



TIANJIN WODON

NEW MATERIAL TECHNOLOGY CO., LTD

- Chromium Carbide Overlay Wear Plates
- Flux Cored Welding Wires
- Wear Resistant Hardfacing Pipes
- Wear Parts and Wear Liners



ABOUT WODON

Founded in 2004, Wodon Group focus on manufacturing and R&D of wear resistant materials. We are committed to creating comprehensive wear solutions for our customers.

3 Major Intelligent
Manufacturing Bases

Products Sell Well in 60 Countries
and Regions Around the World

Factory Area Covers
150,000 m²

Hold over 70 Independent Intellectual
Property Rights and Patents

Has More than 500
Employees

Possess Expertise in over 100 Specialized
Formula Technologies

With ISO certified, we are professional in flux cored hardfacing welding wires, CCO wear plates, smooth CCO wear plates, wear pipes and wear parts. Our products are widely used in mining industry, steel industry, power plant, cement plant and engineering machinery etc. Wodon is particularly strong on R&D of welding consumables. We achieved successfully more than 70 IPR rights and patents, and won good reputation and trust of customers all over the world.

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Company History

Started from a small factory built up in 2004, we Wodon company grow up to the top manufacturer of wear materials with 3 manufacturing bases in Tianjin, Jiangsu and Hebei provinces. The production capacity increased a lot to meet the market demands. The technologies are improved to supply more cost-efficient products. Wodon is getting more and more popular in wear industry.

2004

Beijing factory established



2017

Tianjin branch established



2020

Jiangsu factory established



2014

Tianjin factory established



2019

Hebei factory established



Company Honor

Wodon company keeps investing and innovation on improvement of processing and technology. We currently have more than 70 invention patents and are entitled as "High-tech Enterprise" by government. We are also awarded as "Specialized and Special New SME". This consistent growth and development over years is a source of great pride for our company.



Invention Patent and Practical Patent



New High-tech Enterprise

Third Party Test Report

Production Capacity

Nowadays, we have more facilities to support our production capacity.

8 production lines for hardfacing welding wires

138 sets of CCO wear plate welding platforms

25 sets of processing machines including plasma cutting machines, laser cutting machines, bending machines, automatic hardfacing machines for wear pipes etc.



Annual output of wear plates

260,000+m²



Annual output of welding wires

16,000+ tons



Annual output of wear parts

12,000+ tons



Flux cored welding
wire workshop



Overlay wear plate workshop



Laser cutting machine



CNC underwater plasma
cutting machine



Wear pipe hardfacing machine



Multi functional bending machine



Press machine



CNC planer milling machine

R&D Ability

Innovation is our core value. As a high-tech enterprise, Wodon has a strong and steady team on R&D of wear materials. We keep long-term cooperations with Universities and research institutes such as Beijing University of Technology, Iron and Steel Research Institute, Beijing Electric Power Equipment Research Institute. We target at improvement of technology and new products.

Wodon invests over 5 million CNY annually in R&D and has mastered over 100 specialized formulas. With strength on research, we are much stronger on customerization, both on flux cored welding wires and special chemical composition wear plates.



