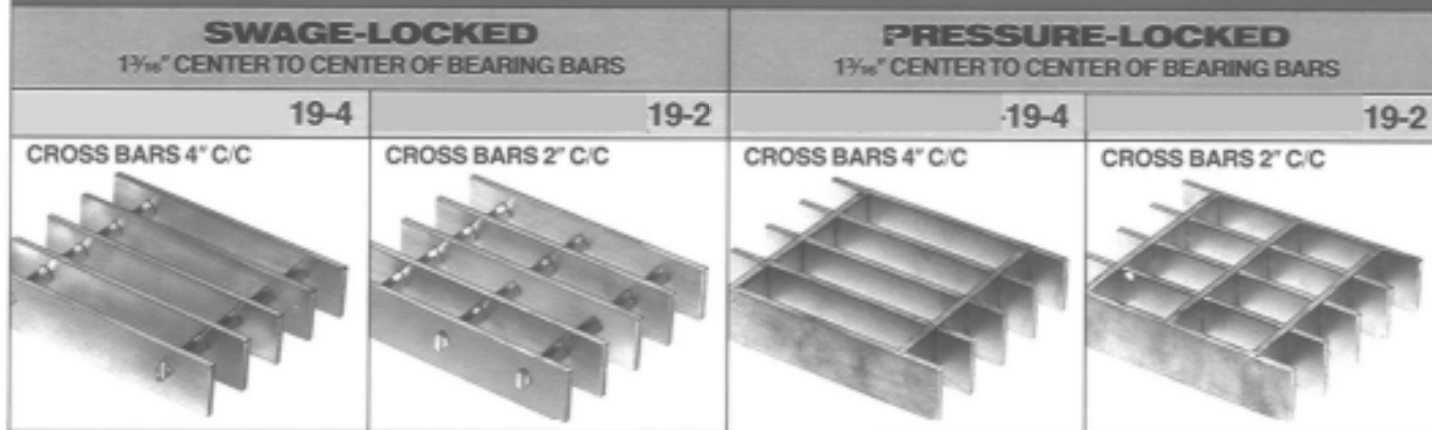


# RECTANGULAR BAR ALUMINUM GRATING



**STATIC LOAD TABLE** – Loads & deflections are theoretical, based on a fiber stress of 12,000 PSI, E = 10,000,000 PSI.

Bar Size	Symbol	Approx. Weight*** Lbs./Sq. Ft.	Sec. Mod. Per Ft. Of Width	SPAN (LGTH. BRG. BAR)					4'-6"		5'-0"		5'-6"		6'-0"		6'-6"		7'-0"		8'-0"		9'-0"	
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	U	D	U	D	U	D	U	D	U	D	U	D	U	D	U	D
3/4" x 3/16"	19-4-33	**2.1	.183	U	366	234	163	120	92	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
	19-2-33	**2.4		C	366	293	244	209	183															
1" x 1/8"	19-4-42	**1.9	.216	U	432	276	192	141	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	
	19-2-42	**2.2		C	432	346	288	247	216															D
1" x 3/16"	19-4-43	**2.7	.325	U	650	416	289	212	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	
	19-2-43	**3.0		C	650	520	433	371	325															D
1-1/4" x 1/8"	19-4-52	**2.3	.339	U	678	434	301	221	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	
	19-2-52	**2.6		C	678	542	452	387	339															D
1-1/4" x 3/16"	19-4-53	**3.2	.507	U	1014	649	451	331	254	254	254	254	254	254	254	254	254	254	254	254	254	254	254	
	19-2-53	**3.6		C	1014	811	676	579	507															D
1-1/2" x 1/8"	19-4-62	**2.7	.488	U	976	625	434	319	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	
	19-2-62	**3.0		C	976	781	651	558	488															D
1-1/2" x 3/16"	19-4-63	**3.8	.730	U	1460	934	649	477	365	365	365	365	365	365	365	365	365	365	365	365	365	365	365	
	19-2-63	**4.4		C	1460	1168	973	834	730															D
1-3/4" x 3/16"	19-4-73	**4.4	.994	U	1988	1272	884	649	497	497	497	497	497	497	497	497	497	497	497	497	497	497	497	
	19-2-73	**5.0		C	1988	1590	1325	1136	994															D
2" x 3/16"	19-4-83	**5.0	1.299	U	2598	1683	1155	848	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	
	19-2-83	**5.7		C	2598	2078	1732	1485	1299															D
2-1/4" x 3/16"	19-4-93	**5.5	1.644	U	3288	2104	1461	1074	822	822	822	822	822	822	822	822	822	822	822	822	822	822	822	
	19-2-93	**6.3		C	3288	2630	2192	1879	1644															D
2-1/2" x 3/16"	19-4-103	**6.1	2.029	U	4058	2597	1804	1325	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	
	19-2-103	**6.9		C	4058	3246	2706	2310	2029															D

\*\*\*Weight depends on panel width, cross bar selection, mill tolerance and manufacturing tolerance.

