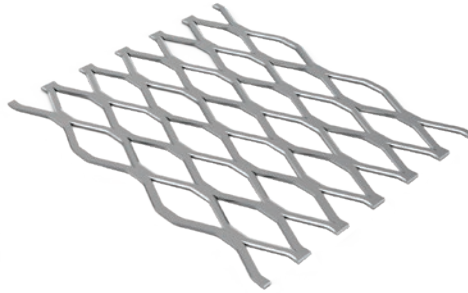


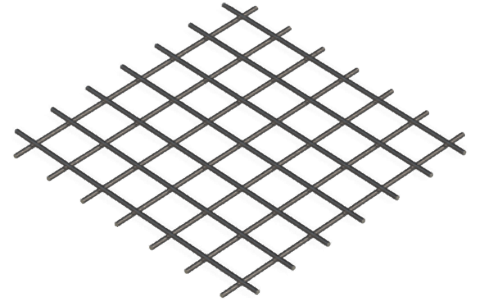
MASTER CATALOG



Perforated Metal



Expanded Metal

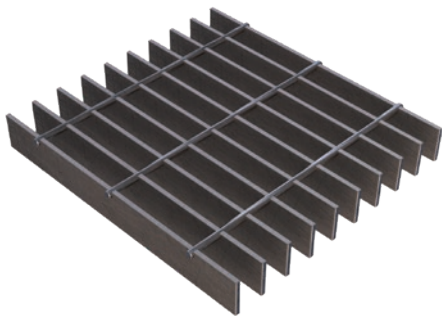


Wire Mesh

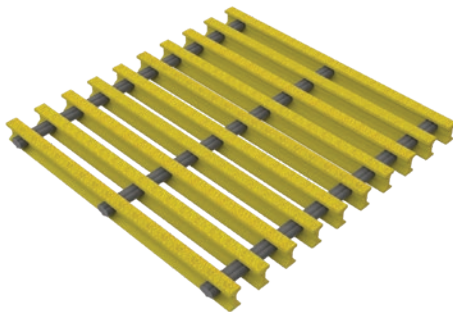
Serving you



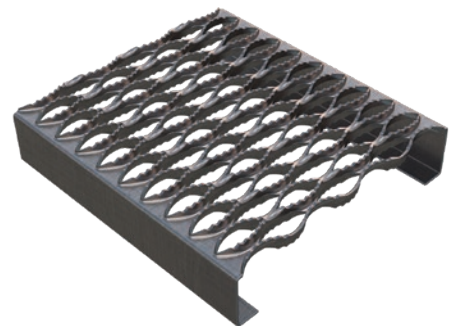
since 1952.



Bar Grating



Fiberglass Grating



Plank Grating



McNICHOLS CO.

800.237.3820

800.237.9212 (español)

mcnichols.com





Bob McNichols,
Founder (1922 - 1981)

Dear Hole Customer,

Thank you for your interest in **McNICHOLS**! After almost seven decades in business, I am reminded of how blessed our family and company has been to serve so many customers over the years. We consider it an honor to serve you and thank you for trusting us.

In 1967, my grandfather began the important practice of providing customers with a Master Catalog. Customers have shared with us that it's been a trusted resource for choosing the right products for their applications. This tool is just one of many available to you! We strive to give you best-in-class resources like **mcnichols.com**, where we go into further detail about products, services, locations, and more.

I sometimes wonder what my grandfather would want for our customers, but only for a brief moment. I don't have to think for long to be reminded of what was important to him ... service. Our team has been assembled to deliver superior service and we'd be honored to earn your business today. I believe you will experience a team that is ready and **Inspired to Serve®!**

Scott M. McNichols
President

THE HOLE STORY®

The sole survivor of a Boeing B-17 Flying Fortress shot down during World War II, Robert L. "Bob" McNichols pledged to lead his life and business according to Christian principles. He believed in the highest level of service, a dedication to his employees, and an appreciation for the customers he had the privilege to serve.

Following discovery by a farmer, Bob was sent to prisoner-of-war camp Stalag Luft I, where he remained until his liberation on May 1, 1945. Seven years to the day after his release from Stalag Luft I, Bob and his wife Phyllis founded **McNICHOLS CO.**

When Bob started the business in 1952, he focused on selling metal products with "holes" such as Perforated and Expanded Metal. This focus led to the motto "**The Hole Story®**," which symbolizes the Company's philosophy as well as its products. Bob trademarked **The Hole Story®** and advertised it in the 1975 **McNICHOLS®** Master Catalog. This began the tradition of "hole" references such as "Hole Products" and "The Hole Team."

After the unexpected loss of Bob in 1981, his son Gene took the reins. Gene carried on his father's legacy by growing the business. In 1990, Gene introduced the "**Service, Quality and Performance**" mission. The words embody the spirit of the organization – including its emphasis on customer service, high standards for quality (demonstrated by our ISO 9001:2015 certification), and dedication to performance.

Today, **McNICHOLS** remains a family business with 19 locations across the country. The essence and spirit of the founder remain ever-present. Bob's faith gave him the courage to build **McNICHOLS** on a Christian foundation. "To God Be The Glory" was one of his favorite sayings.

As **McNICHOLS** continues to grow through the years, the third generation of the McNichols family – as well as every member of The Hole Team – act as stewards of Bob's legacy. Providing Hole Products Through Superior **Service, Quality and Performance** ... That's **The Hole Story®!**

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We're Ready to Serve.

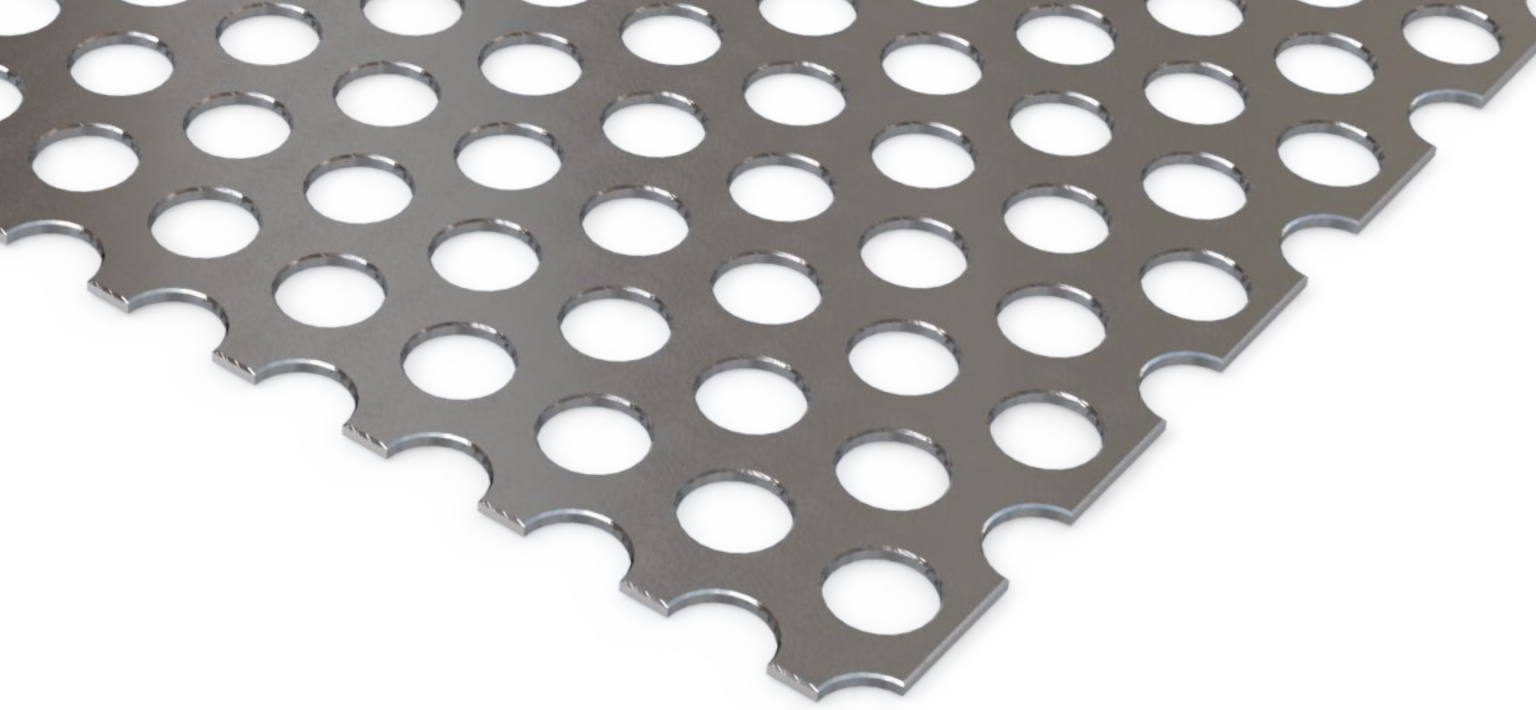
Since 1952, our strong supply network, in-stock inventory, and nationwide coverage has allowed us to provide the highest levels of service.

We continue to work to ensure your business has our unwavering support.

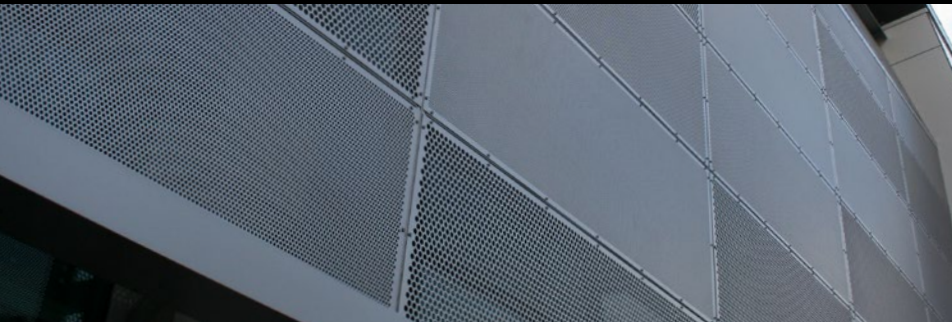
Email - sales@mcnichols.com

Phone - 800.237.3820

Live Chat - [at mcnichols.com](#)



PERFORATED METAL



McNICHOLS has the largest selection of Perforated Metal in North America, available in a variety of hole shapes, sizes, gauges, and material types. A popular choice among designers and architects, Perforated Metal is used for its versatility, high strength-to-weight ratio, and aesthetic appeal. Product openings permit the passage of light, air, sound, and liquid, and the product is lightweight and easy to fabricate and form. **McNICHOLS** is ready to cut your Perforated Metal to size quickly and accurately!

COMMON APPLICATIONS

- | | | |
|---------------------|------------|------------------|
| Acoustical Surfaces | Filtration | Infill Panels |
| Baskets | Furniture | Security Screens |
| Enclosures | Guards | Sign Panels |
| Facades | Lighting | Sound Absorption |

PRODUCT LINE TERMINOLOGY

Bar Width - Also referred to as Bar Size, the measurement of the material between the outer edge of one hole to the outer edge of the nearest adjacent hole in a Perforated Metal sheet or plate.

Camber - The maximum deviation of a side edge of a sheet when compared to a straight line. This measurement is taken by placing a straight edge on the concave side of a sheet and measuring the greatest distance between the sheet edge and the straight edge.

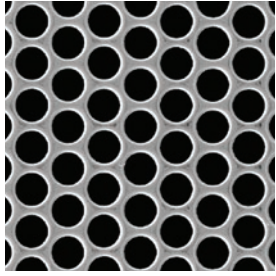
Hole Arrangement - Rows of perforations are arranged in 45° or 60° staggered centers or in straight rows for Round Hole Perforated Metal. Square Hole Perforated is available in staggered or straight centers while our Hexagonal Hole type is stocked in a staggered arrangement. Additional arrangements are available for our Slotted Hole type.

Hole Centers - The distance from the center of one hole to the center of the nearest adjacent hole in the next adjoining row.

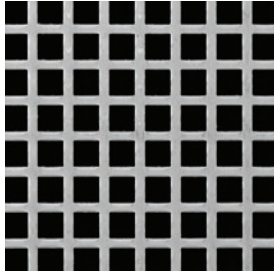
Margins - The blank (unperforated) area along the edges of a sheet or plate. Most stock items have minimum margins along the length and no margins along the width (holes are sheared through).

Random Shearing - The process of cutting sheets to size without regard to the position of the holes. This type of cut may result in an incomplete pattern.

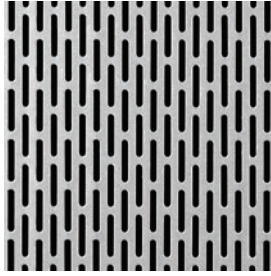
HOLE TYPES



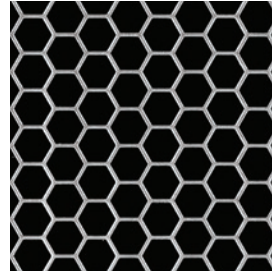
Round



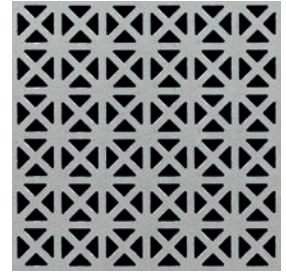
Square



Slotted



Hexagonal



Designer

MATERIALS

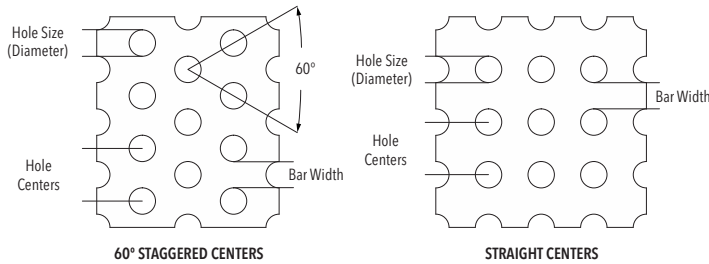
Select from the following primary material types:

Aluminum Galvanized Steel Plastic
Carbon Steel Stainless Steel

Inventory is typically mill finish unless otherwise specified.

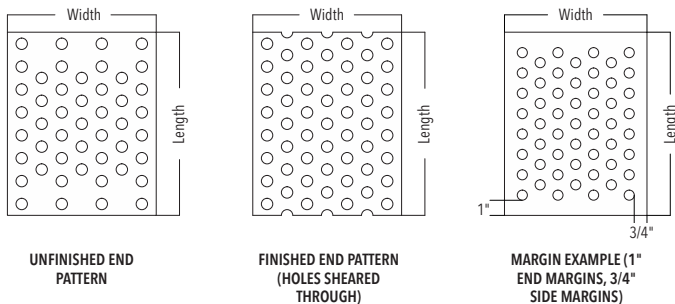
HOLE PATTERN

Identify hole size, hole type (shape), hole center (spacing), and hole arrangement (staggered centers or straight centers - e.g. 1/8" Round on 3/16" Staggered Centers), or Designer Perforated name and pattern number (e.g. WINDSOR 1845).



MARGINS & END PATTERNS

Most Perforated Metal hole types have margins (blank or unperforated areas of material along the edges of the sheet). For Round Hole stock sheets, the standard is minimum margins along the length and no margins along the width—holes are sheared through sheet ends as they are produced.



OPEN AREA & HOLES PER SQUARE INCH

The percentage of open area and the number of holes per square inch (HPSI) are often important application considerations. For example, for a filtration application, open area and HPSI are needed to understand liquid flow rates (volume of liquid allowed to pass through holes in the material within a given period of time). Common Round Hole formulas include:

60° Staggered Centers

<p>Open Area</p> $\frac{D^2 \times 90.69}{C^2} = \%$	<p>HPSI</p> $\frac{\% \text{ Open Area}}{78.54 \times D^2} = \text{HPSI}$
Straight Centers	
<p>Open Area</p> $\frac{D^2 \times 78.54}{C^2} = \%$	<p>HPSI</p> $\frac{\% \text{ Open Area}}{78.54 \times D^2} = \text{HPSI}$
<p>D - Diameter C - Hole Centers</p>	

VALUE-ADDED SERVICES

McNICHOLS® can cut your Perforated Metal selection to size in house! We regularly shear material in a variety of shapes and cut sizes both timely and accurately. Railing inserts and other types of Infill Panels are also our specialty! Learn more on page 8 and 29.

ACCESSORIES

We have several framing options to choose from including Angle, Flat Bar, and U-Edging (a U-shaped metal strip welded to the edges of Perforated Metal cut pieces).

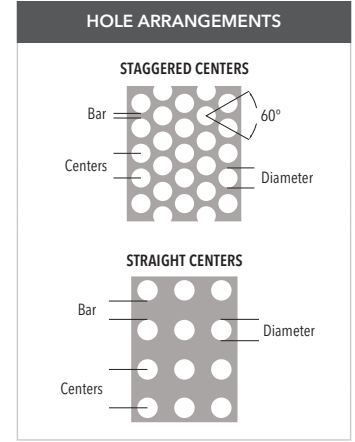
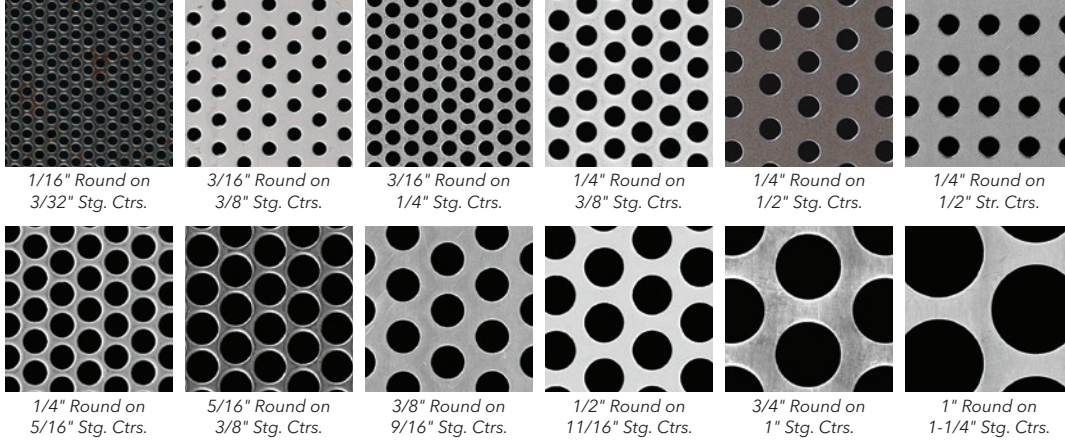
McNICHOLS® Perforated Metal shown framed with U-Edging and corners treated with a standard miter joint.

FRAMING OPTIONS



ROUND HOLE PERFORATED METAL

McNICHOLS® Round Hole Perforated Metal is an extremely versatile product offered in various diameters, gauges, materials, and sheet size options. The wide range of round hole sizes available are ideal for applications involving water or light filtration, audio amplification and absorption, airflow, and more.

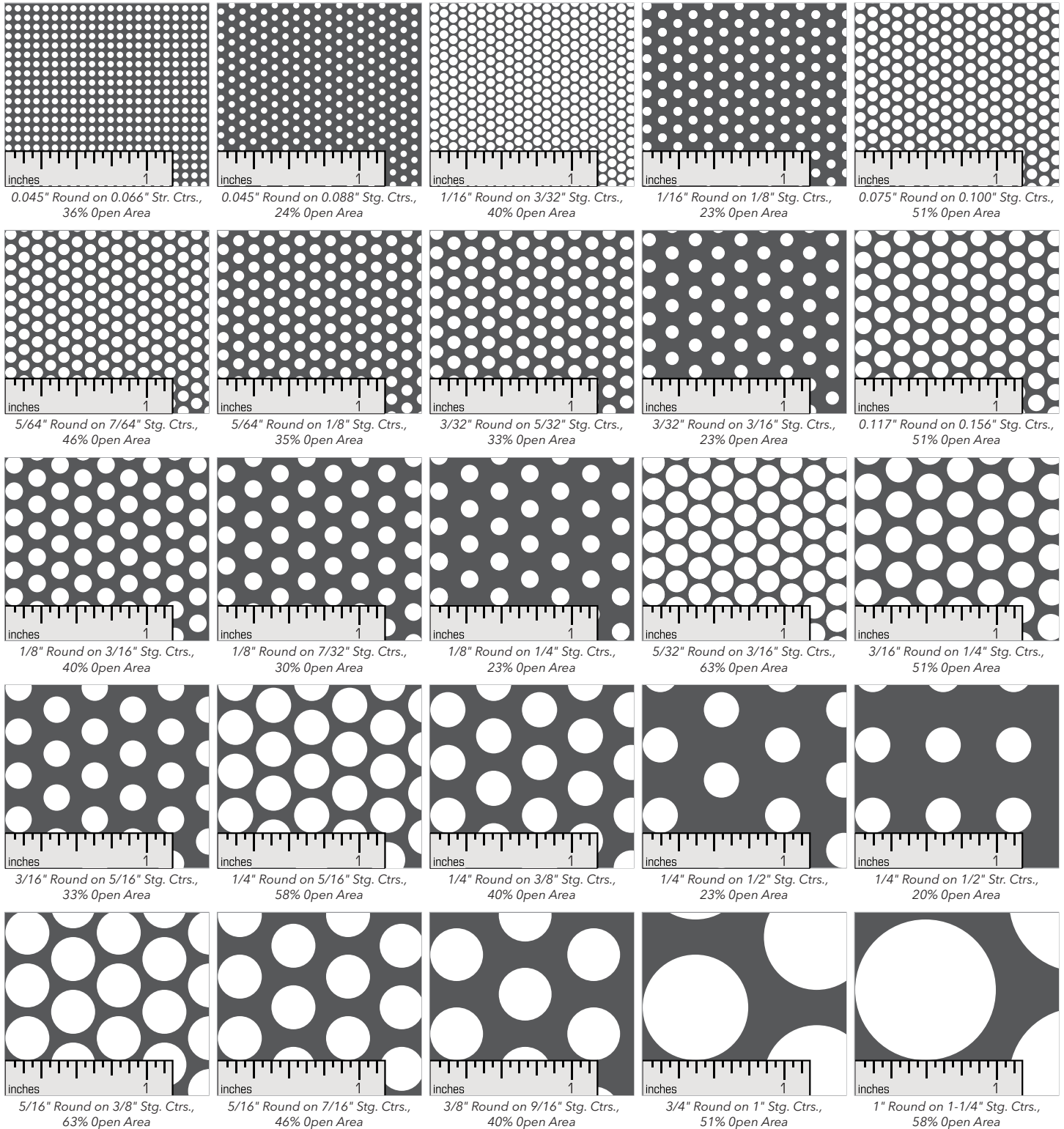


ROUND HOLE STOCK LIST											
HOLE DIAMETER	HOLE CENTERS	GAUGE/THICKNESS	OPEN AREA	HOLE DIAMETER	HOLE CENTERS	GAUGE/THICKNESS	OPEN AREA	HOLE DIAMETER	HOLE CENTERS	GAUGE/THICKNESS	OPEN AREA
ALUMINUM, ALLOY 3003-H14				CARBON STEEL (CONT.)				STAINLESS STEEL, TYPE 304 (CONT.)			
0.033" Rd.	0.050" Str.	.032	34%	3/32" Rd.	5/32" Stg.	24, 22, 18, 16, 14	33%	1/4" Rd.	5/16" Stg.	22, 20, 18, 16	58%
1/16" Rd.	3/32" Stg.	.032, .063	40%	3/32" Rd.	3/16" Stg.	14	23%	1/4" Rd.	3/8" Stg.	22, 20, 18, 16, 14, 11, 3/16"	40%
1/16" Rd.	7/64" Stg.	.063	30%	0.117" Rd.	0.156" Stg.	22	51%	5/16" Rd.	7/16" Stg.	16	46%
1/16" Rd.	1/8" Stg.	.032, .040	23%	1/8" Rd.	3/16" Stg.	24, 22, 20, 18, 16, 14, 12, 11	40%	3/8" Rd.	1/2" Stg.	11	51%
1/16" Rd.	5/32" Stg.	.032, .050, .080	33%	1/8" Rd.	1/4" Stg.	20, 16	23%	3/8" Rd.	9/16" Stg.	16, 14, 11	40%
3/32" Rd.	3/16" Stg.	.050	23%	9/64" Rd.	3/16" Stg.	20, 18, 11	51%	1/2" Rd.	11/16" Stg.	16, 14, 11, 3/16", 1/4"	48%
0.117" Rd.	0.156" Stg.	.032	51%	5/32" Rd.	3/16" Stg.	22, 20, 18, 16	63%	3/4" Rd.	1" Stg.	16, 11	51%
1/8" Rd.	3/16" Stg.	.032, .050, .063, .125	40%	3/16" Rd.	1/4" Stg.	22, 20, 18, 16, 14, 12, 11	51%	1" Rd.	1-1/4" Stg.	11	58%
5/32" Rd.	3/16" Stg.	.063	63%	3/16" Rd.	5/16" Stg.	18, 16, 11, 3/16"	33%	STAINLESS STEEL, TYPE 316L			
3/16" Rd.	1/4" Stg.	.032, .050, .063, .125	51%	3/16" Rd.	3/8" Stg.	14	23%	1/16" Rd.	3/32" Stg.	22, 20	40%
3/16" Rd.	5/16" Stg.	.063, .125	33%	1/4" Rd.	5/16" Stg.	20, 18, 16, 14, 12	58%	1/16" Rd.	1/8" Stg.	22, 20, 18	23%
1/4" Rd.	5/16" Stg.	.063, .125	58%	1/4" Rd.	3/8" Stg.	20, 18, 16, 14, 12, 11, 10, 3/16", 1/4"	40%	3/32" Rd.	3/16" Stg.	22	22%
1/4" Rd.	3/8" Stg.	.040, .063, .125	40%	1/4" Rd.	1/2" Str.	20	20%	1/8" Rd.	3/16" Stg.	22, 20, 18, 16, 14, 12, 11	40%
1/4" Rd.	1/2" Stg.	.250	23%	1/4" Rd.	1/2" Stg.	20, 16, 14, 11	23%	5/32" Rd.	3/16" Stg.	24, 20, 18, 16	63%
3/8" Rd.	9/16" Stg.	.063, .125	40%	1/4" Rd.	1" Str.	20	5%	3/16" Rd.	1/4" Stg.	22, 20, 18, 16	51%
1/2" Rd.	11/16" Stg.	.063, .125, .250	48%	5/16" Rd.	3/8" Stg.	16	63%	3/16" Rd.	3/8" Stg.	16	23%
3/4" Rd.	1" Stg.	.063, .125	51%	5/16" Rd.	7/16" Stg.	11	46%	1/4" Rd.	5/16" Stg.	22, 20, 18, 16	58%
1" Rd.	1-1/4" Stg.	.125	58%	3/8" Rd.	1/2" Stg.	11, 1/4"	51%	1/4" Rd.	3/8" Stg.	16, 14, 11	40%
ALUMINUM, ALLOY 5052-H32				3/8" Rd.	9/16" Stg.	16, 12, 11, 3/16", 1/4"	40%	PRE-GALVANIZED, G90			
3/16" Rd.	3/8" Stg.	.040	23%	1/2" Rd.	11/16" Stg.	20, 16, 14, 11, 10, 3/16", 1/4", 3/8"	48%	1/16" Rd.	3/32" Stg.	22	40%
3/16" Rd.	1/4" Stg.	.032, .063	51%	3/4" Rd.	1" Stg.	16, 11, 3/16", 1/4"	51%	3/32" Rd.	3/16" Stg.	22, 20	23%
3/16" Rd.	5/16" Stg.	.063	32%	1" Rd.	1-1/4" Stg.	11, 1/4"	58%	1/8" Rd.	3/16" Stg.	24, 20, 18, 16	40%
1/4" Rd.	3/8" Stg.	.125	40%	STAINLESS STEEL, TYPE 304				5/32" Rd.	3/16" Stg.	22	63%
1/4" Rd.	5/16" Stg.	.032	58%	0.033" Rd.	0.055" Str.	26	28%	3/16" Rd.	1/4" Stg.	20, 18, 16	51%
1/2" Rd.	11/16" Stg.	.063, .125	48%	0.045" Rd.	0.066" Str.	26, 24	36%	1/4" Rd.	5/16" Stg.	20	58%
CARBON STEEL				1/16" Rd.	3/32" Stg.	22, 20	40%	1/2" Rd.	11/16" Stg.	18	48%
0.027" Rd.	0.050" Str.	26	23%	1/16" Rd.	1/8" Stg.	22, 20, 18	23%	OTHER			
0.045" Rd.	0.066" Str.	24	36%	5/64" Rd.	7/64" Stg.	20	46%	0.033" Rd.	0.056" Str.	.020 (Brass)	28%
0.045" Rd.	0.088" Stg.	24	24%	3/32" Rd.	5/32" Stg.	22, 20, 18, 16	33%	1/8" Rd.	3/16" Stg.	.063 (Plastic) PLASTIPERF™	40%
1/16" Rd.	3/32" Stg.	24, 22, 20	40%	3/32" Rd.	3/16" Stg.	22	22%	3/16" Rd.	5/16" Stg.	.125 (Plastic) PLASTIPERF™	33%
1/16" Rd.	7/64" Stg.	16	30%	1/8" Rd.	3/16" Stg.	22, 20, 18, 16, 14, 12, 11	40%	1/4" Rd.	1" Str.	20 (CS, SS 304) PERF-PANL™	5%
1/16" Rd.	1/8" Stg.	22, 20, 18, 16	23%	5/32" Rd.	3/16" Stg.	24, 20, 18, 16	63%	1/4" Rd.	1" Str.	20 (SS 304) PERF-PANL™	5%
5/64" Rd.	7/64" Stg.	20	46%	3/16" Rd.	1/4" Stg.	22, 20, 18, 16	51%				
5/64" Rd.	1/8" Stg.	18, 16	35%	3/16" Rd.	5/16" Stg.	16, 11	33%				

The most common sheet sizes are 36" x 96", 48" x 96", 36" x 120", and 48" x 120". Items are also stocked in many smaller sizes. Widths of 60" and lengths of 144" are also available from inventory. McNICHOLS can cut your selections to size quickly and accurately. Pictures above are not to scale. For actual scale diagrams, please refer to page 5.

ROUND HOLE PATTERNS TO SCALE

Below is just a sampling of our items shown to scale. More **McNICHOLS®** Perforated Metal diameters to scale are available at mcnichols.com.



MINIMUM HOLE SIZE & BAR WIDTH GUIDELINES When perforating Aluminum and Carbon Steel, the hole diameter should not be less than the gauge/thickness of the material. As the relationship between the hole diameter and gauge/thickness approaches a one-to-one ratio, there is a higher probability of tool failure, and the greater the precautions necessary to protect against this result. For Stainless Steel and similar higher strength materials, it is common to specify at least one gauge/thickness thinner than the hole diameter. This same general guideline also applies to bar width (also known as bar size). The bar width or solid material between perforations, should be greater than the gauge/thickness of the material to avoid quality issues. As these two attributes approach a one-to-one ratio, a greater number of punches is required which sharply increases the press tonnage needed to perforate the material.

PLASTIPERF™



1/8" Round on 3/16" Stg. Ctrs.

McNICHOLS PLASTIPERF™ is made from Polypropylene Plastic that excels in damp or corrosive environments and is non-magnetic, anti-static, and lightweight. Plastic reduces material weight, controls the flow of air and light, and aids in visibility.



3/16" Round on 5/16" Stg. Ctrs.

Applications include signs, filters, baskets, strainers, screens, ceiling tiles, insulation parts, and sunshades. Common industries include plating, hatcheries, food, and electronics.

PLASTIPERF™ STOCK LIST

HOLE DIA.	HOLE CENTERS	GAUGE	OPEN AREA	STANDARD SHEET SIZES
1/8" Rd.	3/16" Stg.	16	40%	48" x 96"
3/16" Rd.	5/16" Stg.	11	33%	48" x 96"

PERF-PANL™



McNICHOLS PERF-PANL™
Retail Store Display

McNICHOLS PERF-PANL™ has indented round holes and is typically used for displays, exhibits, and wall panels. PERF-PANL™ is available from inventory in both Carbon Steel and Stainless Steel.

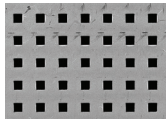
Applications include displays, wall panels, custom exhibits, point-of-purchase, and utility dividers. Common industries include retail stores, automotive, and trade-show displays.

PERF-PANL™ STOCK LIST

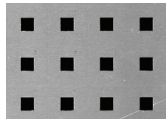
MATERIAL	GAUGE	HOLE DIA.	HOLE CENTERS	OPEN AREA	STANDARD SHEET SIZES
Carbon Steel, Stainless Steel	20	1/4" Rd.	1" Str.	5%	48" x 96", 48" x 120"
Stainless Steel (Small Collar)	20	1/4" Rd.	1" Str.	5%	48" x 96"

SQUARE HOLE PERFORATED METAL

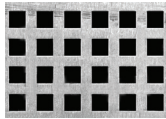
McNICHOLS® Square Hole Perforated Metal is an attractive alternative to Round Hole Perforated Metal in many applications.



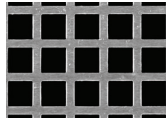
0.200" Square on 0.500" Str. Ctrs.



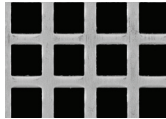
1/4" Square on 3/4" Str. Ctrs.



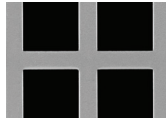
5/16" Square on 1/2" Str. Ctrs.



3/8" Square on 1/2" Str. Ctrs.



LATTICE, 1/2" Square on 1 1/16" Str. Ctrs.

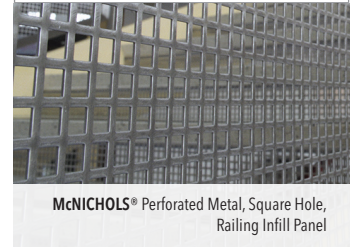
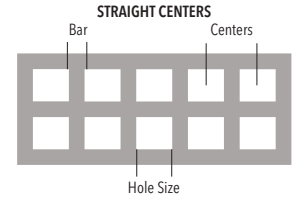


3/4" Square on 1" Str. Ctrs.

SQUARE HOLE STOCK LIST

NAME	GA/THK	HOLE SIZE	HOLE CENTERS	OA	STANDARD SHEET SIZES
ALUMINUM					
--	.050	0.200" Sq.	0.500" Str.	16%	48" x 24", 48" x 120"
--	.032	1/4" Sq.	3/4" Str.	11%	48" x 96", 48" x 120"
--	.050	5/16" Sq.	1/2" Str.	39%	48" x 24", 48" x 96"
--	.032, .063	3/8" Sq.	1/2" Str.	56%	36" x 24", 36" x 96", 48" x 24", 48" x 120"
LATTICE	.050, .063, .125	1/2" Sq.	1 1/16" Str.	53%	48" x 24", 48" x 96", 48" x 120"
--	.063	3/4" Sq.	1" Str.	56%	48" x 24", 48" x 120"
CARBON STEEL					
HANOVER SQUARE	20	0.200" Sq.	0.250" Str.	64%	36" x 24", 36" x 120"
--	18	0.200" Sq.	0.500" Str.	16%	48" x 24", 48" x 120"
--	22	1/4" Sq.	3/4" Str.	11%	48" x 96", 48" x 120"
--	18	5/16" Sq.	1/2" Str.	39%	48" x 24", 48" x 120"
--	16	3/8" Sq.	1/2" Str.	56%	36" x 24", 36" x 48", 36" x 96", 48" x 120"
LATTICE	20, 16, 12	1/2" Sq.	1 1/16" Str.	53%	48" x 24", 48" x 120"
--	16, 11	3/4" Sq.	1" Str.	56%	48" x 24", 48" x 120"
STAINLESS STEEL					
HANOVER SQUARE	22	0.200" Sq.	0.250" Str.	64%	36" x 24", 36" x 96"
--	16	3/8" Sq.	1/2" Str.	56%	48" x 24", 48" x 120"

HOLE ARRANGEMENT



SLOTTED HOLE PERFORATED METAL

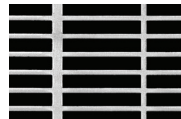
McNICHOLS® Slotted Hole Perforated Metal has elongated holes with Round or Square ends in straight rows or side or end staggered arrangements.



MOIRE, 1/8" x 3/4" Rd.-End, Side Stg.



1/8" x 1" Rd.-End, Side Stg.

