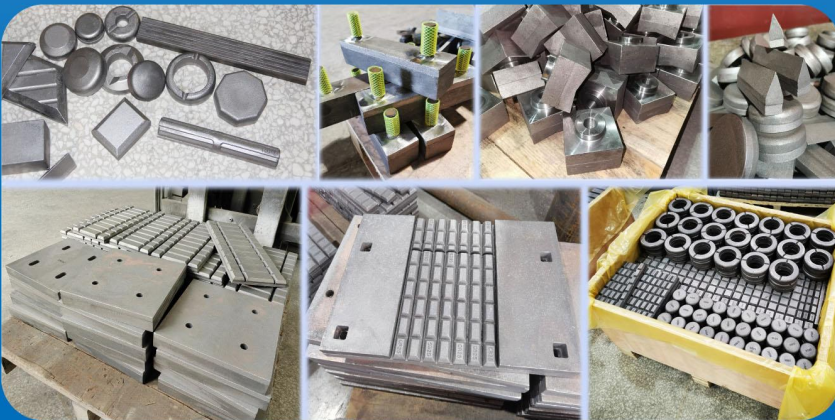




METALLIC WEAR MATERIALS WEAR SOLUTIONS



湖南海斯特材料科技有限公司

HUNAN HYSTER MATERIAL TECHNOLOGY CO.,LTD.

Hunan . China

Main Products & Services

- **HST Bimetallic Wear Materials**

- Wear Plates/Liners
- Chocky bars & Buttons
- Wear Blocks/Bars
- Wear Pipes

- **HST Hard Surfacing Wear Materials**

- Wear Plates/Liners
- Wear Pipes
- Partial Surface Hardening and Repair

- **HST Cast Wear Material**

- White Iron Wear Blocks/Plates
- Nihard Wear Plates/Billets
- Other High Chromium Wear Castings
- Other Metallic Wear Castings

- **Special material design&manufacturing**

- **Wear Solutions**



Main Industries Serve



- **Mining & Quarrying & Mineral Processing**

- Surface Mining
- Underground Mining
- Fixed Plant
- Mill & Crusher

- **Sand,Gravel,Dredging Industry**

- **Sugar Cane Milling**

- **Iron Mill/Steel Plant**

- **Recycling Industry**

- **Other Heavy Industries**





Company profile

Hunan Hyster Material Technology Co., LTD. was founded in 1995 and located in Changsha city, Hunan province, middle of China, covers more than 8000 square meter production site area. We are a professional manufacturer & exporter of composite Bi-metallic wear blocks/wear plates(White Iron brazed with mild steel, hardness 63HRC/725 BHN), high chromium wear castings, Ni-hard wear Liners/Billets, Chromium carbide overlay wear plates, and other metallic wear castings, mainly serve for industries such as Mining, Quarrying, Material conveying systems, Sugar Cane Milling, Iron Mill/Steel Plant, Cement, Sand, Gravel, Dredging, Crushing etc.

The company has passed ISO9001:2015 quality management system certification, ISO14001:2015 environmental management system certification, and ISO45001:2018 occupational health and safety management system certification. The company has been recognized as a high-tech enterprise and a new material enterprise, with strong research and development capabilities, and has established good cooperative relationships with multiple research institutes for talent exchange, product development, and other aspects. We also have a dedicated R&D team that can tailor various products with special requirements (such as wear resistance, corrosion resistance, impact resistance, heat resistance, etc.) and provide professional wear resistance solutions. Since its establishment, the company has carried out a lot of experiments on improving the wear resistance and composite bonding strength, various heat treatment technology on different products, and the selection of wear-resistant alloys under different working conditions. The production process and product performance are continuously optimized. As of now, the company has 7 invention patents and 11 utility model patents.

Over 95% products have been sold to nearly 300 customers in more than 45 countries and regions such as Australia, Canada, Brazil, America, Chile, Argentina, South Africa, Indonesia, Thailand, Mexico, Russia, Holland, as well as many other countries and areas.

As a specialized compound wear material manufacturer, we have a team of expert in field of Casting, High temperature compounding, Machining, Welding, Heat treatment etc. We also established a very strictly quality control system/policy, including casting quality inspection (surface, dimension, inner quality etc.), welding strength inspection, heat treatment inspection, hardness inspection, and micro-structure inspection. Main detecting devices include Hardness Tester, Dry Sand/Rubber Wheel Abrasion Tester (G65), Ultrasonic

Flaw Detector, Metallurgical Microscope, Molding Sand Detector, Mechanical property testers, Spectrometers, Impact testing machine, self-made bending testing machine, falling ball impact testing machine, shear strength testing machine.

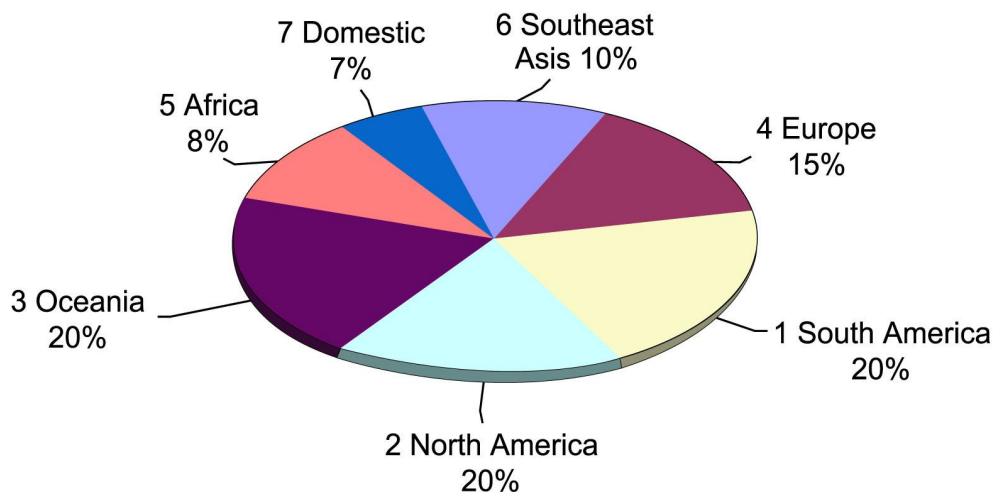
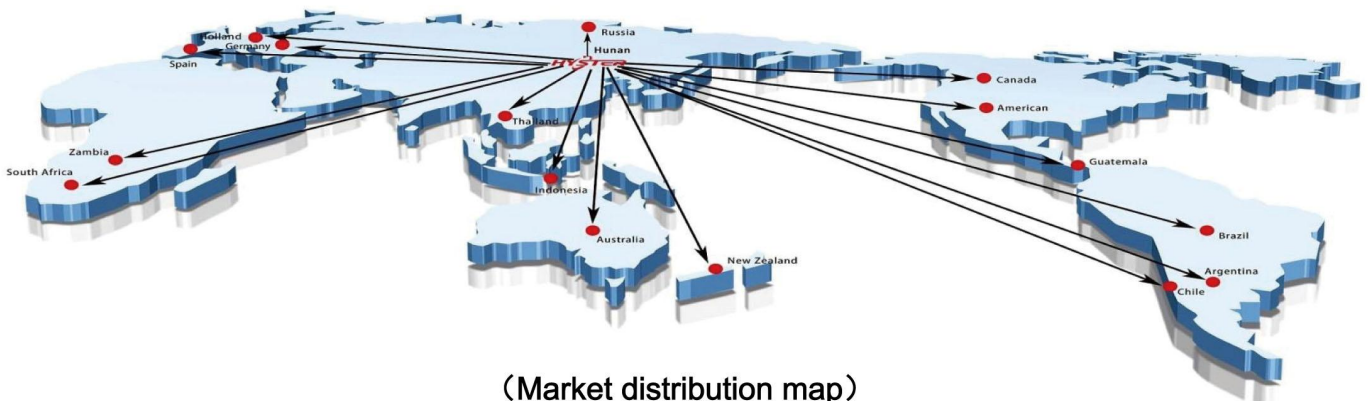
Besides a team of engineers and experts, we also own various of manufacturing facilities and devices as 500kg, 1000kg intermediate frequency induction furnace, coated-sand production line, shell moulding machine, vacuum welding furnace, automatic surfacing welding machine, plasma spray welding machine, bolt welding machine, heat treatment furnace, vertical saw, horizontal saw, Vertical milling, horizontal milling, CNC lathes, surface grinders, drilling machines, hydraulic presses, various shot blasting machines, wire cutting machines, plasma cutting machines, CNC machining centers, carving machine, etc.