Vickers Hardness Tester



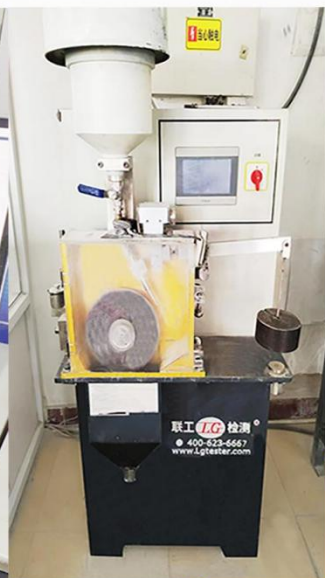
Metallographic Microscope



Desktop Rockwell Hardness Tester

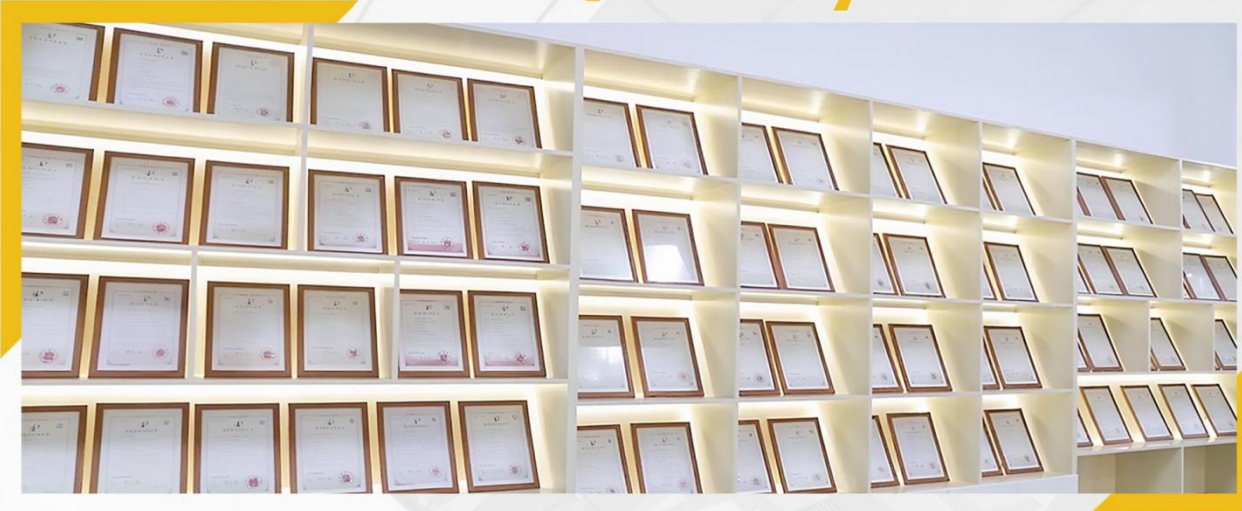


Germany Spectro Spark Direct Reader



ASTM G65 Dry Sand Rubber Wheel Abrasion Tester

Quality Control



As the ISO certified company, Wodon pays more attention on quality inspection, from the raw materials to the finished products. We have materials inspection, spot inspection, production on-site inspection and inspection before delivery.

We controls well on the thickness, the hardness, the chemical compositions and the deposition efficiency. Strict inspections help us keep steady quality.



Portable Thickness Gauge



Portable Hardness Tester



Portable Olympus Spectrometer



Portable Surface Roughness Tester

WEAR PLATE



CCO Wear Plates

Wodon CCO wear plates use wear plate welding wires or powder metallurgy cladding technology to deposit single layer or multiple layers of wear resistant alloy containing a high volume of hard chromium carbide particles are deposited onto a medium or low carbon steel base plate. Special elements can be added upon request to form carbides with specific functions, enhancing the surface quality and wear resistance of the wear plate.

Outstanding Advantages

Chromium content

27%-45%

Carbide fraction volume

30%-60%

Hardness

58-65HRC

Perfect performance on wear resistance.

15 times higher than low carbon steel

5~8 times higher than heat-treated steel

Flatness: Uniform flatness, $\pm 3\text{mm/m}$

Excellent on extending the service life.

2.5 times longer than domestic wear plates

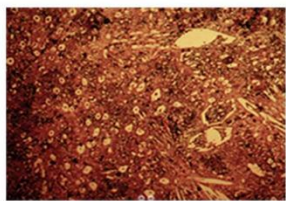
1.5 times longer than imported wear plates

Thickness: Uniform thickness

Product Classification

WD-1000/1100 CCO Wear Plates

Using open arc welding (OAW) technology, single layer or multiple layers of wear resistant alloy with significant amount of hard chromium carbide particles are deposited onto a medium or low carbon steel base plate.



METALLOGRAPHIC
STRUCTURE

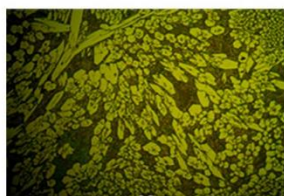
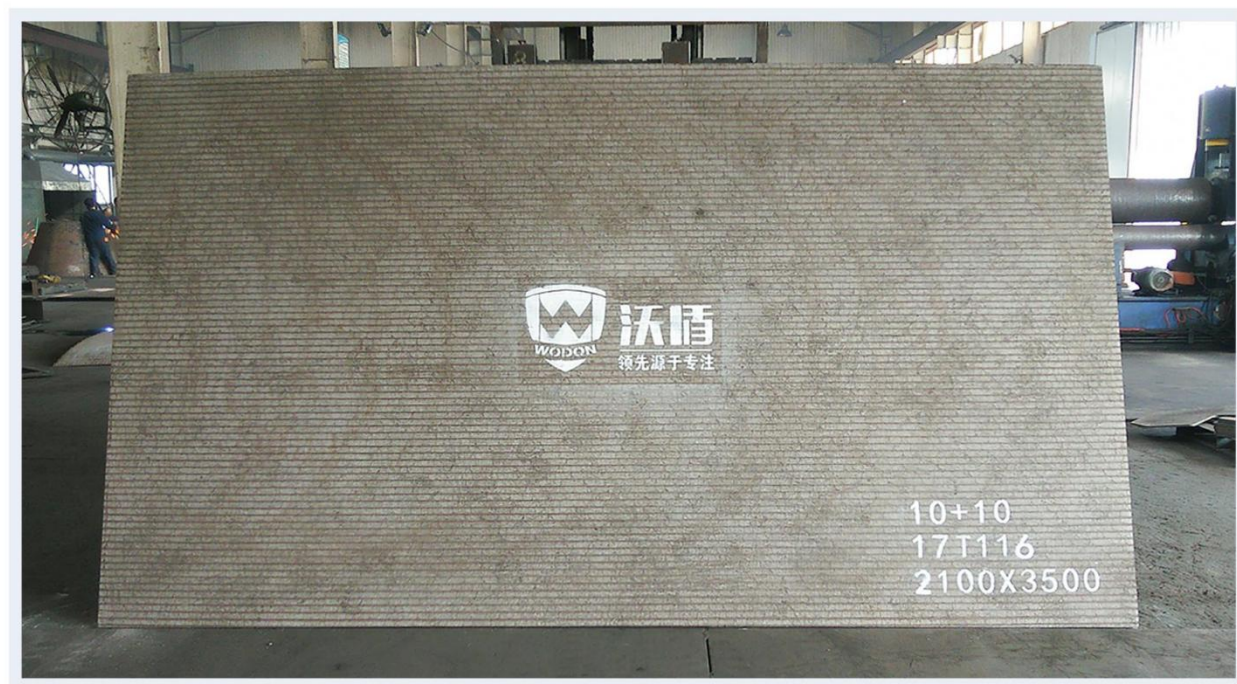
Advantages >>>

