

serviacero[®]
USA



Product Catalog



Light
Duty

Heavy
Duty

Perimeter
Fences

Architectural
Elements

Stair
Treads



At **Serviacero USA**, we specialize in manufacturing and fabrication of metal bar gratings for light-duty and heavy-duty usage, perimeter fences, architectural elements and stair treads for the following sectors: infrastructure, construction, warehouses, mining, power and energy industries.

We guarantee the reliability of our processes under quality and continuous improvement systems; we are focused on meeting the needs of our customers. We are active members of the NAAMM (National Association of Architectural Metal Manufacturers) association that represents manufacturing standards and electro-forged bar grating engineering designs.

We continually make investments to keep us at the forefront and expand our range of products and services.



Houston, Texas Warehouse

The information contained in this book is only for reference and can change without previous notice.

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NAAMM

Who we are

- 1966** "**Comercial y Aceros de León**" starts operations, a company dedicated to satisfy the industrial necessity for building materials.
- 1974** "**Metales y Aceros**" emerges as a supplier of specialty steel products for machinery and tools used in the footwear and food sector of León, Guanajuato.
- 1980** "**Serviacero de León**" is formed to provide cut and tailored sheets.
- 2000** In order to support the industry and to satisfy the steel necessity of its customers, these three companies are united under the name "**Serviacero**".
- 2005** "**Serviacero Planos**" opens its doors to its second Steel service center in the city of Querétaro. "**Serviacero Comercial**" opens a new Service Center in the city of Celaya, Guanajuato.
- 2006** We complete **40 years** of providing customers with the widest range of steel and service in the country. "**Serviacero Comercial**", opens its doors to its largest distribution center in the city of León, Guanajuato.
- 2007** "**Serviacero Planos**" forms a Joint Venture with **Worthington Industries** to create "**Serviacero Worthington**", projecting them as one of the main suppliers of steel at a national level. "Serviacero Comercial" opens a new Service Center in the city of Morelia, Michoacan.
- 2009** "**Serviacero Comercial**" opens the Morelos Service Center in Leon Guanajuato. In July of the same year, "**Serviacero Worthington**" starts its third new plant in the city of Monterrey, N.L.
- 2013** **Serviacero Comercial** opens its distribution center located in the metropolitan area of Monterrey, with this new distribution center we respond more quickly to our customers in the north of the country and position ourselves in the market as your dependable supplier.
- 2014** **Serviacero Especiales** opened a new service center, located in the city of Monterrey, Nuevo Leon. In this way the company extends its presence in the North of the country. Offering its clients various products and services with the quality and professionalism that has always characterized us.
- 2016** "**Serviacero Electroforjados**" starts operations. They offer the highest quality in electro-forged welded products along with the highest technology.
- 2017** "**Serviacero Comercial**" adds the service of slitter cutting at the Distribution Center. Cutting capacity of up to 31 simultaneous slits.
- 2019** Grand opening of the new **Serviacero Electroforjados** plant, the largest one in Latin America.



Leon, Gto. Plant

Introduction

Definition

Electro-forged grating is the metallic formation composed by the union of bearing bars placed in parallel and cross bars. A combination of an electric arc and hydraulic pressure create the electro-forged which ensures the fusion of the components at each intersection.

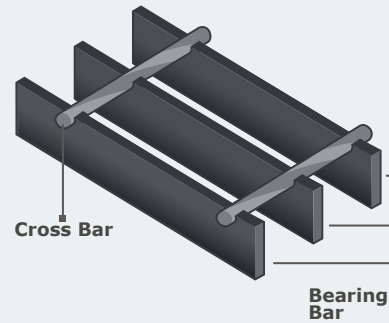


Elements

Electro-forged grating is formed by two elements:

Bearing Bar

Metal bearing bar with low silicon content. It is the element that supports the loads to which the grating is subjected.



Cross Bar

Twisted or flat cross bar. It is arranged transversally with respect to the load bearing bar. It has the function to join and keep the constant distance between the supporting plates.

Identification System

The code used by "Serviacero Grating", is designed for its easy detection of spaces and understanding of the product.