Our annual output of bi-metallic wear blocks/bars/plates is more than 4000tons, capable to produce about 1200 different sizes and shapes; annual output of metal wear-resistant castings is more than 6000 tons.

Hyster has its own License for Import and Export and also a professional team of sales staff, who are familiar with English, Spanish, Russian and international logistics.

Top quality with low prices and good services, Hyster people warmly welcome you visit us!

Trade & market

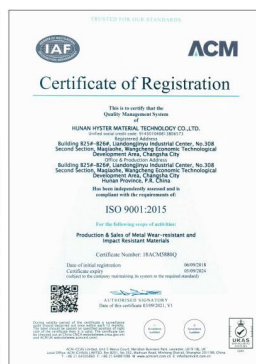
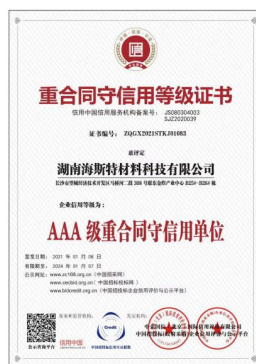
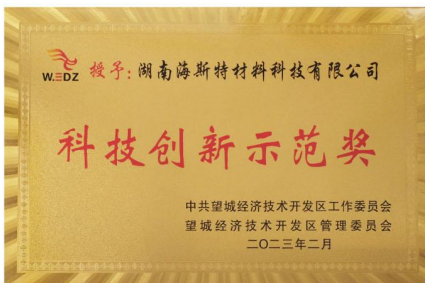


Offices & Workshops & Certificates

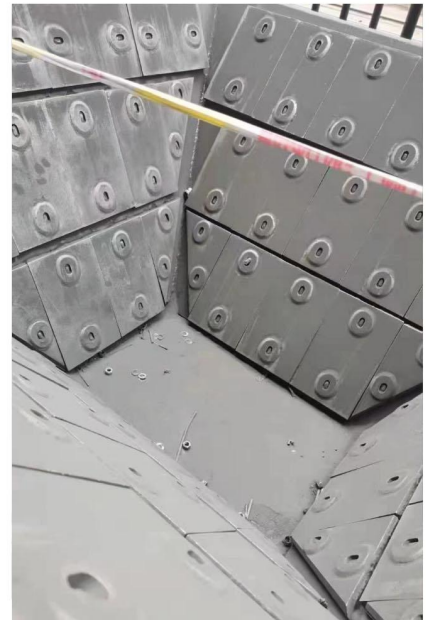
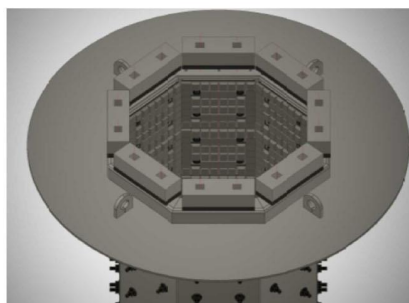
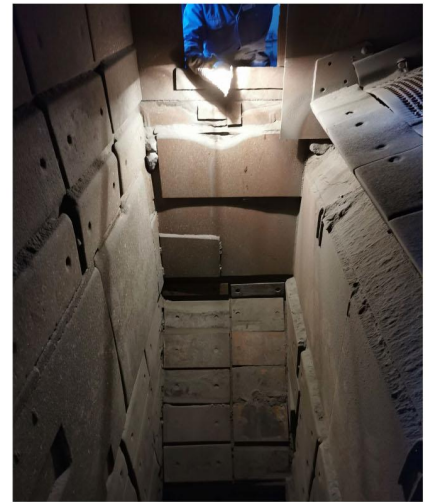
Hunan Hyster Material Technology Co., LTD. owns total 4 factory buildings in Hunan province of China, with all necessary laboratory devices and various honorary certificates on Quality, Safety, Environment, High-tech, Integrity management, etc.

Annually Output/Capacity: more than 4000tons of White Iron Bimetallic Wear Material, more than 6000tons of Wear Iron Castings.

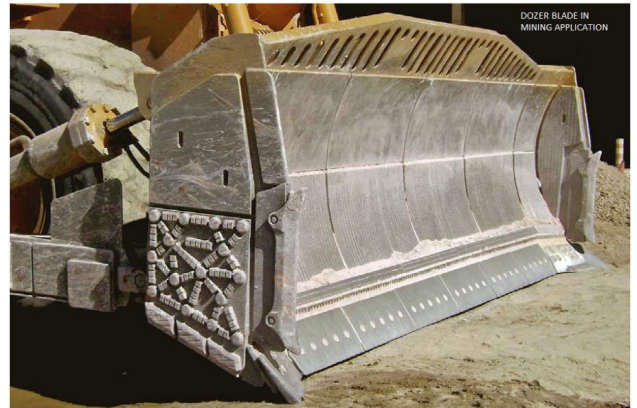
Some display of Offices & Workshops & Certificates



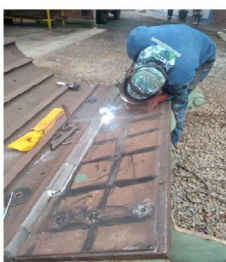
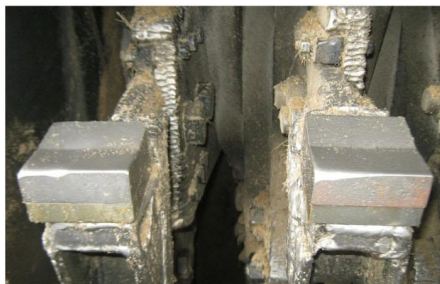
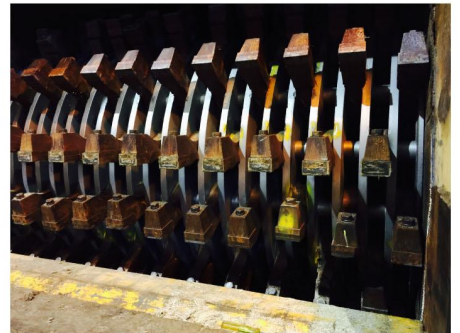
Chute & Crusher Linings



