



GRATING PACIFIC

12 SPACE (3/4") RIVETED ALUMINUM GRATING LOAD TABLE

Use this table when evaluating spans and loads of the following types of aluminum grating: **12-AR-7, 12-AR-3.5**

Bearing Bar Size (inches)	Approx. Weight psf *	Maximum Pedestrian Span**	Unsupported Span												
			2'-0	2'-6	3'-0	3'-6	4'-0	4'-6	5'-0	5'-6	6'-0	6'-6	7'-0	8'-0	
3/4 x 3/16	3.7	3'-3"	U	572	366	254	187	143	113	92	All loads and deflections are theoretical and based upon the gross sections of the bearing bars, using a fiber stress of 12,000 psi. The values are not intended to be absolute since the actual load capacity will be affected by the slight variations in mill and manufacturing tolerances. Grating for spans to the left of the heavy line have a deflection ≤ 1/4" for uniform loads of 100 psf.				
			D	0.192	0.300	0.432	0.588	0.768	0.972	1.200					
			C	572	458	381	327	286	254	229					
			D	0.154	0.240	0.346	0.470	0.614	0.778	0.960					
1 x 3/16	4.5	4'-1"	U	1,017	651	452	332	254	201	163					
			D	0.144	0.225	0.324	0.441	0.576	0.729	0.900					
			C	1,017	813	678	581	508	452	407					
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720					
1-1/4 x 3/16	5.3	4'-10"	U	1,589	1,017	706	519	397	314	254	210	U = uniform load in pounds/sq. ft. C = concentrated load in pounds/ft. of grating width D = deflection in inches			
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871				
			C	1,589	1,271	1,059	908	794	706	636	578				
			D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697				
1-1/2 x 3/16	6.1	5'-7"	U	2,288	1,464	1,017	747	572	452	366	303	254	217		
			D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014		
			C	2,288	1,830	1,525	1,307	1,144	1,017	915	832	763	704		
			D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811		
1-3/4 x 3/16	6.8	6'-3"	U	3,114	1,993	1,384	1,017	779	615	498	412	346	295	254	195
			D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869	1.008	1.317
			C	3,114	2,491	2,076	1,779	1,557	1,384	1,246	1,132	1,038	958	890	779
			D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	0.806	1.053
2 x 3/16	8.1	6'-11"	U	4,067	2,603	1,808	1,328	1,017	803	651	538	452	385	332	254
			D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882	1.152
			C	4,067	3,254	2,712	2,324	2,034	1,808	1,627	1,479	1,356	1,252	1,162	1,017
			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
2-1/4 x 3/16	8.9	7'-6"	U	5,148	3,295	2,288	1,681	1,287	1,017	824	681	572	487	420	322
			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
			C	5,148	4,118	3,432	2,942	2,574	2,288	2,059	1,872	1,716	1,584	1,471	1,287
			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
2-1/2 x 3/16	9.6	8'-2"	U	6,355	4,067	2,825	2,075	1,589	1,255	1,017	840	706	602	519	397
			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
			C	6,355	5,084	4,237	3,632	3,178	2,825	2,542	2,311	2,118	1,955	1,816	1,589
			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

* Weight per square foot based upon rivets spaced at 7" on center. Add .20 psf for aluminum products with 3-1/2" rivet centers.

** Maximum pedestrian load is defined as a 100# uniform load with deflection $\leq 1/4$ inch. The 1/4" maximum deflection criteria is considered consistent with pedestrian comfort, but may be exceeded for other loading conditions at the discretion of the specifying authority.