

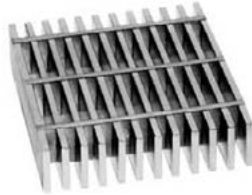
7-P-4 & 7-P-2 Steel Bar Grating

Press-Locked Close Mesh

7/16" Center to Center of Bearing Bars



7-P-4
Cross Rods 4" C/C



7-P-2
Cross Rods 2" C/C



ADA Conforming

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.

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"			
3/4" x 1/8"	W	9.8	0.321	U	964	617	429	315	241	190	154					
	P			0.099	0.155	0.223	0.304	0.397	0.503	0.621						
	W			964	771	643	551	482	429	386						
	P			0.079	0.124	0.179	0.243	0.318	0.402	0.497						
3/4" x 3/16"	W	14.6	0.482	U	1446	926	643	472	362	286	231	191				
	P			0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751					
	W			1446	1157	964	827	723	643	579	526					
	P			0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601					
	W			1714	1097	726	560	429	339	274	227	190	162			
	P			0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787			
1" x 1/8"	W	12.7	0.571	U	1714	1097	726	560	429	339	274	227	190	162		
	P			0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787			
	W			1714	1371	1143	980	857	762	686	623	571	527			
	P			0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
1" x 3/16"	W	19.0	0.857	U	2571	1646	1143	840	643	508	411	340	286	243	210	
	P			0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787	0.912		
	W			2571	2057	1741	1469	1286	1143	1029	935	857	791	735		
	P			0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
	W			2679	1741	1190	875	670	529	429	354	298	254	219	167	
	P			0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	
1-1/4" x 1/8"	W	17.2	0.893	U	2679	2143	1786	1531	1339	1190	1071	974	893	824	765	
	P			0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.763	
	W			4018	2571	1786	1321	1004	794	643	531	446	380	328	251	198
	P			0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	1.207
	W			4018	3214	2679	2296	2009	1786	1607	1461	1339	1236	1148	1004	893
	P			0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.763	0.965
1-1/4" x 3/16"	W	23.9	1.339	U	3857	2469	1741	1259	964	762	617	510	429	365	315	
	P			0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	
	W			3857	3068	2571	2207	1929	1714	1543	1403	1286	1187	1102	964	857
	P			0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	0.804
	W			5786	3703	2571	1889	1446	1143	926	765	643	548	472	362	286
	P			0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	1.006
1-1/2" x 1/8"	W	30.2	1.929	U	5786	4629	3857	3306	2893	2571	2314	2104	1929	1780	1653	
	P			0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	
	W			7875	5040	3500	2571	1969	1556	1260	1041	875	746	643	492	389
	P			0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521	0.681	0.862
	W			7875	6300	5250	4500	3938	3500	3150	2864	2625	2423	2250	1969	1750
	P			0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.360	0.417	0.545	0.689
2" x 3/16"	W	37.1	3.429	U	10286	6583	4571	3359	2571	2032	1646	1360	1143	974	840	
	P			0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.596	
	W			10286	8229	6857	5878	5143	4571	4114	3740	3429	3165	2939	2571	2286
	P			0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.477	0.603
	W			13018	8331	5786	4251	3254	2571	2083	1721	1446	1232	1063	814	643
	P			0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406	0.530	0.670
2-1/4" x 3/16"	W	43.4	4.339	U	13018	10414	8679	7439	6509	5786	5207	4734	4339	4005	3719	
	P			0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.424	
	W			16071	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1004	794
	P			0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.477	0.603
	W			16071	12857	10714	9184	8036	7143	6429	5844	5357	4945	4592	4018	3571
	P			0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.381	0.483

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

P-7 PANEL WIDTH (inches) Note: P-Press-Locked cross bars typically 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	21	22
1/8" Bar	9/16	1	1 7/16	1 7/8	2 5/16	2 3/4	3 3/16	3 5/8	4 1/16	4 1/2	4 15/16	5 3/8	5 13/16	6 1/4	6 11/16	7 1/8	7 9/16	8	8 7/16	8 7/8	9 5/16
3/16" Bar	5/8	1 1/16	1 1/2	1 5/16	2 3/8	2 13/16	3 1/4	3 11/16	4 1/8	4 9/16	5	5 7/16	5 7/8	6 5/16	6 3/4	7 3/16	7 5/8	8 1/16	8 1/2	8 15/16	9 3/8
No. of Bars	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
1/8" Bar	9 3/4	10 3/16	10 5/8	11 1/16	11 1/2	11 15/16	12 3/8	12 13/16	13 1/4	13 11/16	14 1/8	14 9/16	15	15 7/16	15 7/8	16 5/16	16 3/4	17 3/16	17 5/8	18 1/16	18 1/2
3/16" Bar	9 13/16	10 1/4	10 11/16	11 1/8	11 9/16	12	12 7/16	12 7/8	13 5/16	13 3/4	14 3/16	14 5/8	15 1/16	15 1/2	15 15/16	16 3/8	16 13/16	17 1/4	17 11/16	18 1/8	18 9/16
No. of Bars	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
1/8" Bar	18 15/16	19 3/8	19 13/16	20 1/4	20 11/16	21 1/8	21 9/16	22	22 7/16	22 7/8	23 5/16	23 3/4	24 3/16	24 5/8	25 1/16	25 1/2	25 15/16	26 3/8	26 13/16	27 1/4	27 11/16
3/16" Bar	19	19 7/16	19 7/8	20 5/16	20 3/4	21 3/16	21 5/8	22	22 1/2	22 15/16	23 3/8	23 13/16	24 1/4	24 11/16	25 1/8	25 9/16	26	26 7/16	26 7/8	27 5/16	27 3/4
No. of Bars	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83		
1/8" Bar	28 1/8	28 9/16	29	29 7/16	29 7/8	30 5/16	30 3/4	31 3/16	31 5/8	32 1/16	32 1/2	32 7/16	33 3/8	33 13/16	34 1/4	34 11/16	35 1/8	35 9/16	36		
3/16" Bar	28 3/16	28 5/8	29 1/16	29 1/2	29 15/16	30 3/8	30 13/16	31 1/4	31 11/16	32 1/8	32 9/16	33	33 7/16	33 7/8	34 5/16	34 3/4	35 3/16	35 5/8	36 1/16		