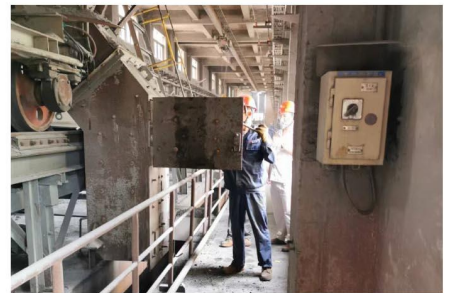
Mining Buckets & Shovels Protection



Sugar Cane Milling

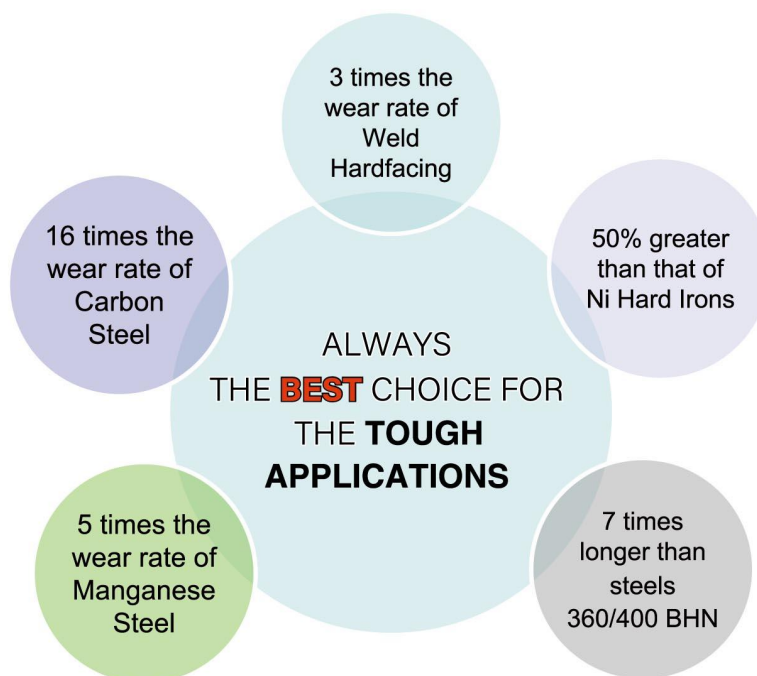


Other Applications



Advantages of HST 725HB Bimetallic Wear Products

-  **Advanced technology and excellent performance**
 - vacuum and high temperature composite
 - 30% longer service life than single CrMo cast iron
-  **Corrosion resistance and high temperature resistance**
 - Acid and alkali corrosion resistance
 - High temperature oxidation resistance
-  **Easy assembly**
 - Excellent welding performance
 - Screw connection is also available
-  **Strong applicability and versatility**
 - Applicable to varies complicated situations
 - Available with different specifications, sizes and shapes



Comparison with other wear materials

MATERIAL	DEFECT	ADVANTAGES	APPLICATION
HST Bimetallic, HB725		1. Good properties of wear resistance, toughness, plasticity, heat resistance, hot hardness. 2. Easy for welding and assembly. 3. Different shapes and sizes available. 4. Smooth and flat surface. 5. High cost-effective. 6. 3 times more higher usage life compared with overlay plates.	1. Widely used in the abrasion wear condition (gouging abrasion, high stress crush abrasion, low stress sliding abrasion). 2. Typically for Bucket protection, liner plate of conveyer, chute, hopper and crusher, hammer, jaw plate, liner plate etc.
Hard Surfacing Overlay, HB650	1. Rough surface finish. 2. Uneven surface. 3. Multiple surface relief cracks resulting in poor rolling and fabrication. 4. High dilution and uneven fusion line results in accelerated wear rates as hardface overlay thickness starts to reduce.	1. Totally metallurgical bonding. 2. Good properties of wear resistance, toughness. 3. Easy to assembly.	
High Manganese Steel, HB250~500	Bad wear resistance when working in low stress and small impact force application	1. Good property of toughness & plasticity. 2. Excellent wear resistance when working in high stress and high impact force application. 3. Not expensive	Very suitable to the working condition with high stress and high impact force.
HARDOX, HB400~600	Low hardness, ordinary wear resistance	Good property of toughness, plasticity, welding. Cheap!	Construction Buckets protection.
Ceramic Composite	Low fracture toughness, bad impact toughness, not suitable for direct impact, easy to break and falling off.	Good wear resistance for low stress abrasion	Wear liner for low stress and small impact force condition.
High Chromium Cast Iron, HB700	1. Bad properties of toughness and plasticity. 2. No weldability.	High hardness, good wear resistance	For low stress and small impact force condition.
Ni-hard Cast Iron, HB650		Toughness & plasticity are better than that of high chromium cast iron	

PRODUCT RANGE>>>

HST 725HB Bimetallic Wear Products



HST Cast Wear Products



HST Hard Surfacing Wear Products



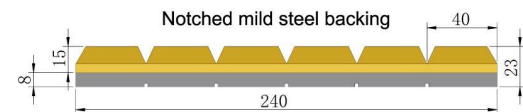
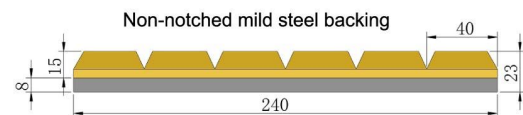
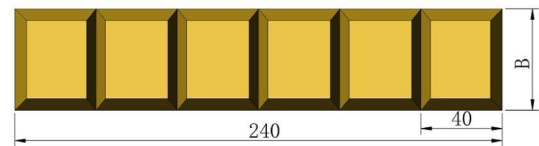
Chocky bars



The unique, formable design of Hyster-Chocky wear bars are available in various lengths, grades and sizes and can also be customized as per the clients specific need. Applications for Chocky Bars are wide and varied, ranging from specific wear protection on buckets for loaders, excavators and draglines machines, or for weld on hammer tips for the re-cycling industry, or chute linings and rock box edges. They are easy to use and install. They can be bent, cut and formed to suit different surfaces.

The standard is 23mm thick, length is 240mm, width could be from 25mm from 150mm. We can also produce according to your special requests

Item No.	Size (mm)	Dimension(mm)				N.W. (kg)
		A	B	C	D	
CB 25	240×25×23	240	25	15	23	0.9
CB 40	240×40×23	240	40	15	23	1.5
CB 50	240×50×23	240	50	15	23	1.9
CB 65	240×65×23	240	65	15	23	2.5
CB 80	240×80×23	240	80	15	23	3.2
CB 90	240×90×23	240	90	15	23	3.5
CB 100	240×100×23	240	100	15	23	3.9
CB 130	240×130×23	240	130	15	23	5.4
CB 150	240×150×23	240	150	15	23	6



Wear buttons

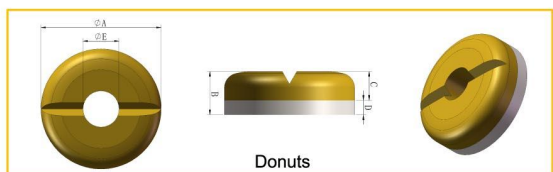
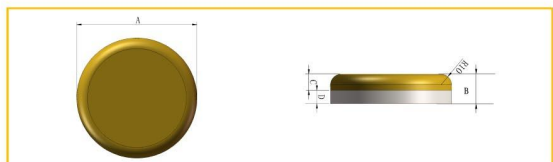
Ideal for smaller areas that require materials resistant to abrasion and impact

Item No.	Size (mm)	Dimension(mm)				N.W. (kg)
		A	B	C	D	
WB 60	∅ 60×27	60	27	17	10	0.7
WB 75	∅ 75×27	75	27	17	10	0.9
WB 90	∅ 90×27	90	27	17	10	1.4
WB 110	∅ 110×32	110	32	20	12	2.3
WB 115	∅ 115×32	115	32	20	12	2.6
WB 150	∅ 150×41	150	41	25	16	5.7



Wear donuts

Item No.	Size (mm)	Dimension(mm)					N.W. (kg)
		A	B	C	D	E	
WD 75	∅ 75×25	75	25	17	8	25	0.7
WD 100A	∅ 100×25	100	25	17	8	50	1
WD 100B	∅ 100×32	100	32	24	8	70	1
WD 130	∅ 130×23	130	23	15	8	80	1.3
WD 148	∅ 148×35	148	35	25	10	108	2.2



Standard wear bars

Hyster wear bars are available in thickness from 25 to 100mm, and width from 150 to 432 mm, and in different lengths

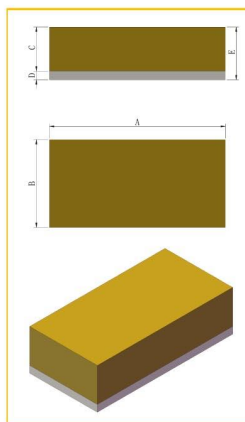
These bars offer superior wear life compared to conventional steel alloys such as manganese, Ni-hard and hardfacing wear plates

