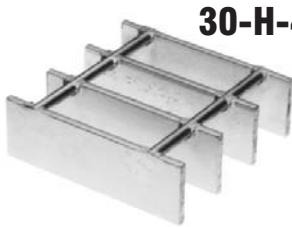


Steel Bar Grating Heavy-Duty

HEAVY-DUTY WELDED (W) 1-7/8" C/C Bearing Bars



30-H-4

Cross Rods 4" C/C



30-H-2

Cross Rods 2" C/C

NON-SERRATED & SERRATED

U = safe uniform load, psf (page 92)
 C = safe concentrated load, pfw (page 92)
 D = deflection, inches
 E = modulus of elasticity, 29,000,000 psi
 F = fiber stress, 20,000 psi

Material: ASTM A-36

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.

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. For deflections of uniform and concentrated loads, consult AMICO-Klemp's engineering departments.

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight psf	Sec. Mod Per Ft. Of Width	SPAN (Direction of Bearing Bar)											
				24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	
1" x 1/4"	30-H-4	6.3	0.267	U	889	569	395	290	222	176	142	118	99	73	56
	30-H-2	7.0		C	889	711	593	508	444	395	356	323	296	254	222
1" x 5/16"	30-H-4	8.2	0.333	U	1,111	711	494	363	278	219	178	147	123	91	69
	30-H-2	9.4		C	1,111	889	741	635	556	494	444	404	370	317	278
1" x 3/8"	30-H-4	9.6	0.400	U	1,333	853	593	435	333	263	213	176	148	109	83
	30-H-2	10.8		C	1,333	1,067	889	762	667	593	533	485	444	381	333
1-1/4" x 1/4"	30-H-4	7.8	0.417	U	1,389	889	617	454	347	274	222	184	154	113	87
	30-H-2	8.4		C	1,389	1,111	926	794	694	617	556	505	463	397	347
1-1/4" x 5/16"	30-H-4	10.0	0.521	U	1,736	1,111	772	567	434	343	278	230	193	142	109
	30-H-2	11.1		C	1,736	1,389	1,157	992	868	772	694	631	579	496	434
1-1/4" x 3/8"	30-H-4	11.8	0.625	U	2,083	1,333	926	680	521	412	333	275	231	170	130
	30-H-2	12.9		C	2,083	1,667	1,389	1,190	1,042	926	833	758	694	595	521
1-1/2" x 1/4"	30-H-4	9.2	0.600	U	2,000	1,280	889	653	500	395	320	264	222	163	125
	30-H-2	9.8		C	2,000	1,600	1,333	1,143	1,000	889	800	727	667	571	500
1-1/2" x 5/16"	30-H-4	11.8	0.750	U	2,500	1,600	1,111	816	625	494	400	331	278	204	156
	30-H-2	12.9		C	2,500	2,000	1,667	1,429	1,250	1,111	1,000	909	833	714	625
1-1/2" x 3/8"	30-H-4	13.9	0.900	U	3,000	1,920	1,333	980	750	593	480	397	333	245	188
	30-H-2	15.0		C	3,000	2,400	2,000	1,714	1,500	1,333	1,200	1,091	1,000	857	750
1-3/4" x 1/4"	30-H-4	10.6	0.817	U	2,722	1,742	1,210	889	681	538	436	360	302	222	170
	30-H-2	11.3		C	2,722	2,178	1,815	1,556	1,361	1,210	1,089	990	907	778	681
1-3/4" x 5/16"	30-H-4	13.6	1.021	U	3,403	2,178	1,512	1,111	851	672	544	450	378	278	213
