

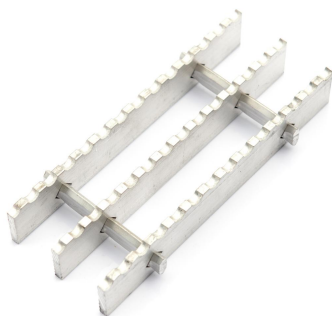
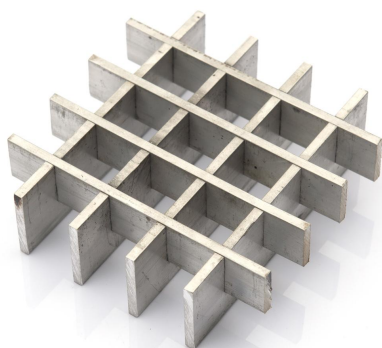


KINDHOLD  
NEW MATERIAL



# Metal Grating & Fastener

KIND HOLD NEW MATERIAL PRODUCT CATALOG



## CATALOG

Shandong Kind Hold New Material Co., Ltd.



# KIND HOLD NEW MATERIAL

3	About Kindhold
4	Kindhold Cases
5	Production Capacity
6	Testing Machinery
8	Quality Control
9	Aluminum Gratings
22	Steel Gratings
33	Installation
34	Kindhold Direct Fastening System
36	Loading Tables

# ABOUT KIND HOLD



Unlock the potential of your construction projects with our Metal Bar Grating and Fastener, where strength and precision converge to create structures that stand the test of time, ensuring safety and reliability at every step.



- › Founded in 2017.
- › Impeccable quality control system implemented throughout our production line guarantees superior products.
- › Our standardized production adheres to the ISO 9001 International standard, ensuring consistent excellence.
- › Choose from a diverse selection of steel grating options, tailored to meet your specific requirements.
- › Our state-of-the-art equipment enables efficient production and prompt delivery.
- › We are driven by a relentless commitment to innovation and rigorous standards, propelling us to the forefront of the industry.

As a leading steel grating supplier in China, Shandong Kind Hold New Material Co., Ltd. specializes in the manufacturing and global export of welded steel gratings and press-locked steel gratings.

With an extensive range of over 20 welding machines and a dedicated team of over 50 skilled staff members, we ensure optimal production efficiency and minimal loss.

Our commitment to continuous improvement is evident through our research and development department, consisting of more than 10 experts. They tirelessly work to develop new products that align with customer requirements and market trends.





# KIND HOLD CASES

Discover our extensive portfolio of successful project case studies, showcasing our expertise, responsibility, excellent communication, one-stop service, and sparking collaboration desires.

**Professionalism:** Our track record is a testament to our professional approach in executing diverse projects across various industries. With deep industry knowledge and experience, we deliver exceptional results that meet and exceed client expectations.

**Responsibility:** We take our commitments seriously, ensuring that every project is handled with the utmost responsibility. From project planning to execution, we prioritize safety, quality, and timely delivery, earning the trust and satisfaction of our clients.

**Seamless Communication:** Effective communication is at the heart of our operations. We foster transparent and open dialogue with our clients, actively listening to their needs, concerns, and feedback. Our dedicated project managers ensure smooth coordination and timely updates throughout the entire project lifecycle.

**One-Stop Service:** Simplify your project journey with our comprehensive one-stop service. From initial concept and design to procurement, construction, and post-project support, we provide end-to-end solutions that save time, effort, and resources. Experience the convenience of having all your project needs met under one roof.

**Collaboration Catalyst:** Our impressive project portfolio inspires collaboration. Witness the successful partnerships we have established with esteemed clients, as we work hand in hand to achieve remarkable outcomes. Join our network of satisfied collaborators and unlock the potential for mutually beneficial ventures.

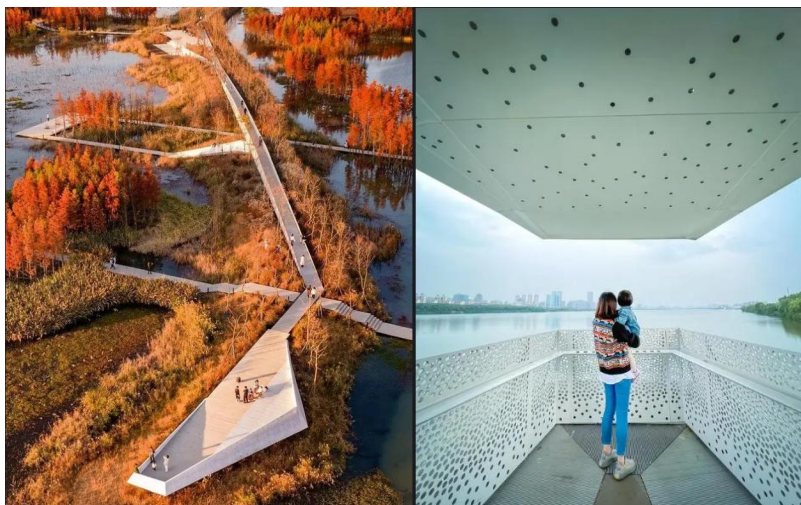
Explore our project case studies and let them ignite the desire for a productive partnership. Trust in our professionalism, responsibility, seamless communication, and comprehensive service as we bring your vision to life. Together, we can achieve great things.



Chengdu Sancha Lake Viewing platform



The Rooftop Observation Deck of the East Wing of Shanghai Library



Nanchang Yuweizhou Wetland Park Boardwalk

# PRODUCTION CAPACITY

**Aluminum Bar Grating: 18000m<sup>2</sup>/month**

**Welded Bar Grating: 12000 pcs/month**

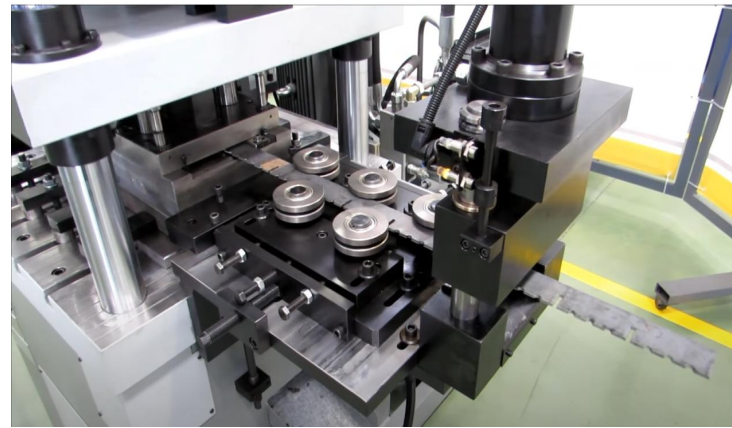
**Press Bar Grating: 10000 pcs/month**

**Stair Tread: 9000 pcs/month**

**Drainage Cover: 6000 pcs/month**

## Precise Plate Cutting for Efficient Processing

Our Plate Cutting services provide precise and efficient cutting solutions for various materials. With advanced techniques and equipment, we ensure accuracy and versatility to meet your specific needs. Experience the speed, quality, and reliability of our Plate Cutting services for your projects.



## Strong and Reliable Welding Solutions

Experience the power of our professional welding services. Our skilled welders deliver strong and durable connections for various applications. Trust us for high-quality welding that exceeds your expectations.

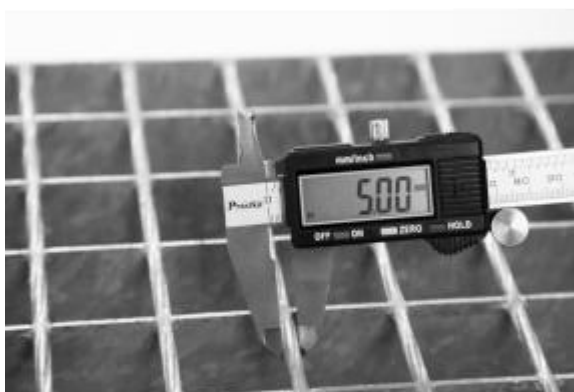
## Hot Dipped Galvanized: Protection and Durability

Benefit from the superior protection and durability of our hot-dipped galvanized products. With a specialized coating process, our galvanized items are shielded from corrosion, ensuring long-lasting performance even in harsh environments. Trust our hot-dipped galvanized solutions for reliable and resilient results.





# TESTING MACHINERY



## Step 1

Raw Material  
(plate)



## Step 3

Plate Cutting

Step 1

Step 2

Step 3

Step 4



## Step 2

Raw Material (wire)



## Step 4

Wire Straightening  
& Cutting



## Step 5

Steel Grating  
Welding



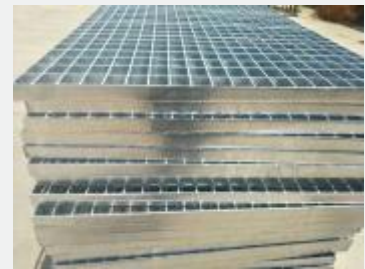
## Step 7

Standard Steel  
Grating Cutting



## Step 10

Inspection



## Step 11

Finished



## Step 6

Edge Cutting



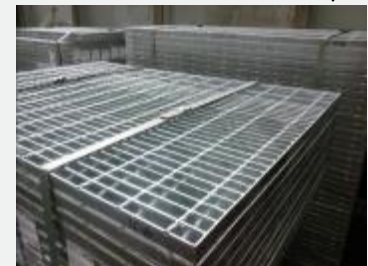
## Step 8

Edge Banding



## Step 9

Surface Treatment  
(Galvanized)



## Step 12

Packaging &  
Storage

Step 5

Step 6

Step 7

Step 8

Step 9

Step 10

Step 11

Step 12

# QUALITY CONTROL



As part of our evolving enterprise system, we have implemented a comprehensive steel grating inspection process to ensure top-notch quality control throughout production. Furthermore, we conduct a thorough re-inspection before delivery, guaranteeing that our customers receive flawless and qualified products. Our meticulous inspection covers the following key items:



Appearance inspection



Bearing bar size inspection



Angle bar size inspection



Package inspection

**Dimensional Accuracy:** Precise measurements are crucial, and our inspection verifies that each steel grating meets the required dimensional specifications.

**Material Quality:** We thoroughly examine the materials used in the production of our steel gratings, ensuring they meet our stringent quality standards for strength, durability, and corrosion resistance.

**Welding Integrity:** Our inspection focuses on the welding joints to confirm their integrity and structural soundness, guaranteeing the robustness and reliability of our steel gratings.

**Surface Finish:** We pay close attention to the surface finish of our products, ensuring a smooth, uniform, and visually appealing appearance.

**Load-Bearing Capacity:** Our inspection includes testing the load-bearing capacity of the steel gratings, verifying their ability to withstand intended loads and perform safely in their intended applications.

**Packaging and Delivery:** We inspect the packaging process to ensure that our products are securely packaged, minimizing the risk of damage during transportation and ensuring they arrive in perfect condition.

**By implementing rigorous inspection procedures, we strive to deliver steel gratings of exceptional quality and reliability. Trust in our commitment to meticulous quality control as we provide you with products that meet and exceed your expectations.**



# ALUMINUM GRATINGS OF KIND HOLD

Swaged aluminum grating finds extensive application in a wide range of industrial and commercial settings. This type of grating is assembled by securely attaching cross bars to bearing bars through a high hydraulic pressure swaging process. The result is a finished product that offers both functional durability and appealing aesthetics.

Aluminum grating is highly sought after due to its remarkable characteristics. It is lightweight, making it easy to handle and install, while still offering excellent strength. Additionally, aluminum is corrosion-free, ensuring long-lasting performance even in challenging environments.

Choose swaged aluminum grating as a reliable and attractive alternative for your industrial and commercial needs. Experience the benefits of its lightweight construction, impressive strength, and resistance to corrosion.

## BENEFITS

Benefits of Aluminum Gratings:

**Lightweight:** Aluminum gratings are significantly lighter than traditional steel gratings, making them easier to handle, install, and transport. This reduces labor costs and simplifies the overall construction process.

**High Strength-to-Weight Ratio:** Despite their lightweight nature, aluminum gratings offer exceptional strength and load-bearing capacity. They can withstand heavy loads while maintaining structural integrity.

**Corrosion Resistance:** Aluminum is inherently corrosion-resistant, making aluminum gratings an ideal choice for applications in corrosive environments or areas exposed to moisture, chemicals, or saltwater. They require minimal maintenance and have a longer lifespan compared to other materials.

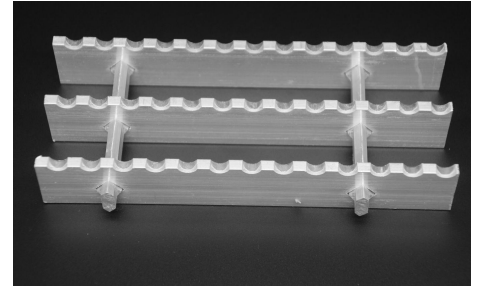
**Non-Magnetic and Non-Sparking:** Aluminum gratings are non-magnetic and non-sparking, making them suitable for use in industries where magnetic interference or sparks could pose safety risks.

**Aesthetic Appeal:** Aluminum gratings have a sleek and modern appearance, enhancing the visual appeal of architectural and decorative applications. They can be an attractive addition to both indoor and outdoor spaces.

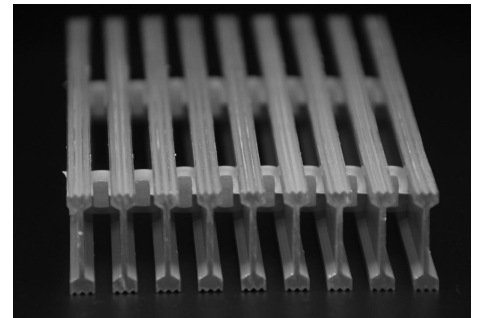
**Versatility:** Aluminum gratings are available in a variety of designs, including swaged, pressure-locked, and welded options, offering versatility to meet different project requirements. They can be customized to fit specific applications and architectural designs.

**Easy Maintenance:** Aluminum gratings require minimal maintenance due to their resistance to corrosion. Regular cleaning and occasional inspection are typically sufficient to keep them in optimal condition.

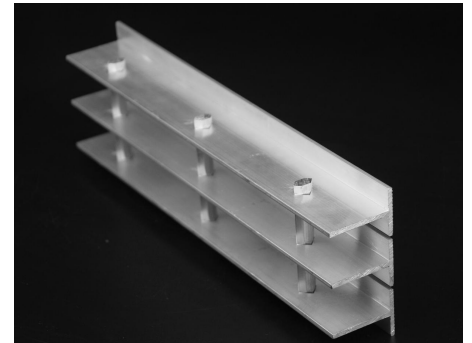
Consider the benefits of aluminum gratings, such as their lightweight nature, high strength-to-weight ratio, corrosion resistance, non-magnetic properties, aesthetic appeal, versatility, and ease of maintenance. These qualities make them a reliable choice for a wide range of industrial, commercial, and architectural applications.



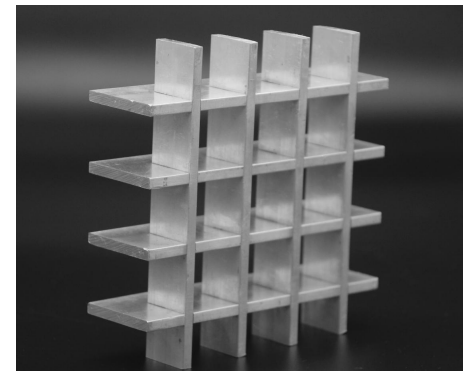
SG SERIES



SGI SERIES



SGT SERIES



DOVE TAIL

# ALUMINUM RECTANGULAR BAR



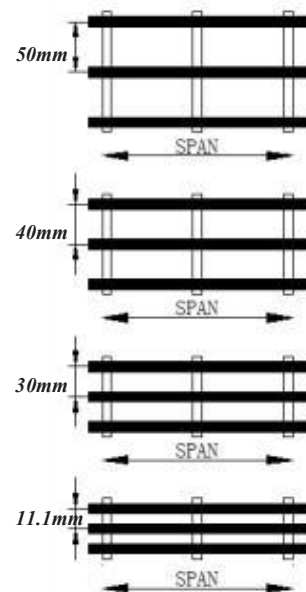
## SG SERIES

The most widely used aluminum Pressure locked grating is the rectangular Bar SG series. The square crossbars are inserted through punched holes in the rectangular load bars, then permanently locked into place by swaging. Recessed crossbars provide clean, crisp lines, while the advanced swaging process eliminates the need for welding to form the panels, allowing for variety of spacing. Its aesthetic appeal and ability to meet tight tolerances make this grating ideal for architectural applications.

### GRATING PROFILES AVAILABLE...

#### SG SERIES Aluminum Rectangular Bar

All profiles shown below are also available with 50mm or 100mm cross bar centers.





# ALUMINUM I- BAR GRATING



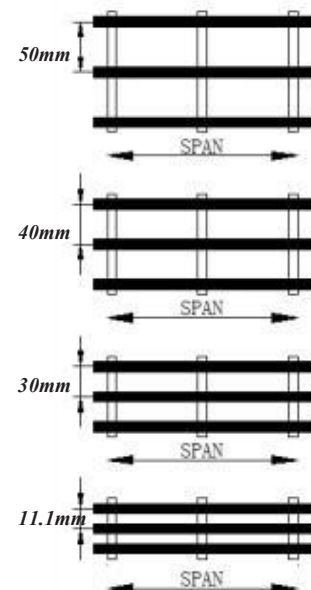
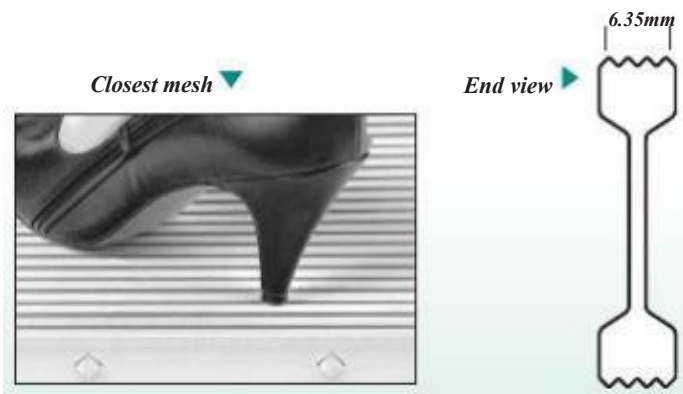
## SGI SERIES

The I-Bar SGI Series offers a popular and reasonably priced alternative to rectangular bar grating. I-Bar is an attractive and reasonably priced alternative to rectangular bar grating. Extruded I- Bar sections have a similar load carrying capacity, with less weight per square metre, than rectangular bars.

### GRATING PROFILES AVAILABLE...

#### SGI SERIES Aluminum Rectangular Bar

All profiles shown below are also available with 50mm or 100mm cross bar centers.





# ALUMINUM T- BAR GRATING



## SGT SERIES

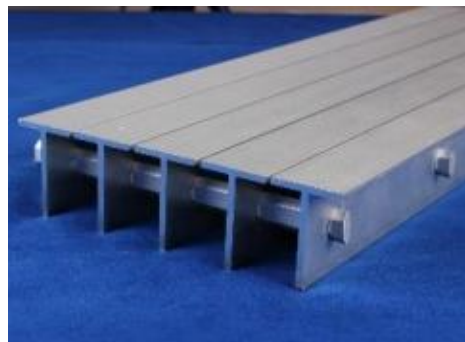
The T-bar grating manufactured with extruded T shaped bearing bars has larger supporting area for extra underfoot comfort and striated surface for added slip resistance. We offer a variety of spacings including those that conform to the “Americans with Disabilities Act” .