Item No.	Size (mm)	Dimension(mm)					N.W. (kg)
		A	B	C	D	E	
HSd 200A	200×25×25	200	25	15	10	25	1
HSd 200B	200×75×75	200	75	63	12	75	8.9
HSd 300A	300×25×25	300	25	15	10	25	1.5
HSd 153	153×38×33	153	38	25	8	33	1.5
HSd 300B	300×38×33	300	38	25	8	33	3
HSd 190A	190×50×30	190	50	20	10	30	2.2
HSd 115	115×50×50	115	50	38	12	50	2.3
HSd 127	127×50×50	127	50	38	12	50	2.4
HSd 150A	150×50×50	150	50	40	10	50	2.9
HSd 190B	190×50×50	190	50	40	10	50	3.7
HSd 210	210×50×50	210	50	38	12	50	4.1
HSd 230	230×50×50	230	50	38	12	50	4.5
HSd 294	294×50×50	294	50	40	10	50	5.8
HSd 300C	300×150×60	300	50	40	10	50	5.9
HSd 300D	300×50×50	300	150	48	12	60	21.1
HSd 432	432×50×50	432	50	38	12	50	8.5
HSd 450	450×38×31	450	38	25	6	31	4.2
HSd 600	600×50×50	600	50	38	12	50	11.8
HSd 150B	150×25×39	150	75	29	10	39	3.4
HSd 150C	150×75×50	150	75	40	10	50	4.4
HSd 150D	150×75×60	150	75	50	10	60	5.3



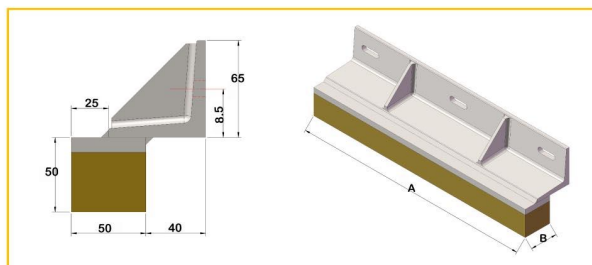
Better wear resistance performance
Durable
Fine polish
Cost effective
Excellent quality

Note: Studs Extra
If arc studs are required, please stipulate the size and position required.



Microledges

Item No.	Size (mm)	Dimension(mm)				N.W. (kg)
		A	B	C	D	
HM 115	115×50	115	50	40	10	3.2
HM 127	127×50	127	50	38	12	3.6
HM 150	150×50	150	50	40	10	4.2
HM 190	190×50	190	50	38	12	5.5
HM 210	210×50	210	50	38	12	6
HM 230	230×50	230	50	38	12	6.6
HM 432	432×50	432	50	38	12	12.5



Bimetallic Wear Plates

HST Bimetallic Wear Plates provides superior resistance to abrasion & impact. Suited for a wide range of Fixed & Mobile applications:

Chute's, Hoppers, Apron Feeders, Vibratory Feeders, Transfer points, Ore Passes, Conveyor Skirting, HaulTruck Beds, Target & Deflector plates and Buckets etc.

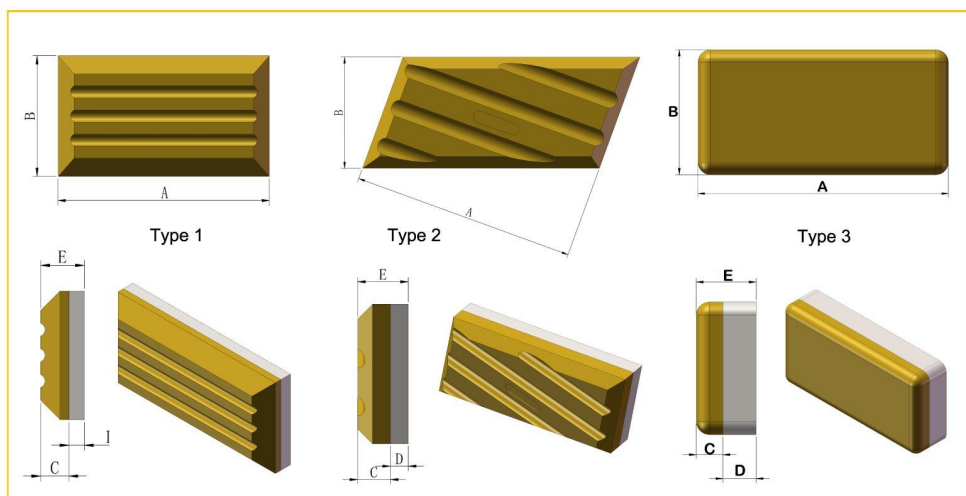
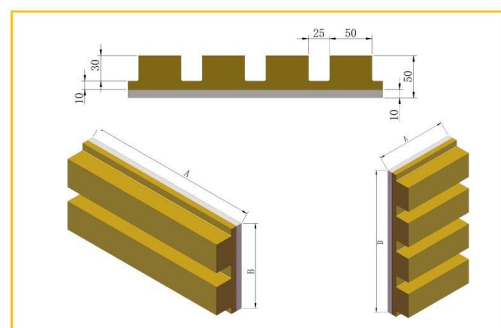


Typical Advantage/ Properties:

1. Advanced composite technology, good overall performance. It is the third generation since white iron casting and Ni-hard white iron casting. Its hardness could achieve to 63HRC/725 BHN, the elements of Cr, Mo, Ni, Cu, etc in the alloy created a better integrated performance (hardness, hardenability, temper resistance). The micro-structure consists of 85% above Martensite + retained Austenite + Carbide (mainly M7C3, HV 1400-1800).
2. Good corrosion resistance and high temperature resistance (600 °C maximum).
3. Hardness: average 63HRC/700BHN or even a little higher.
4. Well-feasibility: various shapes (including tubular) and dimensions available. Thickness ranges from 12(6/6) to 180mm (150/30). The oversized ones can be spliced.
5. High cost performance: 3 times higher usage life compared with overlay/hardfacing wear plates, at least 10 times longer than A.R type steels 360/400BHN. The thicker ones such as $\geq 20\text{mm}$, usage life is much more longer. There is no gradient change on wear resistant performance from plate surface to the brazing joint.
6. Wear plate surface is smooth and flat, media is not easy to stick on.
7. Easy to install and use.
 - Welding into place, no pre or post heating required, plug or perimeter weld
 - Arc Studs can easily be attached to the back of the liners to specified requirements
 - Custom counter bore or counter sunk bolt holes can be added

Rockbox Liners

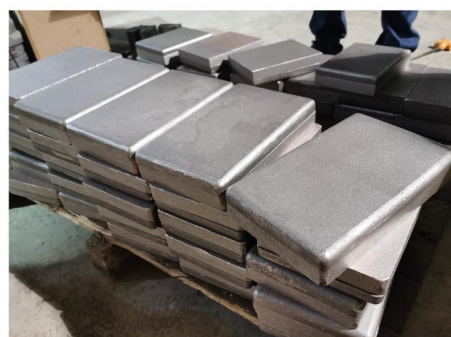
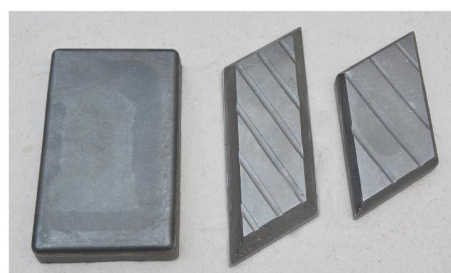
Item No.	Size (mm)	Dimension(mm)							N.W. (kg)
		A	B	C	D	E	F	G	
RL 300A	300×300×50	300	300	30	10	10	50	50	28.7
RL 300B	300×148×50	300	148	30	10	10	50	50	13.8
RL 148A	148×452×50	148	452	30	10	10	50	50	21.1
RL 148B	148×300×50	148	300	30	10	10	50	50	14



Skid wear bars

Bottom and runner protection for shovels and buckets. The skid bar is available in various lengths, widths and sizes, wherein the surface of the bar is smoothly shaped.

