





Building Relationships
MADE OF STEEL

For 125 years, we've aligned our entire organization around one mission:

*Passionately creating and delivering practical engineered solutions
for our ever-growing list of customers.*

Our values might be old fashioned, but they are the materials that will
build relationships made of steel.

Miner Grating's 120,000 square foot facility in Dallas Texas, manufactures and stocks a variety of bar grating, diamond grating, and round hole grating products. Privately owned, our sales, engineering, and production teams are among the most experienced in the industry. We are committed to being the industry leader in organizational excellence and North America's premier grating manufacturer.



Our Products Engineered for
EXCELLENCE



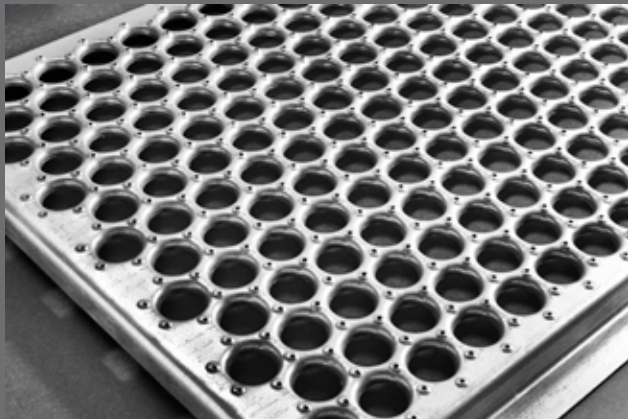
**PREMIER GRATE
BAR GRATING**

- Mill finish, galvanized, or painted black
 - Variety of sizes/gauges
 - Broad variety of bar grating panels in stock
 - Extensive fabrication capabilities
 - Forge welded and serrated in-house
 - Smooth/Serrated
 - AAR Groups 1/2/3 approved bar grating
-



**PREMIER DIAMOND
SAFETY GRATING**

- HRP&O or galvanized
 - 12 gauge
 - Extensive fabrication capabilities
 - Extensive catalog of rail drawings
 - AAR approved diamond safety grating
-



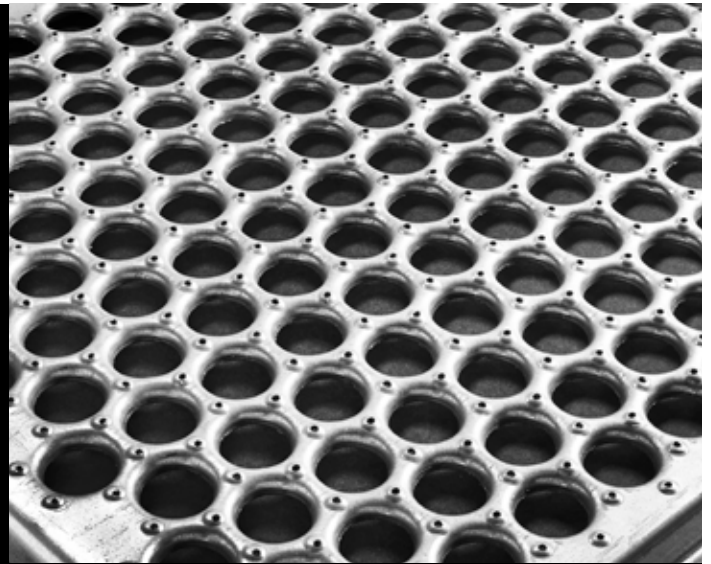
**PREMIER GRIP ROUND HOLE
SAFETY GRATING**

- Galvanized material
 - 13 gauge
 - Custom hole patterns available
 - Large stock of common boards
 - Extensive catalog of rail drawings
 - Variety of latitudinal "kink" boards available
 - AAR approved round hole safety grating
-

Ask Us About Our
CUSTOM FABRICATION

MINSTER





Premier Grip
ROUND HOLE



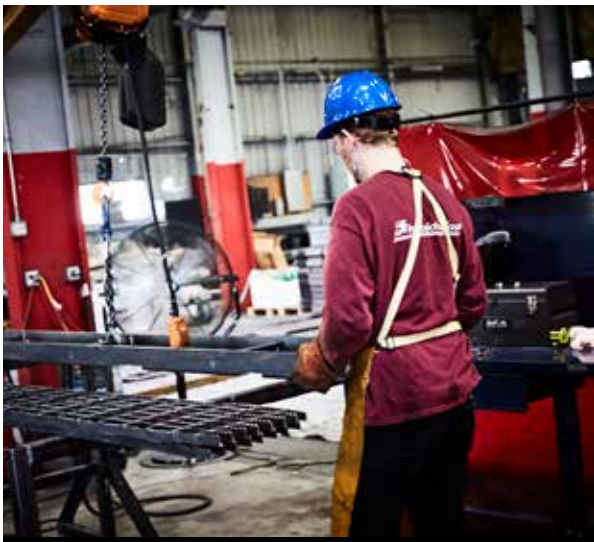




Premier
DIAMOND

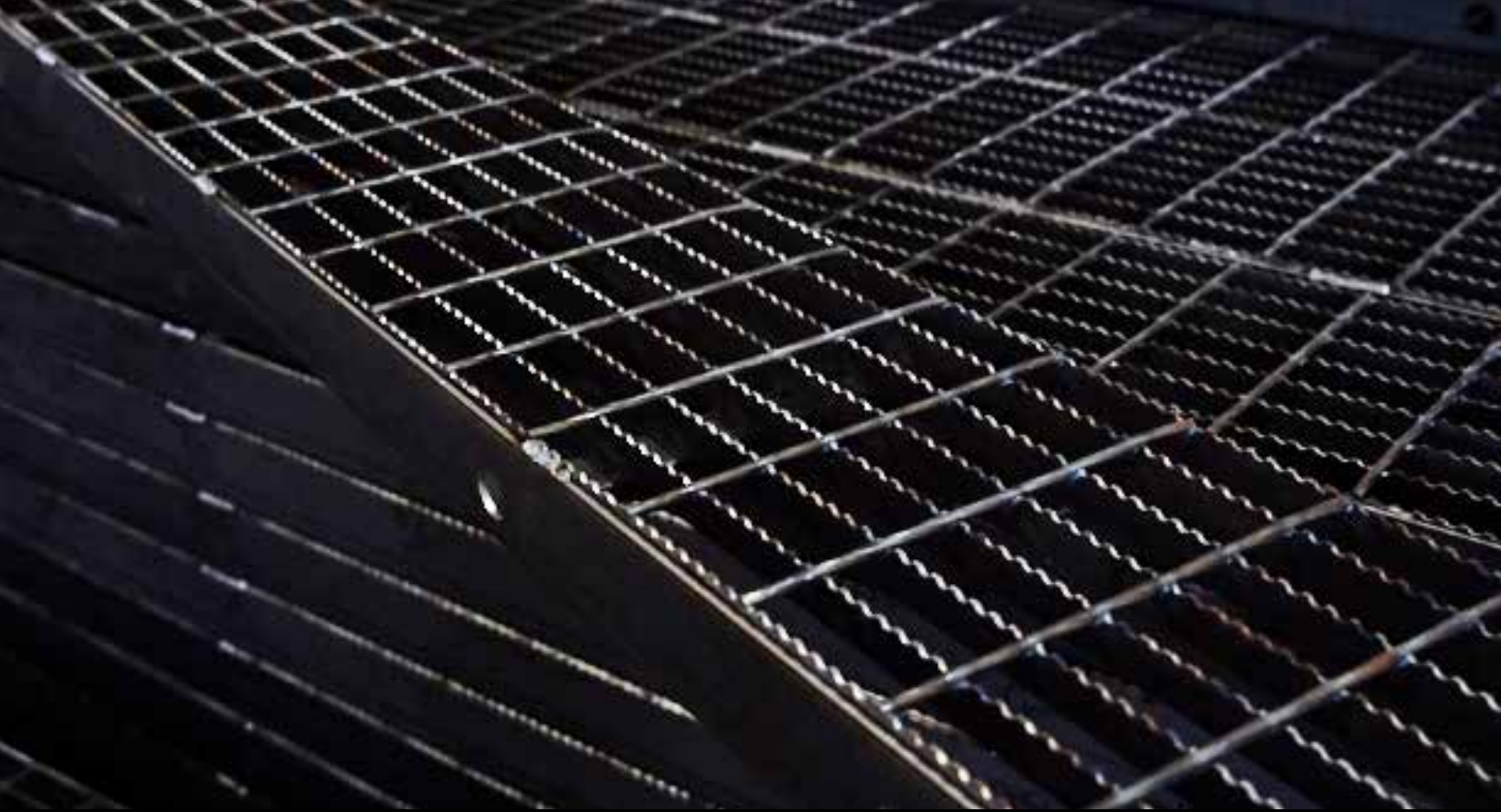






Premier Grate
BAR GRATING





Steel **BAR GRATING**

Welded steel bar grating is strong, durable, has an exceptional strength to weight ratio, and can be easily fabricated to many configurations.