### Metal Grating Floor Types Available:

Flat surface T-bar grating with max length of

7500mm & max width 1200mm

Other sizes according to customers' requirements



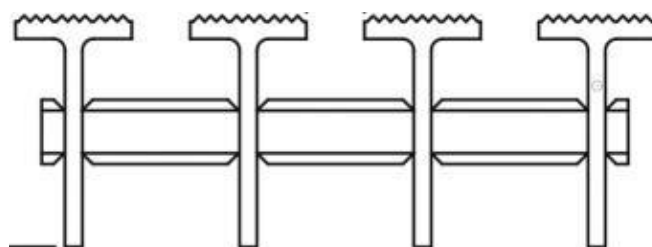
### Aluminum Floor Grating Finishes available:

Mill Finish

Clear Anodizing

Powder Coating

*Section view*



# ALUMINUM FLUSH TOP



## SGF SERIES

Maximum walking surface, cosmetic appeal, economy of shop Fabrication and ease of field alteration make the Aluminum Flush Top series the premier choice when pressure locked aluminum grating is being specified. This series offers a type of pressure locked grating in which the cross bars are in the same plane relative to the top surface of the grating.

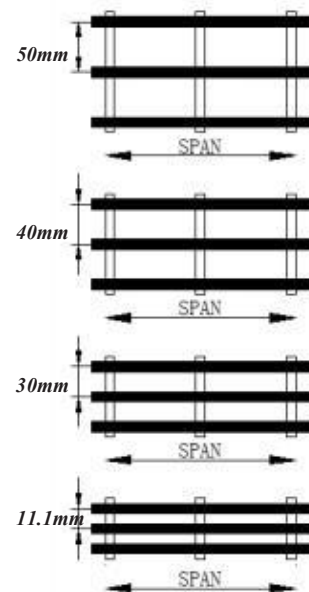
It is ideal for chemical plants, water treatment plants, bottling plants, breweries, food preparation plants and many other applications. It is also non-sparking for use in volatile areas. May be ordered with either serrated or regular bearing bars.



### GRATING PROFILES AVAILABLE...

#### SGF SERIES Aluminum Rectangular Bar

All profiles shown below are also available with 50mm or 100mm cross bar centers.



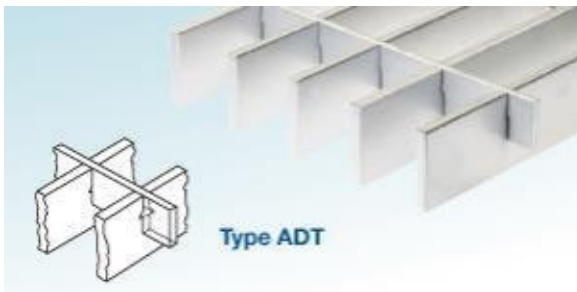


# ALUMINUM DOVE TAIL



## ADT SERIES

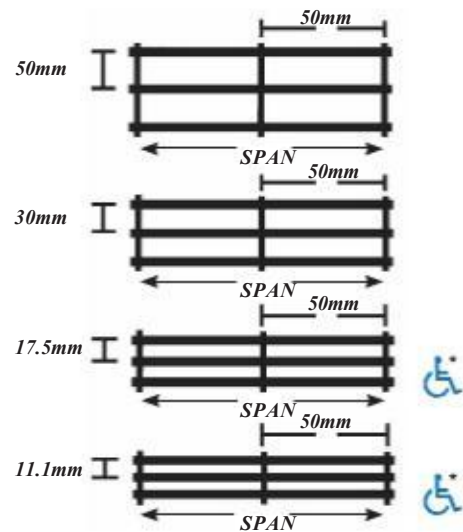
Type "ADT" aluminum gratings have deep rectangular cross bars and are manufactured by inserting pre-punched bearing bars and cross bars into an "egg-crate" configuration and deforming the cross bars under intense hydraulic pressure. The deep cross bars on type "ADT" gratings make them popular for architectural applications such as sun shades and infill panels with the deeper cross bar serving as a distinct visual accent.



### GRATING PROFILES AVAILABLE...

#### ADT SERIES Aluminum Rectangular Bar

All profiles shown below are also available with 50mm or 100mm cross bar centers.



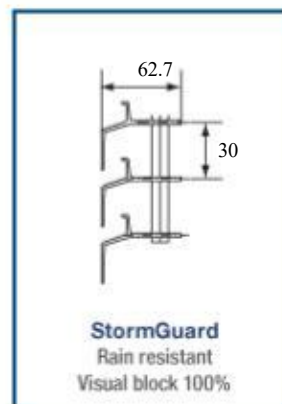
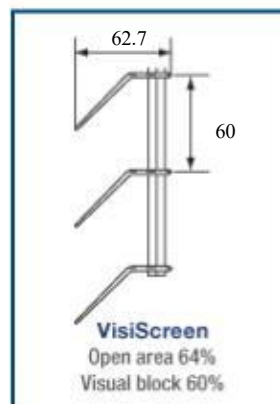
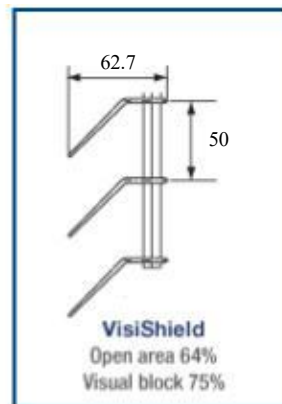
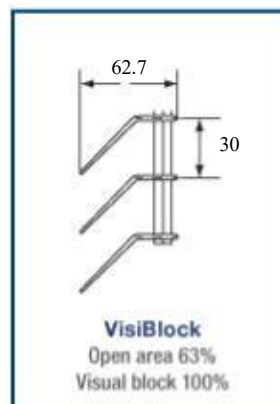
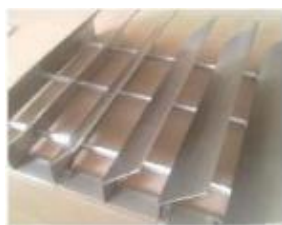


# Sunscreen Louver

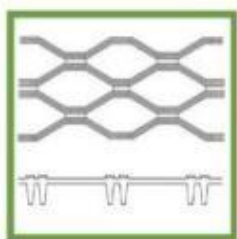


## ASL SERIES

Manufactured from aluminum extrusions, ASL series Sunscreen Louver is designed to offer an economical solution for architectural applications. Available in four popular patterns with total or partial visual concealment, all ASL series products offer a minimum 63% open air flow. Popular applications include sunscreens, visual barriers, security systems, and fencing.

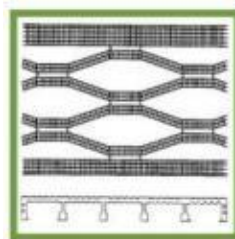


# SAFETY WALKWAY



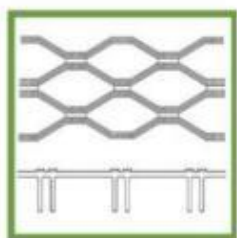
## AWG13600 13 Load Bar Grating

Length 6000mm (+50-0)  
Width 600mm ( $\pm 3$ )  
Depth 13mm  
Weight 26.778kg (7.438kg/m)



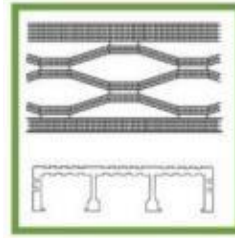
## AWG30500 30 Load Bar Grating

Length 6000mm (+50-0)  
Width 500mm ( $\pm 3$ )  
Depth 30mm  
Weight 46.752kg (15.584kg/m)



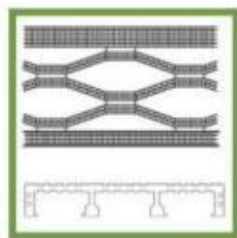
## AWG22600 22 Load Bar Grating

Length 6000mm (+50-0)  
Width 600mm ( $\pm 3$ )  
Depth 22mm  
Weight 33.726kg (9.368kg/m)



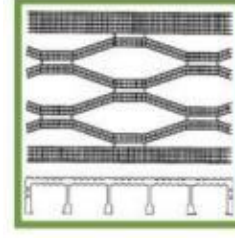
## AWG40250 40 Load Bar Grating

Length 6000mm (+50-0)  
Width 250mm ( $\pm 3$ )  
Depth 40mm  
Weight 30.36kg (20.248kg/m)



## AWG30250 30 Load Bar Grating

Length 6000mm (+50-0)  
Width 250mm ( $\pm 3$ )  
Depth 30mm  
Weight 27.228kg (18.152kg/m)

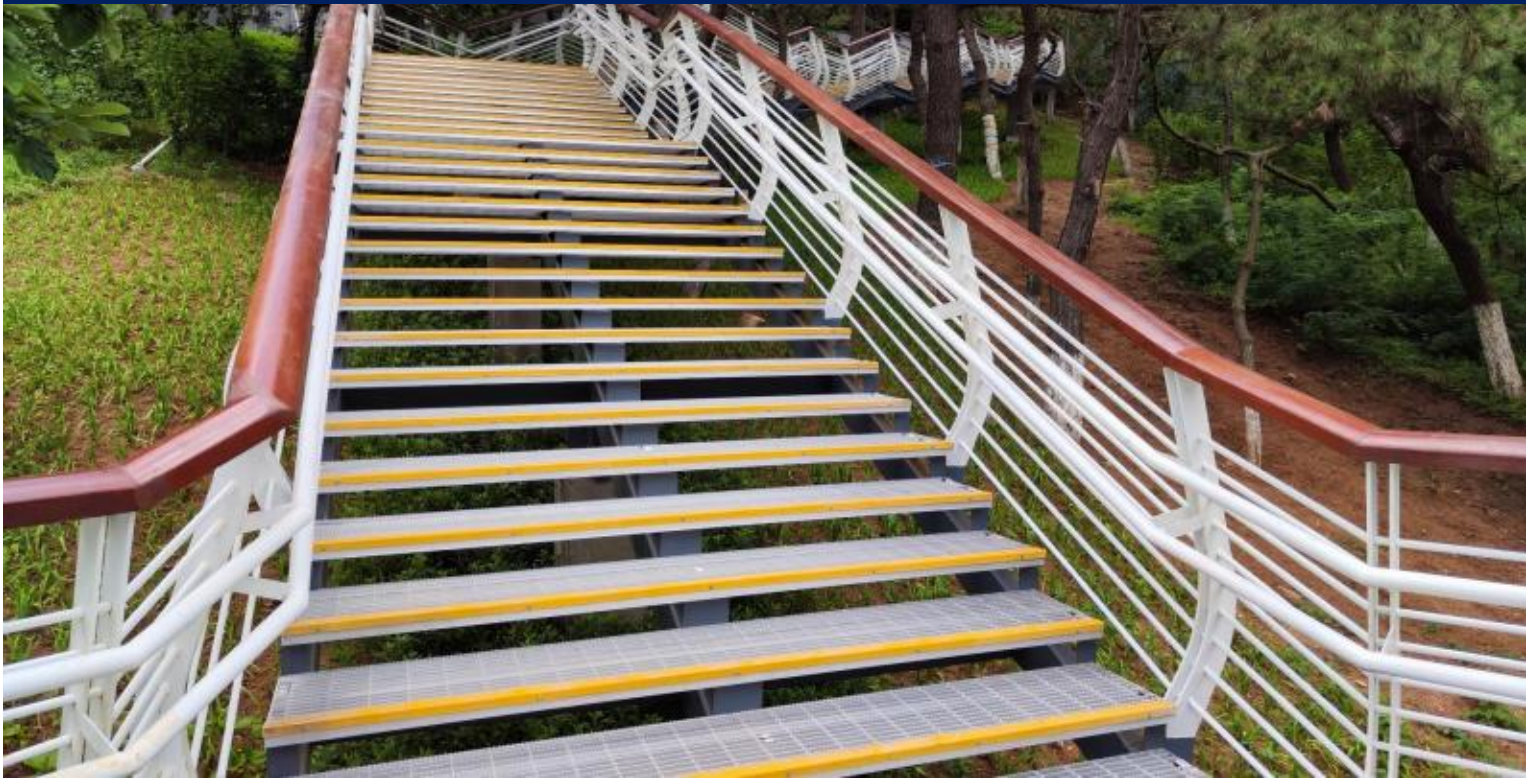


## AWG40500 40 Load Bar Grating

Length 6000mm (+50-0)  
Width 500mm ( $\pm 3$ )  
Depth 40mm  
Weight 51.774kg (17.258kg/m)

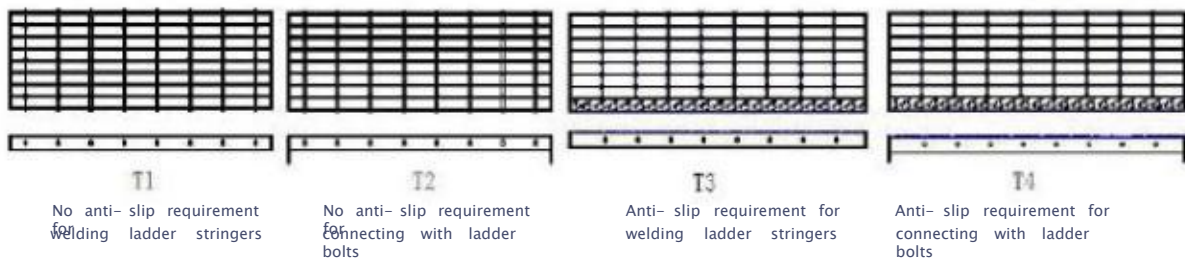


# STAIR TREAD



## STAIR TREAD SERIES

Aluminum grating stair treads are available fabricated to any size in type "SG", "SGI" swage locked, type "ADT" aluminum dovetail pressure locked or type "SGF" aluminum flush-top construction. Treads are manufactured with a defined visible nosing and pre-punched end carrier plates or angles, ready for bolting to the stair stringers.





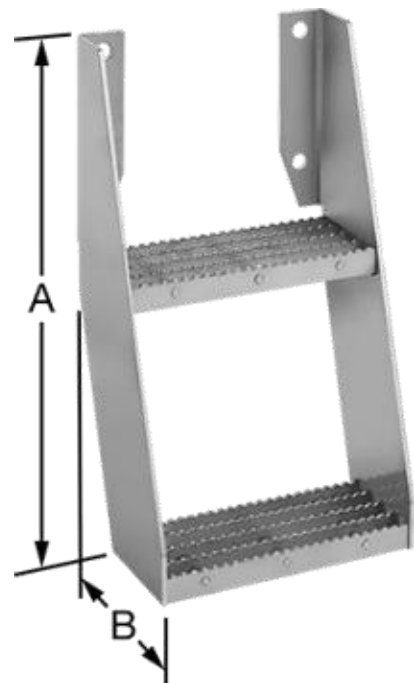
# STAIRS



## Wall- Mount Stairs SERIES

Universal 4-bolt mounting pattern allows installation in a location that best suits your application and vehicle.

More Than Just Parts: From snow and ice equipment to toolboxes, hydraulics, towing, truck and trailer hardware to our innovative lighting products-it's amazing what Buyers Products can do for your truck. We Do Things The Right Way: We design products like we're building them for ourselves, because we are; Our teams are staffed with engineers and experts who know how to make a product exceptional.



# ROLLING PLATFORM LADDERS



## Wall- Mount Stairs SERIES

Our rolling platform ladders are perfect for use in the warehouse, stock room, or general plant maintenance. Available 20" x 21" embossed non-skid platform.

Also the back handrails can be removed for use as a pass through stand.

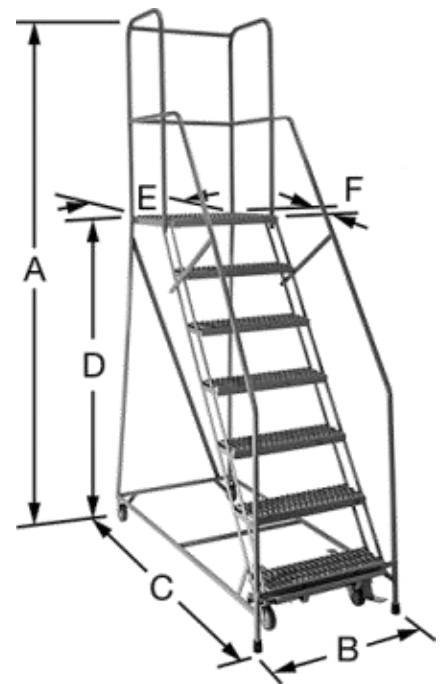
6000 series aluminum provides light weight and durability.

Back handrail may be removed for use as a pass through stand.

Standard retractable casters for ease of moving and positioning the ladder.

Shipped knocked down...quickly and easily assembled.

Heavy duty slip resistance material used at all floor contacts.





# Lite- Rail<sup>®</sup> Pipe Railing System

## Components guide



**90° Tee**

	CAST ALUMINUM
Schedule 40	LR155
Schedule 40 (case of 144)	LR155CS
Schedule 80	LR158



**Acute Angle Tee**

Schedule	Angle Range	CAST ALUMINUM
Schedule 40	3° - 5°	LR173.4
Schedule 40	17° - 19°	LR173.18
Schedule 40	28° - 30°	LR173.29
Schedule 40	31° - 33°	LR173.32
Schedule 40	34° - 36°	LR173.35
Schedule 40	37° - 39°	LR173.38
Schedule 80	17° - 19°	LR178.18
Schedule 80	31° - 33°	LR178.32
Schedule 80	34° - 36°	LR178.35



**Obtuse Angle Tee**

Schedule	Angle Range	CAST ALUMINUM
Schedule 40	3° - 5°	LR174.4
Schedule 40	17° - 19°	LR174.18
Schedule 40	28° - 30°	LR174.29
Schedule 40	31° - 33°	LR174.32
Schedule 40	34° - 36°	LR174.35
Schedule 40	37° - 39°	LR174.38
Schedule 80	28° - 30°	LR179.29
Schedule 80	31° - 33°	LR179.32
Schedule 80	34° - 36°	LR179.35



**90° Corner Tee (set of two)**

	CAST ALUMINUM
Schedule 40	LR159



**Adjustable Obtuse Angle Tee**

May be adjusted to stair or ramp angle as needed. Contains *Tee* and *Trunion Fittings* and *Hardware*.

	CAST ALUMINUM
Schedule 40	LR172



**Adjustable Acute Angle Tee**

May be adjusted to stair or ramp angle as needed. Minimum angle is 10°. Maximum angle is 45°. Contains *Tee* and *Trunion Fittings* and *Hardware*.

	CAST ALUMINUM
Schedule 40	LR171

Minimum Angle is 10°. Maximum Angle is 45°.



**End Cap**

	CAST ALUMINUM
Schedule 40	LR162
Schedule 80	LR165

For other available *End Caps*, go to pages 67 - 69



**Cross**

	CAST ALUMINUM
Set of two LR155 90° Tees	LR157



**90° Elbow**

For other available *Elbows* and angles, go to pages 37 - 50.