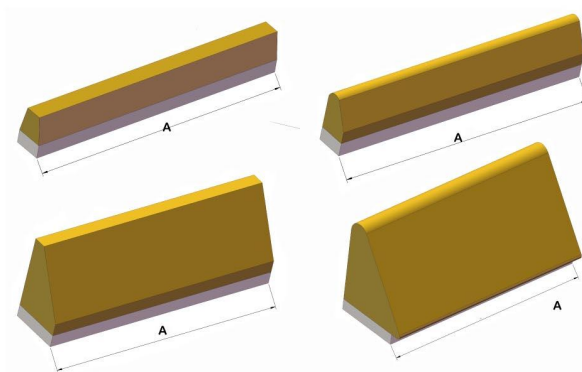
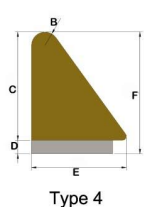
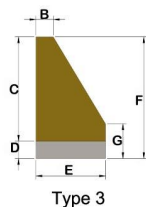
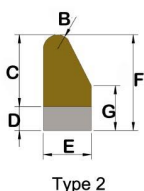
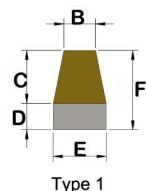
Type	Item No.	Size (mm)	Dimension(mm)					N.W. (kg)
			A	B	C	D	E	
1	SB1-214	214×101×34	214	101	22	12	34	5.1
	SB1-302	302×101×34	302	101	22	12	34	7.3
	SB1-154	154×101×34	154	101	22	12	34	3.7
	SB1-279	279×75×34	297	75	22	12	34	6.1
2	SB2-214L	214×101×34	214	101	22	12	34	5.9
	SB2-214R	214×101×34	214	101	22	12	34	5.9
	SB2-302L	302×101×34	302	101	22	12	34	8.4
	SB2-302R	302×101×34	302	101	22	12	34	8.4
	SB2-154L	154×101×34	154	101	22	12	34	4.2
	SB2-154R	154×101×34	154	101	22	12	34	4.2
3	SB3-250A	250×150×45	250	150	20	25	45	13.1
	SB3-200	200×150×45	200	150	20	25	45	10.5
	SB1-250B	250×250×45	250	250	20	25	45	21.9



Shaped wear bars

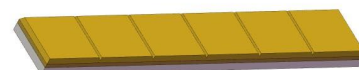
Shaped wear bars are wear bars in different shapes to suit specific applications. They are effectively used to prevent gouge wear that normally occurs in such places as bucket lips, loaders, crates etc

Type	Item No.	Size (mm)	Dimension(mm)							N.W. (kg)
			A	B	C	D	E	F	G	
1	SWB 200-1	200×13×30	200	13	20	10	20	30	-	0.8
	SWB 244-1	244×10×35	244	10	25	10	25	35	-	1.3
	SWB 202-1	202×10×35	202	10	25	10	25	35	-	1.1
2	SWB 275-2	275×5×29	275	5	21	8	16	29	16	0.9
3	SWB 200-3	200×25×59	200	3	47	12	25	59	-	1.5
	SWB 400-3	400×25×59	400	3	47	12	25	59	-	2.9
4	SWB 200-4	200×25×50	200	10	38	12	25	50	-	1.5
	SWB 400-4	400×25×50	400	10	38	12	25	50	-	2.9

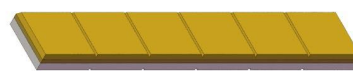


Wafer strips

This model is easy to cut and shape on spoked surfaces. It also has low weight and high hardness, ideal for bucket wear protection.

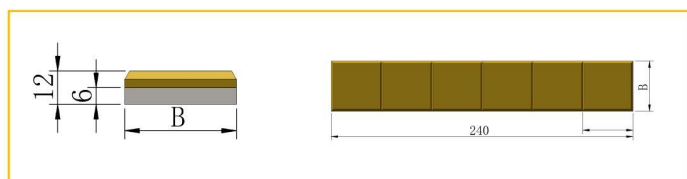


Non-notched mild steel backing



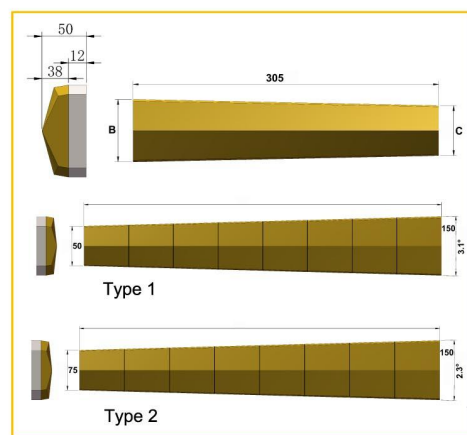
Notched mild steel backing

Item No.	Size (mm)	Dimension(mm)				N.W. (kg)
		A	B	C	D	
WS 25	240×25×12	240	25	6	6	0.6
WS 40	240×40×12	240	40	6	6	0.9
WS 50	240×50×12	240	50	6	6	1.2
WS 65	240×65×12	240	65	6	6	1.6



Grizzly bars

Type	Item No.	Size (mm)	Dimension(mm)			N.W. (kg)
			A	B	C	
1	GB1-105	150×137.5	305	150	137.5	13.6
	GB1-137.5	137.5×125	305	137.5	125	12.5
	GB1-125	125×112.5	305	125	112.5	11.2
	GB1-112.5	112.5×100	305	112.5	100	10
	GB1-100	100×87.5	305	100	87.5	8.8
	GB1-87.5	87.5×75	305	87.5	75	7.5
	GB1-75	75×62.5	305	75	62.5	6.3
	GB1-62.5	62.5×50	305	62.5	50	5.1
2	GB2-150	150×141	305	150	141	13.8
	GB2-141	141×131	305	141	131	12.9
	GB2-131	131×122	305	131	122	11.9
	GB2-122	122×113	305	122	113	11.1
	GB2-113	113×103	305	113	103	10.1
	GB2-103	103×94	305	103	94	9.2
	GB2-94	94×84	305	94	84	8.3
	GB2-84	84×75	305	84	75	7.4

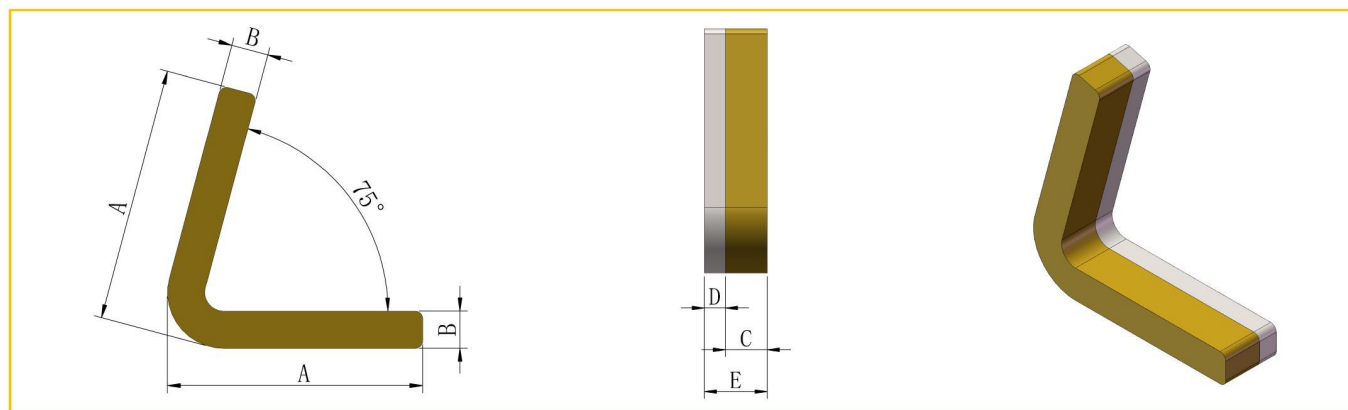


Elbow wear bars

Apply to special shape wear-resisting layer to stand up to the toughest impact and wear abrasion

Ideal for buckets, rock boxes, truck bodies, chutes etc

Item No.	Size (mm)	Dimension(mm)					N.W. (kg)
		A	B	C	D	E	
HE 120	120×120×28	120	30	18	10	28	1.3
HE 180	180×180×32	180	40	22	10	32	3