	30-H-2	14.7		C	3,403	2,722	2,269	1,944	1,701	1,512	1,361	1,237	1,134	972	851
1-3/4" x 3/8"	30-H-4	16.0	1.225	U	4,083	2,613	1,815	1,333	1,021	807	653	540	454	333	255
	30-H-2	17.1		C	4,083	3,267	2,722	2,333	2,042	1,815	1,633	1,485	1,361	1,167	1,021
2" x 1/4"	30-H-4	12.0	1.067	U	3,556	2,276	1,580	1,161	889	702	569	470	395	290	222
	30-H-2	12.7		C	3,556	2,844	2,370	2,032	1,778	1,580	1,422	1,293	1,185	1,016	889
2" x 5/16"	30-H-4	15.3	1.333	U	4,444	2,844	1,975	1,451	1,111	878	711	588	494	363	278
	30-H-2	16.5		C	4,444	3,556	2,963	2,540	2,222	1,975	1,778	1,616	1,481	1,270	1,111
2" x 3/8"	30-H-4	18.1	1.600	U	5,333	3,413	2,370	1,741	1,333	1,053	853	705	593	435	333
	30-H-2	19.3		C	5,333	4,267	3,556	3,048	2,667	2,370	2,133	1,939	1,778	1,524	1,333
2-1/4" x 1/4"	30-H-4	13.6	1.350	U	4,500	2,880	2,000	1,469	1,125	889	720	595	500	367	281
	30-H-2	14.1		C	4,500	3,600	3,000	2,571	2,250	2,000	1,800	1,636	1,500	1,286	1,125
2-1/4" x 5/16"	30-H-4	17.1	1.688	U	5,625	3,600	2,500	1,837	1,406	1,111	900	744	625	459	352
	30-H-2	18.2		C	5,625	4,500	3,750	3,214	2,813	2,500	2,250	2,045	1,875	1,607	1,406
2-1/4" x 3/8"	30-H-4	20.3	2.025	U	6,750	4,320	3,000	2,204	1,688	1,333	1,080	893	750	551	422
	30-H-2	21.4		C	6,750	5,400	4,500	3,857	3,375	3,000	2,700	2,455	2,250	1,929	1,688
2-1/2" x 1/4"	30-H-4	14.9	1.667	U	5,556	3,556	2,469	1,814	1,389	1,097	889	735	617	454	347
	30-H-2	15.3		C	5,556	4,444	3,704	3,175	2,778	2,469	2,222	2,020	1,852	1,587	1,389
2-1/2" x 5/16"	30-H-4	18.9	2.083	U	6,944	4,444	3,086	2,268	1,736	1,372	1,111	918	772	567	434
	30-H-2	20.0		C	6,944	5,556	4,630	3,968	3,472	3,086	2,778	2,525	2,315	1,984	1,736
2-1/2" x 3/8"	30-H-4	22.3	2.500	U	8,333	5,333	3,704	2,721	2,083	1,646	1,333	1,102	926	680	521
	30-H-2	23.5		C	8,333	6,667	5,556	4,762	4,167	3,704	3,333	3,030	2,778	2,381	2,083
2-3/4" x 1/4"	30-H-4	16.3	2.017	U	6,722	4,302	2,988	2,195	1,681	1,328	1,076	889	747	549	420
	30-H-2	17.0		C	6,722	5,378	4,481	3,841	3,361	2,988	2,689	2,444	2,241	1,921	1,681
2-3/4" x 5/16"	30-H-4	21.0	2.521	U	8,403	5,378	3,735	2,744	2,101	1,660	1,344	1,111	934	686	525
	30-H-2	22.6		C	8,403	6,722	5,602	4,802	4,201	3,735	3,361	3,056	2,801	2,401	2,101
2-3/4" x 3/8"	30-H-4	24.9	3.025	U	10,083	6,453	4,481	3,293	2,521	1,992	1,613	1,333	1,120	823	630
	30-H-2	26.4		C	10,083	8,067	6,722	5,762	5,042	4,481	4,033	3,667	3,361	2,881	2,521

Steel Bar Grating Heavy-Duty

30-H-4 & 30-H-2 (continued)