	CAST ALUMINUM
Schedule 40	LR130



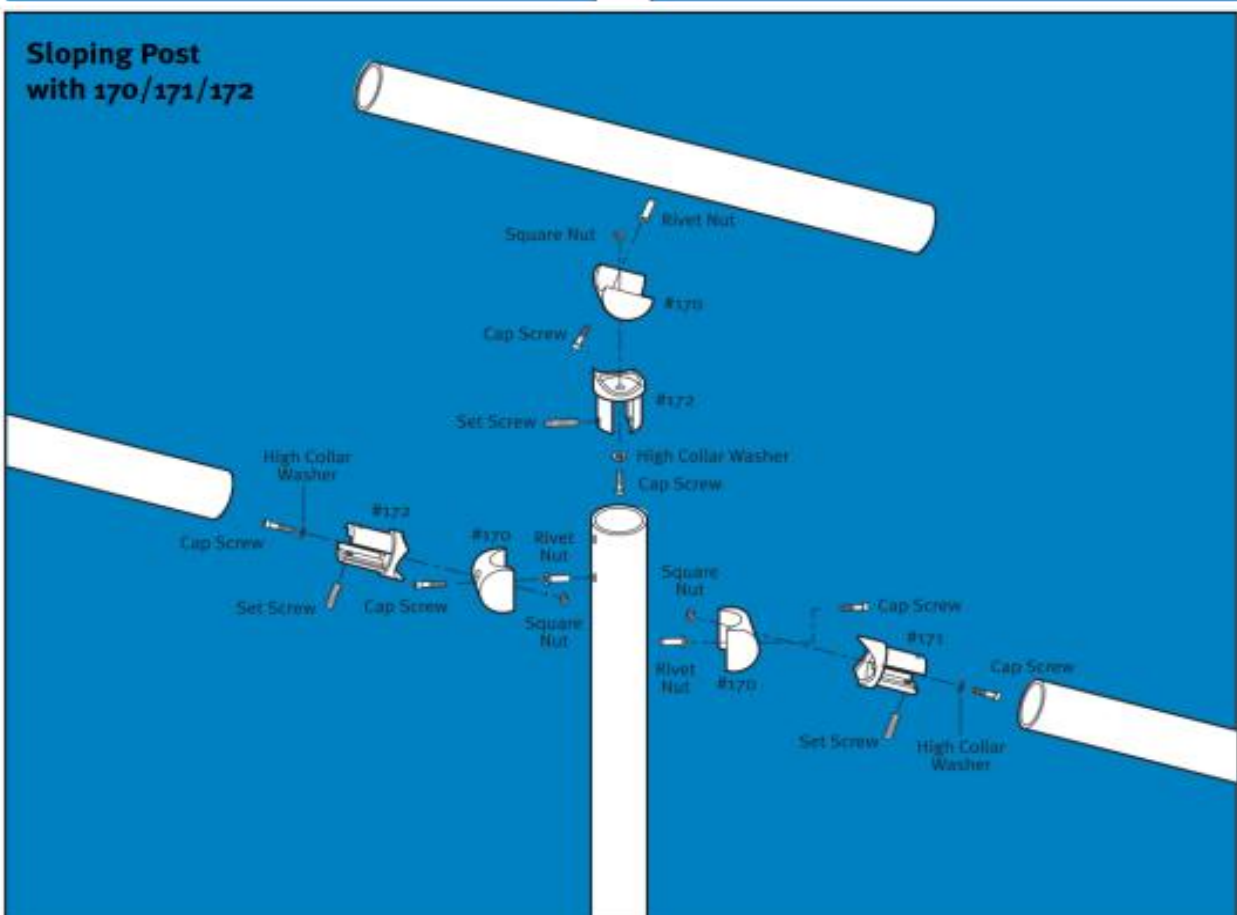
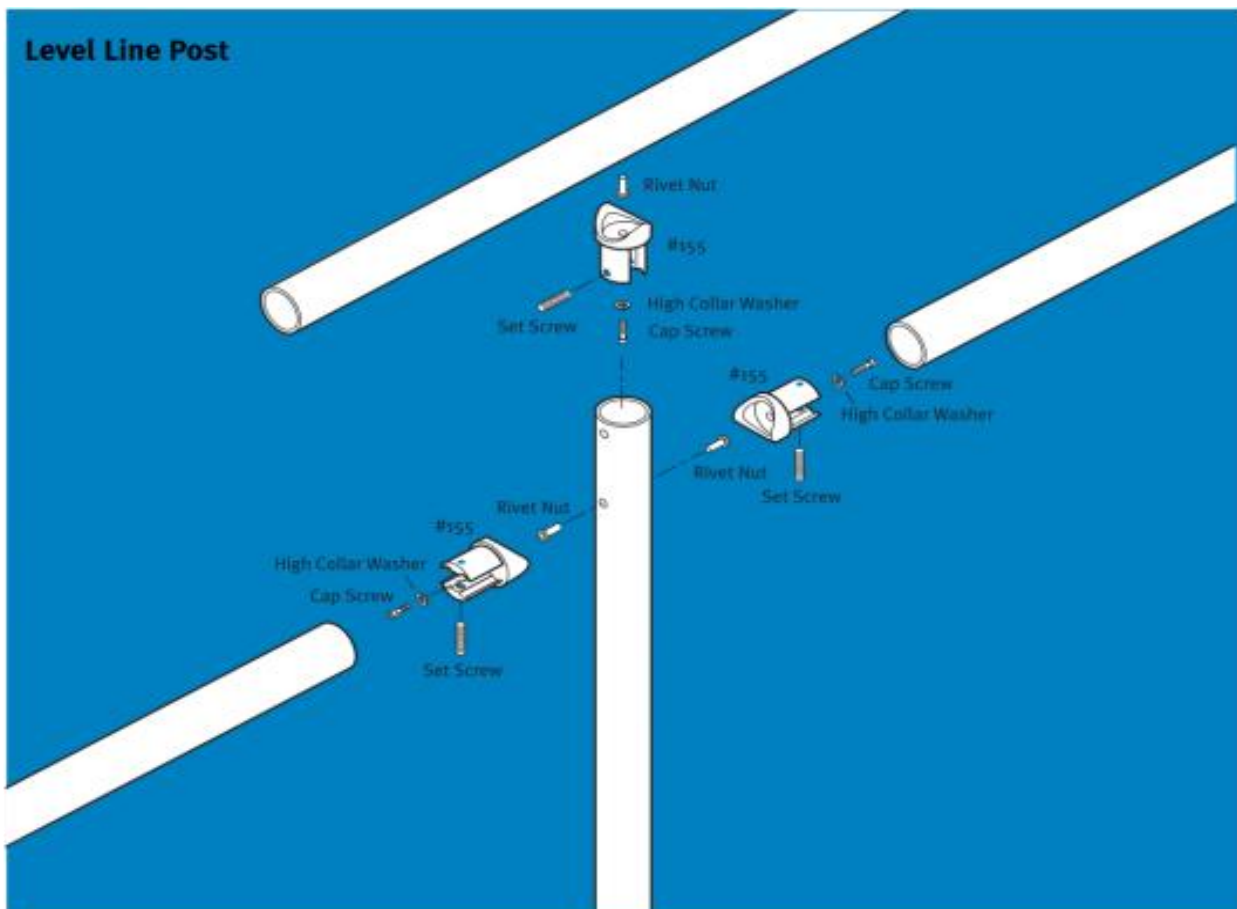
**90° Top Elbow**

	CAST ALUMINUM
Schedule 40	LR131T-B



# Lite- Rail<sup>®</sup> Pipe Railing System

## Post Assembly Details



# STEEL GRATINGS OF KIND HOLD

Steel grating is a versatile open grid assembly of metal bars, designed to support heavy loads while maintaining minimal weight. It consists of bearing bars, running in one direction, which are rigidly attached to cross bars or connected by bent bars. This unique structure allows for the transmission of air, light, and heat while providing exceptional strength.

With its remarkable load-bearing capacity, steel grating is suitable for a wide range of applications. It serves as flooring, catwalks, mezzanines/decking, stair treads, fencing, ramps, docks, trench covers, drainage pit covers, maintenance platforms, and pedestrian walkways in various settings such as factories, workshops, motor rooms, trolley channels, heavy loading areas, boiler equipment, and heavy equipment zones.

Whether accommodating light pedestrian traffic or withstanding the heaviest vehicular loads, steel grating is a reliable choice. Its robust construction ensures durability, making it an ideal solution for diverse industrial and commercial environments.

## BENEFITS

**Extensive Range of Bar Grating Alternatives:** We offer a wide selection of bar grating options, ensuring that you find the perfect solution to meet your specific requirements. Our products provide safety, durability, and functionality in all environments.

**Flexibility:** Our bar grating allows for efficient ventilation and the passage of light while offering exceptional strength. It provides versatile alternatives to support anything from light pedestrian traffic to the heaviest vehicular loads.

**Longevity:** When compared to other materials such as wood, plastic, and competing metal products, our bar grating excels in terms of longevity. It outlasts alternative options, ensuring a cost-effective and durable solution for your needs.

**Ease of Installation and Fabrication:** Our bar grating is designed to adapt to complex floor configurations and hard-to-fit areas. With ease of installation and fabrication, you can achieve a seamless integration of the grating into your project.

**Maintenance-Free:** The open areas in our bar grating design allow for excellent drainage, minimizing the accumulation of debris. This results in a maintenance-free solution that saves you time and effort in cleaning and upkeep.

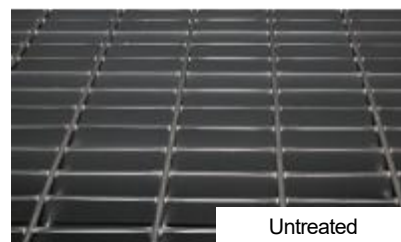
**Choose our bar grating solutions to experience the benefits of a diverse range of alternatives, flexibility, longevity, easy installation, and maintenance-free operation. Trust in our products to deliver exceptional performance in any environment.**



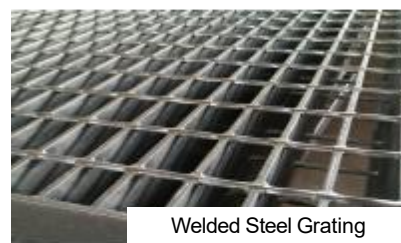
Galvanized



Painted



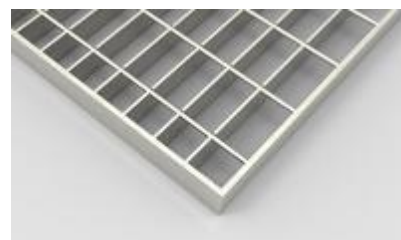
Untreated



Welded Steel Grating



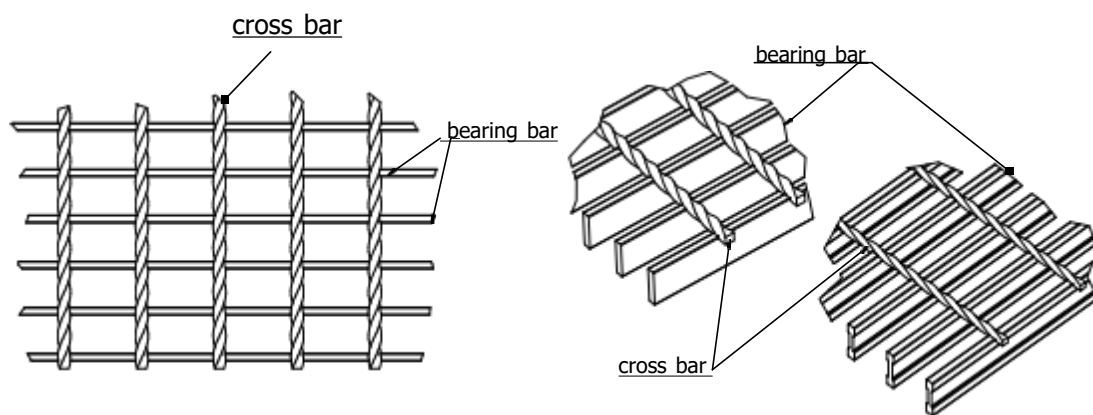
Press-Locked Steel Grating



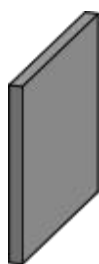


# WELDED STEEL GRATING

Welded steel grating is a versatile and popular choice in industrial settings. It offers a rugged, one-piece panel with rigid cross bars for safe walking. With options in stainless or low carbon steel, it provides anti-slip surfaces, corrosion resistance, good drainage, and high strength. It finds wide application in walkways, safety barriers, platforms, and more. Trust welded steel grating for durability and performance in various industrial environments.



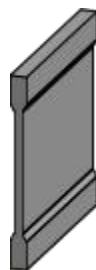
## BEARING BAR TYPE



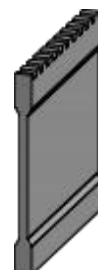
Flat Bar Type



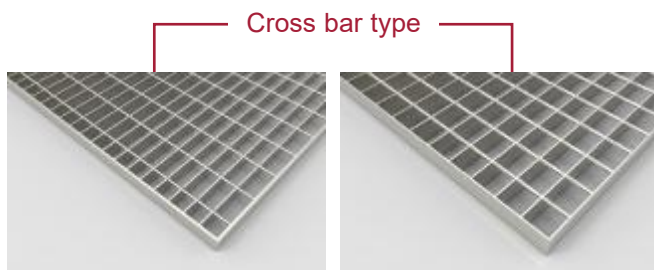
Serrated Type



I- Bar Type

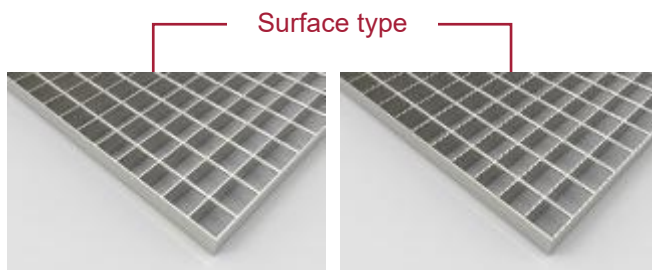


Serrated I- Bar Type



Round cross bar

Square twisted cross bar



Plain surface

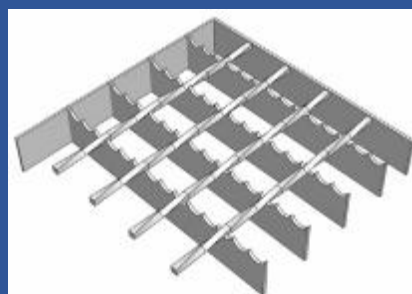
Serrated surface

## BENEFITS

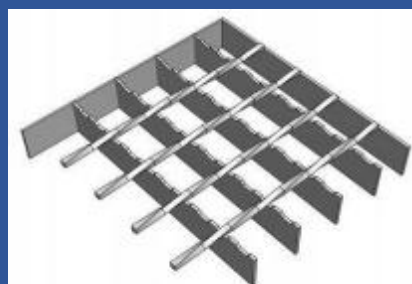
- › High strength and load capacity
- › Anti-slip surface
- › Corrosion resistance
- › Good drainage function
- › Easy to install and maintain

## SPECIFICATIONS (STANDARD)

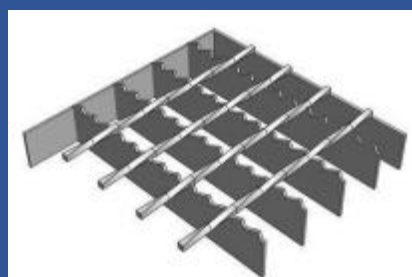
- › Material: carbon steel and stainless steel.
- › Surface treatment: galvanized, painted, untreated.
- › Surface type: standard plain surface, serrated surface.
- › Bearing bar type: flat bar and I-bar.
- › Cross bar type: round and square twisted cross bar.



SP/S1 sharp serrations

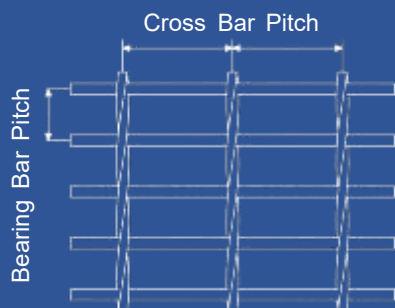


SP/S2 interrupted serrations



SP/S3 trapezoid serrations

## SPECIFICATION OF W-19 WELDED STEEL GRATING

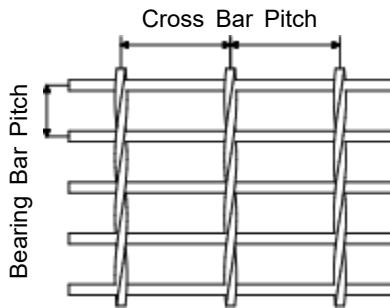


Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
SGW19-01	3/4" × 1/8"	1-3/16"	4"	4.0
			2"	4.3
SGW19-02	3/4" × 3/16"	1-3/16"	4"	5.6
			2"	6.4
SGW19-03	1" × 1/8"	1-3/16"	4"	5.1
			2"	5.4
SGW19-04	1" × 3/16"	1-3/16"	4"	7.3
			2"	8.0
SGW19-05	1- 1/4" × 1/8"	1-3/16"	4"	6.1
			2"	6.5
SGW19-06	1- 1/4" × 3/16"	1-3/16"	4"	8.9
			2"	9.7
SGW19-07	1- 1/2" × 1/8"	1-3/16"	4"	7.3
			2"	7.9
SGW19-08	1- 1/2" × 3/16"	1-3/16"	4"	10.6
			2"	11.8
SGW19-09	1-3/4" × 3/16"	1-3/16"	4"	12.2
			2"	13.5
SGW19-10	2" × 3/16"	1-3/16"	4"	13.9
			2"	15.1
SGW19-11	2- 1/4" × 3/16"	1-3/16"	4"	15.4
			2"	16.7
SGW19-12	2- 1/2" × 3/16"	1-3/16"	4"	17.1
			2"	18.3



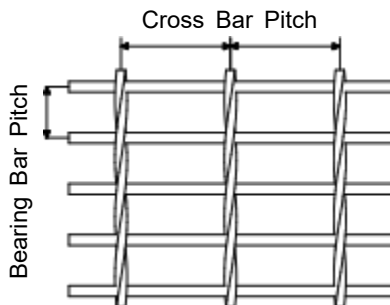
# WELDED STEEL GRATING

## SPECIFICATION OF **W-15** WELDED STEEL GRATING



Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
SGW15-01	3/4" × 1/8"	15/16"	4"	4.8
			2"	4.8
SGW15-02	3/4" × 3/16"	15/16"	4"	6.9
			2"	7.0
SGW15-03	1" × 1/8"	15/16"	4"	6.2
			2"	6.4
SGW15-04	1" × 3/16"	15/16"	4"	9.0
			2"	9.3
SGW15-05	1- 1/4" × 1/8"	15/16"	4"	7.5
			2"	7.9
SGW15-06	1- 1/4" × 3/16"	15/16"	4"	11.1
			2"	11.3
SGW15-07	1- 1/2" × 1/8"	15/16"	4"	9.0
			2"	9.5
SGW15-08	1- 1/2" × 3/16"	15/16"	4"	13.1
			2"	13.7
SGW15-09	1-3/4" × 3/16"	15/16"	4"	15.2
			2"	15.8
SGW15-10	2" × 3/16"	15/16"	4"	17.3
			2"	17.9
SGW15-11	2- 1/4" × 3/16"	15/16"	4"	19.2
			2"	20.3
SGW15-12	2- 1/2" × 3/16"	15/16"	4"	21.3
			2"	22.1

## SPECIFICATION OF **W-11** WELDED STEEL GRATING



Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
SGW11-01	3/4" × 1/8"	11/16"	4"	6.1
			2"	6.6
SGW11-02	3/4" × 3/16"	11/16"	4"	9.1
			2"	9.0
SGW11-03	1" × 1/8"	11/16"	4"	8.0
			2"	8.5
SGW11-04	1" × 3/16"	11/16"	4"	11.9
			2"	11.9
SGW11-05	1- 1/4" × 1/8"	11/16"	4"	9.9
			2"	10.3
SGW11-06	1- 1/4" × 3/16"	11/16"	4"	14.9
			2"	14.8
SGW11-07	1- 1/2" × 1/8"	11/16"	4"	11.8
			2"	12.6
SGW11-08	1- 1/2" × 3/16"	11/16"	4"	17.0
			2"	17.8
SGW11-09	1-3/4" × 3/16"	11/16"	4"	20.4
			2"	20.8
SGW11-10	2" × 3/16"	11/16"	4"	23.2
			2"	23.8
SGW11-11	2- 1/4" × 3/16"	11/16"	4"	25.9
			2"	26.5
SGW11-12	2- 1/2" × 3/16"	11/16"	4"	28.7
			2"	29.3

## HEAVY DUTY

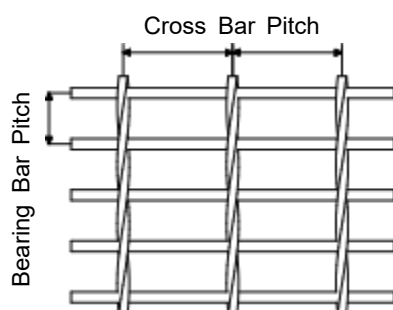
- › Material: carbon steel and stainless steel.
- › Surface treatment: galvanized, painted, untreated.
- › Surface type: plain surface, serrated surface.
- › Bearing bar type: flat bar and I-bar.
- › Cross bar type: round and square twisted cross bar.

