



SUNJ GRATING LIMITED

“The Leading Steel Gratings
Manufacturer
Based In China From 2006”

SUNJ GRATING LIMITED

 <https://chinagratings.com/>

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SUNJGRATING COMPANY PROFILE

Corporation Offers You Best Steel Gratings

ABOUT US

The leading steel gratings manufacturer

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We, Sunj Grating Limited, are a company who specializes in making steel bar gratings and related products, such as stair treads. We have been established for 15 years now with an area of 25 thousand square meters encompassing both building space (18000 sq ft) and land mass at your disposal!

HELLO

WELCOME TO OUR WORLD



You can rely on our advanced manufacturing machines backed by rich experience when producing high quality goods that will last long into the future

“ Product introduction



Steel grating with good ventilation, perfect lighting performance, high load capacity and resistance to deformation is made of carbon steel, aluminum alloy steel or stainless steel.

Steel grating is popular with industrial and commercial areas and is widely used as stair tread, walkway, drainage trench cover, sun shade panel, observation tower, bridge deck, and various platforms for temporary or permanent applications in daily life.

SUNJ GRATING LIMITED has many years' experience in the production of various steel gratings, and won a large number of foreign customers' affirmation. And our company has been devoting commitment to technology innovation, new product development, research in product development. The many years' achievements of effort promote SUNJ GRATING today in the professional field of steel grating market.





SUNJGRATING MAIN PRODUCTS

Corporation Offers You Best Steel Gratings

“ Steel bar grating

Steel grating, also known as metal grating or bar grating, is made by combining flat steel and cross bars in a specific pattern and welding or pressure locking them together.

It can be made in two ways, and the cross bars are usually made of twisted square steel, round steel, or flat steel. Steel gratings are often made of carbon steel and have a galvanized exterior to prevent rust, or they can be made of stainless steel.

They can be used in many places, like gutter covers, steel deck panels, factory floors, and more. Steel gratings are strong, durable, and slip-resistant, making them great for use in industrial and architectural settings.



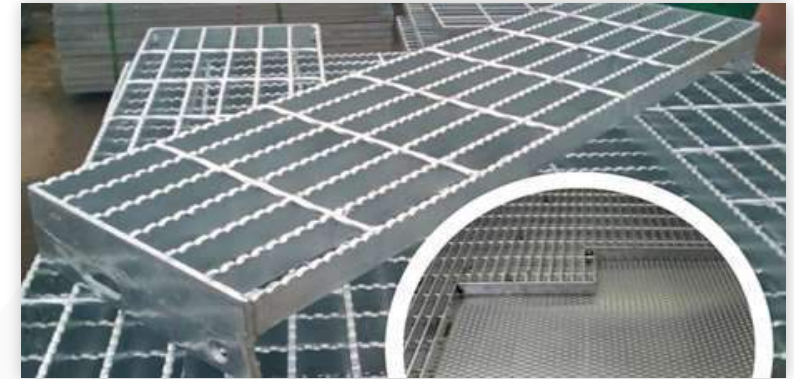
features:

- High strength
- Corrosion resistance
- Durability
- Non-slip surface
- Easy installation
- Lightweight
- Fire-resistant
- Impact resistance



- Versatile design
- Cost-effective

- Low maintenance
- Weatherproof
- Load-bearing
- Long lifespan
- Anti-skid
- Welded construction
- Open grid



“ Steel bar grating

Compared with other steel gratings, our product has following main advantages

- **Superior Corrosion Resistance:**

Our steel grating stands out due to its exceptional resistance to corrosion, making it ideal for various indoor and outdoor applications. The grating is coated with a special protective layer, providing a robust barrier against rust and deterioration caused by environmental factors such as moisture, chemicals, and harsh weather conditions. This advantage ensures a longer lifespan and reduced maintenance requirements, making it a cost-effective and reliable solution for industries and infrastructure projects exposed to corrosive environments.

- **Enhanced Load-Bearing Capacity:**

Our steel grating is engineered with precision to withstand heavy loads and distribute weight efficiently. The design incorporates strong, interlocking crossbars and bearing bars, enabling it to support substantial weights without buckling or deforming. This attribute makes it a preferred choice for industrial platforms, walkways, bridges, and other structures where heavy machinery, equipment, and personnel traverse regularly. Its high load-bearing capacity ensures a safe and stable environment even under demanding conditions.

- **Anti-Slip Surface:**

Safety is a top priority in various industries, and our steel grating addresses this concern with its anti-slip surface design. The grating features serrated edges or punched holes on the surface, offering exceptional traction for workers, pedestrians, and vehicles. This feature significantly reduces the risk of slips, trips, and falls, even in wet or oily conditions. As a result, it is widely used in areas prone to moisture, such as manufacturing plants, oil refineries, marine facilities, and outdoor walkways.

- **Easy Installation and Maintenance:**

Our steel grating is designed for straightforward installation, saving time and labor costs during setup. Its modular nature allows quick assembly and customization to fit specific project requirements. Furthermore, the grating's corrosion-resistant properties and self-cleaning surface contribute to minimal maintenance needs. Routine cleaning with mild detergents or water is usually sufficient to keep the grating in excellent condition, reducing downtime and maintenance expenses for facility owners.

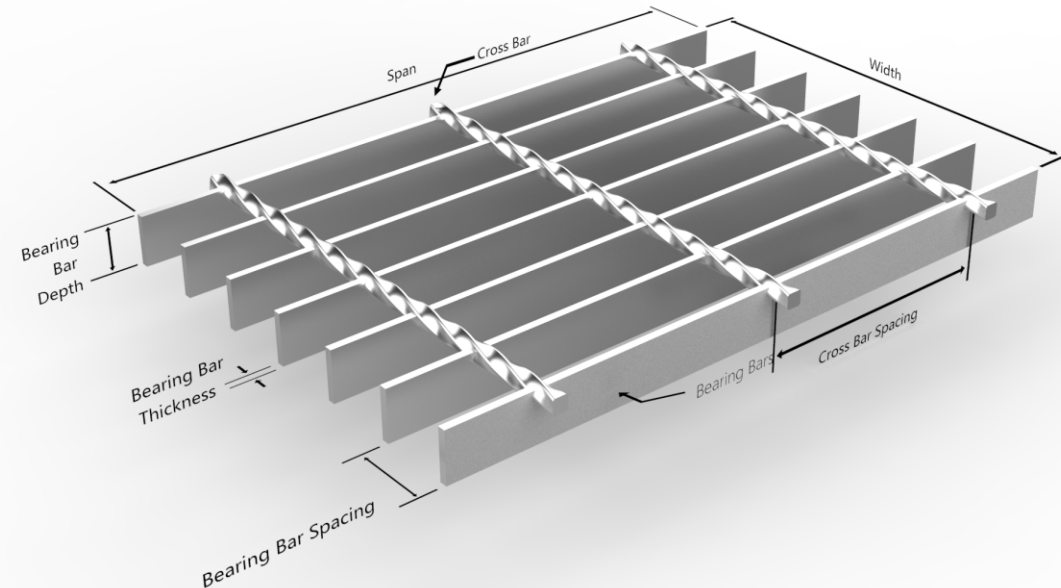
“ Steel bar grating



General specification

- **Material:**
ASTM A36, Q235B; S235JR, Q355B, S275JR
- **Surface treatment:**
Galvanized, mill finished, painted
- **Surface type:**
standard plain surface, serrated surface.
- **Bearing Bar Thickness:**
2mm, 3 mm, 4mm, 5mm, 6mm
- **Bearing Bar Spacing:**
20, 30, 33, 35, 40, 50mm
- **Bearing Bar Depth:**
20, 25, 30, 32, 35, 38, 40, 50, 60mm

• Common Dimensional Parameters for Steel Grating



“ Steel bar grating



Applications

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- Industrial platforms and walkways
- Stair treads and risers
- Mezzanine flooring
- Drainage covers and trench grates
- Catwalks and elevated walkways
- Safety barriers and handrails
- Machinery safety guards
- Conveyor belt support
- Gully and manhole covers
- Bridge decking and pedestrian bridges
- Dock and pier decking
- Ship decks and offshore platforms
- Parking lot and garage flooring
- Wheelchair ramps and accessibility ramps
- Decorative architectural features
- Ventilation grilles and air vents
- Agricultural and livestock flooring
- Power plant and industrial plant flooring
- Water treatment plant gratings
- Chemical processing plant gratings
- Oil and gas platform gratings
- Mining and quarrying equipment platforms
- Rooftop walkways and access paths
- Security fencing and enclosures



“ Steel bar grating



Different classification criteri

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• Materials

- Carbon steel grating
- Stainless Steel Grating
- Aluminum Steel Grating
- Galvanized Steel Grating

• Surface types

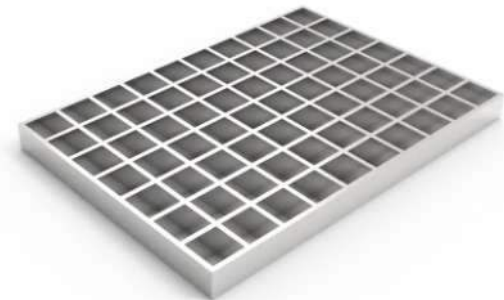
- Serrated Steel Grating
- Plain Steel Grating

• Manufacture methods

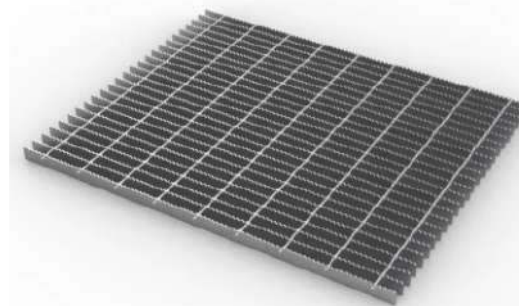
- Welded bar grating
- Press lock steel grating
- Swage locked steel grating
- Riveted steel grating
- Expanded Metal Grating



Welded Steel Grating



Press-locked Steel Grating



Type "SL" Swage Locked Steel Grating

“ Welded bar grating



Welded bar grating, also known as metal open bar grating, is a type of grating that can be manufactured from a variety of materials, including carbon steel, aluminum steel, or stainless steel. The bearing bars and cross bars are welded together under high heat and pressure, creating a durable joint. There are two types of steel bar gratings: smooth and serrated.

Welded Bar Grating comes in two types: “W” Welded Steel and “WS” Welded Stainless Steel. It can be obtained with bearing bar spacing options ranging from 19/16 inches (1-3/16 inches) to 7/16 inches on center. The cross bars can be placed at either 4 inches or 2 inches on center.



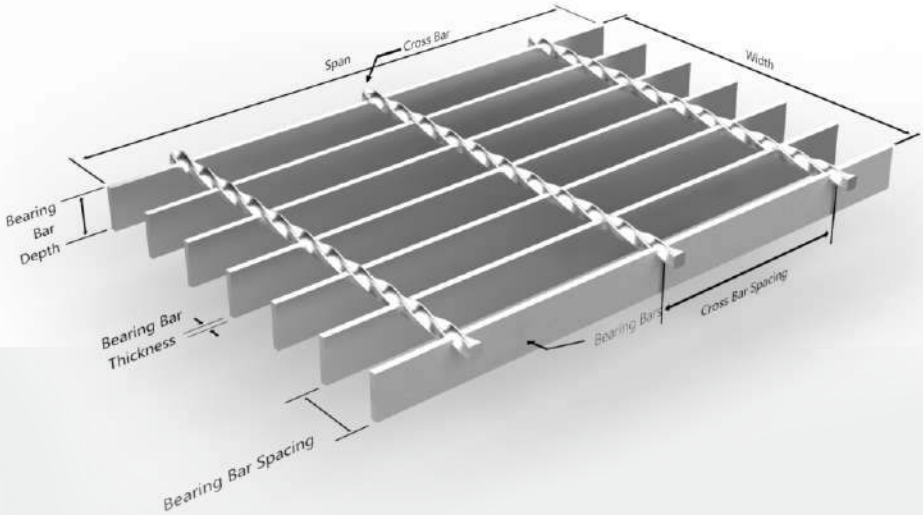
“ Welded bar grating



Product Specification

Product Name	Material	Model	Surface Treatment
Welded Steel Grating	ASTM A36, GB Q235B, S235JR; 0Cr18Ni9, UNS S30400	G253/30/100, G255/30/100, G325/30/100, G385/30/100...	Galvanized, mill finish, painted
Bearing Bar Depth	Bearing Bar Thickness	Common cross bar diameters	Cross Bar Spacing
20, 25, 30, 32, 35, 38, 40, 45, 50, 60mm	3mm, 4mm, 5mm	6mm, 8mm, and 10mm	50mm, 76mm, 100mm
Steel Grating Standards			
GB/T 13912-2002, ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products			