## PANEL WIDTH CHART IN INCHES DIMENSIONS SHOWN ARE OUT TO OUT OF BEARING BARS†

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

†Includes 3/16" for extended cross rods on swage-locked. Deduct 3/16" for pressure-locked.

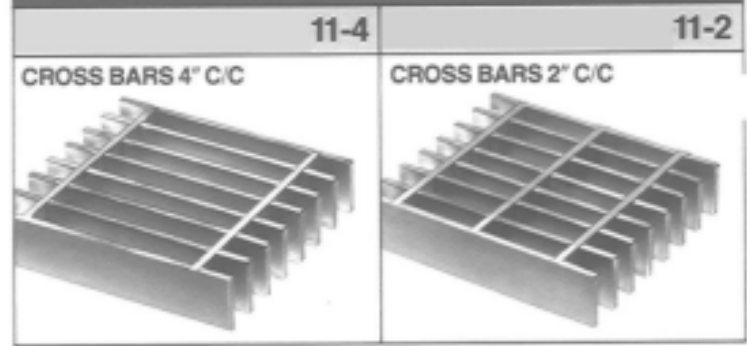
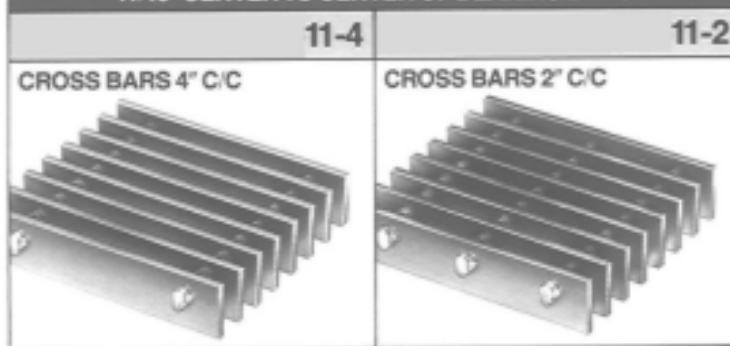
# RECTANGULAR BAR ALUMINUM GRATING

## SWAGE-LOCKED CLOSE-MESH

11/16" CENTER TO CENTER OF BEARING BARS

## PRESSURE-LOCKED CLOSE-MESH

11/16" CENTER TO CENTER OF BEARING BARS



**STATIC LOAD TABLE** — Loads and deflections are theoretical and based on a fiber stress of 12,000 PSI. E = 10,000,000 PSI.