## SPECIFICATION OF W-15 WELDED STEEL GRATING (HD)

Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
HDSGW15-01	1" × 1/4"	15/16"	4"	11.7
			2"	12.4
HDSGW15-02	1" × 5/16"	15/16"	4"	14.9
			2"	16.1
HDSGW15-03	1- 1/4" × 1/4"	15/16"	4"	14.5
			2"	15.1
HDSGW15-04	1- 1/4" × 5/16"	15/16"	4"	18.4
			2"	19.6
HDSGW15-05	1- 1/2" × 1/4"	15/16"	4"	17.3
			2"	17.9
HDSGW15-06	1- 1/2" × 5/16"	15/16"	4"	21.9
			2"	23.1
HDSGW15-07	1-3/4" × 1/4"	15/16"	4"	20.1
			2"	20.7
HDSGW15-08	1-3/4" × 5/16"	15/16"	4"	25.3
			2"	26.8
HDSGW15-09	2" × 1/4"	15/16"	4"	22.8
			2"	23.5
HDSGW15-10	2" × 5/16"	15/16"	4"	28.8
			2"	29.9
HDSGW15-11	2- 1/4" × 1/4"	15/16"	4"	25.6
			2"	26.3
HDSGW15-12	2- 1/4" × 5/16"	15/16"	4"	32.3
			2"	33.4
HDSGW15-13	2- 1/2" × 1/4"	15/16"	4"	28.4
			2"	29.1
HDSGW15-14	2- 1/2" × 5/16"	15/16"	4"	35.7
			2"	36.9
HDSGW15-15	2-3/4" × 1/4"	15/16"	4"	31.2
			2"	31.8
HDSGW15-16	2-3/4" × 5/16"	15/16"	4"	39.6
			2"	41.1
HDSGW15-17	3" × 1/4"	15/16"	4"	34.4
			2"	35.5
HDSGW15-18	3" × 5/16"	15/16"	4"	43.1
			2"	44.6

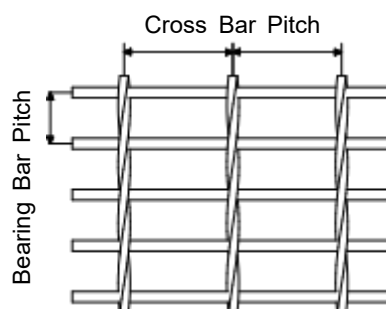


# WELDED STEEL GRATING



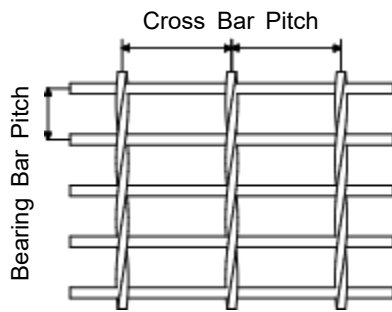
## SPECIFICATION OF W-19 WELDED STEEL GRATING (HD)

Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
HDSGW19-01	1" x 1/4"	1-3/16"	4"	9.5
			2"	10.1
HDSGW19-02	1" x 5/16"	1-3/16"	4"	12.1
			2"	13.3
HDSGW19-03	1- 1/4" x 1/4"	1-3/16"	4"	11.7
			2"	12.3
HDSGW19-04	1- 1/4" x 5/16"	1-3/16"	4"	14.3
			2"	16.0
HDSGW19-05	1- 1/2" x 1/4"	1-3/16"	4"	13.9
			2"	14.5
HDSGW19-06	1- 1/2" x 5/16"	1-3/16"	4"	17.8
			2"	18.8
HDSGW19-07	1-3/4" x 1/4"	1-3/16"	4"	16.1
			2"	16.7
HDSGW19-08	1-3/4" x 5/16"	1-3/16"	4"	20.4
			2"	21.5
HDSGW19-09	2" x 1/4"	1-3/16"	4"	18.3
			2"	18.9
HDSGW19-10	2" x 5/16"	1-3/16"	4"	23.1
			2"	24.6
HDSGW19-11	2- 1/4" x 1/4"	1-3/16"	4"	20.5
			2"	21.1
HDSGW19-12	2- 1/4" x 5/16"	1-3/16"	4"	25.9
			2"	27.0
HDSGW19-13	2- 1/2" x 1/4"	1-3/16"	4"	22.7
			2"	23.3
HDSGW19-14	2- 1/2" x 5/16"	1-3/16"	4"	28.6
			2"	29.8
HDSGW19-15	2-3/4" x 1/4"	1-3/16"	4"	24.9
			2"	25.6
HDSGW19-16	2-3/4" x 5/16"	1-3/16"	4"	31.8
			2"	33.3
HDSGW19-17	3" x 1/4"	1-3/16"	4"	27.8
			2"	28.7
HDSGW19-18	3" x 5/16"	1-3/16"	4"	34.5
			2"	36.1



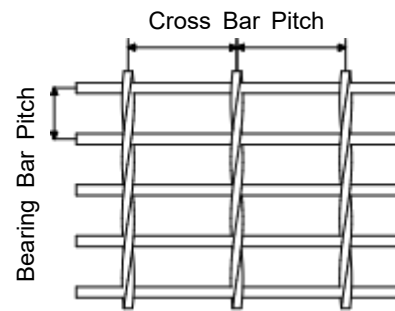
## SPECIFICATION OF W-22 WELDED STEEL GRATING (HD)

Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
HDSGW22-01	1" x 1/4"	1-3/8"	4"	8.3
			2"	9.0
HDSGW22-02	1" x 5/16"	1-3/8"	4"	10.7
			2"	11.8
HDSGW22-03	1- 1/4" x 1/4"	1-3/8"	4"	10.2
			2"	10.9
HDSGW22-04	1- 1/4" x 5/16"	1-3/8"	4"	13.1
			2"	14.2
HDSGW22-05	1- 1/2" x 1/4"	1-3/8"	4"	12.1
			2"	12.8
HDSGW22-06	1- 1/2" x 5/16"	1-3/8"	4"	15.4
			2"	16.8
HDSGW22-07	1-3/4" x 1/4"	1-3/8"	4"	14.0
			2"	14.7
HDSGW22-08	1-3/4" x 5/16"	1-3/8"	4"	17.8
			2"	19.0
HDSGW22-09	2" x 1/4"	1-3/8"	4"	16.0
			2"	16.6
HDSGW22-10	2" x 5/16"	1-3/8"	4"	20.2
			2"	21.3
HDSGW22-11	2- 1/4" x 1/4"	1-3/8"	4"	17.9
			2"	18.5
HDSGW22-12	2- 1/4" x 5/16"	1-3/8"	4"	22.6
			2"	23.7
HDSGW22-13	2- 1/2" x 1/4"	1-3/8"	4"	19.8
			2"	20.4
HDSGW22-14	2- 1/2" x 5/16"	1-3/8"	4"	25.0
			2"	26.1
HDSGW22-15	2-3/4" x 1/4"	1-3/8"	4"	21.7
			2"	22.3
HDSGW22-16	2-3/4" x 5/16"	1-3/8"	4"	27.8
			2"	29.3
HDSGW22-17	3" x 1/4"	1-3/8"	4"	24.1
			2"	25.2
HDSGW22-18	3" x 5/16"	1-3/8"	4"	30.2
			2"	31.7



## SPECIFICATION OF **W-30** WELDED STEEL GRATING (HD)

Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
HDSGW30-01	1" x 1/4"	1-7/8"	4"	6.3
			2"	7.0
HDSGW30-02	1" x 5/16"	1-7/8"	4"	8.2
			2"	9.4
HDSGW30-03	1- 1/4" x 1/4"	1-7/8"	4"	7.8
			2"	8.4
HDSGW30-04	1- 1/4" x 5/16"	1-7/8"	4"	10.0
			2"	11.1
HDSGW30-05	1- 1/2" x 1/4"	1-7/8"	4"	9.2
			2"	9.8
HDSGW30-06	1- 1/2" x 5/16"	1-7/8"	4"	11.8
			2"	12.9
HDSGW30-07	1-3/4" x 1/4"	1-7/8"	4"	10.6
			2"	11.3
HDSGW30-08	1-3/4" x 5/16"	1-7/8"	4"	13.6
			2"	14.7
HDSGW30-09	2" x 1/4"	1-7/8"	4"	12.0
			2"	12.7
HDSGW30-10	2" x 5/16"	1-7/8"	4"	15.3
			2"	16.5
HDSGW30-11	2- 1/4" x 1/4"	1-7/8"	4"	13.6
			2"	14.1
HDSGW30-12	2- 1/4" x 5/16"	1-7/8"	4"	17.1
			2"	18.3
HDSGW30-13	2- 1/2" x 1/4"	1-7/8"	4"	14.9
			2"	15.3
HDSGW30-14	2- 1/2" x 5/16"	1-7/8"	4"	18.9
			2"	20.0
HDSGW30-15	2-3/4" x 1/4"	1-7/8"	4"	16.3
			2"	17.0
HDSGW30-16	2-3/4" x 5/16"	1-7/8"	4"	21.0
			2"	22.6
HDSGW30-17	3" x 1/4"	1-7/8"	4"	18.2
			2"	19.3
HDSGW30-18	3" x 5/16"	1-7/8"	4"	22.8
			2"	24.4



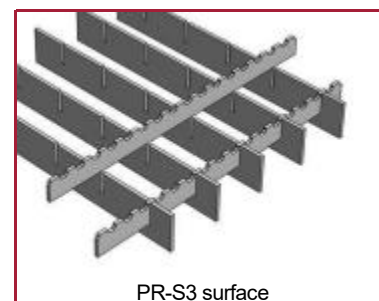
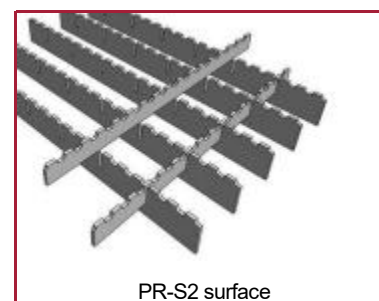
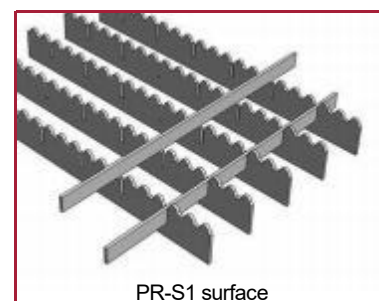
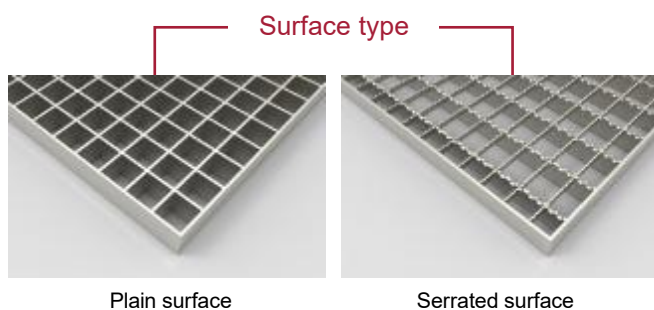
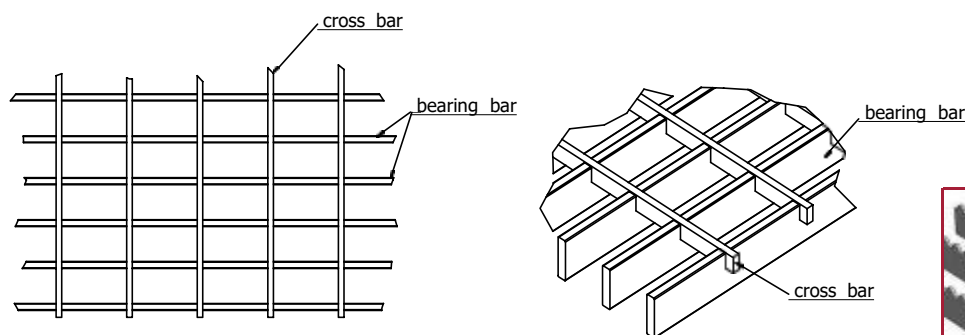
## SPECIFICATION OF **W-38** WELDED STEEL GRATING (HD)

Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
HDSGW38-01	1" x 1/4"	2-3/8"	4"	5.2
			2"	5.9
HDSGW38-02	1" x 5/16"	2-3/8"	4"	6.8
			2"	7.9
HDSGW38-03	1- 1/4" x 1/4"	2-3/8"	4"	8.3
			2"	7.0
HDSGW38-04	1- 1/4" x 5/16"	2-3/8"	4"	8.2
			2"	9.4
HDSGW38-05	1- 1/2" x 1/4"	2-3/8"	4"	7.5
			2"	8.1
HDSGW38-06	1- 1/2" x 5/16"	2-3/8"	4"	9.6
			2"	10.8
HDSGW38-07	1-3/4" x 1/4"	2-3/8"	4"	8.6
			2"	9.3
HDSGW38-08	1-3/4" x 5/16"	2-3/8"	4"	11.1
			2"	12.2
HDSGW38-09	2" x 1/4"	2-3/8"	4"	9.8
			2"	10.4
HDSGW38-10	2" x 5/16"	2-3/8"	4"	12.5
			2"	13.6
HDSGW38-11	2- 1/4" x 1/4"	2-3/8"	4"	10.9
			2"	11.5
HDSGW38-12	2- 1/4" x 5/16"	2-3/8"	4"	13.9
			2"	15.0
HDSGW38-13	2- 1/2" x 1/4"	2-3/8"	4"	12.0
			2"	12.7
HDSGW38-14	2- 1/2" x 5/16"	2-3/8"	4"	15.3
			2"	16.5
HDSGW38-15	2-3/4" x 1/4"	2-3/8"	4"	13.2
			2"	13.8
HDSGW38-16	2-3/4" x 5/16"	2-3/8"	4"	17.2
			2"	18.7
HDSGW38-17	3" x 1/4"	2-3/8"	4"	14.9
			2"	15.9
HDSGW38-18	3" x 5/16"	2-3/8"	4"	18.6
			2"	20.1



# PRESS-LOCKED STEEL GRATING

Press-locked steel grating offers unparalleled strength, durability, and openness comparable to welded bar grating. With its unique interlocking design, the close-tolerance slotted bars are fused together using hydraulic pressure, forming a permanent lock. Available in stainless or low carbon steel, this type of grating boasts high bearing capacity, excellent anti-slip properties, corrosion resistance, and hassle-free installation and removal. It is extensively utilized in factories, civil structures, commercial buildings, and more, serving as an ideal choice for ceilings, platforms, floors, fences, and various covers. Embrace the reliability, versatility, and performance of press-locked steel grating for your projects.



## SERRATED SURFACE TYPE

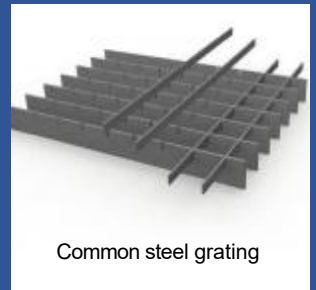
- › **PR/S1:** Trapezoidal teeth on the bearing bar.
- › **PR/S2:** Trapezoidal tooth both on the bearing bar and cross bar with the highest non-slip performance. It is the most popular types among the three types.
- › **PR/S3:** The non-slip tooth is applied to the connect components. It has the lowest non-slip performance.

# SPECIFICATIONS

- › Material: carbon steel and stainless steel.
- › Surface treatment: galvanized, painted, untreated.
- › Surface type: standard plain surface, serrated surface.
- › Cross bar type: flat cross bar and serrated cross bar.

# BENEFITS

- 1. Lightweight yet Strong:** Our steel grating combines a light weight with high bearing capacity and strength, providing a reliable solution.
- 2. Non-Slip & Anti-Corrosion:** Designed for safety, our grating offers excellent non-slip and anti-corrosion performance, ensuring a secure and durable surface.
- 3. Resistant to Deformation:** Built to withstand heavy loads, our grating is resistant to deformation, maintaining its shape and integrity over time.
- 4. Easy Installation & Removal:** With a user-friendly design, our grating is easy to install and remove, offering convenience and flexibility.
- 5. Attractive Appearance:** Our grating not only performs well but also adds a touch of elegance with its beautiful appearance.
- 6. Extended Service Life:** Built to last, our grating offers a long service life, reducing the need for frequent replacements.