Welded Steel Grating Drawing



Welded bar grating



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"	19-4-32 19-2-32	W 3.9	0.118	U	355	227	158	116	89	70							
		P 4.3		D	0.099	0.155	0.223	0.304	0.397	0.503							
		W 4.4		C	355	284	237	203	178	158							
		P 5.2		D	0.079	0.124	0.179	0.243	0.318	0.402							
3/4" x 3/16"	19-4-33 19-2-33	W 5.6	0.178	U	533	341	237	174	133	105							
		P 6.4		D	0.099	0.155	0.223	0.304	0.397	0.503							
		W 6.2		C	533	426	355	305	266	237							
		P 7.8		D	0.079	0.124	0.179	0.243	0.318	0.402	5'-0"	5'-6"					
1" x 1/8"	19-4-42 19-2-42	W 5.0	0.211	U	632	404	281	206	158	125	101	84					
		P 5.4		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563					
		W 5.5		C	632	505	421	361	316	281	253	230					
		P 6.3		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451					
1" x 3/16"	19-4-43 19-2-43	W 7.2	0.316	U	947	606	421	309	237	187	152	125					
		P 8.1		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563					
		W 7.8		C	947	758	632	541	474	421	379	344					
		P 9.5		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	6'-0"	6'-6"	7'-0"		
1-1/4" x 1/8"	19-4-52 19-2-52	W 6.1	0.329	U	987	632	439	322	247	195	158	130	110	93	81		
		P 6.8		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
		W 6.6		C	987	789	658	564	493	439	395	359	329	304	282		
		P 8.1		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584		
1-1/4" x 3/16"	19-4-53 19-2-53	W 8.9	0.493	U	1480	947	658	483	370	292	237	196	164	140	121		
		P 10.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
		W 9.5		C	1480	1184	987	846	740	658	592	538	493	455	423		
		P 12.1		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	8'-0"	9'-0"
1-1/2" x 1/8"	19-4-62 19-2-62	W 7.2	0.474	U	1421	909	632	464	355	281	227	188	158	135	116	89	70
		P 7.9		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
		W 7.7		C	1421	1137	947	812	711	632	568	517	474	437	406	355	316
		P 9.2		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
1-1/2" x 3/16"	19-4-63 19-4-73	W 10.5	0.711	U	2132	1364	947	696	533	421	341	282	237	202	174	133	105
		P 11.8		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
		W 11.2		C	2132	1705	1421	1218	1066	947	853	775	711	656	609	533	474
		P 13.8		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"	19-4-73 19-2-73	W 12.2	0.967	U	2901	1857	1289	947	725	573	464	384	322	275	237	181	141
		P 13.5		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
		W 12.8		C	2901	2321	1934	1658	1451	1289	1161	1055	967	893	829	725	645
		P 15.4		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	0.688
2" x 3/16"	19-4-83 19-2-83	W 13.9	1.263	U	3789	2425	1684	1237	947	749	606	501	421	359	309	237	181
		P 15.2		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
		W 14.5		C	3789	3032	2526	2165	1895	1684	1516	1378	1263	1166	1083	947	847
		P 17.1		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"	19-4-93 19-2-93	W 15.5	1.599	U	4796	3069	2132	1566	1199	947	767	634	533	454	392	300	237
		P 16.8		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
		W 16.1		C	4796	3837	3197	2741	2398	2132	1918	1744	1599	1476	1370	1199	1066
		P 18.7		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"	19-4-103 19-2-103	W 17.2	1.974	U	5921	3789	2632	1933	1480	1170	947	783	658	561	483	370	292
		P 18.5		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
		W 17.8		C	5921	4737	3947	3383	2961	2632	2368	2153	1974	1822	1692	1480	1316
		P 20.4		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
U= safe uniform load, psf C= safe concentrated load, plf D= deflection, inches E= modulus of elasticity, 2,000,000 psi F= fiber stress, 18,000 psi																	

W/P-19 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
1/8" Bar	1 5/16	2 1/2	3 11/16	4 7/8	6 1/16	7 1/4	8 7/16	9 5/8	10 13/16	12	13 3/16	14 3/8	15 9/16	16 3/4	17 15/16
3/16" Bar	1 3/8	2 9/16	3 3/4	4 15/16	6 1/8	7 5/16	8 1/2	9 11/16	10 7/8	12 1/16	13 1/4	14 7/16	15 5/8	16 13/16	18
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1/8" Bar	19 1/8	20 5/16	21 1/2	22 11/16	23 7/8	25 1/16	26 1/4	27 7/16	28 5/8	29 13/16	31	32 3/16	33 3/8	34 9/16	35 3/4
3/16" Bar	19 3/16	20 3/8	21 9/16	22 3/4	23 15/16	25 1/8	26 5/16	27 1/2	28 11/16	29 7/8	31 1/16	32 1/4	33 7/16	34 5/8	35 13/16

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 15-2-32	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							
		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	5'-0"						
3/4" x 3/16"	15-4-33 15-2-33	W 6.9	0.225	U	675	432	300	220	169	133	108						
		P 7.7		D	0.099	0.155	0.223	0.304	0.397	0.503	0.621						
		W 7.5		C	675	540	450	386	338	300	270						
		P 9.1		D	0.079	0.124	0.179	0.243	0.318	0.402	0.497	5'-6"	6'-0"				
1" x 1/8"	15-4-42 15-2-42	W 6.1	0.267	U	800	512	356	261	200	158	128	106	89				
		P 6.5		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670				
		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 15-2-43	W 8.9	0.400	U	1200	768	533	392	300	237	192	159	133				
		P 9.8		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670				
		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	6'-6"	7'-0"		
1-1/4" x 1/8"	15-4-52 15-2-52	W 7.5	0.417	U	1250	800	556	408	313	247	200	165	139	118	102		
		P 8.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
		W 8.1		C	1250	1000	833	714	625	556	500	455	417	385	357		
		P 9.5		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584		
1-1/4" x 3/16"	15-4-53 15-2-53	W 11.0	0.625	U	1875	1200	833	612	469	370	300	248	208	178	153		
		P 12.3		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730		
		W 11.6		C	1875	1500	1250	1071	938	833	750	682	625	577	536		
		P 14.2		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	8'-0"	9'-0"
1-1/2" x 1/8"	15-4-62 15-2-62	W 8.9	0.600	U	1800	1152	800	588	450	356	288	238	200	170	147	113	89
		P 9.6		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
		W 9.4		C	1800	1440	1200	1029	900	800	720	655	600	554	514	450	400
		P 10.9		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
1-1/2" x 3/16"	15-4-63 15-4-73	W 13.1	0.900	U	2700	1728	1200	882	675	533	432	357	300	256	220	169	133
		P 14.4		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
		W 13.7		C	2700	2160	1800	1543	1350	1200	1080	982	900	831	771	675	600
		P 16.3		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"	15-4-73 15-2-73	W 15.2	1.225	U	3675	2352	1633	1200	919	726	588	486	408	348	300	230	181
		P 16.5		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
		W 15.8		C	3675	2940	2450	2100	1838	1633	1470	1336	1225	1131	1050	919	817
		P 18.4		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"	15-4-83 15-2-83	W 17.3	1.600	U	4800	3072	2133	1567	1200	948	768	635	533	454	392	300	237
		P 18.6		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
		W 17.9		C	4800	3840	3200	2743	2400	2133	1920	1745	1600	1477	1371	1200	1067
		P 20.5		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"	15-4-93 15-2-93	W 19.4	2.025	U	6075	3888	2700	1984	1519	1200	972	803	675	575	496	380	300
		P 20.7		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
		W 20.0		C	6075	4860	4050	3471	3038	2700	2430	2209	2025	1869	1736	1519	1350
		P 22.6		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"	15-4-103 15-2-103	W 21.4	2.500	U	7500	4800	3333	2449	1875	1481	1200	992	833	710	612	469	370
		P 22.7		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		7500	6000	5000	4286	3750	3333	3000	2727	2500	2308	2143	1875	1667	
		P 24.7		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
U= safe uniform load, psf C= safe concentrated load, p/ft D= deflection, inches E= modulus of elasticity, 29,000,000 psi F= fiber stress, 18,000 psi																	

Welded bar grating



19 Space (1-3/16") Load Table

Use this table when evaluating spans and loads for the following types of steel grating:
19-W-4, 19-W-2

Bearing Bar Size (inches)	Approx. Weight psf *	Max. Ped. Span**	Sec. Prop.*** Sx in ³	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"
3/4 x 1/8	3.9	3'-5"	0.118 0.044	U 355	227	158	116	89	70							
				D 0.099	0.155	0.223	0.304	0.397	0.503							
				C 355	284	237	203	178	158							
3/4 x 3/16	5.6	3'-10"	0.178 0.067	U 533	341	237	174	133	105	85						
				D 0.099	0.155	0.223	0.304	0.397	0.503	0.621						
				C 533	426	355	305	266	237	213						
1 x 1/8	5.0	4'-3"	0.211 0.105	U 632	404	281	206	158	125							
				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					
1 x 3/16	7.2	4'-9"	0.316 0.158	U 947	606	421	309	237	187	152	105					
				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				
1-1/4 x 1/8	6.1	5'-1"	0.329 0.206	U 987	632	439	322	247	195	158	110	93				
				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			
1-1/4 x 3/16	8.9	5'-7"	0.493 0.308	U 1,480	947	658	483	370	292	237	195	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	748	658	592	538	493	459	423		
1-1/2 x 1/8	7.2	5'-10"	0.474 0.355	U 1,421	910	632	464	355	281	228	188	158	135			
				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 1,421	1,137	947	812	711	632	568	517	474	437	406		
1-1/2 x 3/16	10.7	6'-5"	0.711 0.533	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	0.251	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	
1-3/4 x 1/8	8.5	6'-6"	0.645 0.564	U 1,934	1,238	860	632	484	382	310	256	215	183	158	121	96
				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 1,934	1,547	1,290	1,105	967	860	774	703	645	595	553	484	430
1-3/4 x 3/16	12.3	7'-3"	0.967 0.846	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
2 x 1/8	9.6	7'-4"	0.842 0.842	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
2 x 3/16	13.9	8'-0"	1.263 1.263	U 4,796	3,070	2,132	1,566	1,199	947	767	634	533	459	392	300	237
				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 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
2-1/4 x 3/16	15.6	8'-9"	1.599 1.799	U 5,026	3,041	2,060	1,483	1,106	853	688	568	483	406	337	262	202
				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
				C 5,026	4,047	3,397	2,941	2,598	2,332	2,118	1,944	1,800	1,677	1,570	1,463	1,356
2-1/2 x 3/16	17.2	9'-5"	1.974 2.467	U 5,921	4,037	2,897	2,132	1,566	1,199	947	767	634	533	459	392	300
				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	3,394	2,951	2,632	2,368	2,153	1,974	1,822	1,692	1,480	1,316

15 Space (15/16") Load Table

Use this table when evaluating spans and loads for the following types of steel grating:
15-W-4, 15-W-2

Bearing Bar Size (inches)	Approx. Weight psf *	Max. Ped. Span**	Sec. Prop.*** Sx in³		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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
3/4 x 3/16	6.9	4'-0"	0.225 0.084	U	675	432	300	220	169	133	108	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. Grating for spans to the left of the heavy line have a deflection ≤ 1/4" for uniform loads of 100 psf.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				D	0.099	0.155	0.223	0.304	0.397	0.503	0.621								0.750	0.880	1.010	1.140	1.270																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				C	675	540	450	386	338	300	270								240	210	180	150	120	90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
1 x 1/8	6.2	4'-6"	0.267 0.133	U	800	512	356	261	200	158	128	133	159	192	228	267	306	345	384	423	462	501	540	579	618	657	696	735	774	813	852	891	930	969	1008	1047	1086	1125	1164	1203	1242	1281	1320	1359	1398	1437	1476	1515	1554	1593	1632	1671	1710	1749	1788	1827	1866	1905	1944	1983	2022	2061	2100	2139	2178	2217	2256	2295	2334	2373	2412	2451	2490	2529	2568	2607	2646	2685	2724	2763	2802	2841	2880	2919	2958	2997	3036	3075	3114	3153	3192	3231	3270	3309	3348	3387	3426	3465	3504	3543	3582	3621	3660	3699	3738	3777	3816	3855	3894	3933	3972	4011	4050	4089	4128	4167	4206	4245	4284	4323	4362	4401	4440	4479	4518	4557	4596	4635	4674	4713	4752	4791	4830	4869	4908	4947	4986	5025	5064	5103	5142	5181	5220	5259	5298	5337	5376	5415	5454	5493	5532	5571	5610	5649	5688	5727	5766	5805	5844	5883	5922	5961	6000	6039	6078	6117	6156	6195	6234	6273	6312	6351	6390	6429	6468	6507	6546	6585	6624	6663	6702	6741	6780	6819	6858	6897	6936	6975	7014	7053	7092	7131	7170	7209	7248	7287	7326	7365	7404	7443	7482	7521	7560	7599	7638	7677	7716	7755	7794	7833	7872	7911	7950	7989	8028	8067	8106	8145	8184	8223	8262	8301	8340	8379	8418	8457	8496	8535	8574	8613	8652	8691	8730	8769	8808	8847	8886	8925	8964	9003	9042	9081	9120	9159	9198	9237	9276	9315	9354	9393	9432	9471	9510	9549	9588	9627	9666	9705	9744	9783	9822	9861	9900	9939	9978	10017	10056	10095	10134	10173	10212	10251	10290	10329	10368	10407	10446	10485	10524	10563	10602	10641	10680	10719	10758	10797	10836	10875	10914	10953	10992	11031	11070	11109	11148	11187	11226	11265	11304	11343	11382	11421	11460	11499	11538	11577	11616	11655	11694	11733	11772	11811	11850	11889	11928	11967	12006	12045	12084	12123	12162	12201	12240	12279	12318	12357	12396	12435	12474	12513	12552	12591	12630	12669	12708	12747	12786	12825	12864	12903	12942	12981	13020	13059	13098	13137	13176	13215	13254	13293	13332	13371	13410	13449	13488	13527	13566	13605	13644	13683	13722	13761	13800	13839	13878	13917	13956	13995	14034	14073	14112	14151	14190	14229	14268	14307	14346	14385	14424	14463	14502	14541	14580	14619	14658	14697	14736	14775	14814	14853	14892	14931	14970	15009	15048	15087	15126	15165	15204	15243	15282	15321	15360	15399	15438	15477	15516	15555	15594	15633	15672	15711	15750	15789	15828	15867	15906	15945	15984	16023	16062	16101	16140	16179	16218	16257	16296	16335	16374	16413	16452	16491	16530	16569	16608	16647	16686	16725	16764	16803	16842	16881	16920	16959	16998	17037	17076	17115	17154	17193	17232	17271	17310	17349	17388	17427	17466	17505	17544	17583	17622	17661	17700	17739	17778	17817	17856	17895	17934	17973	18012	18051	18090	18129	18168	18207	18246	18285	18324	18363	18402	18441	18480	18519	18558	18597	18636	18675	18714	18753	18792	18831	18870	18909	18948	18987	19026	19065	19104	19143	19182	19221	19260	19299	19338	19377	19416	19455	19494	19533	19572	19611	19650	19689	19728	19767	19806	19845	19884	19923	19962	20001	20040	20079	20118	20157	20196	20235	20274	20313	20352	20391	20430	20469	20508	20547	20586	20625	20664	20703	20742	20781	20820	20859	20898	20937	20976	21015	21054	21093	21132	21171	21210	21249	21288	21327	21366	21405	21444	21483	21522	21561	21600	21639	21678	21717	21756	21795	21834	21873	21912	21951	21990	22029	22068	22107	22146	22185	22224	22263	22302	22341	22380	22419	22458	22497	22536	22575	22614	22653	22692	22731	22770	22809	22848	22887	22926	22965	23004	23043	23082	23121	23160	23199	23238	23277	23316	23355	23394	23433	23472	23511	23550	23589	23628	23667	23706	23745	23784	23823	23862	23901	23940	23979	24018	24057	24096	24135	24174	24213	24252	24291	24330	24369	24408	24447	24486	24525	24564	24603	24642	24681	24720	24759	24798	24837	24876	24915	24954	24993	25032	25071	25110	25149	25188	25227	25266	25305	25344	25383	25422	25461	25500	25539	25578	25617	25656	25695	25734	25773	25812	25851	25890	25929	25968	26007	26046	26085	26124	26163	26202	26241	26280	26319	26358	26397	26436	26475	26514	26553	26592	26631	26670	26709	26748	26787	26826	26865	26904	26943	26982	27021	27060	27099	27138	27177	27216	27255	27294	27333	27372	27411	27450	27489	27528	27567	27606	27645	27684	27723	27762	27801	27840	27879	27918	27957	27996	28035	28074	28113	28152	28191	28230	28269	28308	28347	28386	28425	28464	28503	28542	28581	28620	28659	28698	28737	28776	28815	28854	28893	28932	28971	29010	29049	29088	29127	29166	29205	29244	29283	29322	29361	29400	29439	29478	29517	29556	29595	29634	29673	29712	29751	29790	29829	29868	29907	29946	29985	30024	30063	30102	30141	30180	30219	30258	30297	30336	30375	30414	30453	30492	30531	30570	30609	30648	30687	30726	30765	30804	30843	30882	30921	30960	31000	31039	31078	31117	31156	31195	31234	31273	31312	31351	31390	31429	31468	31507	31546	31585	31624	31663	31702	31741	31780	31819	31858	31897	31936	31975	32014	32053	32092	32131	32170	32209	32248	32287	32326	32365	32404	32443	32482	32521	32560	32599	32638	32677	32716	32755	32794	32833	32872	32911	32950	32989	33028	33067	33106	33145	33184	33223	33262	33301	33340	33379	33418	33457	33496	33535	33574	33613	33652	33691	33730	33769	33808	33847	33886	33925	33964	34003	34042	34081	34120	34159	34198	34237	34276	34315	34354	34393	34432	34471	34510	34549	34588	34627	34666	34705	34744	34783	34822	34861	34900	34939	34978	35017	35056	35095	35134	35173	35212	35251	35290	35329	35368	35407	35446	35485	35524	35563	35602	35641	35680	