Bar Size	Symbol	Approx. Weight*** Lbs./Sq. Ft.	Sec. Mod. Per Ft. Of Width	SPAN (LGTH. BRG. BAR)					NOTE: When grating with serrated bearing bars is specified, the depth of grating required for a specified load should be 1/4" greater than that shown in the load table.		
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	
3/4" x 3/16"	11-4-33	**3.3 **3.1	.311	U	622	398	276	203	158		
	11-2-33	**3.6 **3.6		D	.192	.299	.432	.587	.769		
1" x 1/8"	11-4-42	**3.0 **3.5	.369	C	622	498	414	355	312		
	11-2-42	**3.3 **3.8		D	.154	.240	.346	.470	.614		
1" x 3/16"	11-4-43	**4.3 **4.1	.554	U	1108	709	493	362	277	219	177
	11-2-43	**4.6 **4.6		D	.144	.225	.324	.440	.578	.730	.900
1-1/4" x 1/8"	11-4-52	**3.6 **3.6	.578	C	1108	886	740	634	554	493	443
	11-2-52	**4.0 **3.9		D	.115	.180	.259	.353	.461	.584	.721
1-1/4" x 3/16"	11-4-53	**5.3 **5.1	.864	U	1156	740	514	378	289	228	185
	11-2-53	**5.6 **5.6		D	.115	.180	.259	.353	.461	.581	.721
1-1/2" x 1/8"	11-4-62	**4.3 **4.4	.831	C	1156	925	771	662	578	513	463
	11-2-62	**4.6 **4.9		D	.092	.144	.207	.282	.369	.466	.578
1-1/2" x 3/16"	11-4-63	**6.3 **6.2	1.244	U	1728	1106	768	584	432	341	276
	11-2-63	**6.8 **6.9		D	.115	.180	.259	.353	.462	.583	.721
1-3/4" x 3/16"	11-4-73	**7.2 **7.2	1.694	C	1728	1363	1152	987	864	767	690
	11-2-73	**7.6 **7.9		D	.092	.144	.207	.282	.369	.466	.578
2" x 3/16"	11-4-83	**8.2 **8.2	2.212	U	2488	1592	1106	812	622	491	398
	11-2-83	**8.6 **8.9		D	.096	.150	.216	.294	.384	.487	.601
2-1/4" x 3/16"	11-4-93	**9.2 **9.1	2.800	C	2488	1990	1659	1421	1244	1105	995
	11-2-93	**9.5 **9.8		D	.077	.120	.173	.235	.307	.389	.480
2-1/2" x 3/16"	11-4-103	**10.2 **10.0	3.456	U	3388	2168	1506	1106	847	669	542
	11-2-103	**10.5 **10.7		D	.082	.129	.185	.252	.327	.417	.514

NOTE: Spans and loads to the right of the heavy line exceed a deflection of 1/4" for uniform loads of 100#/sq. ft. which provide safe pedestrian comfort, but can be exceeded for other types of loads at the discretion of the engineer.

**MATERIALS:** Bearing bars shall be aluminum alloy 6061-T6. Cross rods shall be aluminum alloy 6063-T1. Per ASTM B-221.

**FINISH:** Panels shall be supplied with a mill finish unless otherwise specified.

U — Safe Uniform Load in lbs. per sq. ft.

C — Safe, Concentrated Load in lbs. per foot of grating width.

D — Deflection in inches.

\*\*\*Weight depends on panel width, cross bar selection, mill tolerance and manufacturing tolerance.

### PANEL WIDTH CHART IN INCHES

DIMENSIONS SHOWN ARE OUT TO OUT OF BEARING BARS†

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	
11-4	1/8 Bar	1	1 1/8	2	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
11-2	3/16 Bar	1 1/8	1 3/8	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
No. of Bars	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
11-4	1/8 Bar	16 1/8	16 3/8	17 1/8	18 1/8	18 3/8	19 1/8	20 1/8	20 3/8	21 1/8	22 1/8	23 1/8	24 1/8	25 1/8	25 3/8	26 1/8	27 1/8	27 3/8	28 1/8	29 1/8	29 3/8	30 1/8	30 3/8
11-2	3/16 Bar	16 3/8	17 1/8	17 3/8	18 1/8	18 3/8	19 1/8	20 1/8	21 1/8	22 1/8	23 1/8	24 1/8	25 1/8	25 3/8	26 1/8	27 1/8	27 3/8	28 1/8	29 1/8	29 3/8	30 1/8	30 3/8	31 1/8
No. of Bars	46	47	48	49	50	51	52	53	54														
11-4	1/8 Bar	31 1/8	31 3/8	32 1/8	33 1/8	34 1/8	34 3/8	35 1/8	36 1/8	36 3/8													
11-2	3/16 Bar	31 3/8	32 1/8	32 3/8	33 1/8	34 1/8	34 3/8	35 1/8	36 1/8	36 3/8													

†Includes 3/16" for extended cross rods on swage-locked. Deduct 3/16" for pressure-locked.

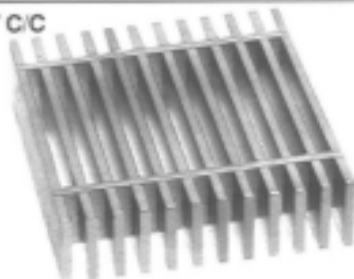
# RECTANGULAR BAR ALUMINUM GRATING PRESSURE-LOCKED CLOSE-MESH

7/16" CENTER TO CENTER OF BEARING BARS

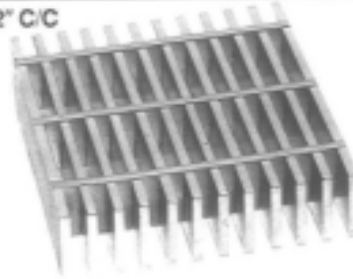
7-4

7-2

CROSS BARS 4" C/C



CROSS BARS 2" C/C



**STATIC LOAD TABLE** – Loads and deflections given in this table are theoretical and based on a fiber stress of 12,000 PSI. E = 10,000,000 PSI.