W19-4

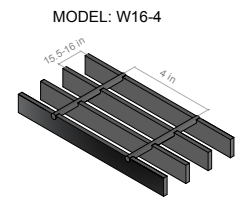
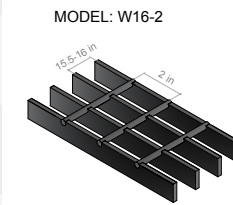
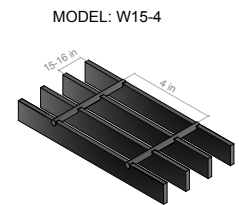
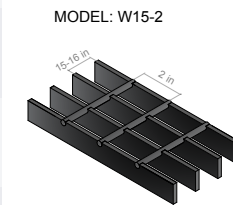
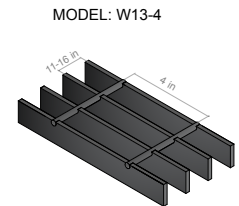
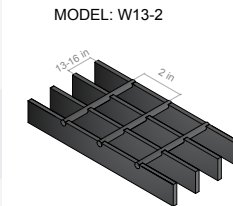
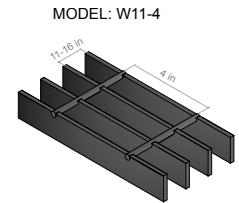
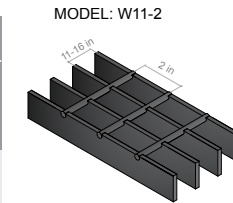
W: Welded
19: Bearing bars spaced 19/16" center to center
4: Cross bars spaced 4 in center to center

W13-2

W: Welded
13: Bearing bars spaced 13/16" center to center
2: Cross bars spaced 2 in center to center

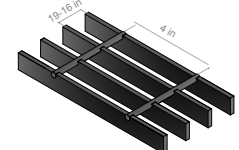
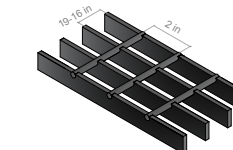
Spacing Types of Electro-forged Grating

MODEL	Spacing	
	SPACING TYPES OF BEARING BARS	SPACING TYPES OF CROSS BARS
W11-2	11/16in	2in
W11-4	11/16in	4in
W13-2	13/16in	2in
W13-4	13/16in	4in
W15-2	15/16in	2in
W15-4	15/16in	4in
W16-2	15.5/16in	2in
W16-4	15.5/16in	4in
W19-2	19/16in	2in
W19-4	19/16in	4in



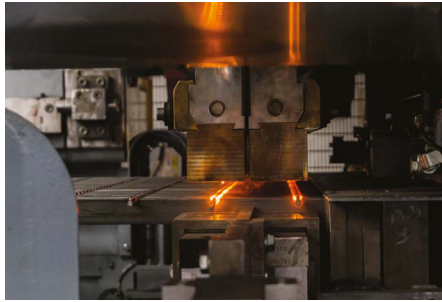
MODEL: W19-2 (STANDARD)

MODEL: W19-4 (STANDARD)



Dimensions:
* Standard grating panels:
2 x 20 ft 3 x 20 ft
2 x 24 ft 3 x 24 ft
* Board cut to special measurements only with plans and subsequently authorized with the engineering area.

Machinery And Technology



At Serviacero USA...

We have the best manufacturing technology, as a result, we produce safe and durable grating. Our team has the capacity to create a correct fusion component through different pressures and electric arcs in the process of electro-forging.



The electro-forged gratings of Serviacero...

They are manufactured in Width (2 and 3 ft) and length (20 and 24 ft), thanks to the size of the machine bed we can offer more largest panel until 4 ft x 30 ft.



The electro-forged gratings of Serviacero...

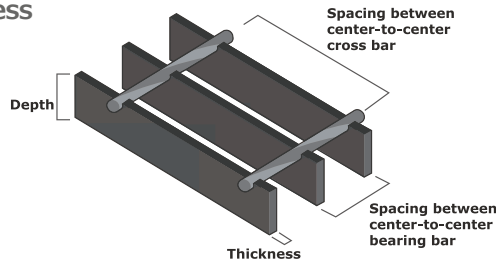
Can be manufactured in 5 different bearing bar spaces.

Equipment Capacities



Bearing bars, thickness and depth

Production capacity in thickness:
1/8" to 3/8 in
Depth: 3/4 to 5 in



Panels

Max span: 4 ft
Max length: 30 ft

Grating Types



Light Duty

Used for...

Construction of offshore platforms, light duty floors, industrial maintenance, mezzanines, mining, boilers, and water treatment plants.

Treads:

We manufacture stair treads from light duty grating that are applicable to: offshore platforms, petroleum and power industry facilities, industrial facilities, among others.



Heavy Duty

There are applications in...