“ Heavy Duty Steel Grating

Heavy-duty steel grating is a kind of open grid assembly composed of bearing bars and cross bars. The bearing bar is the main load-bearing component which is available in various shapes such as flat, I-shape, and Serrated.

The cross bars are connected to bearing bars by welding, pressure locked, or riveting methods. The bearing bar and cross bars are generally made of plain steel, structural steel, or other alloys.

On the surface, heavy-duty steel grating has many types of finish treatments, such as black paint, hot-dipped galvanized, and so on.




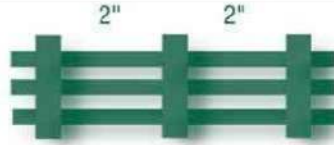








- ▶ We have advanced equipment and a strict quality control system to ensure that our products are of high quality.
- ▶ Based on quality and service, we have won the trust of our customers.
- ▶ Our products have been widely used in petroleum, chemical industry.
- ▶ Strict quality control system



“ Heavy Duty Steel Grating



”

Heavy Duty Spacings Available					
Type W-15-4 Bearing Bars at 15/16" on center Cross Bars at 4" on center	15/16"		Type W-15-2 Bearing Bars at 15/16" on center Cross Bars at 2" on center	15/16"	
Type W-19-4 Bearing Bars at 1 3/16" on center Cross Bars at 4" on center	1 3/16"		Type W-19-2 Bearing Bars at 1 3/16" on center Cross Bars at 2" on center	1 3/16"	
Type W-22-4 Bearing Bars at 1 3/8" on center Cross Bars at 4" on center	1 3/8"		Type W-22-2 Bearing Bars at 1 3/8" on center Cross Bars at 2" on center	1 3/8"	
Type W-30-4 Bearing Bars at 1 7/8" on center Cross Bars at 4" on center	1 7/8"		Type W-30-2 Bearing Bars at 1 7/8" on center Cross Bars at 2" on center	1 7/8"	
Type W-38-4 Bearing Bars at 2 3/8" on center Cross Bars at 4" on center	2 3/8"		Type W-38-2 Bearing Bars at 2 3/8" on center Cross Bars at 2" on center	2 3/8"	

Heavy Duty Steel Grating



15 Space (15/16") Load Table

Use this table when evaluating spans & loads for the following types of Heavy Duty steel grating:
15-W-4 and 15-W-2



Bearing Bar Size (inches)	Section Modulus per foot of width	Moment of Inertia per foot of width	Approx. Weight psf	Maximum Safe Span						
				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 x 3/8	0.800	0.400	17.4	1'-4"	1'-3"	1'-1"	1'-7"	0'-10"	0'-8"	0'-11"
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"
1-1/4 x 3/8	1.250	0.781	21.5	1'-8"	1'-6"	1'-4"	2'-1"	1'-1"	0'-11"	1'-4"
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"
1-1/2 x 3/8	1.800	1.350	25.6	2'-0"	1'-10"	1'-8"	2'-9"	1'-4"	1'-3"	1'-10"
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"
1-3/4 x 3/8	2.450	2.144	29.7	2'-5"	2'-3"	2'-1"	3'-6"	1'-9"	1'-8"	2'-6"
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 x 3/8	3.200	3.200	33.8	2'-10"	2'-8"	2'-6"	4'-3"	2'-1"	2'-1"	3'-2"
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"
2-1/4 x 3/8	4.050	4.556	37.8	3'-4"	3'-2"	3'-0"	4'-9"	2'-7"	2'-6"	3'-11"
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"
2-1/2 x 3/8	5.000	6.250	41.9	3'-10"	3'-8"	3'-7"	5'-3"	3'-1"	3'-1"	4'-5"
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"
3 x 3/8	7.200	10.800	50.1	4'-8"	4'-7"	4'-7"	6'-4"	4'-3"	4'-4"	5'-4"
3-1/2 x 1/4	6.533	11.433	39.2	4'-9"	4'-7"	4'-6"	6'-5"	3'-11"	3'-11"	5'-5"
3-1/2 x 5/16	8.167	14.292	48.7	5'-1"	5'-1"	5'-1"	6'-11"	4'-9"	4'-10"	5'-10"
3-1/2 x 3/8	9.800	17.150	58.2	5'-5"	5'-4"	5'-5"	7'-4"	5'-2"	5'-3"	6'-3"
4 x 1/4	8.533	17.067	44.6	5'-4"	5'-4"	5'-4"	7'-4"	5'-1"	5'-1"	6'-3"
4 x 5/16	10.667	21.333	55.5	5'-9"	5'-9"	5'-9"	7'-11"	5'-6"	5'-8"	6'-8"
4 x 3/8	12.800	25.600	66.4	6'-1"	6'-1"	6'-2"	8'-5"	5'-11"	6'-0"	7'-2"
4-1/2 x 1/4	10.800	24.300	50.1	6'-0"	6'-0"	6'-0"	8'-3"	5'-9"	5'-11"	7'-0"
4-1/2 x 5/16	13.500	30.375	62.3	6'-6"	6'-6"	6'-6"	8'-11"	6'-3"	6'-4"	7'-7"
4-1/2 x 3/8	16.200	36.450	74.6	6'-10"	6'-10"	6'-11"	9'-6"	6'-7"	6'-9"	8'-0"
5 x 1/4	13.333	33.333	55.5	6'-8"	6'-8"	6'-9"	9'-2"	6'-5"	6'-7"	7'-9"
5 x 3/8	20.000	50.000	82.7	7'-7"	7'-8"	7'-8"	10'-6"	7'-4"	7'-6"	8'-11"
5 x 1/2	26.667	66.667	109.9	8'-4"	8'-5"	8'-5"	11'-7"	8'-1"	8'-3"	9'-10"
6 x 1/4	19.200	57.600	66.4	8'-0"	8'-0"	8'-1"	11'-1"	7'-8"	7'-10"	9'-4"
6 x 3/8	28.800	86.400	99.0	9'-1"	9'-2"	9'-2"	12'-8"	8'-10"	9'-0"	10'-9"
6 x 1/2	38.400	115.200	131.7	10'-0"	10'-1"	10'-2"	13'-11"	9'-9"	9'-11"	11'-10"
7 x 1/4	26.133	91.467	77.3	9'-3"	9'-4"	9'-5"	12'-11"	9'-0"	9'-2"	10'-11"
7 x 3/8	39.200	137.200	115.4	10'-7"	10'-8"	10'-9"	14'-9"	10'-4"	10'-6"	12'-6"
7 x 1/2	52.267	182.933	153.4	11'-8"	11'-9"	11'-10"	16'-3"	11'-4"	11'-7"	13'-9"

19 Space (1-3/16") Load Table

Use this table when evaluating spans & loads for the following types of Heavy Duty steel grating:
19-W-4 and 19-W-2



Bearing Bar Size (inches)	Section Modulus per foot of width	Moment of Inertia per foot of width	Approx. Weight psf	Maximum Safe Span						
				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 x 3/8	0.632	0.316	14.0	1'-2"	1'-1"	0'-11"	1'-4"	0'-9"	0'-8"	0'-9"
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"
1-1/4 x 3/8	0.987	0.617	17.2	1'-6"	1'-4"	1'-2"	1'-11"	1'-0"	0'-10"	1'-2"
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"
1-1/2 x 3/8	1.421	1.066	20.4	1'-10"	1'-8"	1'-6"	2'-6"	1'-2"	1'-1"	1'-7"
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"
1-3/4 x 3/8	1.934	1.692	23.7	2'-2"	1'-11"	1'-9"	3'-2"	1'-6"	1'-5"	2'-1"
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 x 3/8	2.526	2.526	26.9	2'-6"	2'-4"	2'-2"	3'-10"	1'-10"	1'-9"	2'-9"
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"
2-1/4 x 3/8	3.197	3.597	30.1	2'-10"	2'-8"	2'-7"	4'-5"	2'-2"	2'-2"	3'-5"
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"
2-1/2 x 3/8	3.947	4.934	33.3	3'-4"	3'-2"	3'-0"	4'-11"	2'-7"	2'-7"	4'-2"
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"
3 x 3/8	5.684	8.526	39.8	4'-4"	4'-2"	4'-1"	5'-11"	3'-7"	3'-8"	5'-1"
3-1/2 x 1/4	5.158	9.026	31.2	4'-0"	3'-10"	3'-9"	6'-0"	3'-3"	3'-4"	5'-2"
3-1/2 x 5/16	6.447	11.283	38.7	4'-9"	4'-7"	4'-6"	6'-4"	4'-0"	4'-1"	5'-7"
3-1/2 x 3/8	7.737	13.539	46.2	5'-0"	5'-0"	5'-0"	6'-11"	4'-8"	4'-10"	5'-11"
4 x 1/4	6.737	13.474	35.5	4'-11"	4'-10"	4'-9"	6'-11"	4'-2"	4'-3"	5'-11"
4 x 5/16	8.421	16.842	44.1	5'-5"	5'-5"	5'-5"	7'-5"	5'-1"	5'-3"	6'-4"
4 x 3/8	10.105	20.211	52.7	5'-8"	5'-8"	5'-9"	7'-11"	5'-6"	5'-8"	6'-9"
4-1/2 x 1/4	8.526	19.184	39.8	5'-7"	5'-7"	5'-8"	7'-9"	5'-1"	5'-4"	6'-8"
4-1/2 x 5/16	10.658	23.980	49.4	6'-0"	6'-0"	6'-1"	8'-4"	5'-10"	6'-0"	7'-2"
4-1/2 x 3/8	12.789	28.776	59.1	6'-5"	6'-5"	6'-5"	8'-11"	6'-2"	6'-4"	7'-7"
5 x 1/4	10.526	26.316	44.1	6'-3"	6'-3"	6'-3"	8'-8"	6'-0"	6'-2"	7'-5"
5 x 3/8	15.789	39.474	65.5	7'-1"	7'-1"	7'-2"	9'-11"	6'-11"	7'-1"	8'-6"
5 x 1/2	21.053	52.632	87.0	7'-10"	7'-10"	7'-11"	10'-11"	7'-7"	7'-9"	9'-4"
6 x 1/4	15.158	45.474	52.7	7'-5"	7'-5"	7'-6"	10'-4"	7'-3"	7'-5"	8'-11"
6 x 3/8	22.737	68.211	78.4	8'-6"	8'-6"	8'-7"	11'-10"	8'-3"	8'-6"	10'-2"
6 x 1/2	30.316	90.947	104.2	9'-4"	9'-4"	9'-5"	13'-1"	9'-4"	9'-4"	11'-2"
7 x 1/4	20.632	72.211	61.2	8'-8"	8'-8"	8'-9"	12'-1"	8'-5"	8'-8"	10'-4"
7 x 3/8	30.947	108.316	91.3	9'-11"	9'-11"	10'-0"	13'-10"	9'-8"	9'-11"	11'-10"
7 x 1/2	41.263	144.421	121.4	10'-10"	10'-11"	11'-0"	15'-3"	10'-7"	10'-11"	13'-1"

Heavy Duty Steel Grating

22 Space (1-3/8") Load Table

Use this table when evaluating spans & loads for the following types of Heavy Duty steel grating:
22-W-4 and 22-W-2