- Good surface; Fine cracks in the overlayer
- Withstand medium and low levels of impact
- Uniform thickness and easy to process

Product Specifications	Customized wear plates are available		
Standard plate size (mm)	1400*3500	1500*3000	2000*3000
Overlayer thickness (mm)	2 ~ 50		
Base plate thickness (mm)	4.5 ~ 100		
Chemical Composition	The chemical content defers to the thickness		
C content	3.0 ~ 5.0%		
Cr content	18 ~ 30%		
Cr7C3 fraction volume	About 30%		
Hardness	58 ~ 65 HRC		

WD-1200/1500 CCO Wear Plates

Using submerged arc welding (SAW) technology, single layer or multiple layers of wear resistant alloy with a large amount of hard chromium carbide particles are deposited onto a medium or low carbon steel base plate via powder metallurgy.



METALLOGRAPHIC STRUCTURE

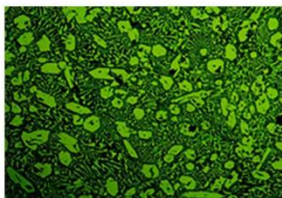
Advantages >>>

Good surfacing forming; Fine cracks in the overlayer
Superior quality and easy to process
Withstand medium and low levels of impact

Product Specifications		Customized wear plates are available		
Standard plate size (mm)		1400*3000	1400*3500	2100*3500
Overlayer thickness (mm)		4 ~ 50		
Base plate thickness (mm)		4.5 ~ 100		
Chemical Composition		The chemical content defers to the thickness		
C content		3.0 ~ 7.0%		
Cr content		25 ~ 45%		
Cr7C3 fraction volume		30%~60%		
Hardness		58 ~ 65 HRC		

WD-1900 Smooth CCO Wear Plates

Using submerged arc welding Integral molding process, the wear resistant layer and base plate are well fused, with a smooth surface and no welding beads. Ideal for conveying powders and slurries in mining and cement applications, ensuring smooth material flow.



**METALLOGRAPHIC
STRUCTURE**

Advantages >>>

Smooth surface; No visible cracks on the surface
Low friction coefficient; Minimize blockages in transit
Withstand medium and high levels of impact

Product Specifications		Customized wear plates are available	
Standard plate size (mm)		1000*3000	1200*3500
Overlayer thickness (mm)		6 ~ 20	
Base plate thickness (mm)		6 ~ 20	
Chemical Composition		The chemical content defers to the thickness	
C content		2.5 ~ 5.0%	
Cr content		26 ~ 40%	
Cr7C3 fraction volume		35 ~ 50%	
Hardness		55 ~ 65 HRC	

Product Classification

WD-G900 series Welded Overlay Wear Plates

Heat resistant wear plates, up to 850 °C in maximum.

Product Specifications	Customized wear plates are available		
Standard plate size (mm)	1400*3000	1400*3500	2100*3500
Overlay thickness (mm)	4 ~ 50		
Base plate thickness (mm)	5.5 ~ 100		
Chemical Composition	The chemical content defers to the thickness		
C content	3.0 ~ 7.5%		
Cr content	25 ~ 45%		
Mo, Nb etc.	Customized according to customer requirements		
Cr7C3 fraction volume	30 ~ 60%		
Hardness	58 ~ 65 HRC		

