

15-W-4, 15-W-2 & 15-P-4, 15-P-2 Steel Bar Grating

Welded

15/16" Center to Center of Bearing Bars



15-W-4
Cross Rods 4" C/C



15-W-2
Cross Rods 2" C/C

Press-Locked

15/16" Center to Center of Bearing Bars



15-P-4
Cross Bars 4" C/C



15-P-2
Cross Bars 2" C/C

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"	6'-6"	7'-0"	8'-0"	9'-0"				
3/4" x 1/8"	15-4-32	W	4.7	0.150	U	450	288	200	147	113	89									
		P	5.1		D	0.099	0.155	0.223	0.304	0.397	0.503									
	15-2-32	W	5.3		C	450	360	300	257	225	200									
		P	6.1		D	0.079	0.124	0.179	0.243	0.318	0.402									
3/4" x 3/16"	15-4-33	W	6.9	0.225	U	675	432	300	220	169	133									
		P	7.7		D	0.099	0.155	0.223	0.304	0.397	0.503	0.621								
	15-2-33	W	7.5		C	675	540	450	386	338	300									
		P	9.1		D	0.079	0.124	0.179	0.243	0.318	0.402	0.497								
1" x 1/8"	15-4-42	W	6.1	0.267	U	800	512	356	261	200	158									
		P	6.5		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670						
	15-2-42	W	6.7		C	800	640	533	457	400	356	320	291	267						
		P	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"	15-4-43	W	8.9	0.400	U	1200	768	533	392	300	237									
		P	9.8		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670						
	15-2-43	W	9.6		C	1200	960	800	686	600	533	480	436	400						
		P	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"	15-4-52	W	7.5	0.417	U	1250	800	556	408	313	247									
		P	8.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536						
	15-2-52	W	8.1		C	1250	1000	833	714	625	556	500	455	417						
		P	9.5		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429						
1-1/4" x 3/16"	15-4-53	W	11.0	0.625	U	1875	1200	833	612	469	370									
		P	12.3		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536						
	15-2-53	W	11.6		C	1875	1500	1250	1071	938	833	750	682	625						
		P	14.2		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429						
1-1/2" x 1/8"	15-4-62	W	8.9	0.600	U	1800	1152	800	588	450	356									
		P	9.6		D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447						
	15-2-62	W	9.4		C	1800	1440	1200	1029	900	800	720	655	600						
		P	10.9		D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358						
1-1/2" x 3/16"	15-4-63	W	13.1	0.900	U	2700	1728	1200	882	675	533									
		P	14.4		D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447						
	15-4-73	W	13.7		C	2700	2160	1800	1543	1350	1200	1080	982	900						
		P	16.3		D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358						
1-3/4" x 3/16"	15-4-73	W	15.2	1.225	U	3675	2352	1633	1200	919	726									
		P	16.5		D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383						
	15-2-73	W	15.8		C	3675	2940	2450	2100	1838	1633	1470	1336	1225						
		P	18.4		D	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306						
2" x 3/16"	15-4-83	W	17.3	1.600	U	4800	3072	2133	1567	1200	948									
		P	18.6		D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335						
	15-2-83	W	17.9		C	4800	3840	3200	2743	2400	2133	1920	1745	1600						
		P	20.5		D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268						
2-1/4" x 3/16"	15-4-93	W	19.4	2.025	U	6075	3888	2700	1984	1519	1200									
		P	20.7		D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298						
	15-2-93	W	20.0		C	6075	4860	4050	3471	3038	2700	2430	2209	2025						
		P	22.6		D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238						
2-1/2" x 3/16"	15-4-103	W	21.4	2.500	U	7500	4800	3333	2449	1875	1481									
		P	22.7		D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268						
	15-2-103	W	22.0		C	7500	6000	5000	4286	3750	3333	3000	2727	2500						
		P	24.7		D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215						

U= safe uniform load, psf - C= safe concentrated load, pfw - D= deflection, inches - E= modulus of elasticity, 29,000,000 psi - F= fiber stress, 18,000 psi

WP-15 PANEL WIDTH (inches)

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 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	15 1/8	16 1/16	17	17 15/16
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	15 3/16	16 1/8	17 1/16	18
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	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	29 3/16	30 1/8	3 11/16	32	32 15/16	33 7/8	34 13/16	35 3/4
3/16" Bar	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	29 1/4	30 3/16	3 11/8	32 1/16	33	33 15/16	34 7/8	35 13/16

Material: ASTM A-569 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.

General: Loads and deflections are theoretical and based on static loading.