Bearing Bar Size (inches)	Section Modulus per foot of width	Moment of Inertia per foot of width	Approx. Weight psf	Maximum Safe Span						
				H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1 x 1/4	0.364	0.182	8.5	0'-11"	0'-10"	0'-9"	0'-11"	0'-7"	0'-6"	0'-6"
1 x 5/16	0.455	0.227	10.4	1'-0"	0'-11"	0'-10"	1'-1"	0'-8"	0'-6"	0'-7"
1 x 3/8	0.545	0.273	12.2	1'-1"	1'-0"	0'-11"	1'-3"	0'-9"	0'-7"	0'-9"
1-1/4 x 1/4	0.568	0.355	10.4	1'-2"	1'-0"	0'-11"	1'-4"	0'-9"	0'-7"	0'-9"
1-1/4 x 5/16	0.710	0.444	12.7	1'-3"	1'-2"	1'-0"	1'-6"	0'-10"	0'-8"	0'-11"
1-1/4 x 3/8	0.852	0.533	15.0	1'-5"	1'-3"	1'-1"	1'-9"	0'-11"	0'-9"	1'-1"
1-1/2 x 1/4	0.818	0.614	12.2	1'-5"	1'-3"	1'-1"	1'-9"	0'-11"	0'-9"	1'-0"
1-1/2 x 5/16	1.023	0.767	15.0	1'-7"	1'-5"	1'-3"	2'-1"	1'-0"	0'-11"	1'-3"
1-1/2 x 3/8	1.227	0.920	17.8	1'-8"	1'-6"	1'-4"	2'-5"	1'-1"	1'-0"	1'-6"
1-3/4 x 1/4	1.114	0.974	14.1	1'-8"	1'-6"	1'-3"	2'-3"	1'-1"	0'-11"	1'-4"
1-3/4 x 5/16	1.392	1.218	17.3	1'-10"	1'-8"	1'-6"	2'-8"	1'-2"	1'-1"	1'-8"
1-3/4 x 3/8	1.670	1.462	20.6	2'-0"	1'-10"	1'-8"	3'-0"	1'-4"	1'-3"	1'-11"
2 x 1/4	1.455	1.455	16.0	1'-10"	1'-8"	1'-6"	2'-10"	1'-3"	1'-2"	1'-9"
2 x 5/16	1.818	1.818	19.7	2'-1"	1'-11"	1'-9"	3'-4"	1'-5"	1'-5"	2'-1"
2 x 3/8	2.182	2.182	23.4	2'-4"	2'-1"	2'-0"	3'-8"	1'-8"	1'-7"	2'-6"
2-1/4 x 1/4	1.841	2.071	17.8	2'-1"	1'-11"	1'-9"	3'-5"	1'-6"	1'-5"	2'-2"
2-1/4 x 5/16	2.301	2.589	22.0	2'-4"	2'-2"	2'-0"	4'-0"	1'-9"	1'-8"	2'-3"
2-1/4 x 3/8	2.761	3.107	26.2	2'-8"	2'-6"	2'-4"	4'-3"	2'-0"	2'-0"	3'-2"
2-1/2 x 1/4	2.273	2.841	19.7	2'-4"	2'-2"	2'-0"	4'-2"	1'-8"	1'-8"	2'-7"
2-1/2 x 5/16	2.841	3.551	24.3	2'-8"	2'-6"	2'-5"	4'-6"	2'-0"	2'-0"	3'-3"
2-1/2 x 3/8	3.409	4.261	28.9	3'-0"	2'-10"	2'-9"	4'-9"	2'-4"	2'-4"	3'-10"
3 x 1/4	3.273	4.909	23.4	2'-11"	2'-9"	2'-8"	5'-0"	2'-3"	2'-3"	3'-8"
3 x 5/16	4.091	6.136	28.9	3'-5"	3'-3"	3'-2"	5'-4"	2'-9"	2'-9"	4'-7"
3 x 3/8	4.909	7.364	34.5	3'-11"	3'-9"	3'-8"	5'-8"	3'-2"	3'-4"	4'-11"
3-1/2 x 1/4	4.455	7.795	27.1	3'-8"	3'-6"	3'-5"	5'-10"	2'-11"	3'-0"	5'-0"
3-1/2 x 5/16	5.568	9.744	33.6	4'-4"	4'-2"	4'-1"	6'-3"	3'-7"	3'-8"	5'-5"
3-1/2 x 3/8	6.682	11.693	40.1	4'-10"	4'-10"	4'-10"	6'-8"	4'-2"	4'-5"	5'-9"
4 x 1/4	5.818	11.636	30.8	4'-5"	4'-4"	4'-3"	6'-8"	3'-9"	3'-10"	5'-9"
4 x 5/16	7.273	14.545	38.2	5'-2"	5'-2"	5'-2"	7'-2"	4'-6"	4'-9"	6'-2"
4 x 3/8	8.727	17.455	45.6	5'-6"	5'-6"	5'-6"	7'-7"	5'-3"	5'-5"	6'-7"
4-1/2 x 1/4	7.364	16.568	34.5	5'-4"	5'-3"	5'-3"	7'-6"	4'-7"	4'-10"	6'-5"
4-1/2 x 5/16	9.205	20.710	42.8	5'-9"	5'-9"	5'-10"	8'-1"	5'-7"	5'-9"	6'-11"
4-1/2 x 3/8	11.045	24.852	51.2	6'-2"	6'-2"	6'-2"	8'-7"	5'-11"	6'-1"	7'-5"
5 x 1/4	9.091	22.727	38.2	5'-11"	6'-0"	6'-0"	8'-4"	5'-7"	5'-11"	7'-2"
5 x 3/8	13.636	34.091	56.8	6'-10"	6'-10"	6'-10"	9'-6"	6'-7"	6'-10"	8'-3"
5 x 1/2	18.182	45.455	75.3	7'-6"	7'-6"	7'-7"	10'-6"	7'-3"	7'-6"	9'-1"
6 x 1/4	13.091	39.273	45.6	7'-1"	7'-2"	7'-2"	10'-0"	6'-11"	7'-2"	8'-7"
6 x 3/8	19.636	58.909	67.9	8'-1"	8'-2"	8'-3"	11'-5"	7'-11"	8'-2"	9'-10"
6 x 1/2	26.182	78.545	90.1	8'-11"	9'-0"	9'-1"	12'-7"	8'-9"	9'-0"	10'-10"
7 x 1/4	17.818	62.364	53.1	8'-3"	8'-4"	8'-5"	11'-8"	8'-1"	8'-4"	10'-1"
7 x 3/8	26.727	93.545	79.0	9'-5"	9'-6"	9'-7"	13'-4"	9'-3"	9'-6"	11'-6"
7 x 1/2	35.636	124.727	105.0	10'-5"	10'-6"	10'-7"	14'-8"	10'-2"	10'-6"	12'-8"

30 Space (1-7/8") Load Table

Use this table when evaluating spans & loads for the following types of Heavy Duty steel grating:
30-W-4 and 30-W-2



Bearing Bar Size (inches)	Section Modulus per foot of width	Moment of Inertia per foot of width	Approx. Weight psf	Maximum Safe Span						
				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 x 3/8	0.400	0.200	9.3	1'-0"	0'-11"	0'-9"	1'-1"	0'-8"	0'-6"	0'-8"
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"
1-1/4 x 3/8	0.625	0.391	11.3	1'-3"	1'-1"	1'-0"	1'-6"	0'-10"	0'-8"	0'-11"
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"
1-1/2 x 3/8	0.900	0.675	13.4	1'-6"	1'-4"	1'-2"	2'-0"	1'-0"	0'-10"	1'-3"
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"
1-3/4 x 3/8	1.225	1.072	15.4	1'-9"	1'-7"	1'-5"	2'-7"	1'-2"	1'-1"	1'-8"
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 x 3/8	1.600	1.600	17.4	2'-0"	1'-10"	1'-8"	3'-3"	1'-5"	1'-4"	2'-2"
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'-8"	3'-5"	1'-5"	1'-5"	2'-3"
2-1/4 x 3/8	2.025	2.278	19.5	2'-3"	2'-1"	1'-11"	3'-11"	1'-8"	1'-8"	2'-8"
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"
2-1/2 x 3/8	2.500	3.125	21.5	2'-6"	2'-5"	2'-3"	4'-5"	1'-11"	2'-0"	3'-3"
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"
3 x 3/8	3.600	5.400	25.6	3'-3"	3'-1"	3'-0"	5'-3"	2'-7"	2'-9"	4'-8"
3-1/2 x 1/4	3.267	5.717	20.2	3'-0"	2'-10"	2'-9"	5'-5"	2'-5"	2'-6"	4'-3"
3-1/2 x 5/16	4.083	7.146	24.9	3'-6"	3'-5"	3'-4"	5'-10"	2'-11"	3'-1"	5'-1"
3-1/2 x 3/8	4.900	8.575	29.7	4'-0"	3'-11"	3'-10"	6'-2"	3'-5"	3'-7"	5'-5"
4 x 1/4	4.267	8.533	22.9	3'-7"	3'-6"	3'-7"	6'-2"	3'-0"	3'-2"	5'-5"
4 x 5/16	5.333	10.667	28.3	4'-1"	4'-2"	4'-2"	6'-8"	3'-8"	3'-11"	5'-10"
4 x 3/8	6.400	12.800	33.8	4'-11"	4'-10"	4'-10"	7'-1"	4'-4"	4'-8"	6'-2"
4-1/2 x 1/4	5.400	12.150	25.6	4'-4"	4'-3"	4'-2"	6'-11"	3'-8"	3'-11"	6'-1"
4-1/2 x 5/16	6.750	15.188	31.7	5'-2"	5'-1"	5'-1"	7'-6"	4'-6"	4'-10"	6'-7"
4-1/2 x 3/8	8.100	18.225	37.8	5'-7"	5'-7"	5'-8"	7'-11"	5'-4"	5'-8"	7'-0"
5 x 1/4	6.667	16.667	28.3	5'-1"	5'-0"	5'-0"	7'-8"	4'-6"	4'-10"	6'-9"
5 x 3/8	10.000	25.000	41.9	6'-3"	6'-3"	6'-4"	8'-10"	6'-1"	6'-4"	7'-9"
5 x 1/2	13.333	33.333	55.5	6'-10"	6'-10"	6'-11"	9'-8"	6'-9"	7'-0"	8'-7"
6 x 1/4	9.600	28.800	33.8	6'-6"	6'-6"	6'-7"	9'-3"	6'-3"	6'-8"	8'-2"
6 x 3/8	14.400	43.200	50.1	7'-5"	7'-6"	7'-7"	10'-7"	7'-4"	7'-7"	9'-4"
6 x 1/2	19.200	57.600	66.4	8'-2"	8'-3"	8'-4"	11'-8"	8'-1"	8'-5"	10'-3"
7 x 1/4	13.067	45.733	39.2	7'-7"	7'-7"	7'-9"	9'-6"	7'-9"	7'-9"	9'-6"
7 x 3/8	19.600	68.600	58.2	8'-8"	8'-8"	8'-10"	12'-4"	8'-7"	8'-11"	10'-11"
7 x 1/2	26.133	91.467	77.3	9'-6"	9'-7"	9'-9"	13'-7"	9'-5"	9'-9"	12'-0"

“ Heavy Duty Steel Grating



38 Space (2-3/8") Load Table

Use this table when evaluating spans & loads for the following types of Heavy Duty steel grating:

38-W-4 and 38-W-2

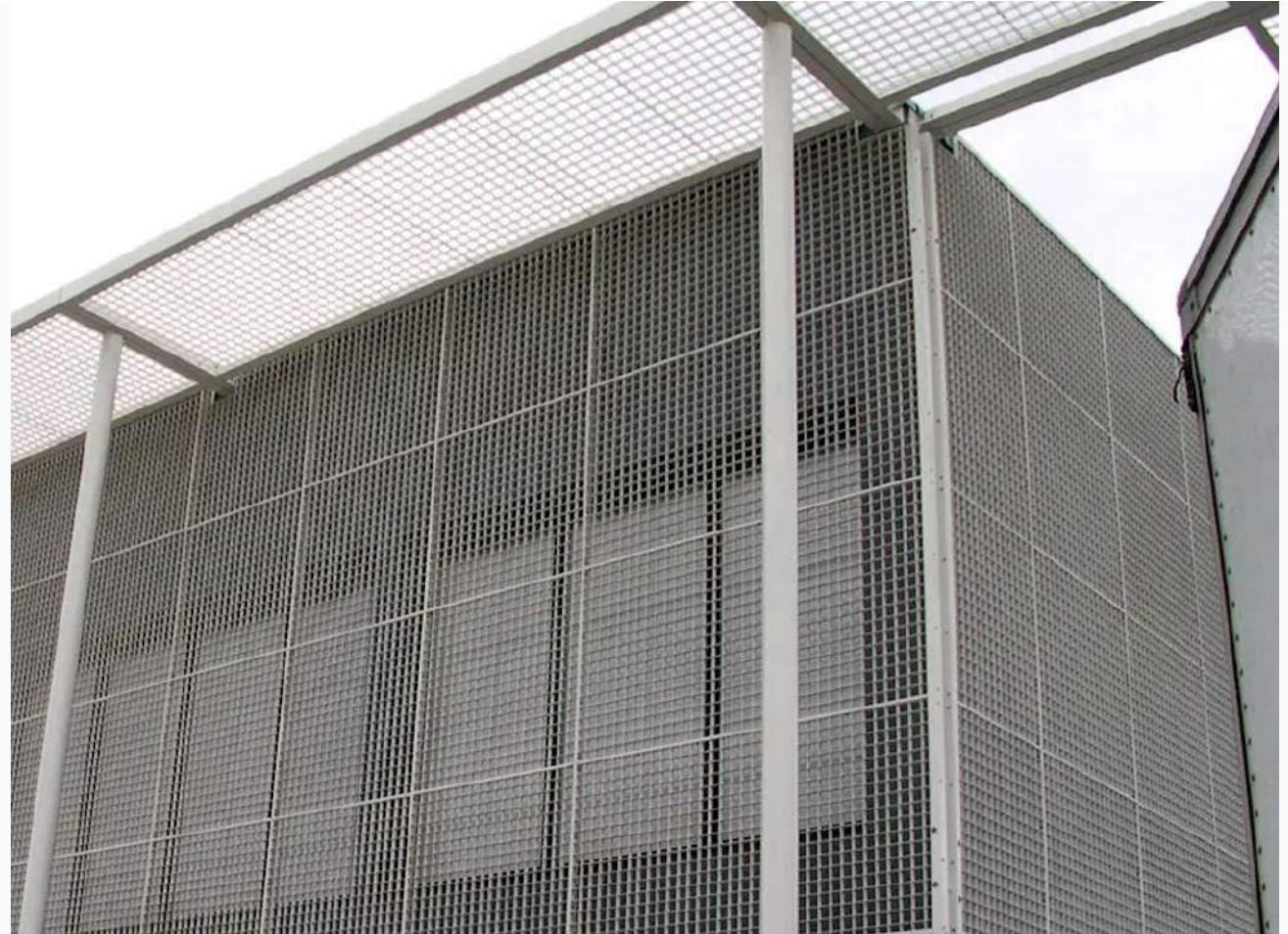


Bearing Bar Size (inches)	Section Modulus per foot of width	Moment of Inertia per foot of width	Approx. Weight psf	Maximum Safe Span						
				H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1 x 1/4	0.211	0.105	5.4	0'-8"	0'-8"	0'-7"	0'-9"	0'-6"	0'-5"	0'-5"
1 x 5/16	0.263	0.132	6.5	0'-10"	0'-9"	0'-8"	0'-10"	0'-6"	0'-5"	0'-6"
1 x 3/8	0.316	0.158	7.6	0'-10"	0'-10"	0'-8"	0'-11"	0'-7"	0'-6"	0'-7"
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"
1-1/4 x 3/8	0.493	0.308	9.2	1'-1"	1'-0"	0'-11"	1'-4"	0'-9"	0'-7"	0'-10"
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"
1-1/2 x 3/8	0.711	0.533	10.8	1'-4"	1'-3"	1'-1"	1'-9"	0'-11"	0'-9"	1'-2"
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"
1-3/4 x 3/8	0.967	0.846	12.4	1'-7"	1'-5"	1'-3"	2'-3"	1'-1"	1'-0"	1'-6"
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 x 3/8	1.263	1.263	14.0	1'-9"	1'-8"	1'-6"	2'-10"	1'-3"	1'-2"	1'-11"
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"
2-1/4 x 3/8	1.599	1.799	15.6	2'-0"	1'-10"	1'-8"	3'-6"	1'-5"	1'-5"	2'-5"
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"
2-1/2 x 3/8	1.974	2.467	17.2	2'-3"	2'-1"	2'-0"	4'-2"	1'-8"	1'-9"	2'-11"
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"
3 x 3/8	2.842	4.263	20.4	2'-10"	2'-8"	2'-7"	5'-0"	2'-3"	2'-5"	4'-2"
3-1/2 x 1/4	2.579	4.513	16.2	2'-8"	2'-6"	2'-5"	5'-1"	2'-1"	2'-2"	3'-9"
3-1/2 x 5/16	3.224	5.641	19.9	3'-1"	2'-11"	2'-10"	5'-6"	2'-6"	2'-8"	4'-8"
3-1/2 x 3/8	3.868	6.770	23.7	3'-6"	3'-4"	3'-4"	5'-10"	2'-11"	3'-2"	5'-3"
4 x 1/4	3.368	6.737	18.3	3'-2"	3'-0"	2'-11"	5'-10"	2'-7"	2'-9"	4'-11"
4 x 5/16	4.211	8.421	22.6	3'-8"	3'-7"	3'-7"	6'-3"	3'-2"	3'-5"	5'-7"
4 x 3/8	5.053	10.105	26.9	4'-3"	4'-2"	4'-2"	6'-8"	3'-8"	4'-0"	6'-0"
4-1/2 x 1/4	4.263	9.592	20.4	3'-9"	3'-7"	3'-7"	6'-7"	3'-2"	3'-5"	5'-10"
4-1/2 x 5/16	5.329	11.990	25.3	4'-5"	4'-4"	4'-4"	7'-1"	3'-11"	4'-3"	6'-4"
4-1/2 x 3/8	6.395	14.388	30.1	5'-1"	5'-0"	5'-1"	7'-6"	4'-7"	5'-0"	6'-9"
5 x 1/4	5.263	13.158	22.6	4'-4"	4'-3"	4'-3"	7'-4"	3'-10"	4'-2"	6'-6"
5 x 3/8	7.895	19.737	33.3	5'-10"	5'-10"	5'-11"	8'-4"	5'-6"	6'-0"	7'-6"
5 x 1/2	10.526	26.316	44.1	6'-5"	6'-5"	6'-6"	9'-2"	6'-4"	6'-8"	8'-3"
6 x 1/4	7.579	22.737	26.9	5'-10"	5'-10"	5'-11"	8'-9"	5'-4"	5'-11"	7'-10"
6 x 3/8	11.368	34.105	39.8	6'-11"	7'-0"	7'-1"	10'-0"	6'-11"	7'-3"	9'-0"
6 x 1/2	15.158	45.474	52.7	7'-8"	7'-8"	7'-10"	11'-1"	7'-7"	8'-0"	9'-11"
7 x 1/4	10.316	36.105	31.2	7'-1"	7'-2"	7'-3"	10'-3"	7'-1"	7'-5"	9'-2"
7 x 3/8	15.474	54.158	46.2	8'-1"	8'-2"	8'-4"	11'-8"	8'-1"	8'-5"	10'-6"
7 x 1/2	20.632	72.211	61.2	8'-11"	9'-0"	9'-2"	12'-11"	8'-11"	9'-4"	11'-6"

“ Press lock grating

Press-locked steel grating is made by locking the cross bars into the notches of the bearing bars by a pressing process. This type of grating is used where a high level of slip resistance is not required, such as in drainage ditch covers.

Our products are manufactured from steel, stainless steel, and aluminum. We offer a wide variety of sizes and thicknesses. We also offer a complete line of aluminum, stainless steel, bronze, and galvanized grating products.



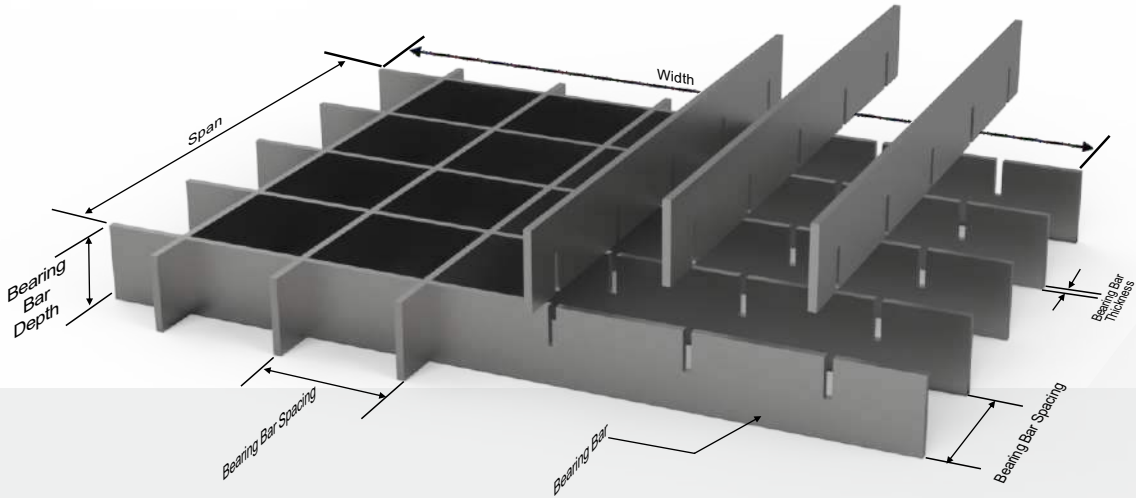
“ Press lock grating



Product Specification

Product Name	Material	Model	Surface Treatment
Press-locked Steel Grating	ASTM A36, GB Q235B, S235JR; ASTM A572-50, GB Q345B, S355JR	PGW19-01, PGW19-05, PGW15-02, PGW15-12...	Galvanized, mill finish, painted
Bearing Bar Depth	Bearing Bar Thickness	Bearing Bar Spacing	Cross Bar Spacing
20, 25, 30, 32, 35, 38, 40, 45, 50, 60mm	ASTM A36, GB Q235B, S235JR; 2mm, 3mm, 4mm, 5mm, 6mm ASTM A572-50, GB Q345B, S355JR	15/16", 1-3/16", 1-1/4"	2", 4"
Steel Grating Standards			
GB/T 14452-1993, GB/T 13912-2002, GB/T 12470-2003			

Press-locked Steel GratingDrawing:



Press lock grating



19 Space (1-3/16") Load Table

Use this table when evaluating spans and loads for the following types of steel grating:
19-W-4, 19-W-2, 19-DT-4, 19-DT-2, 19-SL-4, & 19-SL-2

Bearing Bar Size (inches)	Approx. Weight psf *	Max. Ped. Span**	Sec. Prop.*** Sx in ³ Ix in ⁴	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"		
3/4 x 1/8	3.9	3'-5"	0.118 0.044	U	355	227	158	116	89	70	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. Grating for spans to the left of the heavy line have a deflection ≤ 1/4" for uniform loads of 100 psf. U = uniform load in pounds/sq. ft. C = concentrated load in pounds/ft. of grating width D = deflection in inches							
				D	0.099	0.155	0.223	0.304	0.397	0.503								
				C	355	284	237	203	178	158								
				D	0.079	0.124	0.179	0.243	0.318	0.402								
3/4 x 3/16	5.6	3'-10"	0.178 0.067	U	533	341	237	174	133	105	85							
				D	0.099	0.155	0.223	0.304	0.397	0.503	0.621							
				C	533	426	355	305	266	237	213							
				D	0.079	0.124	0.179	0.243	0.318	0.402	0.497							
1 x 1/8	5.0	4'-3"	0.211 0.105	U	632	404	281	206	158	125	101	84						
				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"	0.316 0.158	U	947	606	421	309	237	187	152	125	105					
				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"	0.451 0.206	U	987	632	439	322	247	195	158	131	110	93				
				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"	0.493 0.308	U	1,480	947	658	483	370	292	237	196	165	140	121			
				D	0.060	0.093	0.134	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	0.429	0.504	0.584			
1-1/2 x 1/8	7.2	5'-10"	0.474 0.355	U	1,421	910	632	464	355	281	227	188	158	135	116			
				D	0.050	0.078	0.112	0.152	0.199	0.251	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"	0.711 0.533	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	0.251	0.310	0.376	0.447	0.524	0.608	0.734		
				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 1/8	8.5	6'-6"	0.645 0.564	U	1,934	1,238	860	632	484	382	310	256	215	183	158	121	96	
				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	1,934	1,547	1,290	1,105	967	860	774	703	645	595	553	484	430	
				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	
1-3/4 x 3/16	12.3	7'-3"	0.967 0.846	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 1/8	9.6	7'-4"	0.842 0.842	U	2,526	1,617	1,123	825	632	499	404	334	281	239	206	158	125	
				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	2,526	2,021	1,684	1,444	1,263	1,123	1,011	919	842	777	722	632	561	
				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 x 3/16	13.9	8'-0"	1.263 1.263	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"	1.599 1.799	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"	1.974 2.467	U	5,921	3,790	2,632	1,933	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	

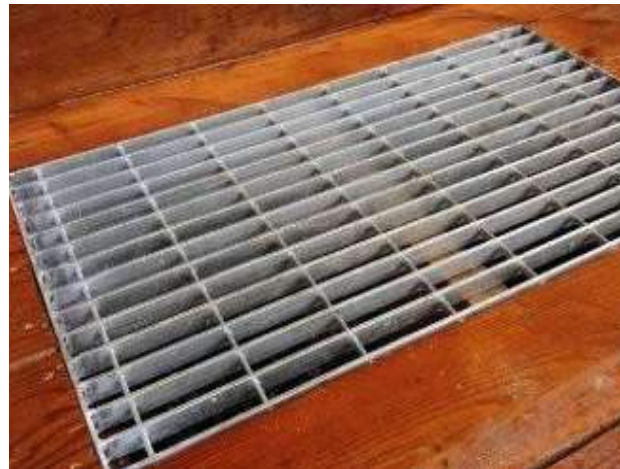
Use this table when evaluating spans and loads for the following types of steel grating:
15-W-4, 15-W-2, 15-DT-4, 15-DT-2, 15-SL-4, & 15-SL-2

15 Space (15/16") Load Table

Bearing Bar Size (inches)	Approx. Weight psf *	Max. Ped. Span**	Sec. Prop.*** Sx in ³ Ix in ⁴	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"	
3/4 x 3/16	6.9	4'-0"	0.225 0.084	U 675	432	300	220	169	133	108	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. Grating for spans to the left of the heavy line have a deflection ≤ 1/4" for uniform loads of 100 psf. U = uniform load in pounds/sq. ft. C = concentrated load in pounds/ft. of grating width D = deflection in inches						
				D 0.099	0.155	0.223	0.304	0.397	0.503	0.621							
				C 675	540	450	386	338	300	270							
				D 0.079	0.124	0.179	0.243	0.318	0.402	0.497							
1 x 1/8	6.2	4'-6"	0.267 0.133	U 800	512	356	261	200	158	128							
				D 0.074	0.116	0.168	0.228	0.298	0.377	0.466							
				C 800	640	533	457	400	356	320							
				D 0.060	0.093	0.134	0.182	0.238	0.302	0.372							
1 x 3/16	8.9	5'-0"	0.400 0.200	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"	0.417 0.260	U 1,250	800	556	408	313	247	200	165	139	118				
				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				
				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"	0.625 0.391	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"	0.600 0.450	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"	0.900 0.675	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 1/8	10.4	6'-11"	0.817 0.715	U 2,450	1,568	1,089	800	613	484	392	324	272	232	200	153	121	
				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 2,450	1,960	1,633	1,400	1,225	1,089	980	891	817	754	700	613	544	
				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	
1-3/4 x 3/16	15.3	7'-8"	1.225 1.072	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 1/8	11.8	7'-7"	1.067 1.067	U 3,200	2,048	1,422	1,045	800	632	512	423	356	303	261	200	158	
				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 3,200	2,560	2,133	1,829	1,600	1,422	1,280	1,164	1,067	985	914	800	711	
				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 x 3/16	17.3	8'-6"	1.600 1.600	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"	2.025 2.278	U 6,075	3,888	2,700	1,984	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"	2.500 3.125	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	

“ Swage locked grating

Swage-locked steel grating is manufactured with either an "r" or rectangular bearing bar. These bars are permanently locked to the cross rods with a swaging process which reshapes the rods. Because of the flange width, I-bars reduce the open space of the grating yet bar swage-locked is lighter is lightweight and less costly than a rectangular bar grating with the same bar thickness.

