

ALUMINUM SWAGE-LOCKED 19-SG-4 LOAD TABLE

		CLEAR SPAN																
Main Bar Size Inches	Wt. Lbs. Sq. Ft.		1'-0"	1'-6"	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 1/8	1.74	U	1832	814	458	293	203	149	114	U=Safe uniform load in lbs./sq. ft. C=Safe concentrated load in lbs. ft. of grating width D=Deflection in inches								
		D	.036	.081	.144	.224	.324	.440	.573									
		C	916	610	458	366	305	262	229									
		U	.029	.064	.115	.180	.260	.354	.462									
1 X 3/16	2.49	U	2752	1224	688	441	306	225	172	136	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi							
		D	.036	.081	.144	.224	.324	.440	.573	.731								
		C	1376	918	688	552	459	394	345	306								
		U	.029	.065	.115	.180	.260	.354	.462	.582								
1-1/4 X 1/8	2.13	U	2872	1275	718	459	318	234	180	142	114	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi						
		D	.029	.065	.115	.180	.258	.354	.460	.580	.720							
		C	1436	956	718	575	479	410	359	319	288							
		U	.024	.052	.093	.144	.207	.282	.368	.467	.575							
1-1/4 X 3/16	3.06	U	4300	1909	1075	688	477	351	269	212	172	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi						
		D	.029	.065	.115	.180	.258	.354	.460	.580	.720							
		C	2150	1431	1075	858	714	613	537	477	428							
		U	.024	.051	.093	.144	.207	.282	.368	.467	.574							
1-1/2 X 1/8	2.49	U	4128	1834	1032	662	460	337	258	204	165	136	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi					
		D	.024	.053	.096	.151	.216	.295	.384	.487	.603	.724						
		C	2064	1376	1032	825	687	589	516	458	413	375						
		U	.020	.043	.077	.120	.172	.235	.307	.386	.479	.579						
1-1/2 X 3/16	3.64	U	6200	2750	1550	990	687	505	387	306	248	204	172	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi				
		D	.024	.054	.096	.151	.216	.295	.384	.487	.603	.724	.865					
		C	3100	2062	1550	1238	1032	884	775	688	618	562	516					
		U	.020	.043	.077	.120	.172	.235	.307	.386	.479	.579	.690					
1-3/4 X 3/16	4.21	U	8421	3743	2110	1348	935	687	527	416	337	278	234	200	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi			
		D	.020	.046	.082	.127	.185	.252	.329	.416	.515	.621	.740	.868				
		C	4220	2807	2110	1690	1408	1205	1055	935	842	765	703	648				
		U	.017	.037	.066	.103	.148	.202	.264	.333	.412	.497	.595	.696				
2 X 3/16	4.78	U	11000	4889	2750	1760	1223	898	687	543	440	364	306	260	224	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi		
		D	.018	.040	.072	.113	.161	.222	.289	.366	.451	.547	.650	.760	.881			
		C	5500	3667	2750	2200	1835	1570	1375	1223	1100	1002	917	845	786			
		U	.015	.032	.057	.090	.129	.178	.230	.292	.360	.436	.517	.606	.703			
2-1/4 X 3/16	5.35	U	13721	6187	3482	2230	1549	1138	870	687	557	460	387	330	284	217	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi	
		D	.016	.035	.064	.100	.144	.196	.256	.324	.400	.483	.577	.667	.783	1.020		
		C	6964	4641	3482	2786	2320	1990	1740	1548	1393	1265	1160	1072	995	0.87		
		U	.013	.028	.051	.080	.115	.156	.204	.258	.319	.387	.460	.540	.627	.817		
2-1/2 X 3/16	5.92	U	17186	7638	4300	2753	1910	1405	1075	850	688	569	477	407	351	269	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi	
		D	.015	.032	.057	.090	.130	.177	.230	.292	.360	.435	.515	.605	.704	.919		
		C	8593	5729	4300	3437	2864	2445	2150	1910	1720	1562	1432	1322	1228	1075		
		U	.012	.026	.046	.072	.103	.141	.184	.234	.288	.345	.416	.485	.562	.735		

Based on 11 bars/ft of grating width. Bearing bars 1-3/16" c.c.

**Note:** Grating for spans to the left of the heavy line have a deflection less than 1/4" for uniform loads of 100 lbs./sq. ft. This is the maximum deflection to afford pedestrian comfort and can be exceeded for other types of load at the discretion of the engineer.