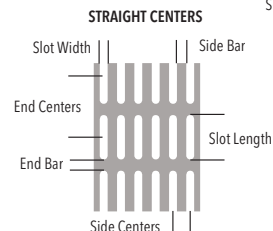
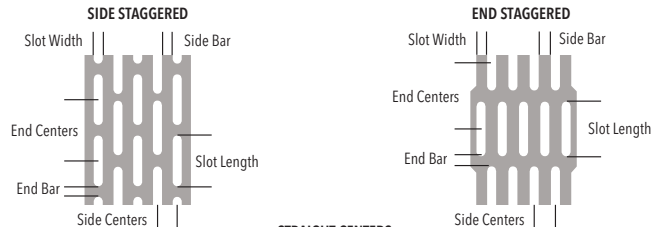


AIRLINE, 1-1/2" x 1/4" Sq.-End, Str. Ctrs.

SLOTTED HOLE STOCK LIST

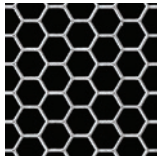
NAME	GA/THK	SLOT SIZE	SLOT END	SLOT CTRS	OA	STANDARD SHEET SIZES
ALUMINUM						
AIRLINE	.040, .063	1-1/2" x 1/4"	Sq.-End	Str.	68%	36" x 24", 36" x 96", 36" x 120", 48" x 96", 48" x 120"
MOIRE	.032	1/8" x 3/4"	Rd.-End	Side Stg.	43%	36" x 96"
--	.063	1/8" x 1"	Rd.-End	Side Stg.	44%	36" x 120"
CARBON STEEL						
AIRLINE	18, 16	1-1/2" x 1-1/4"	Sq.-End	Str.	68%	36" x 96", 36" x 120"
MOIRE	22	1/8" x 3/4"	Rd.-End	Side Stg.	43%	36" x 24", 36" x 96"
--	16	1/8" x 1"	Rd.-End	Side Stg.	44%	36" x 24", 36" x 40", 36" x 120"
--	22	0.200" x 0.637"	Sq.-End	Str.	71%	36" x 24", 36" x 120"

SLOT ARRANGEMENTS

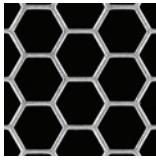


HEXAGONAL HOLE PERFORATED METAL

McNICHOLS® Hexagonal Hole Perforated Metal offers substantial open area and can be used in industrial or architectural applications.



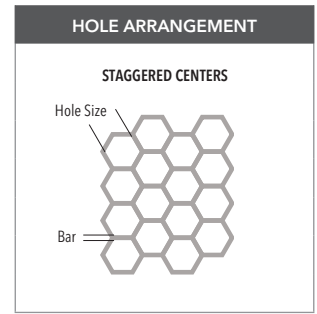
HONEYCOMB, 1/4" Hex. on 9/32" Stg. Ctrs.



1/2" Hexagonal on 9/16" Stg. Ctrs.

Need your order cut-to-size?
We can help! 800.237.3820

HEXAGONAL STOCK LIST					
NAME	GA/THK	HEX SIZE	HEX CENTERS	OA	STANDARD SHEET SIZES
ALUMINUM, ALLOY 3003-H14					
HONEYCOMB	.032	1/4" Hex.	9/32" Stg.	79%	36" x 24", 36" x 120", 48" x 120"
--	.063	1/2" Hex.	9/16" Stg.	79%	48" x 24", 48" x 120"
CARBON STEEL					
HONEYCOMB	22	1/4" Hex.	9/32" Stg.	79%	36" x 24", 36" x 40", 36" x 120"
--	16	1/2" Hex.	9/16" Stg.	79%	24" x 24", 36" x 96", 48" x 48", 48" x 96", 48" x 120"

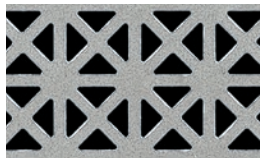


DESIGNER PERFORATED METAL

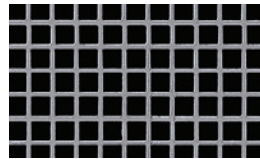
Architects, contractors, and designers choose McNICHOLS® Designer Perforated Metal for its versatility and elegance. Designer patterns offer a high-end, artistic look with similar functionality as other Perforated Metal styles. Below is just a small sample of Designer Perforated patterns available to you!



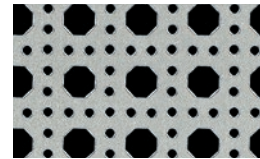
CLOVERLEAF



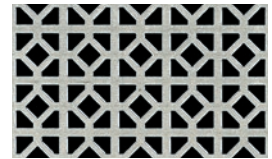
GRECIAN



HANOVER SQUARE



OCTAGON CANE



WINDSOR

DESIGNER PERFORATED STOCK LIST					
NAME	MATERIAL	GA/THK	DESCRIPTION	OPEN AREA	STANDARD SHEET SIZES
CLASSIC	Carbon Steel	20	1-5/16" x 1-5/8" Sea Shell	58%	36" x 24", 36" x 96"
CLOVERLEAF	Aluminum, Carbon Steel	20	1/2" Clover	51%	36" x 24", 36" x 48", 36" x 96"
GRECIAN	Aluminum, Carbon Steel	24, 22, .032	5/8" Square (Four 3/8" Interior Triangles) on 3/4" Str. Ctrs.	35%	36" x 24", 36" x 40", 36" x 96", 36" x 120"
HANOVER SQUARE	Carbon Steel, Stainless Steel	22, 20	0.200" Square on 0.250" Str. Ctrs.	64%	36" x 24", 36" x 96", 36" x 120"
MAJESTIC	Aluminum, Carbon Steel	20, .040	1" Cross on 1-3/4" Str. Ctrs.	40%	36" x 24", 36" x 96"
MOSAIC	Carbon Steel	20	1" Sq. (Four 1/8" Int. Sq., Four 7/16" Int. Trap., One 3/16" Int. Sq.)	40%	48" x 24", 48" x 96"
OCTAGON CANE	Aluminum, Carbon Steel	22, .032	5/16" Octagons Framed by 3/32" Round Holes	36%	36" x 24", 36" x 96"
WINDSOR	Aluminum, Carbon Steel	20, .040	5/8" Square (1/4" Interior Diamond) on 3/4" Str. Ctrs.	45%	36" x 24", 36" x 48", 36" x 96"



McNICHOLS® Perforated Metal, Designer Perforated, GRECIAN, used as cabinet inserts

DESIGNER PERFORATED METAL GRILLES

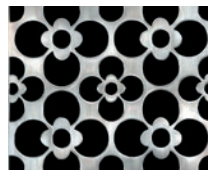
McNICHOLS® Designer Perforated Metal Grilles are available in Aluminum, Brass, Bronze, Carbon Steel, and Stainless Steel. Finishes include Satin, Mirror Polish, Statuary Antique Bronze, and Primed, as well as Baked Enamel and a variety of powder coated colors. Add beautiful, jewelry-like elements to your surroundings with Designer Perforated Grilles. Our Architectural Products Team is ready and **Inspired to Serve®** you at 866.754.5144 or designermetals@mcnichols.com.



CATHEDRAL



CLASSIC



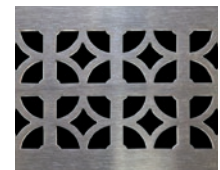
CLOVER DREAM



CLOVERLEAF



DIAMOND



EGYPTIAN



GOthic



GRECIAN



HALF SHELL



MAJESTIC



MOSAIC



SHELL



McNICHOLS® Perforated Metal, Square Hole, Railing Infill Panels and Stair Risers.

McNICHOLS® INFILL PANELS

From residential kitchens to commercial stairways, you'll find McNICHOLS® Hole Products used as Infill Panels in various patterns (including designer/decorative), opening sizes, colors, and gauges.

McNICHOLS can custom fabricate metal Infill Panels using select sheet or wire products and framing material. Our Perforated and Expanded Metals, and Wire Mesh, all popular Infill Panel choices, provide a touch of elegance to a strong and durable product line. They also provide light and air diffusion, and can be used where safety and security are important considerations.

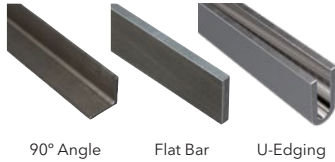
COMMON APPLICATION AREAS

- | | | |
|-----------------|--------------------|-----------|
| Balconies | Partitions | Signage |
| Facades | Pedestrian Bridges | Stairways |
| Parking Garages | Railings | Walkways |

Please turn to page 29 for additional information to help you select the right Infill Panel for your application, or one of our knowledgeable Customer Service Specialists is ready to serve you at **800.237.3820**.

PERFORATED METAL ACCESSORIES

McNICHOLS has several framing options to choose from including Angle, Flat Bar, and U-Edging (U-shaped strip welded to the edges of Perforated Metal cut pieces by a press-fit or weld). Metal Framing covers sharp product edges and provides an attractive appearance. Many sizes are in stock and can be cut-to-length.



90° Angle Flat Bar U-Edging

IN STOCK AND READY TO GO!

ANGLE STOCK LIST		
MATERIAL	GAUGE	STANDARD SIZES
Steel	1/8	1" x 1" x 240"
Steel	1/8	1-1/4" x 1-1/4" x 240"
Steel	1/4	1-1/4" x 1-1/4" x 240"
Steel	1/8	1-1/2" x 1-1/2" x 240"
Steel	1/4	1-3/4" x 1-3/4" x 240"
Steel	1/4	2" x 2" x 240"
Steel	1/4	3" x 3" x 240"

U-EDGING STOCK LIST				
TYPE	MATERIAL	GA/THK	OPENING	STANDARD SIZES
014	Steel	14	0.080"	1" x 120"
401	Alum, Steel, SS	.063, 18, 14, 11	1/4"	1" x 120", 1" x 144"
402	Alum, Steel, SS	.063, 18, 14	1/8"	1" x 120", 1" x 144"
403	Steel, SS	18	1/16"	1" x 144"
438	Steel	14, 11	3/8"	1" x 120"
450	Alum, Steel, SS	.125, 14	1/2"	1" x 120"

Type 438 is the only item listed that accepts material thicker than 1/4".

FLEX ANGLE®

McNICHOLS FLEX ANGLE® is in a Pre-Galvanized, zinc-coated material used for storage racks, garage door brackets, and shelving. Angles are supplied in bundles (10 with 75 bolts and 75 nuts) with both Equal and Unequal Legs.



Standard-Duty Equal Legs



Heavy-Duty Unequal Legs



Super-Duty Unequal Legs

FLEX ANGLE® STOCK LIST			
TYPE	GAUGE	LEG TYPE	STANDARD SIZES
Standard-Duty	14	Equal	1-1/2" x 1-1/2" x 120"
Standard-Duty	14	Equal	1-1/2" x 1-1/2" x 144"
Heavy-Duty	14	Unequal	1-1/2" x 2-1/4" x 120"
Heavy-Duty	14	Unequal	1-1/2" x 2-1/4" x 144"
Super-Duty	12	Unequal	1-1/2" x 3" x 144"



FLEX ANGLE® Punch Strap Accessory

GAUGES, THICKNESSES & WEIGHTS BY PRIMARY MATERIAL

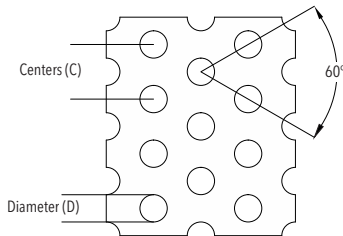
GAUGE	CARBON STEEL (USS GAUGE)		GALVANIZED STEEL (USS GAUGE)		STAINLESS STEEL (USS GAUGE)		ALUMINUM (B&S GAUGE)		MONEL (USS GAUGE)		BRASS (B&S GAUGE)		COPPER (BW GAUGE)	
	THICK	LBS./SF	THICK	LBS./SF	THICK	LBS./SF	THICK	LBS./SF	THICK	LBS./SF	THICK	LBS./SF	THICK	LBS./SF
26	0.0179"	0.75	0.0217"	0.91	0.0187"	0.76	0.0160"	0.23	0.0180"	0.83	0.0159"	0.70	0.0162"	0.75
25	0.0209"	0.88	0.0247"	1.03	0.0219"	0.87	0.0180"	0.25	0.0210"	0.97	0.0179"	0.79	0.0189"	0.88
24	0.0239"	1.00	0.0276"	1.16	0.0250"	1.01	0.0200"	0.26	0.0250"	1.15	0.0201"	0.89	0.0201"	0.93
23	0.0269"	1.13	0.0306"	1.28	0.0281"	1.07	0.0220"	0.31	0.0280"	1.29	0.0226"	1.00	0.0216"	1.00
22	0.0299"	1.25	0.0336"	1.41	0.0312"	1.26	0.0250"	0.35	0.0310"	1.42	0.0254"	1.12	0.0226"	1.05
21	0.0329"	1.38	0.0366"	1.53	0.0344"	1.32	0.0280"	0.40	0.0340"	1.56	0.0285"	1.26	0.0243"	1.13
20	0.0359"	1.50	0.0396"	1.66	0.0375"	1.51	0.0320"	0.45	0.0370"	1.70	0.0302"	1.41	0.0253"	1.17
19	0.0418"	1.75	0.0456"	1.91	0.0437"	1.73	0.0360"	0.51	0.0430"	1.98	0.0359"	1.58	0.0270"	1.25
18	0.0478"	2.00	0.0516"	2.16	0.0500"	2.02	0.0400"	0.56	0.0500"	2.30	0.0403"	1.78	0.0285"	1.32
17	0.0538"	2.25	0.0575"	2.41	0.0562"	2.23	0.0450"	0.64	0.0560"	2.57	0.0453"	2.00	0.0320"	1.48
16	0.0598"	2.50	0.0635"	2.66	0.0625"	2.52	0.0500"	0.71	0.0620"	2.85	0.0508"	2.24	0.0323"	1.50
15	0.0673"	2.81	0.0710"	2.97	0.0703"	2.76	0.0560"	0.79	0.0700"	3.22	0.0571"	2.52	0.0350"	1.63
14	0.0747"	3.13	0.0785"	3.28	0.0781"	3.15	0.0630"	0.89	0.0780"	3.58	0.0641"	2.83	0.0359"	1.66
13	0.0897"	3.75	0.0934"	3.91	0.0937"	3.17	0.0710"	1.00	0.0930"	4.27	0.0720"	3.17	0.0377"	1.75
12	0.1046"	4.38	0.1084"	4.53	0.1094"	4.41	0.0800"	1.13	0.1090"	5.01	0.0808"	3.56	0.0431"	2.00
11	0.1196"	5.00	0.1233"	5.16	0.1250"	5.04	0.0900"	1.27	0.1250"	5.74	0.0907"	4.00	0.0485"	2.25
10	0.1345"	5.63	0.1382"	5.78	0.1406"	5.67	0.1000"	1.41	0.1400"	6.43	0.1019"	4.49	0.0508"	2.36
9	0.1495"	6.25	0.1532"	6.41	0.1562"	6.18	0.1120"	1.58	0.1560"	7.17	0.1144"	5.04	0.0512"	2.38
8	0.1644"	6.88	0.1681"	7.03	0.1719"	6.93	0.1250"	1.76	0.1720"	7.86	0.1285"	5.66	0.0539"	2.50
7	0.1793"	7.50	--	--	0.1875"	7.87	0.1400"	1.98	0.1870"	8.59	0.1443"	6.36	0.0641"	2.97
3/16"	0.1875"	7.66	--	--	0.1875"	8.58	0.1875"	2.71	--	--	--	--	--	--
1/4"	0.2500"	10.21	--	--	0.2500"	11.16	--	3.53	--	--	--	--	--	--
5/16"	0.3125"	12.76	--	--	--	13.75	--	4.42	--	--	--	--	--	--
3/8"	0.3750"	15.32	--	--	--	16.50	--	5.29	--	--	--	--	--	--
1/2"	0.5000"	20.42	--	--	--	21.66	--	7.06	--	--	--	--	--	--

To calculate the weight per square foot of a Perforated Metal sheet (a) subtract the percentage of open area from 100% to determine the percentage of material, (b) multiply the percentage of material by the number of pounds per square foot of the material (percentage of open area does not include the margins within the sheet). Values in table may vary slightly due to rounding of numbers at time of material testing and measurement. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Perforated Metal.

FORMULAS FOR DETERMINING PERCENTAGE OF OPEN AREA BY HOLE TYPE

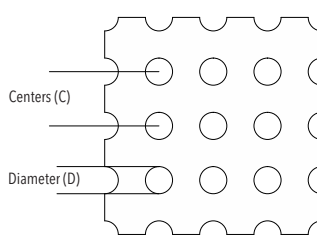
ROUND HOLE - 60° STAGGERED CENTERS

$$\frac{D^2 \times 90.69}{C^2} = \% \text{ Open Area}$$



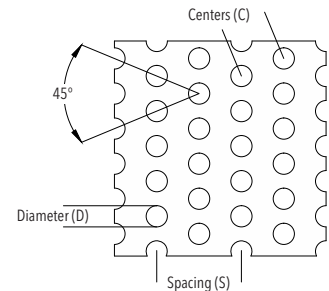
ROUND HOLE - STRAIGHT CENTERS

$$\frac{D^2 \times 78.54}{C^2} = \% \text{ Open Area}$$



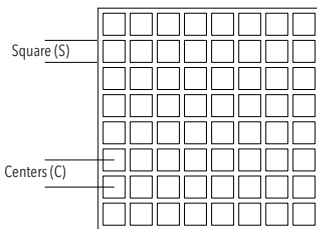
ROUND HOLE - 45° STAGGERED CENTERS

$$\frac{157.08 D^2}{S^2} = \% \text{ Open Area}$$



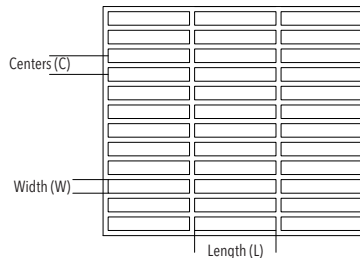
SQUARE HOLE - STRAIGHT OR STAGGERED CENTERS

$$\frac{S^2 \times 100}{C^2} = \% \text{ Open Area}$$



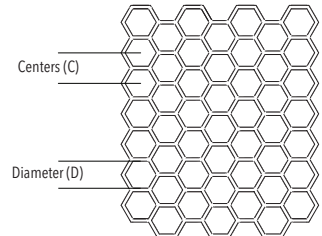
SLOTTED HOLE - SQUARE END SLOT, STRAIGHT CENTERS

$$\frac{L \times W}{C^2} = \% \text{ Open Area}$$



HEXAGONAL HOLE - STAGGERED

$$\frac{100 \times D^2}{C^2} = \% \text{ Open Area}$$





EXPANDED METAL



Made by slitting and stretching metal coil to create diamond-shaped openings, **McNICHOLS®** Expanded Metal sheets form screens, window security panels, and machine guards to name a few applications for this practical, yet versatile product line. In the decorative version of the product, shelving, signage, and ceiling tiles are among the most popular applications. Expanded Metal is supplied in a Standard (Raised) diamond pattern or as a Flattened diamond-shaped design. Grating and Catwalk Grating Expanded Metals are also part of our wide range of selections available directly from inventory. Numerous gauges, openings, materials, and sheet sizes are options that are sure to fit your project requirements!

COMMON APPLICATIONS

- | | | |
|-------------------|----------------|---------------------|
| Aggregate Screens | Fencing | Security Enclosures |
| Catwalks | Infill Panels | Shelving |
| Ceiling Tiles | Machine Guards | Storage Areas |
| Facades | Mezzanines | Walkways |

PRODUCT LINE TERMINOLOGY

Bond - Apex of a pattern opening where two strands intersect.

Camber - Bow in a sheet which may occur parallel to either the Long Way of Design (LWD) or Short Way of Design (SWD). Camber is measured by placing a straight edge along the concave side of the sheet parallel to LWD, touching both ends. The maximum distance between the edge of the Expanded Metal and the straight edge is considered the camber.

Design Size - Dimensions of the SWD and LWD measured from the center of a bond to the center of an adjacent bond.

Overall Thickness - Gauge or thickness from top to bottom of a sheet.

Strand - The sides or edges of the Expanded Metal design.

Strand Thickness - Gauge or thickness of the metal once expanded.

Strand Width - Amount of metal fed under dies to produce one strand. The Width of the strand should be equal to or exceed the gauge or strand thickness.

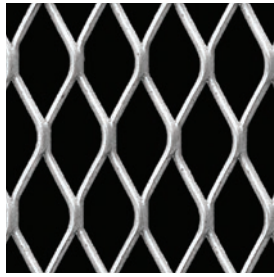
SWD & LWD - Dimension of Short Way of Design (SWD) and Long Way of Design (LWD) measured from center to center of a bond.

SWO & LWO - Dimension of Short Way of Opening (SWO) and Long Way of Opening (LWO) measured from inside to inside edge of a diamond opening.

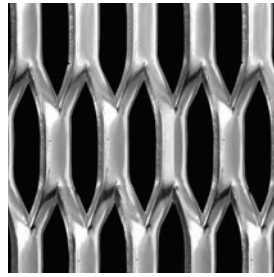
EXPANDED TYPES



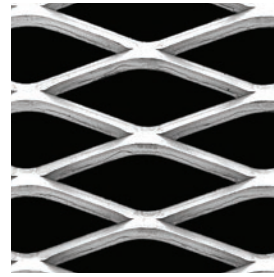
Flattened



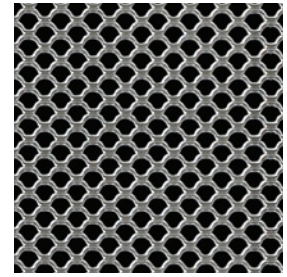
Standard



Grating



Catwalk Grating



Designer

MATERIALS

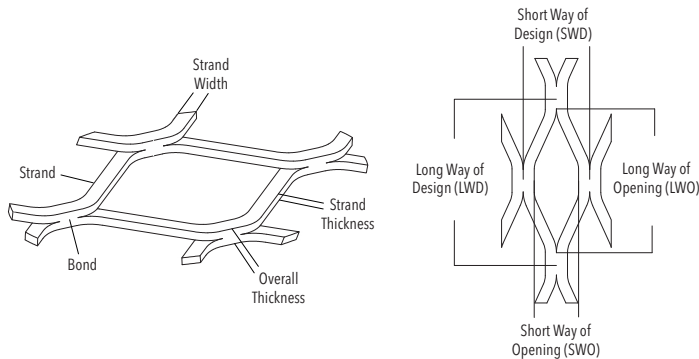
Select from the following primary material types:

- Aluminum
- Galvanized Steel (Hot Dipped)
- Carbon Steel
- Stainless Steel

Inventory is typically mill finish unless otherwise specified.

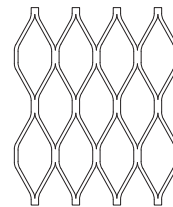
STYLE & TYPE

Short Way of Design (SWD) measurement in inches, material gauge number or thickness in inches, and Expanded type (e.g. 3/4" No. 9 Flattened); For Grating and Catwalk Grating, lbs. per square foot - e.g. 3.14# Grating (Standard).

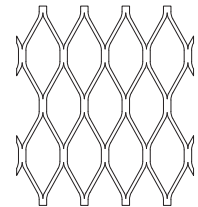


QUANTITY/SIZE(S) & SHEARING

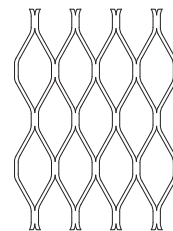
Number of sheets and/or sizes (including cut-to-size pieces and shearing preference such as Bond or Random). Standard Sheets are bond sheared (machine run) on all sides (some Flattened patterns may result in one randomly sheared side - LWD).



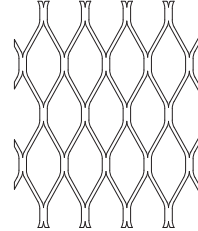
Bond Sheared SWD
Bond Sheared LWD



Random Sheared SWD
Random Sheared LWD



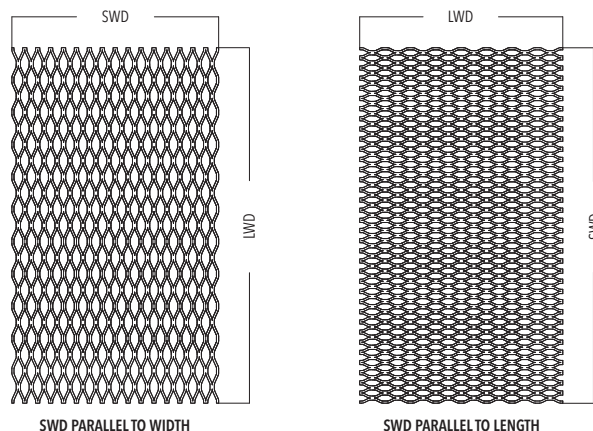
Bond Sheared SWD
Random Sheared LWD



Random Sheared SWD
Random Sheared LWD

DESIGN DIRECTION

Short Way of Design (SWD) parallel to width of sheet and Long Way of Design (LWD) parallel to length of sheet for most items. Panels can be produced or rotated 90° to meet application requirements.



VALUE-ADDED SERVICES

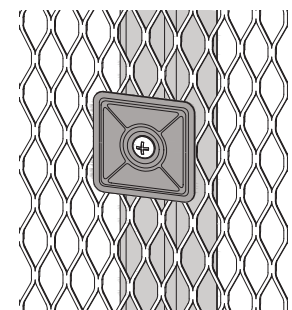
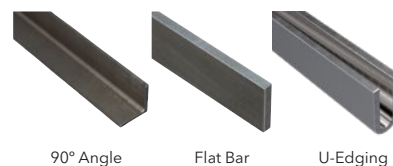
McNICHOLS can produce railing inserts and other types of Infill Panels from stock. Additional information is available on page 29.

ACCESSORIES

We have several Infill Panel framing options available including Angle, Flat Bar, and U-Edging (a U-shaped metal strip welded to the edges of Expanded Metal cut pieces).

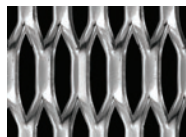
McNICHOLS® Hold-Down Clip (3" Square) shown securing Expanded Metal to support (Hardware available separately).

FRAMING OPTIONS



EXPANDED METAL GRATING & CATWALK GRATING

McNICHOLS® Expanded Metal Grating and Catwalk Grating are economical solutions for ramps, flooring, platforms, walkways, catwalks, treads, and other types of lightweight structural applications. These versatile products can also be used as building facades! Expanded Catwalk Grating is produced the same way as Expanded Grating, but the direction of the pattern (LWD - long way of the design/diamond) runs the width of the sheet. Typically sized for standard catwalk widths of 24", 30", or 36", this product offers an economical option for catwalk applications based on its reverse diamond (LWD - long way of design/diamond is parallel to width of sheet) pattern.



GRATING



CATWALK GRATING

EXPANDED METAL GRATING & CATWALK GRATING STOCK LIST															
PRIMARY MATERIAL	STYLE & TYPE		LBS./ FT	DESIGN SIZE		OPENING SIZE		DIAMONDS/FT		STRAND SIZE		OVERALL THICK	OPEN AREA	STANDARD SIZES (W x L)	
	STD GTG	CAT GTG		SWD	LWD	SWO	LWO	SWD	LWD	THICK	WIDTH			THICK	AREA
ALUMINUM	2.00#	--	2.00	1.330"	5.330"	0.940"	3.440"	9.0	2.3	0.250"	0.387"	0.730"	48%	48" x 96"	
	3.00#	--	3.00	1.330"	5.330"	0.940"	3.440"	9.0	2.3	0.183"	0.264"	0.540"	60%	48" x 96", 60" x 120", 72" x 120"	
CARBON STEEL	3.14#	--	3.14	2.000"	6.000"	1.625"	4.880"	6.0	2.0	0.250"	0.312"	0.656"	69%	48" x 96", 48" x 120", 72" x 120"	
	--	3.14#	3.14	2.000"	6.000"	1.625"	4.880"	6.0	2.0	0.250"	0.312"	0.656"	69%	24" x 120"	
	4.00#	--	4.00	1.330"	5.330"	0.940"	3.440"	9.0	2.3	0.215"	0.300"	0.618"	55%	48" x 96"	
	4.27#	--	4.27	1.410"	4.000"	1.000"	2.880"	8.5	3.0	0.250"	0.300"	0.625"	58%	48" x 96", 48" x 120"	
	--	4.27#	4.27	1.410"	4.000"	1.000"	2.880"	8.5	3.0	0.250"	0.300"	0.625"	58%	36" x 120"	
	5.00#	--	5.00	1.330"	5.330"	0.813"	3.380"	9.0	2.3	0.250"	0.331"	0.655"	50%	48" x 96"	
6.25#	--	6.25	1.410"	5.330"	0.813"	3.380"	9.0	2.3	0.312"	0.350"	0.715"	50%	48" x 96"		
STAIN STL	4.50#	--	4.25	1.410"	4.000"	1.000"	2.880"	8.5	3.0	0.250"	0.300"	0.625"	58%	48" x 96", 48" x 120"	

Additional patterns and sizes available by custom order. Cut-to-size available. Design Size (SWD), Opening Size, Strand Size, and Overall Thickness values may vary +/- 5%.

EXPANDED METAL GRATING & CATWALK GRATING LOAD TABLE

STYLE	LOAD TYPE	CLEAR SPAN	DEFLECTION IN INCHES							STYLE	LOAD TYPE	CLEAR SPAN	DEFLECTION IN INCHES							
			50 LBS.	100 LBS.	150 LBS.	200 LBS.	250 LBS.	300 LBS.	400 LBS.				50 LBS.	100 LBS.	150 LBS.	200 LBS.	250 LBS.	300 LBS.	400 LBS.	
ALUMINUM																				
2.00#	U	18"	0.017	0.340	0.051	0.068	0.085	0.103	0.139	4.27#	U	24"	0.038	0.079	0.120	0.160	0.200	0.240	0.320	
		24"	0.047	0.094	0.141	0.189	0.236	0.283	--			30"	0.078	0.156	0.235	0.312	0.390	0.470	--	
		30"	0.108	0.216	0.322	--	--	--	--			36"	0.186	0.373	0.560	--	--	--	--	--
	36"	0.213	0.430	--	--	--	--	--	42"			0.379	--	--	--	--	--	--	--	--
	C	18"	0.019	0.039	0.059	0.079	0.099	0.119	0.159			C	24"	0.038	0.078	0.116	0.156	0.196	0.235	0.315
		24"	0.046	0.092	0.138	0.184	0.230	0.277	--				30"	0.081	0.163	0.245	0.327	0.409	0.491	--
30"		0.092	0.181	0.269	0.360	--	--	--	36"	0.124	0.250		0.379	0.505	--	--	--	--		
CARBON STEEL																				
3.00#	U	24"	0.073	0.146	0.220	0.293	0.366	0.440	--	5.00#	U	24"	0.250	0.050	0.075	0.100	0.125	0.150	0.200	
		30"	0.155	0.311	0.463	--	--	--	--			30"	0.061	0.123	0.184	0.246	0.307	0.369	0.491	
		36"	0.330	0.660	--	--	--	--	--			36"	0.133	0.265	0.395	0.526	--	--	--	--
		42"	0.527	--	--	--	--	--	--			42"	0.200	0.400	0.600	--	--	--	--	--
	C	24"	0.068	0.132	0.197	0.263	0.329	0.395	--	C	48"	0.355	0.708	--	--	--	--	--	--	
		30"	0.116	0.228	0.345	0.460	--	--	--		54"	0.605	--	--	--	--	--	--	--	
3.14#	U	24"	0.057	0.115	0.173	0.230	0.288	0.346	0.462	6.25#	U	24"	0.017	0.035	0.054	0.072	0.090	0.110	0.145	
		30"	0.129	0.259	0.388	0.517	--	--	--			30"	0.045	0.091	0.135	0.180	0.226	0.270	0.360	
		36"	0.315	0.626	--	--	--	--	--			36"	0.092	0.184	0.276	0.368	0.460	0.552	--	
		42"	0.449	--	--	--	--	--	--			42"	0.150	0.302	0.451	0.602	--	--	--	--
	C	24"	0.049	0.094	0.140	0.187	0.234	0.280	0.372	C	48"	0.285	0.576	--	--	--	--	--	--	
		30"	0.099	0.198	0.297	0.395	--	--	--		54"	0.457	--	--	--	--	--	--	--	
4.00#	U	24"	0.037	0.073	0.111	0.147	0.184	0.222	0.296	6.25#	C	60"	0.606	--	--	--	--	--	--	--
		30"	0.068	0.135	0.205	0.274	0.340	0.410	0.545			24"	0.015	0.030	0.045	0.060	0.075	0.090	0.120	
		36"	0.180	0.358	0.536	--	--	--	--			30"	0.035	0.069	0.103	0.137	0.171	0.206	0.274	
		42"	0.283	0.565	--	--	--	--	--			36"	0.054	0.108	0.161	0.216	0.269	0.324	0.431	
	C	24"	0.031	0.064	0.096	0.128	0.160	0.192	0.256	C	42"	0.084	0.166	0.247	0.329	0.412	0.492	--		
		30"	0.060	0.120	0.180	0.240	0.300	0.360	0.480		48"	0.117	0.236	0.355	0.474	0.593	--	--		
C	36"	0.101	0.205	0.310	0.402	0.505	0.605	--	C	54"	0.167	0.336	0.506	0.670	--	--	--			
	42"	0.158	0.315	0.473	0.630	--	--	--		60"	0.225	0.452	0.683	--	--	--	--			
48"	0.218	0.433	0.648	--	--	--	--	--	72"	0.456	0.912	--	--	--	--	--				

For Stainless Steel 4.27# Grating, please reference Carbon Steel 4.27# Grating loading information.

U - Uniform Load - Lbs./Sq Ft C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | To allow for safe pedestrian comfort, deflection values under a uniform load of 100 lbs./sq. ft. should not exceed 1/4". Additional loading information available at mcnichols.com. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNichols shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Expanded Metal Grating or Catwalk Grating.

EXPANDED METAL GRATING & CATWALK GRATING (CONTINUED)

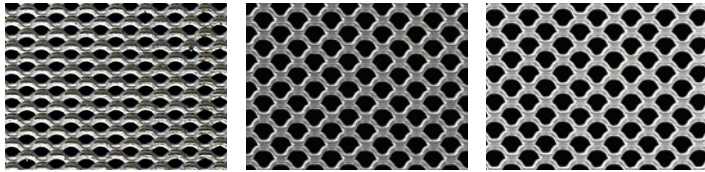
The following chart is a helpful guide for choosing the right Steel Expanded Metal Standard Grating or Catwalk Grating for your walkway application. If the clear span (distance between supports) and the loading weight are known, the most economical type of Grating is highlighted below. Expanded Metal Grating performs best when the Long Way of the Design (LWD) is placed across the span. This can be accomplished by using multiple pieces of Grating with the LWD installed parallel to the span or by selecting our Catwalk Grating which is produced in common widths (24", 30", 36") with the LWD running parallel with the width of the panel/sheet.

STEEL EXPANDED METAL GRATING & CATWALK GRATING APPLICATION CHART									CATWALK GRATING ILLUSTRATION	
GENERAL USE	(C) LBS./SF	CLEAR SPAN							LWD	SPAN
		24"	30"	36"	42"	48"	54"	60"		
LIGHT PEDESTRIAN TRAFFIC	50	3.00# *	3.00# *	3.00# *	4.00#**	4.00#**	5.00#	6.25#		
NORMAL PEDESTRIAN TRAFFIC	100	3.00# *	3.00# *	4.00#**	5.00#	6.25#	--	--		
HEAVY PED TRAFFIC & LIGHT EQUIP	150	3.00# *	4.00#**	5.00#	6.25#	--	--	--		
--	200	3.00# *	4.00#**	6.25#	7.00#	--	--	--		
--	250	4.00#**	5.00#	--	--	--	--	--		
--	300	4.00#**	6.25#	--	--	--	--	--		
--	350	4.00#**	6.25#	--	--	--	--	--		
--	400	4.00#**	6.25#	--	--	--	--	--		

C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | * 3.14# Grating may be used if the application calls for the Grating to have a larger design (diamond) yielding a higher percentage of open area. **4.27# Grating may be used if the application calls for the Grating to have a smaller design (diamond) with a smaller percentage of open area. 2.00# Aluminum Expanded Metal Grating may be used in properly supported applications if the concentrated load is no more than 200 lbs./sq. ft. with a clear span of 24", 150 lbs./sq. ft. with a clear span of 30", or 100 lbs./sq. ft. with a clear span of 36". Concentrated Load (C) values in chart refer to lbs. per foot of the product's length (span) and do not exceed 1/4" deflection, which is considered the maximum allowed to provide safe pedestrian comfort. Spans in chart (24", 30", 36", etc.) are "clear", which is the measurement from the inside edge of one support to the inside edge of the next support. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Expanded Metal Grating or Catwalk Grating.