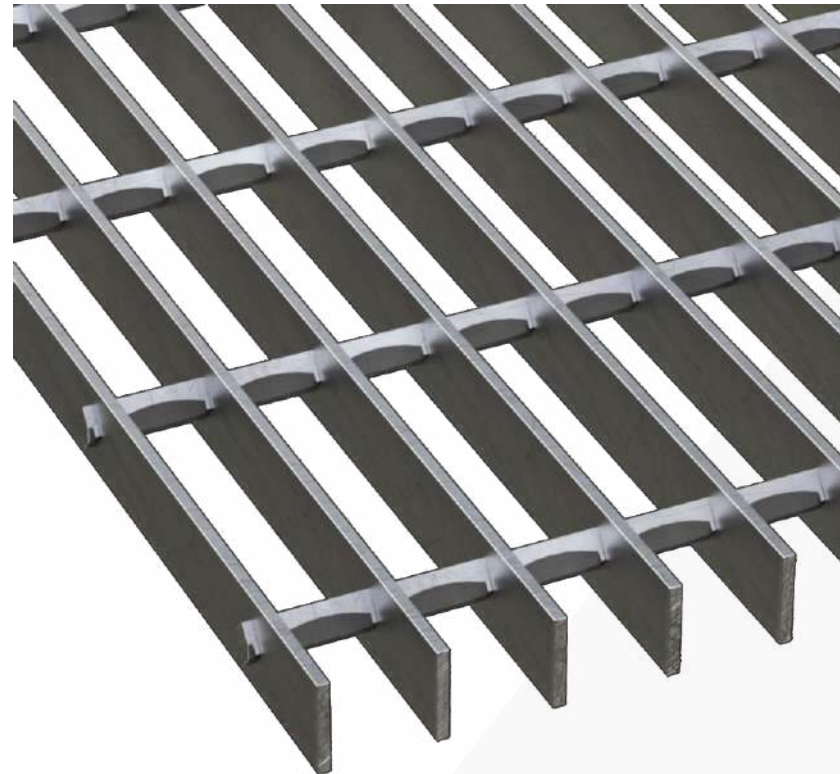


“ Swage locked grating



Specification

- **Material:**
aluminum alloy steel, carbon steel, stainlesssteel.
- **Surface type:**
plain surface or serrated surface.
- **Surface treatment:**
galvanized or mill finished.
- **Bearing bars type:**
rectangular bars, T bars or I bars.
- **Bearing bar spacing:**
standard is 15/16" or 1-3/16", 7/16" to 11/16" available.
- **Crossbar spacing:**
2" or 4".

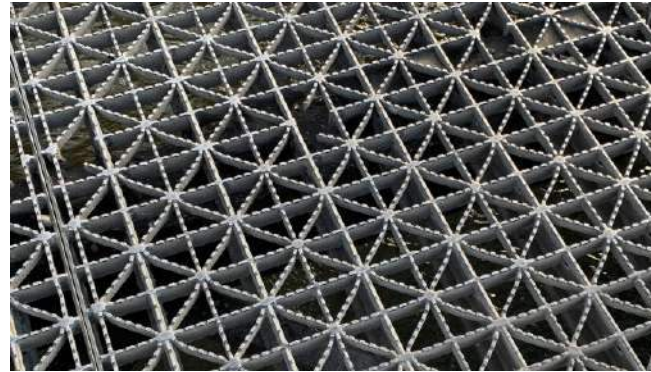


“ Riveted grating



Riveted Bar Grating is the first choice by many engineers for many applications. Compared to welded or swaged-locked grating, riveted has a greater load carrying capacity for the same span and depth of grating. Reticulated bars, riveted to the bearing bars increase resistance to buckling caused by vehicular loading conditions.

Riveted carbon steel and aluminum gratings utilize rivets which are individually cold-pressed using hydraulically and mechanically operated riveting tools. Thus, the bearing bars and reticulated bars are sealed together as a high-strength joint, freeing the grating from the residual stresses that cause warp and joint failures.



features:

- **Material:**
carbon steel, stainless steel or aluminum steel.
- **Surface treatment:**
galvanized, painted or mill finished.
- **Bearing bar**
3/4" or 1-1/8".
- **Cross bar spacing:**
3" or 7".
- **Surface type:**
smooth surface or serrated surface.



Riveted grating

Use this table when evaluating spans and loads for the following types of steel grating:
18-R-7 and 18-R-3.5

18 Space (1-1/8") Steel Load Table

Bearing Bar Size (inches)	Approx. Weight psf *	Maximum Pedestrian Span**	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			
3/4 x 3/16	7.8	4'-0"	U	613	392	272	200	153	121	98	<p>All loads and deflections are theoretical and based upon the gross sections of the bearing bars, using a fiber stress of 18,000 psi.</p> <p>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.</p> <p>Grating for spans to the left of the heavy line have a deflection $\leq 1/4"$ for uniform loads of 100 psf.</p> <p>U = uniform load in pounds/sq. ft. C = concentrated load in pounds/ft. of grating width D = deflection in inches</p>						
			D	0.099	0.155	0.223	0.304	0.397	0.503	0.621							
			C	613	490	409	350	306	272	245							
			D	0.079	0.124	0.179	0.243	0.318	0.402	0.497							
1 x 1/8	7.6	4'-5"	U	726	465	323	237	182	144	116							
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466							
			C	726	581	484	415	363	323	291							
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372							
1 x 3/16	9.4	4'-11"	U	1,090	697	484	356	272	215	174	144						
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563						
			C	1,090	872	726	623	545	484	436	396						
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451						
1-1/4 x 1/8	8.7	5'-3"	U	1,135	726	504	371	284	224	182	150	126					
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536					
			C	1,135	908	757	649	567	504	454	413	378					
			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	11.0	5'-10"	U	1,702	1,090	757	556	426	336	272	225	189	161				
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629				
			C	1,702	1,362	1,135	973	851	757	681	619	567	524				
			D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504				
1-1/2 x 1/8	9.9	6'-0"	U	1,634	1,046	726	534	409	323	262	216	182	155	133	102		
			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	1,634	1,307	1,090	934	817	726	654	594	545	503	467	409		
			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	12.5	6'-8"	U	2,451	1,569	1,090	800	613	484	392	324	272	232	200	153		
			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	2,451	1,961	1,634	1,401	1,226	1,090	981	891	817	754	700	613		
			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	14.2	7'-6"	U	3,337	2,135	1,483	1,090	834	659	534	441	371	316	272	209		
			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		
			C	3,337	2,669	2,224	1,907	1,668	1,483	1,335	1,213	1,112	1,027	953	834		
			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		
2 x 3/16	16.8	8'-3"	U	4,358	2,789	1,937	1,423	1,090	861	697	576	484	413	356	272		
			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		
			C	4,358	3,486	2,905	2,490	2,179	1,937	1,743	1,585	1,453	1,341	1,245	1,090		
			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		
2-1/4 x 3/16	18.3	9'-0"	U	5,515	3,530	2,451	1,801	1,379	1,090	883	729	613	522	450	345		
			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		
			C	5,515	4,412	3,677	3,152	2,758	2,451	2,206	2,006	1,839	1,697	1,576	1,379		
			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		
2-1/2 x 3/16	19.9	9'-9"	U	6,809	4,358	3,026	2,223	1,702	1,345	1,090	900	757	645	556	426		
			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		
			C	6,809	5,447	4,540	3,891	3,405	3,026	2,724	2,476	2,270	2,095	1,946	1,702		
			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		



18 Space (1-1/8") Aluminum Load Table

Use this table when evaluating spans and loads for the following types of aluminum grating:
18-AR-7 and 18-AR-3.5

Bearing Bar Size (inches)	Approx. Weight psf *	Maximum Pedestrian Span**	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			
1 x 1/8	2.7	3'-5"	U	484	310	215	158	121	<p>All loads and deflections are theoretical and based upon the gross sections of the bearing bars, using a fiber stress of 12,000 psi.</p> <p>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.</p> <p>Grating for spans to the left of the heavy line have a deflection $\leq 1/4"$ for uniform loads of 100 psf.</p> <p>U = uniform load in pounds/sq. ft. C = concentrated load in pounds/foot of grating width D = deflection in inches</p>								
			D	0.144	0.225	0.324	0.441	0.576									
			C	484	387	323	277	242									
			D	0.115	0.180	0.259	0.353	0.461									
			U	726	465	323	237	182								144	
1 x 3/16	3.3	3'-9"	D	0.144	0.225	0.324	0.441	0.576	0.729								
			C	726	581	484	415	363	323								
			D	0.115	0.180	0.259	0.353	0.461	0.583								
			U	757	484	336	247	189	149	121							
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720							
1-1/4 x 1/8	3.1	4'-0"	C	757	605	504	432	378	336	303							
			D	0.092	0.144	0.207	0.282	0.369	0.467	0.576							
			U	1,135	726	504	371	284	224	182							
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720							
			C	1,135	908	757	649	567	504	454							
1-1/4 x 3/16	3.8	4'-5"	D	0.092	0.144	0.207	0.282	0.369	0.467	0.576							
			U	1,090	697	484	356	272	215	174	144						
			D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726						
			C	1,090	872	726	623	545	484	436	396						
			D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581						
1-1/2 x 1/8	3.4	4'-7"	U	1,634	1,046	726	534	409	323	262	216	182					
			D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864					
			C	1,634	1,307	1,090	934	817	726	654	594	545					
			D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691					
			U	2,224	1,424	989	726	556	439	356	294	247	211				
1-1/2 x 3/16	4.4	5'-1"	D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869				
			C	2,224	1,780	1,483	1,271	1,112	989	890	809	741	684				
			D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695				
			U	2,905	1,859	1,291	949	726	574	465	384	323	275	237			
			D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882			
1-3/4 x 3/16	4.9	5'-9"	C	2,905	2,324	1,937	1,660	1,453	1,291	1,162	1,057	968	894	830			
			D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706			
			U	3,677	2,353	1,634	1,201	919	726	588	486	409	348	300	230		
			D	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	1.024		
			C	3,677	2,942	2,451	2,101	1,839	1,634	1,471	1,337	1,226	1,131	1,051	919		
2 x 3/16	5.8	6'-4"	D	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.627	0.819		
			U	4,540	2,905	2,018	1,482	1,135	897	726	600	504	430	371	284		
			D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.922		
			C	4,540	3,632	3,026	2,594	2,270	2,018	1,816	1,651	1,513	1,397	1,297	1,135		
			D	0.046	0.072	0.104	0.141	0.184	0.233	0.288	0.348	0.415	0.487	0.564	0.730		
2-1/4 x 3/16	6.4	6'-11"															
2-1/2 x 3/16	6.9	7'-6"															

“ Riveted grating



The installation

• Demands

- Install the steel grating according to the steel structure, and the steel grating would not move horizontally and would not be out of the support frame.
- The support length on the edge of the steel grating should be more than 25 mm.
- Install the steel grating by welding and weld the steel grating on the frame if not need to move.
- Install the steel grating with fixing clips if need to move or tear down the steel grating after installation.
- The diameter of the spiral is more than 8 mm.
- The distance of the installation should be adjusted according to the tolerance. The smallest installation distance of the steel grating should be 3 mm and the smallest installation distance between the steel grating and the structure should be 10 mm.

• Fixing clips



Steel grating fix clips

“ Steel grating for stair treads



► Types of steel grating stair tread ◀



01



Welded fixing, banded ends without nosing.

02



Bolted fixing, holed end plates without nosing.

03



Welded fixing, banded ends with checker plate nosing.

04



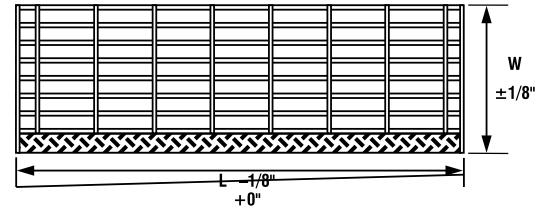
Bolted fixing, holed end plates with nosing.

“ Steel grating for stair treads

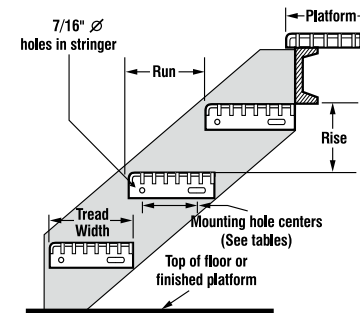
Manufactured to match the full line of our grating, there is a **stair tread** to meet your needs. Stair treads are safe, self-cleaning, skid-resistant and economical. Steel and aluminum stair treads are available in a variety of styles: welded, riveted, press-locked, swage-locked.

All stair treads are custom fabricated to meet the size, width and length specifications of particular job. In addition, standard end plates can be custom fabricated to meet special bolt hole size or location requirements. Both steel and aluminum nosings are available to add strength at the point of greatest impact and provide a definitive visible edge for extra safety.

