.130	0.176	0.230	0.292
				C 5000	4000	3333	2857	2500	2222
				D 0.046	0.072	0.104	0.141	0.184	0.233

U = safe uniform load, psf

C = safe concentrated load, pfw

D = deflection, inches

E = modulus of elasticity, 10,000,000 psi

F = fiber stress, 12,000 psi

Material: ASTM B-221, 6063 or 6061

Deflection: Spans and loads to the right of the bold line exceed 1/4" deflection for uniform load of 100 psf which provides safe pedestrian comfort. These can be exceeded for other types of loads with engineer's approval.

General: Loads and deflections are theoretical and based on static loading.

Finish: Mill finish unless otherwise specified.

SI-15 PANEL WIDTH (inches)

Note: Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SI).

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1/4" Bar	17 ¹ / ₁₆	2 ³ / ₈	3 ⁵ / ₁₆	4 ¹ / ₄	5 ³ / ₁₆	6 ¹ / ₈	7 ¹ / ₁₆	8	8 ¹⁵ / ₁₆	9 ⁷ / ₈	10 ¹³ / ₁₆	11 ³ / ₄	12 ¹¹ / ₁₆	13 ⁵ / ₈	14 ⁹ / ₁₆	15 ¹ / ₂	16 ⁷ / ₁₆	17 ³ / ₈	18 ⁵ / ₁₆
No. of Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1/4" Bar	19 ¹ / ₄	20 ³ / ₁₆	21 ¹ / ₈	22 ¹ / ₁₆	23	23 ¹⁵ / ₁₆	24 ⁷ / ₈	25 ¹³ / ₁₆	26 ³ / ₄	27 ¹¹ / ₁₆	28 ⁵ / ₈	29 ⁹ / ₁₆	30 ¹ / ₂	31 ⁷ / ₁₆	32 ³ / ₈	33 ⁵ / ₁₆	34 ¹ / ₄	35 ³ / ₁₆	36 ¹ / ₈