DESIGNER EXPANDED METAL

McNICHOLS® Designer Expanded Metal is commonly selected for security partitions, sign dividers, sunshades, room dividers, cabinet inserts, and more. While enhancing appearance, the decorative patterns can provide security as well as control light, heat, and airflow.



LANCET™ 11618-F

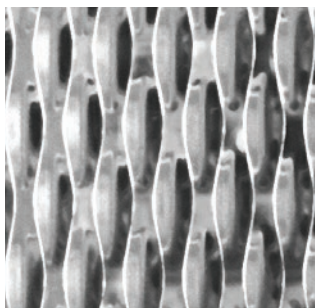
LANCET™ 31618-F

LANCET™ 31618-S

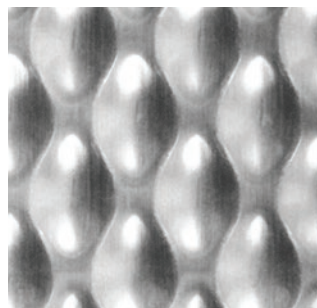
DESIGNER EXPANDED STOCK LIST					
NAME	STYLE & TYPE	MATERIAL	GAUGE/THICK	OPEN AREA	STANDARD SHEET SIZES
LANCET™ 31651-F	3/16" No. .051 Flattened	Aluminum	.051	60%	48" x 96"
LANCET™ 11618-F	1/16" No. 18 Flattened	Carbon Steel	18	58%	48" x 96"
LANCET™ 31618-F	3/16" No. 18 Flattened	Carbon Steel	18	73%	48" x 96"
LANCET™ 31618-S	3/16" No. 18 Standard	Carbon Steel	18	68%	48" x 96"

DESIGNER TEXTURED METAL

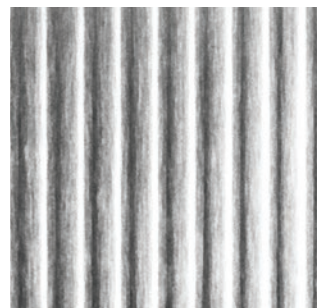
McNICHOLS® Designer Textured Metal is especially popular in high traffic areas, disguising imperfections while providing beautiful appeal and dimension. Textured Metal surfaces can hide small dings, scratches, and even fingerprints that disrupt flat, polished metals. Textured Metal is available in Aluminum, Galvanized Steel, and Stainless Steel with a variety of finishes. A wide range of our Designer Textured Metal product line offering is ready to view at mcnichols.com.



5-SM



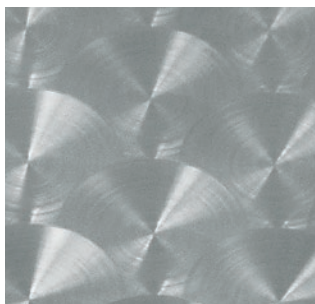
6-OM



CAMBRIDGE



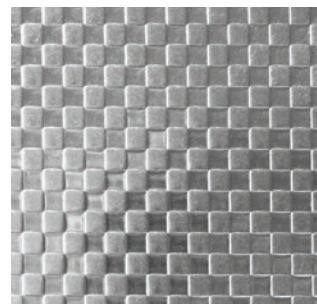
DIAMOND QUILT



ENGINE TURN



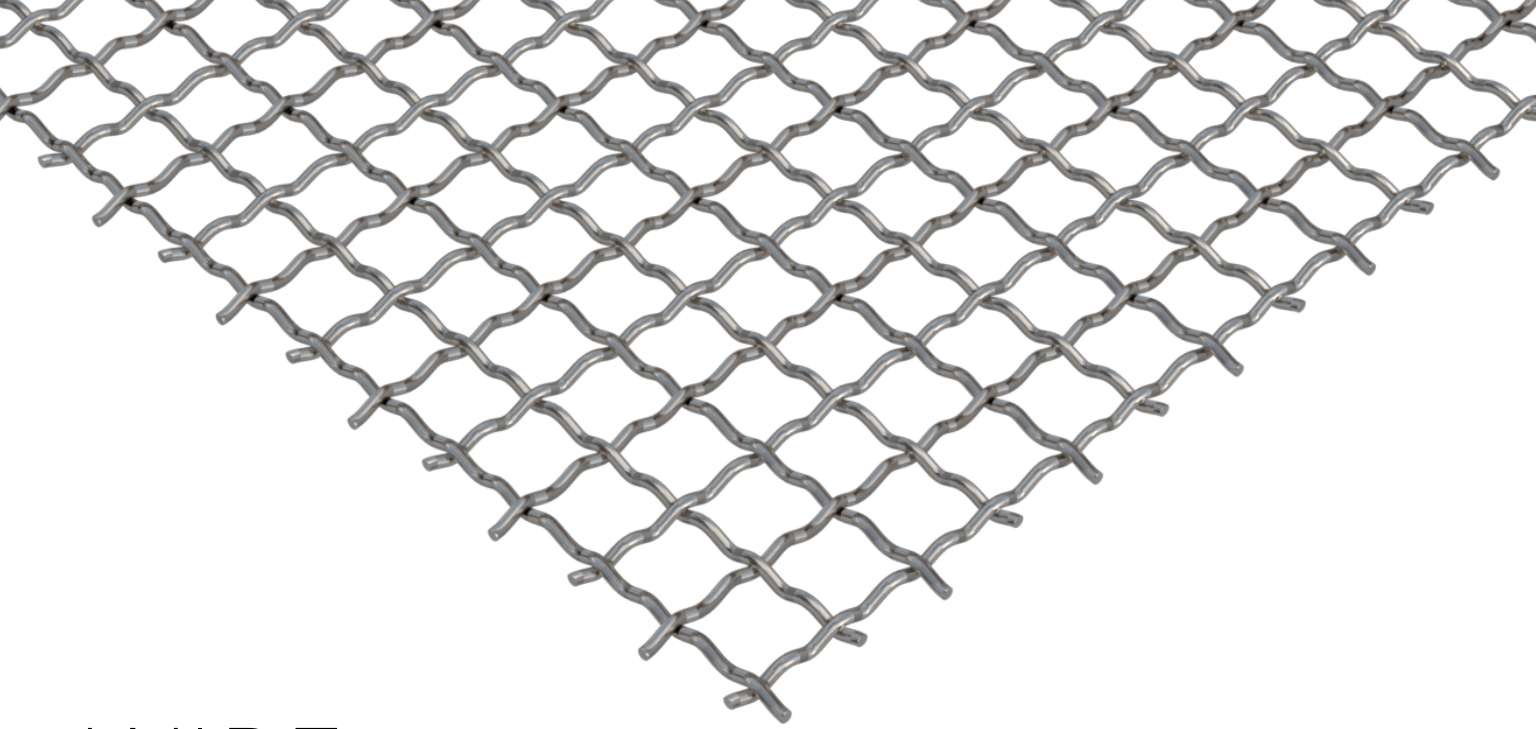
LEATHER GRAIN



SQUARES



TREADTEX®



WIRE MESH



Wire Mesh has the strength to perform in industrial settings, the aesthetics to enhance architectural designs, and the versatility to fulfill a variety of functions. Routinely incorporated in signs, railing infills, cabinet inserts, plant screens, and in other applications, this dynamic product family suits nearly any design. Its lightweight properties make it easy to cut-to-size and handle during installation. **McNICHOLS** carries an extensive selection of woven and welded items in a variety of mesh and opening sizes, wire diameters, patterns, and materials. We stock multiple weave types and our Designer Mesh line of products is sure to set apart your design!

COMMON APPLICATIONS

- | | | |
|-----------------|--------------|----------------|
| Baskets | Enclosures | Insect Screens |
| Cages | Fencing | Machine Guards |
| Cabinet Inserts | Grilles | Shaker Screens |
| Containers | Hook Screens | Shelving |

PRODUCT LINE TERMINOLOGY

Crimp Styles - Wire Mesh crimp patterns include Plain, Lock Crimp, Intercrip, Flat Top, Triple Shoot, Faux Cable, Helical, and Twill.

Ductility - The ability of Wire Mesh material to be stretched into a new shape without fracturing.

Mesh Spacing - Also referred to as wire spacing, the number of openings per linear inch.

Opening Size - Also referred to as aperture width, the measurement of clear space between wires.

Pitch - The distance between the midpoints of two adjacent wires (mesh spacing) or the sum of the opening size (aperture width) and wire diameter thickness.

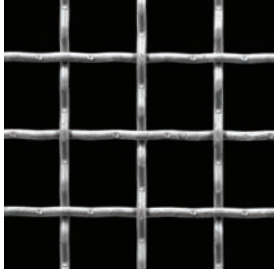
Selvage - The edge or border of a Wire Mesh coil that has a finished edge. During the weaving process, the shute wires are woven in, continuously forming a smooth edge that runs the length of coil helping to prevent unraveling and to increase the stability of a weave.

Shute Wire - The wires that run with the short way (width) of a Wire Mesh coil. Shute wires are also referred to as cross, shoot, fill, or weft wires.

Twill Weave - A weave type in which the warp wires and shute wires pass over two and under two wires in both directions. Twilled weaves are often used in filtration applications.

Warp Wire - Also referred to as line wires, the wires that comprise or make up the length of a Wire Mesh coil.

MESH TYPES



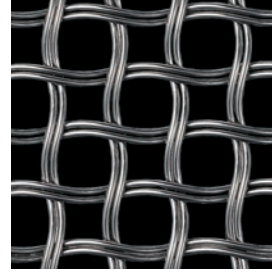
Square - Woven



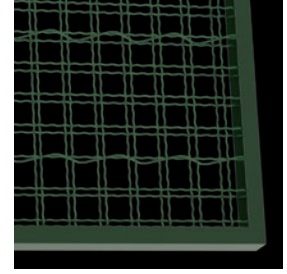
Square - Welded



Rectangular - Welded



Designer



ECO-MESH®

MATERIALS

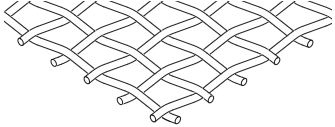
Select from the following primary material types:

- | | | |
|----------|------------------|------------------|
| Aluminum | Carbon Steel | Galvanized Steel |
| Brass | Copper | PVC Coated Black |
| Bronze | Galvanized Steel | Stainless Steel |

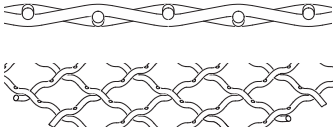
Inventory is typically mill finish unless otherwise specified.

WOVEN WEAVE TYPES

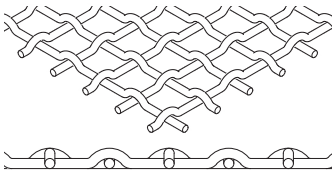
The most common Woven Wire Mesh weave types include:



Plain Weave - An over and under weave construction that requires no crimping or welding of wire intersections. Warp wires pass over and under shute wires.



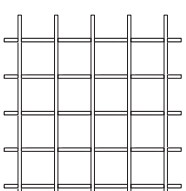
Intercrip Weave - An over and under weave construction with intermediate crimping of warp and shute wires prior to wire intersections, giving the Mesh additional stability.



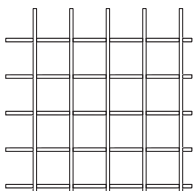
Lock Crimp Weave - Warp and shute wires are woven together in an over then under pattern with a bump or knuckle at each intersection, providing maximum rigidity.

WELDED TRIM TYPES

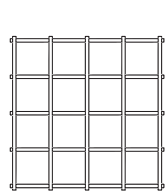
Welded Wire Mesh is supplied with wire ends trimmed with a minimum overhang of 1/8" or with untrimmed wire ends. Wire Mesh that is cut-to-size has the following wire stub options.



Untrimmed equal (balanced) stubs on opposite sides only. Stubs will not exceed opening.



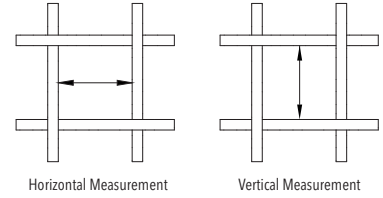
Untrimmed random stubs vary on all four sides of sheared pieces. Pieces not identical.



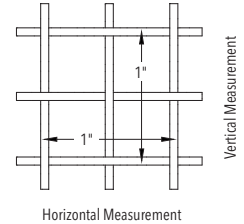
Trimmed flush (no stubs) with a minimum 1/8" wire overhang on all four sides of sheared pieces.

OPENING & MESH SIZE

Opening size is determined by measuring the distance from the inside edge of one wire to the inside edge of an adjacent wire in both vertical and horizontal directions.



Mesh size is the number of openings per linear inch measured from the center of the wires in both vertical and horizontal directions.



WIRE DIAMETER/WIRE GAUGE

Choose from a variety of wire diameter thicknesses (measured in inches) and/or the wire gauge equivalent for your application (chart on page 22).

WIRE DIAMETER	WIRE GAUGE	END VIEW	SIDE VIEW
0.092"	13		
0.080"	14		

VALUE-ADDED SERVICES

McNICHOLS has fabrication experts that can produce many shapes as well as Infill Panels. Additional information is available on page 29.

ACCESSORIES

We have several Infill Panel framing choices available including Angle, Flat Bar, and U-Edging (a U-shaped metal strip welded to the edges of Wire Mesh cut pieces).

McNICHOLS® Wire Mesh shown with a 90° Angle frame attached to conceal wire ends and improve aesthetics.

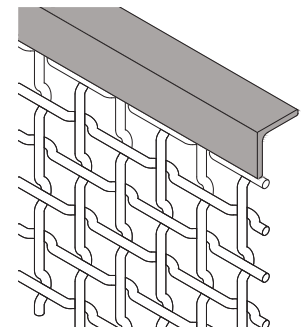
FRAMING OPTIONS



90° Angle

Flat Bar

U-Edging



SQUARE OPENING WIRE MESH

McNICHOLS® Square Opening Wire Mesh is known for its easy handling and strong construction. In either Woven or Welded, this versatile mesh can be used for both internal and external applications, and is commonly used as screens, partitions, and facades on parking garages and other structures. Interior uses include cabinet inserts and partition screens in any functional space (commercial or residential), while railing Infill Panels are also a popular choice among customers.

SQUARE OPENING - WOVEN

McNICHOLS® Square Opening Woven Wire Mesh is the most popular Mesh McNICHOLS offers. A series of wires are woven together resulting in a weave type. The most common types are listed to the right.



4" x 4" Opening
Lock Crimp Weave



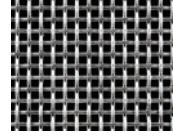
2" x 2" Square Opening
Lock Crimp Weave



1" x 1" Opening
Intercrimp Weave



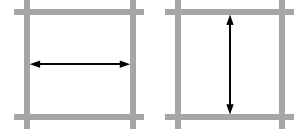
5/8" x 5/8" Opening
Lock Crimp Weave



1/4" x 1/4" Opening
Plain Weave

HOW TO MEASURE OPENING SIZE

To determine the opening size for a Square Opening Wire Mesh item, measure the distance from the inside edge of one wire to the inside edge of an adjacent wire in both vertical and horizontal directions.

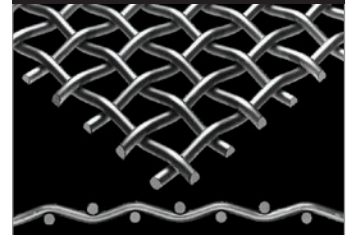


Horizontal
Measurement

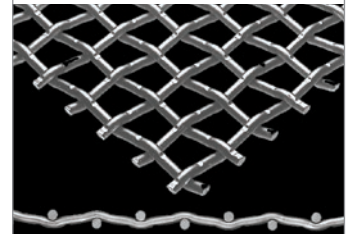
Vertical
Measurement

SQUARE OPENING - WOVEN STOCK LIST			
OPENING SIZE	WIRE DIAMETER	OPENING SIZE	WIRE DIAMETER
ALUMINUM		CARBON STEEL (CONT.)	
4.0000" x 4.0000"	.250	0.5000" x 0.5000"	.250, .120
2.0000" x 2.0000"	.250, .192	GALVANIZED STEEL	
1.5000" x 1.5000"	.250, .120	4.0000" x 4.0000"	.250
1.0000" x 1.0000"	.120	2.0000" x 2.0000"	.375, .250
CARBON STEEL		1.0000" x 1.0000"	.120
4.0000" x 4.0000"	.250	0.5000" x 0.5000"	.080
3.0000" x 3.0000"	.250	STAINLESS STEEL	
2.0000" x 2.0000"	.375, .250, .192, .162, .135, .120	2.0000" x 2.0000"	.250, .192, .120
1.7500" x 1.7500"	.250	1.5000" x 1.5000"	.120
1.5000" x 1.5000"	.250, .192, .135, .120	1.0000" x 1.0000"	.120
1.0000" x 1.0000"	.250, .192, .135, .120	0.5000" x 0.5000"	.120, .092, .063
0.7500" x 0.7500"	.250, .120	0.2500" x 0.2500"	.120

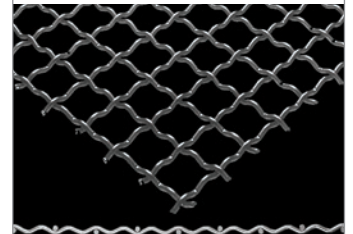
WEAVE TYPES



PLAIN WEAVE



LOCK CRIMP WEAVE



INTERCRIMP WEAVE

SQUARE OPENING - WELDED

McNICHOLS® Square Opening Welded Wire Mesh typically has larger openings than Woven Wire Mesh. Wires are welded at each intersection yielding an overall stronger construction.



4" x 4" Opening
Welded



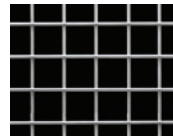
3" x 3" Opening
Welded



2" x 2" Opening
Welded



1-1/2" x 1-1/2" Opening
Welded



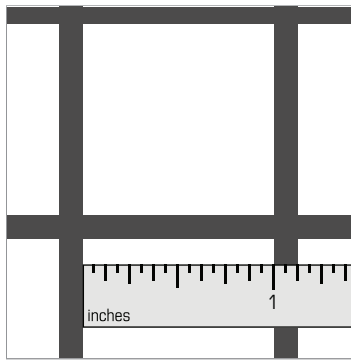
1" x 1" Opening
Welded

SQUARE OPENING - WELDED STOCK LIST	
OPENING SIZE	WIRE DIAMETER
CARBON STEEL	
3.0000" x 3.0000"	.250
2.0000" x 2.0000"	.250
1.0000" x 1.0000"	.135
STAINLESS STEEL, TYPE 304	
4.0000" x 4.0000"	.250
3.0000" x 3.0000"	.250
2.0000" x 2.0000"	.188 (.120 in Stainless Steel, Type 316)
1.5000" x 1.5000"	.250
1.0000" x 1.0000"	.120

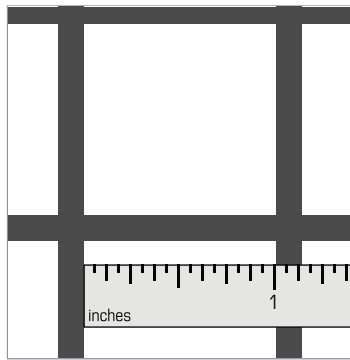


McNICHOLS® Wire Mesh, Welded, 2" x 2" Square
Opening - Infill Panels, High School Stadium, Chalmette, LA

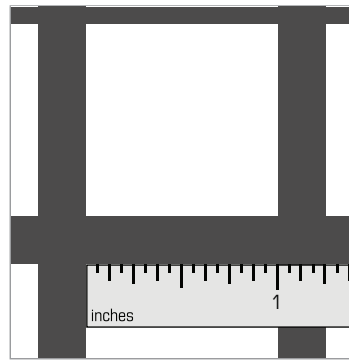
SQUARE OPENING SIZES TO SCALE



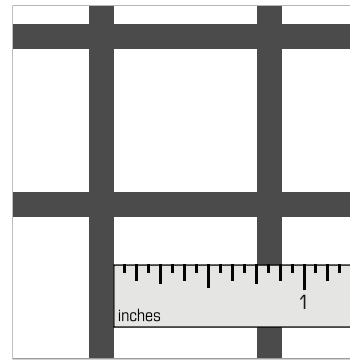
1" x 1" Opening, 0.120" Wire Diameter, 77% Open Area



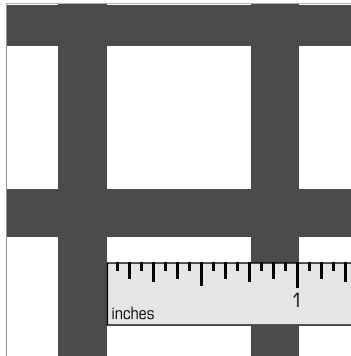
1" x 1" Opening, 0.135" Wire Diameter, 78% Open Area



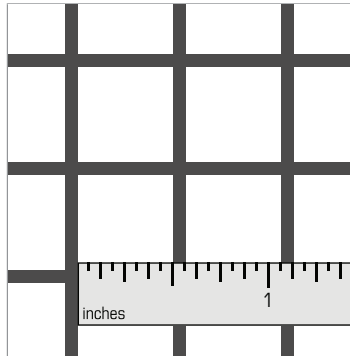
1" x 1" Opening, 0.250" Wire Diameter, 64% Open Area



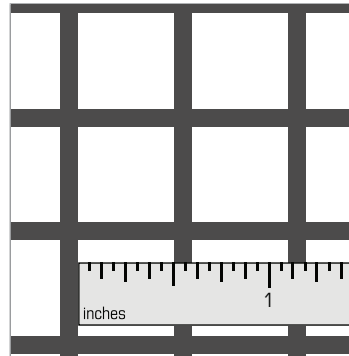
3/4" x 3/4" Opening, 0.120" Wire Diameter, 74% Open Area



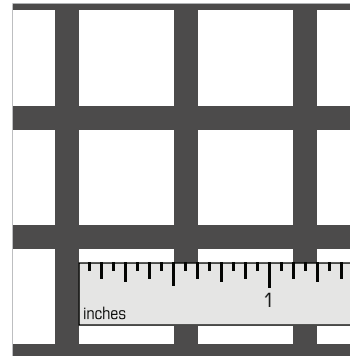
3/4" x 3/4" Opening, 0.250" Wire Diameter, 56% Open Area



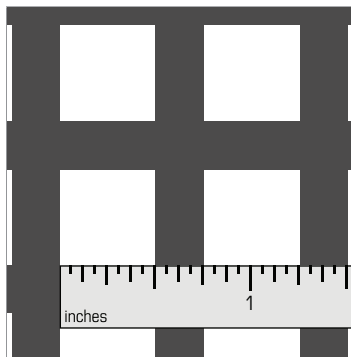
1/2" x 1/2" Opening, 0.063" Wire Diameter, 79% Open Area



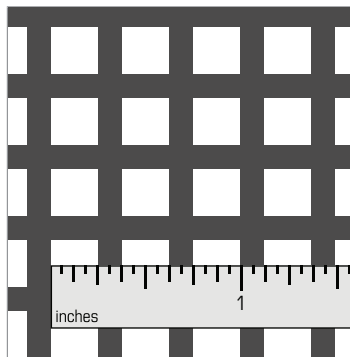
1/2" x 1/2" Opening, 0.092" Wire Diameter, 71% Open Area



1/2" x 1/2" Opening, 0.120" Wire Diameter, 65% Open Area



1/2" x 1/2" Opening, 0.250" Wire Diameter, 44% Open Area



1/4" x 1/4" Opening, 0.120" Wire Diameter, 46% Open Area

ADDITIONAL CUT-TO-SIZE AVAILABLE

McNICHOLS supplies several opening sizes not shown, from 4" x 4" to 1-1/2" x 1-1/2" in several primary materials and in a variety of wire diameter thicknesses in both woven and welded construction types.



We carry full sheets and coils in stock at all McNICHOLS locations, and we can cut material to the size you need quickly and accurately.

For more information, we are available to serve you at **800.237.3820** or at mcnichols.com.

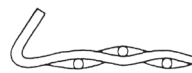
HOOK STRIPS & EDGES

McNICHOLS® Hook Strips and Edges add a finishing touch by creating a clean look with a Hook or Edge for many Wire Mesh items. Typically, these products are used as shaker screens or to mount Wire Mesh to equipment as guards.

HOOK STRIP/EDGE TYPE	WIRE DIAMETERS
M-1, M-4, M-6	0.312" Thick and Thicker
M-2, M-5	0.063" To 0.250" Thick
M-3, M-3-C	0.054" Thick and Thinner
M-7	0.192" Thick and Thicker
M-8	0.148" Thick and Thicker

Screens for sizing and straining can be furnished with any style of edge preparation or Hook Strip, ready for installation into many equipment types. Hooks are furnished in Galvanized Steel unless otherwise specified.

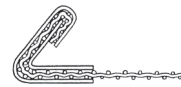
HOOK STRIPS & EDGE TYPES



M-1 Hooked Edge without Reinforcing



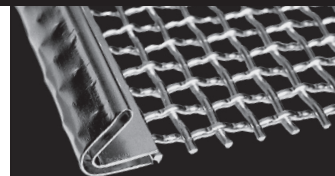
M-2 Regular Hook Strip



M-3 Two-Piece Hook Strip

HOW TO ORDER HOOK STRIPS & EDGES

- Select Hook Strip and Edge type
- Determine length of Hook Strip if not the same as Wire Mesh length and specify required notching
- Standard degree of Hook bend is 135° outside and 45° inside
- Hook height is measured from top of Hook to inside of bend



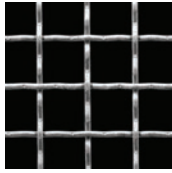
HOOK STRIPS & EDGES

SQUARE MESH WIRE MESH

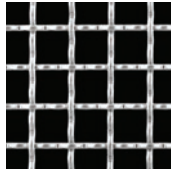
McNICHOLS® Square Mesh Wire Mesh is available in a wide range of meshes, weave types, and mesh sizes. Square Mesh is often used in applications such as infill panels, fan guards, screen enclosures, fencing, filtration, and more!

SQUARE MESH - WOVEN

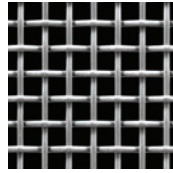
Woven Square Mesh is a flexible product depending on the gauge and weave type selected. It is available in a wide range of meshes, weaves, and material types.



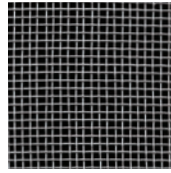
1 x 1 Mesh
Intercrimp Weave



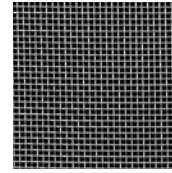
3/4" x 3/4" Mesh
Intercrimp Weave



2 x 2 Mesh
Lock Crimp Weave



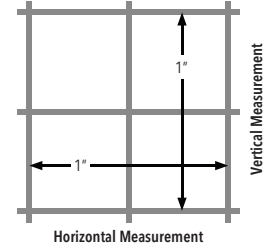
6 x 6 Mesh
Plain Weave



8 x 8 Mesh
Plain Weave

HOW TO MEASURE MESH SIZE

To find the mesh size for a Square Mesh Wire Mesh item, measure the number of openings per linear inch from the center of a wire to the center of an adjacent wire in both vertical and horizontal directions.



SQUARE MESH - WOVEN STOCK LIST												
MESH	WIRE DIAMETER	MESH	WIRE DIAMETER	MESH	WIRE DIAMETER	TYPE	MESH	WIRE DIAMETER	TYPE	MESH	WIRE DIAMETER	TYPE
ALUMINUM		CARBON STEEL (CONT.)		STAINLESS STEEL (CONT.)			STAINLESS STEEL (CONT.)					
1 x 1	.120	12 x 12	.028, .023	2 x 2	.135, .105, .080	304	18 x 18	.017, .009	304	20 x 20	.016	304, 316
2 x 2	.080, .063	60 x 60	.0075	3 x 3	.080, .063, .047	304	20 x 20	.023, .014	304	24 x 24	.014	304
4 x 4	.063, .047	COPPER		3-1/2 x 3-1/2	.054	304	20 x 20	.023, .014	304	30 x 30	.012	304, 316
8 x 8	.028	2 x 2	.063	4 x 4	.063, .047	304, 316	40 x 40	.010	304, 316	40 x 40	.010	304, 316
BRASS		4 x 4	.047	4 x 4	.120, .080, .035, .032, .028	304	50 x 50	.009	304	60 x 60	.0075	304
16 x 16	.018	8 x 8	.028	5 x 5	.041	304	80 x 80	.0055	304	100 x 100	.0045	304, 316
CARBON STEEL		10 x 10	.025	6 x 6	.035	304, 316	150 x 150	.0026	304	200 x 200	.0021	304
4" x 4"	.250	16 x 16	.011	6 x 6	.063, .047	304	325 x 325	.0014	304, 316	For cut-to-size information, we are available to serve you at 800.237.3820 or at mcnichols.com .		
1-3/4" x 1-3/4"	.207	40 x 40	.010	8 x 8	.028	304, 316						
2 x 2	.135, .120, .080, .063	100 x 100	.0045	8 x 8	.063, .047, .032, .017	304						
3 x 3	.105, .063	STAINLESS STEEL, TYPE 304 & 316			10 x 10	.047, .035, .025	304					
4 x 4	.080, .063, .047	3/4" x 3/4"	.120, .105	304	12 x 12	.035, .028, .023, .018	304					
6 x 6	.063, .047, .035	1 x 1	.080	304, 316	14 x 14	.020	304					
8 x 8	.063, .047, .032, .028	1 x 1	.120, .063	304	16 x 16	.018	304, 316					
10 x 10	.025	2 x 2	.120, .063, .047	304, 316	16 x 16	.028, .009	304					

SQUARE MESH - WELDED

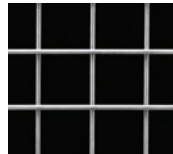
McNICHOLS® Square Mesh Welded Wire Mesh typically has larger openings than Woven Wire Mesh. Welded Wire Mesh is capable of maintaining its shape when stressed.



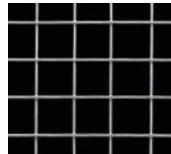
3" x 3" Mesh
Welded



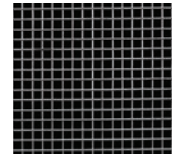
2" x 2" Mesh
Welded



1-1/2" x 1-1/2" Mesh
Welded



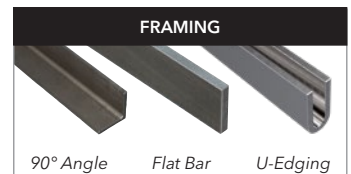
1 x 1 Mesh
Welded



4 x 4 Mesh
Welded

SQUARE MESH - WELDED STOCK LIST												
MESH	WIRE DIAMETER	MESH	WIRE DIAMETER	MESH	WIRE DIAMETER	TYPE	MESH	WIRE DIAMETER	TYPE	MESH	WIRE DIAMETER	TYPE
CARBON STEEL		GALVANIZED STEEL		STAINLESS STEEL, TYPE 304 & 316								
1 x 1	.135, .120, .105	1 x 1	.120, .080, .063	1 x 1	.120, .080	304, 316	1 x 1	.063	304	2 x 2	.047	304, 316
1-1/2" x 1-1/2"	.135	2 x 2	.063	1 x 1	.063	304	2 x 2	.063	304	2 x 2	.063	304
2" x 2"	.232, .187, .160, .156, .135, .120, .105	4 x 4	.025	2 x 2	.192, .187, .160, .135, .120	304	3 x 3	.047	304	3 x 3	.047	304
3" x 3"	.192, .135	2" x 2"	.192, .187, .160, .135, .120	4 x 4	.032	304	4 x 4	.032	304	4 x 4	.032	304
4" x 4"	.250, .225	3" x 3"	.188, .135	2" x 2"	.188, .120	304	2" x 2"	.188, .120	304	3" x 3"	.188	304
6" x 6"	.187	4" x 4"	.250, .148	3" x 3"	.188	304	3" x 3"	.188	304			

Woven Wire Mesh is available in hundreds of wire diameter, mesh, and opening size combinations. Please visit mcnichols.com for more information.

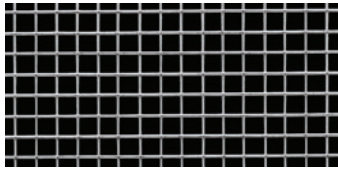


For details on framing options, please refer to page 8 and 13 or we are happy to assist you at **800.237.3820**.

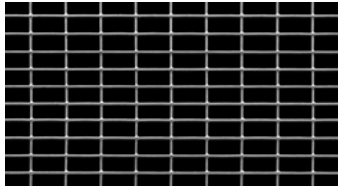
There are additional resources available to you at mcnichols.com too!

HARDWARE & INDUSTRIAL CLOTH

McNICHOLS® HARDWARE & INDUSTRIAL CLOTH Wire Mesh, made from a Galvanized wire available in woven and welded construction, is widely used in the farming industry and is also used in many other applications due to its corrosion resistance and lightweight characteristics.



4 x 4 Square Mesh Welded

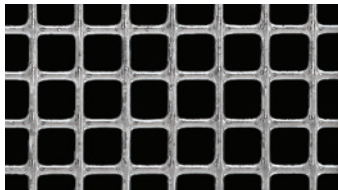


1" x 1/2" Rectangular Mesh Welded

HARDWARE & INDUSTRIAL CLOTH STOCK LIST						
MESH TYPE	CONSTRUCTION	MESH SIZE	OPENING SIZE	WIRE DIAMETER	OPEN AREA	COIL WIDTHS
Square	Welded	1 x 1	0.9370" x 0.9370"	.063	88%	48", 60"
Square	Welded	1 x 1	0.9200" x 0.9200"	.080	85%	48"
Square	Welded	2 x 2	0.4590" x 0.4590"	.041	84%	36", 48", 60"
Square	Welded	2 x 2	0.4370" x 0.4370"	.063	76%	36", 48", 60", 72"
Square	Welded	4 x 4	0.2250" x 0.2250"	.025	81%	36", 48"
Square	Woven	4 x 4	0.2250" x 0.2250"	.025	81%	48"
Square	Woven	4 x 4	0.2030" x 0.2030"	.047	66%	48"
Square	Woven	6 x 6	0.1370" x 0.1370"	.035	63%	48"
Square	Woven	8 x 8	0.1080" x 0.1080"	.017	75%	36", 48"
Rectangular	Welded	1" x 1/2"	0.9370" x 0.4370"	.063	80%	60"
Rectangular	Welded	2" x 1"	1.9200" x 0.9200"	.080	89%	48"

VINYLMESH™

McNICHOLS VINYLMESH™ is a welded, galvanized, and then Vinyl PVC Coated Black Wire Mesh offered in a variety of meshes, gauges, and widths. VINYLMESH™ is easy to clean and is weather- and corrosion-resistant. Applications include animal cages, enclosures, screens, partitions, and guards. VINYLMESH™ is available in full 1200" (100') coils or may be cut-to-size.



