

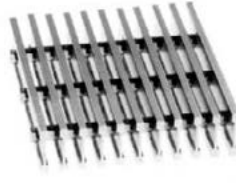
## 8-SI-4 & 8-SI-2 Aluminum Grating

### I-Bar Swage-Locked

1/2" Center to Center of Bearing Bars



**8-SI-4**  
Cross Rods 4" C/C



**8-SI-2**  
Cross Rods 2" C/C

**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 safe 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.

### Load & Deflection Table

Bar Size	Symbol	Approx. Weight psf	Sec mod Per Ft of Width	SPAN (Length of Bearing Bar)													
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	7'-0"	8'-0"	9'-0"		
<b>1" x 1/4"</b>	<b>8-4-44</b>	4.2	0.750	U	1500	960	667	490	375	296	240	198					
				D	0.144	0.225	0.324	0.441	0.576	0.729	0.900	1.089					
	<b>8-2-44</b>	4.5	C	1500	1200	1000	857	750	667	600	545						
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	<b>6'-0"</b>					
<b>1-1/4" x 1/4"</b>	<b>8-4-54</b>	5.0	1.172	U	2344	1500	1042	756	586	463	375	310	260				
				D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037				
	<b>8-2-54</b>	5.4	C	2344	1875	1563	1339	1172	1042	938	852	781					
			D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697	0.829	<b>6'-6"</b>	<b>7'-0"</b>			
<b>1-1/2" x 1/4"</b>	<b>8-4-64</b>	5.9	1.688	U	3375	2160	1500	1102	844	667	540	446	375	320	276		
				D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014	1.176		
	<b>8-2-64</b>	6.2	C	3375	2700	2250	1929	1688	1500	1350	1227	1125	1038	964			
			D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811	0.941	<b>8'-0"</b>		
<b>1-3/4" x 1/4"</b>	<b>8-4-74</b>	6.8	2.297	U	4594	2940	2042	1500	1148	907	735	607	510	435	375	287	
				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	
	<b>8-2-74</b>	7.1	C	4594	3675	3063	2625	2297	2042	1838	1670	1531	1431	1313	1148		
			D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	0.806	0.922	1.053	<b>9'-0"</b>
<b>2" x 1/4"</b>	<b>8-4-84</b>	7.6	3.000	U	6000	3840	2667	1959	1500	1185	960	793	667	568	490	375	296
				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	1.458
	<b>8-2-84</b>	7.9	C	6000	4800	4000	3429	3000	2667	2400	2182	2000	1846	1741	1500	1333	
			D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.822	0.922	1.166
<b>2-1/4" x 1/4"</b>	<b>8-4-94</b>	8.4	3.797	U	7594	4860	3375	2480	1898	1500	1215	1004	844	719	620	475	375
				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	1.296
	<b>8-2-94</b>	8.7	C	7594	6075	5063	4339	3797	3375	3038	2761	2531	2337	2170	1898	1688	
			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	1.037	
<b>2-1/2" x 1/4"</b>	<b>8-4-104</b>	9.3	4.688	U	9375	6000	4167	3061	2344	1852	1500	1240	1042	888	765	586	463
				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
	<b>8-2-104</b>	9.7	C	9375	7500	6250	5357	4688	4167	3750	3409	3125	2885	2679	2344	2083	
			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= safe uniform load, psf - C= safe concentrated load, pfw - D= deflection, inches - E= modulus of elasticity, 10,000,000 psi - F= fiber stress, 12,000 psi

**SI-8 PANEL WIDTH (inches)** Note: Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SI).

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1/4" Bar	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10
No. of Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1/4" Bar	10 1/2	11	11 1/2	12	12 1/2	13	13 1/2	14	14 1/2	15	15 1/2	16	16 1/2	17	17 1/2	18	18 1/2	19	19 1/2
No. of Bars	40	41	42	43	44	45	46	47	48	49	50	51	52	53					
1/4" Bar	20	20 1/2	21	21 1/2	22	22 1/2	23	23 1/2	24	24 1/2	25	25 1/2	26	26 1/2					