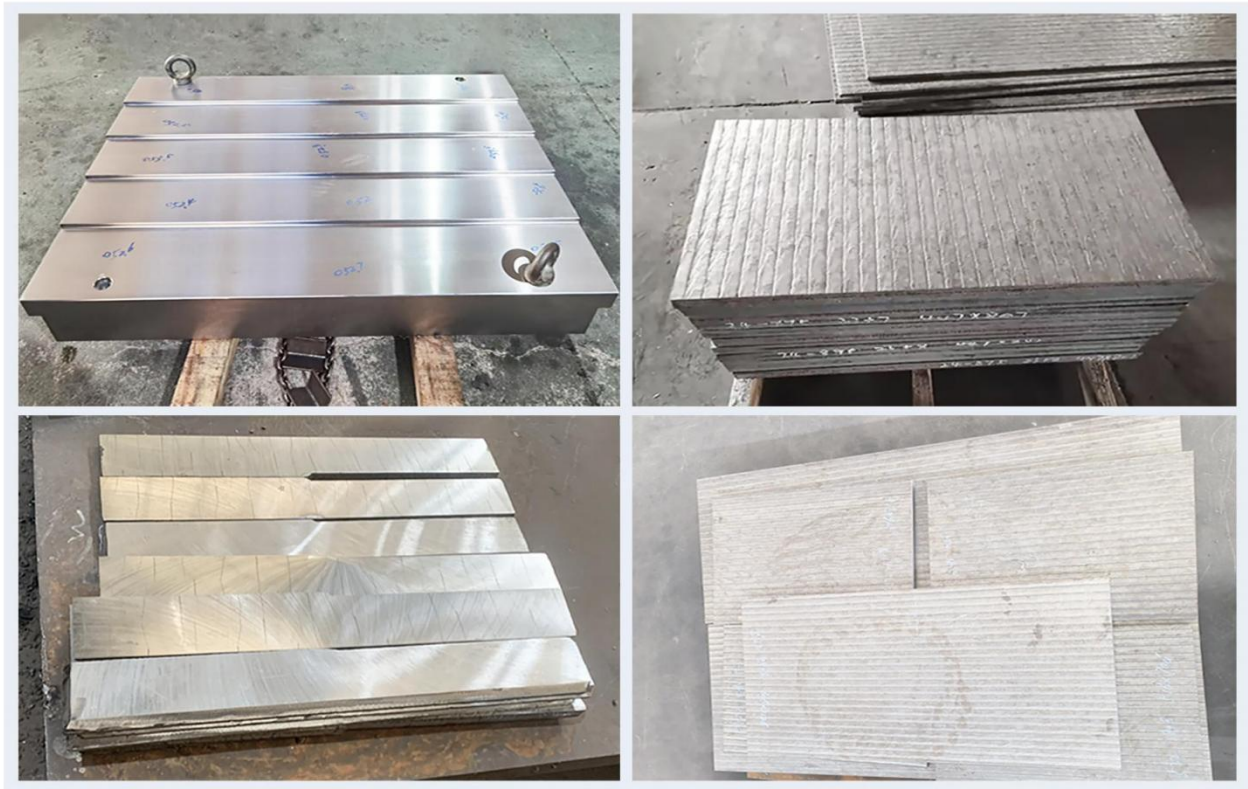
WD-1600 series Welded Overlay Wear Plates

Impact resistant wear plates, independently developed R&D, suitable for medium to high impact.

Product Specifications	Customized wear plates are available		
Standard plate size (mm)	1400*3000	1400*3500	2100*3500
Overlay thickness (mm)	4 ~ 50		
Base plate thickness (mm)	5.5 ~ 100		
Chemical Composition	The chemical content defers to the thickness		
C content	3.0 ~ 7.0%		
Cr content	25 ~ 40%		
Nb etc.	Customized according to customer requirements		
Cr7C3 fraction volume	30 ~ 60%		
Hardness	55 ~ 65 HRC		

WD-NC100 series Welded Overlay Wear Plates

Crack free wear plate, mainly used for sliding block and sliding plates in rolling mill.



Product Specifications

Customized wear plates are available

Standard plate size (mm)	/
Overlay thickness (mm)	5 ~ 15
Base plate thickness (mm)	≥20
Hardness	≥45 HRC

WD-D3000 series Special Custom Wear Plate

Customized wear plates according to requirements with special compositions for special applications.

Product Specifications

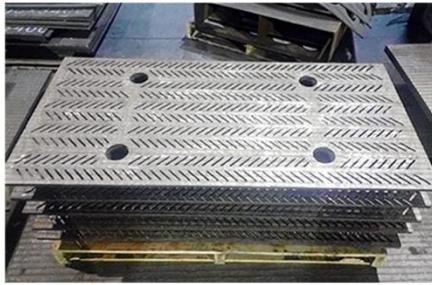
Customized wear plates are available

Standard plate size (mm)	1400*3000	1400*3500	2100*3500
Overlay thickness (mm)	4 ~ 50		
Base plate thickness (mm)	5.5 ~ 100		
Hardness	58 ~ 65 HRC		

