

LOAD & DEFLECTION TABLE:

Loads and deflections are theoretical and based on static loading.

				SAFE SPAN (Direction of Bearing Bar)											
Bar Size	Symbol	# per sf	Sec. Mod per ft. of width	2'-0	2'-6	3'-0	3'-6	4'-0	4'-6	5'-0					
3/4" x 1/8" Non-Serrated Only	15W4	4.7	0.15	U	450	288	200	147	113	89	0.503				
	15P4	5.1		D	450	360	300	257	225	200					
	15P2	6.1		D	0.079	0.124	0.179	0.243	0.318	0.402					
3/4" x 3/16" Non-Serrated Only	15W4	6.9	0.23	U	675	432	300	220	169	133	108				
	15P4	7.7		D	675	540	450	386	338	300	270				
	15P2	9.1		D	0.079	0.124	0.179	0.243	0.318	0.402	0.497				
1" x 1/8"	15W4	6.1	0.27								5'-6	6'-0			
	15W2	6.7		U	800	512	356	261	200	158	128	106	89	0.670	
	15P4	6.5		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563			
	15P2	7.5		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536		
1" x 3/16"	15W4	8.9	0.4								8'-0	9'-0			
	15W2	9.6		U	1200	768	533	392	300	237	192	159	133		
	15P4	9.8		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670		
	15P2	11.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536		
1-1/4" x 1/8"	15W4	7.5	0.42								6'-6	7'-0			
	15W2	8.1		U	1250	800	556	408	313	247	200	165	139	118	102
	15P4	8.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730
	15P2	9.5		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584
1-1/4" x 3/16"	15W4	11.0	0.63								8'-0	9'-0			
	15W2	11.6		U	1875	1200	833	612	469	370	300	248	208	178	153
	15P4	12.3		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730
	15P2	14.2		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584
1-1/2" x 1/8"	15W4	8.9	0.6								8'-0	9'-0			
	15W2	9.4		U	1800	1152	800	588	450	365	288	238	200	170	147
	15P4	9.6		D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608
	15P2	10.9		D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487
1-1/2" x 3/16"	15W4	13.1	0.9								8'-0	9'-0			
	15W2	13.7		U	2700	1728	1200	882	675	533	432	357	300	256	220
	15P4	14.4		D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608
	15P2	16.3		D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487
1-3/4" x 3/16"	15W4	15.2	1.23								8'-0	9'-0			
	15W2	15.8		U	3675	2352	1633	1200	919	726	588	486	408	348	300
	15P4	16.5		D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521
	15P2	18.4		D	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.360	0.417
2" x 3/16"	15W4	17.3	1.6								8'-0	9'-0			
	15W2	17.9		U	4800	3072	2133	1567	1200	948	768	635	533	454	392
	15P4	18.6		D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456
	15P2	20.5		D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365
2-1/4" x 3/16"	15W4	19.4	2.03								8'-0	9'-0			
	15W2	20.0		U	6075	3888	2700	1984	1519	1200	972	803	675	575	496
	15P4	20.7		D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406
	15P2	22.6		D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324
2-1/2" x 3/16"	15W4	21.4	2.5								8'-0	9'-0			
	15W2	22.0		U	7500	4800	3333	2449	1875	1481	1200	992	833	710	612
	15P4	22.7		D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365
	15P2	24.7		D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292

U = safe uniform load (psf)
 C = safe concentrated load (psf)
 D = deflection in inches
 E = modulus of elasticity, 29,000,000 (psi)
 F = fiber stress, 18,000 (psi)
Material: ASTM-A-1011 standard
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.

15W4 & 15P4 STANDARD PANEL WIDTH (inches)

Note: P-Press-Locked cross bars typically extend 1/8" each side. W-Welded cross rods may extend 1/8" each side. Panel widths do not include these extensions.

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

