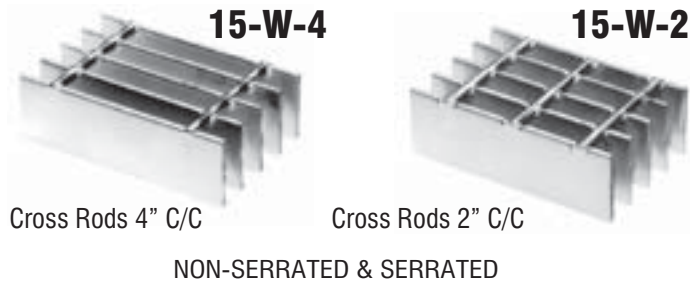


Steel Bar Grating

WELDED (W) 15/16" C/C Bearing Bars

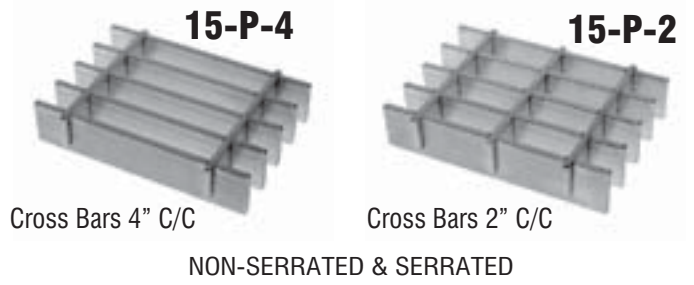


Cross Rods 4" C/C

Cross Rods 2" C/C

NON-SERRATED & SERRATED

PRESS-LOCKED (P) 15/16" C/C Bearing Bars



Cross Bars 4" C/C

Cross Bars 2" C/C

NON-SERRATED & SERRATED

LOAD & DEFLECTION TABLE

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

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

Bar Size	Symbol	Approx. Weight psf	Sec. Mod Per Ft. Or Width	SPAN (Direction of Bearing Bar)								
				24"	30"	36"	42"	48"	54"	60"	72"	
3/4" x 1/8" Non-Serrated Only	15-W-4	4.7		U 450	288	200	147	113	89			
	15-P-4	5.1	0.150	D 0.099	0.155	0.223	0.304	0.397	0.503			
	15-P-2	6.1		C 450	360	300	257	225	200			
	15-W-4	6.9		D 0.079	0.124	0.179	0.243	0.318	0.402	60"		
3/4" x 3/16" Non-Serrated Only	15-W-4	6.9		U 675	432	300	220	169	133	108		
	15-P-4	7.7	0.225	D 0.099	0.155	0.223	0.304	0.397	0.503	60"		
	15-P-2	9.1		C 675	540	450	386	338	300	270		
	15-W-4	6.1		D 0.079	0.124	0.179	0.243	0.318	0.402	0.497	66"	72"
1" x 1/8"	15-W-4	6.1		U 800	512	356	261	200	158	128	106	89
	15-W-2	6.7		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670
	15-P-4	6.5	0.267	C 800	640	533	457	400	356	320	291	267
	15-P-2	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-W-4	8.9		U 1200	768	533	392	300	237	192	159	133
	15-W-2	9.6		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670
	15-P-4	9.8	0.400	C 1200	960	800	686	600	533	480	436	400
	15-P-2	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-W-4	7.5		U 1250	800	556	408	313	247	200	165	139
	15-W-2	8.1		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536
	15-P-4	8.2	0.417	C 1250	1000	833	714	625	556	500	455	417
	15-P-2	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-W-4	11.0		U 1875	1200	833	612	469	370	300	248	208
	15-W-2	11.6		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536
	15-P-4	12.3	0.625	C 1875	1500	1250	1071	938	833	750	682	625
	15-P-2	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-W-4	8.9		U 1800	1152	800	588	450	356	288	238	200
	15-W-2	9.4		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447
	15-P-4	9.6	0.600	C 1800	1440	1200	1029	900	800	720	655	600
	15-P-2	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-W-4	13.1		U 2700	1728	1200	882	675	533	432	357	300
	15-W-2	13.7		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447
	15-P-4	14.4	0.900	C 2700	2160	1800	1543	1350	1200	1080	982	900
	15-P-2	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-W-4	15.2		U 3675	2352	1633	1200	919	726	588	486	408
	15-W-2	15.8		D 0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383
	15-P-4	16.5	1.225	C 3675	2940	2450	2100	1838	1633	1470	1336	1225
	15-P-2	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-W-4	17.3		U 4800	3072	2133	1567	1200	948	768	635	533
	15-W-2	17.9		D 0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335
	15-P-4	18.6	1.600	C 4800	3840	3200	2743	2400	2133	1920	1745	1600
	15-P-2	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-W-4	19.4		U 6075	3888	2700	1984	1519	1200	972	803	675
	15-W-2	20.0		D 0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298
	15-P-4	20.7	2.025	C 6075	4860	4050	3471	3038	2700	2430	2209	2025
	15-P-2	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-W-4	21.4		U 7500	4800	3333	2449	1875	1481	1200	992	833
	15-W-2	22.0		D 0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268
	15-P-4	22.7	2.500	C 7500	6000	5000	4286	3750	3333	3000	2727	2500
	15-P-2	24.7		D 0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215

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.

W/P-15 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	17	18	19	20
1/8" Bar	1 1/16	2	2 5/16	3 7/16	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 5/16	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 1/16	26 3/8	27 5/16	28 1/4	29 3/16	30 3/8	31 1/16	32	32 5/16	33 3/8	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 1/16	27 3/8	28 5/16	29 1/4	30 3/16	31 1/8	32 1/16	33	33 5/16	34 7/8	35 13/16