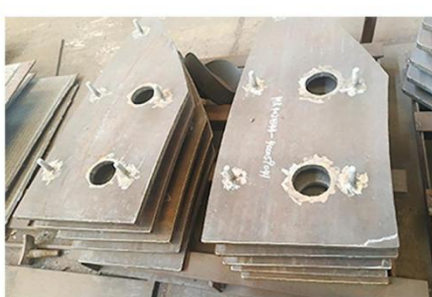
Wear Parts

Processing Technology

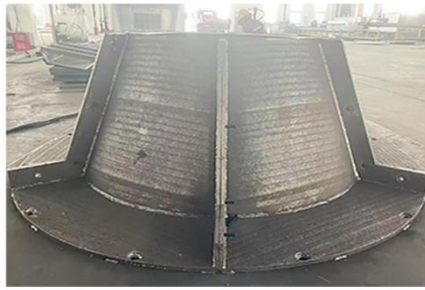
Holes Cutting



Embedded Bolt Welding



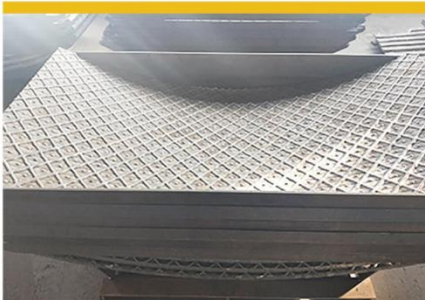
Assembly Welding



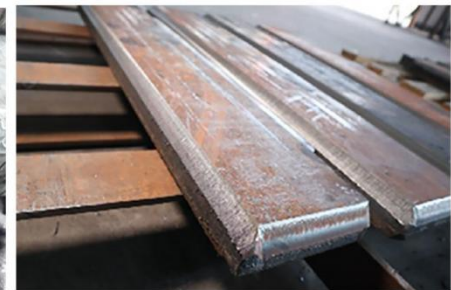
Bending



Grid Hardfacing

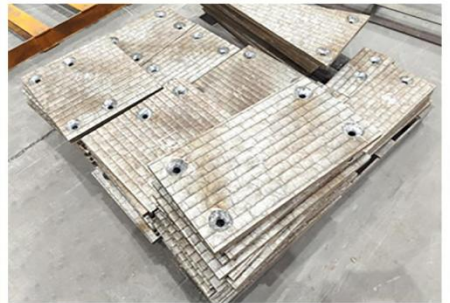
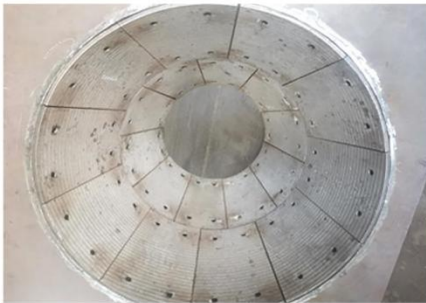
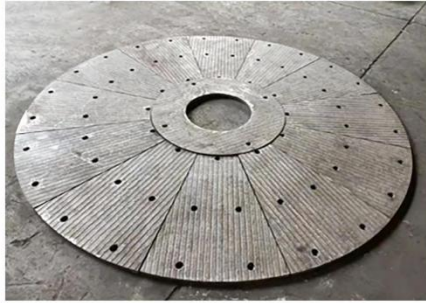


Groove Process



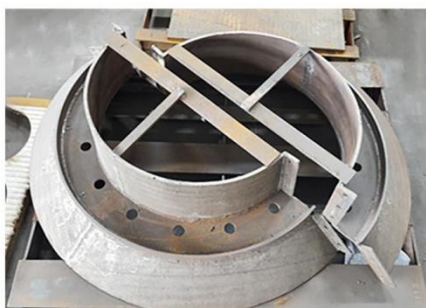
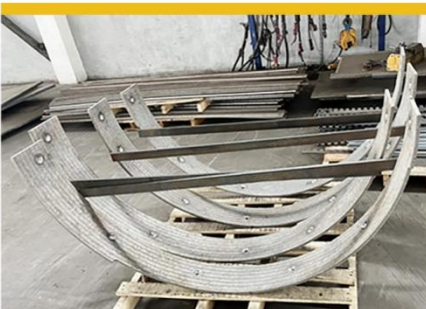
Product Display