Common steel grating



Integral steel grating

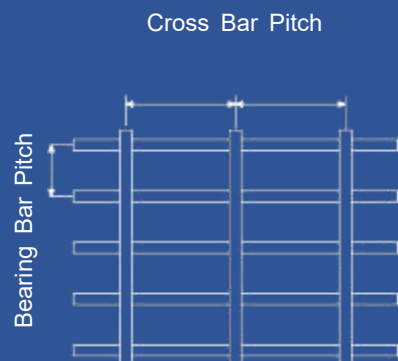


Heavy duty steel grating



Louver steel grating

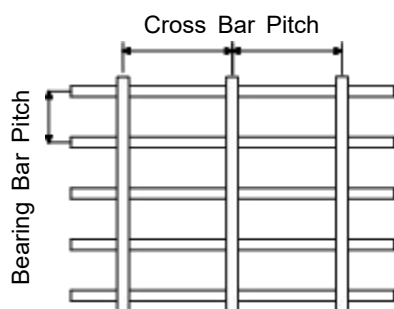
# SPECIFICATION OF P-19 PRESS-LOCKED STEEL GRATING



Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
SGP19-01	3/4" × 1/8"	1-3/16"	4"	4.6
			2"	4.9
SGP19-02	3/4" × 3/16"	1-3/16"	4"	6.3
			2"	7.1
SGP19-03	1" × 1/8"	1-3/16"	4"	5.7
			2"	6.0
SGP19-04	1" × 3/16"	1-3/16"	4"	8.0
			2"	8.7
SGP19-05	1- 1/4" × 1/8"	1-3/16"	4"	6.8
			2"	7.2
SGP19-06	1- 1/4" × 3/16"	1-3/16"	4"	9.6
			2"	10.4
SGP19-07	1- 1/2" × 1/8"	1-3/16"	4"	7.9
			2"	8.5
SGP19-08	1- 1/2" × 3/16"	1-3/16"	4"	11.2
			2"	12.4
SGP19-09	1-3/4" × 3/16"	1-3/16"	4"	12.9
			2"	14.2
SGP19-10	2" × 3/16"	1-3/16"	4"	14.5
			2"	15.7
SGP19-11	2- 1/4" × 3/16"	1-3/16"	4"	16.1
			2"	17.4
SGP19-12	2- 1/2" × 3/16"	1-3/16"	4"	17.7
			2"	18.9

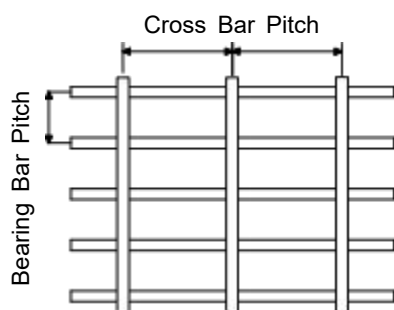
# PRESS-LOCKED STEEL GRATING

## SPECIFICATION OF **P-15** PRESS-LOCKED STEEL GRATING



Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
SGP15-01	3/4" × 1/8"	15/16"	4"	5.5
			2"	5.5
SGP15-02	3/4" × 3/16"	15/16"	4"	7.5
			2"	7.7
SGP15-03	1" × 1/8"	15/16"	4"	6.9
			2"	7.2
SGP15-04	1" × 3/16"	15/16"	4"	9.8
			2"	10.1
SGP15-05	1- 1/4" × 1/8"	15/16"	4"	8.2
			2"	8.7
SGP15-06	1- 1/4" × 3/16"	15/16"	4"	11.7
			2"	12.2
SGP15-07	1- 1/2" × 1/8"	15/16"	4"	9.6
			2"	10.6
SGP15-08	1- 1/2" × 3/16"	15/16"	4"	13.8
			2"	14.8
SGP15-09	1-3/4" × 3/16"	15/16"	4"	15.8
			2"	16.9
SGP15-10	2" × 3/16"	15/16"	4"	17.9
			2"	19.0
SGP15-11	2- 1/4" × 3/16"	15/16"	4"	19.9
			2"	21.1
SGP15-12	2- 1/2" × 3/16"	15/16"	4"	22.0
			2"	23.2

## SPECIFICATION OF **P-11** PRESS-LOCKED STEEL GRATING



Item	Bearing Bar Size	Bearing Bar Pitch	Cross Bar Pitch	Weight (Lbs./S.F.)
SGP11-01	3/4" × 1/8"	11/16"	4"	6.6
			2"	7.6
SGP11-02	3/4" × 3/16"	11/16"	4"	9.7
			2"	10.4
SGP11-03	1" × 1/8"	11/16"	4"	8.5
			2"	9.5
SGP11-04	1" × 3/16"	11/16"	4"	12.6
			2"	13.3
SGP11-05	1- 1/4" × 1/8"	11/16"	4"	10.4
			2"	11.3
SGP11-06	1- 1/4" × 3/16"	11/16"	4"	15.6
			2"	16.2
SGP11-07	1- 1/2" × 1/8"	11/16"	4"	12.3
			2"	13.9
SGP11-08	1- 1/2" × 3/16"	11/16"	4"	17.7
			2"	19.7
SGP11-09	1-3/4" × 3/16"	11/16"	4"	21.0
			2"	22.7
SGP11-10	2" × 3/16"	11/16"	4"	23.8
			2"	25.7
SGP11-11	2- 1/4" × 3/16"	11/16"	4"	26.5
			2"	28.4
SGP11-12	2- 1/2" × 3/16"	11/16"	4"	29.4
			2"	31.2



# APPLICATION

“ Steel grating has gained popularity in both industrial and commercial sectors, finding extensive usage in a variety of applications. It serves as mezzanines, stair treads, walkways, ceilings, floorings, drainage trench covers, sun shade panels, observation towers, bridge decks, and various platforms. Whether for temporary or permanent use, steel grating provides reliable and versatile solutions for everyday needs. ”



Steel grating platform



Steel grating platform walkways



Steel grating trench covers



Steel grating platform mezzanine



Steel grating flooring



Steel grating ceiling



Steel grating stair treads



Steel grating bridge decks



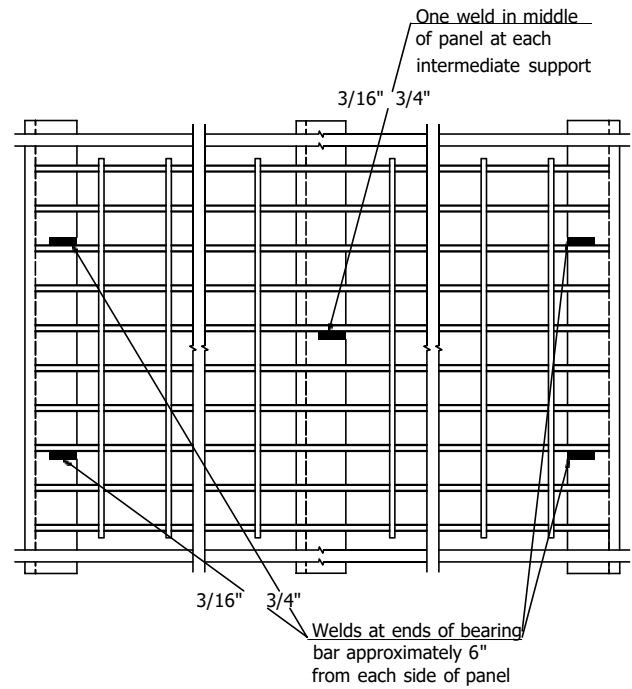
Steel grating sun shade panels

# INSTALLATION

“ Steel gratings can be installed in two ways: welded installation and grating fasteners. ”

## Welded Installation

When steel grating needs to be a permanent installation, welding is highly recommended to fasten steel grating in place by securing welding panels to the supporting structure. The diagram to the right shows the recommended minimum weld size and spacing for pedestrian applications.



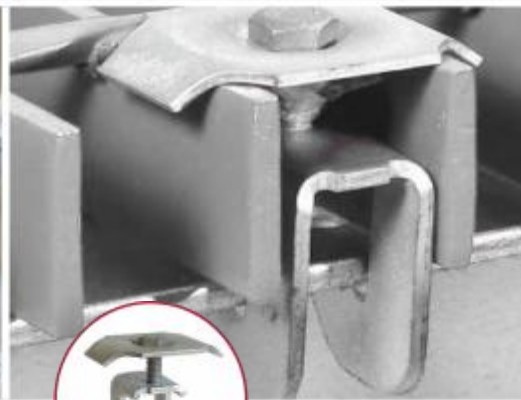
## Grating fasteners

When steel grating is designed to be removable or when welding is not practical, grating fasteners are highly recommended. The minimum fastener spacing for pedestrian application is equal to the minimum weld pattern illustrated above.



### Saddle Clips

The saddle clip bridges two bearing bars and is attached with self-tapping bolt, self-threader, weld stud or bolt and nut.



### G-Clips

This G-clip fastens grating to a horizontal-facing steel structural member edge.



### Grate Fast Clips

This grate fast clip enables rapid and secure connection of open grate flooring to steel sections.

## FEATURES

- › Do not damage the galvanized layer.
- › It can be demolished at any time, reused.
- › In the later stage, it is necessary to check regularly whether the bolts are loose and fasten them in time to avoid them falling off.
- › Easy to install.

# KIND HOLD DIRCT FASTENING SYSTEM

## STAINLESS STEEL POINTED STUD FASTENER



SPEC.	NO.	MATERIAL
M8SS POINTED NAILS	YD-ST-R M8-17-13 P8	SPECIAL STAINLESS STEEL
M8SS POINTED NAILS	YD-ST-R M8-21-14 P8	SPECIAL STAINLESS STEEL
M8SS POINTED NAILS	YD-ST-MR M8-21-14P8	SPECIAL STAINLESS STEEL



### Material Specifications:

1. Shank and thread: S31803(1.4462) equivalent to A4 /AISI grade 316 material
2. SN washer: S 31635(X2CrNiMo 17-12-2,1.4404)
3. Sealing washer: Elastomer,black, resistant to UV, salt water, water, ozone, oils, etc.
4. Guiding sleeve: Plastic
5. Flange nut: A4 / AISI grade 316 material

### Technical Specifications:

**Supported Products:** YD-X-FCM Disc and M-Clip Series

**Corrosion Protection Level:** Equivalent to A4 grade

**Installation Torque:** 5-8 Nm

**Recommended Tensile Force:** 15-25 kN

**Thread Diameter:** M8

**Pin Length:** 30mm \ 35mm

### Product Application:

Used for fastening grating or diamond-patterned steel in corrosive environments, including applications in oil and petrochemical industries, offshore platforms, shipbuilding, coastal engineering, wind power generation, chemical plants, refineries, solar panel installation, and fastening various types of gratings.



# KIND HOLD DIRCT FASTENING SYSTEM

## STAINLESS STEEL POINTED NAILS



FASTENER DISC (STAINLESS)

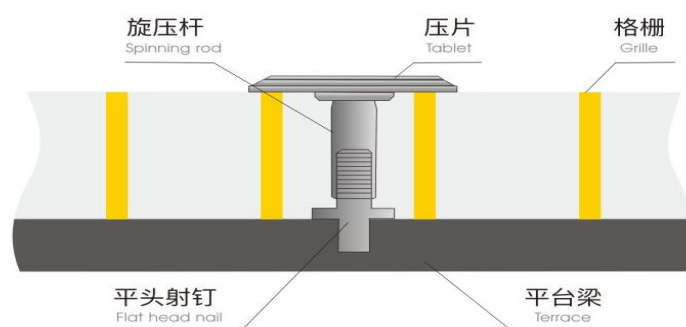
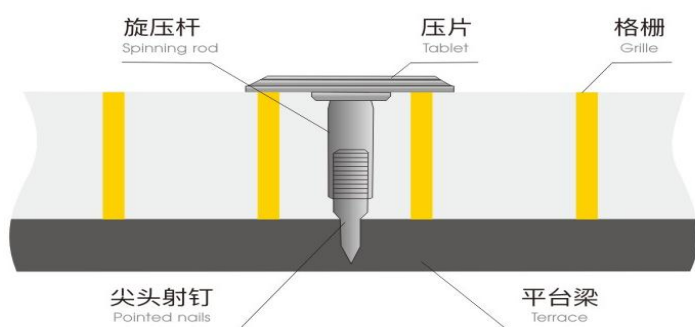
FASTENER DISC (COATED)

NAME	GRATING HEIGHT	MATERIAL
YD-FCM-R25-30	22mm	316L/304
YD-FCM-R28-33	25mm	316L/304
YD-FCM-R30-35	27mm	316L/304
YD-FCM-R32-37	30mm	316L/304
YD-FCM-R35-40	32mm	316L/304
YD-FCM-R37-42	35mm	316L/304
YD-FCM-R40-45	38mm	316L/304
YD-FCM-R42-47	40mm	316L/304
YD-FCM-R45-50	43mm	316L/304
YD-FCM-R50-55	47mm	316L/304
YD-FCM-R86-95	86mm	316L/304

NAME	GRATING HEIGHT	MATERIAL
YD-FCM-E25-30	22mm	Carbon
YD-FCM-E28-33	25mm	Carbon
YD-FCM-E30-35	27mm	Carbon
YD-FCM-E32-37	30mm	Carbon
YD-FCM-E35-40	32mm	Carbon
YD-FCM-E37-42	35mm	Carbon
YD-FCM-E40-45	38mm	Carbon
YD-FCM-E42-47	40mm	Carbon
YD-FCM-E45-50	43mm	Carbon
YD-FCM-E50-55	47mm	Carbon
YD-FCM-E86-95	86mm	Carbon

NAME	GRATING HEIGHT	MATERIAL
YD-FCM-R25-30	22mm	316L/304
YD-FCM-R28-33	25mm	316L/304
YD-FCM-R30-35	27mm	316L/304
YD-FCM-R32-37	30mm	316L/304
YD-FCM-R35-40	32mm	316L/304
YD-FCM-R37-42	35mm	316L/304
YD-FCM-R40-45	38mm	316L/304
YD-FCM-R42-47	40mm	316L/304
YD-FCM-R45-50	43mm	316L/304
YD-FCM-R50-55	47mm	316L/304
YD-FCM-R86-95	86mm	316L/304

NAME	GRATING HEIGHT	MATERIAL
YD-FCM-E25-30	22mm	Carbon
YD-FCM-E28-33	25mm	Carbon
YD-FCM-E30-35	27mm	Carbon
YD-FCM-E32-37	30mm	Carbon
YD-FCM-E35-40	32mm	Carbon
YD-FCM-E37-42	35mm	Carbon
YD-FCM-E40-45	38mm	Carbon
YD-FCM-E42-47	40mm	Carbon
YD-FCM-E45-50	43mm	Carbon
YD-FCM-E50-55	47mm	Carbon
YD-FCM-E86-95	86mm	Carbon



# LOADING TABLES (STANDARD)

## Service Loads

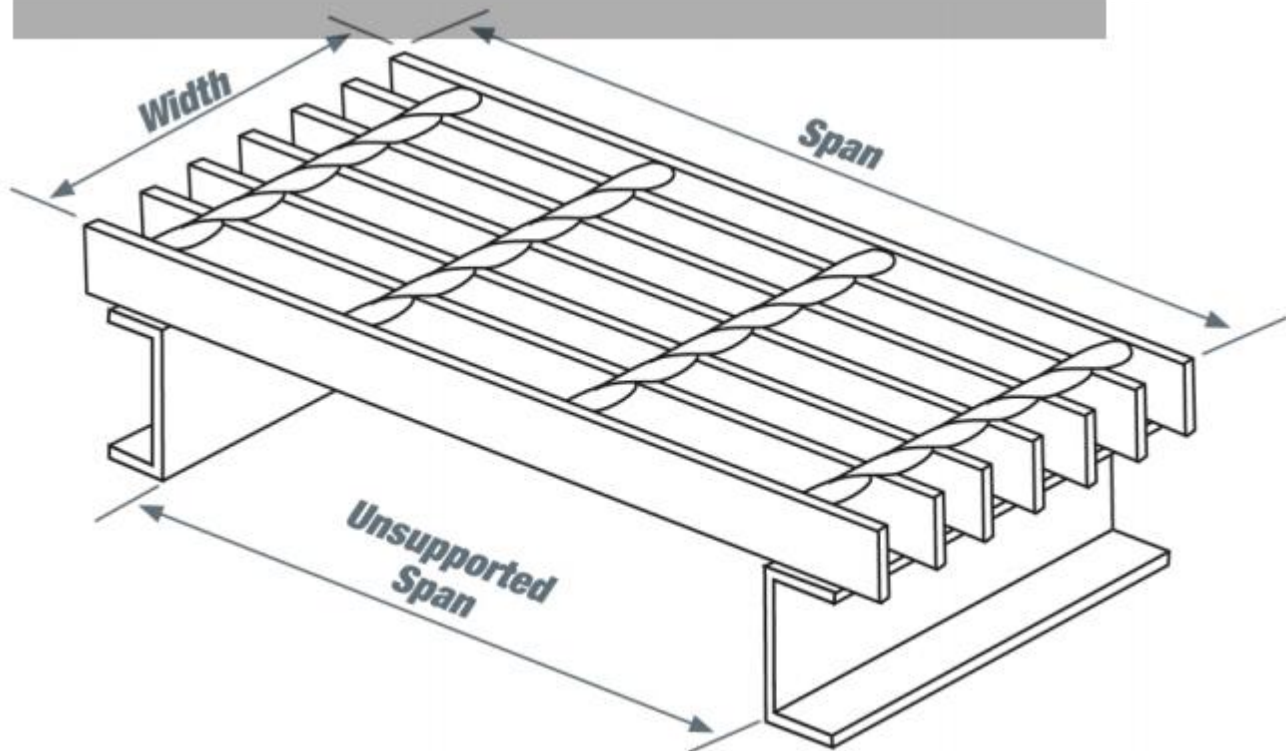
Our load tables offer comprehensive data on service loads, providing essential criteria for selecting the optimal bearing bar size and spacing for various applications. These tables serve as a concise reference for specifying authorities, enabling them to make informed decisions.

When analyzing pedestrian loads, both uniform and concentrated loads are considered. To ensure pedestrian comfort, the deflection is typically limited to  $1/4"$ .

For heavy-duty and vehicular applications, specific load tables are available. These tables account for different load conditions, with deflection limited to either  $1/8"$  or  $L/400$ , whichever is less.

For a more in-depth understanding of load capacities and deflection limits, we recommend referring to our comprehensive Loading Table, which provides detailed information on service loads.