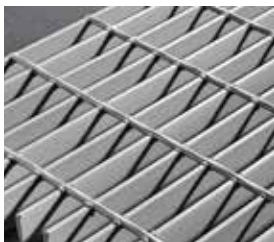
Welded grating is widely used in many industrial applications including mezzanines, platforms, and walkways.

Metal bar grating is manufactured by forge welding a series of equally spaced bearing bars to connecting cross rods. Bar grating comes in a variety of thicknesses and spacing that can be selected to meet anticipated loads.

Railroad grating in 1-9/16" (25-W-4) and 1-11/16" (27-W-4) spacings, is AAR (Association of American Railroads) approved and specified for a variety of rail applications. Miner Grating railroad grating is used on both new car and car repair applications and is fully interchangeable with other AAR approved gratings.



Surfaces and **FINISHES**



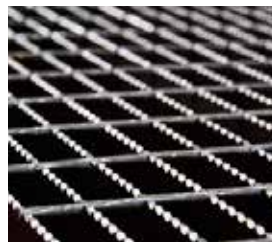
PLAIN

Smooth finish, unserrated top surface.



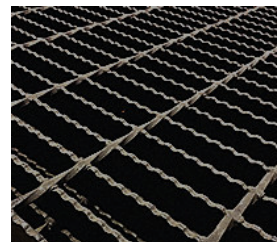
SERRATED

Serrated offers more secure footing, where oil, water, or chemicals are present.



GALVANIZED

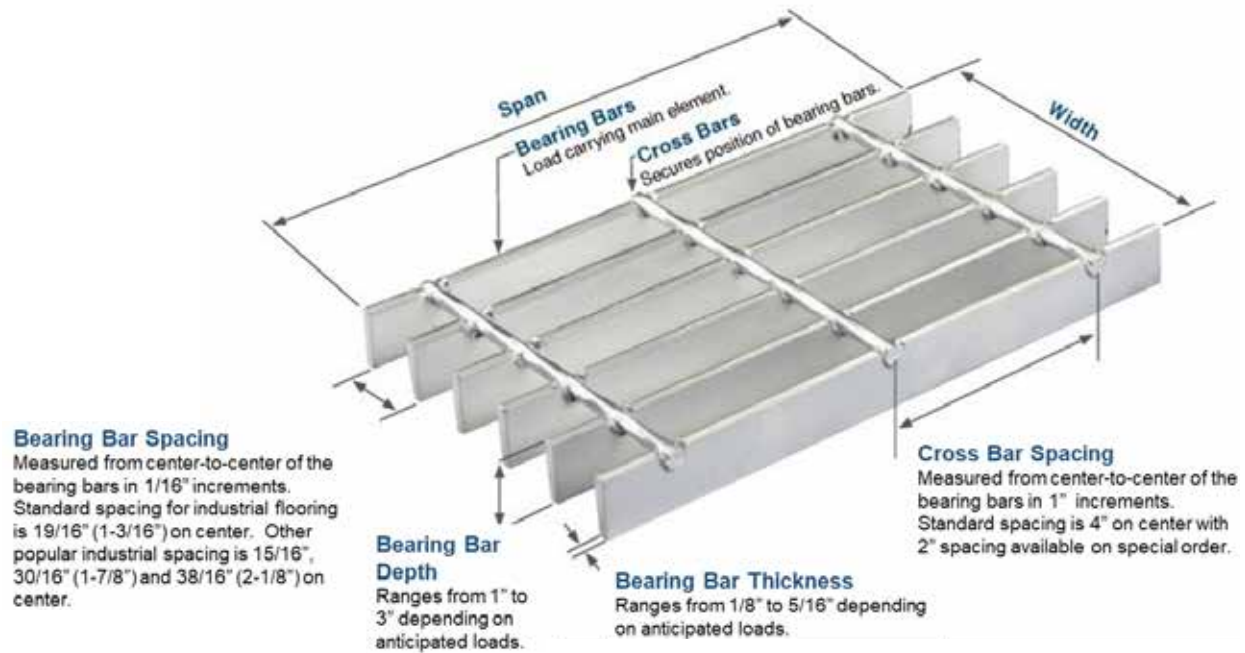
A galvanized steel finish is the best protection for corrosion resistance for steel grating.



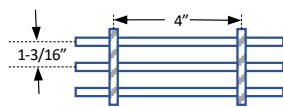
BLACK

Black shop coat provides protection for transportation and storage.

