

RECTANGULAR BAR SWAGE-LOCKED 1-3/16" C/C Bearing Bars

PRESS-LOCKED 1-3/16" C/C Bearing Bars

19-SR-4

19-SR-2

19-AP-4

19-AP-2



Cross Rods 4" C/C

Cross Rods 2" C/C

Cross Bars 4" C/C

Cross Bars 2" C/C

NON-SERRATED & SERRATED

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight psf	Sec. Mod Per Ft. Of Width	U	SPAN (Direction of Bearing Bar)																	
					24"	30"	36"	42"	48"	54"	60"	66"	72"	78"								
3/4" x 1/8" Non-Serrated Only	19-SR-4	1.1	0.118	U	237	152	105	77														
	19-SR-2	1.3		D	0.192	0.300	0.432	0.588														
	19-AP-4	1.2		C	237	189	158	135														
	19-AP-2	1.5		D	0.154	0.240	0.346	0.470														
3/4" x 3/16" Non-Serrated Only	19-SR-4	1.6	0.178	U	355	227	158	116														
	19-SR-2	1.8		D	0.192	0.300	0.432	0.588														
	19-AP-4	1.9		C	355	284	237	203														
	19-AP-2	2.4		D	0.154	0.240	0.346	0.470	48"													
1" x 1/8"	19-SR-4	1.6	0.211	U	421	269	187	137	105													
	19-SR-2	1.8		D	0.144	0.225	0.324	0.441	0.576													
	19-AP-4	1.7		C	421	337	281	241	211													
	19-AP-2	2.0		D	0.115	0.180	0.259	0.353	0.461	54"												
1" x 3/16"	19-SR-4	2.3	0.316	U	632	404	281	206	158	125												
	19-SR-2	2.5		D	0.144	0.225	0.324	0.441	0.576	0.729												
	19-AP-4	2.6		C	632	505	421	361	316	281												
	19-AP-2	3.1		D	0.115	0.180	0.259	0.353	0.461	0.583												
1-1/4" x 1/8"	19-SR-4	1.9	0.329	U	658	421	292	215	164	130												
	19-SR-2	2.1		D	0.115	0.180	0.259	0.353	0.461	0.583												
	19-AP-4	2.1		C	658	526	439	376	329	292												
	19-AP-2	2.6		D	0.092	0.144	0.207	0.282	0.369	0.467	60"											
1-1/4" x 3/16"	19-SR-4	2.8	0.493	U	987	632	439	322	247	195	158											
	19-SR-2	3.0		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720											
	19-AP-4	3.2		C	987	789	658	564	493	439	395											
	19-AP-2	3.9		D	0.092	0.144	0.207	0.282	0.369	0.467	0.576											
1-1/2" x 1/8"	19-SR-4	2.3	0.474	U	947	606	421	309	237	187	152											
	19-SR-2	2.5		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600											
	19-AP-4	2.5		C	947	758	632	541	474	421	379											
	19-AP-2	2.9		D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	66"										
1-1/2" x 3/16"	19-SR-4	3.3	0.711	U	1421	909	632	464	355	281	227	188										
	19-SR-2	3.6		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726										
	19-AP-4	3.8		C	1421	1137	947	812	711	632	568	517										
	19-AP-2	4.4		D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	72"	78"								
1-3/4" x 3/16"	19-SR-4	3.9	0.967	U	1934	1238	860	632	484	382	309	256	215	183								
	19-SR-2	4.1		D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869								
	19-AP-4	4.3		C	1934	1547	1289	1105	967	860	774	703	645	595								
	19-AP-2	5.0		D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	84"							
2" x 3/16"	19-SR-4	4.4	1.263	U	2526	1617	1123	825	632	499	404	334	281	239	206							
	19-SR-2	4.6		D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882							
	19-AP-4	4.8		C	2526	2021	1684	1444	1263	1123	1011	919	842	777	722							
	19-AP-2	5.5		D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	96"						
2-1/4" x 3/16"	19-SR-4	4.9	1.599	U	3197	2046	1421	1044	799	632	512	423	355	303	261	200						
	19-SR-2	5.1		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-AP-4	5.3		C	3197	2558	2132	1827	1599	1421	1279	1163	1066	984	914	799						
	19-AP-2	6.0		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	108"					
2-1/2" x 3/16"	19-SR-4	5.4	1.974	U	3947	2526	1754	1289	987	780	632	522	439	374	322	247	195					
	19-SR-2	5.7		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-AP-4	5.9		C	3947	3158	2632	2256	1974	1754	1579	1435	1316	1215	1128	987	877					
	19-AP-2	6.5		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 = Allowable uniform load, psf
 D = Deflection due to U, in.
 C = Allowable concentrated load per ft. of grating width, lbs.
 D = Deflection due to C, in.
 Allowable 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 maximum 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.

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 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	21	22	23	24	25	26	27	28	29	30	31	32	
1/8" Bar	1 1/16	2 1/16	3 1/16	4 1/16	5 1/16	6 1/16	7 1/16	8 1/16	9 1/16	10 1/16	11 1/16	12 1/16	13 1/16	14 1/16	15 1/16	16 1/16	17 1/16	18 1/16	19 1/16	20 1/16	21 1/16	22 1/16	23 1/16	24 1/16	25 1/16	26 1/16	27 1/16	28 1/16	29 1/16	30 1/16	31 1/16	32 1/16
3/16" Bar	1 1/8	2 1/8	3 1/8	4 1/8	5 1/8	6 1/8	7 1/8	8 1/8	9 1/8	10 1/8	11 1/8	12 1/8	13 1/8	14 1/8	15 1/8	16 1/8	17 1/8	18 1/8	19 1/8	20 1/8	21 1/8	22 1/8	23 1/8	24 1/8	25 1/8	26 1/8	27 1/8	28 1/8	29 1/8	30 1/8	31 1/8	32 1/8
No. of Bars	33	34	35	36	37	38	39	40	41	42																						
1/8" Bar	38 1/16	39 1/16	40 1/16	41 1/16	42 1/16	43 1/16	44 1/16	45 1/16	46 1/16	47 1/16																						
3/16" Bar	38 1/8	39 1/8	40 1/8	41 1/8	42 1/8	43 1/8	44 1/8	45 1/8	46 1/8	47 1/8																						