**Trust our load tables to assist you in selecting the appropriate steel grating specifications for your intended application, ensuring optimal performance and safety.**

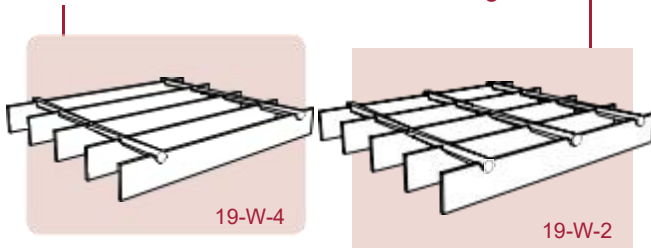


# Carbon Steel Welded Bar Grating

## Carbon Steel Press-Locked Bar Grating

### Steel Welded Grating

1-<sup>3</sup>/<sub>16</sub>" Center to Center of Bearing Bars

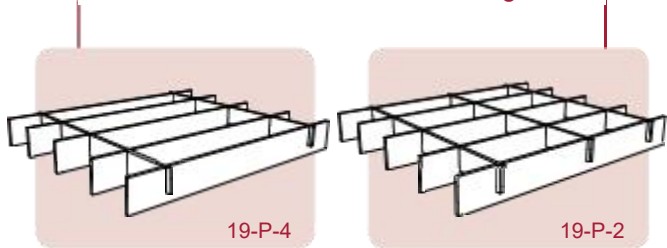


1/4" Round Twisted  
Cross Bars  
4" Center to Center

1/4" Round Twisted  
Cross Bars  
2" Center to Center

### Steel Pressure-Locked

1-<sup>3</sup>/<sub>16</sub>" Center to Center of Bearing Bars



Rectangular  
Cross Bars  
4" Center to Center

Rectangular  
Cross Bars  
2" Center to Center

**Static Load Table** – Loads & deflections are theoretical, based on a maximum allowable fiber stress of 18,000 PSI. E = 30,000,000 PSI

Bar Size	Type	Approximate Weight #/Sq. Ft.	Sec. Mod. Per Foot of Width	Load Types	Maximum Safe Clear 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"	19-W-4	4.0	0.122	U	366	234	163	120	92	72	NOTE: Spans and loads to the right of the heavy line exceed a defllection of 1/4" for uniform loads of 100#/sq. ft. which provide safe pedestrian comfort, but can be exceeded for other types of loads at the discretion of the engineer.							
	19-W-2	4.3		D	.096	.150	.216	.295	.386	.484								
	19-P-4	4.6		C	366	293	244	209	183	163								
	19-P-2	4.9		D	.077	.120	.173	.235	.307	.389								
3/4" x 3/16"	19-W-4	5.6	0.183	U	549	351	244	179	137	108	NOTE: When calculating loads that require serrated bearing bars, subtract 1/ 4" from your grating depth and use that load table.  EXAMPLE: (1 1/4" x 3/16") serrated bearing bars would have the same strength as (1" x 3/16") non-serrated bearing bars, therefore you would use the (1" x 3/16") load table.							
	19-W-2	6.4		D	.096	.150	.216	.294	.383	.482								
	19-P-4	6.3		C	549	439	366	314	275	244								
	19-P-2	7.1		D	.177	.120	.173	.236	.308	.389								
1" x 1/8"	19-W-4	5.1	0.216	U	648	415	288	212	162	128	104	86	72	U - Safe Uniform Load in lbs. per sq. ft.  C - Safe Concentrated Load in lbs. per foot of grating width.  D - Defllection in inches.				
	19-W-2	5.4		D	.057	.112	.162	.221	.288	.364	.451	.546	.647					
	19-P-4	5.7		C	648	518	432	370	324	288	259	236	216					
	19-P-2	6.0		D	.057	.090	.129	.176	.230	.291	.359	.435	.517					
1" x 3/16"	19-W-4	7.3	0.325	U	975	624	433	318	244	193	156	129	108					
	19-W-2	8.0		D	.072	.113	.162	.221	.289	.366	.451	.546	.648					
	19-P-4	8.0		C	975	780	650	557	488	435	390	355	325					
	19-P-2	8.7		D	.058	.090	.130	.177	.231	.292	.361	.437	.520					
1 1/4" x 1/8"	19-W-4	6.1	0.339	U	1017	651	452	332	254	201	163	134	113	96	83			
	19-W-2	6.5		D	.058	.090	.130	.177	.231	.293	.362	.435	.520	.609	.708			
	19-P-4	6.8		C	1017	814	678	581	509	452	407	370	339	313	291			
	19-P-2	7.2		D	.046	.072	.104	.142	.185	.234	.289	.350	.416	.488	.560			
1 1/4" x 3/16"	19-W-4	8.9	0.507	U	1521	973	676	497	380	300	243	201	169	144	124			
	19-W-2	9.7		D	.058	.090	.130	.177	.230	.291	.359	.435	.518	.608	.705			
	19-P-4	9.6		C	1521	1217	1014	869	761	676	608	553	507	468	435			
	19-P-2	10.4		D	.046	.072	.104	.141	.184	.233	.288	.348	.415	.487	.565			
1 1/2" x 1/8"	19-W-4	7.3	0.488	U	1464	937	651	478	366	289	234	194	163	139	120	92	72	
	19-W-2	7.9		D	.048	.075	.108	.147	.192	.233	.299	.363	.433	.508	.590	.772	.967	
	19-P-4	7.9		C	1464	1171	976	837	732	651	586	532	488	450	418	366	325	
	19-P-2	8.5		D	.038	.060	.086	.118	.153	.194	.240	.290	.345	.405	.470	.614	.770	
1 1/2" x 3/16"	19-W-4	10.6	0.73	U	2190	1402	973	715	548	433	350	290	243	207	179	137	108	
	19-W-2	11.8		D	.048	.075	.108	.147	.192	.243	.300	.364	.431	.506	.589	.769	.971	
	19-P-4	11.2		C	2190	1752	1460	1251	1095	973	876	796	730	674	626	548	487	
	19-P-2	12.4		D	.038	.060	.086	.118	.154	.196	.240	.290	.346	.406	.471	.615	.778	
1 3/4"x 3/16"	19-W-4	12.2	0.994	U	2982	1908	1325	974	746	589	477	394	331	282	243	186	147	
	19-W-2	13.5		D	.041	.064	.093	.126	.165	.208	.257	.311	.370	.434	.503	.657	.832	
	19-P-4	12.9		C	2982	2386	1988	1704	1491	1325	1193	1084	994	918	852	746	663	
	19-P-2	14.2		D	.033	.051	.074	.101	.132	.167	.206	.249	.296	.348	.403	.527	.667	
2" x 3/16"	19-W-4	13.9	1.299	U	3897	2494	1732	1272	974	770	624	515	433	369	318	244	192	
	19-W-2	15.1		D	.036	.056	.081	.110	.144	.182	.225	.272	.324	.380	.441	.577	.728	
	19-P-4	14.5		C	3897	3118	2598	2227	1949	1732	1559	1417	1299	1199	1113	974	866	
	19-P-2	15.7		D	.029	.045	.065	.088	.115	.146	.180	.218	.259	.304	.353	.461	.583	
2 1/4" x 3/16"	19-W-4	15.4	1.644	U	4932	3156	2192	1610	1233	974	789	652	548	467	403	308	244	
	19-W-2	16.7		D	.032	.050	.072	.098	.128	.162	.200	.242	.288	.338	.392	.512	.649	
	19-P-4	16.1		C	4932	3946	3288	2818	2466	2192	1973	1793	1644	1518	1409	1233	1096	
	19-P-2	17.4		D	.026	.040	.058	.078	.102	.130	.160	.194	.230	.271	.314	.410	.518	
2 1/2" x 3/16"	19-W-4	17.1	2.029	U	6087	3896	2705	1988	1522	1202	974	805	676	570	497	380	301	
	19-W-2	18.3		D	.029	.045	.065	.088	.115	.146	.180	.218	.259	.304	.353	.460	.584	
	19-P-4	17.7		C	6087	4870	4058	3478	3044	2705	2435	2213	2029	1873	1739	1522	1353	
	19-P-2	18.9		D	.023	.036	.052	.071	.092	.117	.144	.174	.207	.243	.282	.369	.467	

**Panel Width Chart in Inche** Dimensions are Outside to Outside of Bearing Bars.

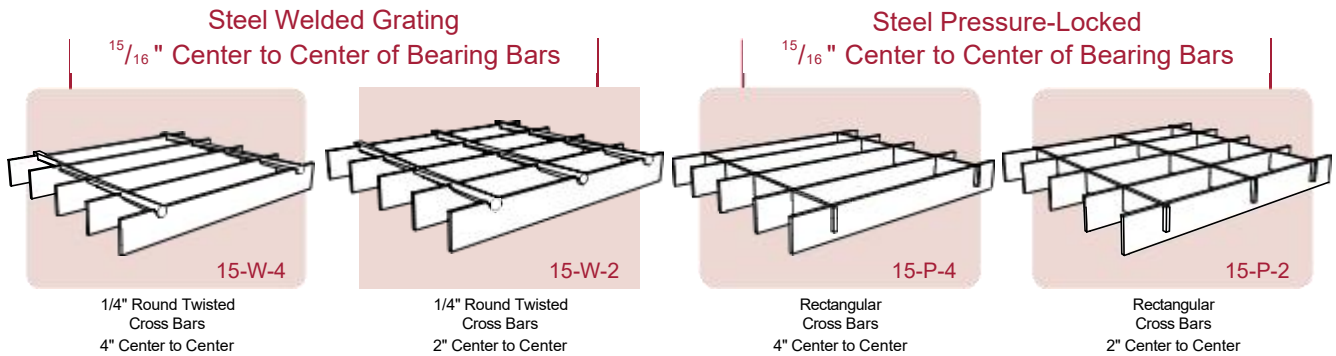
Also Available in Stainless Steel

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

Shaded columns indicate Standard Panel Width

Carbon Steel Material: ASTM A-1011





**Static Load Table** – Loads & deflections are theoretical, based on a maximum allowable fiber stress of 18,000 PSI. E = 30,000,000 PSI

Bar Size	Type	Approximate Weight #/Sq. Ft.	Sec. Mod. Per Foot of Width	Load Types	Maximum Safe Clear 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"	15-W-4	4.8	0.153	U	459	294	204	150	115	91	NOTE: Spans and loads to the right of the heavy line exceed a defllection of 1/4" for uniform loads of 100#/ sq. ft. which provide safe pedestrian comfort, but can be exceeded for other types of loads at the discretion of the engineer.						
	15-W-2	4.8		D	.096	.150	.215	.293	.391	.486							
	15-P-4	5.5		C	459	367	306	262	230	204							
	15-P-2	5.5		D	.077	.120	.172	.234	.307	.387							
3/4" x 3/16"	15-W-4	6.9	0.23	U	690	442	307	225	173	136	NOTE: When calculating loads that require serrated bearing bars, subtract 1/4" from your grating depth and use that load table.  EXAMPLE: (1 1/4" x 3/16") serrated bearing bars would have the same strength as (1" x 3/16") non-serrated bearing bars, therefore you would use the (1" x 3/16") load table.						
	15-W-2	7.0		D	.096	.150	.216	.293	.393	.485							
	15-P-4	7.5		C	690	552	460	394	345	307							
	15-P-2	7.7		D	.077	.120	.173	.235	.307	.389							
1" x 1/8"	15-W-4	6.2	0.272	U	816	522	362	266	204	161	131	108	91	U - Safe Uniform Load in lbs. per sq. ft.  C - Safe Concentrated Load in lbs. per foot of grating width.  D - Defllection in inches.			
	15-W-2	6.4		D	.072	.119	.162	220	.294	.364	.451	.544	.649				
	15-P-4	6.9		C	816	653	544	466	408	363	326	297	272				
	15-P-2	7.2		D	.058	.090	.129	.176	.230	.291	.359	.435	.518				
1" x 3/16"	15-W-4	9.0	0.409	U	1227	785	545	401	307	242	196	162	136				
	15-W-2	9.3		D	.072	.113	.162	221	.295	.365	.451	.545	.648				
	15-P-4	9.8		C	1227	982	818	701	614	545	491	446	409				
	15-P-2	10.1		D	.058	.090	.130	.177	.231	.292	.361	.437	.520				
1 1/4" x 1/8"	15-W-4	7.5	0.427	U	1281	820	569	418	320	253	205	169	142	121	105		
	15-W-2	7.9		D	.058	.090	.130	.177	.236	.293	.362	.436	.519	610	.711		
	15-P-4	8.2		C	1281	1025	854	732	641	569	512	466	427	394	366		
	15-P-2	8.7		D	.046	.072	.104	.142	.185	.234	.289	.350	.416	.489	.567		
1 1/4" x 3/16"	15-W-4	11.1	0.638	U	1914	1225	850	625	479	378	306	253	213	181	156		
	15-W-2	11.3		D	.058	.090	.130	.177	.236	.292	.360	.436	.519	.608	.705		
	15-P-4	11.7		C	1914	1531	1276	1094	957	851	766	696	638	589	547		
	15-P-2	12.2		D	.046	.072	.104	.141	.184	.234	.288	.349	.415	.487	.565		
1 1/2" x 1/8"	15-W-4	9.0	0.614	U	1842	1179	819	601	461	364	295	244	205	174	150	115	91
	15-W-2	9.5		D	.048	.075	.108	.147	.196	.243	.300	.363	.432	.506	.586	.767	.972
	15-P-4	9.6		C	1842	1474	1228	1052	921	819	737	670	614	567	526	461	409
	15-P-2	10.6		D	.038	.060	.086	.118	.154	.194	.240	.290	.345	.406	.470	.615	.777
1 1/2" x 3/16"	15-W-4	13.1	0.919	U	2757	1764	1225	900	689	545	441	365	306	261	225	172	136
	15-W-2	13.7		D	.048	.075	.108	.147	.192	.243	.300	.364	.432	.507	.588	.767	.972
	15-P-4	15.2		C	2757	2206	1838	1575	1379	1225	1103	1003	919	848	788	689	613
	15-P-2	15.8		D	.038	.060	.086	.118	.154	.194	.240	.291	.346	.406	.477	.615	.779
1 3/4"x 3/16"	15-W-4	15.2	1.251	U	3753	2402	1668	1226	938	741	600	496	417	355	306	235	184
	15-W-2	15.8		D	.041	.064	.093	.126	.165	.208	.257	.311	.371	.434	.504	.660	.828
	15-P-4	15.8		C	3753	3002	2502	2145	1877	1668	1501	1365	1251	1115	1072	938	834
	15-P-2	16.9		D	.033	.051	.074	.101	.132	.167	.206	.249	.296	.348	.403	.527	.667
2" x 3/16"	15-W-4	17.3	1.634	U	4902	3137	2179	1601	1226	968	784	648	545	464	400	306	242
	15-W-2	17.9		D	.036	.056	.081	.110	.144	.182	.225	.272	.324	.380	.441	.575	.729
	15-P-4	17.9		C	4902	3922	3268	2801	2451	2179	1961	1783	1634	1508	1401	1226	1089
	15-P-2	19.0		D	.029	.045	.065	.088	.115	.146	.180	.218	.259	.304	.353	.461	.583
2 1/4" x 3/16"	15-W-4	19.2	2.068	U	6204	3971	2757	2026	1551	1225	993	820	689	587	506	388	306
	15-W-2	20.0		D	.032	.050	.072	.098	.128	.162	.200	.242	.288	.338	.392	.512	.647
	15-P-4	19.9		C	6204	4963	4136	3545	3102	2757	2482	2256	2068	1909	1773	1551	1379
	15-P-2	21.1		D	.026	.040	.058	.078	.102	.130	.160	.194	.230	.270	.314	.410	.519
2 1/2" x 3/16"	15-W-4	21.3	2.553	U	7659	4902	3404	2501	1915	1513	1225	1037	851	725	625	479	378
	15-W-2	22.1		D	.029	.045	.065	.088	.115	.146	.180	.223	.259	.304	.353	.461	.583
	15-P-4	22.0		C	7659	6127	5106	4377	3830	3404	3064	2785	2553	2357	2188	1915	1702
	15-P-2	23.2		D	.023	.036	.052	.071	.092	.117	.144	.174	.207	.243	.282	.369	.467

**Panel Width Chart** in Inche Dimensions are Outside to Outside of Bearing Bars.

Also Available in Stainless Steel

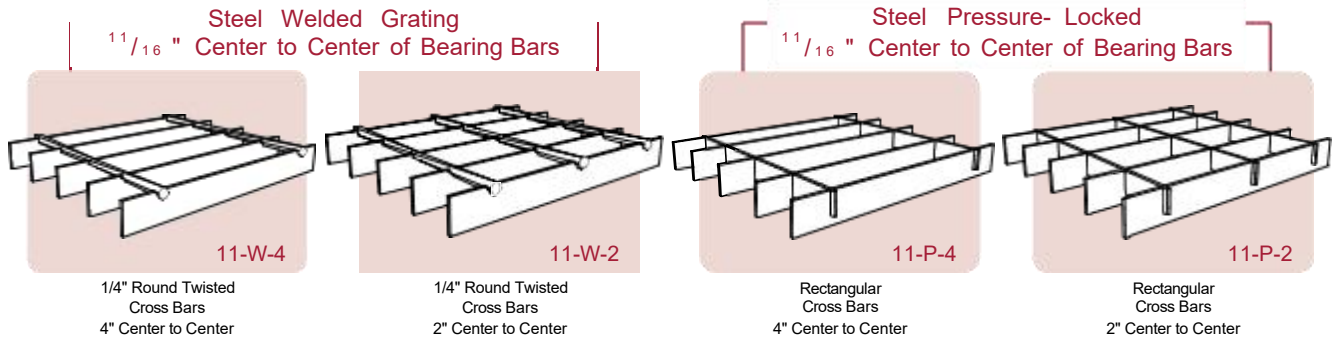
No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1/8" Bar	1 1/16	2	2 15/16	3 7/8	4 13/16	5 3/4	6 11/16	7 5/8	8 9/16	9 1/2	10 7/16	11 3/8	12 5/16	13 1/4	14 3/16	15 1/8	16 1/16	17	17 15/16
3/16" Bar	1 1/8	2 1/16	3	3 15/16	4 7/8	5 13/16	6 3/4	7 11/16	8 5/8	9 9/16	10 1/2	11 7/16	12 3/8	13 5/16	14 1/4	15 3/16	16 1/8	17 1/16	18
No. of Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1/8" Bar	18 7/8	19 13/16	20 3/4	21 11/16	22 5/8	23 9/16	24 1/2	25 7/16	26 3/8	27 5/16	28 1/4	29 3/16	30 1/8	31 1/16	32	32 15/16	33 7/8	34 13/16	35 3/4
3/16" Bar	18 15/16	19 7/8	20 13/16	21 3/4	22 11/16	23 5/8	24 9/16	25 1/2	26 7/16	27 3/8	28 5/16	29 1/4	30 3/16	31 1/8	32 1/16	33	33 15/16	34 7/8	35 13/16

Shaded columns indicate Standard Panel Width

Carbon Steel Material: ASTM A-1011

# Carbon Steel Welded Bar Grating

## Carbon Steel Press-Locked Bar Grating



**Static Load Table** – Loads & deflections are theoretical, based on a maximum allowable fiber stress of 18,000 PSI. E = 30,000,000 PSI