Shredder hammer tips

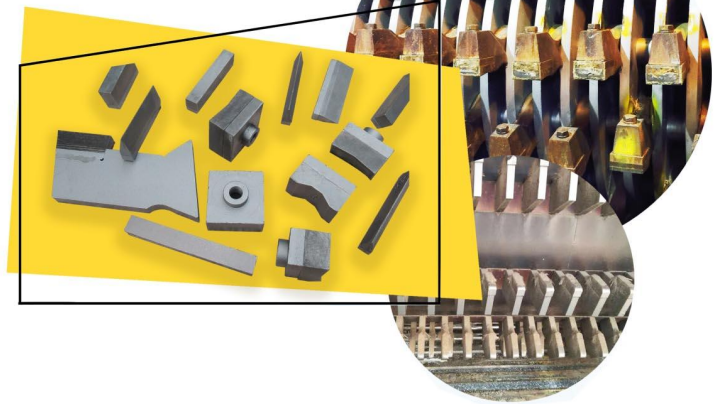
These are bi-metallic composites having 725BHN hardness and available in various sizes and shapes shredder hammer tips can be used in sugar or coal industry to do crushing and shredding performance, it has excellent impact and abrasion resistance properties & enhanced service life

Hyster can also produce Tungsten Carbide + White Iron + Carbon Steel hammer tips!

These hammers find application in

- ① Sugar Industry
- ② Mining & Mineral Processing Industry
- ③ Cement & Steel Industry

● Shredder hammer tips & Knife tips



Note:

The standard size of F is 7/8"-14UNF, please inform us when other thread dimension is required.

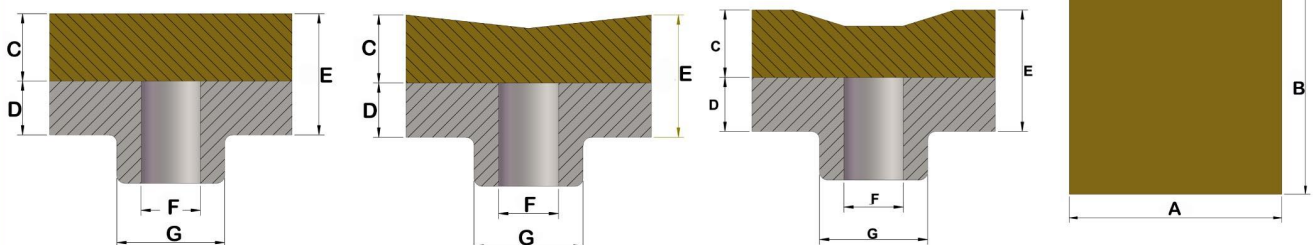
Type	Item No.	Size (mm)	Dimension(mm)					N.W. (kg)
			A	B	C	D	E	
1	HC1 90-90	90×90×45	90	90	25	20	45	2.9
	HC1 90-50	90×50×45	90	50	25	20	45	1.6
	HC1 90-54	90×54×66	90	54	48	18	66	2.5
	HC1 50-50	50×50×38	50	50	20	18	38	0.7
	HC1 80-80	80×80×45	80	80	25	20	45	2.4
	HC1 100-100	100×100×45	100	100	25	20	45	3.6
2	HC1 80-56	80×56×45	80	56	25	20	45	1.6
	HC2 90-90	90×90×50	90	90	30	20	50	3
	HC2 90-90	80×56×50	80	56	30	20	50	1.8
3	HC3 90-90	90×90×50	90	90	30	20	50	3
	HC3 90-50	90×50×55	90	50	35	20	55	1.8
	HC3 90-56	90×56×55	90	56	35	20	55	1.9



Type 1: flat type

Type 2: V type

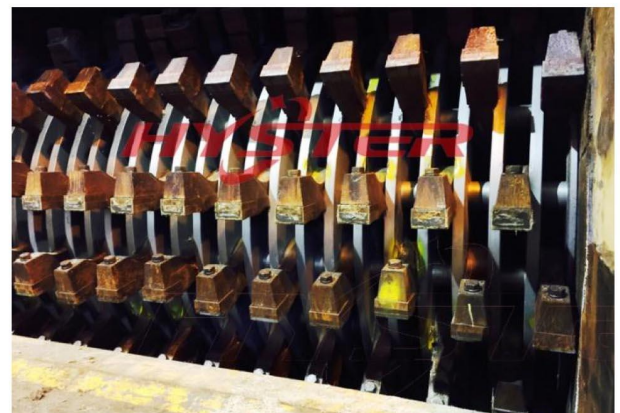
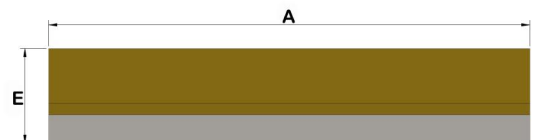
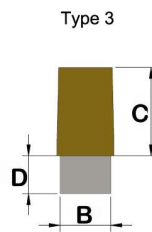
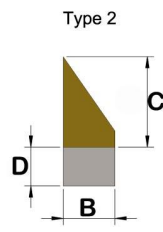
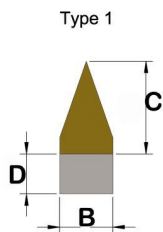
Type 3: U type



Knife edges

Hyster-Wear Knife Edges/Cutter Tips are sharp edge blocks that are cost-effective alternatives to conventional expensive hard facing methods. They have sharp edges that could retain their sharpness and cutting efficiency longer than conventional methods.

Type	Item No.	Size (mm)	Dimension(mm)					N.W. (kg)
			A	B	C	D	E	
1	HK1 203-16	203×16×50	203	16	38	12	50	0.9
	HK1 203-19	203×19×50	203	19	38	12	50	1.1
	HK1 203-22	203×22×50	203	22	38	12	50	1.3
	HK1 203-25	203×25×50	203	25	38	12	50	1.5
	HK1 305-26	203×16×50	305	16	38	12	50	1.4
	HK1 305-19	203×19×50	305	19	38	12	50	1.6
	HK1 305-22	203×22×50	305	22	38	12	50	1.9
	HK1 305-25	203×25×50	305	25	38	12	50	2.2
2	HK2 203-16	203×16×50	203	16	38	12	50	1
	HK2 203-25	203×25×50	203	25	50	12	62	1.7
	HK2 305-25	203×25×50	305	25	40	16	56	2.5
3	HK3 203-19	203×19×50	203	19	38	12	50	1.6
	HK3 203-25	203×25×50	203	25	38	12	50	2.1
	HK3 203-28	203×28×50	203	28	38	12	50	2.3



Ni-hard products

NiHard is a well-established white iron product alloyed with nickel and chromium to give significant abrasion and impact resistant properties. The structure of NiHard is composed of iron and chromium carbides, fixed in a matrix rendered martensitic by the nickel content. This structure allows NiHard to be utilised in abrasive and high impact conditions found throughout the construction, mining manufacturing and mineral processing industries

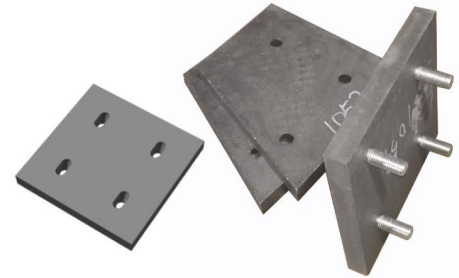
Our NiHard products include billets and liner plates that can be made to the customers' specification or supplied from our range of stock sizes. Our NiHard products can be custom designed to meet any situation regardless of any size and shape concerns. We can also supply cut and shaped liners to be strategically placed on fixed plant equipment so that a unique wear package can be created, maximising wear life. This makes NiHard the perfect material for chutes, drop boxes, bin and hopper liners

We primarily supply cast billet and liner plates produced to the NiHard specifications. However, we can produce billets and liner plates from the following alloys on special request