2" x 2" Square Mesh Welded

VINYLMESH™ STOCK LIST						
MESH TYPE	CONSTRUCTION	MESH SIZE	OPENING SIZE	WIRE DIAMETER	OPEN AREA	COIL WIDTHS
Square	Welded	2 x 2	0.4370" x 0.4370"	.063	76%	48"
Square	Welded	1 x 1	0.9200" x 0.9200"	.080	85%	36", 48"
Square	Welded	2" x 2"	1.9200" x 1.9200"	.080	92%	36"
Square	Welded	2" x 2"	1.9010" x 1.9010"	.099	90%	48"

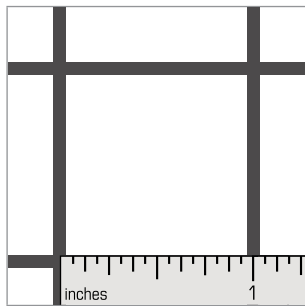
WIRE DIAMETERS & WIRE GAUGE EQUIVALENTS TO SCALE

WIRE DIAMETER	WIRE GAUGE	END VIEW	SIDE VIEW	WIRE DIAMETER	WIRE GAUGE	END VIEW	SIDE VIEW	WIRE DIAMETER	WIRE GAUGE	END VIEW	SIDE VIEW	WIRE DIAMETER	WIRE GAUGE	END VIEW	SIDE VIEW
0.430"	5/0			0.250"	2-3/4			0.148"	9			0.063"	16		
0.375"	4/0-1/2			0.232"	3-3/4			0.135"	10			0.054"	17		
0.3625"	3/0			0.225"	4			0.120"	11			0.047"	18		
0.331"	2/0			0.207"	5			0.105"	12			0.041"	19		
0.313"	1/0			0.192"	6			0.092"	13			0.035"	20		
0.283"	1			0.177"	7			0.080"	14			0.032"	21		
0.273"	1-1/2			0.162"	8			0.072"	15			0.028"	22-1/4		

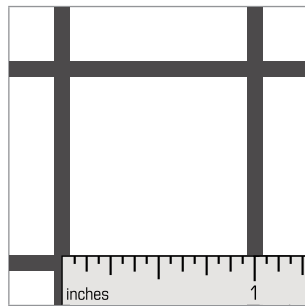
PLEASE NOTE: End and side views shown are shown to scale. Larger and smaller wire diameters are not illustrated but can be supplied. A complete diagram and chart, including wire diameters, wire gauges, and weight per foot is available at mcnicols.com.

SQUARE MESH SIZES TO SCALE

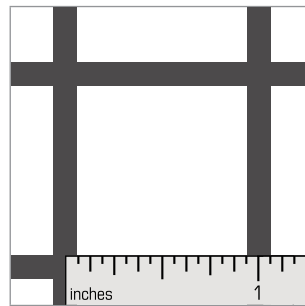
This page displays only a fraction of the Square Mesh items available to you. **McNICHOLS** supplies hundreds of Square Wire Mesh sizes from 1 x 1 Mesh to 90 x 90 Mesh and Fine Meshes from 100 x 100 Mesh to 635 x 635 Mesh. For more information and additional sizes to scale, please visit us at mcnichols.com!



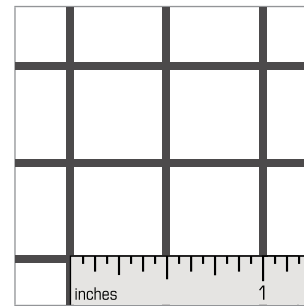
1 x 1 Mesh, 0.063" Wire Diameter,
88% Open Area



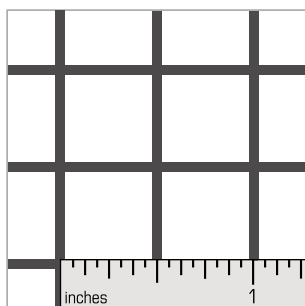
1 x 1 Mesh, 0.080" Wire Diameter,
85% Open Area



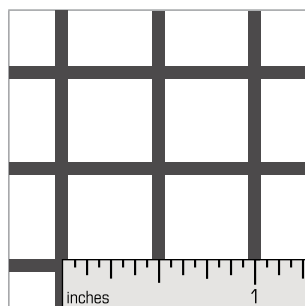
1 x 1 Mesh, 0.120" Wire Diameter,
77% Open Area



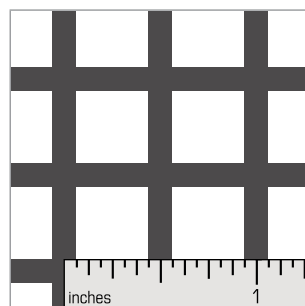
2 x 2 Mesh, 0.041" Wire Diameter,
84% Open Area



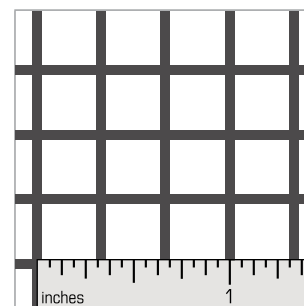
2 x 2 Mesh, 0.047" Wire Diameter,
82% Open Area



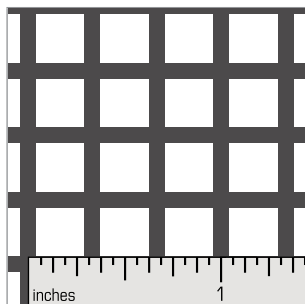
2 x 2 Mesh, 0.063" Wire Diameter,
76% Open Area



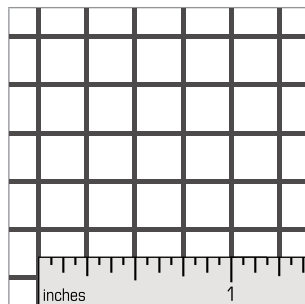
2 x 2 Mesh, 0.120" Wire Diameter,
58% Open Area



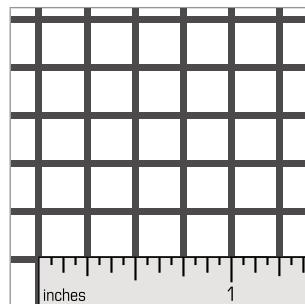
3 x 3 Mesh, 0.047" Wire Diameter,
74% Open Area



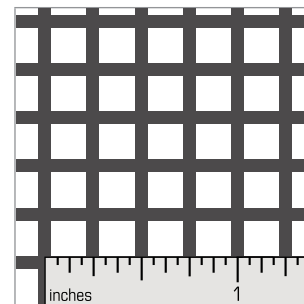
3 x 3 Mesh, 0.080" Wire Diameter,
58% Open Area



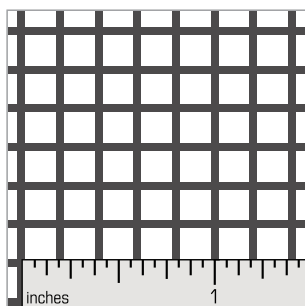
4 x 4 Mesh, 0.025" Wire Diameter,
81% Open Area



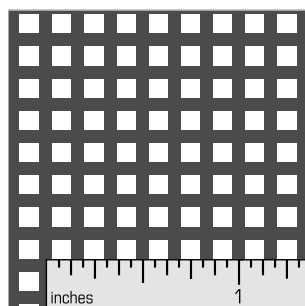
4 x 4 Mesh, 0.032" Wire Diameter,
76% Open Area



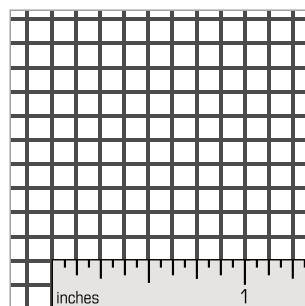
4 x 4 Mesh, 0.063" Wire Diameter,
56% Open Area



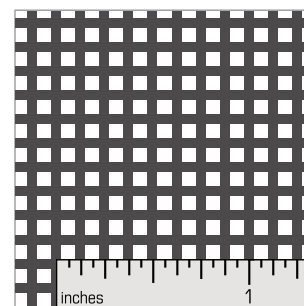
5 x 5 Mesh, 0.041" Wire Diameter,
63% Open Area



6 x 6 Mesh, 0.063" Wire Diameter,
39% Open Area

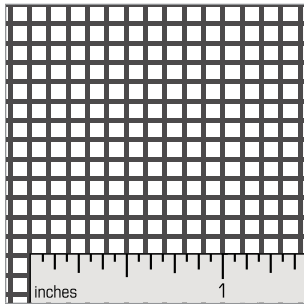


8 x 8 Mesh, 0.017" Wire Diameter,
75% Open Area

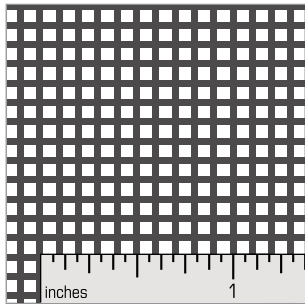


8 x 8 Mesh, 0.047" Wire Diameter,
39% Open Area

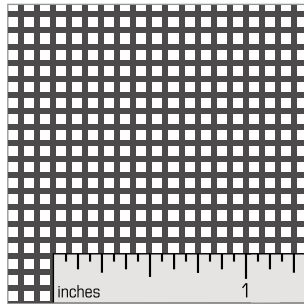
SQUARE MESH SIZES TO SCALE (CONTINUED)



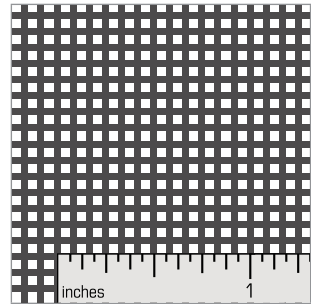
10 x 10 Mesh, 0.025" Wire Diameter, 56% Open Area



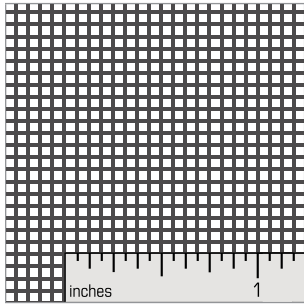
10 x 10 Mesh, 0.035" Wire Diameter, 42% Open Area



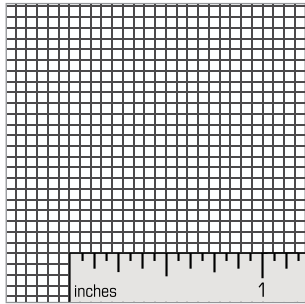
12 x 12 Mesh, 0.028" Wire Diameter, 44% Open Area



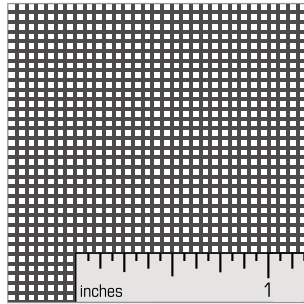
12 x 12 Mesh, 0.035" Wire Diameter, 33% Open Area



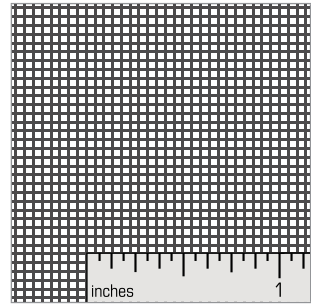
16 x 16 Mesh, 0.018" Wire Diameter, 51% Open Area



18 x 18 Mesh, 0.009" Wire Diameter, 70% Open Area



20 x 20 Mesh, 0.016" Wire Diameter, 46% Open Area



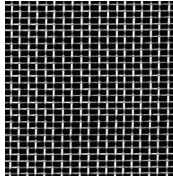
22 x 22 Mesh, 0.015" Wire Diameter, 45% Open Area

SQUARE MESH OPTIONS CHART

WIRED DIA.	OPNG SIZE	OPEN AREA	LBS/ 100 SF	WIRED DIA.	OPNG SIZE	OPEN AREA	LBS/ 100 SF	WIRED DIA.	OPNG SIZE	OPEN AREA	LBS/ 100 SF	WIRED DIA.	OPNG SIZE	OPEN AREA	LBS/ 100 SF	WIRED DIA.	OPNG SIZE	OPEN AREA	LBS/ 100 SF	WIRED DIA.	OPNG SIZE	OPEN AREA	LBS/ 100 SF				
1" x 1" MESH																											
.192"	.4330"	48.0%	395.0	.192"	.2524"	32.2%	578.4	.135"	.1983"	35.3%	377.6	.054"	.1960"	61.5%	76.4	.023"	.1770"	78.3%	17.0	5-1/2 x 5-1/2 MESH							
.250"	.7500"	56.3%	412.4	.177"	.4480"	51.4%	333.5	.177"	.2674"	36.1%	485.7	.120"	.2133"	40.8%	293.9	.047"	.2030"	65.9%	57.6	.105"	.0768"	17.9%	448.3				
.225"	.7750"	60.1%	332.1	.162"	.4630"	54.9%	277.7	.162"	.2824"	40.3%	402.3	.105"	.2283"	46.8%	222.0	.041"	.2090"	69.9%	43.6	.041"	.1408"	60.0%	60.7				
.207"	.7930"	62.9%	280.1	.148"	.4770"	58.3%	230.5	.148"	.2964"	44.4%	332.5	.092"	.2413"	52.3%	168.7	.035"	.2150"	74.0%	31.7	.092"	.0898"	24.4%	317.3				
.192"	.8080"	65.3%	240.3	.135"	.4900"	61.5%	191.0	.135"	.3094"	48.3%	274.3	.080"	.2533"	57.6%	126.4	.032"	.2180"	76.0%	26.4	.080"	.1018"	31.3%	233.9				
.177"	.8230"	67.7%	203.7	.120"	.5050"	65.3%	150.2	.120"	.3244"	53.1%	214.8	.072"	.2613"	61.3%	101.9	.028"	.2220"	78.9%	20.2	.072"	.1098"	36.5%	196.3				
.162"	.8380"	70.2%	170.2	.105"	.5200"	69.2%	114.5	.105"	.3394"	58.2%	163.2	.063"	.2703"	65.6%	77.6	.025"	.2250"	81.0%	16.1	.063"	.1188"	42.7%	147.9				
.148"	.8520"	72.6%	141.7	.092"	.5330"	72.7%	87.9	.092"	.3524"	62.7%	124.5	.054"	.2793"	70.1%	56.7	4-1/2 x 4-1/2 MESH				.054"	.1278"	49.4%	107.1				
.135"	.8650"	74.8%	117.7	.080"	.5450"	76.0%	66.1	.080"	.3644"	67.1%	93.7	.047"	.2863"	73.6%	42.8	.120"	.1022"	21.2%	447.9	.047"	.1348"	55.0%	80.3				
.120"	.8800"	77.4%	92.8	.072"	.5530"	78.3%	53.5	.072"	.3724"	70.1%	75.7	.041"	.2923"	76.7%	32.5	.105"	.1172"	27.7%	333.7	.041"	.1408"	60.0%	60.7				
.105"	.8950"	80.1%	71.0	.063"	.5620"	80.9%	40.9	.063"	.3814"	73.5%	57.8	.035"	.2983"	79.9%	23.7	.092"	.1302"	34.2%	263.9	.035"	.1468"	65.2%	43.9				
.092"	.9080"	82.4%	54.4	.054"	.5710"	83.5%	30.0	.054"	.3904"	77.0%	42.3	.032"	.3013"	81.5%	19.7	.080"	.1422"	40.8%	195.9	.032"	.1680"	70.6%	33.2				
.080"	.9200"	84.6%	41.1	.047"	.5780"	85.5%	22.7	.047"	.3974"	79.8%	32.0	3-1/2 x 3-1/2 MESH				.072"	.1502"	45.6%	157.0	.028"	.1720"	74.0%	25.3				
.072"	.9280"	86.1%	33.3	2 x 2 MESH				.041"	.0434"	82.2%	24.3	.148"	.1377"	23.2%	525.0	.063"	.1592"	51.2%	118.9	.052"	.1750"	76.6%	20.2				
.063"	.9370"	87.8%	25.5	.250"	.2500"	25.0%	894.6	2-1/2 x 2-1/2 MESH				.135"	.1507"	27.9%	429.0	.054"	.1682"	57.2%	86.4	.023"	.1770"	78.3%	17.0				
3/4" x 3/4" MESH				.225"	.2750"	30.3%	710.6	.225"	.1750"	19.1%	929.3	.120"	.1657"	33.8%	349.9	.047"	.1752"	62.0%	65.0	6 x 6 MESH							
.250"	.5000"	44.4%	562.3	.207"	.2930"	34.3%	593.8	.207"	.1930"	23.3%	772.2	.105"	.1807"	40.1%	263.2	.041"	.1812"	66.3%	49.2	.092"	.0747"	20.2%	352.8				
.225"	.5250"	49.0%	451.0	.192"	.3080"	37.9%	505.5	.192"	.2080"	27.0%	654.4	.092"	.1937"	46.1%	199.3	.035"	.1872"	70.8%	35.7	.080"	.0867"	27.2%	259.1				
.207"	.5430"	52.4%	379.4	.177"	.3230"	41.7%	425.4	.177"	.2230"	31.1%	548.2	.080"	.2057"	52.0%	148.9	.032"	.1902"	73.1%	29.8	.072"	.0947"	32.5%	216.9				
.192"	.5580"	55.3%	324.8	.162"	.3380"	45.7%	353.3	.162"	.2380"	35.4%	453.4	.072"	.2137"	56.1%	119.8	.028"	.1942"	76.4%	22.8	.063"	.1037"	38.9%	163.0				
.177"	.5730"	58.3%	274.7	.148"	.3520"	49.6%	292.4	.148"	.2520"	39.7%	373.7	.063"	.2227"	60.9%	91.1	.025"	.1972"	78.7%	18.1	.054"	.1127"	46.0%	117.7				
.162"	.5880"	61.4%	229.2	.135"	.3650"	53.3%	241.7	.135"	.2650"	43.9%	307.8	.054"	.2317"	65.9%	66.5	5 x 5 MESH				.047"	.1197"	51.8%	88.2				
.148"	.6020"	64.4%	190.5	.120"	.3800"	57.8%	189.6	.120"	.2800"	49.0%	240.6	.047"	.2387"	70.0%	50.2	.120"	.0800"	16.0%	510.6	.041"	.1257"	57.2%	66.5				
.135"	.6150"	67.2%	158.1	.105"	.3950"	62.4%	144.2	.105"	.2950"	54.4%	182.4	.041"	.2447"	73.5%	38.1	.105"	.0950"	22.6%	378.7	.035"	.1317"	62.7%	48.1				
.120"	.6300"	70.5%	124.4	.092"	.4080"	66.6%	110.2	.092"	.3080"	59.3%	139.0	.035"	.2507"	77.2%	27.6	.092"	.1080"	29.2%	283.4	.032"	.1347"	65.6%	40.0				
.105"	.6450"	73.9%	95.0	.080"	.4200"	70.6%	83.0	.080"	.3200"	64.0%	104.0	.042"	.2537"	79.0%	23.1	.080"	.1200"	36.0%	220.6	.028"	.1387"	69.6%	30.5				
.092"	.6580"	76.9%	72.8	.072"	.4280"	73.3%	67.1	.072"	.3280"	67.2%	84.3	4 x 4 MESH				.072"	.1280"	41.0%	176.4	.025"	.1417"	72.6%	24.3				
.080"	.6700"	79.8%	54.9	.063"	.4370"	76.4%	51.2	.063"	.3370"	71.0%	64.3	.148"	.1020"	16.6%	619.1	.063"	.1370"	46.9%	133.2	.023"	.1437"	74.7%	20.5				
.072"	.6780"	81.7%	44.5	.054"	.4460"	79.6%	37.6	.054"	.3460"	74.8%	47.1	.135"	.1150"	21.2%	503.8	.054"	.1460"	53.3%	96.7	.020"	.1467"	77.8%	15.5				
.063"	.6870"	83.9%	34.0	.047"	.4530"	81.2%	28.4	.047"	.3530"	77.9%	35.6	.120"	.1300"	27.0%	388.6	.047"	.1530"	58.5%	72.6	7 x 7 MESH							
.054"	.6960"	86.1%	24.9	.041"	.4590"	84.3%	21.6	.041"	.3590"	80.6%	27.0	.105"	.1450"	33.6%	306.2	.041"	.1590"	63.2%	54.9	.080"	.0629"	19.4%	312.2				
5/8" x 5/8" MESH				.035"	.4650"	86.5%	15.7	.035"	.3650"	83.3%	19.7	.092"	.1580"	39.9%	231.0	.035"	.1650"	68.1%	39.8	.072"	.0709"	24.6%	247.2				
.250"	.3750"	36.0%	689.4	2-1/4 x 2-1/4 MESH				.225"	.2194"	24.4%	817.9	.162"	.1713"	26.3%	560.4	.072"	.1780"	50.7%	138.2	.028"	.1720"	74.0%	25.3	.054"	.0889"	38.8%	139.7
.225"	.4000"	41.0%	551.0	3 x 3 MESH				.180"	.1700"	46.2%	172.1	.135"	.1700"	46.2%	172.1	.032"	.1680"	70.6%	33.2	.063"	.0799"	31.4%	184.7				
.207"	.4180"	44.7%	462.4	.207"	.2374"	28.4%	680.9	.148"	.1853"	30.8%	460.2	.063"	.1870"	56.0%	104.8	.025"	.1750"	76.6%	20.2	.047"	.0959"	45.2%	104.2				

RECTANGULAR WIRE MESH

McNICHOLS® Rectangular Wire Mesh has many of the same properties as Square Wire Mesh. The primary difference between the two is the rectangular opening created when the Wire Mesh is constructed. McNICHOLS stocks both woven (often referred to as INSECT SCREEN) and welded in several patterns and materials.

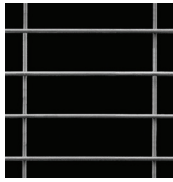


18 x 14 Mesh Woven

RECTANGULAR MESH - WOVEN

McNICHOLS® Rectangular Woven Mesh, also referred to as INSECT SCREEN, has a woven Wire Mesh construction type. Small insects, such as no-see-ums, may pass through a typical insect screen (18 x 14 Mesh), but smaller meshes are available to slow down most bugs.

RECTANGULAR MESH - WOVEN STOCK LIST					
MESH SIZE	MATERIAL	OPENING SIZE	WIRE DIAMETER	OPEN AREA	COIL WIDTHS
18 x 14	Bronze	0.0446" x 0.0604"	.011	68%	36"
18 x 14	Carbon Steel, Epoxy Coated	0.0466" X 0.0624"	.009	72%	48"
18 x 14	Stainless Steel, Type 304	0.0466" X 0.0624"	.009	72%	36", 48"
18 x 14	Stainless Steel, Type 304	0.0446" x 0.0604"	.011	68%	36", 48"
18 x 16	Aluminum	0.0446" x 0.0515"	.011	66%	36", 48"



3" x 1-1/2" Mesh Welded

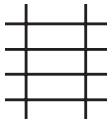
RECTANGULAR MESH- WELDED

McNICHOLS® Rectangular Welded Wire Mesh typically has larger openings than Woven Wire Mesh. With the wires welded at each intersection, Welded Wire Mesh is more capable of maintaining its shape when stressed. Rectangular Welded Wire Mesh is a popular choice for railing Infill Panels.

RECTANGULAR MESH - WELDED STOCK LIST					
MESH SIZE	MATERIAL	OPENING SIZE	WIRE DIAMETER	OPEN AREA	STANDARD SIZES
1" x 1/2"	Galvanized Steel	0.9370" x 0.4370"	.063	84%	60" Coil
2" x 1"	Carbon Steel	1.8800" x 0.8800"	.120	84%	48" x 96", 48" x 120" Sheet
2" x 1"	Galvanized Steel	1.9200" x 0.9200"	.080	89%	48" Coil
2" x 1"	Galvanized Steel	1.8800" x 0.8800"	.120	84%	48" x 96" Sheet
3" x 1-1/2"	Carbon Steel	2.9080" x 0.4080"	.092	79%	48" x 96" Sheet
3" x 1-1/2"	Stainless Steel, Type 304	2.8800" x 1.3800"	.120	73%	36" x 100" Sheet
4" x 2"	Carbon Steel	3.7500" x 1.7500"	.250	93%	48" x 120"

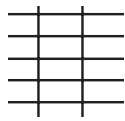
WELDED WIRE MESH TRIM & STUB OPTIONS

UNTRIMMED EQUAL STUBS



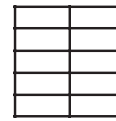
Equal (balanced) stubs on opposite sides only. Stubs will not exceed opening unless specified.

UNTRIMMED RANDOM STUBS



Untrimmed random stubs vary on all four sides as a result of shearing a larger sheet. Pieces not identical.

TRIMMED (NO STUBS)



Trimmed flush (no stubs) with a minimum 1/8" wire overhang on all four sides of sheared pieces.



FABRICATION SERVICES

At McNICHOLS CO., we strive to be MORE than your trusted Hole Product supplier - we want to be your project partner from concept to completion. That's why we provide additional design and fabrication services to help you save time, resources, and effort.



PRINT TAKEOFFS



CUT-TO SIZE



CERTIFIED WELDERS



STAIR TREADS



INFILL PANELS

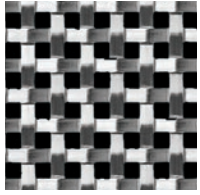


METAL FINISHES

The McNICHOLS team is eager to assist you through additional design and fabrication services. From takeoffs and approval drawings to shearing, welding, fastening, polishing and more, our skilled associates are here to help!

DESIGNER WIRE MESH

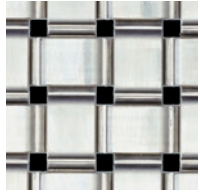
McNICHOLS® Designer Wire Mesh is constructed of wires that are woven into a variety of unique patterns. Designer Wire Mesh applications include ceiling tiles, railing infill panels, overlay surfaces, wall cladding, sunshades, partitions, store fixtures, cabinet inserts, signage or sign backing, aesthetic accents, and more! We have several patterns and styles in stock and are ready and **Inspired to Serve®** you at **866.754.5144** or designermetals@mcnichols.com.



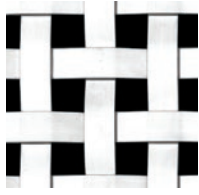
ASHLAND™ 2015



ASHLAND™ 8015



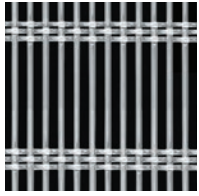
ASHLAND™ 8016



ASHLAND™ 8018



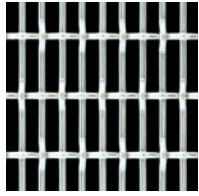
AURA™ 8155



AURA™ 8856



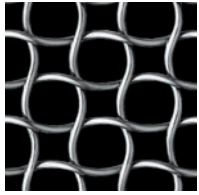
AURA™ 8857



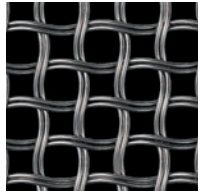
CHATEAU™ 3105



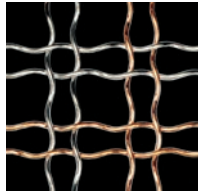
CHATEAU™ 3110



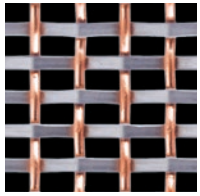
HALO™ 1162



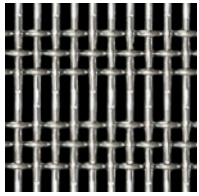
HALO™ 2252



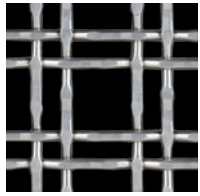
HALO™ 4474



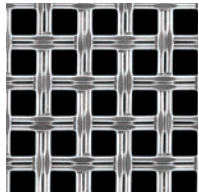
SHIRE™ 8148



SHIRE™ 8314



TALICA™ 8146



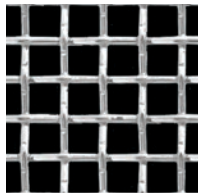
TALICA™ 8150



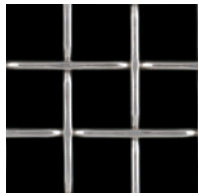
TALICA™ 8158



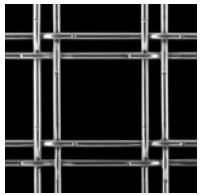
TALICA™ 8220



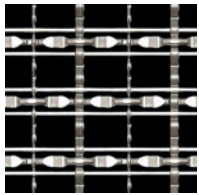
TALICA™ 8221



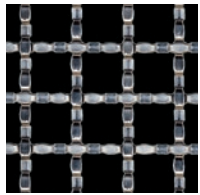
TALICA™ 8168



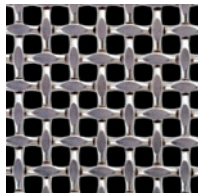
TECHNA™ 3155



TECHNA™ 3156



TECHNA™ 8159



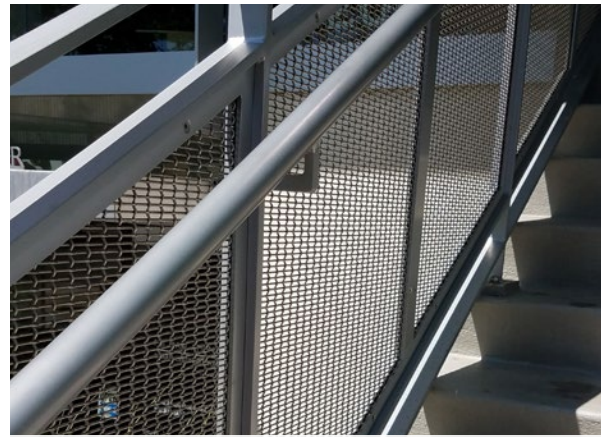
TECHNA™ 8163



McNICHOLS® Wire Mesh, Designer Mesh, HALO™ 4474, Copper/Stainless Steel, Copper Alloy/Type 304, Woven – Helical (Spiral) Crimp Weave, 74% Open Area – Cabinet Inserts



McNICHOLS® Wire Mesh, Designer Mesh, TECHNA™ 8169, Bronze, Bronze Alloy, Woven – Intercrimp Weave, 74% Open Area – various uses in a New York restaurant



McNICHOLS® Wire Mesh, Designer Mesh, CHATEAU™ 3105, Galvanized, Pre-Galvanized, Woven – Flat Top/Plain Weave, 58% Open Area – Infill Panels.

ECO-MESH® MODULAR PLANT TRELLIS SYSTEMS

McNICHOLS ECO-MESH® Modular Facade & Trellis Systems offers architects and contractors many aesthetic, sustainable, and functional green-build opportunities. ECO-MESH® panels are strong, durable, lightweight, and are well-suited for both interior and exterior spaces. Modular applications include facades, partitions, canopies, arbors, and more. ECO-MESH® panels promote vegetation growth within the panel's grid system.

ECO-MESH® PRODUCT OPTIONS

PRIMARY MATERIAL	Galvanized Steel (Most Common), Aluminum, Carbon Steel, Stainless Steel
PRODUCT FINISH	Mill, Sandblasted, Eco-Friendly Powder Coatings with 13 Standard Colors
COLOR	Textured Black (In Stock), Aged Copper, Brown, Forest Green, Gray, Light Gray, Jet Black, Moss Green, Red Brick, Red Orange, Reed Green, Rust, Tan
WEAVE TYPE	Woven - Intercrip Weave, I515 Crimp Style In Stock (Other Sizes Available)
MESH SIZE	2" x 2" Square Mesh In Stock (Other Sizes Available)
WIRE DIAMETER/ WIRE GAUGE	0.135" Thick (10 Gauge) - 0.120" Thick (11 Gauge), and 0.148" Thick (9 Gauge) Available
BRIDGE WIRE	0.105" Thick (12 Gauge), Spaced 18" on Center
CHANNEL SIZE	3" Channel Width with a 1" Return, 16 Gauge (.0635" Thick)
PANEL WIDTH	48" (24" to 96" Available)
PANEL HEIGHT	96" (24" to 240" Available)
PANEL ACCESSORIES	Mounting Brackets and Hardware Available



IN STOCK & READY TO GO!

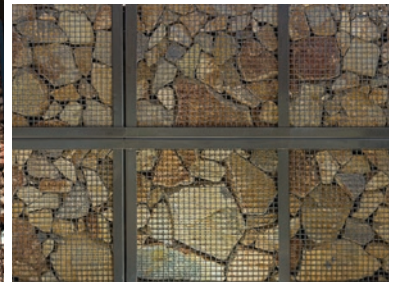
- Galvanized Steel
- Powder Coated Textured Black
- 2" x 2" Square Mesh
- 3" Channel Width with a 1" Return, 16 Gauge (.0635" Thick)
- 48" x 96" Panel
- Mounting Brackets and Hardware Available

ECO-ROCK® GABION CONTAINMENT WALL SYSTEMS

McNICHOLS ECO-ROCK® creates decorative boundaries with an eco-friendly twist. These gabion-style Wire Mesh wall containers hold natural rock, recycled concrete, glass, and other materials. In indoor and outdoor settings, ECO-ROCK® containers add a sustainable design element. With materials and finishes that are recycled or otherwise environmentally-friendly, ECO-ROCK® assists with LEED certification. Whether your application calls for an outdoor partition or a vertical entryway, McNICHOLS can craft a custom gabion-style design to meet your needs.

ECO-ROCK® PRODUCT OPTIONS

PRIMARY MATERIAL	Galvanized Steel (Most Common), Aluminum, Carbon Steel, Stainless Steel
PRODUCT FINISH	Mill, Sandblasted, Eco-Friendly Powder Coatings with 13 Standard Colors
COLOR	Textured Black (In Stock), Aged Copper, Brown, Forest Green, Gray, Light Gray, Jet Black, Moss Green, Red Brick, Red Orange, Reed Green, Rust, Tan
WEAVE TYPE	Woven - Intercrip Weave, I515 Crimp Style
MESH SIZE	2" x 2" & 3" x 3" Square Mesh (Other Sizes Available)
WIRE DIAMETER/ WIRE GAUGE	0.148" Thick (9 Gauge) or 0.192" Thick (6 Gauge)
BULGE WIRE DIAMETER	0.105" Thick (12 Gauge) or 0.148" Thick (9 Gauge)
BULGE WIRE SPACING	12" on Center (Vertically), 18" on Center (Horizontally)
CHANNEL SIZE	Up to 12": Channel has a 1" Return, 10 Gauge (.1345" Thick) Greater Than 12": Edges Framed with 2" x 2" Bent Plate Angle, 10 Gauge (.1345" Thick)
PANEL WIDTH	36" to 72"
PANEL HEIGHT	36" to 96"



For more information on our ECO-MESH® and ECO-ROCK® products, we are available to serve you at **866.754.5144** or online at mcnichols.com.

Request our **ECO-Catalog**
Read our **ECO-Hole Stories**

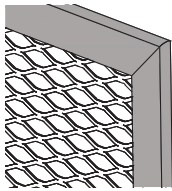
View our **ECO-Gallery**
Find Inspiration in our **ECO-Case Studies**

McNICHOLS® Infill Panels

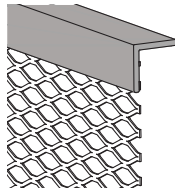
Specifying & Ordering

McNICHOLS® Infill Panels are custom-made, individually framed pieces of Perforated Metal, Expanded Metal, or Wire Mesh often installed as staircase or railing inserts, partitions, enclosures, dividers, and more. We quickly fabricate Infill Panels from stock inventory and have multiple framing options. Included below is a step-by-step guide to help you choose the right Infill Panel for your application.

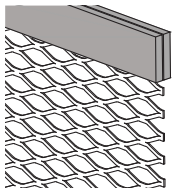
1 FIND A FRAME Framing protects material edges on all sides and improves the look!



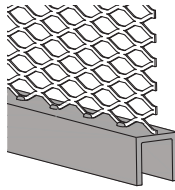
U-Edging



90° Angle



Flat Bar

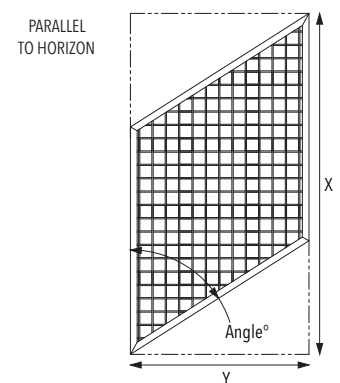
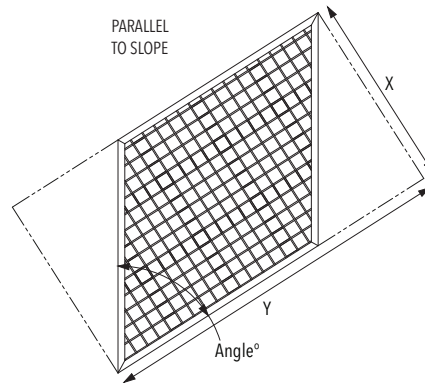
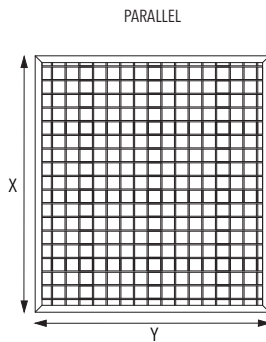


C-Channel

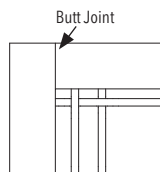
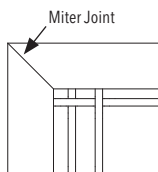


McNICHOLS® Wire Mesh, Designer Mesh, ASHLAND™ 8015, Stainless Steel, Type 304, Woven - Flat Wire Plain Weave, 51% Open Area, gives this staircase railing a sophisticated look inside a national bank facility.