Flat Liners

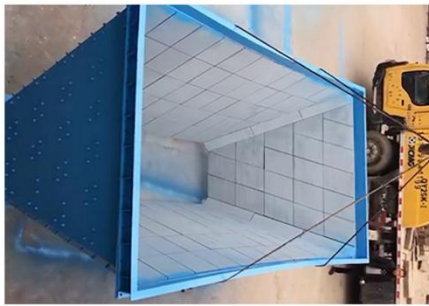


Curved Liners

WEAR LINERS



Chute Liners



Bucket Liners

WEAR LINERS



Applications



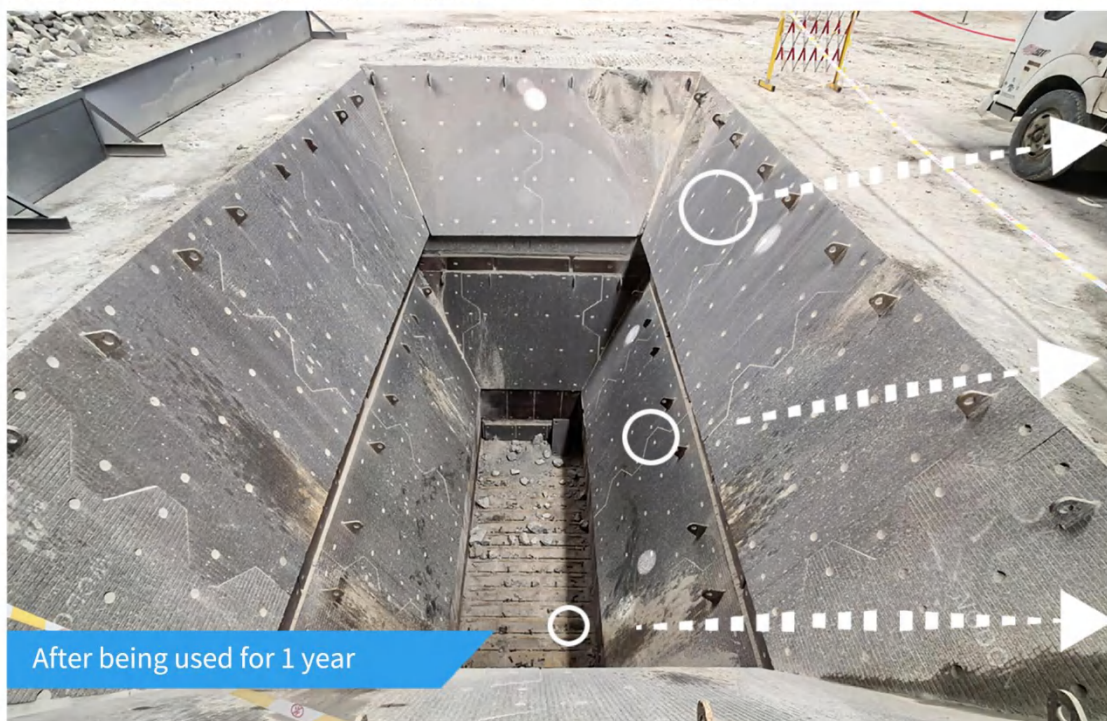
At the initial stage of installation



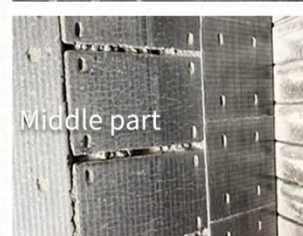
Feeder hopper



Product delivery



After being used for 1 year





Wear Resistant Hardfacing Pipe

Wodon wear pipes can be processed into different specifications and sizes. According to customer needs, customized special-shaped pipes such as elbows, tees, Y-shaped tees, concentric or eccentric reducers, U-bends, and crossovers can be made.



-  Straight pipe + wear resistant layer automatic hardfacing online with good welding performance and smooth surface
-  Using wear plate to bend into round pipe or to assemble square pipes
-  Fully automatic metallurgically hardfacing and combined with Min. Φ 80 mm and Max. 6000 mm long straight pipe



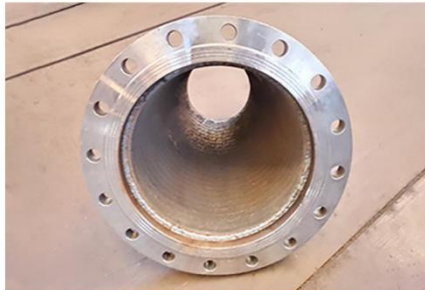
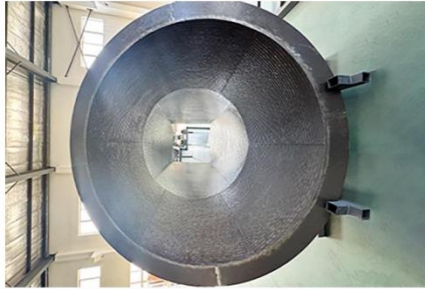
Multiple connection options are available for pipe ends, such as standard flanges, high pressure flanges, threaded nipples, or pipe clamps.



Wodon CCO wear pipes are suitable for conveying various materials, such as aggregate, mortar, cement, coal ash, ores, gravel, limestone, magnetite, mill scale, tailings, raw mill feed, slurry, powder, and slag.

■ Product Display

■ Wear Pipes



■ Wear Elbows



Industrial Applications



Mining Industry

Truck bed liner hopper liner, material conveying chute liner, crusher components, cover plates, wear resistant rods and plates, power shovels, excavators, slag scrapers, loader buckets, lifting shovels, bulldozer buckets, lifting shovels, material conveying bins, hoppers, pump bodies, etc.

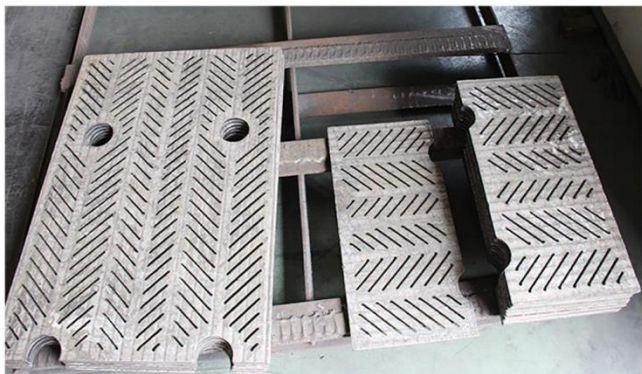




Steel Industry

Steel mill slide plate, slide block, slide shoe, steel mill side baffle, material bin liner, sliding slope, mesh curtain, blast furnace bell cover, material car, blast furnace reinforced steel plate, sintering feeding drum, pipeline, distribution material plate, funnel lining plate, feeding chute, etc.