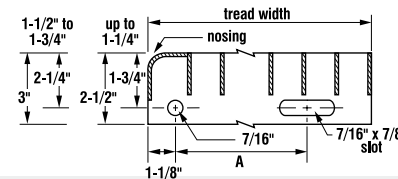
Stair Tread Tolerances and Details



Tread Length And Width Tolerance

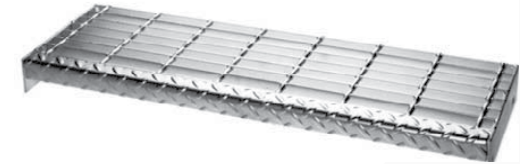


Typical Stair Tread Stringer Detail

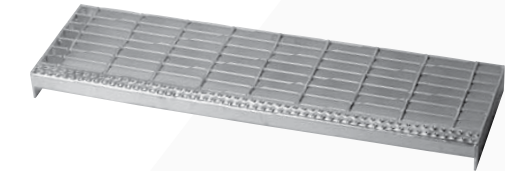


Typical Tread Dimensions

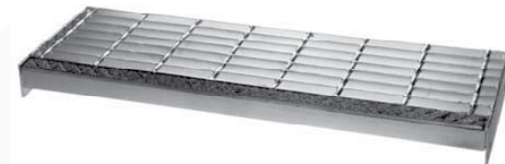
Steel/Welded & Press-Locked



Welded (W)
Checkered Plate Nosing (CP)



Welded (W)
Dimple Plate Nosing (DP)



Welded (W)

“ Steel grating for stair treads



Product Specification

Product Name	Material	Model	Surface Treatment
Stair Grating	GB Q235B, ASTM A36; 0Cr18Ni9, UNS S30400; GB/T 5237.1-2017	G325/30/50, G505/40/100, G303/30/50...	Galvanized, mill finish, painted
Bearing Bar Depth	Bearing Bar Thickness	Bearing Bar Spacing	Cross Bar Spacing
25, 30,32, 40mm	3mm, 4mm, 5mm, 6mm	20, 30,33, 40, 50mm	50mm, 100mm, 76mm
Steel Grating Standards			
YB/T4001.1-2007, GB/T 13912-2002, ISO 1461:2022			

Stair Grating Drawing:



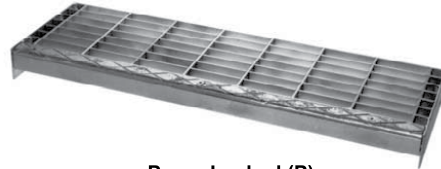
“ Steel grating for stair treads



Steel / Welded & Press-Locked



Press-Locked (P)
Checkered Plate Nosing (CP)



Press-Locked (P)
Cast Iron (CIA) or Cast Aluminum (CAA) Abrasive Nosing

Maximum Tread Lengths

Bearing Bar Size	Bearing Bar Spacing			
	1-3/16" (19 space)		15/16" (15 space)	
	Plain	Serrated	Plain	Serrated
3/4" x 3/16"	2'-4"	1'-7"	2'-8"	1'-9"
1" x 1/8"	2'-7"	1'-11"	3'-0"	2'-1"
1" x 3/16"	3'-5"	2'-4"	4'-0"	2'-8"
1-1/4" x 1/8"	3'-7"	2'-7"	4'-2"	3'-0"
1-1/4" x 3/16"	4'-8"	3'-5"	5'-1"	4'-0"
1-1/2" x 3/16"	5'-6"	4'-8"	5'-6"	5'-1"

When tread length exceeds 5'-6", design tread for 300 lb. concentrated loads at 1/3 points. Maximum tread length based on 300 lb concentrated load on front 5 in of tread at center of tread length and deflection limitation of 1/240 of length.

Tread Width and Bolt Hole Spacing

19-W-4 and 19-P-4			
No. of Bearing Bars and Nosing	Bearing Bar		**Bolt Hole Spacing "A"
	1/8"	3/16"	
	Tread Width		
5	6-1/8"	6-3/16"	2-1/2"
6	7-5/16"	7-3/8"	4-1/2"
7	8-1/2"	8-9/16"	4-1/2"
8	9-11/16"	9-3/4"	7"
9	10-7/8"	10-15/16"	7"
10	12-1/16"	12-1/8"	7"

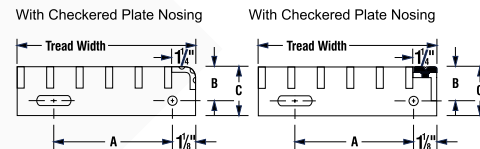
**See drawing above.

End Plate Dimensions

Grating Depth	"B" dimension	"C" dimension
up to 1-1/4"	1-3/4"	2-1/2"
*1-1/2" to 1-3/4"	2-1/4"	3"

See Tread Width and Bolt Hole Spacing for 'A' dimension.

* and all aluminum



Stair Tread Weights (per lineal inch of tread length)

No. of Bearing Bars and Nosing	Nosing	Bearing Bar Size					
		1/8" x 1"	1/8" x 1-1/4"	3/16" x 3/4"	3/16" x 1"	3/16" x 1-1/4"	3/16" x 1-1/2"
5	CP/DP	.29	.32	.31	.36	.41	.48
	CIA	.39	.42	.41	.46	.51	.56
6	CP/DP	.34	.38	.36	.43	.49	.55
	CIA	.43	.48	.46	.53	.59	.65
7	CP/DP	.38	.43	.41	.50	.57	.64
	CIA	.48	.53	.51	.59	.67	.74
8	CP/DP	.43	.49	.46	.56	.65	.73
	CIA	.53	.59	.56	.66	.75	.83
9	CP/DP	.48	.55	.52	.63	.73	.83
	CIA	.58	.65	.62	.73	.83	.93
10	CP/DP	.53	.60	.58	.70	.81	.92
	CIA	.63	.70	.68	.80	.90	1.02

No. of Bearing Bars and Nosing	Nosing	Bearing Bar Size					
		1/8" x 1"	1/8" x 1-1/4"	3/16" x 3/4"	3/16" x 1"	3/16" x 1-1/4"	3/16" x 1-1/2"
6	CP/DP	.33	.37	.36	.43	.50	.56
	CIA	.43	.47	.46	.53	.60	.66
7	CP/DP	.38	.43	.41	.49	.57	.65
	CIA	.48	.53	.51	.59	.67	.75
8	CP/DP	.42	.48	.46	.55	.65	.74
	CIA	.52	.58	.56	.65	.75	.84
9	CP/DP	.47	.54	.51	.62	.73	.84
	CIA	.57	.64	.61	.72	.83	.93
10	CP/DP	.52	.59	.56	.68	.81	.92
	CIA	.62	.69	.66	.78	.91	1.02
11	CP/DP	.56	.65	.61	.75	.88	1.01
	CIA	.66	.74	.71	.85	.98	1.11

CP-Checkered Plate - DP-Dimple Plate - CIA-Cast Iron Abrasion - CAA-Cast Aluminum Abrasion

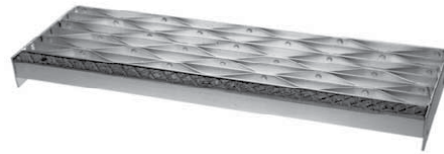
“ Steel grating for stair treads



Steel / Riveted



Riveted (R)
Checker Plate Nosing (CP)



Riveted (R)
Cast Iron (CIA) or Cast Aluminum (CAA) Abrasive Nosing

Maximum Tread Lengths

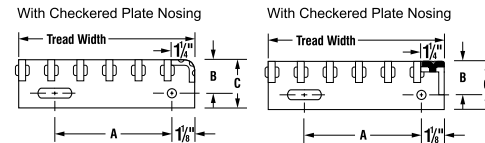
Bearing Bar Size	Bearing Bar Spacing			
	1-1/4" (18 space)		3/4" (12 Space)	
	Plain	Serrated	Plain	Serrated
3/4" x 3/16"	2'-0"	1'-5"	2'-8"	1'-9"
1" x 1/8"	2'-7"	1'-11"	3'-0"	2'-1"
1" x 3/16"	2'-10"	2'-0"	4'-0"	2'-8"
1-1/4" x 1/8"	3'-7"	2'-7"	4'-2"	3'-0"
1-1/4" x 3/16"	3'-10"	2'-10"	5'-1"	4'-0"
1-1/2" x 3/16"	5'-2"	3'-10"	5'-6"	5'-1"

When tread length exceeds 5'-6", design tread for 300 lb. concentrated loads at 1/3 points. Maximum tread length based on 300 lb. concentrated load on front 5 in of tread at center of tread length and deflection limitation of 1/240 of length. Maximum lengths for serrated apply only if bearing bars are serrated.

End Plate Dimensions

Grating Depth	"B" dimension	"C" dimension
up to 1-1/4"	1-3/4"	2-1/2"
* 1-1/2" to 1-3/4"	2-1/4"	3"

See Tread Width and Bolt Hole Spacing for 'A' dimension.
*and all aluminum



Tread Width and Bolt Hole Spacing

No. of Bearing Bars and Nosing	Bearing Bar		**Bolt Hole spacing "A"
	1/8"	3/16"	
	Tread Width		
5	6-3/8"	6-11/16"	2-1/2"
6	7-5/8"	8"	4-1/2"
7	8-7/8"	9-5/16"	4-1/2"
8	10-1/8"	10-5/8"	7"
9	11-3/8"	11-15/16"	7"
10	12-5/8"	13-1/4"	7"

**See drawing above

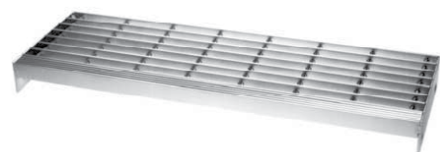
Stair Tread Weights (per lineal inch of tread length)

No. of Bearing Bars	Nosing	Bearing Bar Size					
		1/8" x 1"	1/8" x 1-1/4"	3/16" x 3/4"	3/16" x 1"	3/16" x 1-1/4"	3/16" x 1-1/2"
5	CP	.38	.41	.42	.48	.54	.59
	CIA	.48	.48	.54	.58	.63	.69
6	CP	.45	.49	.49	.57	.64	.71
	CIA	.55	.59	.62	.67	.74	.81
7	CP	.53	.57	.57	.66	.75	.84
	CIA	.63	.67	.70	.76	.85	.94
8	CP	.60	.65	.65	.75	.85	.96
	CIA	.70	.75	.79	.85	.95	1.06
9	CP	.67	.72	.73	.85	.96	1.08
	CIA	.77	.82	.88	.95	1.06	1.18
10	CP	.74	.80	.81	.94	1.07	1.20
	CIA	.84	.90	.95	1.04	1.17	1.30

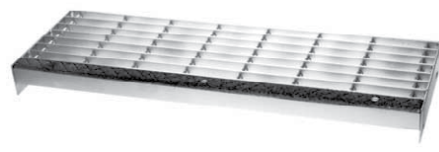
No. of Bearing Bars	Nosing	Bearing Bar Size					
		1/8" x 1"	1/8" x 1-1/4"	3/16" x 3/4"	3/16" x 1"	3/16" x 1-1/4"	3/16" x 1-1/2"
6	CP	.45	.49	.47	.55	.61	.68
	CIA	.55	.59	.57	.65	.71	.78
7	CP	.52	.57	.55	.63	.71	.80
	CIA	.61	.67	.64	.73	.81	.89
8	CP	.58	.64	.62	.72	.81	.91
	CIA	.68	.74	.72	.82	.91	1.01
9	CP	.65	.72	.69	.81	.91	1.02
	CIA	.75	.82	.79	.91	1.01	1.12
10	CP	.72	.80	.77	.90	1.01	1.14
	CIA	.82	.90	.86	.99	1.11	1.24
11	CP	.79	.88	.84	.98	1.11	1.25
	CIA	.89	.97	.94	1.08	1.21	1.35

“ Steel grating for stair treads

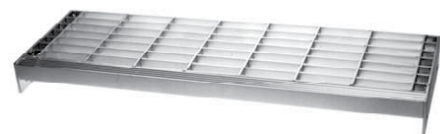
Aluminum / Rectangular Bar Swage-Locked & Press-Locked



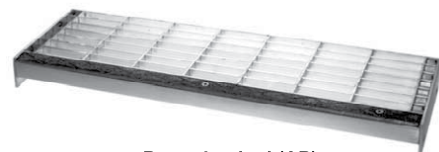
Swage-Locked
Corrugated Aluminum Nosing (CORR) (SR)



Swage-Locked (SR)
Cast Aluminum Abrasive Nosing (CAA)



Press-Locked (AP)
Corrugated Aluminum Nosing (CORR)



Press-Locked (AP)
Cast Aluminum Abrasive Nosing (CAA)

Maximum Tread Lengths

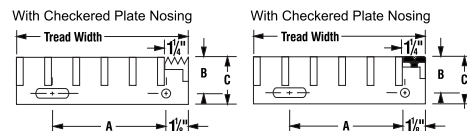
Bearing Bar Size	Bearing Bar Spacing			
	1-3/16" (19 space)		15/16" (15 space)	
	Plain	Serrated	Plain	Serrated
1" x 3/16"	2'-4"	1'-10"	2'-6"	2'-1"
1-1/4" x 3/16"	2'-10"	2'-4"	3'-1"	2'-6"
1-1/2" x 3/16"	3'-6"	2'-10"	3'-10"	3'-1"
1-3/4" x 3/16"	4'-3"	3'-6"	4'-8"	3'-10"

When tread length exceeds 5'-6", design tread for 300 lb. concentrated loads at 1/3 points. Maximum tread length based on 300 lb. concentrated load on front 5 in of tread at center of tread length and deflection limitation of 1/240 of length.