NON-SERRATED & SERRATED

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight per sq ft	Sec. Mod Per Ft. Of Width	SPAN (Direction of Bearing Bar)											
				24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	
3" x 1/4"	30-H-4	18.2	2.400	U	8,000	5,120	3,556	2,612	2,000	1,580	1,280	1,058	889	653	500
	30-H-2	19.3		C	8,000	6,400	5,333	4,571	4,000	3,556	3,200	2,909	2,667	2,286	2,000
3" x 5/16"	30-H-4	22.8	3.000	U	10,000	6,400	4,444	3,265	2,500	1,975	1,600	1,322	1,111	816	625
	30-H-2	24.4		C	10,000	8,000	6,667	5,714	5,000	4,444	4,000	3,636	3,333	2,857	2,500
3" x 3/8"	30-H-4	27.0	3.600	U	12,000	7,680	5,333	3,918	3,000	2,370	1,920	1,587	1,333	980	750
	30-H-2	28.6		C	12,000	9,600	8,000	6,857	6,000	5,333	4,800	4,364	4,000	3,429	3,000
3-1/4" x 1/4"	30-H-4	19.6	2.817	U	9,389	6,009	4,173	3,066	2,347	1,855	1,502	1,242	1,043	766	587
	30-H-2	20.7		C	9,389	7,511	6,259	5,365	4,694	4,173	3,756	3,414	3,130	2,683	2,347
3-1/4" x 5/16"	30-H-4	24.6	3.521	U	11,736	7,511	5,216	3,832	2,934	2,318	1,878	1,552	1,304	958	734
	30-H-2	26.1		C	11,736	9,389	7,824	6,706	5,868	5,216	4,694	4,268	3,912	3,353	2,934
3-1/4" x 3/8"	30-H-4	29.2	4.225	U	14,083	9,013	6,259	4,599	3,521	2,782	2,253	1,862	1,565	1,150	880
	30-H-2	30.7		C	14,083	11,267	9,389	8,048	7,042	6,259	5,633	5,121	4,694	4,024	3,521
3-1/2" x 1/4"	30-H-4	21.0	3.267	U	10,889	6,969	4,840	3,556	2,722	2,151	1,742	1,440	1,210	889	681
	30-H-2	22.2		C	10,889	8,711	7,259	6,222	5,444	4,840	4,356	3,960	3,630	3,111	2,722
3-1/2" x 5/16"	30-H-4	26.4	4.083	U	13,611	8,711	6,049	4,444	3,403	2,689	2,178	1,800	1,512	1,111	851
	30-H-2	27.9		C	13,611	10,889	9,074	7,778	6,806	6,049	5,444	4,949	4,537	3,889	3,403
3-1/2" x 3/8"	30-H-4	31.3	4.900	U	16,333	10,453	7,259	5,333	4,083	3,226	2,613	2,160	1,815	1,333	1,021
	30-H-2	32.8		C	16,333	13,067	10,889	9,333	8,167	7,259	6,533	5,939	5,444	4,667	4,083
4" x 1/4"	30-H-4	23.9	4.267	U	14,222	9,102	6,321	4,644	3,556	2,809	2,276	1,881	1,580	1,161	889
	30-H-2	29.0		C	14,222	11,378	9,481	8,127	7,111	6,321	5,689	5,172	4,741	4,063	3,556
4" x 5/16"	30-H-4	29.9	5.333	U	17,778	11,378	7,901	5,805	4,444	3,512	2,844	2,351	1,975	1,451	1,111
	30-H-2	31.5		C	17,778	14,222	11,852	10,159	8,889	7,901	7,111	6,465	5,926	5,079	4,444
4" x 3/8"	30-H-4	35.5	6.400	U	21,333	13,653	9,481	6,966	5,333	4,214	3,413	2,821	2,370	1,741	1,333