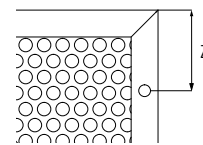
2 DETERMINE THE DETAILS Determine pattern orientation of product (parallel with supports, parallel to slope, and/or parallel to horizon). Include dimensions (with framing), and degree of angle for each piece. Indicate if panels will be installed side-by-side so pattern can align.



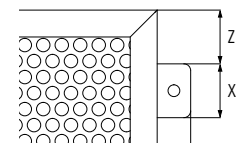
3 CHOOSE A CORNER Choose miter joint (connect pieces cut at 45°) or butt joint (connect pieces to form 90° corner). Choose MIG or TIG welding and if beads should be ground smooth. Indicate how often material should be tack welded to frame.



4 IDENTIFY THE INSTALLATION Identify how Infill Panels will be mounted to railings or other supports. Common options include drilling bolt holes in framing material or welding metal tabs to frame. We provide drain/weep holes too!



Bolt Holes in Frame



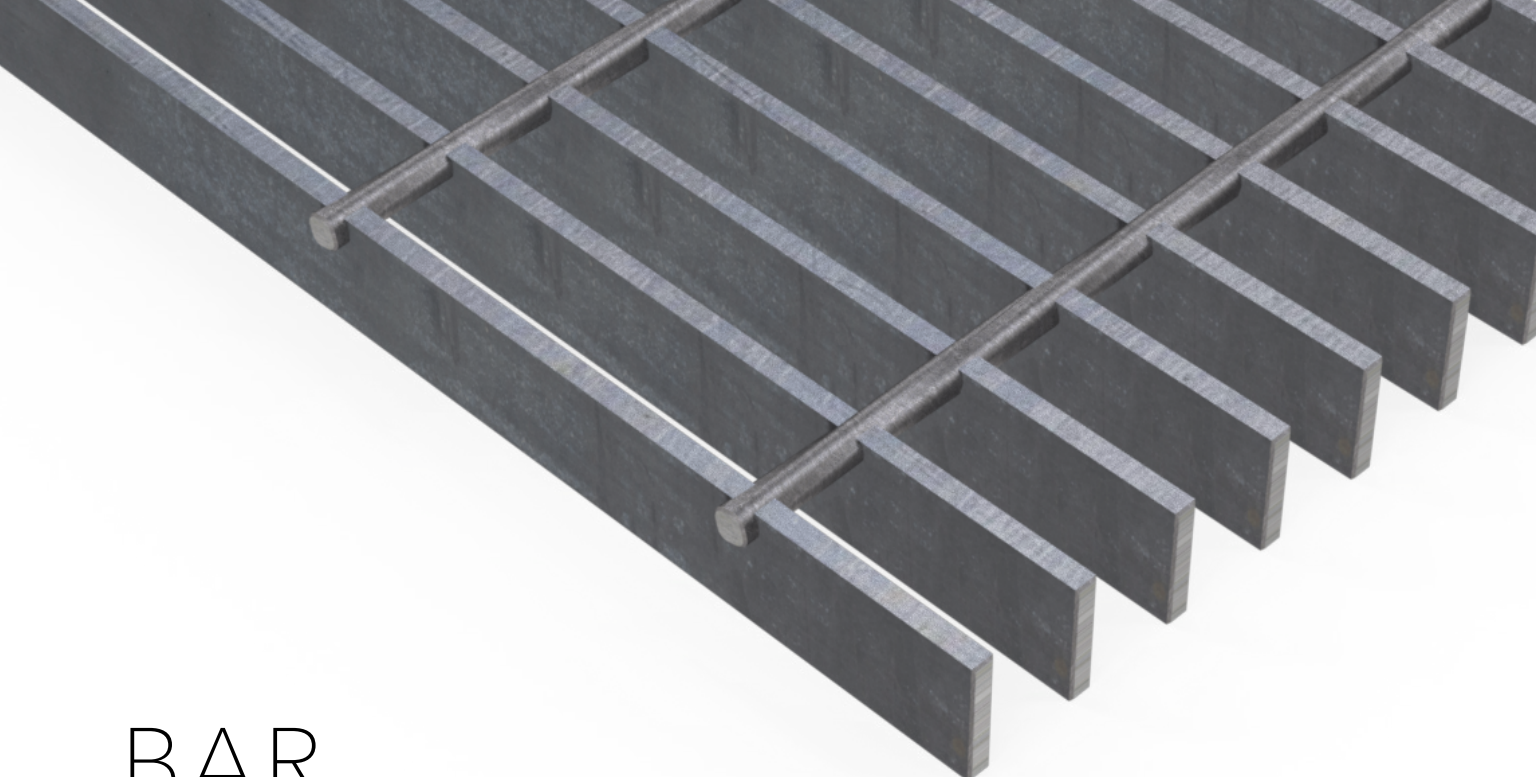
Tabs Welded to Frame

5 FINISH YOUR FIXTURE (OF ART)! Infill Panels are mill finish (minor scuffs, burs, etc.) unless otherwise specified. Anodize (Aluminum), hot-dip galvanize, paint, or powder coat your Panels. Polishing/brushed finishing is available for framing materials.

WE'RE HERE TO HELP!

Qualified Infill Panel specialists are ready and **Inspired to Serve®** you!

800.237.3820 | sales@mcnichols.com | mcnichols.com



BAR GRATING



McNICHOLS® Bar Grating brings safety, strength, and durability to industrial and architectural applications and is regularly installed on bridges, catwalks, factory floors, platforms, and as Stair Treads. A series of bearing bars are welded, swage-locked, or press-locked together with perpendicular cross bars to form Grating panels. Bar Grating is a high-performance, low-maintenance product capable of handling pedestrian or vehicular loads. Product openings allow air, light, sound, and fluid to pass through while surface designs often offer slip-resistant properties.

COMMON APPLICATIONS

Balconies	Industrial Flooring	Sunshades
Bridges	Mezzanines	Trench Covers/Grates
Catwalks	Scaffolding	Walkways
Fencing	Stair Treads	Work Platforms

PRODUCT LINE TERMINOLOGY

Clear Span - The length of unsupported Grating (distance between supports) and is critical in determining a Grating's loading ability. Grating supports typically have a foot or ledge on which the Grating rests.

Concentrated Load (C) - Loading type applied to the full width of a piece of Bar Grating at mid-span measured in pounds per square foot, and is not equally distributed across the full length of the span.

Deflection (D) - The amount of give or sag a supported piece of Bar Grating absorbs under a given weight load. For pedestrians, the acceptable deflection for most Bar Grating loads is 1/4" or less.

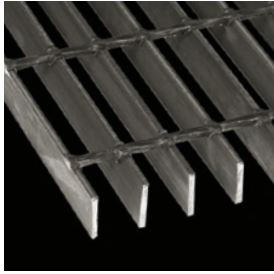
Load Banding - Flat Bar that is welded to every bearing bar end. Load Banding is commonly used in trench Grating applications where high loading requirements exist.

Load Tables - Represent the load and type a particular material will safely carry over a given clear span, and the resulting deflection (bending) that occurs. These table factors help you select the right Bar Grating for your application.

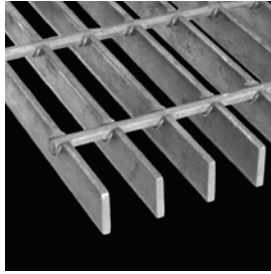
Span - The length of the Grating across two consecutive Bar Grating supports. Span includes both the supported and unsupported sections of the Grating.

Uniform Load (U) - Loading type applied equally to the full width and span (length) of the Grating and is measured in pounds per square foot.

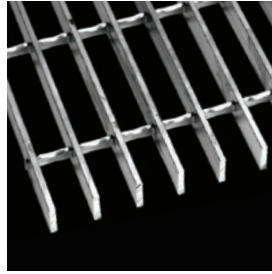
CONSTRUCTION TYPES



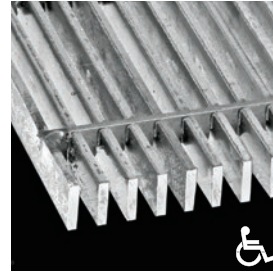
Welded



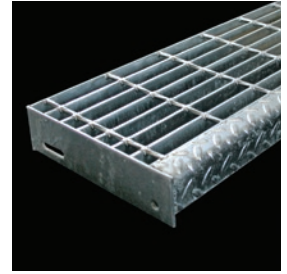
Heavy-Duty Welded



Swage-Locked



Press-Locked



Stair Treads

MATERIALS

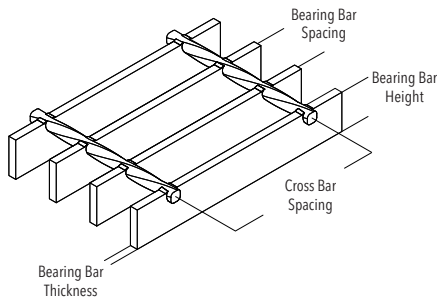
Select from the following primary material types:

Aluminum Carbon Steel (Painted Black or Gray)
Carbon Steel Galvanized Steel Stainless Steel

Inventory is typically mill finish unless otherwise specified.

PRODUCT SPACING

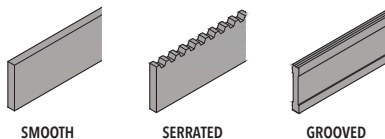
Specify product spacing by measuring adjacent bearing bars and cross bars on center (e.g. Welded (W) item with 1-3/16" (19/16") bearing bar spacing and 4" cross bar spacing is referred to as 19-W-4.



OPTIONS

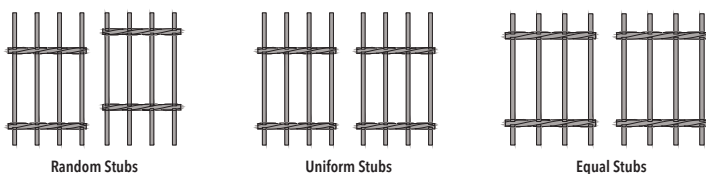
Product features and attributes to consider:

Series Types & Name	GW-150, GHB-200, etc.
Bearing Bar Shape	Rectangular Bar, I-Bar, T-Bar
Bearing Bar Height	3/4", 1", 1-1/2", 2", etc.
Bearing Bar Thickness	1/8", 3/16", 1/4", etc.
Open Area	Panel percentage of open area
Product Surface	



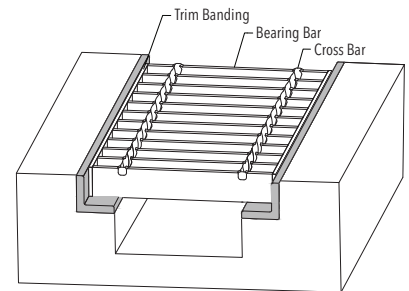
VALUE-ADDED SERVICES

Fabrication services including cutting, notching, welding, and more are available to you! Bar Grating bearing bar cut/trim types include:



McNICHOLS offers trim banding to close open bearing bar ends by welding metal Flat Bar to the corners and to every fourth or sixth bar depending on overall width. Bar Grating that is load banded receives welds on corners and all open bearing bar ends.

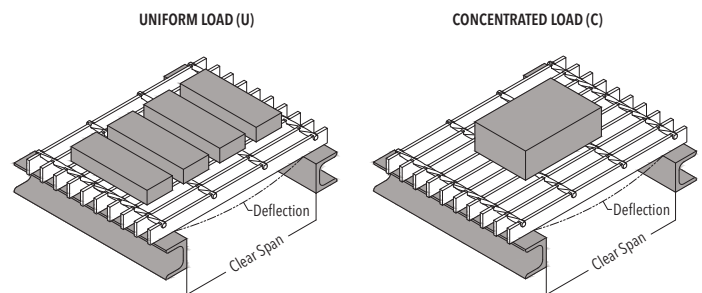
Diagram to right shows bearing bars installed perpendicular to trench width. This bearing bar direction (with banding attached) adds strength and stability for the application load.



BAR GRATING TRENCH COVER/GRATE DIAGRAM

LOADING & SPAN

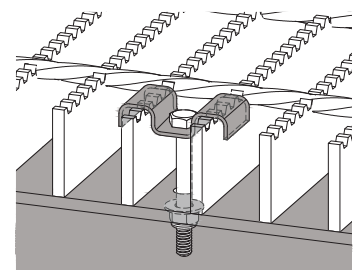
The bearing bar direction is installed parallel to the span (length) in order to adequately support the application load. Clear span is the distance between Bar Grating supports and is an important installation consideration.



ACCESSORIES

McNICHOLS supplies Angle, Stair Tread Carrier Plates, Clips, Fasteners, Flat Bar, Nosing, and more from stock inventory.

McNICHOLS® Type CB Saddle Clip shown fastening Bar Grating bearing bars to structural support (Hardware available separately).



SWAGE-LOCKED BAR GRATING (CONTINUED)

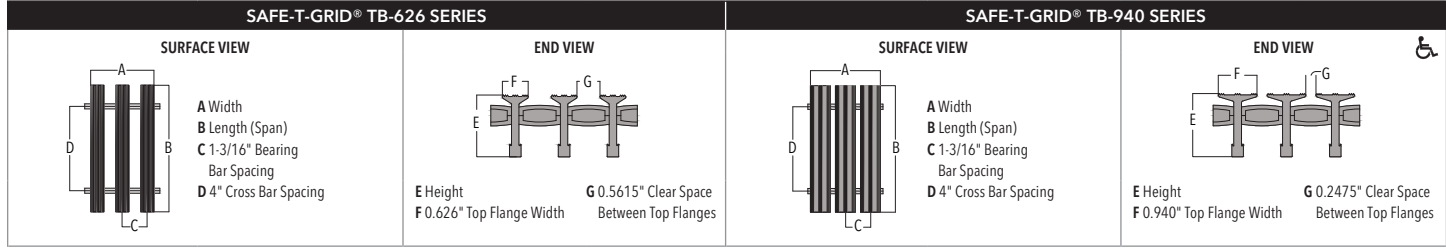


SAFE-T-GRID®

McNICHOLS SAFE-T-GRID® T-Bar Grating is configured with extruded T-shaped bearing bars and cross bars that are locked together by swaging, resulting in a product with high strength and a rigid construction. The surface of the T-Bar bearing bars are grooved and the wide top flanges of the bearing bars make this Bar Grating a great choice for pedestrian traffic. Our SAFE-T-GRID® TB-940 Series Bar Grating meets the spacing requirements of The Americans with Disabilities Act (ADA) when installed perpendicular to the dominant direction of travel.

TB-940 SERIES

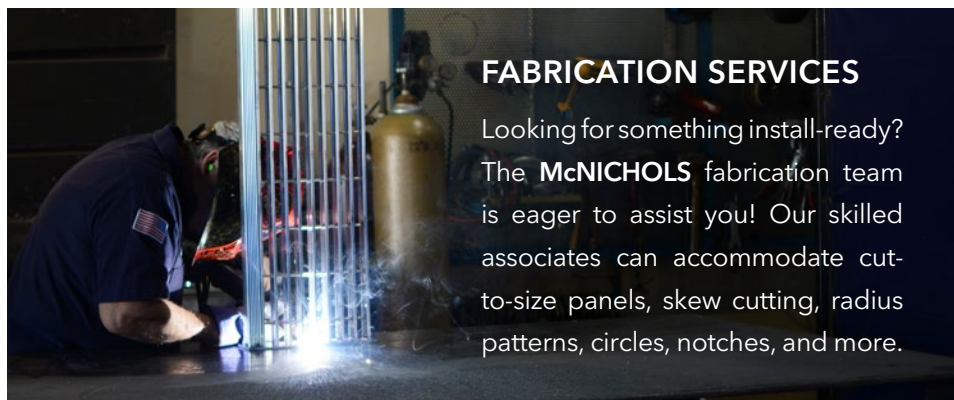
SAFE-T-GRID® PRODUCT OPTIONS	
MATERIAL	Aluminum
BAR HEIGHT	1" to 1-1/2" (2" by custom order)
BAR THICK	0.626" and 0.940" Top Flange Width T-Bar
SURFACE	Grooved (GRIP TIGHT® available)
OPEN AREA	47% (TB-626), 21% (TB-940)
SIZE (W x L)	36.250" x 288" TB-626 (by custom order), 36.565" x 288" TB-940 (ADA compliant) (cut-to-size available)



TB-626 SERIES - SAFE-T-GRID®		ALUMINUM LOAD TABLE T-BAR 19-S-4 (1-3/16") PRODUCT SPACING																			
TOP FLANGE WIDTH	SERIES TYPE & NAME	LBS./SF	BB HT	LOAD/DEFL	CLEAR SPAN																
					12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	
0.626"	TB-626-100	2.7	1"	U	3962	1761	990	634	440	323	248	196	158	131	110	94	81	70	62	55	
				D	0.034	0.076	0.136	0.212	0.305	0.415	0.544	0.688	0.846	1.027	1.221	1.437	1.666	1.897	2.175	2.459	
				C	1981	1321	990	792	660	566	495	440	396	360	330	305	283	264	248	233	233
				D	0.027	0.061	0.109	0.170	0.244	0.333	0.434	0.549	0.678	0.821	0.977	1.148	1.330	1.526	1.740	1.961	1.961
0.626"	TB-626-125	3.3	1-1/4"	U	6063	2695	1516	970	674	495	379	299	243	200	168	144	124	108	95	84	
				D	0.027	0.061	0.108	0.169	0.243	0.331	0.432	0.546	0.676	0.815	0.969	1.145	1.326	1.522	1.733	1.952	
				C	3032	2021	1516	1213	1011	866	758	674	606	551	505	466	433	404	379	357	357
				D	0.022	0.049	0.086	0.135	0.194	0.265	0.346	0.438	0.540	0.653	0.777	0.912	1.058	1.214	1.382	1.562	1.562
0.626"	TB-626-150	3.6	1-1/2"	U	8084	3593	2021	1293	898	660	505	399	323	267	225	191	165	144	126	112	
				D	0.023	0.051	0.091	0.142	0.205	0.279	0.364	0.461	0.569	0.689	0.822	0.961	1.117	1.284	1.455	1.648	
				C	4042	2695	2021	1617	1347	1155	1011	898	808	735	674	622	577	539	505	476	476
				D	0.018	0.041	0.073	0.114	0.164	0.223	0.292	0.369	0.455	0.551	0.657	0.770	0.892	1.025	1.166	1.318	1.318
0.626"	TB-626-200	4.1	2"	U	12692	5641	3173	2031	1410	1036	793	627	508	420	353	300	259	226	198	176	
				D	0.017	0.039	0.069	0.108	0.156	0.212	0.277	0.351	0.434	0.525	0.625	0.731	0.849	0.977	1.108	1.255	
				C	6346	4231	3173	2538	2115	1813	1587	1410	1269	1154	1058	976	907	846	793	747	747
				D	0.014	0.031	0.055	0.087	0.125	0.170	0.222	0.281	0.347	0.420	0.499	0.586	0.680	0.780	0.887	1.003	1.003

TB-940 SERIES - SAFE-T-GRID®		ALUMINUM LOAD TABLE T-BAR 19-S-4 (1-3/16") PRODUCT SPACING																			
TOP FLANGE WIDTH	SERIES TYPE & NAME	LBS./SF	BB HT	LOAD/DEFL	CLEAR SPAN																
					12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	
0.940"	TB-940-100	3.0	1"	U	4204	1868	1051	673	467	343	263	208	168	139	117	100	86	75	66	58	
				D	0.031	0.070	0.125	0.195	0.281	0.382	0.500	0.633	0.779	0.944	1.125	1.325	1.532	1.761	2.006	2.247	
				C	2102	1401	1051	841	701	601	526	467	420	382	350	323	300	280	263	247	247
				D	0.025	0.056	0.100	0.156	0.225	0.306	0.400	0.505	0.623	0.755	0.898	1.053	1.222	1.403	1.599	1.801	1.801
0.940"	TB-940-125	4.2	1-1/4"	U	6953	3090	1738	1112	773	568	435	343	278	230	193	165	142	124	109	96	
				D	0.024	0.054	0.097	0.151	0.218	0.297	0.387	0.489	0.605	0.732	0.870	1.025	1.186	1.365	1.553	1.744	
				C	3476	2318	1738	1391	1159	993	869	773	695	632	579	535	497	464	435	409	409
				D	0.019	0.044	0.077	0.121	0.174	0.237	0.310	0.392	0.484	0.585	0.696	0.818	0.949	1.090	1.240	1.398	1.398
0.940"	TB-940-150	4.4	1-1/2"	U	9378	4168	2344	1500	1042	766	586	463	375	310	260	222	191	167	147	130	
				D	0.020	0.046	0.082	0.128	0.184	0.251	0.327	0.414	0.512	0.619	0.736	0.865	1.001	1.153	1.314	1.481	
				C	4689	3126	2344	1876	1563	1340	1172	1042	938	853	781	721	670	625	586	552	552
				D	0.016	0.037	0.065	0.102	0.147	0.201	0.262	0.332	0.410	0.496	0.589	0.692	0.803	0.921	1.048	1.184	1.184
0.940"	TB-940-200	5.0	2"	U	14875	6611	3719	2380	1653	1214	930	735	595	492	413	352	304	264	232	206	
				D	0.016	0.035	0.063	0.098	0.141	0.192	0.251	0.318	0.392	0.475	0.565	0.663	0.770	0.881	1.003	1.135	
				C	7438	4958	3719	2975	2479	2125	1859	1653	1488	1352	1240	1144	1063	992	930	875	875
				D	0.013	0.028	0.050	0.078	0.113	0.154	0.201	0.254	0.314	0.380	0.452	0.530	0.616	0.707	0.804	0.907	0.907

U - Uniform Load - Lbs./Sq Ft D - Deflection - in Inches C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Loading and deflection values are based on a maximum allowable fiber stress of 12,000 PSI, E = 10,000,000 PSI. TB-940 - SAFE-T-GRID® is ADA compliant when direction of bearing bars (span) installed perpendicular to the dominant direction of travel. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Bar Grating.



FABRICATION SERVICES

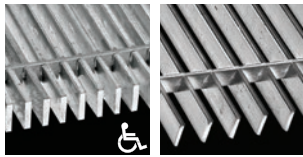
Looking for something install-ready? The McNICHOLS fabrication team is eager to assist you! Our skilled associates can accommodate cut-to-size panels, skew cutting, radius patterns, circles, notches, and more.



McNICHOLS® Bar Grating, Swage-Locked, T-Bar, TB-940-100 - SAFE-T-GRID® - Walkway and Stair Treads

PRESS-LOCKED BAR GRATING

McNICHOLS® Press-Locked Bar Grating bearing bars and cross bars are notched and pressed together in a high-pressure manufacturing process. The bi-directional flush product surface provides a firm, rigid construction, and is aesthetically appealing for architectural applications.



GCM SERIES GAA SERIES

GCM SERIES CLOSE MESH & GAA SERIES

McNICHOLS® Press-Locked GCM Series CLOSE MESH Bar Grating is formed by pressing pre-slotted bearing bars and cross bars together through a high-pressure process. GCM-1 Series offers ADA compliant bearing bar spacings. GAA Series Grating is formed by pressing cross bars into bearing bars, laterally displacing 1/16" of cross bar material into the dovetail slot of the bearing bars resulting in a flush top surface.

GCM SERIES CLOSE MESH PRODUCT OPTIONS		SURFACE VIEW		END VIEW		PRODUCT SPACING & BAR DETAILS							
MATERIAL	Aluminum, Carbon Steel, Galvanized Steel, Stainless Steel					PRODUCT SPACING	GCM-1 (7-P-4)	GCM-1 (7-P-2)	GCM-4 (11-P-4)	GCM-4 (11-P-2)	GCM-5 (13-P-4)	GCM-5 (13-P-2)	GAA (19-P-4)
BAR HEIGHT	1" to 1-1/2" (3/4" and 1-3/4" to 2-1/2" by custom order)					A Bearing Bar Spacing	7/16"	7/16"	11/16"	11/16"	13/16"	13/16"	1-3/16"
BAR THICK	3/16" Rectangular Bar (1/8" by custom order)					B Cross Bar Spacing	4"	2"	4"	2"	4"	2"	4"
SURFACE	Smooth, Serrated (by custom order)					C Bearing Bar Thickness	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"	3/16"
OPEN AREA	55% (4" Cross Bars), 53% (2" Cross Bars)					D Space b/t Bearing Bars	1/4"	1/4"	1/2"	1/2"	5/8"	5/8"	1"
SIZE (W x L)	36" x 144" (cut-to-size available)												

GCM-1 SERIES CLOSE MESH			ALUMINUM LOAD TABLE RECTANGULAR BAR																			
SERIES TYPE & NAME	PRODUCT SPACING	LBS./ SF	BB HT	BB THK	LOAD/ DEFL	CLEAR SPAN																
						24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"
GCM-1-75	7-P-4 (7/16")	4.7	3/4"	3/16"	U	964	617	429	315	241	190	154	127	107	91	79	69	60	53	48	43	39
GCM-1-75-2	7-P-2 (7/16")	5.2			D	964	771	643	551	482	429	386	351	321	297	275	257	241	227	214	203	193
GCM-1-100	7-P-4 (7/16")	6.2	1"	3/16"	U	1714	1097	762	560	429	339	274	227	190	162	140	122	107	95	85	76	69
GCM-1-100-2	7-P-2 (7/16")	6.7			D	1714	1371	1143	980	857	762	686	623	571	527	490	457	429	403	381	361	343
GCM-1-125	7-P-4 (7/16")	7.8	1-1/4"	3/16"	U	2679	1714	1190	875	670	529	429	354	298	254	219	190	167	148	132	119	107
GCM-1-125-2	7-P-2 (7/16")	8.3			D	2679	2143	1786	1531	1339	1190	1071	974	893	824	765	714	670	630	595	564	536
GCM-1-150	7-P-4 (7/16")	9.4	1-1/2"	3/16"	U	3857	2469	1714	1259	964	762	617	510	429	365	315	274	241	214	190	171	154
GCM-1-150-2	7-P-2 (7/16")	10.1			D	3857	3086	2571	2204	1929	1714	1543	1403	1286	1187	1102	1029	964	908	857	812	771
GCM-1-175	7-P-4 (7/16")	10.9	1-3/4"	3/16"	U	5250	3360	2333	1714	1313	1037	840	694	583	497	429	373	328	291	259	233	210
GCM-1-175-2	7-P-2 (7/16")	11.6			D	5250	4200	3500	3000	2625	2333	2100	1929	1750	1615	1500	1400	1313	1238	1167	1105	1050
GCM-1-200	7-P-4 (7/16")	12.5	2"	3/16"	U	6857	4389	3048	2239	1714	1355	1097	907	762	649	560	488	429	380	339	304	274
GCM-1-200-2	7-P-2 (7/16")	13.2			D	6857	5486	4571	3918	3429	3048	2743	2494	2286	2110	1959	1829	1714	1613	1524	1444	1371

GCM-1 SERIES CLOSE MESH			CARBON & GALVANIZED STEEL LOAD TABLE RECTANGULAR BAR																			
SERIES TYPE & NAME	PRODUCT SPACING	LBS./ SF	BB HT	BB THK	LOAD/ DEFL	CLEAR SPAN																
						24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"
GCM-1-75	7-P-4 (7/16")	13.7	3/4"	3/16"	U	1446	926	643	472	362	286	231	191	161	137	118	103	90	80	71	64	58
GCM-1-75-2	7-P-2 (7/16")	15.1			D	1446	1157	964	826	723	643	579	526	482	445	413	386	362	340	321	304	289
GCM-1-100	7-P-4 (7/16")	18.1	1"	3/16"	U	2571	1646	1143	840	643	508	411	340	286	243	210	183	161	142	127	114	103
GCM-1-100-2	7-P-2 (7/16")	19.5			D	2571	2057	1714	1469	1286	1143	1029	935	857	791	735	686	643	605	571	541	514
GCM-1-125	7-P-4 (7/16")	22.6	1-1/4"	3/16"	U	4018	2571	1786	1312	1004	794	643	531	446	380	328	286	251	222	198	178	161
GCM-1-125-2	7-P-2 (7/16")	24.0			D	4018	2571	1786	1312	1004	794	643	531	446	380	328	286	251	222	198	178	161
GCM-1-150	7-P-4 (7/16")	27.2	1-1/2"	3/16"	U	5786	3703	2571	1889	1446	1143	928	765	643	548	472	411	362	320	286	256	231
GCM-1-150-2	7-P-2 (7/16")	29.1			D	5786	4629	3857	3306	2893	2571	2314	2104	1929	1780	1653	1543	1446	1361	1286	1218	1157
GCM-1-175	7-P-4 (7/16")	31.6	1-3/4"	3/16"	U	7875	5040	3500	2571	1969	1556	1260	1041	75	746	643	560	492	436	389	349	315
GCM-1-175-2	7-P-2 (7/16")	33.5			D	7875	6300	5250	4500	3938	3500	3156	2864	2625	2423	2250	2100	1969	1869	1750	1658	1575
GCM-1-200	7-P-4 (7/16")	36.2	2"	3/16"	U	10286	6583	4571	3359	2571	2032	1646	1368	1143	974	840	731	643	569	508	456	411
GCM-1-200-2	7-P-2 (7/16")	38.1			D	10286	8229	6857	5878	5143	4571	4114	3740	3429	3165	2939	2743	2571	2420	2286	2165	2057

U - Uniform Load - Lbs./Sq Ft D - Deflection - in Inches C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Custom Orders Only: For 1" height and taller and 3/16" thick serrated surface bars, subtract 1/4" from the bearing bar height and reference that loading information listed in the table. For example, a 1-1/2" height with a 3/16" thick serrated bearing bar has the same loading values as a 1-1/4" height with a 3/16" thick smooth (non-serrated) bearing bar. Aluminum loading and deflection values are theoretical and based on a maximum allowable fiber stress of 12,000 PSI, E = 10,000,000 PSI. Steel loading and deflection values are theoretical and based on a maximum allowable fiber stress of 18,000 PSI, E = 29,000,000 PSI. ADA compliant product when direction of bearing bars (span) installed perpendicular to the dominant direction of travel. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Bar Grating.

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

Maximum panel width dimensions are measured from outside to outside of bearing bars. Wider areas than indicated by maximum panel widths in chart can be covered by two or more pieces with proper structural support.

BAR GRATING STAIR TREADS

McNICHOLS® Bar Grating Stair Treads are the top choice among customers when strength, safety, and long-term cost savings are important considerations. Our Bar Grating Stair Treads are assembled with the very best quality and craftsmanship available. Stair Treads are common in residential, industrial, and architectural applications. Made from panels of Welded, Heavy-Duty Welded, Swage-Locked, and Press-Locked Bar Grating, we are certain to have the right combination to meet your project requirements. We have several sizes pre-assembled and in stock or we can fabricate your order quickly from full-sized panels in inventory. Stair Treads almost always have Nosing welded to the leading edge of a Bar Grating Stair Tread. Nosing is usually supplied in a 90° angle shape intended to help with slip-resistance and step sight lines. We offer several types highlighted in the chart below.

STAIR TREAD OPTIONS	WELDED		HD WELDED	SWAGE-LOCKED		PRESS-LOCKED	
							
	GW SERIES Checkered Plate 90° Angle Nosing	CMW-4 SERIES CLOSE MESH Checkered Plt 90° Angle Nosing	GHB SERIES Cast Abrasive Nosing	GAL SERIES Corrugated 90° Angle Nosing	GIA SERIES Corrugated 90° Angle Nosing	TB-940 SERIES SAFE-T-GRID® Corrugated 90° Angle Nosing	GCM-1 SERIES CLOSE MESH Cast Abrasive Nosing
MATERIAL	CS, CS-PB, CS-PG, HD-GV, SS	CS, HD-GV	CS, CS-PB, HD-GV	AL	AL	AL	AL, CS, HD-GV
SPACING	19-W-4 (1-3/16")	11-W-4 (1/16")	19-W-4 (1-3/16")	19-S-4 (1-3/16")	19-SI-4 (1-3/16")	19-S-4 (1-3/16")	7-P-4 (7/16")
BAR HEIGHT	1", 1-1/4", 1-1/2"	1", 1-1/4", 1-1/2"	1", 1-1/4", 1-1/2"	1", 1-1/4", 1-1/2", 1-3/4"	1", 1-1/4", 1-1/2", 1-3/4"	1", 1-1/4", 1-1/2"	1", 1-1/4", 1-1/2"
BAR THICK	1/8", 3/16"	3/16"	1/4"	3/16"	1/4"	0.940" (Top Flange Width)	3/16"
BAR SHAPE	Rectangular Bar	Rectangular Bar	Rectangular Bar	Rectangular Bar	I-Bar	T-Bar	Rectangular Bar
SURFACE	Smooth, Serrated, GRIP TIGHT®	Smooth, GRIP TIGHT®	Smooth, Serrated, GRIP TIGHT®	Smooth, Serrated,	Grooved	Grooved	Smooth
NOSING	CA, CP, GT	CA, CP	CA, CP	COR	COR	COR, GT	CA, COR, CP
WIDTHS	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"	5", 6-3/16", 7-3/8", 8-9/16", 9-3/4", 10-15/16", 12-1/8"
LENGTH (SPAN)	Made-to-Order	Made-to-Order	Made-to-Order	Made-to-Order	Made-to-Order	Made-to-Order	Made-to-Order

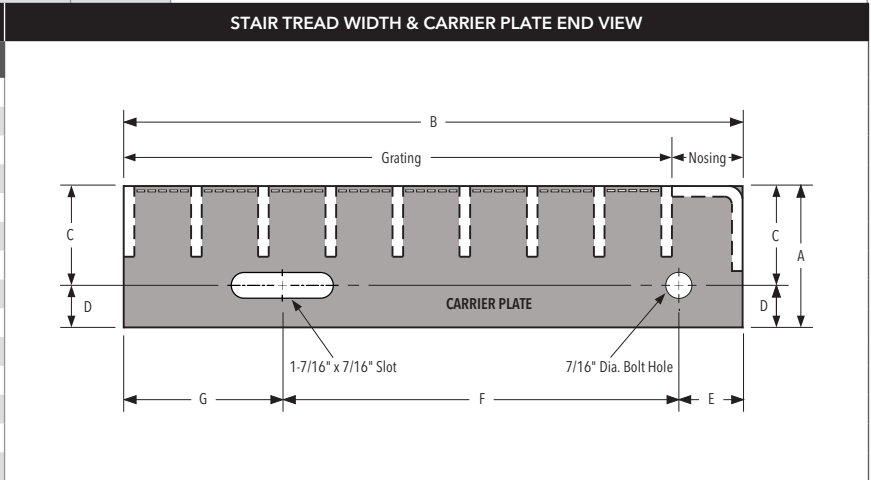
Primary Material Types: **AL** - Aluminum **CS** - Carbon Steel **CS-PB** - Carbon Steel - Painted Black **CS-PG** - Carbon Steel - Painted Gray **HD-GV** - Hot-Dipped Galvanized Steel **SS** - Stainless Steel
 Common Stair Tread widths are displayed in chart above. Stair Treads are typically constructed with Nosing that is welded to the first bearing bar along the leading edge of the length (span) dimension of the Bar Grating Stair Tread. Standard Nosing is 1-1/4" wide on the surface of the Stair Tread.
 Nosing Types: **CA** - Cast Abrasive Nosing (manually fastened to top surface of a 90° Angle) **COR** - Corrugated 90° Angle Nosing **CP** - Checkered Plate 90° Angle Nosing **GT** - GRIP TIGHT® 90° Angle Nosing

BAR GRATING STAIR TREADS (CONTINUED)

Stair Treads are supplied with a pair of Carrier Plates designed to be welded to open Bar Grating bearing bar ends and Nosing perpendicular to the length (span) of the Stair Tread. Carrier Plates tie the Bar Grating piece and Nosing to complete the Tread. Our Plates have a pre-drilled mounting slot and bolt hole allowing the Stair Tread to be fastened to adjacent stringers or structural supports if desired. Stair Tread and Carrier Plate dimensions shown in the following section are typical for GW & GAL (Steel and Aluminum) Series Bar Grating. Stair Tread widths for 3/16" thick bearing bars are displayed in the chart. When using 1/8" bearing bars, Stair Tread widths are 1/16" less. When using 1/4" bearing bars, Stair Tread widths are 1/16" more. Other Bar Grating series Stair Treads are available.