Bar Size	Type	Approximate Weight #/Sq. Ft.	Sec. Mod. Per Foot of Width	Load Types	Maximum Safe Clear 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"	11-W-4	6.1	0.207	U	366	397	276	203	155	123	99						
	11-W-2	6.6		D	.096	.151	.216	.295	.374	.486	.596						
	11-P-4	6.6		C	366	496	414	355	310	277	248						
	11-P-2	7.6		D	.077	.119	.173	.234	.308	.389	.478						
3/4" x 3/16"	11-W-4	9.1	0.311	U	549	597	415	305	233	184	149						
	11-W-2	9.0		D	.096	.151	.216	.295	.374	.486	.599						
	11-P-4	9.7		C	549	746	623	534	466	414	373						
	11-P-2	10.4		D	.177	.119	.173	.234	.308	.389	.480						
1" x 1/8"	11-W-4	8.0	0.369	U	648	708	492	361	277	219	177	146	123				
	11-W-2	8.5		D	.057	.111	.159	.219	.288	.366	.451	.547	.673				
	11-P-4	8.5		C	648	885	738	632	554	493	443	402	369				
	11-P-2	9.5		D	.057	.090	.129	.176	.231	.293	.360	.434	.518				
1" x 3/16"	11-W-4	11.9	0.554	U	975	1064	739	543	416	328	266	220	185	157			
	11-W-2	11.9		D	.072	.111	.159	.219	.288	.366	.451	.547	.673	.760			
	11-P-4	12.6		C	975	1330	1109	950	832	738	665	605	555	510			
	11-P-2	13.3		D	.058	.090	.129	.176	.231	.293	.360	.434	.518	.608			
1 1/4" x 1/8"	11-W-4	9.9	0.578	U	1017	1110	771	566	434	343	277	229	193	164	142		
	11-W-2	10.3		D	.058	.090	.129	.176	.231	.291	.358	.433	.520	.608	.704		
	11-P-4	10.4		C	1017	1388	1157	991	868	772	693	630	579	533	497		
	11-P-2	11.3		D	.046	.072	.104	.141	.183	.233	.288	.349	.416	.487	.565		
1 1/4" x 3/16"	11-W-4	14.9	0.864	U	1521	1659	1152	846	648	512	415	343	288	245	212	162	
	11-W-2	14.8		D	.058	.090	.129	.176	.231	.291	.358	.433	.520	.608	.704	.921	
	11-P-4	15.6		C	1521	2074	1728	1481	1296	1152	1038	943	864	796	742	648	
	11-P-2	16.2		D	.046	.072	.104	.141	.183	.233	.288	.349	.416	.487	.565	.737	
1 1/2" x 1/8"	11-W-4	11.8	0.831	U	1464	1596	1108	814	623	492	399	330	277	236	204	156	123
	11-W-2	12.6		D	.048	.075	.106	.147	.192	.243	.300	.365	.433	.506	.587	.774	.978
	11-P-4	12.3		C	1464	1995	1662	1425	1246	1107	998	908	831	767	714	624	554
	11-P-2	13.9		D	.038	.059	.087	.117	.154	.195	.241	.289	.347	.406	.470	.614	.777
1 1/2" x 3/16"	11-W-4	17.0	1.244	U	2190	2388	1659	1219	933	737	597	493	415	353	305	233	184
	11-W-2	17.8		D	.048	.075	.106	.147	.192	.243	.300	.365	.433	.506	.587	.774	.978
	11-P-4	17.7		C	2190	2985	2489	2133	1866	1658	1493	1356	1245	1147	1068	932	828
	11-P-2	19.7		D	.038	.059	.087	.117	.154	.195	.241	.289	.347	.406	.470	.614	.777
1 3/4" x 3/16"	11-W-4	20.4	1.694	U	2982	3252	2259	1659	1271	1004	813	672	565	481	415	318	251
	11-W-2	20.8		D	.041	.064	.092	.126	.165	.208	.258	.310	.371	.435	.506	.664	.838
	11-P-4	21.0		C	2982	4065	3389	2903	2542	2259	2033	1848	1695	1563	1453	1272	1130
	11-P-2	22.7		D	.033	.052	.074	.101	.132	.167	.206	.249	.297	.347	.403	.527	.667
2" x 3/16"	11-W-4	23.2	2.212	U	3897	4247	2949	2167	1659	1311	1062	877	737	628	542	415	328
	11-W-2	23.8		D	.036	.056	.081	.111	.144	.183	.226	.273	.325	.384	.447	.580	.732
	11-P-4	23.8		C	3897	5309	4424	3792	3318	2950	2655	2412	2211	2041	1897	1660	1476
	11-P-2	25.7		D	.029	.045	.064	.088	.115	.145	.180	.217	.259	.303	.353	.480	.583
2 1/4" x 3/16"	11-W-4	25.9	2.8	U	4932	5376	3733	2743	2100	1659	1344	1111	933	795	686	525	415
	11-W-2	26.5		D	.032	.050	.072	.098	.127	.162	.199	.241	.287	.338	.393	.512	.646
	11-P-4	26.5		C	4932	6720	5600	4800	4200	3733	3360	3055	2799	2584	2401	2100	1868
	11-P-2	28.4		D	.026	.039	.057	.079	.102	.129	.160	.194	.230	.270	.314	.410	.518
2 1/2" x 3/16"	11-W-4	28.7	3.456	U	6087	6636	4608	3385	2592	2048	1659	1371	1152	982	846	648	512
	11-W-2	29.3		D	.029	.044	.064	.088	.116	.145	.180	.217	.260	.304	.354	.465	.586
	11-P-4	29.4		C	6087	8295	6912	5924	5184	4608	4148	3770	3456	3192	2961	2592	2304
	11-P-2	31.2		D	.023	.036	.051	.071	.092	.116	.144	.173	.207	.242	.282	.369	.467

Panel Width Chart in Inche Dimensions are Outside to Outside of Bearing Bars.

Also Available in Stainless Steel

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1/8" Bar	13/16	1 1/2	2 3/16	2 7/8	3 9/16	4 1/4	4 15/16	5 5/8	6 5/16	7	7 11/16	8 3/8	9 1/16	9 3/4	10 7/16	11 1/8	11 13/16	12 1/2
3/16" Bar	7/8	1 9/16	2 1/4	2 15/16	3 5/8	4 5/16	5	5 11/16	6 3/8	7 1/16	7 3/4	8 7/16	9 1/8	9 13/16	10 1/2	11 3/16	11 7/8	12 9/16
No. of Bars	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1/8" Bar	13 3/16	13 7/8	14 9/16	15 1/4	15 15/16	16 5/8	17 5/16	18	18 11/16	19 3/16	20 1/16	20 3/4	21 7/16	22 1/16	22 13/16	23 1/2	24 3/16	24 7/8
3/16" Bar	13 1/4	13 15/16	14 5/8	15 5/16	16	16 11/16	17 3/8	18 1/16	18 3/4	19 7/16	20 1/8	20 13/16	21 1/2	22 3/16	22 7/8	23 9/16	24 1/4	24 15/16
No. of Bars	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	
1/8" Bar	25 9/16	26 1/4	26 15/16	27 5/8	28 5/16	29	29 11/16	30 3/8	31 1/16	31 3/4	32 1/16	33 1/8	33 13/16	34 1/2	35 3/16	35 7/8	36 9/16	
3/16" Bar	25 5/8	26 5/16	27	27 11/16	28 3/8	29 1/16	29 3/4	30 7/16	31 1/8	31 13/16	32 1/2	33 3/16	33 7/8	34 9/16	35 1/4	35 15/16	36 5/8	

Maximum Available Panel Width: 2'- 0" ( 24 1/4" ) Maximum

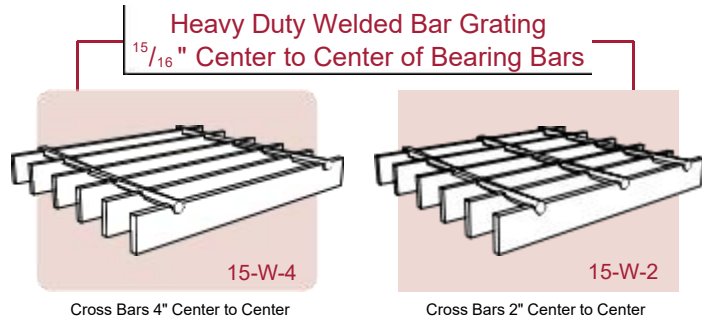
Carbon Steel Material: ASTM A-1011

# LOADING TABLES (HEAVY DUTY)

## 15 Space Load Table

Heavy Duty  $1\frac{5}{16}$ " C/C Bearing Bars  
Non-Serrated & Serrated

U: Safe uniform load (psf)  
C: Concentrated load (psf)



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

Note:

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

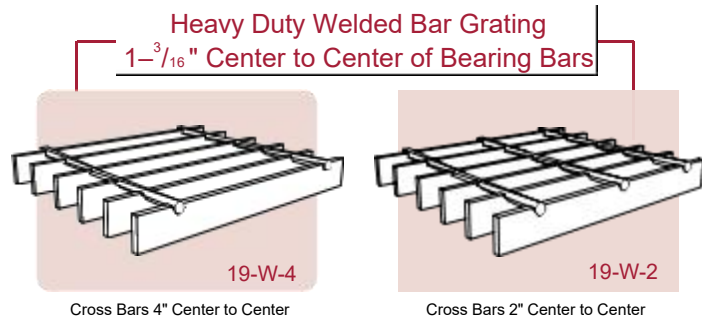


# HEAVY DUTY STEEL BAR GRATING

## 19 Space Load Table

Heavy Duty  $1\frac{3}{16}$ " C/C Bearing Bars

Non-Serrated & Serrated



U: Safe uniform load (psf)

C: Concentrated load (psf)

Bar Size	Type	Approx Weight psf	Sec Mod Per Ft of Width	Load Types	LOAD & DEFLECTION TABLE / SPAN (Direction of Bearing Bar)											
					24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	
1" x 1/4"	19-W-4	9.5	0.421	U	1,404	898	624	458	351	277	225	186	156	115	88	
	19-W-2	10.1		C	1,404	1,123	936	802	702	624	561	510	468	401	351	
1" x 5/16"	19-W-4	12.1	0.526	U	1,754	1,123	780	573	439	347	281	232	195	143	110	
	19-W-2	13.3		C	1,754	1,404	1,170	1,003	877	780	702	638	585	501	439	
1-1/4" x 1/4"	19-W-4	11.7	0.658	U	2,193	1,404	975	716	548	433	351	290	244	179	137	
	19-W-2	12.3		C	2,193	1,754	1,462	1,253	1,096	975	877	797	731	627	548	
1-1/4" x 5/16"	19-W-4	14.3	0.822	U	2,741	1,754	1,218	895	685	541	439	362	305	224	171	
	19-W-2	16.0		C	2,741	2,193	1,827	1,566	1,031	1,218	1,096	997	914	783	685	
1-1/2" x 1/4"	19-W-4	13.9	0.947	U	3,158	2,021	1,404	1,031	789	624	505	418	351	258	197	
	19-W-2	14.5		C	3,158	2,526	2,105	1,805	1,579	1,404	1,263	1,148	1,053	902	789	
1-1/2" x 5/16"	19-W-4	17.8	1.184	U	3,947	2,526	1,754	1,289	987	780	632	522	439	322	247	
	19-W-2	18.8		C	3,947	3,158	2,632	2,256	1,974	1,754	1,579	1,435	1,316	1,128	987	
1-3/4" x 1/4"	19-W-4	16.1	1.289	U	4,298	2,751	1,910	1,404	1,075	849	688	568	478	351	269	
	19-W-2	16.7		C	4,298	3,439	2,865	2,456	2,149	1,910	1,719	1,563	1,433	1,228	1,075	
1-3/4" x 5/16"	19-W-4	20.4	1.612	U	5,373	3,439	2,388	1,754	1,343	1,061	860	710	597	439	336	
	19-W-2	21.5		C	5,373	4,298	3,582	3,070	2,686	2,388	2,149	1,954	1,791	1,535	1,343	
2" x 1/4"	19-W-4	18.3	1.684	U	5,614	3,593	2,495	1,833	1,404	1,109	898	742	624	458	351	
	19-W-2	18.9		C	5,614	4,491	3,743	3,208	2,807	2,495	2,246	2,041	1,871	1,604	1,404	
2" x 5/16"	19-W-4	23.1	2.105	U	7,018	4,491	3,119	2,291	1,754	1,386	1,123	928	780	573	439	
	19-W-2	24.6		C	7,018	5,614	4,678	4,010	3,509	3,119	2,807	2,552	2,339	2,005	1,754	
2-1/4" x 1/4"	19-W-4	20.5	2.132	U	7,105	4,547	3,158	2,320	1,776	1,404	1,137	940	789	580	444	
	19-W-2	21.1		C	7,105	5,684	4,737	4,060	3,553	3,158	2,842	2,584	2,368	2,030	1,776	
2-1/4" x 5/16"	19-W-4	25.9	2.664	U	8,882	5,684	3,947	2,900	2,220	1,754	1,421	1,174	987	725	555	
	19-W-2	27		C	8,882	7,105	5,921	5,075	4,441	3,947	3,553	3,230	2,961	2,538	2,220	
2-1/2" x 1/4"	19-W-4	22.7	2.632	U	8,772	5,614	3,899	2,864	2,193	1,733	1,404	1,160	975	716	548	
	19-W-2	23.3		C	8,772	7,018	5,848	5,013	4,386	3,899	3,509	3,190	2,924	2,506	2,193	
2-1/2" x 5/16"	19-W-4	28.6	3.289	U	10,965	7,018	4,873	3,580	2,741	2,166	1,754	1,450	1,218	895	685	
	19-W-2	29.8		C	10,965	8,772	7,310	6,266	5,482	4,873	4,386	3,987	3,655	3,133	2,741	
2-3/4" x 1/4"	19-W-4	24.9	3.184	U	10,614	6,793	4,717	3,466	2,654	2,097	1,698	1,404	1,179	866	663	
	19-W-2	25.6		C	10,614	8,491	7,076	6,065	5,307	4,717	4,246	3,860	3,538	3,033	2,654	
2-3/4" x 5/16"	19-W-4	31.8	3.980	U	13,268	8,491	5,897	4,332	3,317	2,621	2,123	1,754	1,474	1,083	829	
	19-W-2	33.3		C	13,268	10,614	8,845	7,581	6,634	5,897	5,307	4,825	4,423	3,791	3,317	
3" x 1/4"	19-W-4	27.8	3.789	U	12,632	8,084	5,614	4,125	3,158	2,495	2,021	1,670	1,404	1,031	789	
	19-W-2	28.7		C	12,632	10,105	8,421	7,218	6,316	5,614	5,053	4,593	4,211	3,609	3,158	
3" x 5/16"	19-W-4	34.5	4.737	U	15,789	10,105	7,018	5,156	3,947	3,119	2,526	2,088	1,754	1,289	987	
	19-W-2	36.1		C	15,789	12,632	10,526	9,023	7,895	7,018	6,316	5,742	5,263	4,511	3,947	

Note:

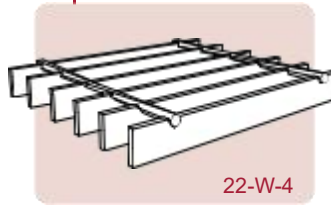
When gratings with serrated surface are specified,

the depth of the grating required for a specific load will be 1/4" greater than that shown in these tables.

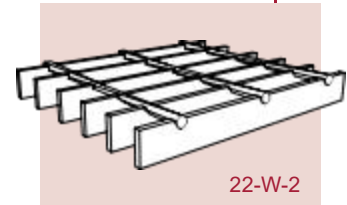
## 22 Space Load Table

Heavy Duty 1-<sup>3</sup>/<sub>8</sub>" C/C Bearing Bars  
Non-Serrated & Serrated

Heavy Duty Welded Bar Grating  
1-<sup>3</sup>/<sub>8</sub>" Center to Center of Bearing Bars



Cross Bars 4" Center to Center



Cross Bars 2" Center to Center

U: Safe uniform load (psf)  
C: Concentrated load (psf)

Bar Size	Type	Approx Weight psf	Sec Mod Per Ft of Width	Load Types	LOAD & DEFLECTION TABLE / SPAN (Direction of Bearing Bar)										
					24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"
1" x 1/4"	22-W-4	8.3	0.364	U	1,212	776	539	396	303	239	194	160	135	99	76
	22-W-2	9.0		C	1,212	970	808	693	606	539	485	441	404	346	303
1" x 5/16"	22-W-4	10.7	0.455	U	1,515	970	673	495	379	299	242	200	168	124	95
	22-W-2	11.8		C	1,515	1,212	1,010	866	758	673	606	551	505	433	379
1-1/4" x 1/4"	22-W-4	10.2	0.568	U	1,894	1,212	842	618	473	374	303	250	210	155	118
	22-W-2	10.9		C	1,894	1,515	1,263	1,082	947	842	758	689	631	541	473
1-1/4" x 5/16"	22-W-4	13.1	0.710	U	2,367	1,515	1,052	773	592	468	379	313	263	193	148
	22-W-2	14.2		C	2,367	1,894	1,578	1,353	1,184	1,052	947	861	789	676	592
1-1/2" x 1/4"	22-W-4	12.1	0.818	U	2,727	1,745	1,212	891	682	539	436	361	303	223	170
	22-W-2	12.8		C	2,727	2,182	1,818	1,558	1,364	1,212	1,091	992	909	779	682
1-1/2" x 5/16"	22-W-4	15.4	1.023	U	3,409	2,182	1,515	1,113	852	673	545	451	379	278	213
	22-W-2	16.8		C	3,409	2,727	2,273	1,948	1,705	1,515	1,364	1,240	1,136	974	852
1-3/4" x 1/4"	22-W-4	14.0	1.114	U	3,712	2,376	1,650	1,212	928	733	594	491	412	303	232
	22-W-2	14.7		C	3,712	2,970	2,475	2,121	1,856	1,650	1,485	1,350	1,237	1,061	928
1-3/4" x 5/16"	22-W-4	17.8	1.392	U	4,640	2,970	2,062	1,515	1,160	917	742	614	516	379	290
	22-W-2	19.0		C	4,640	3,712	3,093	2,652	2,320	2,062	1,856	1,687	1,547	1,326	1,160
2" x 1/4"	22-W-4	16.0	1.455	U	4,848	3,103	2,155	1,583	1,212	958	776	641	539	396	303
	22-W-2	16.6		C	4,848	3,879	3,232	2,771	2,424	2,155	1,939	1,763	1,616	1,385	1,212
2" x 5/16"	22-W-4	20.2	1.818	U	6,061	3,879	2,694	1,979	1,515	1,197	970	801	673	495	379
	22-W-2	21.3		C	6,061	4,848	4,040	3,463	3,030	2,694	2,424	2,204	2,020	1,732	1,515
2-1/4" x 1/4"	22-W-4	17.9	1.841	U	6,136	3,927	2,727	2,004	1,534	1,212	982	811	682	501	384
	22-W-2	18.5		C	6,136	4,909	4,091	3,506	3,068	2,727	2,455	2,231	2,045	1,753	1,534
2-1/4" x 5/16"	22-W-4	22.6	2.301	U	7,670	4,909	3,409	2,505	1,918	1,515	1,227	1,014	852	626	479
	22-W-2	23.7		C	7,670	6,136	5,114	4,383	3,835	3,409	3,068	2,789	2,557	2,192	1,918
2-1/2" x 1/4"	22-W-4	19.8	2.273	U	7,576	4,848	3,367	2,474	1,894	1,496	1,212	1,002	842	618	473
	22-W-2	20.4		C	7,576	6,061	5,051	4,329	3,788	3,367	3,030	2,755	2,525	2,165	1,894
2-1/2" x 5/16"	22-W-4	25.0	2.841	U	9,470	6,061	4,209	3,092	2,367	1,871	1,515	1,252	1,052	773	592
	22-W-2	26.1		C	9,470	7,576	6,313	5,411	4,735	4,209	3,788	3,444	3,157	2,706	2,367
2-3/4" x 1/4"	22-W-4	21.7	2.750	U	9,167	5,867	4,074	2,993	2,292	1,811	1,467	1,212	1,019	748	573
	22-W-2	22.3		C	9,167	7,333	6,111	5,238	4,583	4,074	3,667	3,333	3,056	2,619	2,292
2-3/4" x 5/16"	22-W-4	27.8	3.438	U	11,458	7,333	5,093	3,741	2,865	2,263	1,833	1,515	1,273	935	716
	22-W-2	29.3		C	11,458	9,167	7,639	6,548	5,729	5,093	4,583	4,167	3,819	3,274	2,865
3" x 1/4"	15-W-4	24.1	3.273	U	10,909	6,982	4,848	3,562	2,727	2,155	1,745	1,443	1,212	891	682
	15-W-2	25.2		C	10,909	8,727	7,273	6,234	5,455	4,848	4,364	3,967	3,636	3,117	2,727
3" x 5/16"	15-W-4	30.2	4.091	U	13,636	8,727	6,061	4,553	3,409	2,694	2,182	1,803	1,515	1,113	852
	15-W-2	31.7		C	13,636	10,909	9,091	7,792	6,818	6,061	5,455	4,959	4,545	3,896	3,409

Note:

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

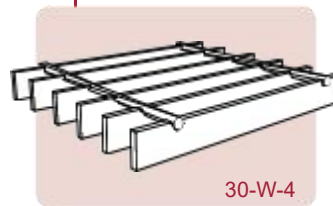
# HEAVY DUTY STEEL BAR GRATING

## 30 Space Load Table

Heavy Duty  $1\frac{7}{8}$ " C/C Bearing Bars

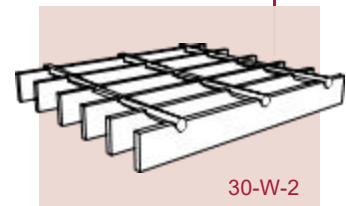
Non-Serrated & Serrated

Heavy Duty Welded Bar Grating  
 $1\frac{7}{8}$ " Center to Center of Bearing Bars



30-W-4

Cross Bars 4" Center to Center



30-W-2

Cross Bars 2" Center to Center

U: Safe uniform load (psf)

C: Concentrated load (psf)