- > NiHard 1 & 2
- > 27 Chrome Alloy
- > 15/3 White Iron

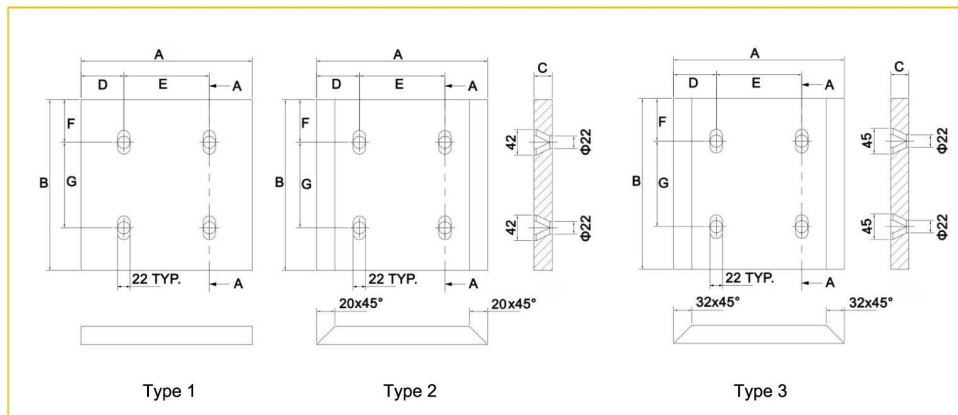
Note:

1. Other sizes can be made on request.
2. Liners can be cut to size on request.
3. Bolts/Nuts/Washers are available on request.
4. Holes are to suit M20 fishtail bolt.



Ni-hard wear liners

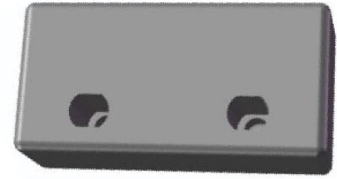
Item No.	Type	Size (mm)	Dimension(mm)							N.W. (kg)
			A	B	C	D	E	F	G	
NW 2001	1	300×300×20	300	300	20	74	152	74	152	13.8
NW 2002	2	300×300×20	300	300	20	74	152	74	152	12.8
NW 2003	1	300×200×20	300	200	20	74	152	100	-	9.2
NW 2004	1	300×150×20	300	150	20	74	152	75	-	6.9
NW 2005	1	300×100×20	300	100	20	74	152	50	-	4.5
NW 2006	1	200×100×20	200	100	20	62.5	75	50	-	3
NW 3201	1	300×150×32	300	150	32	74	152	74	-	11
NW 3202	1	300×200×32	300	200	32	74	152	100	-	14.8
NW 3203	1	300×300×32	300	300	32	74	152	74	152	22
NW 3204	2	300×300×32	300	300	32	74	152	74	152	19.6
NW 3205	1	300×100×32	300	100	32	74	152	50	-	7.2
NW 3206	1	200×100×32	200	100	32	62.5	152	50	-	4.7



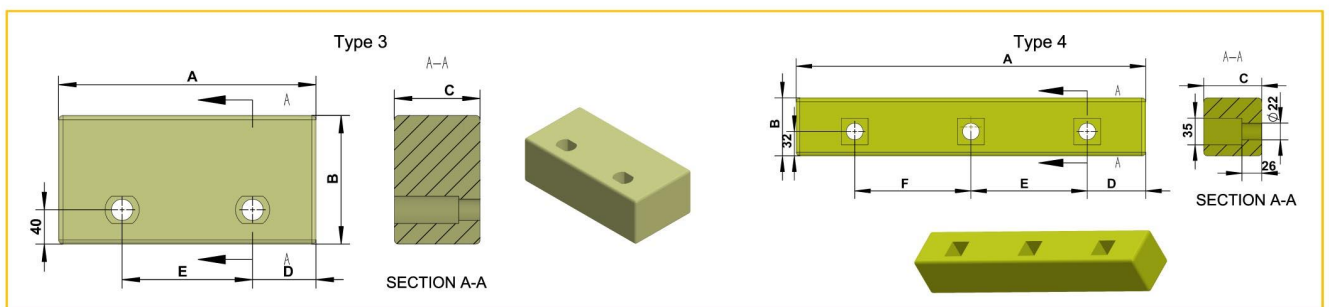
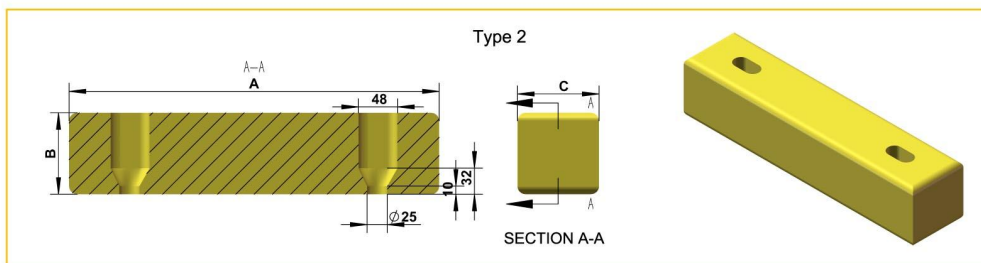
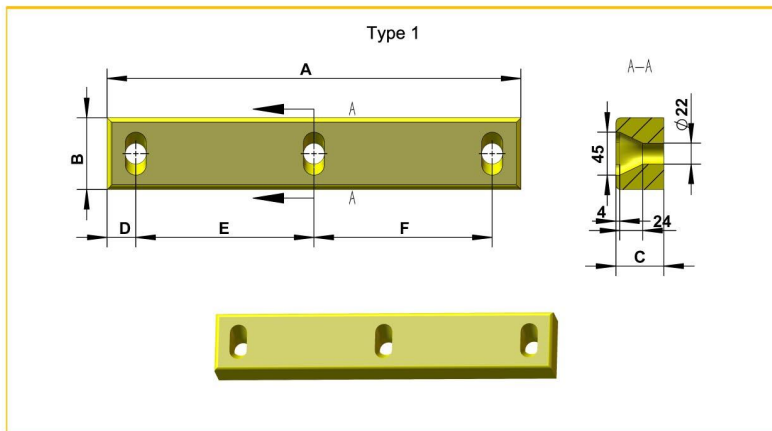
Ni-hard wear billets

Note:

1. Other sizes can be made on request.
2. Liners can be cut to size on request.
3. Bolts/Nuts/Washers are available on request.



Type	Item No.	Size (mm)	Dimension(mm)							Holes	N.W. (kg)
			A	B	C	D	E	F	G		
NB 128	1	128×75×50	128	75	50	30	68	-	-	M20 fishtail bolt	3.3
NB 210	1	210×75×50	210	75	50	30	68	-	-		5.7
NB 432	1	432×75×50	432	75	50	30	68	186	-		12
NB 302	2	302×100×100	302	100	100	75	68	-	-	M22 fishtail bolt	22
NB 454	2	454×100×100	454	100	100	75	68	-	-		33.8
NB 224	3	224×150×100	224	150	100	74	68	-	-	M20 hex head bolt	24.5
NB 300	3	300×150×100	300	150	100	74	68	-	-		33.4
NB 305	4	305×76×76	305	76	76	76.5	68	-	-	M20 square head bolt	12.5
NB 457	4	457×76×76	457	76	76	76.5	152	152	-		18.8



Chromium Carbide Overlay Wear Plates

OVERLAY-PLATE is welded by chromium carbide overlay on a mild steel backing plate. Manufactured by our own design's welding machine with exclusive technique.

OVERLAY-PLATE has excellent performance in abrasion resistant.

CHEMICAL COMPOSITION C 4.0~5.5%; Cr18~35%; Nb※; Mn※; Si※; Fe※;

BACKING PLATE Standard: SS400 mild steel or equivalent -- Stainless or others upon request

HARDNESS AVAILABLE 55-58HRC, 58-62HRC, 62-65HRC

TOLERANCES ± 1mm **HEAT RESISTANCE** Maximum: 450°C

MICROSTRUCTURE Mixture of high volume hexagonal shaped chromium carbide in tough austenitic and martensitic. Average VFC above 30%.