	30-H-2	37.1		C	21,333	17,067	14,222	12,190	10,667	9,481	8,533	7,758	7,111	6,095	5,333
4-1/2" x 1/4"	30-H-4	36.7	5.400	U	18,000	11,520	8,000	5,878	4,500	3,556	2,880	2,380	2,000	1,469	1,125
	30-H-2	27.9		C	18,000	14,400	12,000	10,286	9,000	8,000	7,200	6,545	6,000	5,143	4,500
4-1/2" x 5/16"	30-H-4	33.5	6.750	U	22,500	14,400	10,000	7,347	5,625	4,444	3,600	2,975	2,500	1,837	1,406
	30-H-2	35.0		C	22,500	18,000	15,000	12,857	11,250	10,000	9,000	8,182	7,500	6,429	5,625
4-1/2" x 3/8"	30-H-4	39.9	8.100	U	27,000	17,280	12,000	8,816	6,750	5,333	4,320	3,570	3,000	2,204	1,688
	30-H-2	41.3		C	27,000	21,600	18,000	15,429	13,500	12,000	10,800	9,818	9,000	7,714	6,750
5" x 1/4"	30-H-4	29.7	6.667	U	22,222	14,222	9,877	7,256	5,556	4,390	3,556	2,938	2,469	1,814	1,389
	30-H-2	30.7		C	22,222	17,778	14,815	12,698	11,111	9,877	8,889	8,081	7,407	6,349	5,556
5" x 5/16"	30-H-4	37.0	8.333	U	27,778	17,778	12,346	9,070	6,944	5,487	4,444	3,673	3,086	2,268	1,736
	30-H-2	38.6		C	27,778	22,222	18,519	15,873	13,889	12,346	11,111	10,101	9,259	7,937	6,944
5" x 3/8"	30-H-4	44.0	10.000	U	33,333	21,333	14,815	10,884	8,333	6,584	5,333	4,408	3,704	2,721	2,083
	30-H-2	45.6		C	33,333	26,667	22,222	19,048	16,667	14,815	13,333	12,121	11,111	9,524	8,333
6" x 1/4"	30-H-4	35.3	9.600	U	32,000	20,480	14,222	10,449	8,000	6,321	5,120	4,231	3,556	2,612	2,000
	30-H-2	36.4		C	32,000	25,600	21,333	18,286	16,000	14,222	12,800	11,636	10,667	9,143	8,000
6" x 5/16"	30-H-4	44.1	12.000	U	40,000	25,600	17,778	13,061	10,000	7,901	6,400	5,289	4,444	3,265	2,500
	30-H-2	45.7		C	40,000	32,000	26,667	22,857	20,000	17,778	16,000	14,545	13,333	11,429	10,000
6" x 3/8"	30-H-4	52.5	14.400	U	48,000	30,720	21,333	15,673	12,000	9,481	7,680	6,347	5,333	3,918	3,000
	30-H-2	54.0		C	48,000	38,400	32,000	27,429	24,000	21,333	19,200	17,455	16,000	13,714	12,000

H-30 PANEL WIDTH (inches)

Note: H-Heavy Duty 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
1/4" Bar	2 1/8	4	5 7/8	7 3/4	9 5/8	11 1/2	13 3/8	15 1/4	17 1/8	19	20 7/8	22 3/4	24 5/8	26 1/2	28 3/8	30 1/4	32 1/8	34	35 7/8
5/16" Bar	2 3/16	4 1/16	5 15/16	7 13/16	9 11/16	11 9/16	13 7/16	15 5/16	17 3/16	19 1/16	20 15/16	22 13/16	24 11/16	26 9/16	28 7/16	30 5/16	32 3/16	34 1/16	35 15/16
3/8" Bar	2 1/4	4 1/8	6	7 7/8	9 3/4	11 5/8	13 1/2	15 3/8	17 1/4	19 1/8	21	22 7/8	24 3/4	26 5/8	28 1/2	30 3/8	32 1/4	34 1/8	36