

RECT BAR SWAGE LOCKED

LOAD & DEFLECTION TABLE

15-SR-4 & 15-SR-2

Bearing Bar Size	Ped. Span inches	Approx. Weight lbs/sqft	Sec. Prop. S_x^* (in ³)	I_x^* (in ⁴)	Clear Span (Direction of Bearing Bars)												
					2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	
1" x 3/16"	46	3.06	0.400	U	800	512	356	261	200	U = Safe uniform load (psf) C = Safe concentrated load (lbs/ft width) D = Deflection (inches) E = Modulus of Elasticity, 10,000,000 psi F = Allowable Fiber Stress, 12,000 psi Material: ASTM B221, 6063-T6 Finish: Mill finish unless otherwise specified.							
				Du	0.144	0.225	0.324	0.441	0.576								
			0.200	C	800	640	533	457	400								
				Dc	0.115	0.180	0.259	0.353	0.461								
1-1/4" x 3/16"	55	3.75	0.625	U	1250	800	556	408	313	247	200	Loads and deflections shown are theoretical and based on static loading. * Based on 12.8 bars/ft of grating width. Bearing bar spacing of 15/16" c.c. Add 0.3 lbs/sqft for 15-SR-2. 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. This can be exceeded for other types of loads with the Engineer's approval.					
				Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720						
			0.391	C	1250	1000	833	714	625	556	500						
				Dc	0.092	0.144	0.207	0.282	0.368	0.467	0.576						
1-1/2" x 3/16"	63	4.45	0.900	U	1800	1152	800	588	450	356	288	238	Serrated Bars: For serrated grating, the depth of grating required for a specified load is 1/4" deeper than that shown in table.				
				Du	0.096	0.150	0.216	0.294	0.384	0.487	0.599	0.726					
			0.675	C	1800	1440	1200	1029	900	800	720	655					
				Dc	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581					
1-3/4" x 3/16"	70	5.16	1.225	U	2450	1568	1089	800	613	484	392	324	272				
				Du	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.623	0.741				
			1.072	C	2450	1960	1633	1400	1225	1089	980	891	817				
				Dc	0.066	0.103	0.148	0.202	0.263	0.333	0.412	0.498	0.593				
2" x 3/16"	78	5.87	1.600	U	3200	2048	1422	1045	800	632	512	423	356	303	261		
				Du	0.072	0.113	0.162	0.221	0.288	0.364	0.450	0.544	0.649	0.760	0.881		
			1.600	C	3200	2560	2133	1829	1600	1422	1280	1164	1067	985	914		
				Dc	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.705		
2-1/4" x 3/16"	85	6.57	2.025	U	4050	2592	1800	1322	1013	800	648	536	450	383	331	253	
				Du	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	1.023	
			2.278	C	4050	3240	2700	2314	2025	1800	1620	1473	1350	1246	1157	1013	
				Dc	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.628	0.820	
2-1/2" x 3/16"	92	7.27	2.500	U	5000	3200	2222	1633	1250	988	800	661	556	473	408	313	
				Du	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.519	0.609	0.705	0.923	
			3.125	C	5000	4000	3333	2857	2500	2222	2000	1818	1667	1538	1429	1250	
				Dc	0.046	0.072	0.104	0.141	0.184	0.233	0.288	0.348	0.415	0.487	0.565	0.737	

Panel Width Chart (in.) - 15-SR-4 & 15-SR-2

Dimensions are Out-to-Out of Bearing Bars**

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

** Add 1/4" for extended crossbars. Standard panel width indicated in "maroon".