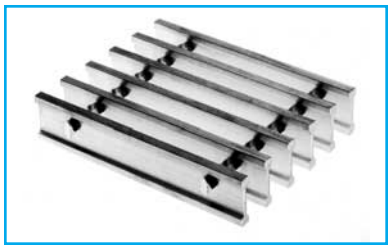
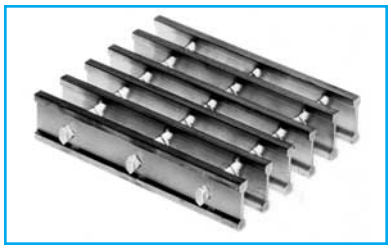
I-BAR SWAGE-LOCKED

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		2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"
1" x 1/4"	15-4-44	2.45	0.400	U	800	512	356	261	200	158							
				D	0.144	0.225	0.324	0.441	0.576	0.729							
	15-2-44	2.75		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	200	165					
				D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871					
	15-2-54	3.21		C	1250	1000	833	714	625	556	500	455					
				D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697					
1-1/2" x 1/4"	15-4-64	3.36	0.900	U	1800	1152	800	588	450	356	288	238	200				
				D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864				
	15-2-64	3.66		C	1800	1440	1200	1029	900	800	720	655	600				
				D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691				
1-3/4" x 1/4"	15-4-74	3.80	1.225	U	2450	1568	1089	800	613	484	392	324	272	232			
				D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869			
	15-2-74	4.10		C	2450	1960	1633	1400	1225	1089	980	891	817	754			
				D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695			
2" x 1/4"	15-4-84	4.30	1.600	U	3200	2048	1422	1045	800	632	512	423	356	303	261		
				D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882		
	15-2-84	4.60		C	3200	2560	2133	1829	1600	1422	1280	1164	1067	985	914		
				D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706		
2-1/4" x 1/4"	15-4-94	4.74	2.025	U	4050	2592	1800	1322	1013	800	648	536	450	383	331	253	200
				D	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	1.024	1.296
	15-2-94	5.04		C	4050	3240	2700	2314	2025	1800	1620	1473	1350	1246	1157	1013	900
				D	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.627	0.819	1.037
2-1/2" x 1/4"	15-4-104	5.23	2.500	U	5000	3200	2222	1633	1250	988	800	661	556	473	408	313	247
				D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.922	1.166
	15-2-104	5.53		C	5000	4000	3333	2857	2500	2222	2000	1818	1667	1538	1429	1250	1111
				D	0.046	0.072	0.104	0.141	0.184	0.233	0.288	0.348	0.415	0.487	0.564	0.737	0.933

SPAN (Length of Bearing Bar)

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	1 7/16	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