

Riveted Grating

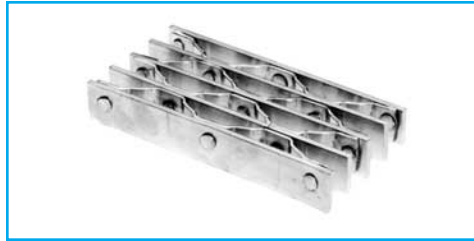
ALUMINUM RIVETED GRATING

3/4" Inside Face to Inside Face of Bearing Bars



12-AR-7

7" Rivet Centers—1/4" Dia. Rivets



12-AR-3

3-1/2" Rivet Centers—1/4" Dia. Rivets

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight psl	Sec. Mod Per Ft. Of Width	SPAN (Length of Bearing Bar)								
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"			
3/4" x 1/8"	12-7-32	3.2	0.161	U	321	206	143	105	80	63		
	12-3-32	3.4		D	0.192	0.300	0.432	0.588	0.768	0.972		
3/4" x 3/16"	12-7-33	3.7	0.225	U	450	288	200	147	113	89		
	12-3-33	3.9		D	0.192	0.300	0.432	0.588	0.768	0.972		
1" x 1/8"	12-7-42	3.7	0.286	U	450	360	300	257	225	200		
	12-3-42	4.0		D	0.154	0.240	0.346	0.470	0.614	0.778		
1" x 3/16"	12-7-43	4.4	0.400	U	571	366	254	187	143	113		
	12-3-43	4.7		D	0.144	0.225	0.324	0.441	0.576	0.729		
1-1/4" x 1/8"	12-7-52	4.2	0.446	U	571	457	381	327	286	254		
	12-3-52	4.5		D	0.115	0.180	0.259	0.353	0.461	0.583		
1-1/4" x 3/16"	12-7-53	5.1	0.625	U	800	512	356	261	200	158		
	12-3-53	5.4		D	0.144	0.225	0.324	0.441	0.576	0.729		
1-1/2" x 1/8"	12-7-62	5.2	0.643	U	800	640	533	457	400	356		
	12-3-62	5.6		D	0.115	0.180	0.259	0.353	0.461	0.583		
1-1/2" x 3/16"	12-7-63	6.3	0.900	U	893	571	397	292	223	176		
	12-3-63	6.6		D	0.115	0.180	0.259	0.353	0.461	0.583		
1-3/4" x 3/16"	12-7-73	7.1	1.225	U	1250	800	556	408	313	247		
	12-3-73	7.4		D	0.115	0.180	0.259	0.353	0.461	0.583		
2" x 3/16"	12-7-83	7.8	1.600	U	1250	1000	833	714	625	556		
	12-3-83	8.1		D	0.092	0.144	0.207	0.282	0.369	0.467		
2-1/4" x 3/16"	12-7-93	8.5	2.025	U	1286	823	571	420	321	254		
	12-3-93	8.8		D	0.096	0.150	0.216	0.294	0.384	0.486		
2-1/2" x 3/16"	12-7-103	9.2	2.500	U	1286	1029	857	735	643	571		
	12-3-103	9.5		D	0.077	0.120	0.173	0.235	0.307	0.389		

U = safe uniform load, psl
 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
Deflection: Spans and loads to the right of the bold line exceed 1/4" deflection for uniform load of 100 psl which provides safe pedestrian comfort. These can be exceeded for other types of loads with engineer's approval.

Serrated Bars: Normally we serrate the reticulate bar and raise it slightly above the top surface of the bearing bars. We can also serrate the bearing bars. When bearing bars are serrated, 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.

12-AR-7 & 12-AR-3 PANEL WIDTH (inches)

Note: Dimensions include 1/4" for rivet heads (1/8" each side).

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