Bar Size	Symbol	Approx. Weight Lbs./Sq. Ft.	Sec. Mod. Per Ft. Of Width	SPAN (LGTH. BRG. BAR)						5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"	
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"								
3/4" x 3/16"	7-4-33	4.7	.486	U	972	622	432	317	243	192	184	184	184	184	184	184	184
				D	.192	.299	.432	.587	.769	.973							
7-2-33	5.2	.486	.486	C	972	778	648	555	486	432	460	460	460	460	460	460	460
				D	.154	.240	.346	.470	.614	.778							
1" x 1/8"	7-4-42	4.5	.575	U	1150	736	511	375	288	227	184	184	184	184	184	184	184
				D	.144	.225	.324	.442	.578	.727							
7-2-42	4.8	.575	.575	C	1150	920	767	656	576	511	460	460	460	460	460	460	460
				D	.115	.180	.260	.353	.460	.582							
1" x 3/16"	7-4-43	6.2	.865	U	1730	1107	769	565	433	342	277	277	277	277	277	277	277
				D	.144	.225	.324	.440	.576	.730							
7-2-43	6.7	.865	.865	C	1730	1384	1154	989	866	770	683	683	683	683	683	683	683
				D	.115	.180	.259	.353	.461	.584							
1-1/4" x 1/8"	7-4-52	5.5	.902	U	1804	1155	802	589	451	356	289	289	289	289	289	289	289
				D	.115	.180	.259	.353	.461	.581							
7-2-52	5.8	.902	.902	C	1804	1444	1203	1031	902	801	723	723	723	723	723	723	723
				D	.092	.144	.207	.282	.369	.466							
1-1/4" x 3/16"	7-4-53	7.8	1.348	U	2696	1725	1198	880	674	532	431	431	431	431	431	431	431
				D	.115	.180	.259	.353	.462	.583							
7-2-53	8.3	1.348	1.348	C	2696	2156	1797	1540	1348	1107	1078	1078	1078	1078	1078	1078	1078
				D	.092	.144	.207	.282	.369	.466							
1-1/2" x 1/8"	7-4-62	6.7	1.298	U	2596	1681	1154	848	649	513	415	415	415	415	415	415	415
				D	.096	.150	.216	.294	.384	.487							
7-2-62	7.2	1.298	1.298	C	2596	2076	1731	1484	1298	1154	1038	1038	1038	1038	1038	1038	1038
				D	.077	.120	.173	.235	.307	.389							
1-1/2" x 3/16"	7-4-63	9.4	1.942	U	3884	2486	1726	1268	971	767	621	621	621	621	621	621	621
				D	.096	.150	.216	.294	.384	.487							
7-2-63	10.1	1.942	1.942	C	3884	3108	2589	2219	1942	1726	1553	1553	1553	1553	1553	1553	1553
				D	.077	.120	.173	.235	.307	.389							
1-3/4" x 3/16"	7-4-73	10.9	2.643	U	5286	3383	2350	1726	1322	1044	846	698	587	500	431	330	262
				D	.082	.129	.185	.252	.327	.417							
7-2-73	11.6	2.643	2.643	C	5286	4229	3525	3021	2644	2349	2115	1920	1761	1625	1509	1320	1179
				D	.066	.103	.148	.202	.263	.333							
2" x 3/16"	7-4-83	12.5	3.453	U	6906	4420	3070	2255	1727	1364	1105	912	767	653	563	432	342
				D	.072	.113	.162	.221	.288	.364							
7-2-83	13.2	3.453	3.453	C	6906	5525	4605	3946	3454	3069	2763	2508	2301	2122	1971	1728	1539
				D	.058	.090	.130	.176	.230	.292							
2-1/4" x 3/16"	7-4-93	14.0	4.370	U	8740	5694	3885	2854	2185	1726	1398	1154	970	826	712	548	433
				D	.064	.100	.144	.196	.256	.324							
7-2-93	14.7	4.370	4.370	C	8740	6993	5828	4995	4370	3884	3495	3174	2910	2685	2492	2184	1949
				D	.051	.080	.115	.157	.205	.259							
2-1/2" x 3/16"	7-4-103	16.2	5.394	U	10788	6904	4795	3522	2697	2131	1726	1424	1197	1019	879	674	534
				D	.058	.090	.130	.176	.230	.292							
7-2-103	16.9	5.394	5.394	C	10788	8630	7193	6184	5394	4795	4315	3916	3591	3312	3077	2896	2403
				D	.040	.072	.104	.141	.184	.230							