GW & GAL SERIES							STAIR TREAD ASSEMBLY			
CARBON/GALV BB HTS	ALUMINUM BB HTS	NOSING WIDTH	GRATING WIDTH	NO. OF BB	TREAD WIDTH	CARRIER PLATES				
1" & 1-1/4"	--	1-1/4"	3-3/4"	4	5"	CP-BG-525				
		1-1/4"	4-15/16"	5	6-3/16"	CP-BG-625				
		1-1/4"	6-1/8"	6	7-3/8"	CP-BG-725				
		1-1/4"	7-15/16"	7	8-9/16"	CP-BG-825				
		1-1/4"	8-1/2"	8	9-3/4"	CP-BG-925				
		1-1/4"	9-11/16"	9	10-15/16"	CP-BG-1025				
1-1/2" - 2-1/2"	1" - 2-1/2"	1-1/4"	3-3/4"	4	5"	CP-BG-530				
		1-1/4"	4-15/16"	5	6-3/16"	CP-BG-630				
		1-1/4"	6-1/8"	6	7-3/8"	CP-BG-730				
		1-1/4"	7-15/16"	7	8-9/16"	CP-BG-830				
		1-1/4"	8-1/2"	8	9-3/4"	CP-BG-930				
		1-1/4"	9-11/16"	9	10-15/16"	CP-BG-1030				
1-1/4"	10-7/8"	10	12-1/8"	CP-BG-1225						
1-1/4"	3-3/4"	4	5"	CP-BG-530						
1-1/4"	4-15/16"	5	6-3/16"	CP-BG-630						
1-1/4"	6-1/8"	6	7-3/8"	CP-BG-730						
1-1/4"	7-15/16"	7	8-9/16"	CP-BG-830						
1-1/4"	8-1/2"	8	9-3/4"	CP-BG-930						
1-1/4"	9-11/16"	9	10-15/16"	CP-BG-1030						
1-1/4"	10-7/8"	10	12-1/8"	CP-BG-1230						

CARRIER PLATE DIMENSIONS							
NUMBER	A	B	C	D	E	F	G
CP-BG-525	2-1/2"	5"	1-3/4"	3/4"	1-1/8"	2-1/2"	1-3/8"
CP-BG-625	2-1/2"	6-3/16"	1-3/4"	3/4"	1-1/8"	2-1/2"	2-9/16"
CP-BG-725	2-1/2"	7-3/8"	1-3/4"	3/4"	1-1/8"	4-1/2"	1-3/4"
CP-BG-825	2-1/2"	8-9/16"	1-3/4"	3/4"	1-1/8"	4-1/2"	2-15/16"
CP-BG-925	2-1/2"	9-3/4"	1-3/4"	3/4"	1-1/8"	7"	1-5/8"
CP-BG-1025	2-1/2"	10-15/16"	1-3/4"	3/4"	1-1/8"	7"	2-13/16"
CP-BG-1225	2-1/2"	12-1/8"	1-3/4"	3/4"	1-1/8"	7"	4"
CP-BG-530	3"	5"	2-1/4"	3/4"	1-1/8"	2-1/2"	1-3/8"
CP-BG-630	3"	6-3/16"	2-1/4"	3/4"	1-1/8"	2-1/2"	2-9/16"
CP-BG-730	3"	7-3/8"	2-1/4"	3/4"	1-1/8"	4-1/2"	1-3/4"
CP-BG-830	3"	8-9/16"	2-1/4"	3/4"	1-1/8"	4-1/2"	2-15/16"
CP-BG-930	3"	9-3/4"	2-1/4"	3/4"	1-1/8"	7"	1-5/8"
CP-BG-1030	3"	10-15/16"	2-1/4"	3/4"	1-1/8"	7"	2-13/16"
CP-BG-1230	3"	12-1/8"	2-1/4"	3/4"	1-1/8"	7"	4"



Carbon Steel and Hot Dipped Galvanized Steel Carrier Plates (supplied in pairs) with a 2-1/2" height are typically used in combination with Bar Grating bearing bar heights of 1" and 1-1/4" to form a Stair Tread. Carrier Plates with a 3" height are combined with bearing bar heights of 1-1/2", 1-3/4", 2", 2-1/4", and 2-1/2" to form a Bar Grating Stair Tread. Aluminum Carrier Plates (supplied in pairs) with a 3" height are used with all Bar Grating bearing bar heights to form a Stair Tread. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Bar Grating Stair Treads and related Accessories/Components.

BAR GRATING ACCESSORIES

McNICHOLS® provides a wide selection of Accessories – Angles, Carrier Plates, Clips, Flat Bar (Banding), Nosing, and more –specifically for Bar Grating products. Accessories complete Hole Product designs with a clean finish, minimal guesswork, and optimal long-term results. Please allow us to start and finish your amazing design with **McNICHOLS**® Product Accessories!

DESCRIPTION MATERIALS PRODUCTS FITS HARDWARE	Type CB Placed over bars, fastens to support Aluminum, Galvanized, Stainless Steel Bar Grating (Welded, Swage-Locked, Press-Locked) 1-3/16" bar spacing (Type CA fits 15/16" bar spacing) Available separately	Type GF5 Placed over bars, fastens to support Galvanized body/Stainless Steel bracket Bar Grating Fits 5/8" to 1-3/8" bar spacing, adjusts up to 1-3/4" bar height Integral with Saddle Clip	Type GG Attaches panel to structural shape Galvanized Steel, Stainless Steel Bar Grating 15/16" to 1-1/16" bearing bar spacing Integral with Hold-Down Clip
DESCRIPTION MATERIALS PRODUCTS FITS HARDWARE	Type Z1/Z2 Secures panel to support frame Stainless Steel Most Rectangular Bar Grating 1", 1-1/2" bearing bar height Available separately	Type J1/J2 Secures panel to support frame Stainless Steel Most Rectangular Bar Grating 1", 1-1/2" bearing bar height Integral with Hold-Down Clip	Type RSSGC1C Fastens to flange on structural support Stainless Steel Bar Grating (Press-Locked - CLOSE MESH) 3/8" bearing bar spacing Integral with Hold-Down Clip



FIBERGLASS GRATING



Fiberglass Grating is a lightweight and excellent alternative to Aluminum or Steel Bar Grating. Corrosion-resistant and fire-retardant, this product line is ideal for use outdoors or in corrosive environments. **McNICHOLS** carries the nation's largest inventory of Molded and Pultruded construction types in a variety of sizes, resins, and colors. Most Fiberglass Grating has a slip-resistant, gritted surface to help prevent slips and falls. Each of our 19 service centers are equipped with sawing and dust collection systems, allowing you to leave the dust to us when your application calls for pieces or areas that are cut-to-size. We stock Molded and Pultruded Stair Tread Panels and Accessories too!

COMMON APPLICATIONS

- | | | |
|------------------|---------------------|----------------|
| ADA Access Ramps | Drain Covers | Sunshades |
| Balconies | Industrial Flooring | Stair Treads |
| Decking | Mezzanines | Walkways |
| Docks | Poultry Flooring | Work Platforms |

PRODUCT LINE TERMINOLOGY

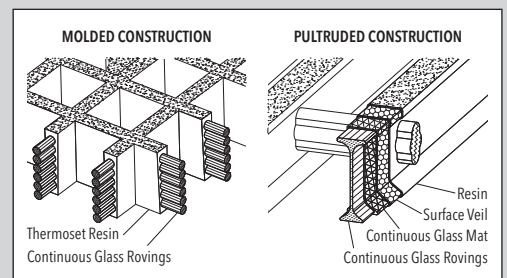
Glass Mat - A grouping of multidirectional fiberglass strands bonded together to form a cloth that is wrapped around glass rovings. Glass Mat provides transverse directional strength and helps prevent chipping, cracking, and linear fracturing.

Glass Rovings - Longitudinal fiberglass filaments grouped together to make up the densely-packed core of Pultruded Fiberglass Grating bearing bars.

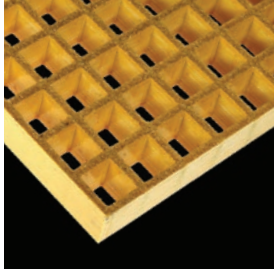
FRP Grating - Fiberglass Reinforced Plastic (FRP) is a composite material comprised of glass resin and fiberglass.

Resin - A varying system or formula that is applied to Fiberglass Grating products making them suitable for specific applications or environments (e.g. Fire Retardancy, Food Grade, etc.)

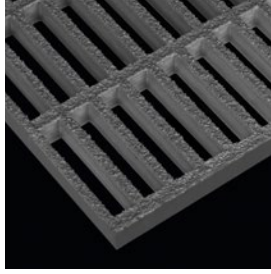
Thermosetting - The method in which polymer cures liquid resin through the application of heat, resulting in a cured (hardened) product.



CONSTRUCTION TYPES



Molded Square



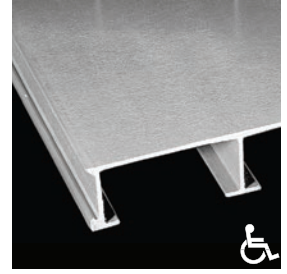
Molded Rectangular



Pultruded I-Bar



Pultruded T-Bar & WT-Bar



Decking & Flooring

RESINS

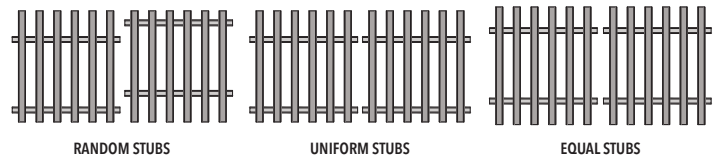
Choose from a variety of resin types including:

RESIN	GRADE	FIRE RETARDANT	FLAME RATING
FFR Polyester	Food	Yes	Class B, 35 or Less
SFF Polyester	Food	Yes	Class A, 30 or Less
SGF Polyester	Architectural	Yes	Class A, 25 or Less
SPF Polyester	Industrial	Yes	Class A, 25 or Less
SPH Phenolic	Industrial/High Temp	Yes	Class A, 25 or Less
SVF Vinyl Ester	Chemical	Yes	Class A, 25 or Less
XVE Vinyl Ester	Chemical/High Flame	Yes	Class A, 10 or Less

Flame spread rating per ASTM E-84 (excludes SPH Phenolic).

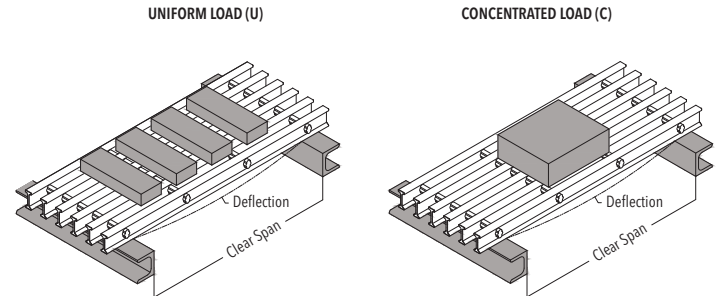
VALUE-ADDED SERVICES

Fabrication services including cutting, notching, and more are available to you! Pultruded bearing bar cut/trim types include:



LOADING & SPAN

The bearing bar direction is installed parallel to the span (length) in order to adequately support the application load. Clear span is the distance between Fiberglass Grating supports and is an important installation consideration.



OPTIONS

Consider the following options for Molded Fiberglass Grating:

Series Type & Name	MS-S-150, MS-M-150, MS-R-100, etc.
Color	Dark Gray, Green, Yellow, etc.
Grid Height	1", 1-1/2", 2"
Grid Size & Shape	3/4" x 3/4" Sq. Grid, 1" x 4" Rect. Grid, etc.
Product Surface	Concave, Grit

Consider the following options for Pultruded Fiberglass Grating:

Series Type & Name	MS-I-6015 - DURAGRID®, MS-T-5020 - DURAGRID®, etc.
Bearing Bar Size & Shape	1.500" Height x 0.600" Top Flange Width I-Bar, 1.000" Height x 1.625" Top Flange Width Wide T-Bar, etc.
Product Surface	Coarse Grit, Fine Grit, Medium Grit

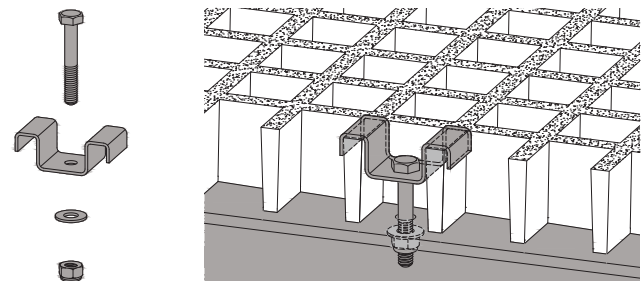
Other considerations for Molded and Pultruded Grating include:

Resin & Type	SFF Polyester, SVF Vinyl Ester, etc.
Open Area	Panel percentage of open area
Quantity/Size(s)	Number of panels and cut-to-size pieces. Areas needing coverage wider than stock panels are supplied in multiple pieces to width.

ACCESSORIES

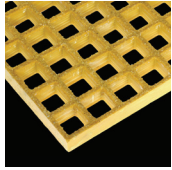
McNICHOLS supplies a variety of Clips and Fasteners to attach Fiberglass Grating to structural supports, all available from stock!

McNICHOLS® Type M2 Saddle Clip shown fastening Molded Grating to support structure (Hardware Integral with Saddle Clip).



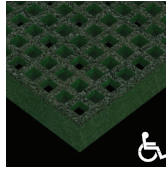
SQUARE MOLDED FIBERGLASS GRATING

McNICHOLS® Square Molded Fiberglass Grating is the product of choice when corrosion resistance or fire retardancy is paramount, and high impact resistance is desired. When compared to steel, this product is very light in weight, but still maintains its ability to support heavy loads.



SQUARE GRID (MS-S)

Square Grid MS-S Molded Grating is corrosion resistant and fire retardant. Multiple grid heights, colors, surfaces, and sizes are available from inventory. We cut items to size, too!



SQUARE GRID (MS-M)

McNICHOLS® MS-M Square Grid Molded Grating has a tighter grid size on the surface of the Grating (3/4" x 3/4"). The smaller surface openings make this product ideal for ADA compliant applications.

SQUARE GRID (MS-S)		FIBERGLASS GRATING LOAD TABLE										
CLEAR SPAN	LOAD TYPE	LBS./SF - DEFLECTION IN INCHES								SAFE LD FCTR 5.1	DEFL	
		50	100	150	200	250	300	400	500			
12"	U	<0.010	<0.010	0.013	0.017	0.021	0.025	0.034	0.042	1360	0.115	
	C	<0.010	0.014	0.020	0.027	0.034	0.041	0.054	0.068	680	0.092	
18"	U	0.021	0.041	0.062	0.082	0.103	0.123	0.164	0.205	666	0.274	
	C	0.022	0.044	0.066	0.088	0.110	0.131	0.175	0.219	500	0.219	
24"	U	0.064	0.128	0.192	0.256	0.320	0.384	0.512	0.640	380	0.486	
	C	0.051	0.102	0.154	0.205	0.256	0.307	0.409	0.512	380	0.389	
30"	U	0.155	0.309	0.464	0.619	--	--	--	--	240	0.742	
	C	0.099	0.198	0.297	0.396	0.495	0.594	--	--	300	0.594	
36"	U	0.318	0.635	--	--	--	--	--	--	160	1.016	
	C	0.169	0.339	0.508	0.677	--	--	--	--	240	0.813	
12"	U	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	0.014	0.018	3120	0.111	
	C	<0.010	<0.010	<0.010	0.011	0.014	0.017	0.023	0.028	1560	0.089	
18"	U	<0.010	0.014	0.021	0.028	0.036	0.043	0.057	0.071	1386	0.197	
	C	<0.010	0.015	0.023	0.030	0.038	0.046	0.061	0.076	1040	0.158	
24"	U	0.021	0.042	0.063	0.084	0.104	0.125	0.167	0.209	780	0.326	
	C	0.017	0.033	0.050	0.067	0.084	0.100	0.134	0.167	780	0.261	
30"	U	0.047	0.094	0.141	0.188	0.235	0.283	0.377	0.471	496	0.467	
	C	0.030	0.060	0.090	0.121	0.151	0.181	0.241	0.301	620	0.374	
36"	U	0.096	0.192	0.288	0.384	0.480	0.576	--	--	347	0.666	
	C	0.051	0.102	0.154	0.205	0.256	0.307	0.410	0.512	520	0.533	
42"	U	0.175	0.350	0.525	--	--	--	--	--	251	0.881	
	C	0.080	0.160	0.240	0.320	0.400	0.480	0.641	0.801	440	0.705	
48"	U	0.287	0.573	--	--	--	--	--	--	170	0.975	
	C	0.115	0.229	0.344	0.459	0.573	0.688	--	--	340	0.780	
12"	U	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	0.010	4000	0.081	
	C	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	0.013	0.016	2000	0.065	
18"	U	<0.010	<0.010	0.012	0.016	0.020	0.024	0.032	0.040	1813	0.145	
	C	<0.010	<0.010	0.013	0.017	0.021	0.026	0.034	0.043	1360	0.116	
24"	U	0.010	0.021	0.031	0.042	0.052	0.063	0.083	0.104	960	0.200	
	C	<0.010	0.017	0.025	0.033	0.042	0.050	0.067	0.083	960	0.160	
30"	U	0.023	0.046	0.069	0.092	0.114	0.137	0.183	0.229	640	0.293	
	C	0.015	0.029	0.044	0.059	0.073	0.088	0.117	0.146	800	0.234	
36"	U	0.044	0.089	0.133	0.177	0.222	0.266	0.355	0.444	453	0.402	
	C	0.024	0.047	0.071	0.095	0.118	0.142	0.189	0.237	680	0.322	
42"	U	0.082	0.164	0.245	0.327	0.409	0.491	0.654	--	331	0.542	
	C	0.037	0.075	0.112	0.150	0.187	0.224	0.299	0.374	580	0.434	
48"	U	0.135	0.270	0.405	0.541	--	--	--	--	260	0.703	
	C	0.054	0.108	0.162	0.216	0.270	0.324	0.432	0.541	520	0.562	
54"	U	0.210	0.420	0.630	--	--	--	--	--	204	0.858	
	C	0.075	0.149	0.224	0.298	0.373	0.448	0.597	--	460	0.686	
12"	U	<0.010	<0.010	0.011	0.014	0.017	0.021	0.028	0.035	3860	0.270	
	C	<0.010	0.011	0.017	0.022	0.028	0.034	0.045	0.056	1930	0.216	
18"	U	0.013	0.026	0.039	0.052	0.065	0.078	0.104	0.130	1776	0.470	
	C	0.014	0.028	0.042	0.056	0.070	0.084	0.112	0.139	1332	0.376	
24"	U	0.025	0.050	0.075	0.100	0.126	0.151	0.201	0.251	1052	0.529	
	C	0.020	0.040	0.060	0.080	0.101	0.121	0.161	0.201	1052	0.423	
30"	U	0.055	0.110	0.165	0.219	0.274	0.329	0.439	0.548	632	0.692	
	C	0.035	0.070	0.105	0.140	0.176	0.211	0.281	0.351	790	0.553	
36"	U	0.087	0.173	0.260	0.346	0.433	0.520	0.692	--	456	0.796	
	C	0.046	0.092	0.139	0.185	0.231	0.277	0.370	0.462	684	0.637	
42"	U	0.150	0.300	0.450	0.600	--	--	--	--	332	1.005	
	C	0.069	0.138	0.207	0.276	--	--	--	--	582	0.804	
48"	U	0.245	0.490	0.735	--	--	--	--	--	215	1.054	
	C	0.098	0.196	0.294	--	--	--	--	--	430	0.843	

U - Uniform Load - Lbs./Sq Ft C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Safe load values have a safety factor of 5:1. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Fiberglass Grating.

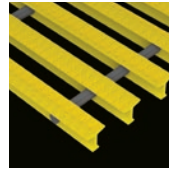
PULTRUDED T-BAR FIBERGLASS GRATING

McNICHOLS® T-Bar Series Pultruded Fiberglass Grating is an excellent choice if overall product weight and a wider surface area is desired. We can cut your Fiberglass Grating to size in house. Leave the dust to us!



MS-T-3000 SERIES - DURAGRID®

McNICHOLS® MS-T-3000 Series DURAGRID® Grating is strong, resists corrosion, and has a 33% open area. Most items are ADA compliant when the bearing bars (span) are installed to standards. Please note that bearing bars and cross-rod colors may vary.









MS-T-5000 SERIES - DURAGRID®

McNICHOLS® MS-T-5000 Series DURAGRID® Grating has a grit surface and a 50% open area. McNICHOLS supplies T-Bar Grating in 1", 1-1/2", and 2" heights with many options. Please note that bearing bars and cross-rod colors may vary.

T-BAR (MS-T-3310 - DURAGRID®)		FIBERGLASS GRATING LOAD TABLE																		
CLEAR SPAN	LOAD TYPE	LBS./SF. - DEFLECTION IN INCHES														SAFE LD FCTR 2.1	DEFL			
		50	100	150	200	250	300	400	500	750	1000	2000	--	--	--			--		
12"	U	0.001	0.003	0.004	0.005	0.006	0.008	0.010	0.013	0.019	0.025	0.050	--	--	--	--	6355	0.159		
	C	0.002	0.004	0.006	0.008	0.010	0.012	0.016	0.020	0.030	0.040	0.080	--	--	--	--	3711	0.128		
18"	U	0.006	0.012	0.018	0.025	0.031	0.037	0.049	0.061	0.092	0.123	0.246	--	--	--	--	2859	0.351		
	C	0.007	0.013	0.020	0.026	0.033	0.039	0.052	0.066	0.098	0.131	0.262	--	--	--	--	2145	0.281		
24"	U	0.019	0.038	0.056	0.075	0.094	0.113	0.150	0.188	0.281	0.375	--	--	--	--	--	1628	0.610		
	C	0.015	0.030	0.045	0.060	0.075	0.090	0.120	0.150	0.225	0.300	--	--	--	--	--	1628	0.488		
30"	U	0.044	0.089	0.133	0.178	0.222	0.266	0.355	0.444	--	--	--	--	--	--	--	1055	0.936		
	C	0.028	0.057	0.085	0.114	0.142	0.170	0.227	0.284	0.426	0.568	--	--	--	--	--	1319	0.749		
36"	U	0.089	0.179	0.268	0.357	0.447	0.536	--	--	--	--	--	--	--	--	--	741	1.325		
	C	0.048	0.095	0.143	0.191	0.238	0.286	0.381	0.476	--	--	--	--	--	--	--	1112	1.060		
42"	U	0.160	0.321	0.481	--	--	--	--	--	--	--	--	--	--	--	--	551	1.766		
	C	0.073	0.147	0.220	0.293	0.366	0.440	0.586	--	--	--	--	--	--	--	--	964	1.413		
T-BAR (MS-T-3320 - DURAGRID®)		CL SPN	LD TP	50	100	150	200	250	300	400	500	750	1000	2000	2500	3000	4000	5000	SLF 2.1	DEFL
12"	U	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.005	0.006	0.008	0.010	0.013	15110	0.039	
	C	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.004	0.008	0.010	0.012	0.016	0.021	7555	0.031	
18"	U	0.001	0.001	0.002	0.003	0.003	0.004	0.005	0.006	0.010	0.013	0.025	0.032	0.038	0.051	0.063	10048	0.127		
	C	0.001	0.001	0.002	0.003	0.003	0.004	0.005	0.007	0.010	0.014	0.027	0.034	0.041	0.054	0.068	7555	0.102		
24"	U	0.002	0.004	0.006	0.008	0.010	0.012	0.016	0.020	0.029	0.039	0.078	0.098	0.117	0.156	0.195	7555	0.295		
	C	0.002	0.003	0.005	0.006	0.008	0.009	0.013	0.016	0.023	0.031	0.063	0.078	0.094	0.125	0.156	7555	0.236		
30"	U	0.005	0.009	0.014	0.019	0.023	0.028	0.037	0.047	0.070	0.093	0.187	0.233	0.280	0.373	--	4835	0.451		
	C	0.003	0.006	0.009	0.012	0.015	0.018	0.024	0.030	0.045	0.060	0.119	0.149	0.179	0.239	0.299	6045	0.361		
36"	U	0.009	0.019	0.028	0.038	0.047	0.057	0.076	0.095	0.142	0.190	0.379	0.474	0.569	--	--	3358	0.637		
	C	0.005	0.010	0.015	0.020	0.025	0.030	0.040	0.051	0.076	0.101	0.202	0.253	0.304	0.405	0.506	5037	0.510		
42"	U	0.017	0.035	0.052	0.069	0.086	0.104	0.138	0.173	0.259	0.346	--	--	--	--	--	2467	0.853		
	C	0.008	0.016	0.024	0.032	0.040	0.047	0.063	0.079	0.119	0.158	0.316	0.395	0.474	0.632	--	4317	0.682		
48"	U	0.029	0.058	0.087	0.116	0.144	0.173	0.231	0.289	0.433	0.578	--	--	--	--	--	1889	1.091		
	C	0.012	0.023	0.035	0.046	0.058	0.069	0.092	0.116	0.173	0.231	0.462	0.578	--	--	--	3778	0.873		
60"	U	0.068	0.137	0.205	0.274	0.342	0.411	0.548	--	--	--	--	--	--	--	--	1209	1.655		
	C	0.022	0.044	0.066	0.088	0.110	0.131	0.175	0.219	0.329	0.438	--	--	--	--	--	3022	1.324		
72"	U	0.139	0.277	0.416	0.554	--	--	--	--	--	--	--	--	--	--	--	839	2.325		
	C	0.037	0.074	0.111	0.148	0.185	0.222	0.296	0.369	0.554	--	--	--	--	--	--	2519	1.861		
72"	U	0.139	0.277	0.416	0.554	--	--	--	--	--	--	--	--	--	--	--	839	2.325		
	C	0.037	0.074	0.111	0.148	0.185	0.222	0.296	0.369	0.554	--	--	--	--	--	--	2519	1.861		
84"	U	0.253	0.506	--	--	--	--	--	--	--	--	--	--	--	--	--	617	3.119		
	C	0.058	0.116	0.173	0.231	0.289	0.347	0.462	0.578	--	--	--	--	--	--	--	2159	2.495		
T-BAR (MS-T-5010 - DURAGRID®)		CL SPN	LD TP	50	100	150	200	250	300	400	500	750	1000	2000	--	--	--	--	SLF 2.1	DEFL
12"	U	0.002	0.003	0.005	0.007	0.008	0.010	0.013	0.017	0.025	0.033	0.067	--	--	--	--	4766	0.159		
	C	0.003	0.005	0.008	0.011	0.013	0.016	0.021	0.027	0.040	0.054	0.107	--	--	--	--	2383	0.128		
18"	U	0.008	0.016	0.025	0.033	0.041	0.049	0.066	0.082	0.123	0.164	0.328	--	--	--	--	2144	0.351		
	C	0.009	0.017	0.026	0.035	0.044	0.052	0.070	0.087	0.131	0.175	--	--	--	--	--	1609	0.281		
24"	U	0.025	0.050	0.075	0.100	0.125	0.150	0.200	0.250	0.375	0.500	--	--	--	--	--	1221	0.611		
	C	0.020	0.040	0.060	0.080	0.100	0.120	0.160	0.200	0.300	0.400	--	--	--	--	--	1221	0.488		
30"	U	0.059	0.118	0.178	0.237	0.296	0.355	0.473	0.592	--	--	--	--	--	--	--	791	0.936		
	C	0.038	0.076	0.114	0.152	0.189	0.227	0.303	0.379	0.568	--	--	--	--	--	--	989	0.749		
36"	U	0.119	0.237	0.357	0.476	0.596	--	--	--	--	--	--	--	--	--	--	556	1.325		
	C	0.064	0.127	0.191	0.254	0.318	0.381	0.508	--	--	--	--	--	--	--	--	834	1.060		
42"	U	0.214	0.428	--	--	--	--	--	--	--	--	--	--	--	--	--	413	1.766		
	C	0.098	0.195	0.293	0.391	0.489	0.586	--	--	--	--	--	--	--	--	--	723	1.413		

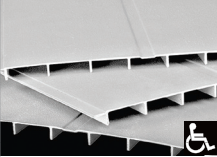
U - Uniform Load - Lbs./Sq Ft C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Safe load values have a safety factor of 2:1. MS-T-3000 Series Grating displayed above is ADA compliant product when direction of bearing bars (span) installed perpendicular to the dominant direction of travel. Additional span and loading information available at mcnichols.com. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Fiberglass Grating.

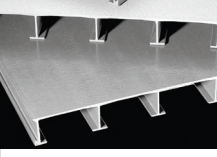
FIBERGLASS GRATING ACCESSORIES

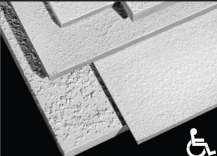
DESCRIPTION	Type F2	Joins panels together at adjacent grids	Type Z1/Z2	Secures panel to support frame	Type J1/J2	Secures panel to support frame
MATERIALS		Stainless Steel		Stainless Steel		Stainless Steel
PRODUCTS		Molded Grating		Molded Grating		Molded Grating
FITS		1", 1-1/2", 2" grid height		1", 1-1/2" grid height		1", 1-1/2" grid height
HARDWARE		Integral with Hold-Down Clip		Available separately		Integral with Hold-Down Clip
DESCRIPTION	Type M	Placed over two bars, fastens to support	Type MI/MT	Placed over two I-Bars (MI) or T-Bars (MT), fastens to support	Type RI/RT	Slides between two I-Bars (RI) or T-Bars (RT), holding bottom flange to support
MATERIALS		Stainless Steel		Stainless Steel		Stainless Steel
PRODUCTS		Molded Grating		Pultruded I-Bar and T-Bar Grating		Pultruded I-Bar and T-Bar Grating
FITS		Multiple grid heights		1", 1-1/2", 2" bearing bar height		All heights
HARDWARE		Available with or without		Available with or without		Integral with Insert

FIBERGLASS DECKING & FLOORING

McNICHOLS® Fiberglass Decking and Flooring products are lightweight and corrosion-resistant and are used in a variety of applications such as trench covers to contain vapors or fumes, or to increase traction for footing on pedestrian bridge walkways. SAFDECK® is a system of panels that overlap along the length to create a continuous solid surface. SAFPLANK® panels interlock with adjacent planks to achieve a solid surface. SAFPLATE® Fiberglass Flooring, with its textured, slip-resistant surface is a tough alternative to Steel Plate.

SAFDECK® OVERLAPPING DECKING		FIBERGLASS DECKING LOAD TABLE								
	RESIN SPF COLOR Gray PROFILE Solid (Vented by custom order) HEIGHT 1-1/8" SURFACE Slip-Resistant ADA Compliant LBS./LF 8.20 SIZE (W x L) 24" x 240", 24" x 288"	CLEAR SPAN	LOAD TYPE	LBS./SF - DEFLECTION IN INCHES						
				25	50	60	75	100	200	300
				24"	U	0.015	0.030	0.036	0.044	0.059
	C	0.012	0.023	0.029	0.036	0.048	0.096	0.143		
36"	U	0.063	0.126	0.151	0.189	0.252	--	--		
	C	0.032	0.064	0.081	0.101	0.134	0.269	--		
48"	U	0.215	0.430	--	--	--	--	--		
	C	0.073	0.147	0.206	0.257	0.343	--	--		
--	--	--	--	--	--	--	--	--		
--	--	--	--	--	--	--	--	--		
--	--	--	--	--	--	--	--	--		
--	--	--	--	--	--	--	--	--		


SAFPLANK® INTERLOCKING PLANK FLOORING		FIBERGLASS FLOORING LOAD TABLE								
	RESIN SPF COLOR Gray PROFILE Solid (Vented by custom order) DEPTH 2" SURFACE Smooth ADA Compliant LBS./LF 5.20 WIDTH 12", 24" LENGTH 144", 240", 288"	PLANK WIDTH	LOAD TYPE	LOAD/ DEFL	LBS./SF - DEFLECTION IN INCHES					
					50	100	200	300	500	1000
					12"	U	0.006	0.011	0.023	0.034
	C	< 0.005	0.009	0.018	0.027	0.045	0.091			
	U	0.022	0.043	0.087	0.130	0.217	--			
	C	0.012	0.023	0.046	0.070	0.116	0.232			
	U	0.062	0.123	0.247	0.370	--	--			
	C	0.025	0.049	0.099	0.148	0.247	0.494			
	U	0.140	0.281	0.562	--	--	--			
	C	0.045	0.090	0.180	0.270	0.450	--			
	U	0.291	0.583	--	--	--	--			
	C	0.078	0.155	0.311	0.466	--	--			
24"	U	--	0.015	0.030	0.045	0.075	0.151			
	C	--	0.012	0.024	0.036	0.060	0.121			
	U	--	0.046	0.092	0.138	0.231	--			
	C	--	0.024	0.049	0.074	0.123	0.246			
	U	--	0.133	0.265	0.398	--	--			
	C	--	0.053	0.106	0.159	0.265	--			
	U	--	0.302	0.605	--	--	--			
	C	--	0.097	0.193	0.290	0.484	--			
	U	--	0.627	--	--	--	--			
	C	--	0.167	0.334	0.501	--	--			

SAFPLATE® FIBERGLASS FLOORING		FIBERGLASS FLOORING LOAD TABLE											
	RESIN SPF THICKNESS 1/8", 1/4", 1/2" (3/16", 3/8", 5/8", 3/4", 1" by custom order) COLOR Dark Gray PROFILE Solid SURFACE Coarse Grit, Smooth ADA Compliant LBS./SF 2.34 SIZE (W x L) 48" x 96"	THICK (mm)	LOAD/ DEFL	CLEAR SPAN									
				12"	18"	24"	30"	36"	42"	48"	54"	60"	
				1/4" (6.4)	U	167	34	11	--	--	--	--	--
	D	0.120	0.125	0.125	--	--	--	--	--	--	--		
	C	104	32	14	--	--	--	--	--	--	--		
	U	0.120	0.125	0.125	--	--	--	--	--	--	--		
3/8" (9.6)	D	562	167	55	23	11	--	--	--	--	--		
	C	0.120	0.180	0.188	0.188	0.188	--	--	--	--	--		
	D	351	156	69	35	20	--	--	--	--	--		
	C	0.120	0.180	0.188	0.188	0.188	--	--	--	--	--		
1/2" (12.7)	U	1333	370	167	71	34	18	11	--	--	--		
	D	0.120	0.180	0.240	0.250	0.250	0.250	0.250	--	--	--		
	C	833	370	209	111	65	40	27	--	--	--		
	U	0.120	0.180	0.240	0.250	0.250	0.250	0.250	--	--	--		
5/8" (15.9)	D	2600	768	326	167	84	45	27	17	11	--		
	C	0.120	0.180	0.240	0.300	0.312	0.312	0.312	0.312	0.312	0.312		
	D	1622	723	407	260	157	99	66	47	34	22		
	C	0.120	0.180	0.240	0.300	0.312	0.312	0.312	0.312	0.312	0.312		
3/4" (19.1)	U	4499	1333	563	288	167	94	55	34	22	--		
	D	0.120	0.180	0.240	0.300	0.360	0.375	0.375	0.375	0.375	0.375		
	C	2804	1250	702	450	313	205	138	97	71	--		
	U	0.120	0.180	0.240	0.300	0.360	0.375	0.375	0.375	0.375	0.375		
1" (25.4)	D	10677	3158	1333	682	396	248	167	108	71	--		
	C	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.500	0.500	0.500		
	D	6667	2956	1667	1068	740	544	416	305	222	--		
	C	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.500	0.500	0.500		

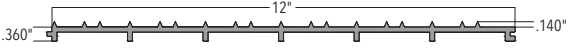
U - Uniform Load - Lbs./Sq Ft D - Deflection - in-Inches C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Solid surface SAFDECK® and SAFPLANK® are ADA compliant when using multiple pieces to width regardless of the direction of travel. Vented surface available by custom order. SAFDECK® based on 4.10 lbs./sf. SAFPLANK® based on solid surface product and 2.60 lbs./sf (slotted surface is 2.50 lbs./sf). Maximum deflections are based on a deflection of approximately L/100. To calculate the maximum deflection for a simply supported continuous beam spanning two equal lengths with the uniform or concentrated load on one span only, multiply the deflection values by 0.71. Calculations in SAFPLATE® table based on Plate spanning in the lengthwise direction. For allowable loading when Plate is spanning in the crosswise direction, multiply loading values in the table by 0.550 for 1/4" thick Flooring and 0.700 for all other Flooring thicknesses. All tables: Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Fiberglass Decking or Flooring.