Concrete reinforcements, bridges, drains, vaults, etc.



Architectural Elements

Some applications...

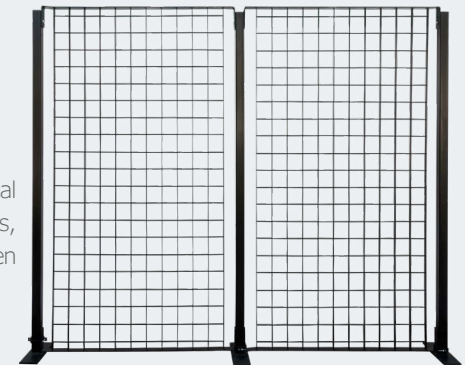
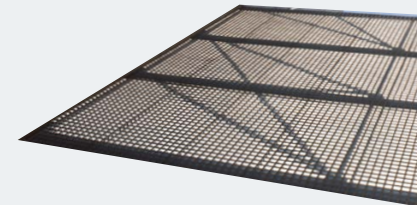
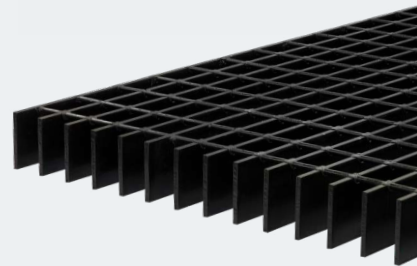
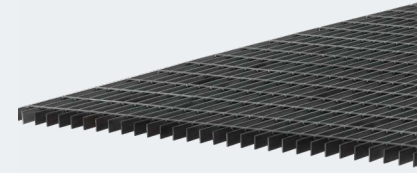
Facades, louvers, architectural lattices, decorative elements in floors, ceilings, among others.



Perimeter Fences

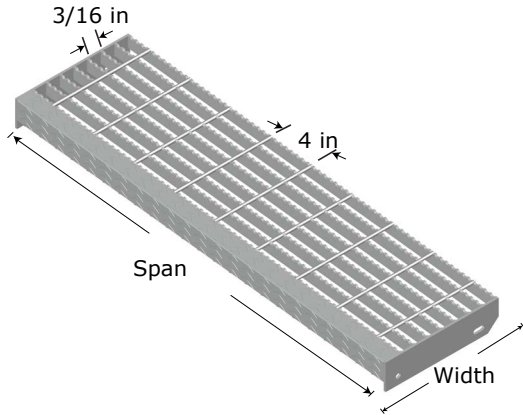
Designed for the usage as...

Perimeter and mobile fences, lattices, ecological protections, in addition to applications in airports, shopping centers, hotels, maintenance, green areas, etc.



Surface and Finish

SURFACE	FINISH	MODEL
FLAT	Mill (bearing bar and cross bar uncoated) Paint (water based coating)	W19-4
SERRATED	Galvanized (galvanized standard ASTM A-123) Powder Coating (applied electrostatically and cured under heat)	



Surface and Finish

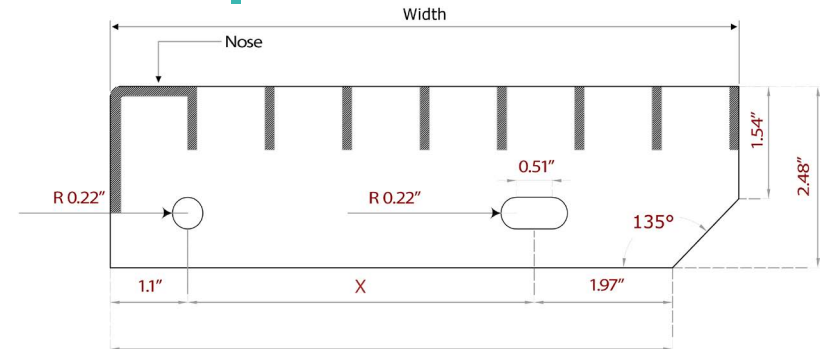
Width (in)/(mm)	Maximum Tread Length*			
	1 3/16 (in)/ 30.16 (mm)		15/16 (in)/ 24 (mm)	
	Flat	Serrated	Flat	Serrated
3/4 x 3/16 (19 x 5)	2' - 4" (.71m)	-	2' - 8" (.81m)	-
1 x 3/16 (25 x 5)	3' - 5" (1.04m)	2' - 10" (.86m)	4' - 0" (1.22m)	3' - 4" (1.02m)
1 1/4 x 3/16 (32 x 5)	4' - 8" (1.42m)	4' - 2" (1.27m)	5' - 1" (1.55m)	4' - 6" (1.37m)
1 1/2 x 3/16 (38 x 5)	5' - 6" (1.67m)	5' - 3" (1.60m)	5' - 6" (1.67m)	5' - 6" (1.67m)