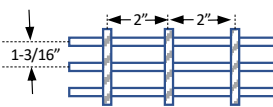
SPECIFICATIONS



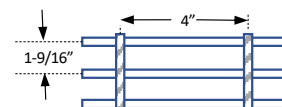
WELDED STEEL BAR GRATING



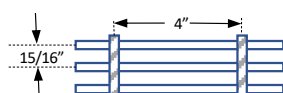
19-W-4



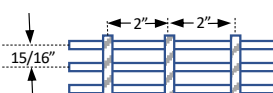
19-W-2



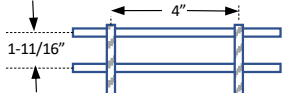
25-W-4



15-W-4



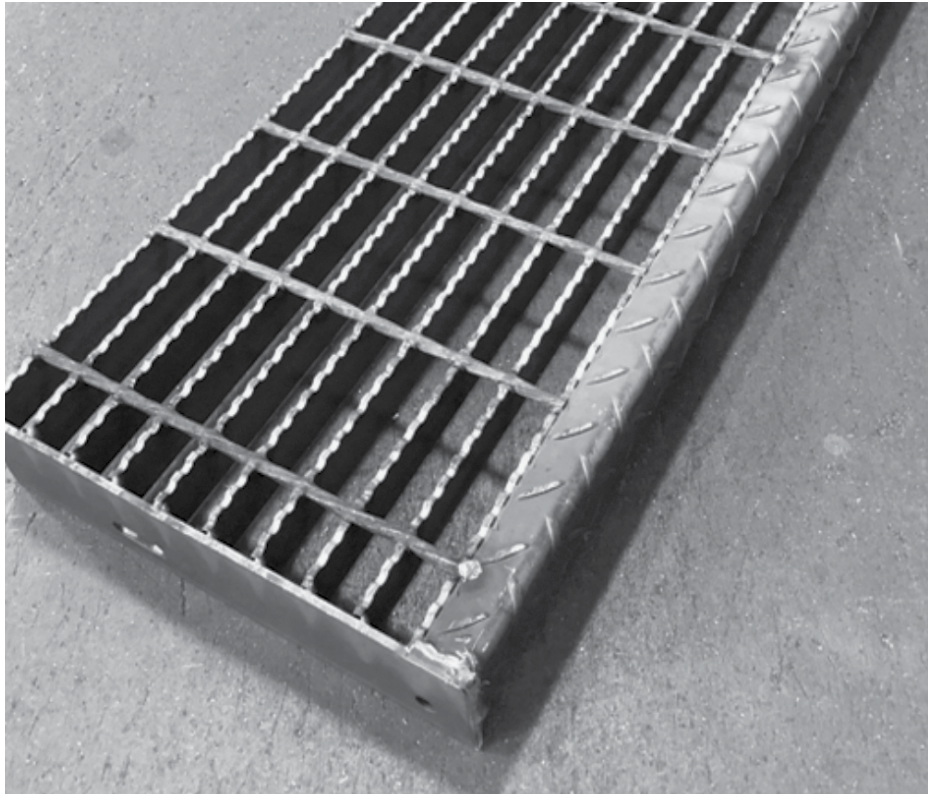
15-W-2



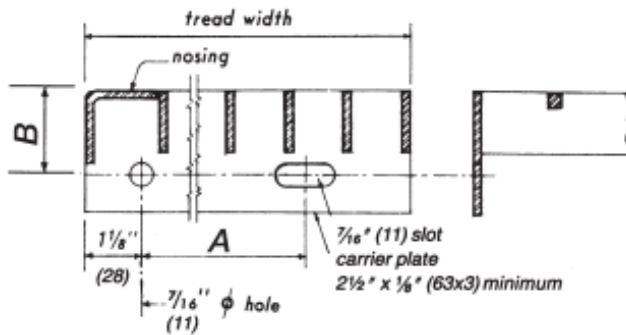
27-W-4

WELDED STEEL RAILROAD BAR GRATING

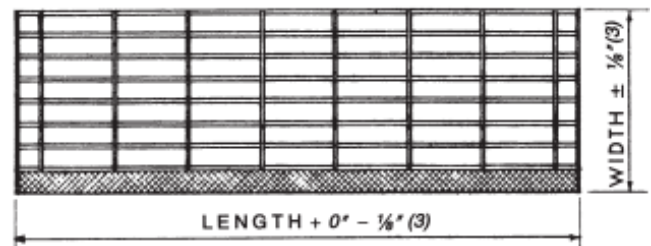
Stair Tread **TOLERANCES AND DETAILS**



Typical Tread Dimension



Tread Length and Width Tolerance



Nominal Tread Width (approximate)** Bearing Bar Centers		Dimension A
1 3/16 (30)	1 5/16 (24)	
6 1/4 (159)	6 (152)	2 1/2 (63)
7 1/4 (184)	7 (178)	4 1/2 (114)
8 1/2 (216)	9 (229)	4 1/2 (114)
9 3/4 (248)	10 (254)	7 (178)
11 (279)	10 3/4 (273)	7 (178)
12 (305)	11 3/4 (298)	7 (178)

Grating Depth	Dimension B
3/4 (19) to 1 1/4 (32) 1 1/2 (38) and up	1 3/4 (44) 2 1/4 (57)

Steel Bar Grating LOAD TABLES

15 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

15-W-4 and 15-W-2

Non-Serrated & Serrated

Bearing Bar Size	Approx Weight psf*	Sec Mod Per Ft of Width		Unsupported Span												
				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"
1" x 1/8"	6.2	4'-6"	U	800	512	356	261	200	158	128	All loads and deflections are theoretical and based upon the gross sections of the bearing bars, using a fiber stress of 18,000 psi. The values are not intended to be absolute since the actual load capacity will be affected by the slight variations in mill and manufacturing tolerances.					
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466						
			C	800	640	533	457	400	356	320	Grating for spans to the left of the heavy line have a deflection <1/4" for uniform loads of 100 psf.					
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372						
1" x 3/16"	8.9	5'-0"	U	1,200	768	533	392	300	237	192	159	133				
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670				
			C	1,200	960	800	686	600	533	480	436	400				
			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"	7.5	5'-4"	U	1,250	800	556	408	313	247	200	165	139	118	U: Safe uniform load (psf)		
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629			
			C	1,250	1,000	833	714	625	556	500	455	417	385	C: Concentrated load (lbs/ft of grating width)		
			D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504			
1-1/4" x 3/16"	11.0	5'-11"	U	1,875	1,200	833	612	469	370	300	248	208	178	153		
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
			C	1,875	1,500	1,250	1,071	938	833	750	682	625	577	536		
			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"	8.9	6'-2"	U	1,800	1,152	800	588	450	356	288	238	200	170	147	113	
			D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	
			C	1,800	1,440	1,200	1,029	900	800	720	655	600	554	514	450	
			D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	
1-1/2" x 3/16"	13.2	6'-10"	U	2,700	1,728	1,200	882	675	533	432	357	300	256	220	169	133
			D	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
			C	2,700	2,160	1,800	1,543	1,350	1,200	1,080	982	900	831	771	675	600
			D	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
1-3/4" x 3/16"	15.3	7'-8"	U	3,675	2,352	1,633	1,200	919	726	588	486	408	348	300	230	182
			D	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
			C	3,675	2,940	2,450	2,100	1,838	1,633	1,470	1,336	1,225	1,131	1,050	919	817
			D	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"	17.3	8'-6"	U	4,800	3,072	2,133	1,567	1,200	948	768	635	533	454	392	300	237
			D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.596	0.754
			C	4,800	3,840	3,200	2,743	2,400	2,133	1,920	1,746	1,600	1,477	1,371	1,200	1,067
			D	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
2-1/4" x 3/16"	19.4	9'-3"	U	6,075	3,888	2,700	1,986	1,519	1,200	972	803	675	575	496	380	300
			D	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
			C	6,075	4,860	4,050	3,471	3,038	2,700	2,430	2,209	2,025	1,869	1,736	1,519	1,350
			D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.424	0.536
2-1/2" x 3/16"	21.5	10'-0"	U	7,500	4,800	3,333	2,449	1,875	1,482	1,200	992	833	710	612	469	370
			D	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
			C	7,500	6,000	5,000	4,286	3,750	3,333	3,000	2,727	2,500	2,308	2,143	1,875	1,667
			D	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

* Weight per square foot based on 15-W-4 grating. Add .60 psf for 2" on center cross bars

** Maximum pedestrian load is defined as 100# uniform load with deflection < 1/4 inch. The 1/4" maximum deflection criteria is considered consistent with pedestrian comfort, but may be exceeded for other loading conditions at the discretion of the specifying authority.

Note: When gratings with serrated surface are specified, the depth of the grating required for a specific load will be 1/4" greater than that shown in these tables.

Heavy Duty Steel Bar Grating

LOAD TABLES

15 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

15-W-4 and 15-W-2

U: Safe uniform load (psf)

C: Concentrated load (psf)

Heavy Duty 15/16" C/C Bearing Bars

Non-Serrated & Serrated

LOAD & DEFLECTION TABLE

SPAN (Direction of Bearing Bar)