**NOTE:** When grating with serrated bearing bars is specified, the depth of grating required for a specified load should be 1/4" greater than that shown in the load table.

**NOTE:** Spans and loads to the right of the heavy line exceed a deflection of 1/4" for uniform loads of 100#/sq. ft. which provide safe pedestrian comfort, but can be exceeded for other types of loads at the discretion of the engineer.

**MATERIALS:** Bearing bars shall be aluminum alloy 6061-T6. Cross rods shall be aluminum alloy 6063-T1. Per ASTM B-221.

**FINISH:** Panels shall be supplied with a mill finish unless otherwise specified.

U – Safe Uniform Load in lbs. per sq. ft.  
C – Safe, Concentrated Load in lbs. per foot of grating width.  
D – Deflection in inches.

\*Weight depends on panel width, cross bar selection, mill tolerance and manufacturing tolerance.

**PANEL WIDTH CHART IN INCHES**

**DIMENSIONS SHOWN ARE OUT TO OUT OF BEARING BARS**

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	
7-4 1/8 Bar	1 1/4	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4	4 1/4	4 3/4	5 1/4	5 3/4	6 1/4	6 3/4	7 1/4	7 3/4	8 1/4	8 3/4	9 1/4	9 3/4	10 1/4	10 3/4	11 1/4	11 3/4	12 1/4	12 3/4	13 1/4	13 3/4	14 1/4	14 3/4	
7-2 3/16 Bar	1 1/2	2 1/4	3 1/4	4 1/4	5 1/4	6 1/4	7 1/4	8 1/4	9 1/4	10 1/4	11 1/4	12 1/4	13 1/4	14 1/4	15 1/4	16 1/4	17 1/4	18 1/4	19 1/4	20 1/4	21 1/4	22 1/4	23 1/4	24 1/4	25 1/4	26 1/4	27 1/4	28 1/4	29 1/4
No. of Bars	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
7-4 1/8 Bar	12 3/4	13 1/4	14 1/4	15 1/4	16 1/4	17 1/4	18 1/4	19 1/4	20 1/4	21 1/4	22 1/4	23 1/4	24 1/4	25 1/4	26 1/4	27 1/4	28 1/4	29 1/4	30 1/4	31 1/4	32 1/4	33 1/4	34 1/4	35 1/4	36 1/4	37 1/4	38 1/4	39 1/4	
7-2 3/16 Bar	12 1/2	13 3/4	14 3/4	15 3/4	16 3/4	17 3/4	18 3/4	19 3/4	20 3/4	21 3/4	22 3/4	23 3/4	24 3/4	25 3/4	26 3/4	27 3/4	28 3/4	29 3/4	30 3/4	31 3/4	32 3/4	33 3/4	34 3/4	35 3/4	36 3/4	37 3/4	38 3/4	39 3/4	
No. of Bars	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83			
7-4 1/8 Bar	25 1/4	25 3/4	26 1/4	26 3/4	27 1/4	27 3/4	28 1/4	28 3/4	29 1/4	29 3/4	30 1/4	30 3/4	31 1/4	31 3/4	32 1/4	32 3/4	33 1/4	33 3/4	34 1/4	34 3/4	35 1/4	35 3/4	36 1/4	36 3/4	37 1/4	37 3/4	38 1/4	38 3/4	
7-2 3/16 Bar	25 1/2	26 1/4	26 3/4	27 1/4	27 3/4	28 1/4	28 3/4	29 1/4	29 3/4	30 1/4	30 3/4	31 1/4	31 3/4	32 1/4	32 3/4	33 1/4	33 3/4	34 1/4	34 3/4	35 1/4	35 3/4	36 1/4	36 3/4	37 1/4	37 3/4	38 1/4	38 3/4	39 1/4	