Note: When tread length exceeds 5' - 6" (1.67m), design tread for 300 lb (1.33kN) concentrated loads at one-third points

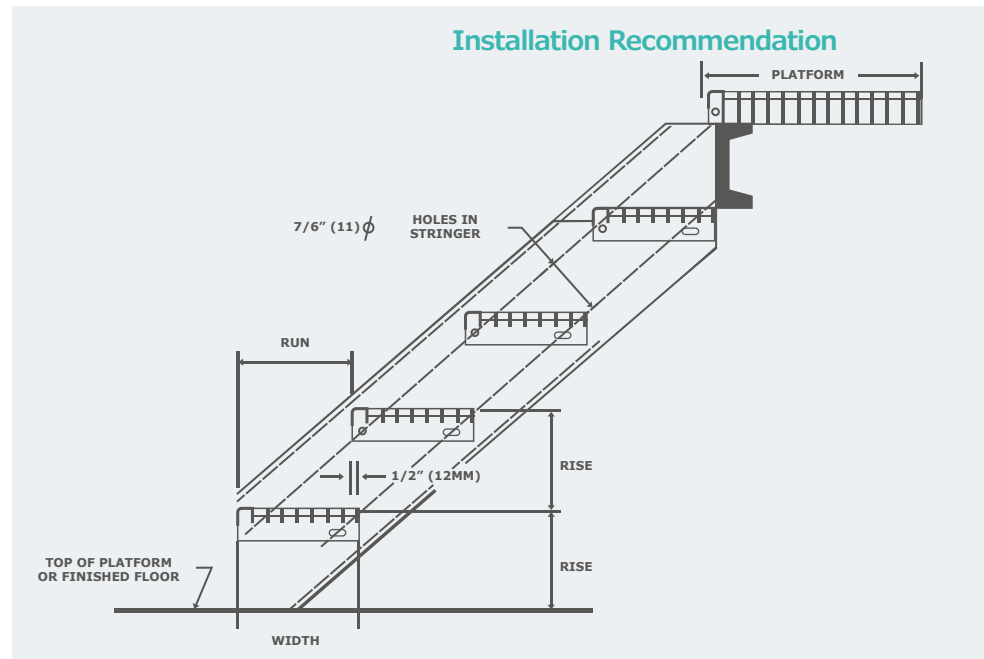
In case you need any other combination not mentioned, please consult your sales representative.

AVAILABLE WIDTH	8 2/3"	9 5/6"	11"	12 1/5"
"X" DISTANCE BETWEEN HOLE CENTERS	4 1/2"	7"	7"	7"
WIDTH RECOMMENDED TO TREAD				
MOD	W19			
WIDTH	8 2/3"	220 mm		
	9 5/6"	250 mm		
	11"	280 mm		
	12 1/5"	310 mm		