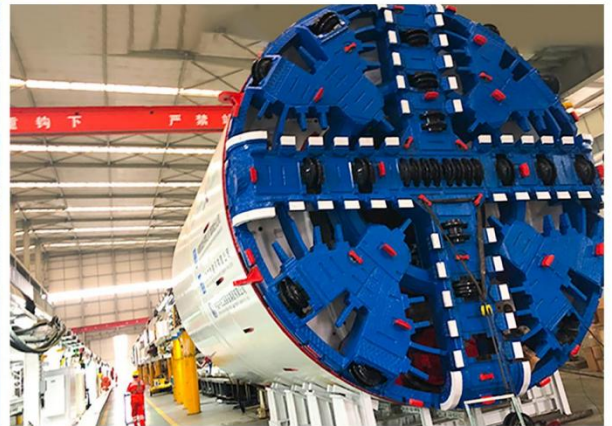
Cement Industry

Powder feeder blades, vertical mixer liners, impact discs, pipelines, pump shells, mill liners, fan shells, separators, crusher parts, slag discharge slots, various chassis, vibrating screen plates, distributors, conveyors, cutting blades, extrusion roller surfacing, grinding roller surfacing, etc.



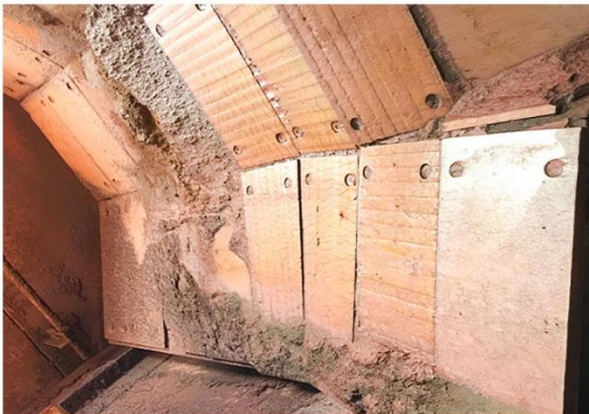
Power Industry

Fan blades, burner pipelines, conveyor and hopper linings, crusher components, air handling systems and conveyors, ash discharge pipes, pipe groove systems, coal feeding tanks, feed pipe grooves, grab hopper material grooves, coal feeding tank pipes, etc.



Other Industries

Stacker-reclaimers, dredger pipeline, screw conveyors, grab bucket, continuous discharge machines, chain bucket excavator, tunnel boring machines, transfer chutes, bulk material handling hoppers, discharge pipes, dredge pumps, etc.



WELDING WIRES



Flux Cored Welding Wires

Wodon, based on the specific needs of customers, has meticulously developed a variety of flux cored welding wires. Our welding wires are widely used in mining industry, steel industry, power plant, cement plant, engineering machinery, ports, and dredging etc.

Outstanding Advantages

<Quality Control>

No joints
No broken arc; Stable arc
No spallations after welding
Uniform stress release

<Deposition Efficiency>

Less spatter
Less smoke
Deposition efficiency
above 90%

<Full Range of Categories>

Independent
R&D capability
More varieties
are available

Diameter 1.2mm, 1.6mm, 2.0mm, 2.4mm, 2.8mm, 3.2mm, 4.0mm

Hardfacing welding wires for single layer, double-layer and multi-layer;

Options Gas shield welding wires for repairing, heat-resistance, impact-resistance;
Hardfacing weldinng wires with special chemical compositions.

Product Classification

Wear Plate Welding Wires

Model	Spec.(mm)	HRC	Main Ingredient	Applications
HD161	2.8、3.2	58~65	C、Cr、Mn、Si	For hardfacing single layer wear plate
HD161+	2.8、3.2	58~65	C、Cr、Mn、Si	For hardfacing single layer wear plate
HD181	2.8、3.2	58~65	C、Cr、Mn、Si	For hardfacing ultrathin wear plate
HD30	2.8、3.2	55~63	C、Cr、Mn、Si	For hardfacing multiple wear plate

Gas Shielding Welding Wires

Model	Spec.(mm)	HRC	Main Ingredient	Applications
D114	1.6	50~55	C、Cr、Mn	For hardfacing hammer head, hammer plate and other high impact parts
D172	1.2、1.6	≥40	C、Cr、Mo	For hardfacing bucket gear, mining machinery and others
D212	1.2、1.6	≥45	C、Cr、Mo	For hardfacing the surface of wear parts, such as gear, digger, mining machinery
D256	1.6	HB≥170	C、Mn	For hardfacing high manganese rail, bulldozer and other wear parts under impact
D313	1.6	45~50	C、Cr	For hardfacing continuous casting roller
D322	1.6	55~63	C、W、Mo	For repairing die and toughening tool and mechanical parts with high wear performance
D405	1.6	53~60	C、Cr、Mo、W、V	For hardfacing hot rolling roll
D430	1.6	35~40	C、Cr	For hardfacing general corrosion resistant parts
D502Mo	1.6	35~45	C、Cr、Mo	For hardfacing valve
D518	1.6	40~50	C、Cr、Mo、Ni	For hardfacing continuous casting roller
D688	1.2、1.6	50~58	C、Cr	For hardfacing heavy wear parts
D788	1.2、1.6	50~60	C、Cr	For hardfacing heavy wear parts
D788A	1.2、1.6	50~60	C、Cr	For hardfacing heavy wear part, single layer welding only
D888	1.2、1.6	58~65	C、Cr	For hardfacing heavy wear parts
D995	1.6	58~65	C、Cr、Nb、W、V	For hardfacing heat resistant wear parts
D688 Welding rod	4.0	50~62	C、Cr	For welding by severe abrasive wear parts