Bar Size	Symbol	Approx Weight psf	Sec Mod Per Ft of Width		24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"
1" x 1/4"	15-W-4	11.7	0.533	U	1,778	1,138	790	580	444	351	284	235	198	145	111
	15-W-2	12.4		C	1,778	1,422	1,185	1,016	889	790	711	646	593	508	444
1" x 5/16"	15-W-4	14.9	0.667	U	2,222	1,422	988	726	556	439	356	294	247	181	139
	15-W-2	16.1		C	2,222	1,778	1,481	1,270	1,111	988	889	808	741	635	556
1-1/4" x 1/4"	15-W-4	14.5	0.833	U	2,778	1,778	1,235	907	694	549	444	367	309	227	174
	15-W-2	15.1		C	2,778	2,222	1,852	1,587	1,389	1,235	1,111	1,010	926	794	694
1-1/4" x 5/16"	15-W-4	18.4	1.042	U	3,472	2,222	1,543	1,134	868	686	556	459	386	283	217
	15-W-2	19.6		C	3,472	2,778	2,315	1,984	1,736	1,543	1,389	1,263	1,157	992	868
1-1/2" x 1/4"	15-W-4	17.3	1.200	U	4,000	2,560	1,778	1,306	1,000	790	640	529	444	327	250
	15-W-2	17.9		C	4,000	3,200	2,667	2,286	2,000	1,778	1,600	1,455	1,333	1,143	1,000
1-1/2" x 5/16"	15-W-4	21.9	1.500	U	5,000	3,200	2,222	1,633	1,250	988	800	661	556	408	313
	15-W-2	23.1		C	5,000	4,000	3,333	2,857	2,500	2,222	2,000	1,818	1,667	1,429	1,250
1-3/4" x 1/4"	15-W-4	20.1	1.633	U	5,444	3,484	2,420	1,778	1,361	1,075	871	720	605	444	340
	15-W-2	20.7		C	5,444	4,356	3,630	3,111	2,722	2,420	2,178	1,980	1,815	1,556	1,361
1-3/4" x 5/16"	15-W-4	25.3	2.042	U	6,806	4,356	3,025	2,222	1,701	1,344	1,089	900	756	556	425
	15-W-2	26.8		C	6,806	5,444	4,537	3,889	3,403	3,025	2,722	2,475	2,269	1,944	1,701
2" x 1/4"	15-W-4	22.8	2.133	U	7,111	4,551	3,160	2,322	1,778	1,405	1,138	940	790	580	444
	15-W-2	23.5		C	7,111	5,689	4,741	4,063	3,556	3,160	2,844	2,586	2,370	2,032	1,778
2" x 5/16"	15-W-4	28.8	2.667	U	8,889	5,689	3,951	2,902	2,222	1,756	1,422	1,175	988	726	556
	15-W-2	29.9		C	8,889	7,111	5,926	5,079	4,444	3,951	3,556	3,232	2,963	2,540	2,222
2-1/4" x 1/4"	15-W-4	25.6	2.700	U	9,000	5,760	4,000	2,939	2,250	1,778	1,440	1,190	1,000	735	563
	15-W-2	26.3		C	9,000	7,200	6,000	5,143	4,500	4,000	3,600	3,273	3,000	2,571	2,250
2-1/4" x 5/16"	15-W-4	32.3	3.375	U	11,250	7,200	5,000	3,673	2,813	2,222	1,800	1,488	1,250	918	703
	15-W-2	33.4		C	11,250	9,000	7,500	6,429	5,625	5,000	4,500	4,091	3,750	3,214	2,813
2-1/2" x 1/4"	15-W-4	28.4	3.333	U	11,111	7,111	4,938	3,628	2,778	2,195	1,778	1,469	1,235	907	694
	15-W-2	29.1		C	11,111	8,889	7,407	6,349	5,556	4,938	4,444	4,040	3,704	3,175	2,778
2-1/2" x 5/16"	15-W-4	35.7	4.167	U	13,889	8,889	6,173	4,535	3,472	2,743	2,222	1,837	1,543	1,134	868
	15-W-2	36.9		C	13,889	11,111	9,259	7,937	6,944	6,173	5,556	5,051	4,630	3,968	3,472
2-3/4" x 1/4"	15-W-4	31.2	4.033	U	13,444	8,604	5,975	4,390	3,361	2,656	2,151	1,778	1,494	1,098	840
	15-W-2	31.8		C	13,444	10,756	8,963	7,683	6,722	5,975	5,378	4,889	4,481	3,841	3,361
2-3/4" x 5/16"	15-W-4	39.6	5.042	U	16,806	10,756	7,469	5,488	4,201	3,320	2,689	2,222	1,867	1,372	1,050
	15-W-2	41.1		C	16,806	13,444	11,204	9,603	8,403	7,469	6,722	6,111	5,602	4,802	4,201
3" x 1/4"	15-W-4	34.4	4.800	U	16,000	10,240	7,111	5,224	4,000	3,160	2,560	2,116	1,778	1,306	1,000
	15-W-2	35.5		C	16,000	12,800	10,667	9,143	8,000	7,111	6,400	5,818	5,333	4,571	4,000
3" x 5/16"	15-W-4	43.1	6.000	U	20,000	12,800	8,889	6,531	5,000	3,951	3,200	2,645	2,222	1,633	1,250
	15-W-2	44.6		C	20,000	16,000	13,333	11,429	10,000	8,889	8,000	7,273	6,667	5,714	5,000

Heavy Duty Steel Bar Grating

LOAD TABLES

15 Space

Use this table when evaluating spans and loads for the following types of steel grating:

Load Table

15-W-4 and 15-W-2

Heavy Duty 15/16" C/C Bearing Bars

Non-Serrated & Serrated



Maximum Safe Span

Bar Size	Section Modulus psf	Moment of Inertia psf	Approx Weight psf	H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1" x 1/4"	0.533	0.267	12.0	1'-1"	1'-0"	0'-10"	1'-2"	0'-8"	0'-7"	0'-8"
1" x 5/16"	0.667	0.333	14.7	1'-3"	1'-2"	1'-0"	1'-5"	0'-9"	0'-8"	0'-9"
1-1/4" x 1/4"	0.833	0.521	14.7	1'-4"	1'-3"	1'-1"	1'-8"	0'-10"	0'-9"	0'-11"
1-1/4" x 5/16"	1.042	0.651	18.1	1'-6"	1'-5"	1'-3"	1'-11"	1'-0"	0'-10"	1'-1"
1-1/2" x 1/4"	1.200	0.900	17.4	1'-8"	1'-6"	1'-4"	2'-3"	1'-1"	0'-11"	1'-3"
1-1/2" x 5/16"	1.500	1.125	21.5	1'-10"	1'-8"	1'-6"	2'-6"	1'-3"	1'-1"	1'-7"
1-3/4" x 1/4"	1.633	1.429	20.2	1'-11"	1'-9"	1'-7"	2'-10"	1'-3"	1'-2"	1'-8"
1-3/4" x 5/16"	2.042	1.786	24.9	2'-2"	2'-0"	1'-10"	3'-2"	1'-6"	1'-5"	2'-1"
2" x 1/4"	2.133	2.133	22.9	2'-3"	2'-0"	1'-10"	3'-6"	1'-7"	1'-5"	2'-2"
2" x 5/16"	2.667	2.667	28.3	2'-6"	2'-4"	2'-2"	3'-11"	1'-10"	1'-9"	2'-8"
2-1/4" x 1/4"	2.700	3.038	25.6	2'-7"	2'-4"	2'-2"	4'-2"	1'-10"	1'-9"	2'-8"
2-1/4" x 5/16"	3.375	3.797	31.7	2'-11"	2'-9"	2'-7"	4'-5"	2'-2"	2'-2"	3'-4"
2-1/2" x 1/4"	3.333	4.167	28.3	2'-11"	2'-9"	2'-7"	4'-7"	2'-2"	2'-2"	3'-4"
2-1/2" x 5/16"	4.167	5.208	35.1	3'-5"	3'-3"	3'-1"	4'-11"	2'-8"	2'-7"	4'-1"
3" x 1/4"	4.800	7.200	33.8	3'-9"	3'-7"	3'-6"	5'-6"	3'-0"	3'-0"	4'-8"
3" x 5/16"	6.000	9.000	41.9	4'-5"	4'-4"	4'-2"	5'-11"	3'-7"	3'-8"	5'-0"

Steel Bar Grating LOAD TABLES

19 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

19-W-4 and 19-W-2

Non-Serrated & Serrated

Bearing Bar Size	Approx Weight psf*	Sec Mod Per Ft of Width		Unsupported Span													
				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"	
1" x 1/8"	5.0	4'-3"	U	632	404	281	206	158	125	101	84	All loads and deflections are theoretical and based upon the gross sections of the bearing bars, using a fiber stress of 18,000 psi. The values are not intended to be absolute since the actual load capacity will be affected by the slight variations in mill and manufacturing tolerances.					
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563						
			C	632	505	421	361	316	281	253	230						
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451						
1" x 3/16"	7.2	4'-9"	U	947	606	421	309	237	187	152	125	105	Grating for spans to the left of the heavy line have a deflection <1/4" for uniform loads of 100 psf.				
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670					
			C	947	758	632	541	474	421	379	345	316					
			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"	6.1	5'-1"	U	987	632	439	322	247	195	158	131	110	93	U: Safe uniform load (psf) C: Concentrated load (lbs/ft of grating width) D: Deflection (inches)			
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629				
			C	987	790	658	564	493	439	395	359	329	304				
			D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504				
1-1/4" x 3/16"	8.9	5'-7"	U	1,480	947	658	483	370	292	237	196	165	140	121			
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730			
			C	1,480	1,184	987	846	740	658	592	538	493	456	423			
			D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.439	0.504	0.584			
1-1/2" x 1/8"	7.2	5'-10"	U	1,421	910	632	464	355	281	227	188	158	135	116			
			D	0.050	0.078	0.112	0.152	0.199	0.250	0.310	0.376	0.447	0.524	0.608			
			C	1,421	1,137	947	812	711	632	568	517	474	437	406			
			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"	10.7	6'-5"	U	2,132	1,364	947	696	533	421	341	282	237	202	174	133		
			D	0.050	0.078	0.112	0.152	0.199	0.250	0.310	0.376	0.447	0.524	0.608	0.794		
			C	2,132	1,705	1,421	1,218	1,066	947	853	775	711	656	609	533		
			D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636		
1-3/4" x 3/16"	12.3	7'-3"	U	2,901	1,857	1,290	947	725	573	464	384	322	275	237	181	143	
			D	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	
			C	2,901	2,321	1,934	1,658	1,451	1,290	1,161	1,055	967	893	829	725	645	
			D	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"	13.9	8'-0"	U	3,790	2,425	1,684	1,237	947	749	606	501	421	359	309	237	187	
			D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.596	0.754	
			C	3,790	3,032	2,526	2,165	1,895	1,684	1,516	1,378	1,263	1,166	1,083	947	842	
			D	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	
2-1/4" x 3/16"	15.6	8'-9"	U	4,796	3,070	2,132	1,566	1,199	947	767	634	533	454	392	300	237	
			D	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	
			C	4,796	3,837	3,197	2,741	2,398	2,132	1,918	1,744	1,599	1,476	1,370	1,199	1,066	
			D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.424	0.536	
2-1/2" x 3/16"	17.2	9'-5"	U	5,921	3,790	2,632	1,93	1,480	1,170	947	783	658	561	483	370	292	
			D	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	
			C	5,921	4,737	3,947	3,384	2,961	2,632	2,368	2,153	1,974	1,822	1,692	1,480	1,316	
			D	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	