Bar Size	Type	Approx Weight psf	Sec Mod Per Ft of Width	Load Types	LOAD & DEFLECTION TABLE / SPAN (Direction of Bearing Bar)											
					24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	
1" x 1/4"	30-W-4	6.3	0.267	U	889	569	395	290	222	176	142	118	99	73	56	
	30-W-2	7.0		C	889	711	593	508	444	395	356	323	296	254	222	
1" x 5/16"	30-W-4	8.2	0.333	U	1,111	711	494	363	278	219	178	147	123	91	69	
	30-W-2	9.4		C	1,111	889	741	635	556	494	444	404	370	317	278	
1-1/4" x 1/4"	30-W-4	7.8	0.417	U	1,389	889	617	454	347	274	222	184	154	113	87	
	30-W-2	8.4		C	1,389	1,111	926	794	694	617	556	505	463	397	347	
1-1/4" x 5/16"	30-W-4	10.0	0.521	U	1,736	1,111	772	567	434	343	278	230	193	142	109	
	30-W-2	11.1		C	1,736	1,389	1,157	992	868	772	694	631	579	496	434	
1-1/2" x 1/4"	30-W-4	9.2	0.600	U	2,000	1,280	889	653	500	395	320	264	222	163	125	
	30-W-2	9.8		C	2,000	1,600	1,333	1,143	1,000	889	800	727	667	571	500	
1-1/2" x 5/16"	30-W-4	11.8	0.750	U	2,500	1,600	1,111	816	625	494	400	331	278	204	156	
	30-W-2	12.9		C	2,500	2,000	1,667	1,429	1,250	1,111	1,000	909	833	714	625	
1-3/4" x 1/4"	30-W-4	10.6	0.817	U	2,722	1,742	1,210	889	681	538	436	360	302	222	170	
	30-W-2	11.3		C	2,722	2,178	1,815	1,556	1,361	1,210	1,089	990	907	778	681	
1-3/4" x 5/16"	30-W-4	13.6	1.021	U	3,403	2,178	1,512	1,111	851	672	544	450	378	278	213	
	30-W-2	14.7		C	3,403	2,722	2,269	1,944	1,701	1,512	1,361	1,237	1,134	972	851	
2" x 1/4"	30-W-4	12.0	1.067	U	3,556	2,276	1,580	1,161	889	702	569	470	395	290	222	
	30-W-2	12.7		C	3,556	2,844	2,370	2,032	1,778	1,580	1,422	1,293	1,185	1,016	889	
2" x 5/16"	30-W-4	15.3	1.333	U	4,444	2,844	1,975	1,451	1,111	878	711	588	494	363	278	
	30-W-2	16.5		C	4,444	3,556	2,963	2,540	2,222	1,975	1,778	1,616	1,481	1,270	1,111	
2-1/4" x 1/4"	30-W-4	13.6	1.350	U	4,500	2,880	2,000	1,469	1,125	889	720	595	500	367	281	
	30-W-2	14.1		C	4,500	3,600	3,000	2,571	2,250	2,000	1,800	1,636	1,500	1,286	1,125	
2-1/4" x 5/16"	30-W-4	17.1	1.688	U	5,625	3,600	2,500	1,837	1,406	1,111	900	744	625	459	352	
	30-W-2	18.3		C	5,625	4,500	3,750	3,214	2,813	2,500	2,250	2,045	1,875	1,607	1,406	
2-1/2" x 1/4"	30-W-4	14.9	1.667	U	5,556	3,556	2,469	1,814	1,389	1,097	889	735	617	454	347	
	30-W-2	15.3		C	5,556	4,444	3,704	3,175	2,778	2,469	2,222	2,020	1,852	1,587	1,389	
2-1/2" x 5/16"	30-W-4	18.9	2.083	U	6,944	4,444	3,086	2,268	1,736	1,372	1,111	918	772	567	434	
	30-W-2	20.0		C	6,944	5,556	4,630	3,968	3,472	3,086	2,778	2,525	2,315	1,984	1,736	
2-3/4" x 1/4"	30-W-4	16.3	2.017	U	6,722	4,302	2,988	2,195	1,681	1,328	1,076	889	747	549	420	
	30-W-2	17.0		C	6,722	5,378	4,481	3,841	3,361	2,988	2,689	2,444	2,241	1,921	1,681	
2-3/4" x 5/16"	30-W-4	21.0	2.521	U	8,403	5,378	3,735	2,744	2,101	1,660	1,344	1,111	934	686	525	
	30-W-2	22.6		C	8,403	6,722	5,602	4,802	4,201	3,735	3,361	3,056	2,801	2,401	2,101	
3" x 1/4"	30-W-4	18.2	2.400	U	8,000	5,120	3,556	2,612	2,000	1,580	1,280	1,058	889	653	500	
	30-W-2	19.3		C	8,000	6,400	5,333	4,571	4,000	3,556	3,200	2,909	2,667	2,286	2,000	
3" x 5/16"	30-W-4	22.8	3.000	U	10,000	6,400	4,444	3,265	2,500	1,975	1,600	1,322	1,111	816	625	
	30-W-2	24.4		C	10,000	8,000	6,667	5,714	5,000	4,444	4,000	3,636	3,333	2,857	2,500	

Note:

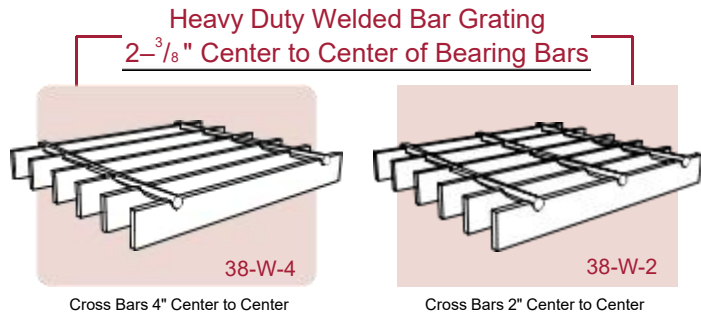
When gratings with serrated surface are specified,

the depth of the grating required for a specific load will be 1/4" greater than that shown in these tables.



## 38 Space Load Table

Heavy Duty 2-<sup>3</sup>/<sub>8</sub>" C/C Bearing Bars  
Non-Serrated & Serrated



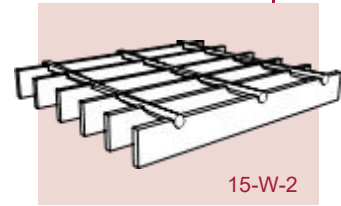
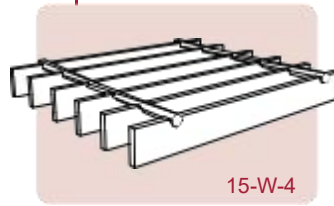
U: Safe uniform load (psf)  
C: Concentrated load (psf)

Bar Size	Type	Approx Weight psf	Sec Mod Per Ft of Width	Load Types	LOAD & DEFLECTION TABLE / SPAN (Direction of Bearing Bar)											
					24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	
1" x 1/4"	38-W-4	5.2	0.211	U	702	449	312	229	175	139	112	93	78	57	44	
	38-W-2	5.9		C	702	561	468	401	351	312	281	255	234	201	175	
1" x 5/16"	38-W-4	6.8	0.263	U	877	561	390	286	219	173	140	116	97	72	55	
	38-W-2	7.9		C	877	702	585	501	439	390	351	319	292	251	219	
1-1/4" x 1/4"	38-W-4	8.3	0.329	U	1,096	702	487	358	274	217	175	145	122	90	69	
	38-W-2	7.0		C	1,096	877	731	627	548	487	439	399	365	313	274	
1-1/4" x 5/16"	38-W-4	8.2	0.411	U	1,371	877	609	448	343	271	219	181	152	112	86	
	38-W-2	9.4		C	1,371	1,096	914	783	685	609	548	498	457	392	343	
1-1/2" x 1/4"	38-W-4	7.5	0.474	U	1,579	1,011	702	516	395	312	253	209	175	129	99	
	38-W-2	8.1		C	1,579	1,263	1,053	902	789	702	632	574	526	451	395	
1-1/2" x 5/16"	38-W-4	9.6	0.592	U	1,974	1,263	877	644	493	390	316	261	219	161	123	
	38-W-2	10.8		C	1,974	1,579	1,316	1,128	987	877	789	718	658	564	493	
1-3/4" x 1/4"	38-W-4	8.6	0.645	U	2,149	1,375	955	702	537	425	344	284	239	175	134	
	38-W-2	9.3		C	2,149	1,719	1,433	1,228	1,075	955	860	781	716	614	537	
1-3/4" x 5/16"	38-W-4	11.1	0.806	U	2,686	1,719	1,194	877	672	531	430	355	298	219	168	
	38-W-2	12.2		C	2,686	2,149	1,791	1,535	1,343	1,194	1,075	977	895	768	672	
2" x 1/4"	38-W-4	9.8	0.842	U	2,807	1,796	1,248	917	702	554	449	371	312	229	175	
	38-W-2	10.4		C	2,807	2,246	1,871	1,604	1,404	1,248	1,123	1,021	936	802	702	
2" x 5/16"	38-W-4	12.5	1.053	U	3,509	2,246	1,559	1,146	877	693	561	464	390	286	219	
	38-W-2	13.6		C	3,509	2,807	2,339	2,005	1,754	1,559	1,404	1,276	1,170	1,003	877	
2-1/4" x 1/4"	38-W-4	10.9	1.066	U	3,553	2,274	1,579	1,160	888	702	568	470	395	290	222	
	38-W-2	11.5		C	3,553	2,842	2,368	2,030	1,776	1,579	1,421	1,292	1,184	1,015	888	
2-1/4" x 5/16"	38-W-4	13.9	1.332	U	4,441	2,842	1,974	1,450	1,110	877	711	587	493	363	278	
	38-W-2	15.0		C	4,441	3,553	2,961	2,538	2,220	1,974	1,776	1,615	1,480	1,269	1,110	
2-1/2" x 1/4"	38-W-4	12.0	1.316	U	4,386	2,807	1,949	1,432	1,096	866	702	580	487	358	274	
	38-W-2	12.7		C	4,386	3,509	2,924	2,506	2,193	1,949	1,754	1,595	1,462	1,253	1,096	
2-1/2" x 5/16"	38-W-4	15.3	1.645	U	5,482	3,509	2,437	1,790	1,371	1,083	877	725	609	448	343	
	38-W-2	16.5		C	5,482	4,386	3,655	3,133	2,741	2,437	2,193	1,994	1,827	1,566	1,371	
2-3/4" x 1/4"	38-W-4	13.2	1.592	U	5,307	3,396	2,359	1,733	1,327	1,048	849	702	590	433	332	
	38-W-2	13.8		C	5,307	4,246	3,538	3,033	2,654	2,359	2,123	1,930	1,769	1,516	1,327	
2-3/4" x 5/16"	38-W-4	17.2	1.990	U	6,634	4,246	2,948	2,166	1,658	1,310	1,061	877	737	542	415	
	38-W-2	18.7		C	6,634	5,307	4,423	3,791	3,317	2,948	2,654	2,412	2,211	1,895	1,658	
3" x 1/4"	38-W-4	14.9	1.895	U	6,316	4,042	2,807	2,062	1,579	1,248	1,011	835	702	516	395	
	38-W-2	15.9		C	6,316	5,053	4,211	3,609	3,158	2,807	2,526	2,297	2,105	1,805	1,579	
3" x 5/16"	38-W-4	18.6	2.368	U	7,895	5,053	3,509	2,578	1,974	1,559	1,263	1,044	877	644	493	
	38-W-2	20.1		C	7,895	6,316	5,263	4,511	3,947	3,509	3,158	2,871	2,632	2,256	1,974	

Note:

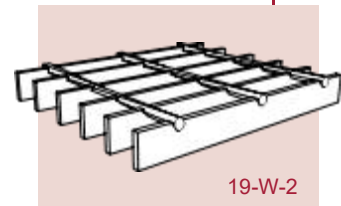
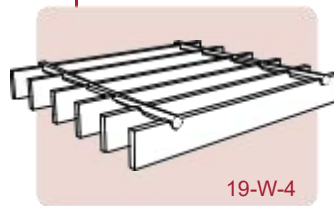
When gratings with serrated surface are specified,  
the depth of the grating required for a specific load will be 1/4" greater than that shown in these tables.

## Heavy Duty Welded Bar Grating

 $1\frac{5}{16}$ " Center to Center of Bearing Bars**15 Space Load Table**Heavy Duty  $1\frac{5}{16}$ " C/C Bearing Bars  
Non-Serrated & Serrated

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

## Heavy Duty Welded Bar Grating

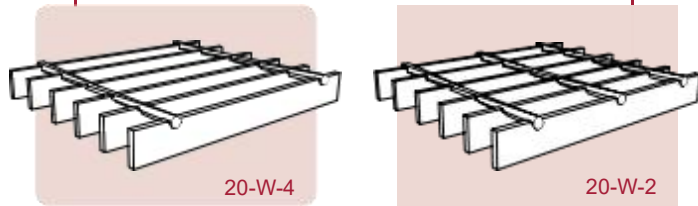
 $1\frac{3}{16}$ " Center to Center of Bearing Bars**19 Space Load Table**Heavy Duty  $1\frac{3}{16}$ " C/C Bearing Bars  
Non-Serrated & Serrated

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

## 22 Space Load Table

Heavy Duty 1-<sup>3</sup>/<sub>8</sub>" C/C Bearing Bars  
Non-Serrated & Serrated

Heavy Duty Welded Bar Grating  
1-<sup>3</sup>/<sub>8</sub>" Center to Center of Bearing Bars

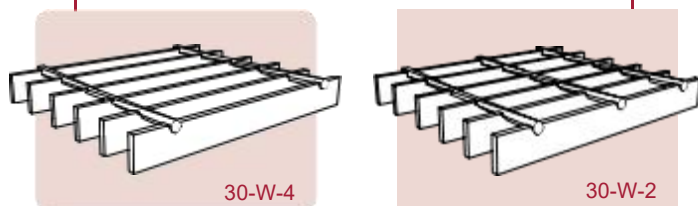


Bar Size	Section Modulus psf	Moment of Inertia psf	Approx Weight psf	Maximum Safe Span						
				H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1" x 1/4"	0.364	0.182	8.5	0'-11"	0'-10"	0'-9"	0'-11"	0'-7"	0'-6"	0'-6"
1" x 5/16"	0.455	0.227	10.4	1'-0"	0'-11"	0'-10"	1'-1"	0'-8"	0'-6"	0'-7"
1-1/4" 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"
1-1/2" 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"
1-3/4" 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"
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"
2-1/4" 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'-8"
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"
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"

## 30 Space Load Table

Heavy Duty 1-<sup>7</sup>/<sub>8</sub>" C/C Bearing Bars  
Non-Serrated & Serrated

Heavy Duty Welded Bar Grating  
1-<sup>7</sup>/<sub>8</sub>" Center to Center of Bearing Bars



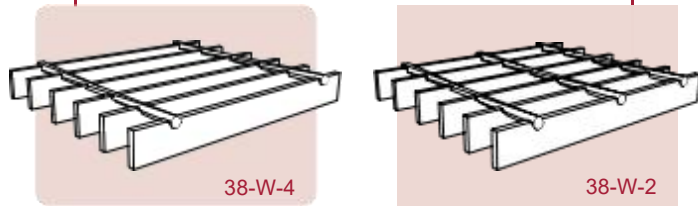
Bar Size	Section Modulus psf	Moment of Inertia psf	Approx Weight psf	Maximum Safe Span						
				H-25 Load	H-20 Load	H-15 Load	Auto Traffic	5 Ton Forklift	3 Ton Forklift	1 Ton Forklift
1" x 1/4"	0.267	0.133	6.6	0'-9"	0'-9"	0'-8"	0'-10"	0'-6"	0'-5"	0'-6"
1" x 5/16"	0.333	0.167	7.9	0'-11"	0'-10"	0'-8"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



## 38 Space Load Table

Heavy Duty 2- $\frac{3}{8}$ " C/C Bearing Bars  
Non-Serrated & Serrated

Heavy Duty Welded Bar Grating  
2- $\frac{3}{8}$ " Center to Center of Bearing Bars



H-25 Load



H-20 Load



H-15 Load



Auto Traffic



5 Ton Forklift



3 Ton Forklift



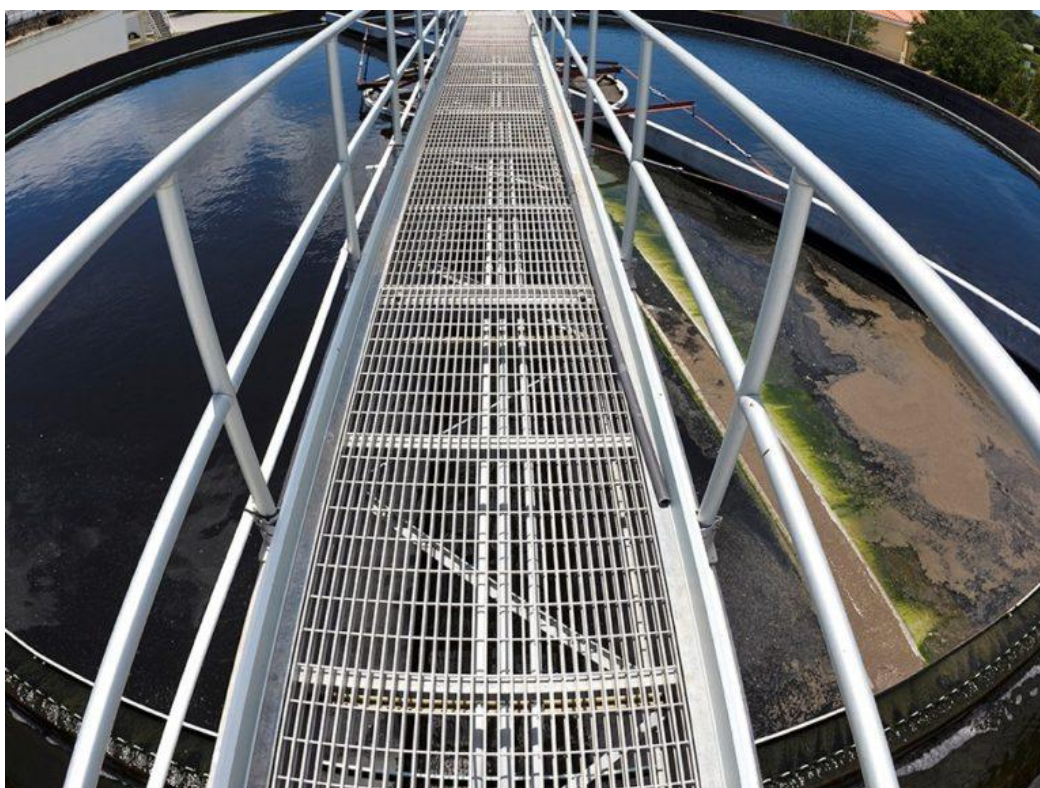
1 Ton Forklift

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



# SHANDONG KIND HOLD NEW MATERIAL CO.,LTD.

Perfect Choice for Heavy Loads with Minimal Weight



## **SHANDONG KIND HOLD NEW MATERIAL CO.,LTD.**

Add: #4 building, Dinghao Plaza, Lixia district, Jinan, Shandong, China.

Mob: +86-18954132627/18954172027 (WeChat & WhatsApp)

E-mail: [info@kindhold.com](mailto:info@kindhold.com)

Website: <http://www.kindhold.com>