Steel Mill Roller Welding Wires

Model	Spec.(mm)	HRC	Main Ingredient	Applications
D430	2.4、3.2	35~45	C、Cr	For hardfacing common corrosive component
320H	3.2、4.0	~	C、Cr	For hardfacing continuous casting roller
224	3.2、4.0	45~55	C、Cr、Mo、W	For hardfacing hot rolled billet roller
224B	3.2、4.0	50~60	C、Cr、Mo、W	For hardfacing hot rolled billet roller
414N	3.2、4.0	40~50	C、Cr、Mo	For hardfacing continuous casting roller
414-O	3.2、4.0	40~50	C、Cr、Mo	For hardfacing continuous casting roller

Vertical Cement Mill Welding Wires

Model	Spec.(mm)	HRC	Main Ingredient	Applications
HB100	2.8、3.2	58~63	C、Cr、Mo	For repairing Coal grinding mill, Grinding disc, Cement vertical mill
HB100L+	2.8、3.2	58~63	C、Cr、Mo	
HB100+	2.8、3.2	58~63	C、Cr、Mo	
HB350	2.8、3.2	55~63	C、Cr、Mo、Nb	
HB650	2.8、3.2	58~63	C、Cr、Mo、Nb	

Cement Squeeze Roller Welding Wires

Model	Spec.(mm)	HRC	Main Ingredient	Applications
D01	2.8	~	C、Cr、Mo	For base layer
D100Mo	2.8	55~63	C、Cr、Mo	For buffer layer
D650	2.8	55~63	C、Cr、Mo	For pattern layer

Our welding wires are specifically designed for surfacing and repairing equipments and parts. They can effectively withstand medium and strong levels of wear and impact, and also maintain good wear resistance under high temperature conditions, meeting requirements of various working conditions.

Product Display



Dia.: 1.2, 1.6 mm

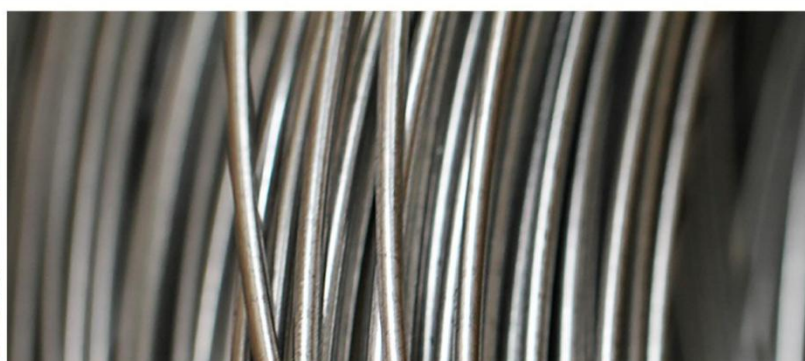
Packed: 15 kg/Spool

Dia.: 2.4, 2.8, 3.2 mm

Packed: 25 or 50kg/Spool

Dia.: 2.4, 2.8, 3.2, 4.0 mm

Packed: 100~250 kg/Drum



HARDFACING & REPAIRING



Hardfacing and Repairing

Hardfacing and Repairing Service

Squeeze Roller Repairing

Our special Squeezing roller welding wires, we guarantee high hardness and abrasion resistance after repairing with a service life after repairing no less than 8000 hours.

[Services] Repair the Squeeze roller in our factory;
Provide the special materials to the customers.

Vertical Mill, Grinding Roller, Mill Disk Repairing

Our company has a professional repairing team for vertical mill, providing cost-effective solutions according to the working condition. The life span of mill disk after welding is twice than the original casting and grinding roller's life span is 1.5 times than the original.

[Services] Hardfacing on new casting products; Vertical mill repairing in our factory;
Provide the special materials and the customers do it by themself.

Wear Parts Repairing

Our company provides professional wear parts repairing, rebuilding, cladding and hardfacing services, to renew or improve wear resistance on the original parts and also prolong service life, bringing economic benefits.

[Services fields] Wear repairing and surface modification.

[Applications] Roll, flange, screw conveyor, crusher bucket teeth, coulter, scraper, mud pump, block ring, four roll crusher roller repair, sintering machine single roll repair, etc.

Hardfacing and Repairing Cases



Wodon Service

With more than 20 years' experience, Wodon has become a popular brand in domestic and global markets. We supply:

Professional technical support

High quality and traceable products

Timely response

Punctual delivery

Perfect after service



12 h Offer Prices



24 h Offer Solutions



48 h Rush to the Site
(within China Mainland)



7 (Day) * **24** (hour)
Telephone Communication



+86 15720600046



■ Manufacturing Base

Tianjin Factory

Jiangsu Factory

Hebei Factory

■ Sales Center

Tianjin Office

Jiangsu Office

Hunan Office

Chat with Wodon on WhatsApp. Stay updated with our latest products, technical insights, and personalized solutions.





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