* Weight per square foot based on 19-W-4 grating. Add .60 psf for 2" on center cross bars

** Maximum pedestrian load is defined as 100# uniform load with deflection < 1/4 inch. The 1/4" maximum deflection criteria is considered consistent with pedestrian comfort, but may be exceeded for other loading conditions at the discretion of the specifying authority.

Note: When gratings with serrated surface are specified, the depth of the grating required for a specific load will be 1/4" greater than that shown in these tables.

Heavy Duty Steel Bar Grating

LOAD TABLES

19 Space

Use this table when evaluating spans and loads for the following types of steel grating:

Load Table

19-W-4 and 19-W-2

U: Safe uniform load (psf)

C: Concentrated load (psf)

Heavy Duty 1-3/16" C/C Bearing Bars

Non-Serrated & Serrated

LOAD & DEFLECTION TABLE

SPAN (Direction of Bearing Bar)

Bar Size	Symbol	Approx Weight psf	Sec Mod Per Ft of Width		24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"
1" x 1/4"	19-W-4	9.5	0.421	U	1,404	898	624	458	351	277	225	186	156	115	88
	19-W-2	10.1		C	1,404	1,123	936	802	702	624	561	510	468	401	351
1" x 5/16"	19-W-4	12.1	0.526	U	1,754	1,123	780	573	439	347	281	232	195	143	110
	19-W-2	13.3		C	1,754	1,404	1,170	1,003	877	780	702	638	585	501	439
1-1/4" x 1/4"	19-W-4	11.7	0.658	U	2,193	1,404	975	716	548	433	351	290	244	179	137
	19-W-2	12.3		C	2,193	1,754	1,462	1,253	1,096	975	877	797	731	627	548
1-1/4" x 5/16"	19-W-4	14.3	0.822	U	2,741	1,754	1,218	895	685	541	439	362	305	224	171
	19-W-2	16.0		C	2,741	2,193	1,827	1,566	1,031	1,218	1,096	997	914	783	685
1-1/2" x 1/4"	19-W-4	13.9	0.947	U	3,158	2,021	1,404	1,031	789	624	505	418	351	258	197
	19-W-2	14.5		C	3,158	2,526	2,105	1,805	1,579	1,404	1,263	1,148	1,053	902	789
1-1/2" x 5/16"	19-W-4	17.8	1.184	U	3,947	2,526	1,754	1,289	987	780	632	522	439	322	247
	19-W-2	18.8		C	3,947	3,158	2,632	2,256	1,974	1,754	1,579	1,435	1,316	1,128	987
1-3/4" x 1/4"	19-W-4	16.1	1.289	U	4,298	2,751	1,910	1,404	1,075	849	688	568	478	351	269
	19-W-2	16.7		C	4,298	3,439	2,865	2,456	2,149	1,910	1,719	1,563	1,433	1,228	1,075
1-3/4" x 5/16"	19-W-4	20.4	1.612	U	5,373	3,439	2,388	1,754	1,343	1,061	860	710	597	439	336
	19-W-2	21.5		C	5,373	4,298	3,582	3,070	2,686	2,388	2,149	1,954	1,791	1,535	1,343
2" x 1/4"	19-W-4	18.3	1.684	U	5,614	3,593	2,495	1,833	1,404	1,109	898	742	624	458	351
	19-W-2	18.9		C	5,614	4,491	3,743	3,208	2,807	2,495	2,246	2,041	1,871	1,604	1,404
2" x 5/16"	19-W-4	23.1	2.105	U	7,018	4,491	3,119	2,291	1,754	1,386	1,123	928	780	573	439
	19-W-2	24.6		C	7,018	5,614	4,678	4,010	3,509	3,119	2,807	2,552	2,339	2,005	1,754
2-1/4" x 1/4"	19-W-4	20.5	2.132	U	7,105	4,547	3,158	2,320	1,776	1,404	1,137	940	789	580	444
	19-W-2	21.1		C	7,105	5,684	4,737	4,060	3,553	3,158	2,842	2,584	2,368	2,030	1,776
2-1/4" x 5/16"	19-W-4	25.9	2.664	U	8,882	5,684	3,947	2,900	2,220	1,754	1,421	1,174	987	725	555
	19-W-2	27.0		C	8,882	7,105	5,921	5,075	4,441	3,947	3,553	3,230	2,961	2,538	2,220
2-1/2" x 1/4"	19-W-4	22.7	2.632	U	8,772	5,614	3,899	2,864	2,193	1,733	1,404	1,160	975	716	548
	19-W-2	23.3		C	8,772	7,018	5,848	5,013	4,386	3,899	3,509	3,190	2,924	2,506	2,193
2-1/2" x 5/16"	19-W-4	28.6	3.289	U	10,965	7,018	4,873	3,580	2,741	2,166	1,754	1,450	1,218	895	685
	19-W-2	29.8		C	10,965	8,772	7,310	6,266	5,482	4,873	4,386	3,987	3,655	3,133	2,741
2-3/4" x 1/4"	19-W-4	24.9	3.184	U	10,614	6,793	4,717	3,466	2,654	2,097	1,698	1,404	1,179	866	663
	19-W-2	25.6		C	10,614	8,491	7,076	6,065	5,307	4,717	4,246	3,860	3,538	3,033	2,654
2-3/4" x 5/16"	19-W-4	31.8	3.980	U	13,268	8,491	5,897	4,332	3,317	2,621	2,123	1,754	1,474	1,083	829
	19-W-2	33.3		C	13,268	10,614	8,845	7,581	6,634	5,897	5,307	4,825	4,423	3,791	3,317
3" x 1/4"	19-W-4	27.8	3.789	U	12,632	8,084	5,614	4,125	3,158	2,495	2,021	1,670	1,404	1,031	789
	19-W-2	28.7		C	12,632	10,105	8,421	7,218	6,316	5,614	5,053	4,593	4,211	3,609	3,158
3" x 5/16"	19-W-4	34.5	4.737	U	15,789	10,105	7,018	5,156	3,947	3,119	2,526	2,088	1,754	1,289	987
	19-W-2	36.1		C	15,789	12,632	10,526	9,023	7,895	7,018	6,316	5,742	5,263	4,511	3,947

Heavy Duty Steel Bar Grating

LOAD TABLES

19 Space

Use this table when evaluating spans and loads for the following types of steel grating:

Load Table

19-W-4 and 19-W-2

Heavy Duty 1-3/16" C/C Bearing Bars

Non-Serrated & Serrated



Maximum Safe Span

Bar Size	Section Modulus psf	Moment of Inertia psf	Approx Weight psf	H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1" x 1/4"	0.421	0.211	9.7	1'-0"	0'-10"	0'-9"	1'-0"	0'-7"	0'-6"	0'-7"
1" x 5/16"	0.526	0.263	11.9	1'-1"	1'-0"	0'-10"	1'-2"	0'-8"	0'-7"	0'-8"
1-1/4" x 1/4"	0.658	0.411	11.9	1'-3"	1'-1"	1'-0"	1'-5"	0'-9"	0'-8"	0'-10"
1-1/4" x 5/16"	0.822	0.514	14.5	1'-4"	1'-3"	1'-1"	1'-8"	0'-10"	0'-9"	1'-0"
1-1/2" x 1/4"	0.947	0.711	14.0	1'-6"	1'-4"	1'-2"	1'-11"	0'-11"	0'-10"	1'-1"
1-1/2" x 5/16"	1.184	0.888	17.2	1'-8"	1'-6"	1'-4"	2'-3"	1'-1"	0'-11"	1'-4"
1-3/4" x 1/4"	1.289	1.128	16.2	1'-9"	1'-7"	1'-5"	2'-5"	1'-2"	1'-0"	1'-5"
1-3/4" x 5/16"	1.612	1.410	19.9	1-11"	1'-9"	1'-7"	2'-11"	1'-4"	1'-3"	1'-9"
2" x 1/4"	1.684	1.684	18.3	2'-0"	1'-10"	1'-8"	3'-1"	1'-4"	1'-3"	1'-10"
2" x 5/16"	2.105	2.105	22.6	2'-3"	2'-1"	1'-11"	3'-6"	1'-7"	1'-6"	2'-4"
2-1/4" x 1/4"	2.132	2.398	20.4	2'-3"	2'-1"	1'-11"	3'-9"	1'-7"	1'-6"	2'-4"
2-1/4" x 5/16"	2.664	2.998	25.3	2'-7"	2'-5"	2'-3"	4'-2"	1'-11"	1'-10"	2'-11"
2-1/2" x 1/4"	2.632	3.289	22.6	2'-6"	2'-4"	2'-3"	4'-4"	1'-10"	1'-10"	2'-10"
2-1/2" x 5/16"	3.289	4.112	28.0	2'-11"	2'-9"	2'-7"	4'-8"	2'-3"	2'-3"	3'-6"
3" x 1/4"	3.789	5.684	26.9	3'-3"	3'-1"	2'-11"	5'-2"	2'-6"	2'-6"	4'-1"
3" x 5/16"	4.737	7.105	33.3	3'-9"	3'-7"	3'-6"	5'-7"	3'-0"	3'-1"	4'-9"

Heavy Duty Steel Bar Grating

LOAD TABLES

30 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

30-W-4 and 30-W-2

U: Safe uniform load (psf)

C: Concentrated load (psf)

Heavy Duty 1-7/8" C/C Bearing Bars

Non-Serrated & Serrated

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-W-4	6.3	0.267	U	889	569	395	290	222	176	142	118	99	73	56
	30-W-2	7.0		C	889	711	593	508	444	395	356	323	296	254	222
1" x 5/16"	30-W-4	8.2	0.333	U	1,111	711	494	363	278	219	178	147	123	91	69
	30-W-2	9.4		C	1,111	889	741	635	556	494	444	404	370	317	278
1-1/4" x 1/4"	30-W-4	7.8	0.417	U	1,389	889	617	454	347	274	222	184	154	113	87
	30-W-2	8.4		C	1,389	1,111	926	794	694	617	556	505	463	397	347
1-1/4" x 5/16"	30-W-4	10.0	0.521	U	1,736	1,111	772	567	434	343	278	230	193	142	109
	30-W-2	11.1		C	1,736	1,389	1,157	992	868	772	694	631	579	496	434
1-1/2" x 1/4"	30-W-4	9.2	0.600	U	2,000	1,280	889	653	500	395	320	264	222	163	125
	30-W-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-W-4	11.8	0.750	U	2,500	1,600	1,111	816	625	494	400	331	278	204	156
	30-W-2	12.9		C	2,500	2,000	1,667	1,429	1,250	1,111	1,000	909	833	714	625
1-3/4" x 1/4"	30-W-4	10.6	0.817	U	2,722	1,742	1,210	889	681	538	436	360	302	222	170
	30-W-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-W-4	13.6	1.021	U	3,403	2,178	1,512	1,111	851	672	544	450	378	278	213
	30-W-2	14.7		C	3,403	2,722	2,269	1,944	1,701	1,512	1,361	1,237	1,134	972	851
2" x 1/4"	30-W-4	12.0	1.067	U	3,556	2,276	1,580	1,161	889	702	569	470	395	290	222
	30-W-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-W-4	15.3	1.333	U	4,444	2,844	1,975	1,451	1,111	878	711	588	494	363	278
	30-W-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
2-1/4" x 1/4"	30-W-4	13.6	1.350	U	4,500	2,880	2,000	1,469	1,125	889	720	595	500	367	281
	30-W-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-W-4	17.1	1.688	U	5,625	3,600	2,500	1,837	1,406	1,111	900	744	625	459	352
	30-W-2	18.3		C	5,625	4,500	3,750	3,214	2,813	2,500	2,250	2,045	1,875	1,607	1,406
2-1/2" x 1/4"	30-W-4	14.9	1.667	U	5,556	3,556	2,469	1,814	1,389	1,097	889	735	617	454	347
	30-W-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-W-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-W-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
2-3/4" x 1/4"	30-W-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-W-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-W-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-W-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
3" x 1/4"	30-W-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-W-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-W-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-W-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

Heavy Duty Steel Bar Grating

LOAD TABLES

30 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

30-W-4 and 30-W-2

Heavy Duty 1-7/8" C/C Bearing Bars

Non-Serrated & Serrated



Maximum Safe Span

Bar Size	Section Modulus psf	Moment of Inertia psf	Approx Weight psf	H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1" x 1/4"	0.267	0.133	6.6	0'-9"	0'-9"	0'-8"	0'-10"	0'-6"	0'-5"	0'-6"
1" x 5/16"	0.333	0.167	7.9	0'-11"	0'-10"	0'-8"	0'-11"	0'-7"	0'-6"	0'-7"
1-1/4" x 1/4"	0.417	0.260	7.9	1'-0"	0'-11"	0'-10"	1'-1"	0'-8"	0'-6"	0'-8"
1-1/4" x 5/16"	0.521	0.326	9.6	1'-1"	1'-0"	0'-11"	1'-3"	0'-9"	0'-7"	0'-9"
1-1/2" x 1/4"	0.600	0.450	9.3	1'-2"	1'-1"	1'-0"	1'-5"	0'-9"	0'-8"	0'-11"
1-1/2" x 5/16"	0.750	0.563	11.3	1'-4"	1'-3"	1'-1"	1'-9"	0'-10"	0'-9"	1'-1"
1-3/4" x 1/4"	0.817	0.715	10.6	1'-5"	1'-3"	1'-2"	1'-10"	0'-11"	0'-10"	1'-2"
1-3/4" x 5/16"	1.021	0.893	13.0	1'-7"	1'-5"	1'-3"	2'-2"	1'-0"	0'-11"	1'-5"
2" x 1/4"	1.067	1.067	12.0	1'-7"	1'-6"	1'-4"	2'-3"	1'-1"	1'-0"	1'-6"
2" x 5/16"	1.333	1.333	14.7	1'-10"	1'-8"	1'-6"	2'-9"	1'-3"	1'-2"	1'-10"
2-1/4" x 1/4"	1.350	1.519	13.4	1'-10"	1'-8"	1'-6"	2'-10"	1'-3"	1'-2"	1'-10"
2-1/4" x 5/16"	1.688	1.898	16.4	2'-0"	1'-10"	1'-9"	3'-5"	1'-5"	1'-5"	2'-3"
2-1/2" x 1/4"	1.667	2.083	14.7	2'-0"	1'-10"	1'-8"	3'-5"	1'-5"	1'-5"	2'-3"
2-1/2" x 5/16"	2.083	2.604	18.1	2'-3"	2'-1"	2'-0"	4'-2"	1'-8"	1'-8"	2'-9"
3" x 1/4"	2.400	3.600	17.4	2'-6"	2'-4"	2'-2"	4'-7"	1'-11"	1'-11"	3'-2"
3" x 5/16"	3.000	4.500	21.5	2'-10"	2'-8"	2'-7"	5'-0"	2'-3"	2'-4"	3'-11"

Heavy Duty Steel Bar Grating

LOAD TABLES

38 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

38-W-4 and 38-W-2

Heavy Duty 2-3/8" C/C Bearing Bars

Non-Serrated & Serrated

U: Safe uniform load (psf)

C: Concentrated load (psf)