Side Plate Detail



Installation Recommendation



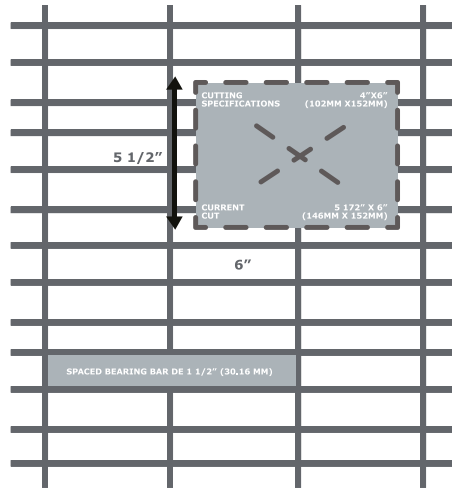
Requirements General Installation

Obstructions

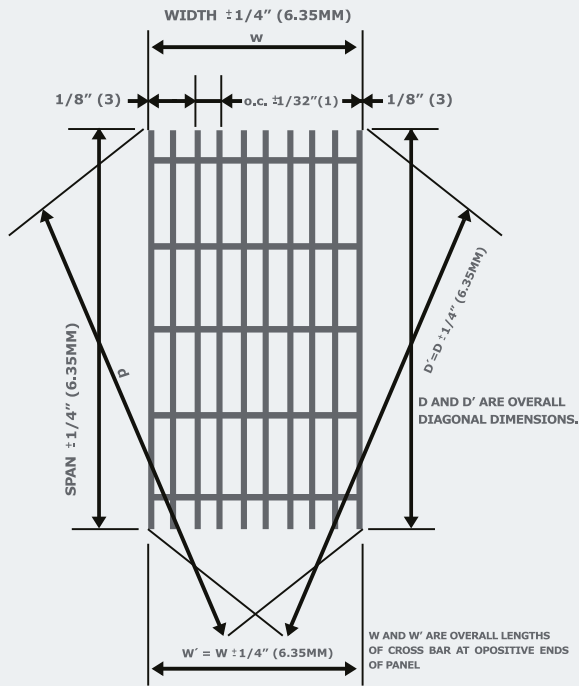
Clearances shown are recommended but, vary in accordance with dimensional tolerances.

Cutouts for circular obstructions are recommended to be at least 2 in. (51 mm) larger in diameter than the obstruction. It is further recommended that cutouts for all piping 4 in. (102 mm) or less in diameter be made in the field.

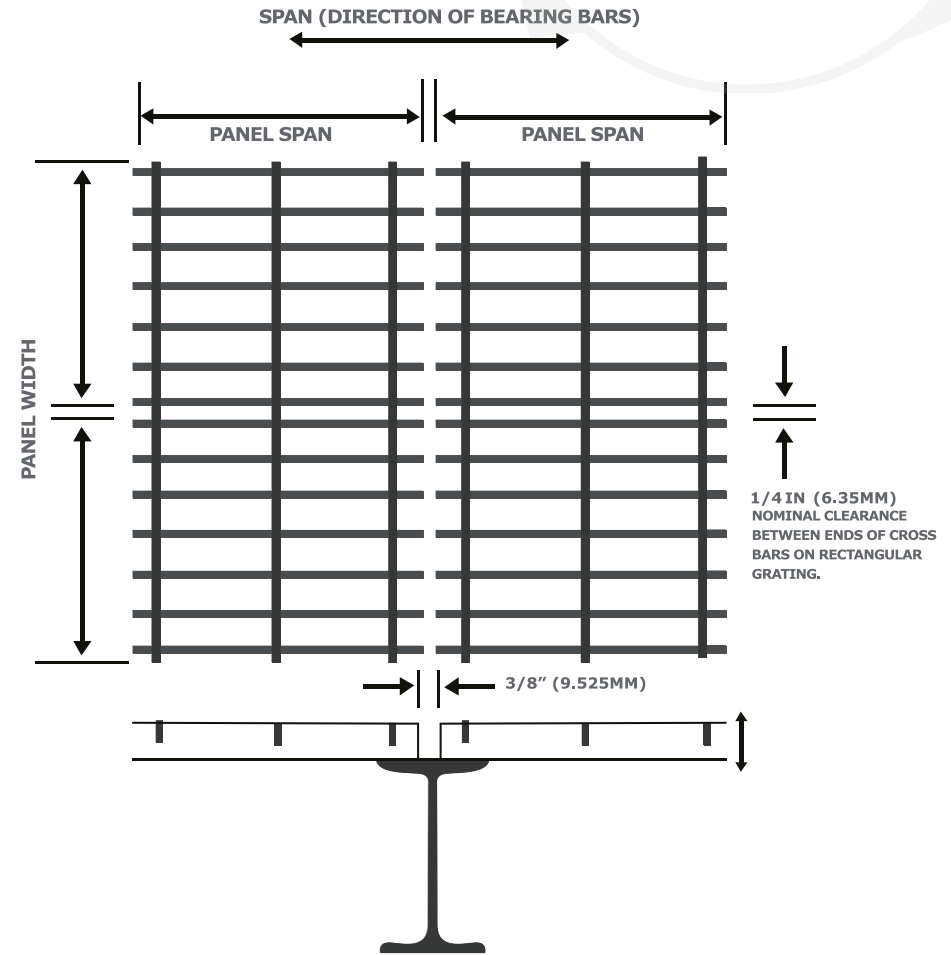
As shown in the drawing below, all rectangular cutouts are made to the next bearing bar beyond the penetration with a clearance not to exceed bearing bar spacing.



General Dimensions



Standard Installation Clearances



Bar Grating Fasteners

BAR GRATING FASTENERS

Manufactured in carbon steel sheet, ASTM A-36, gauge 14, with a final finish at your own discretion and selection (either electrolytic galvanized or galvanized by immersion).