End Plate Dimensions

Grating Depth	"B" dimension	"C" dimension
up to 1-1/4"	1-3/4"	2-1/2"
*1-1/2" to 1-3/4"	2-1/4"	3"

See Tread Width and Bolt Hole Spacing for 'A' dimension.
* and all aluminum



Tread Width and Bolt Hole Spacing

19-W-4 and 19-P-4		
No. of Bearing Bars and Nosing	Bearing Bar	**Bolt Hole Spacing "A"
	3/16"	
	Tread Width	
5	6-3/16"	2-1/2"
6	7-3/8"	4-1/2"
7	8-9/16"	4-1/2"
8	9-3/4"	7"
9	10-15/16"	7"
10	12-1/8"	7"

**See drawing above.

15-W-4 and 15-P-4		
No. of Bearing Bars and Nosing	Bearing Bar	**Bolt Hole Spacing "A"
	3/16"	
	Tread Width	
6	6-1/8"	2-1/2"
7	7-1/16"	4-1/2"
8	8"	4-1/2"
9	8-15/16"	4-1/2"
10	9-7/8"	7"
11	10-13/16"	7"

**See drawing above.

Stair Tread Weights (per lineal inch of tread length)

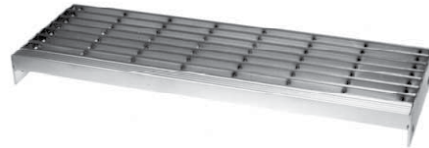
19-W-4 and 19-P-4					
No. of Bearing Bars and Nosing	Nosing	Bearing Bar			
		1" x 3/16"	1-1/4" x 3/16"	1-1/2" x 3/16"	1-3/4" x 3/16"
5	CORR	.13	.15	.18	.19
	CAA	.17	.19	.21	.23
6	CORR	.16	.18	.21	.23
	CAA	.19	.21	.24	.27
7	CORR	.18	.21	.24	.27
	CAA	.22	.24	.28	.30
8	CORR	.21	.23	.28	.31
	CAA	.24	.27	.31	.34
9	CORR	.23	.27	.31	.35
	CAA	.26	.30	.34	.38
10	CORR	.25	.30	.35	.39
	CAA	.29	.33	.38	.42

15-SR-4 and 15-AP-4					
No. of Bearing Bars and Nosing	Nosing	Bearing Bar			
		1" x 3/16"	1-1/4" x 3/16"	1-1/2" x 3/16"	1-3/4" x 3/16"
6	CORR	.15	.18	.20	.23
	CAA	.19	.21	.24	.26
7	CORR	.17	.20	.23	.26
	CAA	.21	.24	.27	.30
8	CORR	.20	.23	.27	.30
	CAA	.23	.26	.30	.33
9	CORR	.22	.26	.30	.34
	CAA	.25	.29	.33	.37
10	CORR	.24	.28	.33	.37
	CAA	.28	.32	.37	.41
11	CORR	.27	.31	.36	.41
	CAA	.30	.35	.40	.44

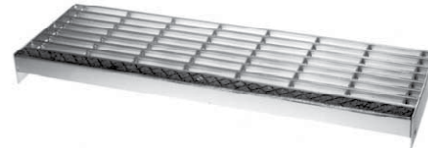
“ Steel grating for stair treads



Aluminum / I-Bar Swage-Lock



Swage-Locked (SI)
Corrugated Aluminum Nosing (CORR)



Swage-Locked (SI)
Cast Aluminum Abrasive Nosing (CAA)

Maximum Tread Lengths

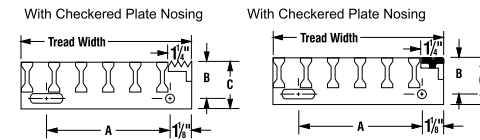
Bearing Bar Size	Bearing Bar Spacing	
	1-3/16" (19 space)	15/16" (15 space)
1" x 1/4"	2'-4"	2'-6"
1-1/4" x 1/4"	2'-10"	3'-1"
1-1/2" x 1/4"	3'-6"	3'-10"
1-3/4" x 1/4"	4'-3"	4'-8"

When tread length exceeds 5'-6", design tread for 300 lb. concentrated loads at 1/3 points. Maximum tread length based on 300 lb. concentrated load on front 5 in of tread at center of tread length and deflection limitation of 1/240 of length.

End Plate Dimensions

Grating Depth	"B" dimension	"C" dimension
up to 1-1/4"	1-3/4"	2-1/2"
*1-1/2" to 1-3/4"	2-1/4"	3"

See Tread Width and Bolt Hole Spacing for 'A' dimension.
* and all aluminum



Tread Width and Bolt Hole Spacing

No. of Bearing Bars and Nosing	Bearing Bar	
	1/4"	**Bolt Hole Spacing "A"
5	6-1/4"	2-1/2"
6	7-7/16"	4-1/2"
7	8-5/8"	4-1/2"
8	9-13/16"	7"
9	11"	7"
10	12-3/16"	7"

**See drawing above.

No. of Bearing Bars and Nosing	Bearing Bar	
	1/4"	**Bolt Hole Spacing "A"
6	6-3/16"	2-1/2"
7	7-1/8"	4-1/2"
8	8-1/16"	4-1/2"
9	9"	4-1/2"
10	9-15/16"	7"
11	10-7/8"	7"

**See drawing above.

Stair Tread Weights (per lineal inch of tread length)

19-SI-4 No. of Bearing Bars and Nosing	Nosing	Bearing Bar			
		1" x 1/4"	1-1/4" x 1/4"	1-1/2" x 1/4"	1-3/4" x 1/4"
5	CORR	.11	.13	.14	.15
	CAA	.15	.16	.18	.19
6	CORR	.13	.15	.17	.18
	CAA	.17	.18	.20	.22
7	CORR	.15	.17	.19	.21
	CAA	.19	.20	.23	.24
8	CORR	.17	.19	.22	.24
	CAA	.21	.23	.25	.27
9	CORR	.19	.21	.24	.27
	CAA	.23	.25	.28	.30
10	CORR	.21	.24	.27	.30
	CAA	.25	.27	.30	.33

15-SI-4 No. of Bearing Bars and Nosing	Nosing	Bearing Bar			
		1" x 1/4"	1-1/4" x 1/4"	1-1/2" x 1/4"	1-3/4" x 1/4"
6	CORR	.13	.14	.16	.18
	CAA	.16	.18	.20	.21
7	CORR	.15	.16	.19	.20
	CAA	.18	.20	.22	.24
8	CORR	.16	.18	.21	.23
	CAA	.20	.22	.24	.26
9	CORR	.18	.21	.23	.26
	CAA	.22	.24	.27	.29
10	CORR	.20	.23	.26	.28
	CAA	.23	.26	.29	.32
11	CORR	.22	.25	.28	.31
	CAA	.25	.28	.32	.35

“ Steel grating for drainage trench box grates

The **box grate** includes several types with different accessory and structure, you can refer to it and find the perfect one. If you have any other drawings, we can customize as your requirement.



Drainage trench box grates without hinge connection.



Drainage trench box grate with handles.



Hinged drainage trench box grate with cross bar.



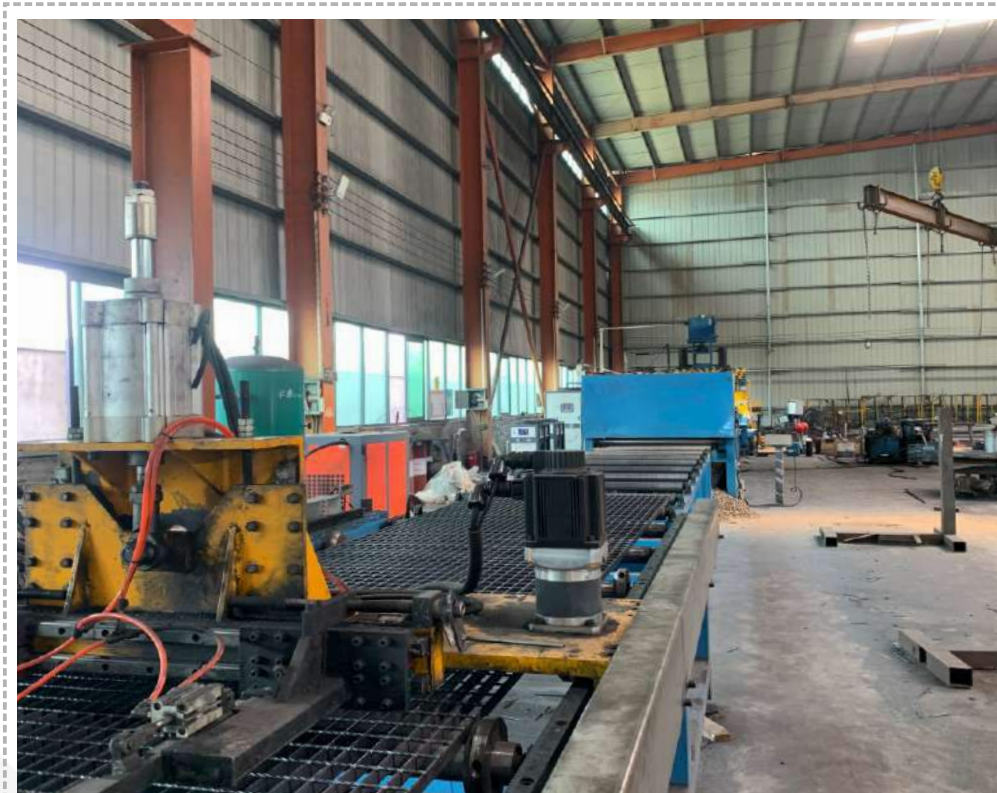
Drainage trench box grate with supporting bars.



Our Manufacturing Equipment

Corporation Offers You Best Steel Gratings

“ Manufacturing Equipment





What services can we do for you?

Corporation Offers You Best Steel Gratings

“ Strict Inspections during Production and Before Delivery



With the development of enterprise system, we set up a series of steel grating inspections for quality control during production. Additional, we will re-inspect the products before delivery to ensure all the products are qualified and perfect in condition when our customers receive them. Inspection items are as follows:

- Appearance inspection
- Sizing inspection
- Performance inspection
- Package inspection
- Label inspection
- Quality certification inspection



“ Strict Inspections during Production and Before Delivery



● Appearance inspection

All the steel grating will be inspected one by one to ensure the smooth and integrated surface and appearance. If there are some defects, they will be selected and replaced by qualified products.

● Sizing inspection

No matter the sheet thickness, bearing bar size and cross bar size or the whole size of width, length and height, they will be inspected with meter rulers, vernier caliper, micrometer and other professional measurement tools. All the sizes must accord with the tolerance of International Standards and customers' requirements.

● Performance inspection

The steel grating will be sampling inspected about the load performance according to customers' requirements and International standards. And the test report will be delivered along with the steel bar goods

● Appearance inspection

Steel grating is commonly packed in steel belt or it is packed in wooden or metal pallet. Quantity and weight of each package should be according to the particular situation and customers' requirements. All the package should be firm and rigid to withstand the high impact during transportation.

“ Strict Inspections during Production and Before Delivery

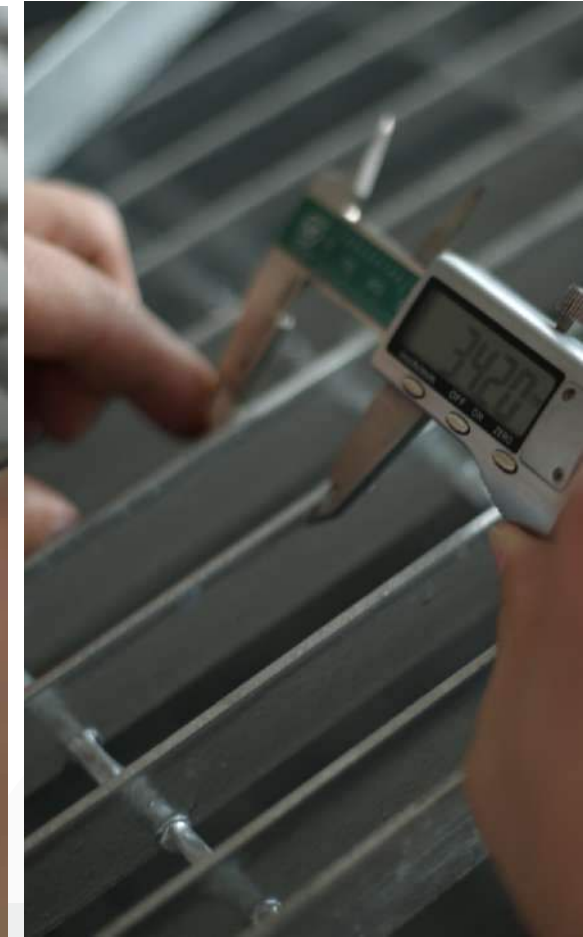
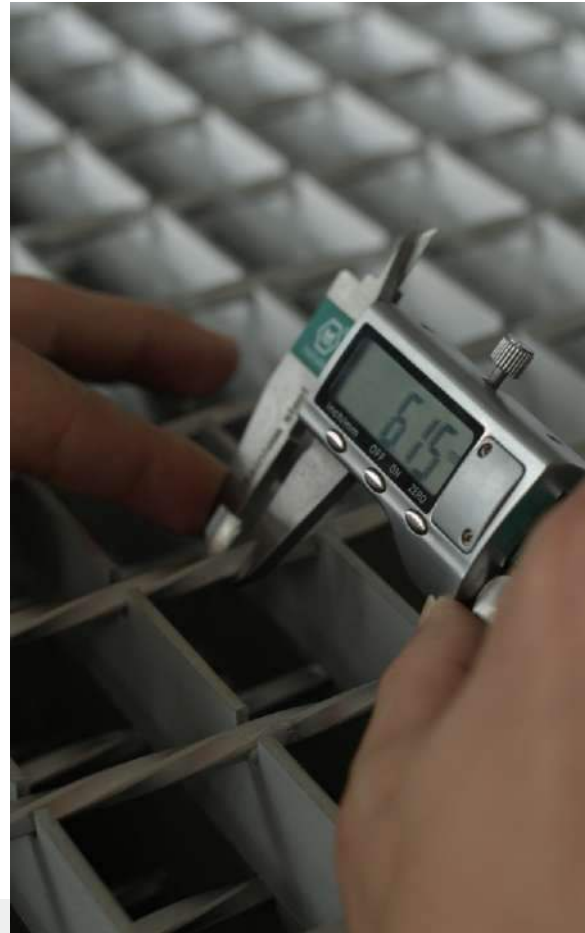


● Label inspection

Steel grating is commonly packed in steel belt or it is packed in wooden or metal pallet. Quantity and weight of each package should be according to the particular situation and customers' requirements. All the package should be firm and rigid to withstand the high impact during transportation.

● Quality certification inspection

Quality certification will be delivered along with the products. The certification will contain inspection results, including appearance and performance inspection. Additional, the mill certification of raw materials can be delivered at the same time according to customers' requirements.





TIPS FOR CHOOSING PROPER STEEL GRATING

Corporation Offers You Best Steel Gratings

“ Tips for choosing proper steel grating



- **Material**

Steel grating can be made of different materials including carbon steel, aluminum steel and stainless steel. The different materials have their own characteristics and they are applied to different applications.

- **Surface type**

We offer steel grating with smooth surface and serrated surface. Steel grating with serrated surface is widely used as walkways or outdoor stair treads for its perfect anti-slide effect.

- **Packaging method**

We can offer strap packaging, pallet packaging or screw rod fixation for your reference. Generally, we adopt the method of strap packaging combined with pallet packaging.

- **Specific application**

If you want to purchase the steel grating for special or specific uses, you can browse our specific product page. If you have any questions, please contact us on the line, and our related staff will provide you with free consultation service



Thank You!


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