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"	38-W-4	5.2	0.211	U	702	449	312	229	175	139	112	93	78	57	44
	38-W-2	5.9		C	702	561	468	401	351	312	281	255	234	201	175
1" x 5/16"	38-W-4	6.8	0.263	U	877	561	390	286	219	173	140	116	97	72	55
	38-W-2	7.9		C	877	702	585	501	439	390	351	319	292	251	219
1-1/4" x 1/4"	38-W-4	8.3	0.329	U	1,096	702	487	358	274	217	175	145	122	90	69
	38-W-2	7.0		C	1,096	877	731	627	548	487	439	399	365	313	274
1-1/4" x 5/16"	38-W-4	8.2	0.411	U	1,371	877	609	448	343	271	219	181	152	112	86
	38-W-2	9.4		C	1,371	1,096	914	783	685	609	548	498	457	392	343
1-1/2" x 1/4"	38-W-4	7.5	0.474	U	1,579	1,011	702	516	395	312	253	209	175	129	99
	38-W-2	8.1		C	1,579	1,263	1,053	902	789	702	632	574	526	451	395
1-1/2" x 5/16"	38-W-4	9.6	0.592	U	1,974	1,263	877	644	493	390	316	261	219	161	123
	38-W-2	10.8		C	1,974	1,579	1,316	1,128	987	877	789	718	658	564	493
1-3/4" x 1/4"	38-W-4	8.6	0.645	U	2,149	1,375	955	702	537	425	344	284	239	175	134
	38-W-2	9.3		C	2,149	1,719	1,433	1,228	1,075	955	860	781	716	614	537
1-3/4" x 5/16"	38-W-4	11.1	0.806	U	2,686	1,719	1,194	877	672	531	430	355	298	219	168
	38-W-2	12.2		C	2,686	2,149	1,791	1,535	1,343	1,194	1,075	977	895	768	672
2" x 1/4"	38-W-4	9.8	0.842	U	2,807	1,796	1,248	917	702	554	449	371	312	229	175
	38-W-2	10.4		C	2,807	2,246	1,871	1,604	1,404	1,248	1,123	1,021	936	802	702
2" x 5/16"	38-W-4	12.5	1.053	U	3,509	2,246	1,559	1,146	877	693	561	464	390	286	219
	38-W-2	13.6		C	3,509	2,807	2,339	2,005	1,754	1,559	1,404	1,276	1,170	1,003	877
2-1/4" x 1/4"	38-W-4	10.9	1.066	U	3,553	2,274	1,579	1,160	888	702	568	470	395	290	222
	38-W-2	11.5		C	3,553	2,842	2,368	2,030	1,776	1,579	1,421	1,292	1,184	1,015	888
2-1/4" x 5/16"	38-W-4	13.9	1.332	U	4,441	2,842	1,974	1,450	1,110	877	711	587	493	363	278
	38-W-2	15.0		C	4,441	3,553	2,961	2,538	2,220	1,974	1,776	1,615	1,480	1,269	1,110
2-1/2" x 1/4"	38-W-4	12.0	1.316	U	4,386	2,807	1,949	1,432	1,096	866	702	580	487	358	274
	38-W-2	12.7		C	4,386	3,509	2,924	2,506	2,193	1,949	1,754	1,595	1,462	1,253	1,096
2-1/2" x 5/16"	38-W-4	15.3	1.645	U	5,482	3,509	2,437	1,790	1,371	1,083	877	725	609	448	343
	38-W-2	16.5		C	5,482	4,386	3,655	3,133	2,741	2,437	2,193	1,994	1,827	1,566	1,371
2-3/4" x 1/4"	38-W-4	13.2	1.592	U	5,307	3,396	2,359	1,733	1,327	1,048	849	702	590	433	332
	38-W-2	13.8		C	5,307	4,246	3,538	3,033	2,654	2,359	2,123	1,930	1,769	1,516	1,327
2-3/4" x 5/16"	38-W-4	17.2	1.990	U	6,634	4,246	2,948	2,166	1,658	1,310	1,061	877	737	542	415
	38-W-2	18.7		C	6,634	5,307	4,423	3,791	3,317	2,948	2,654	2,412	2,211	1,895	1,658
3" x 1/4"	38-W-4	14.9	1.895	U	6,316	4,042	2,807	2,062	1,579	1,248	1,011	835	702	516	395
	38-W-2	15.9		C	6,316	5,053	4,211	3,609	3,158	2,807	2,526	2,297	2,105	1,805	1,579
3" x 5/16"	38-W-4	18.6	2.368	U	7,895	5,053	3,509	2,578	1,974	1,559	1,263	1,044	877	644	493
	38-W-2	20.1		C	7,895	6,316	5,263	4,511	3,947	3,509	3,158	2,871	2,632	2,256	1,974

Heavy Duty Steel Bar Grating

LOAD TABLES

38 Space

Load Table

Use this table when evaluating spans and loads for the following types of steel grating:

38-W-4 and 38-W-2

Heavy Duty 2-3/8" C/C Bearing Bars

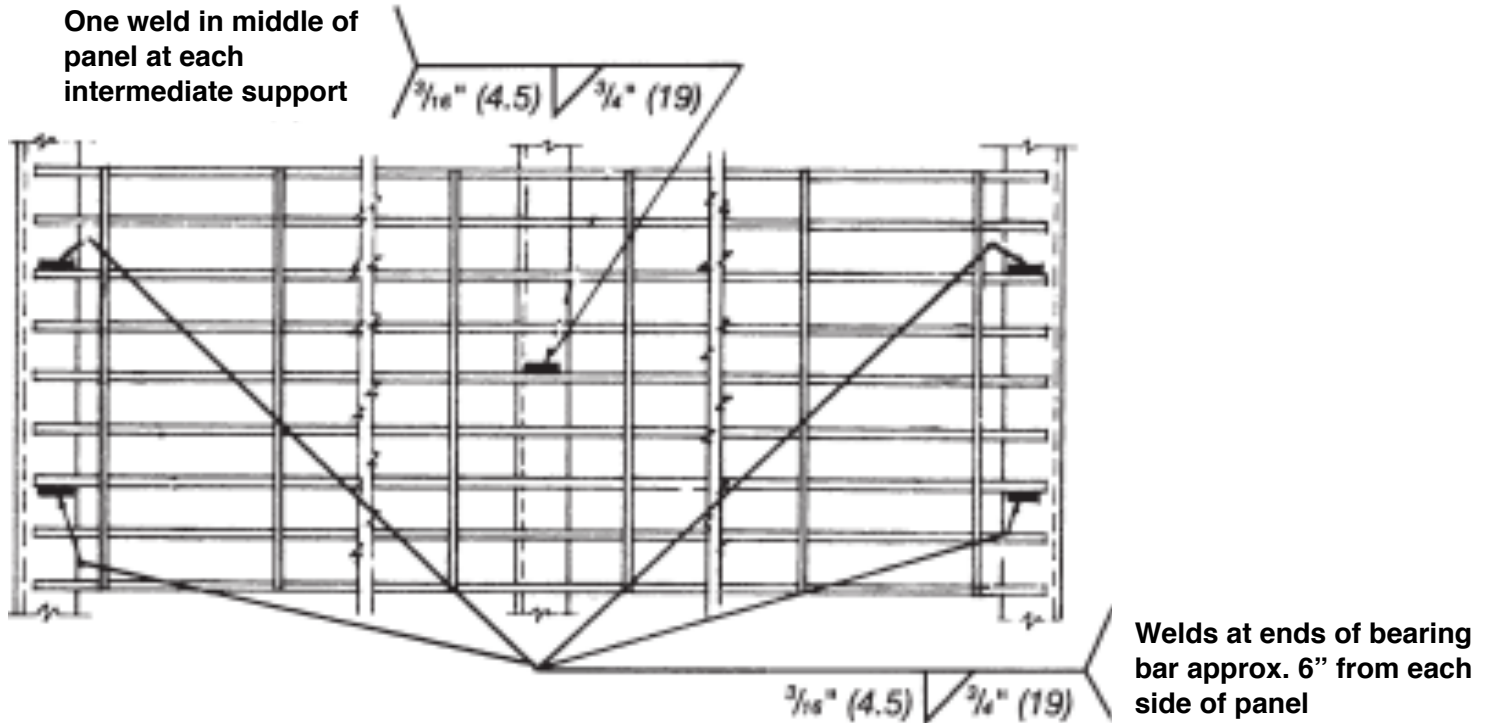
Non-Serrated & Serrated



Maximum Safe Span

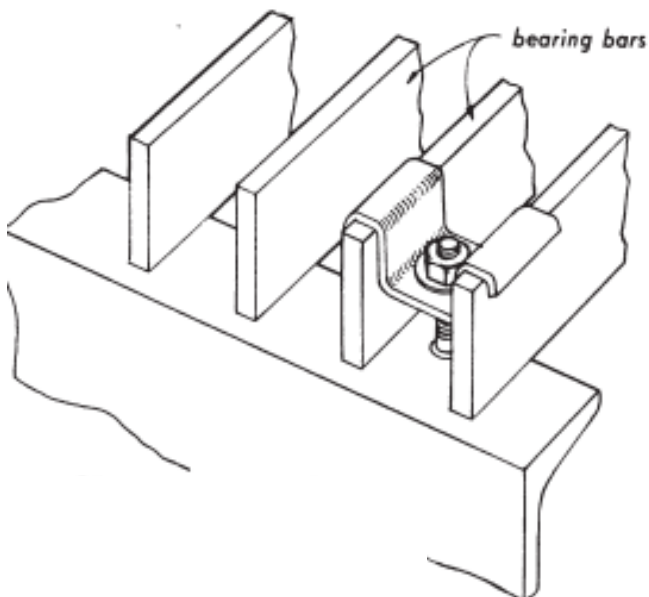
Bar Size	Section Modulus psf	Moment of Inertia psf	Approx Weight psf	H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1" x 1/4"	0.211	0.105	5.4	0'-8"	0'-8"	0'-7"	0'-9"	0'-6"	0'-5"	0'-5"
1" x 5/16"	0.263	0.132	6.5	0'-10"	0'-9"	0'-8"	0'-10"	0'-6"	0'-5"	0'-6"
1-1/4" x 1/4"	0.329	0.206	6.5	0'-11"	0'-10"	0'-9"	1'-0"	0'-8"	0'-6"	0'-7"
1-1/4" x 5/16"	0.411	0.257	7.8	1'-0"	0'-11"	0'-10"	1'-2"	0'-8"	0'-7"	0'-9"
1-1/2" x 1/4"	0.474	0.355	7.6	1'-1"	1'-0"	0'-10"	1'-3"	0'-9"	0'-7"	0'-10"
1-1/2" x 5/16"	0.592	0.444	9.2	1'-3"	1'-1"	1'-0"	1'-6"	0'-10"	0'-8"	1'-0"
1-3/4" x 1/4"	0.645	0.564	8.6	1'-4"	1'-2"	1'-0"	1'-7"	0'-10"	0'-9"	1'-0"
1-3/4" x 5/16"	0.806	0.705	10.5	1'-5"	1'-3"	1'-2"	1'-11"	0'-11"	0'-10"	1'-3"
2" x 1/4"	0.842	0.842	9.7	1'-5"	1'-4"	1'-2"	2'-0"	1'-0"	0'-11"	1'-4"
2" x 5/16"	1.053	1.053	11.9	1'-8"	1'-6"	1'-4"	2'-5"	1'-1"	1'-0"	1'-7"
2-1/4" x 1/4"	1.066	1.199	10.8	1'-8"	1'-6"	1'-4"	2'-5"	1'-1"	1'-1"	1'-8"
2-1/4" x 5/16"	1.332	1.499	13.2	1'-10"	1'-8"	1'-6"	3'-0"	1'-3"	1'-3"	2'-0"
2-1/2" x 1/4"	1.316	1.645	11.9	1'-10"	1'-8"	1'-6"	2'-11"	1'-3"	1'-3"	2'-0"
2-1/2" x 5/16"	1.645	2.056	14.5	2'-1"	1'-11"	1'-9"	3'-7"	1'-6"	1'-6"	2'-6"
3" x 1/4"	1.895	2.842	14.0	2'-2"	2'-1"	1'-11"	4'-1"	1'-8"	1'-8"	2'-10"
3" x 5/16"	2.368	3.553	17.2	2'-6"	2'-4"	2'-3"	4'-9"	1'-11"	2'-0"	3'-6"

Steel Bar Grating **ATTACHMENT LOCATIONS**



Attachment Locations:

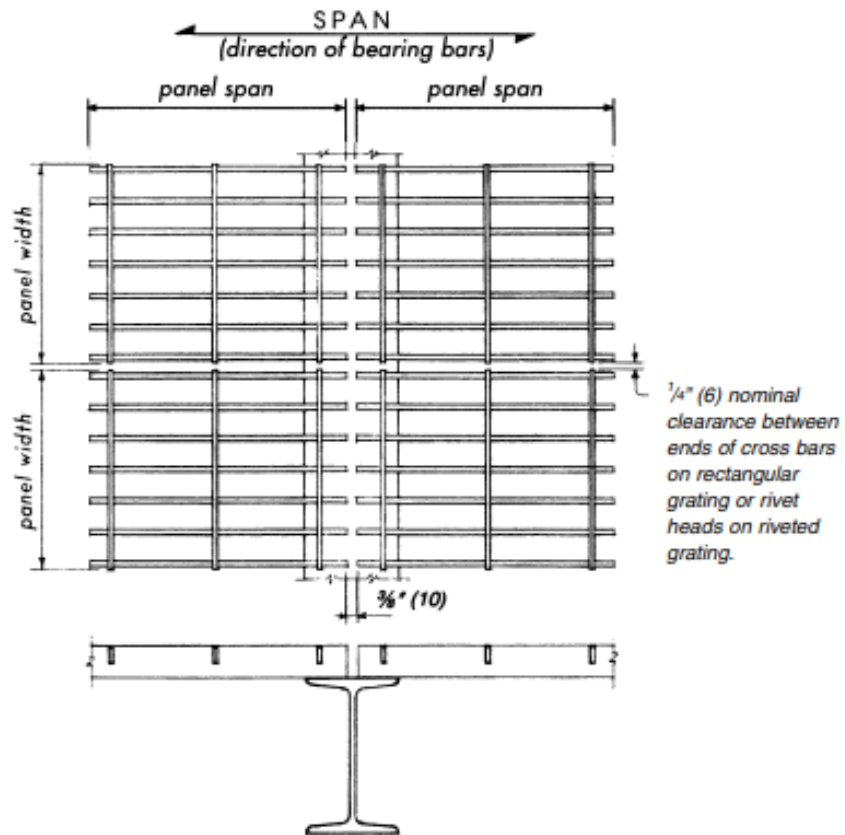
Attachments should be placed at intermediate supports in the middle of the panels and at the four bear bar ends, 6" from each side of panel. Welds should be $\frac{3}{16}''$ fillet welds, $\frac{3}{4}''$ long. Heavy-Duty grating may require additional welding to meet application needs.



Saddle Clip:

The saddle clip bridges two bearing bars and is attached with $\frac{1}{4}''$ self-tapping bolt, $\frac{1}{4}''$ self threader, $\frac{1}{4}''$ weld stud, or $\frac{1}{4}''$ bolt and nut when hole is drilled through supporting flange. Available for $\frac{15}{16}''$ and $1\text{-}\frac{3}{16}''$ bearing bar spacings (15 & 19 space). Fasteners should be specified separate from clips.

Steel Bar Grating **INSTALLATION CLEARANCES**





Glossary of **TERMS**

BEARING BAR (LOAD BAR)

Uniform load carrying bar spanning across supporting members.

CROSS BAR (TWISTED)

Uniform rod, in square twisted steel, forged into and at right angles to the load bar.

BANDING BAR (EDGE BAR)

Trim bar, generally as same size as load bars, welded to the ends of load bars across panel ends and around notches and penetrations (if any).

LENGTH OF PANEL (SPAN)

Overall dimension of a panel measured parallel with load bars.

WIDTH OF PANEL

Overall dimension of a panel measured at right angles to the load bars. Always called width even if greater than length.

SERRATIONS

Small notches made in the top edge of the load bar to assist in skid resistance.

NOSING

A member attached to or on the leading edge of a stair treat to assist in skid resistance.

KICK PLATE (TOE PLATE)

Heavy section flat bar welded to ends or sides of panels and around cut-outs, etc. when specified. Top edge to be 4" above grating generally.

CUT OUTS

Grating areas removed from panel to permit passage or installation of pipes, equipment, structural and handrail items.



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3835 Singleton Boulevard | Dallas, Texas 75212
214.630.0033

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