



### LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight per Ft. or Width	Mod. Per Ft. or Width	SPAN (Length of Bearing Bar)				U	C	D	E	F			
			2'-0"	2'-6"	3'-0"	3'-6"								
3/4" x 1/8"	1.8	0.150	U 300	192	133	98								
	1.8		D 0.192	0.300	0.432	0.588								
	2.1		C 300	240	200	171								
	2.1		D 0.154	0.240	0.346	0.470					4'-0"			
3/4" x 3/16"	2.5	0.225	U 450	288	200	147	113							
	2.7		D 0.192	0.300	0.432	0.588	0.768							
	2.8		C 450	360	300	257	225							
	3.2		D 0.154	0.240	0.346	0.470	0.614							
1" x 1/8"	2.3	0.267	U 533	341	237	174	133							
	2.3		D 0.144	0.225	0.324	0.441	0.576							
	2.6		C 533	427	356	305	267							
	2.6		D 0.115	0.180	0.259	0.353	0.461				4'-6"			
1" x 3/16"	3.3	0.400	U 800	512	356	261	200	158						
	3.4		D 0.144	0.225	0.324	0.441	0.576	0.729						
	3.6		C 800	640	533	457	400	356						
	3.9		D 0.115	0.180	0.259	0.353	0.461	0.583			5'-0"			
1-1/4" x 1/8"	2.8	0.417	U 833	533	370	272	208	165	133					
	2.9		D 0.115	0.180	0.259	0.353	0.461	0.583	0.720					
	3.1		C 833	667	556	476	417	370	333					
	3.3		D 0.092	0.144	0.207	0.282	0.369	0.467	0.576		5'-6"			
1-1/4" x 3/16"	4.0	0.625	U 1250	800	556	408	313	247	200	165				
	4.3		D 0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871				
	4.3		C 1250	1000	833	714	625	556	500	455				
	5.0		D 0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697				
1-1/2" x 1/8"	3.3	0.600	U 1200	768	533	392	300	237	192	159				
	3.4		D 0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726				
	3.6		C 1200	960	800	686	600	533	480	436				
	3.8		D 0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	6'-0"			
1-1/2" x 3/16"	4.7	0.900	U 1800	1152	800	588	450	356	288	238	200			
	5.1		D 0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864			
	5.0		C 1800	1440	1200	1029	900	800	720	655	600			
	5.8		D 0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	6'-6"		
1-3/4" x 3/16"	5.5	1.225	U 2450	1568	1089	800	613	484	392	324	272			
	5.8		D 0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741			
	5.8		C 2450	1960	1633	1400	1225	1089	980	891	817			
	6.5		D 0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	7'-0"	
2" x 3/16"	6.2	1.600	U 3200	2048	1422	1045	800	632	512	423	356			
	6.5		D 0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648			
	6.5		C 3200	2560	2133	1829	1600	1422	1280	1164	1067			
	7.2		D 0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	8'-0"
2-1/4" x 3/16"	6.9	2.025	U 4050	2592	1800	1322	1013	800	648	536	450			
	7.3		D 0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576			
	7.2		C 4050	3240	2700	2314	2025	1800	1620	1473	1350			
	8.0		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"	7.7	2.500	U 5000	3200	2222	1633	1250	988	800	661	556			
	8.0		D 0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518			
	8.0		C 5000	4000	3333	2857	2500	2222	2000	1818	1667			
	8.7		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

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

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.

Serrated Bars: For serrated grating, 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.

### SR/AP-15 PANEL WIDTH (inches)

Note: Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SR) and extended cross bars on press-locked (AP).

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