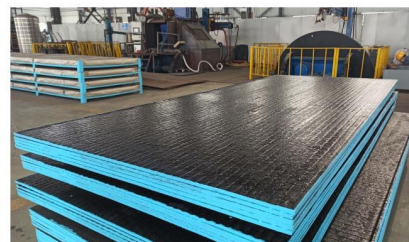
PENETRATION TO THE BASE METAL 1.5mm

COLD FORMING Minimum Radius: 150mm(for 6+4) Suggested: using hydraulic press to bend plate

CUTTING Plasma(from backing plate side) / Laser Cutting / Water Jet Knife

APPLICATIONS	Ash liners Elbow Sinner plant Bucket & Lips Drag liners Duct	Classifier Mine car liners Cyclones Ore chutes Discharge funnels Slag chutes	Extension ring Cement kilns Grizzly bars Sinter breaker bar Conveyor casings Green Walt crushers	Steel plant Blast furnace bell & burden Chute & Hopper liners Fan blades & Housings Dredge pump side plates Vibrator pan feeder liner
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Standard Overlays	Weight sq/m(kg)	Standard Sheet Size(mm)	Overall Thickness
4 ON 4	62	1500×3000 / 1200×2400 / 1480×3050	8
4 ON 6	77	1500×3000 / 1200×2400 / 1480×3050	10
6 ON 6	92	1500×3000 / 1200×2400 / 1480×3050	12
5 ON 8	100	1500×3000 / 1200×2400 / 1480×3050	13
6 ON 8	108	1500×3000 / 1200×2400 / 1480×3050	14
5 ON 10	116	1500×3000 / 1200×2400 / 1480×3050	15
9 ON 10	146	1500×3000 / 1200×2400 / 1480×3050	19
10 ON 10	157	1500×3000 / 1200×2400 / 1480×3050	20
12 ON 12	162	1500×3000 / 1200×2400 / 1480×3050	24
17 ON 12	222	1500×3000 / 1200×2400 / 1480×3050	29



Hard surfacing

Hyster developed HS 63HRC is mixed with alloy powder with a high density of primary chromium carbides in an iron matrix and non-metallic powders. It is the best cost-effective choice for high wear application compared to Tungsten carbide. Abrasion resistance is very high, with moderate impact resistance, hardness could achieve to 63-65HRC

Product details

Hardness HRC	1	2	3	4	5	6	Average
Position 1	60.5	61	61.5	62.5	62	60	61.25
Position 2	64	62	63.5	64	63	63.5	63.33
Position 3	65	64	64.5	63.5	65	64	64.17



Typical Applications

- Grouser bar hard surfacing
- Bucket teeth hard surfacing
- Heel shroud hard surfacing
- Shredder hammer hard surfacing
- Wear plate hard surfacing
- Crusher blade hard surfacing
- Dredger hard surfacing
- Break shovel hard surfacing
- Cutter tip hard surfacing



FAQ. What is the longest service life that products with HS 63 hard surfacing

A. This is a hard question to answer because there are so many variables, especially in hardfacing cutting edges, blades and parts exposed to wear from abrasion, impact, erosion, etc. Generally, an increase in wear life of 4 to 5 times can be expected for parts that are not hardfaced. Wear parts that are currently being hardfaced can expect a 2 to 4 times improvement in wear life

Recommended Cutting Instruction for HST Bimetallic Wear Materials

High pressure water jet cutting is preferred cutting method for Hyster wear blocks. Thermal cutting using an oxyacetylene torch, Arc-air or plasma is NOT recommended due to high localized heat penetration and high risk of cracking and delamination.

For Hyster Wear Blocks no greater than 25mm section thickness, cutting by abrasive disc is an accepted practice Fig

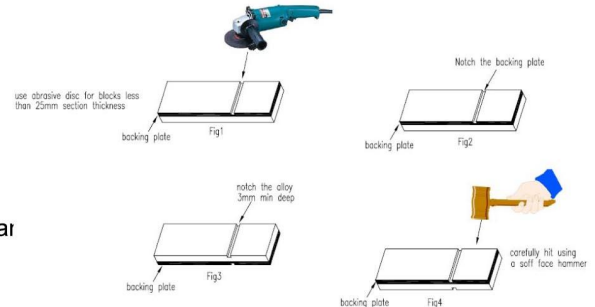
Caution: Extreme care must be taken when cutting to minimize local pre-heating or cracks and delamination may occur

Alternatively, Hyster-Wear Blocks smaller than 25mm section thickness can be cut following the following procedure

- Secure the piece to be cut in a vice or clamp
- Notch the backing plate as shown in Fig

plate, as per Fig

Wrap the piece with a rag and carefully hit using a soft face hammer as shown in Fig4. The piece should break cleanly at the notch



Recommended Forming Procedure for HST Bimetallic Wear Materials

This practice is suitable for chocky bars only

For severe curves with radius of less than 305mm, or inside curves, it is advisable to notch the mild steel backing plate opposite the "V" to assist forming

It is normal the chocky block may crack during bending

Clean the surface to which chocky block will be welded

Tack weld one end of the chocky block (as per the welding procedure) by mm minimum length per weld

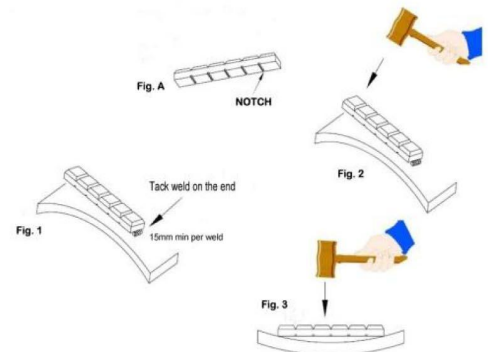
a. Outside curves

Hammer down the unwelded end with a soft faced hammer to bend bar to match mating radius

b. Inside curves

Starting in the centre strike bar with a soft face hammer to bend bar to match mating radius

Stitch weld as per the welding procedure



Recommended Welding Procedure for HST Bimetallic Wear Materials

Please Read All Procedures Completely

HYSTER recommends you always use a soft-face hammer and ANSI-approved (Z87.1) eye protection during cutting and bending procedures.

Ensure that the surface to which the Hyster-wear Blocks will be attached to is as flat as possible and the area to be welded is clean

Clamp and tack weld Hyster-wear Blocks into position

Stitch weld, laying 50mm max length on each run, alternating ends or sides to minimize heat penetration. Do NOT deposit weld within 2mm from the joint between alloy and steel backing plate

DO NOT WELD CONTINUOUSLY-Continuous welding may cause warpage, delaminating and cracking. Use thermal crayons to check temperature Maximum allowed 200 °C

If a complete peripheral weld is required, use stitch weld method

WELDING RODS- Hyster recommends low hydrogen weld rods or gas covered cored wire Gas shielded solid MIG wire – 1.2mm diameter max

Flux cored wire -1.6mm diameter max to ASTM/AWS

A5.18 classification ER

Low hydrogen electrode -3.25mm diameter max to ASTM/AWS

A5.1 classification E7016-1H8 or E7018-1H

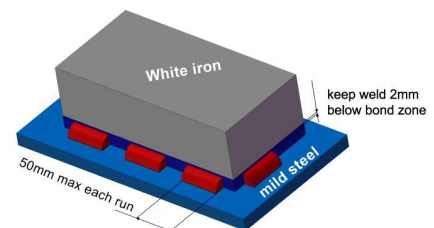
WELDING PROCEDURE OVERVIEW

Read procedures completely

Tack weld into position

Stitch weld with max. length (50mm) each run

Maintain 2mm gap between weld and joint line



CAUTION: TOO MUCH HEAT PENETRATION MAY CAUSE CRACKING AND SEPARATION



China to the World

China's largest Manufacturer for Bimetallic Wear Materials. Over 28 years industry experience.

Boost your wear parts performance, reduce maintenance costs, and minimise heavy equipment downtime.

Increase productivity and profitability and source all your standard and customised wear solutions in one place.

Welcome to Join Us!

Our Locations

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