MARCO SPECIALTY STEEL

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15-SR-4, 15-SR-2 & 15-AP-4, 15-AP-2 Aluminum Grating

Rectangular Bar Swage-Locked

15/16" Center to Center of Bearing Bars

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

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

Press-Locked

15/16" Center to Center of Bearing Bars

15-AP-4
Cross Bars 4" C/C

15-AP-2
Cross Bars 2" C/C

Load & Deflection Table

Bar Size	Symbol		Approx. Weight psf	Sec mod Per Fl of Width		SPAN (Length of Bearing Bar) 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"
3/4" x 1/8"	15-4-32	SR	1.8	0.118	U	300	192	133	98									
		AP	1.8		D	0.192	0.300	0.432	0.588									
	15-2-32	SR	2.1		C	300	240	200	171									
		AP	2.1		D	0.154	0.240	0.346	0.470	0.614								
3/4" x 3/16"	15-4-33	SR	2.5	0.178	U	450	288	200	147	113								
		AP	2.7		D	0.192	0.300	0.432	0.588	0.768								
	15-2-33	SR	2.8		C	450	360	300	257	225								
		AP	3.2		D	0.154	0.240	0.346	0.470	0.614								
1" x 1/8"	15-4-42	SR	2.3	0.211	U	533	341	237	174	133								
		AP	2.3		D	0.144	0.225	0.324	0.441	0.576								
	15-2-42	SR	2.6		C	533	427	356	305	267								
		AP	2.6		D	0.115	0.180	0.259	0.353	0.461	0.576							
1" x 3/16"	15-4-43	SR	3.3	0.316	U	800	512	356	261	200	158							
		AP	3.4		D	0.144	0.225	0.324	0.441	0.576	0.729							
	15-2-43	SR	3.6		C	800	640	533	457	400	356							
		AP	3.9		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720						
1-1/4" x 1/8"	15-4-52	SR	2.8	0.329	U	833	533	370	272	208	165	133						
		AP	2.9		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720						
	15-2-52	SR	3.1		C	833	667	556	476	417	370	333						
		AP	3.3		D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.871					
1-1/4" x 3/16"	15-4-53	SR	4.0	0.493	U	1250	800	556	408	313	247	200	165					
		AP	4.3		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871					
	15-2-53	SR	4.3		C	1250	1000	833	714	625	556	500	455					
		AP	5.0		D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697					
1-1/2" x 1/8"	15-4-62	SR	3.3	0.474	U	1200	768	533	392	300	237	192	159					
		AP	3.4		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726					
	15-2-62	SR	3.6		C	1200	960	800	686	600	533	480	436					
		AP	3.8		D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691				
1-1/2" x 3/16"	15-4-63	SR	4.7	0.711	U	1800	1152	800	588	450	356	288	238	200				
		AP	5.1		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864				
	15-2-63	SR	5.0		C	1800	1440	1200	1029	900	800	720	655	600				
		AP	5.8		D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.826			
1-3/4" x 3/16"	15-4-73	SR	5.5	0.967	U	2450	1568	1089	800	613	484	392	324	272	232			
		AP	5.8		D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869			
	15-2-73	SR	5.8		C	2450	1960	1633	1400	1225	1089	980	891	817	754			
		AP	6.5		D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	7'-0"		
2" x 3/16"	15-4-83	SR	6.2	1.263	U	3200	2048	1422	1045	800	632	512	423	356	303	261		
		AP	6.5		D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882		
	15-2-83	SR	6.5		C	3200	2560	2133	1829	1600	1422	1280	1164	1067	985	914		
		AP	7.2		D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	8'-0"	9'-0"
2-1/4" x 3/16"	15-4-93	SR	6.9	1.599	U	4050	2592	1800	1322	1013	800	648	536	450	383	331	253	200
		AP	7.3		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
	15-2-93	SR	7.2		C	4050	3240	2700	2314	2025	1800	1620	1473	1350	1246	1157	1013	900
		AP	8.0		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 3/16"	15-4-103	SR	7.7	1.974	U	5000	3200	2222	1633	1250	988	800	661	556	473	408	313	247
		AP	8.0		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
	15-2-103	SR	8.0		C	5000	4000	3333	2857	2500	2222	2000	1818	1667	1538	1429	1250	1111
		AP	8.7		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

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.

Serrated Bars: For serrated grating, the depth of grating required for a specified load Is 1/4" deeper than that shown in the table.

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

Finish: Mill finish unless otherwise specified.

SR/AP-15 PANEL WIDTH (inches) **Note:** Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SR) and extended cross bars on press-locked (AP).

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