

19-SR-4, 19-SR-2 & 19-AP-4, 19-AP-2 Aluminum Grating

Rectangular Bar Swage-Locked

1-3/16" Center to Center of Bearing Bars



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



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

Press-Locked

1-3/16" Center to Center of Bearing Bars



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



19-AP-2
Cross Bars 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"									
3/4" x 1/8"	19-4-32	1.5	0.118	U	237	152	105	77									
	AP	1.5		D	0.192	0.300	0.432	0.588									
	19-2-32	1.8		C	237	189	158	135									
3/4" x 3/16"	AP	1.8	0.178	D	0.154	0.240	0.346	0.470									
	SR	2.1		U	355	227	158	116									
	AP	2.3		D	0.192	0.300	0.432	0.588									
	19-2-33	2.4		C	355	284	237	203									
	AP	2.8		D	0.154	0.240	0.346	0.470		4'-0"							
	SR	1.9		U	421	269	187	137	105								
1" x 1/8"	19-4-42	1.9	0.211	D	0.144	0.225	0.324	0.441	0.576								
	19-2-42	2.2		C	421	337	281	241	211								
	AP	2.2		D	0.115	0.180	0.259	0.353	0.461	4'-6"							
1" x 3/16"	SR	2.7	0.316	U	632	404	281	206	158	125							
	19-4-43	2.8		D	0.144	0.225	0.324	0.441	0.576	0.729							
	SR	3.0		C	632	505	421	361	316	281							
	19-2-43	3.3		D	0.115	0.180	0.259	0.353	0.461	0.583							
1-1/4" x 1/8"	SR	2.3	0.329	U	658	421	292	215	164	130							
	19-4-52	2.4		D	0.115	0.180	0.259	0.353	0.461	0.583							
	19-2-52	2.6		C	658	526	439	376	329	292							
1-1/4" x 3/16"	AP	2.8	0.493	D	0.092	0.144	0.207	0.282	0.369	0.467	5'-0"						
	SR	3.2		U	987	632	439	322	247	195	158						
	19-4-53	3.6		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720						
	19-2-53	3.6		C	987	789	658	564	493	439	395						
1-1/2" x 1/8"	AP	4.3	0.474	D	0.092	0.144	0.207	0.282	0.369	0.467	5'-6"						
	SR	2.7		U	947	606	421	309	237	187	152						
	19-4-62	2.8		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600						
	19-2-62	3.0		C	947	758	632	541	474	421	379						
1-1/2" x 3/16"	AP	3.2	0.711	D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	5'-6"					
	SR	3.8		U	1421	909	632	464	355	281	227	188					
	19-4-63	4.2		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726					
	19-2-63	4.1		C	1421	1137	947	812	711	632	568	517					
1-3/4" x 3/16"	AP	4.8	0.967	D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	6'-0"	6'-6"			
	SR	4.4		U	1934	1238	860	632	484	382	309	256	215	183			
	19-4-73	4.8		D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869			
	19-2-73	4.7		C	1934	1547	1289	1105	967	860	774	703	645	595			
2" x 3/16"	AP	5.4	1.263	D	0.066	0.103	0.202	0.104	0.263	0.333	0.411	0.498	0.592	0.695	7'-0"		
	SR	5.0		U	2526	1617	1123	825	632	499	404	334	281	239	206		
	19-4-83	5.3		D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882		
	19-2-83	5.3		C	2526	2021	1684	1444	1263	1123	1011	919	842	777	722		
2-1/4" x 3/16"	AP	6.0	1.599	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"	
	SR	5.6		U	3197	2046	1421	1044	799	632	512	423	355	303	261	200	
	19-4-93	5.9		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	
	19-2-93	5.9		C	3197	2558	2132	1827	1599	1421	1279	1163	1066	984	914	799	
2-1/2" x 3/16"	AP	6.6	1.974	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	9'-0"
	SR	6.2		U	3947	2526	1754	1289	987	780	632	522	439	374	322	247	195
	19-4-103	6.5		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
	19-2-103	6.5		C	3947	3158	2632	2256	1974	1754	1579	1435	1316	1215	1128	987	877
	AP	7.2	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	0.737	

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

SR/AP-19 PANEL WIDTH (inches) Note: Includes 1/4" (1/8" each side) for extended cross rods on swage locked (SR) and extended cross on press-locked (AP).

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