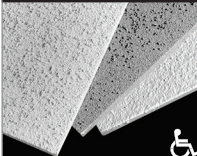
METAL FLOORING

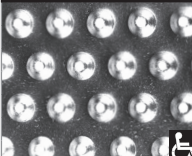
McNICHOLS® Metal Flooring Products provide slip-resistant surfaces in industrial settings or places with heavy pedestrian traffic. Approved by the ADA, these products help improve footing. Our **DIAMONDBACK®** Extruded Interlocking Flooring has aggressive, diamond-serrated ridges that provide slip resistance superior to other skid-resistant Aluminum Flooring. This Flooring has legs raising it just above floor level to allow for drainage and longitudinal stiffness. One edge of the Flooring has an interlocking channel while the opposite side has a male-like edge that fits securely into an adjoining piece of Flooring. **McNICHOLS GRIP TIGHT®** Flooring has an abrasive oxide grit coating over metal that is spark-resistant and non-corrosive, and our **TRACTION TREAD®** Metal Flooring has the strength and durability to withstand heavy traffic loads. A surface of aggressive, raised perforated buttons facilitate drainage and provides great traction for pedestrian footing. Multiple material options and patterns are available.

DIAMONDBACK® EXTRUDED INTLK FLOORING		ALUMINUM FLOORING LOAD TABLE													
	MATERIAL Aluminum Extrusion PROFILE Solid (Diamond-Vented by custom order) HEIGHT 0.360" SURFACE Diamond-Serrated (0.140" Height) ADA Compliant SIZE (W x L) 12" x 144"	CLEAR SPAN	LBS./LF (kg/m)	LOAD/ DEFL	LOADING - POUNDS PER SQUARE FOOT										
					12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"
		1/4" (6.4)	1,966 (2.93)	U	390	173	97	62	42	31	23	18	15	12	10
				D	0.107	0.241	0.428	0.669	0.963	1.311	1.712	2.166	2.675	3.236	3.851
				C	195	130	97	77	64	54	47	41	39	33	30
				U	0.197	0.664	1.574	3.075	5.314	8.438	12.596	17.934	24.601	32.743	42.510

U - Uniform Load - Lbs./Sq Ft **D** - Deflection - in Inches **C** - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Loading values and deflection values are based on the solid surface version of the product, and based on a tensile bending stress of 19,000 PSI. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Extruded Interlocking Flooring.

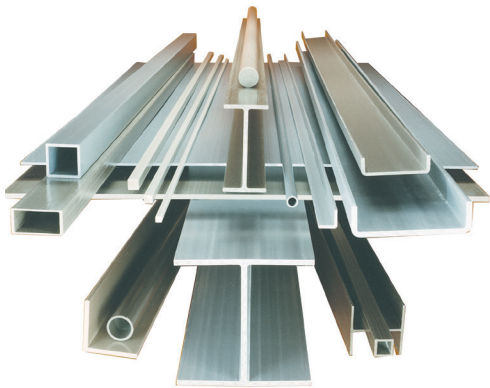


GRIP TIGHT® METAL FLOORING	
	MATERIAL Aluminum, Carbon Steel THICKNESS 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1" PROFILE Solid COATING Aluminum Oxide Grit, Steel Oxide Grit SURFACE Slip-Resistant ADA Compliant SIZE (W x L) 60" x 120", 60" x 144"

TRACTION TREAD® METAL FLOORING	
	MATERIAL Aluminum, Carbon Steel, Stainless Steel (Chevron pattern only) GA/THICK Aluminum: .1250" Thick; Steel: 16, 14, 11 Gauge PROFILE Button-Top, Chevron Button-Top SURFACE Slip-Resistant ADA Compliant OPEN AREA 4% (Chevron: 1%) SIZE (W x L) 36" x 120" (cut-to-size available)

EXTREN® FIBERGLASS STRUCTURAL SHAPES & PLATES

McNICHOLS® Structural Shapes include a variety of components for your projects, such as **EXTREN®** Fiberglass Structurals as well as Fiberglass Plate, Handrail System Components, and Embed Angle. These non-corrosive products provide opportunities to replace unprotected steel and wood in a variety of applications.



FEATURES

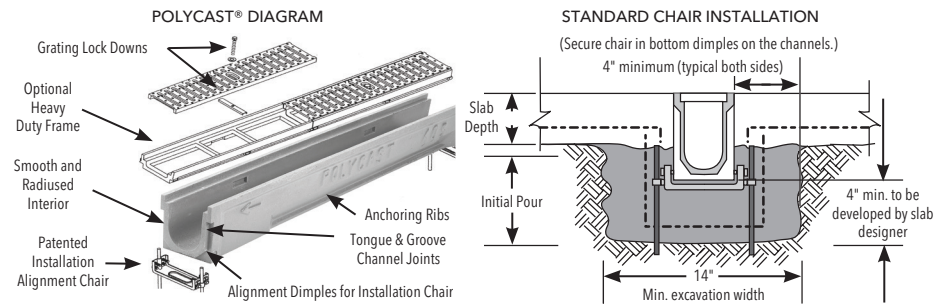
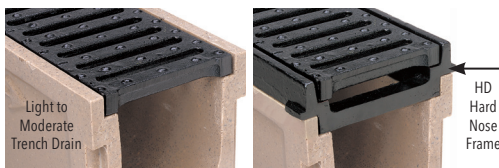
- Impact Resistant
- Lightweight
- Dimensional Stability
- High Strength
- Low Maintenance
- Low Conductivity
- Non-Magnetic
- Easy Fabrication

RESIN CHARACTERISTICS			
RESIN & TYPE	GRADE	FIRE RETARDANT	STANDARD
FFR Polyester	Food	Yes	Class B, 35 or Less
SFF Polyester	Food	Yes	Class A, 30 or Less
SGF Polyester	Architectural	Yes	Class A, 25 or Less
SPF Polyester	Industrial	Yes	Class A, 25 or Less
SPH Phenolic	Industrial/High Temp	Yes	Class A, 25 or Less
SVF Vinyl Ester	Chemical	Yes	Class A, 25 or Less
XVE Vinyl Ester	Chemical/High Flame	Yes	Class A, 10 or Less

Flame spread rating per ASTM E-84 (excluding SPH Phenolic).

POLYCAST® TRENCH DRAIN SYSTEM

McNICHOLS POLYCAST® Trench Drain System is pre-sloped and designed to have flow rates equal to or greater than most larger poured-in-place Trench Drain Systems. Kit options available!





PLANK GRATING



McNICHOLS® Plank Grating facilitates secure footing on rooftop walkways, catwalks, stairs, and other surface applications when safety is critical. The product line is lightweight and easy to cut and fabricate, and can be used in both interior and exterior applications. Made by punching and forming metal, **McNICHOLS®** Plank Grating comes in a variety of materials including Aluminum, Carbon Steel, Galvanized Steel, and Stainless Steel. Different construction types consist of Plank, Walkway (both with Heavy-Duty options), Interlocking, Extruded Interlocking, Heavy-Duty Plank, and Ladder Rungs.

COMMON APPLICATIONS

Balconies	Industrial Flooring	Storage Areas
Catwalks	Mezzanines	Vehicle Steps
Conveyors	Scaffolding	Walkways
Ice Bridges	Stair Treads	Work Platforms

PRODUCT LINE TERMINOLOGY

Channel Size - Identifies the depth in inches of the side and return flange of Plank items. For Walkway items, channel size is referred to in height due to the product's upturned sides.

Deflection (D) - Measured in inches and corresponds to the maximum load (U) or (C) permitted by flexural stress in side rail or Grating strut, whichever is lower.

Concentrated Load (C) - The maximum load (lbs./sf) permitted by flexural stress in side rail or Grating strut, whichever is lower. Load is applied transversely to total width of Grating at mid-span and assumed to be carried equally to both side rails.

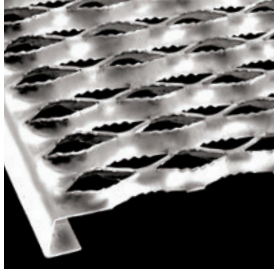
Concentrated Strut Load (Cs) - The maximum load (lbs./sf) permitted by flexural stress in Grating strut. Load is applied longitudinally to a one foot length of Grating at mid-span.

Span - Distance or length of the Plank across two consecutive supports, including the supported and unsupported sections of the Plank Grating.

Strut Deflection (Ds) - Measured in inches and corresponds to the maximum concentrated strut load (Cs) permitted by flexural stress in Grating surface strut, applied longitudinally to a one foot length of Grating at mid-span.

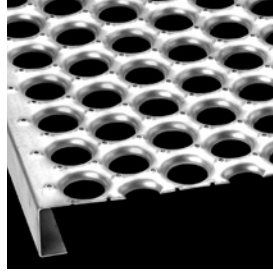
Uniform Load (U) - The maximum load (lbs./sf) permitted by flexural stress in side rail or Grating strut, whichever is lower. Load is applied to entire Grating area (full width by clear span) between supports.

SERIES NAMES & TYPES



GRIP STRUT®

Plank & Heavy-Duty Plank
Walkway & Heavy-Duty Walkway
Stair Tread Plank
Ladder Rung Plank



PERF-O GRIP®

Plank
Walkway



TRACTION TREAD®

Plank
Ladder Rung Plank



GRATE-LOCK®

Interlocking Plank
Male/Male Flange
Female/Male Flange
Female/Female Flange



DIAMONDBACK®

Extruded Interlocking Plank
Extruded Stair Tread Plank
Extruded Ladder Rung Plank

MATERIALS

Select from the following primary material types:

Aluminum Galvanized Steel
Carbon Steel Stainless Steel

Inventory is typically mill finish unless otherwise specified.

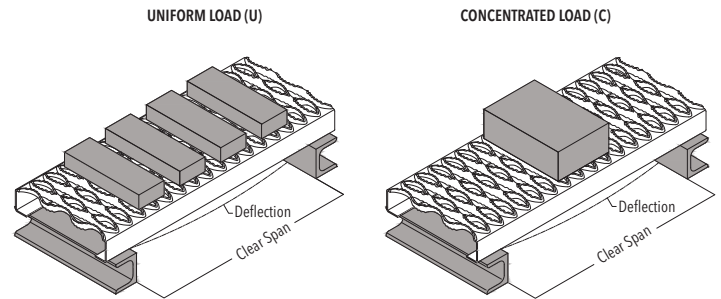
OPTIONS

Product features and attributes to consider:

Gauge/Thickness Gauge number or thickness in inches
Surface Profile Number of openings to width, type of opening, width of Plank/Walkway - e.g. 3-Diamond (7" Width) Plank
Channel Size Depth (for Plank items) or height (for Walkway items)
Open Area Percentage of open area within product margins
Quantity/Size(s) Number of pieces including cut-to-length dimensions

LOADING & SPAN

Choose the direction product openings need to run in your surface profile selection in order to support the application load. Clear span is the distance between Plank Grating supports and is an important installation consideration.

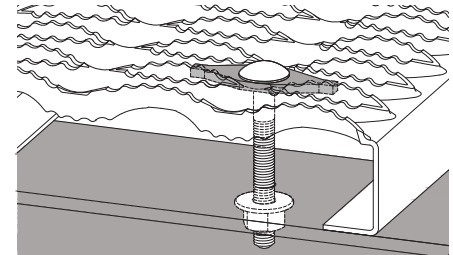
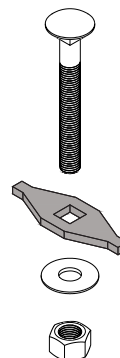


VALUE-ADDED SERVICES

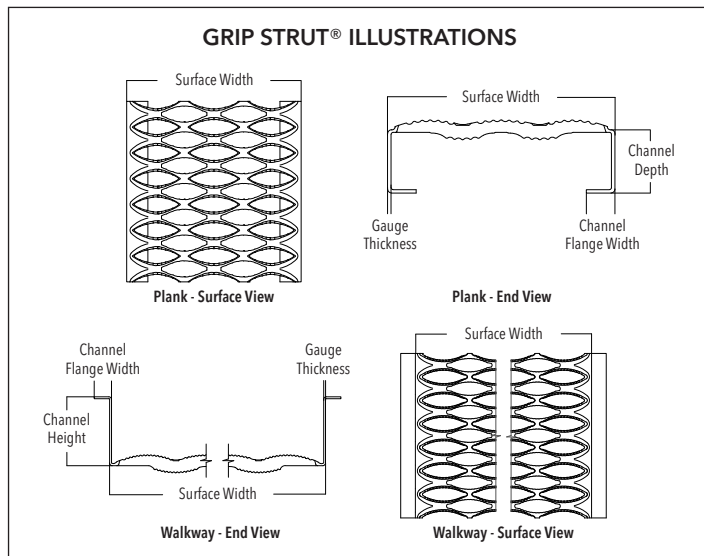
McNICHOLS® can cut your Plank Grating selection to length in house! We regularly produce Stair Treads from stock inventory...fast!

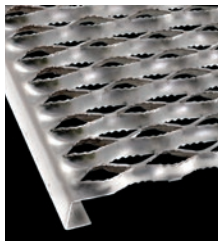
ACCESSORIES

McNICHOLS® carries a wide selection of Accessories—Stair Tread Carrier Plates, Clips, Fasteners, Nosing, Splice Plate Kits, and more—specifically for Plank Grating products.



McNICHOLS® Diamond Anchor Device shown securing GRIP STRUT® Plank to support (Hardware available separately).



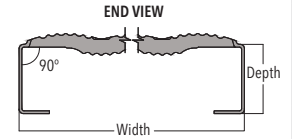


GRIP STRUT® PLANK

McNICHOLS GRIP STRUT® Planks have diamond-shaped openings with serrated edges on the surface making them slip resistant in every direction under most conditions. McNICHOLS GRIP STRUT® is also available in Ladder Rungs and Stair Treads. Please refer to pages 58 - 60 or mcnichols.com for more information.

GRIP STRUT® PLANK OPTIONS

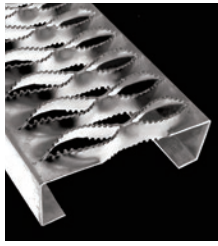
MATERIAL	Aluminum, Carbon Steel, Galvanized Steel, Stainless Steel
GA/THK	Alum: .0800", .1000"; Steel: 14, 12; Stain. Steel: 16
WIDTH	4-3/4", 7", 9-1/2", 11-3/4", 18-3/4", 24"
DEPTH	1-1/2", 2", 2-1/2", 3"
OPEN AREA	34 - 48%
LENGTH	120", 144" (cut-to-length available)



GRIP STRUT® PLANK LOAD TABLE

PRIMARY MATERIAL	GAUGE/THICK	DEPTH (mm)	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN																						
					24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"												
2-DIAMOND 4-3/4" WD 34% OA	ALUMINUM	.0800" THICK	2" (50.8)	0.92 (1.37)	U	1463	937	0.13	650	0.18	478	0.25	366	0.33	289	0.42	234	0.52	194	0.63	162	0.74	138	0.87	119	1.02	
					D	579	0.08	463	0.10	386	0.15	331	0.20	290	0.27	257	0.34	232	0.42	211	0.51	192	0.59	177	0.69	165	0.80
					C	2049	0.06	1312	0.14	911	0.20	669	0.28	512	0.37	405	0.46	328	0.58	271	0.70	228	0.83	194	0.98	167	1.13
	CARBON & GALV STEEL	14 GAUGE	1-1/2" (38.1)	2.3 (3.42)	U	1324	849	0.11	591	0.16	435	0.22	334	0.29	265	0.37	215	0.46	179	0.56	151	0.66	--	--	--	--	
					D	524	0.06	420	0.10	351	0.14	301	0.20	265	0.26	236	0.32	213	0.40	195	0.49	179	0.58	--	--	--	--
					C	2198	0.05	1409	0.08	980	0.11	721	0.16	553	0.20	438	0.26	356	0.32	295	0.39	248	0.47	212	0.58	184	0.70
CARBON & GALV STEEL	12 GAUGE	1-1/2" (38.1)	3.2 (4.76)	U	1751	1123	0.11	782	0.15	576	0.21	443	0.27	351	0.35	286	0.43	237	0.52	200	0.62	172	0.74	149	0.86		
				D	693	0.07	556	0.11	464	0.15	399	0.17	350	0.22	313	0.28	283	0.34	258	0.42	238	0.50	221	0.59	206	0.69	
				C	2792	0.05	1790	0.08	1245	0.12	917	0.17	703	0.22	557	0.28	453	0.34	375	0.42	317	0.50	211	0.59	235	0.63	
3-DIAMOND 7" WD 37% OA	ALUMINUM	.0800" THICK	2" (50.8)	1.15 (1.71)	U	993	636	0.13	441	0.18	324	0.25	248	0.33	196	0.42	159	0.52	131	0.63	110	0.74	93	0.86	80	1.00	
					D	579	0.08	463	0.10	386	0.15	331	0.20	290	0.27	257	0.34	232	0.42	211	0.51	192	0.59	177	0.69	165	0.80
					C	1391	0.06	890	0.14	618	0.20	454	0.28	348	0.37	275	0.46	223	0.58	184	0.70	155	0.83	132	0.98	114	1.13
	CARBON & GALV STEEL	14 GAUGE	1-1/2" (38.1)	3.0 (4.46)	U	899	577	0.11	402	0.14	269	0.22	227	0.29	180	0.37	147	0.46	122	0.56	103	0.66	--	--	--	--	
					D	524	0.06	421	0.10	351	0.14	302	0.20	265	0.26	237	0.32	214	0.40	196	0.49	180	0.59	--	--	--	--
					C	1492	0.05	957	0.08	665	0.11	490	0.16	376	0.21	298	0.26	242	0.32	201	0.43	169	0.51	145	0.61	125	0.71
CARBON & GALV STEEL	12 GAUGE	1-1/2" (38.1)	4.1 (6.10)	U	1189	763	0.11	532	0.15	392	0.21	301	0.27	239	0.35	195	0.43	162	0.52	137	0.63	118	0.74	102	0.87		
				D	694	0.07	556	0.11	465	0.15	400	0.17	352	0.22	314	0.28	284	0.34	260	0.42	240	0.50	223	0.59	208	0.69	
				C	1896	0.05	1216	0.08	846	0.12	623	0.17	478	0.22	379	0.26	308	0.32	256	0.39	216	0.47	185	0.55	160	0.64	
4-DIAMOND 9-1/2" WD 45% OA	ALUMINUM	.0800" THICK	1-1/2" (38.1)	1.28 (1.90)	U	499	319	0.15	222	0.22	163	0.31	124	0.40	98	0.51	--	--	--	--	--	--	--	--	--	--	
					D	395	0.10	316	0.15	263	0.22	226	0.25	197	0.32	175	0.41	--	--	--	--	--	--	--	--	--	--
					C	732	0.08	468	0.13	325	0.18	239	0.25	183	0.33	145	0.42	117	0.52	97	0.63	81	0.74	69	0.87	--	--
	CARBON & GALV STEEL	14 GAUGE	1-1/2" (38.1)	3.6 (5.36)	U	1025	656	0.14	455	0.20	335	0.28	256	0.37	202	0.46	164	0.58	136	0.70	114	0.83	97	0.98	84	1.13	
					D	811	0.09	649	0.14	541	0.20	464	0.22	406	0.29	361	0.37	325	0.46	295	0.56	270	0.66	250	0.78	232	0.90
					C	1107	0.07	730	0.11	541	0.16	411	0.22	335	0.30	275	0.37	225	0.46	185	0.56	155	0.66	135	0.78	115	0.90
CARBON & GALV STEEL	12 GAUGE	1-1/2" (38.1)	5.0 (7.44)	U	663	426	0.10	296	0.14	219	0.20	168	0.26	134	0.33	109	0.41	90	0.50	77	0.59	--	--	--	--		
				D	525	0.06	421	0.10	352	0.14	303	0.16	266	0.21	238	0.26	215	0.33	197	0.40	182	0.47	--	--	--	--	
				C	1100	0.05	705	0.08	491	0.11	362	0.16	278	0.21	220	0.26	179	0.33	148	0.40	125	0.47	107	0.59	93	0.71	
STAIN STL TYPE 304	16 GAUGE	2" (50.8)	3.2 (4.76)	U	720	462	0.08	322	0.11	238	0.16	183	0.20	145	0.26	118	0.32	98	0.39	83	0.47	71	0.55	59	0.61		
				D	570	0.04	457	0.06	382	0.09	329	0.12	289	0.16	258	0.21	234	0.26	214	0.31	197	0.38	184	0.44	165	0.49	
				C	1107	0.04	718	0.06	511	0.11	413	0.17	335	0.23	280	0.29	242	0.32	214	0.39	189	0.47	160	0.55	139	0.65	

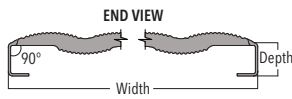
U - Uniform Load - Lbs./Sq Ft D - Deflection - in Inches C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. Values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.



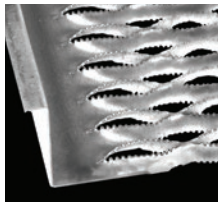
HEAVY-DUTY GRIP STRUT® PLANK

McNICHOLS Heavy-Duty GRIP STRUT® Planks are made from 10 gauge Galvanized Steel coil and designed for heavier loads and longer spans. Diamond openings are larger than openings on standard size Planks. These features provide exceptional slip-resistance across longer spans that may be exposed to snow, ice, mud, oils, and other slippery substances.

HEAVY-DUTY GRIP STRUT® PLANK OPTIONS	
MATERIAL	Galvanized Steel
GAUGE	10 (11 and 9 by custom order)
WIDTH	9-1/4", 13-3/4", 23-1/4", 27-3/4", 36"
DEPTH	2", 2-1/2", 3", 4"
OPEN AREA	41 - 47%
LENGTH	144" (cut-to-length available)



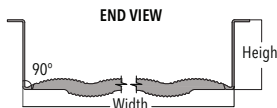
HEAVY-DUTY GRIP STRUT® PLANK LOAD TABLE																
GAUGE	DEPTH (mm)	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN												
				24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	
2-DIA 9-1/4" WD 41% OA	2" (50.8)	7.4 (11.0)	U	2681	1716	1141	876	699	529	428	354	300	253	218	191	
			D	0.05	0.08	0.11	0.15	0.19	0.24	0.30	0.35	0.41	0.47	0.54	0.62	
	2-1/2" (63.5)	7.9 (11.7)	U	2067	1653	1318	1181	1033	919	827	752	689	636	590	551	
			D	0.04	0.06	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.38	0.44	0.49	
3-DIA 13-3/4" WD 47% OA	2" (50.8)	9.5 (14.1)	U	4063	2600	1806	1327	1016	802	650	537	451	385	331	288	
			D	0.05	0.07	0.10	0.14	0.18	0.23	0.27	0.32	0.36	0.42	0.49	0.55	
	2-1/2" (63.5)	10 (14.9)	U	3133	2507	2089	1790	1567	1393	1253	1139	1044	964	895	836	
			D	0.04	0.06	0.08	0.12	0.14	0.18	0.22	0.25	0.29	0.34	0.39	0.44	
5-DIA 23-1/4" WD 43% OA	2" (50.8)	14.4 (21.4)	U	1804	1154	801	589	450	356	288	238	202	170	147	128	
			D	0.05	0.08	0.11	0.15	0.19	0.24	0.30	0.35	0.41	0.47	0.54	0.62	
	2-1/2" (63.5)	14.8 (22.0)	U	2067	1653	1378	1181	1033	919	827	752	689	636	590	551	
			D	0.04	0.06	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.38	0.44	0.49	
6-DIA 27-3/4" WD 43% OA	2" (50.8)	16.2 (24.1)	U	1034	661	459	337	258	204	165	136	116	97	84	73	
			D	0.04	0.06	0.08	0.11	0.14	0.18	0.22	0.25	0.29	0.34	0.39	0.44	
	2-1/2" (63.5)	16.7 (24.8)	U	2067	1653	1378	1181	1033	919	827	752	689	636	590	551	
			D	0.04	0.06	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.38	0.44	0.49	
8-DIA 36" WD 47% OA	2" (50.8)	19.9 (29.6)	U	1398	894	621	457	349	276	224	185	156	132	114	99	
			D	0.05	0.07	0.10	0.14	0.18	0.23	0.27	0.32	0.36	0.42	0.49	0.55	
	2-1/2" (63.5)	20.4 (30.3)	U	3133	2507	2089	1790	1567	1393	1253	1139	1044	964	895	836	
			D	0.04	0.06	0.08	0.11	0.14	0.18	0.22	0.25	0.29	0.34	0.39	0.44	
10 GAUGE	2" (50.8)	20.9 (31.1)	U	1488	952	662	486	372	293	239	197	164	141	122	106	
			D	0.04	0.06	0.08	0.11	0.15	0.19	0.22	0.26	0.30	0.34	0.39	0.44	
	3" (76.2)	20.9 (31.1)	U	3333	2667	2222	1905	1667	1481	1311	1212	1111	1026	952	889	
			D	0.03	0.05	0.07	0.09	0.12	0.15	0.17	0.21	0.24	0.28	0.31	0.35	



HEAVY-DUTY GRIP STRUT® WALKWAY

McNICHOLS Heavy-Duty GRIP STRUT® Walkway meets OSHA toeboard requirements for elevated structures with upturned, 5" high integral side channels. Heavy-Duty GRIP STRUT® Walkway is commonly used in process plants, refineries, and as conveyor walkways, for grain elevators.

HEAVY-DUTY GRIP STRUT® WALKWAY OPTIONS	
MATERIAL	Galvanized Steel
GAUGE	10 (11 and 9 by custom order)
WIDTH	24"
DEPTH	5"
OPEN AREA	43 - 47%
LENGTH	120", 144" (cut-to-length available)



HEAVY-DUTY GRIP STRUT® WALKWAY LOAD TABLE																
PROFILE (width)	HEIGHT (mm)	OPEN AREA	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN											
					48"	60"	72"	84"	96"	108"	120"	132"	144"	156"	168"	
5-DIAMOND (24")	5" (127.0)	43%	17.5 (26.0)	U	937	600	417	306	234	185	150	124	104	89	77	
				D	0.38	0.39	0.42	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	
				C	3750	3000	2500	2143	1875	1667	1500	1364	1250	1153	1071	
	6-DIAMOND (30")	5" (127.0)	43%	19.9 (29.6)	U	916	586	407	299	229	182	146	121	102	87	75
					D	0.37	0.43	0.40	0.40	0.46	0.42	0.41	0.41	0.49	0.57	0.66
					C	4584	3666	3056	2619	2291	2037	1834	1667	1528	1410	1309
8-DIAMOND (36")	5" (127.0)	47%	22.7 (33.8)	U	556	356	247	181	139	110	89	73	62	53	45	
				D	0.39	0.39	0.33	0.32	0.33	0.36	0.39	0.42	0.49	0.51	0.60	
				C	3330	2667	2222	1905	1667	1481	1333	1212	1111	1026	952	

U - Uniform Load - Lbs./Sq Ft D - Deflection - in Inches C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. For the tables above, values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 Lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNichols shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.

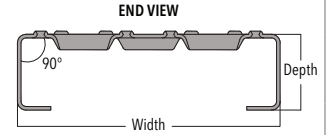


PERF-O GRIP® PLANK

McNICHOLS PERF-O GRIP® Planks are made up of large debossed holes and perforated surface buttons that provide great slip resistance and allow debris to pass through the openings. These Planks offer a high load capacity and strength-to-weight performance. Applications include walkways, catwalks, stair treads, and more.

PERF-O GRIP® PLANK OPTIONS

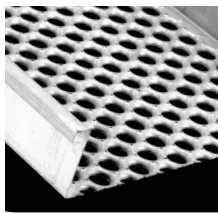
MATERIAL	Aluminum, Carbon Steel, Galvanized Steel
GA/THK	Aluminum: .1250"; Steel: 13, 11
WIDTH	5", 7", 10", 12", 18", 24", 30"
DEPTH	1-1/2", 2", 3", 4"
OPEN AREA	29 - 38%
LENGTH	12", 144" (cut-to-length available)



PERF-O GRIP® PLANK LOAD TABLE

PRIMARY MATERIAL	GAUGE/ THICK	HEIGHT (mm)	LBS./LF (kg/m)	LOAD/ DEFL	CLEAR SPAN																											
					24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"																	
2-HOLE 5" WD 29% OA	ALUMINUM	.1250" THICK	2" (50.8)	1.3 (1.9)	U	2910	1863	1294	950	728	575	466	385	323	276	237	0.98															
					D	1213	0.08	970	0.12	809	0.18	693	0.24	606	0.32	539	0.40	485	0.50	441	0.60	404	0.72	373	0.84	346	0.98					
	CARBON & GALV STEEL	13 GAUGE	1-1/2" (38.1)	2.6 (3.8)	U	2008	1287	895	659	505	400	325	269	227	194	168	0.78															
					D	836	0.05	670	0.08	559	0.11	481	0.15	421	0.20	375	0.25	338	0.31	308	0.38	284	0.45	263	0.53	244	0.62					
					C	3035	0.04	1944	0.06	1352	0.09	994	0.12	762	0.16	603	0.20	490	0.24	405	0.29	341	0.34	292	0.41	253	0.47					
					D	1228	0.03	1003	0.05	845	0.07	725	0.09	635	0.12	566	0.15	510	0.19	465	0.23	427	0.28	395	0.32	368	0.38					
3-HOLE 7" WD 30% OA	ALUMINUM	.1250" THICK	2" (50.8)	1.5 (2.2)	U	2138	1491	1035	761	582	460	372	308	258	221	190	1.07															
					D	1509	0.07	1207	0.11	1006	0.16	862	0.21	755	0.28	611	0.35	549	0.44	503	0.53	464	0.63	431	0.74	404	0.85					
	CARBON & GALV STEEL	13 GAUGE	1-1/2" (38.1)	3.0 (4.4)	U	1536	984	685	504	387	306	249	206	174	149	129	0.58															
					D	914	0.05	731	0.01	609	0.11	522	0.14	457	0.19	406	0.24	366	0.29	332	0.36	305	0.43	283	0.50	263	0.58					
					C	1965	0.04	1473	0.06	1024	0.08	754	0.12	578	0.15	458	0.19	371	0.24	307	0.29	259	0.34	222	0.40	192	0.47					
		11 GAUGE	1-1/2" (38.1)	3.3 (4.9)	U	1369	1096	913	783	685	609	548	498	456	421	391	362	337	0.44													
					D	1981	0.03	1269	0.06	883	0.08	650	0.11	498	0.14	394	0.18	320	0.23	265	0.27	224	0.33	191	0.38	165	0.44					
					C	1165	0.05	932	0.07	777	0.11	666	0.15	582	0.19	518	0.24	467	0.30	426	0.36	391	0.43	362	0.51	337	0.59					
	5-HOLE 10" WD 35% OA	ALUMINUM	.1250" THICK	2" (50.8)	1.8 (2.7)	U	1048	1022	710	522	400	316	256	212	178	153	131	0.96														
						D	1431	0.05	1145	0.12	954	0.18	818	0.24	715	0.31	636	0.40	572	0.49	520	0.59	477	0.71	440	0.83	409	0.96				
		CARBON & GALV STEEL	13 GAUGE	1-1/2" (38.1)	3.5 (5.2)	U	963	745	517	380	291	230	187	154	129	110	95	0.59														
						D	855	0.04	684	0.08	645	0.11	554	0.15	485	0.19	431	0.24	388	0.30	353	0.36	323	0.43	298	0.51	277	0.47				
11 GAUGE			1-1/2" (38.1)	4.5 (6.7)	U	1735	1110	771	568	435	344	281	232	196	167	144	0.45															
					D	1297	0.03	1038	0.05	865	0.08	741	0.11	648	0.15	584	0.18	532	0.22	489	0.28	453	0.33	422	0.42	396	0.45					
6-HOLE 12" WD 35% OA	ALUMINUM	.1250" THICK	2" (50.8)	2.1 (3.1)	U	1463	936	650	478	366	290	235	194	163	140	120	0.92															
					D	1612	0.08	1290	0.12	1075	0.17	921	0.23	806	0.30	716	0.38	645	0.47	586	0.57	537	0.68	496	0.79	461	0.92					
	CARBON & GALV STEEL	13 GAUGE	1-1/2" (38.1)	4.3 (6.4)	U	669	655	456	336	258	204	166	138	117	100	87	0.55															
					D	960	0.03	819	0.07	684	0.10	588	0.13	516	0.17	460	0.22	416	0.27	380	0.33	349	0.40	325	0.41	303	0.44					
					C	1510	0.03	966	0.05	671	0.08	493	0.11	378	0.14	299	0.18	243	0.22	201	0.26	170	0.32	145	0.37	126	0.44					
		11 GAUGE	1-1/2" (38.1)	5.3 (7.9)	U	1442	1154	961	862	756	673	608	555	509	471	442	412	385	359	332	309	286	264	242	220	200	180	160	140	120	0.92	
					D	986	0.02	739	0.04	515	0.06	378	0.08	291	0.10	230	0.13	188	0.16	156	0.20	131	0.23	112	0.28	97	0.32	83	0.38	70	0.44	
					C	1231	0.03	985	0.06	821	0.09	103	0.12	615	0.16	547	0.21	492	0.25	448	0.31	410	0.37	379	0.43	352	0.40	328	0.36	304	0.34	280
	10-HOLE 18" WD 38% OA	CARBON & GALV STEEL	11 GAUGE	1-1/2" (38.1)	6.8 (10.1)	U	781	500	347	255	196	156	127	105	89	76	66	0.47														
						D	1257	0.04	1006	0.06	838	0.09	718	0.12	629	0.15	559	0.19	503	0.24	457	0.29	419	0.34	387	0.40	359	0.43	335	0.36	311	0.33
		11 GAUGE	2" (50.8)	7.1 (10.5)	U	1250	800	555	408	314	249	201	167	141	121	104	0.35															
					D	1924	0.03	1539	0.05	1283	0.07	1099	0.09	962	0.12	855	0.15	770	0.18	700	0.22	641	0.26	592	0.31	550	0.35	510	0.38	470	0.41	430
C					1094	0.02	700	0.04	486	0.05	357	0.07	273	0.09	216	0.12	175	0.14	145	0.17	123	0.21	105	0.24	91	0.28	79	0.32	68	0.36	58	0.40
D					2092	0.03	1674	0.05	1395	0.06	1196	0.09	1046	0.12	930	0.15	837	0.18	761	0.22	697	0.26	644	0.31	598	0.35	550	0.39	500	0.43	450	0.47

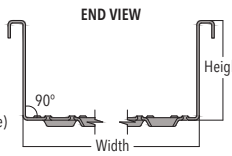
U - Uniform Load - Lbs./Sq Ft D - Deflection - in Inches C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. Values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.



PERF-O GRIP® WALKWAY

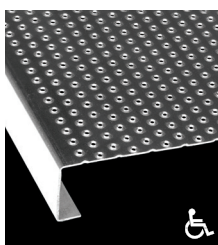
McNICHOLS PERF-O GRIP® Walkway can help lessen worker fatigue due to surface properties, has a high load capacity, and an excellent strength-to-weight performance ratio. Large openings within product margins permit the flow of air, light, and other debris. With 5" high side channels, PERF-O GRIP® Walkway meets OSHA requirements for toeboards on elevated structures.