FINISH

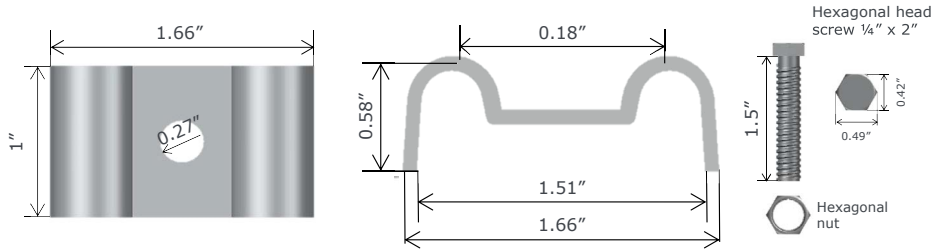
G-type and M-Type
IRON ELEMENT FOR BAR GRATING
GALVANIZED BY IMMERSION

The bar grating clips are very safe and strong, with high response to traffic.
You just need a key to install them.

- Available for a distance of 30.2 mm among bearing bars (standard bar grating separation "W19")

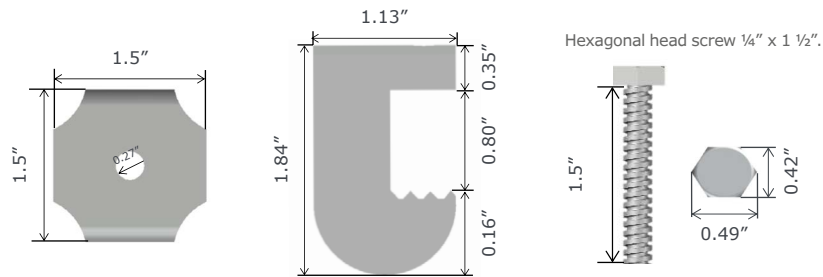
It is necessary to anchor the bar grating to the structure and it is advisable to place 4 clips for each meter. That is to say, in the four corners of each meter, approximately.

Type M



Clips are used to attach the bar gratings to the structures. They are applied with simple hand tools and no welding is needed.

Type G



Clips are used to attach the bar gratings to the structures. They are applied with simple hand tools and no welding is needed.



National Association of Architectural Metal Manufacturers

Architectural Metal Products Division
Detention Equipment Manufacturers Association Division
Expanded Metal Manufacturers Association Division

Hollow Metal Manufacturers Association Division
Metal Bar Grating Division
Expanded Metal Lath Association Division

February 27, 2024

To Whom It May Concern:

Please allow this letter to serve as confirmation that *Serviacero Electroforjados SA DE CV* in Mexico is a member in good standing with the National Association of Architectural Metal Manufacturers and its Metal Bar Grating division and is entitled to all rights and privileges of membership.

As such, *Serviacero Electroforjados SA DE CV* endorses the technical product standards and specifications published by the MBG Division.

Should you have any questions, please feel free to contact us.

Sincerely,

Jeff Church
Executive Vice President



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serviacero[®]
 The most complete group in integral steel solutions in the country

serviacero
 electroforjados

Manufacturing metal bar gratings for light-duty and heavy duty, perimeter fences and architectural elements.

serviacero
 comercial

We specialize in the processing and commercialization of carbon steel for the metalworking industry, equipment manufacturing and construction industries.

serviacero
 tubulares

Dedicated to manufacturing and production of mechanical tubes for the automotive, home appliance, greenhouse and manufacturing industries.

serviacero
 especiales

Dedicated to the commercialization and processing of bars and plates of alloy steels, aluminums, stainless steels, dimensional measuring equipment and engineering plastics.

serviacero
 WORTHINGTON

Dedicated to the processing and commercialization of steels and flat aluminum, for the automotive industry, heavy equipment, electronics and appliance amongst others.

serviacero
 componentes

We specialize in the manufacturing of metal components for the industry through cutting, bending, machining, welding and painting processes.

serviacero
 ORBIS

We design and manufacture solutions for packaging products which includes racks, containers, baskets, dollies, pin pallets and assembly for the industry.

CONTACT

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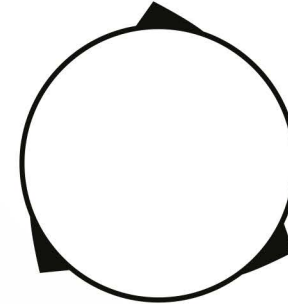
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