PERF-O GRIP® WALKWAY OPTIONS	
MATERIAL	Galvanized Steel
GAUGE	11
WIDTH	24", 30" (36" by custom order)
HEIGHT	5"
OPEN AREA	36% (13-Hole), 37% (16 & 20-Hole)
LENGTH	120" (cut-to-length available)



PERF-O GRIP® WALKWAY LOAD TABLE

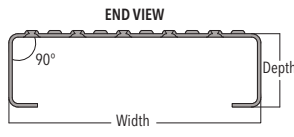
PROFILE (width)	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN																
			24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	108"	120"	132"	
11 GAUGE 5" HT	13-HOLE (24")	U	5751	3681	2556	1878	1438	1136	920	760	639	544	469	409	359	284	230	190	
		D	0.02	0.02	0.04	0.05	0.06	0.08	0.10	0.12	0.14	0.16	0.19	0.22	0.25	0.31	0.39	0.47	
		C	9504	7603	6336	5431	4152	4224	3802	3456	3168	2924	2715	2534	2376	2112	1901	1728	
	16-HOLE (30") 20-HOLE (36")	U	3868	2475	1719	1263	967	764	619	511	430	366	316	275	242	191	155	128	
		D	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.13	0.16	0.18	0.20	0.26	0.32	0.39	
		C	9534	7627	6356	5448	4767	4237	3813	3467	3178	2933	2724	2542	2383	2119	1907	1733	
D	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.13	0.15	0.19	0.23	0.28			



TRACTION TREAD® PLANK

McNICHOLS TRACTION TREAD® Plank features a surface of raised perforated buttons that provide excellent slip resistance. These versatile planks are ADA compliant when installed using multiple pieces to width, regardless of the direction of travel.

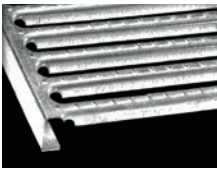
TRACTION TREAD® PLANK OPTIONS	
MATERIAL	Aluminum, Galvanized Steel (Carbon Steel by custom order)
GA/THK	Aluminum: .1250"; Steel: 13, 11
WIDTH	7", 10", 12"
DEPTH	1-1/2", 2", 3"
OPEN AREA	3%
LENGTH	120", 144" (cut-to-length available)



TRACTION TREAD® PLANK LOAD TABLE

PRIMARY MATERIAL	GAUGE/THICK	DEPTH (mm)	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN														
					24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	108"	
10-ROW 7" WD	ALUMINUM	.1250" THICK	2"	U	727	595	431	310	227	177	139	127	112	81	61	46	35	22	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25		
	CARBON & GALV STEEL	13 GAUGE	1-1/2"	U	824	675	488	351	257	201	158	144	127	92	69	--	--	--	--
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	--	--	--	--	
		2"	U	1642	1345	973	700	513	400	315	287	253	184	137	104	80	50	0.25	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
11 GAUGE	1-1/2"	U	1032	845	612	440	323	252	198	180	159	116	86	--	--	--	--		
	D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	--	--	--	--		
2"	U	2084	1707	1235	889	651	508	400	364	322	233	174	132	102	64	0.25			
	D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25			
15-ROW 10" WD	ALUMINUM	.1250" THICK	2"	U	560	469	332	239	175	137	107	98	86	63	47	35	27	--	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.20	0.25	0.25	0.25	0.25	0.25	--	
	CARBON & GALV STEEL	13 GAUGE	1-1/2"	U	628	515	372	268	196	153	121	110	97	70	52	--	--	--	--
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	--	--	--	
		2"	U	1267	1038	751	540	396	309	243	221	195	142	106	80	62	--	--	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
11 GAUGE	1-1/2"	U	787	645	466	336	246	192	151	138	121	88	66	--	--	--	--		
	D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	--	--	--	--		
2"	U	1605	1315	951	685	502	392	308	281	248	180	134	101	78	--	--			
	D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25			
18-ROW 12" WD	ALUMINUM	.1250" THICK	2"	U	487	399	288	207	152	119	93	85	75	55	41	31	24	--	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.20	0.25	0.25	0.25	0.25	0.25	--	
	CARBON & GALV STEEL	13 GAUGE	1-1/2"	U	544	445	322	232	170	133	104	95	84	61	45	--	--	--	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	--	--	--	
		2"	U	1101	902	652	469	344	268	211	192	170	123	92	70	54	--	--	
			D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
11 GAUGE	1-1/2"	U	682	559	404	291	213	166	131	119	105	76	57	--	--	--			
	D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	--	--	--			
2"	U	1395	1143	827	595	436	340	268	244	215	156	116	88	68	--	--			
	D	0.02	0.04	0.06	0.08	0.10	0.13	0.15	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.25			

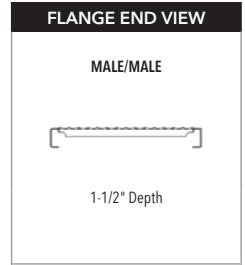
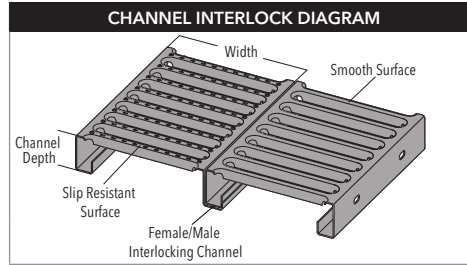
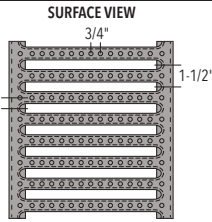
U - Uniform Load - Lbs./Sq Ft D - Deflection - in Inches. C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. For the tables above, span and loading values to the left of the bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq ft, allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. TRACTION TREAD® is ADA compliant product when installed using multiple pieces to width regardless of the direction of travel. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.



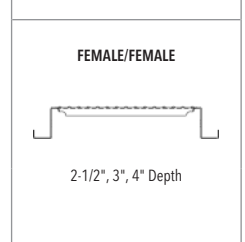
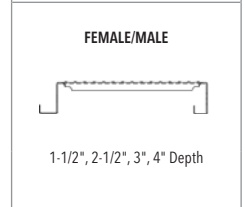
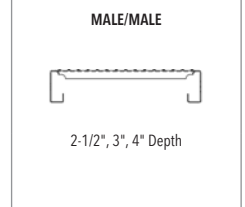
GRATE-LOCK® INTERLOCKING PLANK

McNICHOLS GRATE-LOCK® Interlocking Plank Grating provides safe, sturdy footing for mezzanine floors, platforms, walkways, and other applications where slip-resistant performance is required. Interlocking Plank Grating links, then locks adjacent side channels together, covering wide spanning areas. This easy-to-install system of Interlocking Planks is efficient, safe, and will give your application a high-tech look. Additional information is available at mcnichols.com.

GRATE-LOCK® INTERLOCKING PLANK OPTIONS	
MATERIAL	Galvanized Steel
GAUGE	18, 14 (16 by custom order)
WIDTH	6", 9", 12"
DEPTH	2-1/2" (1-1/2", 3", and 4" by custom order)
FLANGE	Male/Male, Female/Male, Female/Female
OPEN AREA	35 - 45%
LENGTH	1-1/2" Dpt: 144"; 2-1/2" Dpt: 120", 240", 288"; 3" Dpt: 288" (other lengths and cut-to-length available)

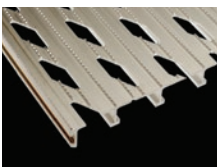


GRATE-LOCK® INTERLOCKING PLANK LOAD TABLE																		
	WIDTH (mm)	OPEN AREA	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN													
					24"	36"	48"	60"	72"	84"	96"	108"	120"	132"	144"	156"	168"	
18 GAUGE 2-1/2" DEPTH	6" (152.4)	39%	2.62 (3.90)	U	2141	954	538	346	241	178	137	109	89	74	63	54	47	
					D	0.04	0.09	0.16	0.25	0.36	0.50	0.65	0.83	1.04	1.27	1.52	1.80	2.11
					C	1053	715	538	432	362	312	274	246	223	204	189	176	165
	9" (228.6)	43%	3.16 (4.70)	U	1552	691	390	251	175	129	100	79	65	54	46	40	35	
					D	0.05	0.10	0.18	0.28	0.41	0.56	0.74	0.95	1.18	1.44	1.73	2.05	2.41
					C	705	705	585	470	394	339	299	268	243	223	207	193	181
12" (304.8)	45%	3.70 (5.51)	U	1057	552	312	200	140	103	80	64	52	43	36	31	27		
				D	0.03	0.10	0.17	0.27	0.39	0.54	0.71	0.90	1.13	1.38	1.61	1.91	2.23	
				C	529	529	529	501	420	362	319	286	260	239	217	207	194	
14 GAUGE 2-1/2" DEPTH	6" (152.4)	35%	3.98 (5.92)	U	3722	1654	931	596	414	304	233	184	149	123	103	88	76	
					D	0.05	0.10	0.18	0.29	0.42	0.56	0.74	0.93	1.15	1.39	1.65	1.93	2.25
					C	1461	1241	931	744	620	532	465	414	372	338	310	286	266
	9" (228.6)	38%	4.80 (7.14)	U	2357	1050	593	381	266	196	151	121	98	82	70	58	50	
					D	0.04	0.10	0.18	0.28	0.41	0.56	0.74	0.94	1.17	1.43	1.72	2.05	2.41
					C	974	974	889	714	598	516	454	407	369	339	314	282	265
12" (304.8)	40%	5.62 (8.36)	U	1276	783	442	284	199	147	113	90	74	62	52	44	38		
				D	0.03	0.10	0.17	0.27	0.39	0.54	0.71	0.91	1.13	1.38	1.63	1.94	2.20	
				C	730	730	730	711	596	514	454	407	370	338	310	286	266	



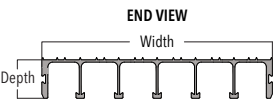
U - Uniform Load - Lbs./Sq Ft **D** - Deflection - in Inches **C** - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. Values to the left of the bolded black line are considered safe allowable loads with deflections equal to or less than L/120. Values to the left of the bolded green line (including values to the left of the bolded black line) are considered safe allowable loads with deflections equal to or less than L/240. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.

DIAMONDBACK® EXTRUDED INTERLOCKING PLANK



DIAMONDBACK® Aluminum Extruded Interlocking Planks are great for applications requiring slip resistance. Diamond serrations along the surface and channels with interlocking slots are main product features. Solid surface Planks are ADA compliant. We also carry DIAMONDBACK® Stair Tread Planks!

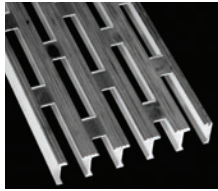
DIAMONDBACK® EXTRUDED INTERLOCKING PLANK OPTIONS	
MATERIAL	Aluminum Extrusion
SURFACE	Diamond-Vented, Solid
WIDTH	6", 12"
DEPTH	1, 1-1/2", 2" (3/4", 1-1/4", Depth 1-3/4" by custom order)
OPEN AREA	12%
LENGTH	144" (cut-to-length available)



DIAMONDBACK® EXTRUDED INTERLOCKING PLANK LOAD TABLE																		
	DEPTH (mm)	LBS./LF (kg/m)		LOAD/DEFL	CLEAR SPAN													
		DIA-VENTED	SOLID (ADA)		24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"
6" WD	1" (25.4)	1.45 (2.16)	1.64 (2.44)	U	1439	921	640	470	360	284	230	190	160	--	--	--	--	
				D	0.247	0.297	0.428	0.597	0.897	1.053	1.244	1.483	1.756	--	--	--	--	
				C	720	576	480	411	360	320	288	262	240	--	--	--	--	
12" WD	1" (25.4)	2.68 (3.99)	3.06 (4.55)	U	1328	850	590	433	332	262	212	175	147	--	--	--	--	
				D	0.199	0.312	0.448	0.610	0.797	1.008	1.299	1.502	1.787	--	--	--	--	
				C	1328	1062	865	759	664	590	531	483	442	--	--	--	--	
	2" (50.8)	3.91 (5.82)	4.29 (6.38)	U	4193	2683	1863	1369	1048	828	671	554	466	397	342	298	262	232
				D	0.187	0.197	0.251	0.320	0.418	0.529	0.653	0.789	0.940	1.104	1.279	1.468	1.671	1.886
				C	4193	3354	2795	2396	2096	1863	1677	1524	1397	1290	1198	1118	1048	986
D	0.084	0.131	0.188	0.256	0.334	0.423	0.522	0.632	0.752	0.883	1.024	1.181	1.337	1.509				

U - Uniform Load - Lbs./Sq Ft **D** - Deflection - in Inches **C** - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. Load table values are based on the diamond-vented surface. Values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Loading and deflection values are theoretical and based on a tensile bending stress of 19,000 PSI. Solid surface products qualify for use in ADA compliant applications when installed using multiple pieces to width regardless of the direction of travel. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.

HD-EXT - HEAVY-DUTY EXTRUDED PLANK



An alternative to Bar Grating, **McNICHOLS®** HD-EXT Plank Grating is produced using an extrusion process that yields a structurally sound product. The interconnecting webs offer a flush top walking surface and is typically vented with a rectangular-shaped upset pattern. Raised, slip-resistant grooves run perpendicular to slot widths.

HD-EXT - HEAVY-DUTY EXTRUDED PLANK OPTIONS	
MATERIAL	Aluminum Extrusion
SURFACE	Rectangular (Round, Solid, and Square by custom order)
WIDTH	6"
DEPTH	3/4", 1, 1-1/2", 2" (1-1/4", 1-3/4", 2-1/4", 2-1/2" by custom order)
OPEN AREA	37%
LENGTH	240" (cut-to-length available)

END VIEW
Width
Depth

HD-EXT - HEAVY-DUTY EXTRUDED PLANK LOAD TABLE

DEPTH (mm)	LBS./LF (kg/m)		LOAD/DEFL	CLEAR SPAN															
	RECT-VENT	SOLID		12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"			
6" WD	1" (25.4)	1.10 (1.64)	1.30 (1.93)	U	3168	1408	792	507	352	259	198	156	127	105	88	75	65		
				D	0.031	0.069	0.123	0.192	0.277	0.377	0.492	0.620	0.770	0.932	1.106	1.298	1.514		
				C	1584	1056	792	634	528	453	396	352	317	288	264	244	226	210	
	1-1/2" (38.1)	1.70 (2.53)	1.95 (2.90)	U	8928	3968	2232	1428	992	729	558	441	357	295	248	211	182		
				D	0.022	0.050	0.089	0.139	0.201	0.273	0.357	0.452	0.558	0.675	0.804	0.942	1.092		
				C	4464	2976	2232	1786	1488	1275	1116	992	893	812	744	687	638	592	
			D	0.018	0.040	0.071	0.112	0.161	0.219	0.286	0.362	0.447	0.540	0.643	0.755	0.875			

U - Uniform Load - Lbs./Sq Ft **D** - Deflection - in Inches **C** - Concentrated Load - Lbs./Sq Ft of Width at Mid Span | Additional loading information is available at mcnichols.com. Values to left of bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs./sq. ft., allowing for safe pedestrian comfort. Values to the right are applicable to other types of loads at the discretion of a licensed engineer. Loading and deflection values are theoretical and based on a maximum allowable fiber stress of 12,000 PSI, E = 10,000,000 PSI. Solid surface products qualify for use in ADA compliant applications when installed using multiple pieces to width regardless of the direction of travel. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating.

LADDER RUNGS & COVERS

When vertical safety, and loading are considerations, **McNICHOLS®** Ladder Rung Planks are the answer. **TRACTION TREAD®** Rungs consist of rows of raised, perforated buttons to enhance slip resistance. **GRIP STRUT®** Ladder Rungs have serrated diamond-shaped openings for maximum grip. Our **DIAMONDBACK®** Rungs are available with a diamond-shaped opening or solid surface, both having diamond-serrated ridges. These Rungs can be supplied with radius end cuts. If you need slip resistant Ladder Rungs to cover existing Rungs already in place, choose **McNICHOLS** **GRIP TIGHT®** Rung Covers! All Ladder Rung Planks and Covers can be cut-to-length.

LADDER RUNG OPTIONS	LADDER RUNG PLANK		EXTRUDED LADDER RUNG PLANK	LADDER RUNG COVER PLANK
	TRACTION TREAD®	GRIP STRUT®	DIAMONDBACK®	GRIP TIGHT®
PRIMARY MATERIAL	AL, CS, GV, SS	CS, GV	AL	GV
GAUGE/THICKNESS	AL: .1250"; CS: 13, 11; GV: 13; SS: 16, 14	14, 12	Aluminum Extrusion	16
SURFACE PROFILE	2, 3, and 4-Row (Perforated Buttons)	1-Diamond	Diamond-Vented, Solid	Solid with Aluminum Oxide Grit Coating
CHANNEL DEPTH	1-1/8", 1-1/2"	1-1/8"	1.390"	3/4", 1"
PRODUCT SURFACE	Slip-Resistant	Serrated	Diamond-Serrated	Slip-Resistant
OPEN AREA	2 - 4%	34%	12% (Diamond-Vented)	--
WIDTH	1-1/4", 1-5/8", 2-1/4"	2-1/2"	1-3/4"	3/4", 1"
LENGTH (SPAN)	48-3/4", 60" (cut-to-length available)	120" (cut-to-length available)	144" (cut-to-length available)	120" (cut-to-length available)

Primary Material Types: **AL** - Aluminum **CS** - Carbon Steel **GV** - Galvanized Steel **SS** - Stainless Steel | Custom Order Only: **GRIP STRUT®** Ladder Rung Planks are available with a reverse diamond surface profile (long way of diamond openings run with the length dimension). Reverse diamond Planks have a 1-5/8" width and depth with a maximum allowable length (span) of 23-1/8".

LADDER RUNG LOAD TABLE

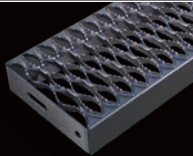
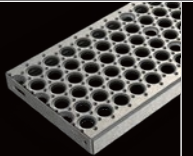
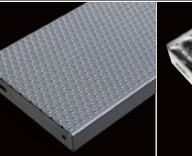
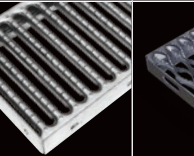
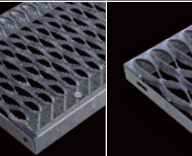
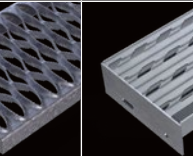

SERIES NAME	GAUGE/THICK	PROFILE (width)	DEPTH (mm)	LBS./LF (kg/m)	LOAD/DEFL	CLEAR SPAN										
						12"	16"	18"	20"	24"	30"	36"	48"	48-3/4"	60"	
ALUMINUM	TRACTION TREAD®	.1250" THICK	2-ROW (1-1/4")	1-1/2" (38.1)	0.56 (0.83)	C	--	--	--	--	659	--	--	--	207	187
			3-ROW (1-5/8")	1-1/8" (28.6)	0.50 (0.74)	C	--	--	--	--	479	--	--	--	242	135
			4-ROW (2-1/4")	1-1/2" (38.1)	0.70 (1.04)	D	--	--	--	--	856	--	--	--	436	248
						C	--	--	--	--	742	--	494	369	--	--
		DIAMONDBACK®	EXTRUSION	VENT/SLD (1-3/4")	1.390" (35.3)	0.75 0.79 (1.11) (1.18)	C	1485	0.016	--	--	--	0.064	0.144	0.256	--
CS/GV STEEL	TRACTION TREAD®	13 GAUGE	2-ROW (1-1/4")	1-1/2" (38.1)	1.18 (1.76)	C	--	--	--	--	680	--	--	--	320	252
			3-ROW (1-5/8")	1-1/8" (28.6)	1.06 (1.58)	C	--	--	--	--	495	--	--	--	187	151
			4-ROW (2-1/4")	1-1/2" (38.1)	1.46 (2.17)	D	--	--	--	--	885	--	--	--	372	274
						C	--	--	--	--	885	--	--	--	372	274
		GRIP STRUT®	14 GAUGE	1-DIA (2-1/2")	1-1/8" (28.6)	1.13 (1.68)	C	--	528	469	422	352	281	234	--	--
							D	--	0.058	0.074	0.092	0.132	0.206	0.297	--	--

C - Concentrated Load - Lbs./Sq Ft of Width at Mid Span **D** - Deflection - in Inches | Additional loading information is available at mcnichols.com. **TRACTION TREAD®** safe load values have a minimum safety factor of 2.0. **GRIP STRUT®** safe load values have a minimum safety factor of 1.5. **DIAMONDBACK®** loading values are based on a fixed span and loading and deflection values are theoretical and based on a tensile bending stress of 19,000 PSI. Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Ladder Rungs and Covers.



PLANK GRATING STAIR TREADS

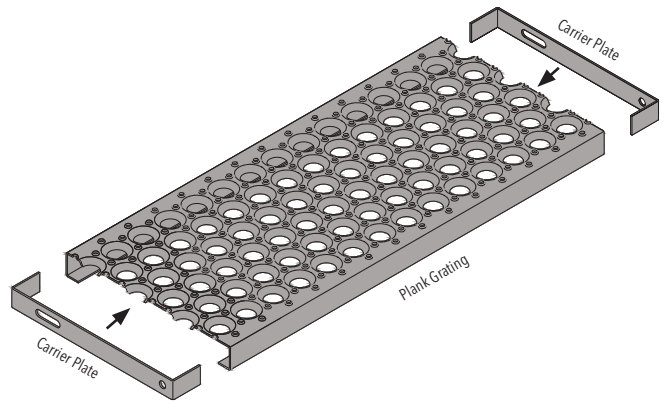
McNICHOLS® Plank Grating Stair Treads are a one-piece construction product formed and punched from metal coil. Most Planks can be cut to your desired length and accept Carrier Plates that are designed to fit into channel ends along the width dimension of the Tread. Carrier Plates (supplied in pairs) have a 2" flange on each end giving strength to Plank channels once inserted and welded in place. Assembled Plank Grating Stair Treads can be welded to structurals or may be fastened to supports using heavy-duty hardware via pre-drilled slots and bolt holes. All Plank Grating Treads have slip-resistant surface properties and we even carry a style that accepts Nosing along the leading edge for visibility and to further enhance footing. Plank Treads are available in Aluminum, Carbon Steel, Galvanized Steel, and Stainless Steel in a variety of thicknesses, depths, widths, and lengths. In addition to the information provided below, item specifications, diagrams, loading information, and more are available at **800.237.3820** or **mcnichols.com**.

STAIR TREAD OPTIONS	PLANK				STAIR TREAD PLANK	HEAVY-DUTY PLANK	EXTRUDED PLANK
							
	GRIP STRUT® No Nosing	PERF-O GRIP® No Nosing	TRACTION TREAD® No Nosing	GRATE-LOCK® No Nosing	GRIP STRUT® 1-1/4" Wide Nosing Shelf	HD GRIP STRUT® No Nosing	DIAMONDBACK® Integral Nosing
MATL	AL, CS, GV, SS	AL, CS, GV	AL, GV	GV	GV	GV	AL
GA/THK	AL: .0800", .1000"; CS, GV: 14, 12; SS: 16	AL: .1250"; CS, GV: 13, 11	AL: .1250"; GV: 13, 11	14	14	10	AL: Extrusion
PROFILE	2-Dia, 3-Dia, 4-Dia, 5-Dia	2-Hole, 3-Hole, 5-Hole, 6-Hole	10-Row, 15-Row, 18-Row	Round-End Slot	4-Diamond-N	2-Diamond, 3-Diamond	Diamond-Vented, Solid
SURFACE	Serrated	Slip-Resistant	Slip-Resistant	Slip-Resistant	Serrated	Serrated	Diamond-Serrated
DEPTH	1-1/2", 2"	1-1/2", 2"	1-1/2", 2"	2-1/2"	1-1/2"	2"	1", 1-1/2"
WIDTH	4-3/4", 7", 9-1/2", 11-3/4"	5", 7", 10", 12"	7", 10", 12"	6", 9", 12"	10-1/2"	9-1/4", 13-3/4"	7", 9", 10", 11", 12"
LENGTH/ SPAN	AL, SS: Up to 36"; CS, GV: Up to 48" Other sizes available	24", 30", 36", 48" Other sizes available	24", 30", 36", 48" Other sizes available	24", 30", 36", 48" Other sizes available	24", 30", 36", 48"	24", 30", 36", 48" Other sizes available	12" to 60"

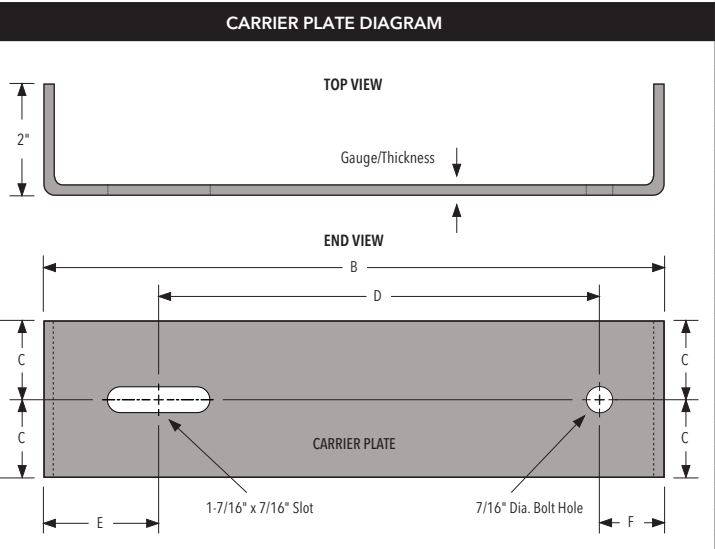
Primary Material Types: **AL** - Aluminum **CS** - Carbon Steel **GV** - Galvanized Steel **SS** - Stainless Steel | Common Stair Tread sizes are displayed in chart above. Other sizes are available. Stair Treads lengths (spans) greater than 48" should be supported with an intermediate stringer. GRIP STRUT® Stair Tread Plank items have a 1-1/4" wide flat shelf on the leading edge of the Plank designed to accept 1-1/4" wide Cast Abrasive Nosing. DIAMONDBACK® Treads with a 1-1/2" depth accept rectangular-shaped Carrier Plates with a built-in shelf for additional support. Each Carrier Plate has a pre-drilled slot and bolt hole for attachment purposes.

PLANK GRATING STAIR TREADS (CONTINUED)

STAIR TREADS				CARRIER PLATES	
SERIES NAME	PROFILE	WIDTH	DEPTH	NUMBER	
GRIP STRUT®	2-Diamond	4-3/4"	1-1/2" 2"	CP-PG-215 CP-PG-220	
	3-Diamond	7"	1-1/2" 2"	CP-PG-315 CP-PG-320	
	4-Diamond	9-1/2"	1-1/2" 2"	CP-PG-415 CP-PG-420	
	5-Diamond	11-3/4"	1-1/2" 2"	CP-PG-515 CP-PG-520	
	4-Diamond-N	10-1/2"	1-1/2"	CP-PG-415-N	
PERF-O GRIP® & TRACTION TREAD®	3-Hole; 10-Row	7"	1-1/2" 2"	CP-PG-720 CP-PG-1015	
	5-Hole; 15-Row	10"	1-1/2" 2"	CP-PG-1020 CP-PG-1215	
	6-Hole; 18-Row	12"	1-1/2" 2"	CP-PG-1220 CP-PG-925	
GRATE-LOCK®	Round-End Slot	9"	2-1/2"	CP-PG-1225	
	Round-End Slot	12"	2-1/2"	CP-PG-925	
HEAVY-DUTY GRIP STRUT®	2-Diamond	9-1/4"	2"	CP-PG-220-HD	
	3-Diamond	13-3/4"	2"	CP-PG-320-HD	
DIAMONDBACK®	Dia-Vented	9"	1-1/2"	CP-PG-930	



CARRIER PLATE DIMENSIONS							
NUMBER	MATERIAL & GA/THK	A	B	C	D	E	F
CP-PG-215	AL: .1000"; CS, GV: 12	1-3/16"	4-1/2"	19/32"	2-5/8"	1-1/8"	3/4"
CP-PG-220	AL: .1000"; GV: 12	1-11/16"	4-1/2"	27/32"	2-5/8"	1-1/8"	3/4"
CP-PG-315	CS, GV: 12	1-3/16"	6-3/4"	19/32"	3-3/8"	2-5/8"	3/4"
CP-PG-320	AL: .1000"; GV: 12	1-11/16"	6-3/4"	27/32"	3-3/8"	2-5/8"	3/4"
CP-PG-320	CS: 12	1-13/16"	6-3/4"	29/32"	3-3/8"	2-5/8"	3/4"
CP-PG-415	AL: .1000"; CS, GV: 12	1-3/16"	9-1/4"	19/32"	5-7/8"	2-5/8"	3/4"
CP-PG-420	AL: .1000"; CS, GV: 12	1-11/16"	9-1/4"	27/32"	5-7/8"	2-5/8"	3/4"
CP-PG-420	SS: 16	1-11/16"	9-3/8"	27/32"	5-7/8"	2-3/4"	3/4"
CP-PG-515	AL: .1000"; CS, GV: 12	1-3/16"	11-1/2"	19/32"	8-1/8"	2-5/8"	3/4"
CP-PG-520	AL: .1000"; GV: 12	1-11/16"	11-1/2"	27/32"	8-1/8"	2-5/8"	3/4"
CP-PG-520	SS: 16	1-11/16"	11-5/8"	27/32"	8-1/8"	2-3/4"	3/4"
CP-PG-415-N	GV: 12	1-3/16"	10-1/4"	19/32"	6-7/8"	2-5/8"	3/4"
CP-PG-720	GV: 13	1-11/16"	6-3/4"	27/32"	4"	2"	3/4"
CP-PG-1015	GV: 13	1-3/16"	9-5/8"	19/32"	7"	1-7/8"	3/4"
CP-PG-1020	AL: .1000"; GV: 13	1-11/16"	9-5/8"	13/16"	7"	1-7/8"	3/4"
CP-PG-1215	GV: 13	1-3/16"	11-5/8"	19/32"	9"	1-7/8"	3/4"
CP-PG-1220	AL: .1000"	1-11/16"	11-11/16"	27/32"	9"	1-15/16"	3/4"
CP-PG-1220	GV: 13	1-11/16"	11-5/8"	27/32"	9"	1-7/8"	3/4"
CP-PG-925	GV: 12	2-1/4"	8-11/16"	1-1/8"	4-13/16"	1-15/16"	1-15/16"
CP-PG-1225	GV: 12	2-1/4"	11-11/16"	1-1/8"	7-13/16"	1-15/16"	1-15/16"
CP-PG-220-HD	GV: 10	1-11/16"	9"	27/32"	5-7/8"	2-3/8"	3/4"
CP-PG-320-HD	GV: 10	1-11/16"	13-1/2"	27/32"	9-15/16"	3-9/16"	3/4"
CP-PG-930	AL: .1875"	3-3/32"	9"	T: 2-11/32", B: 3/4"	6-1/2"	1-3/8"	1-1/8"



Primary Material Types: **AL** - Aluminum **CS** - Carbon Steel **GV** - Galvanized Steel **SS** - Stainless Steel

Carrier Plates (supplied in pairs) are designed to fit into channel ends of a Plank Grating Stair Tread along the width dimension. Carrier Plates have a 2" flange on each end giving strength to the channel ends once inserted and welded in place. Assembled Plank Grating Stair Treads can be welded to structurals or may be fastened into place using heavy-duty hardware. The DIAMONDBACK® Carrier Plate information displayed above is compatible with **McNICHOLS DIAMONDBACK®** Extruded Stair Tread Planks with a 1-1/2" Depth. The Stair Tread Plank ends rest on a shelf (3/16" depth), 1-1/2" from the top edge of the Carrier Plate. The Tread ends are welded to the Carrier Plate shelf and to the vertically extruded legs along the width dimension of the Tread. All dimensions listed are within standard tolerances. Technical information provided is for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Plank Grating Stair Treads and related Accessories/Components.

PLANK GRATING ACCESSORIES

McNICHOLS® Accessories complete Hole Product designs with a clean finish, minimal guesswork, and optimal long-term results. Please allow us to start and finish your amazing design with our wide selection of **McNICHOLS®** Plank Grating Accessories!

DESCRIPTION	DIAMOND ANCHOR	Placed in opening, fastens to support	H-BC-10 SADDLE	Slides into opening, fastens to support	ACA	Clamps Planks and supports together
MATERIALS		Galvanized Steel, Stainless Steel		Galvanized Steel, Stainless Steel		Galvanized Steel
PRODUCTS		GRIP STRUT®		Heavy-Duty GRIP STRUT®		GRIP STRUT®
FITS		Plank and Walkway		Heavy-Duty Plank and Walkway		1-1/2" and 2" channel depth
HARDWARE		Available separately		Available separately		Integral with Assembly
DESCRIPTION	J-BOLT	Holds Plank channel flanges to support	MHC CLAMP	Slides into slot, fastens to support	BOLT SEAT	Placed in opening, fastens to support
MATERIALS		Galvanized Steel		Galvanized Steel		Galvanized Steel
PRODUCTS		GRATE-LOCK®		GRATE-LOCK®		PERF-O GRIP®
FITS		2-1/2" channel depth		2-1/2" channel depth		All Plank and Walkway
HARDWARE		Integral with J-Bolt		Available separately		Available separately
DESCRIPTION	MID-SUPPORT CLIP	Fastens channels together at mid-span	SPLICE PLATE KIT	Joins continuous Walkway ends together	McNICHOLS carries many Clips and Fasteners not displayed. Additional items are available at 800.237.3820 or on the web at mcnichols.com!	
MATERIALS		Galvanized Steel		Galvanized Steel		
PRODUCTS		GRIP STRUT®, PERF-O GRIP®, TRACTION TREAD®		GRIP STRUT® Walkway		
FITS		All Plank		4-1/2" channel height		
HARDWARE		Integral with Mid-Support Clip		Integral with Splice Plate Kit		



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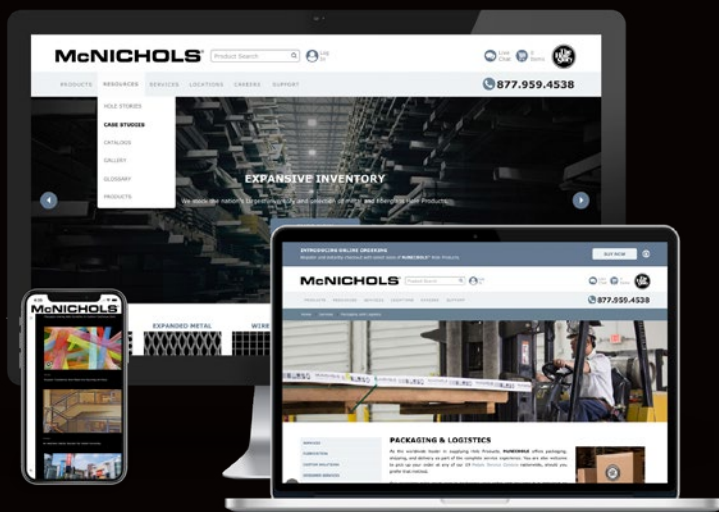


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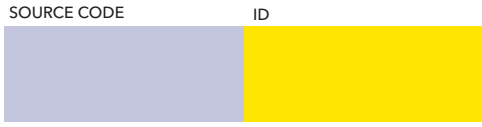
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Since 1952, our strong supply network, in-stock inventory, and nationwide coverage have allowed us to provide the highest levels of service. Today, we continue to work to ensure your business has our unwavering support. We have metal processing equipment at each of our 19 locations and offer fabrication services such as cutting, fastening, welding, and polishing, as well as custom-fabricated Stair Treads, Infill Panels, and platforms. We work with you to meet your individual needs and project deadlines.



Find more at **[mcnichols.com](https://www.mcnichols.com)**

At **McNICHOLS**, our goal is to assist you in selecting the right Hole Products for your design or application. In addition to the many products you will find listed in the pages of our 2020 Master Catalog, you can visit **[mcnichols.com](https://www.mcnichols.com)** for our expanded inventory selection. You will also find in-depth technical resources including product specifications and load tables. If you are looking for inspiration for your next project, you can browse our online application gallery or read the latest post on our blog, Hole Stories. We are eager to assist you at **800.237.3820**, **sales@mcnichols.com**, or via **Live Chat** at **[mcnichols.com](https://www.mcnichols.com)**.



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YOUR HOLE NETWORK

In business for almost seven decades, **McNICHOLS CO.** is North America's leading supplier of "Hole Products," including Perforated and Expanded Metals, Wire Mesh, Designer Metals, Gratings and Flooring Products. Our goal is to be your Nationwide Neighbor through our 19 Metals Service Centers strategically located across the country. With in-stock inventory and metal processing equipment where our customers are located, we aim to serve you through greater and quicker access to items that will fulfill your project needs.



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271 W. 12800 South, Ste. 210-211
Draper, UT 84020

SAN FRANCISCO

174 Lawrence Drive, Ste. G
Livermore, CA 94551

SEATTLE

3400-B Industry Drive East
Fife, WA 98424

TAMPA

9401 Corporate Lake Drive
Tampa, FL 33634

HEADQUARTERS

2502 N. Rocky Point Drive, Ste. 750
Tampa, FL 33607