MELCO CASTINGS

Melco Precisions Pvt Ltd

Wear & heat-resistant castings | ISO 9001:2015 certified

Product catalogue

Blow bars, shredder hammers, grates, grids, anvils and rotor caps in high chrome iron, Ni-hard white iron, austenitic manganese steel and heat-resistant steel. Castings from 5 kg to 2,000 kg, approximately 3,000 tonnes a year, produced to drawing, to sample or reverse-engineered from a worn part.

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CRUSHER WEAR PARTS

High Chrome Blow Bars

Chromium-carbide blow bars for abrasive, low-to-medium impact crushing where wear life matters more than shock resistance.

OVERVIEW

High chrome blow bars are cast in hypereutectic white iron, where hard chromium carbides sit in a martensitic matrix. That structure resists sliding abrasion far better than steel, which is what makes it the default choice for limestone, dolomite, gravel and other clean, abrasive feeds.

APPLICATIONS

- Limestone and dolomite crushing in cement plants
- Aggregate and gravel production for road construction
- Secondary and tertiary impact crushing
- Clean, abrasive feed with limited tramp metal

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A532 Cl. II Type B (15Cr-3Mo)	14-18% Cr, 2.5-3.5% Mo, 2.4-3.0% C	58-64 HRC
ASTM A532 Cl. II Type D (20Cr-Mo)	18-23% Cr, 1.5% Mo max, 2.0-3.3% C	58-63 HRC
ASTM A532 Cl. III Type A (25Cr)	23-30% Cr, 1.5% Mo max, 2.0-3.3% C	56-62 HRC

CRUSHER WEAR PARTS

Manganese Steel Blow Bars

Austenitic Hadfield steel bars that work-harden in service. The tough choice for shock loading and tramp metal.

OVERVIEW

Austenitic manganese steel, known as Hadfield steel, leaves the foundry relatively soft at around 220 BHN and hardens to over 500 BHN at the working surface as it is struck. The core stays tough and ductile, which is why a manganese bar bends and deforms where a high chrome bar would crack.

APPLICATIONS

- Primary impact crushing of hard and mixed feed
- Recycled concrete and demolition waste with rebar
- Construction and demolition (C&D) recycling plants
- Feeds carrying tramp metal or uncrushable material

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A128 Grade A	1.05-1.35% C, 11.0-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
ASTM A128 Grade B-3	0.9-1.05% C, 11.5-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
ASTM A128 Grade C	1.05-1.35% C, 11.5-14.0% Mn, 1.5-2.5% Cr	220-250 BHN as-cast
ASTM A128 Grade E-2	0.7-1.3% C, 11.5-14.0% Mn, 1.8-2.1% Mo	200-229 BHN as-cast

CRUSHER WEAR PARTS

Hazemag Blow Bars

Replacement bars for Hazemag impactors, cast in the alloy that matches your feed rather than a single default grade.

OVERVIEW

Hazemag impactors are widely used on limestone and aggregate duty, and the blow bar profile has to seat exactly for the rotor to run true. Melco produces replacement bars for the common APK, APS and APSE families, working from drawings, a sample bar or a scan of a worn part.

APPLICATIONS

- Hazemag APK, APS and APSE impact crushers
- Limestone crushing for cement production
- Aggregate and road base production
- Primary and secondary impact crushing circuits

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A532 Cl. II Type B (15Cr-3Mo)	14-18% Cr, 2.5-3.5% Mo, 2.4-3.0% C	58-64 HRC
ASTM A532 Cl. II Type D (20Cr-Mo)	18-23% Cr, 1.5% Mo max, 2.0-3.3% C	58-63 HRC
Low-alloy martensitic steel	0.3-0.5% C, Cr-Ni-Mo alloyed	45-52 HRC
Martensitic / manganese composite	Hard martensitic face, austenitic Mn body	50 HRC face, tough core

CRUSHER WEAR PARTS

HSI Impactor Blow Bars

Bars for horizontal shaft impactors across the common rotor designs, in the full range of wear alloys.

OVERVIEW

Horizontal shaft impactors do their crushing by throwing material against the blow bar and then against the impact aprons. The bar therefore takes the initial strike, and its alloy sets both the wear life and how the machine behaves when something uncrushable arrives.

APPLICATIONS

- Horizontal shaft impact crushers, primary and secondary
- Aggregate, limestone and hard rock crushing
- Recycled concrete and asphalt processing
- Mobile and track-mounted impactor spreads

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A532 Cl. II Type B (15Cr-3Mo)	14-18% Cr, 2.5-3.5% Mo, 2.4-3.0% C	58-64 HRC
ASTM A532 Cl. II Type D (20Cr-Mo)	18-23% Cr, 1.5% Mo max, 2.0-3.3% C	58-63 HRC
ASTM A532 Cl. III Type A (25Cr)	23-30% Cr, 1.5% Mo max, 2.0-3.3% C	56-62 HRC
Low-alloy martensitic steel	0.3-0.5% C, Cr-Ni-Mo alloyed	45-52 HRC

CRUSHER WEAR PARTS

Stedman Blow Bars

Replacement bars for Stedman and comparable North American impactor designs, supplied as weight-matched sets.

OVERVIEW

Melco supplies replacement blow bars for Stedman impactors and for the comparable Eagle, Metso and Astec designs that share similar rotor arrangements. These are long-standing export lines for us, shipped in container quantities to North America.

APPLICATIONS

- Stedman, Eagle, Metso and Astec impact crushers
- Aggregate and hard rock crushing
- Recycled concrete and asphalt
- Industrial minerals and lime processing

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A532 Cl. II Type B (15Cr-3Mo)	14-18% Cr, 2.5-3.5% Mo, 2.4-3.0% C	58-64 HRC
ASTM A532 Cl. II Type D (20Cr-Mo)	18-23% Cr, 1.5% Mo max, 2.0-3.3% C	58-63 HRC
Low-alloy martensitic steel	0.3-0.5% C, Cr-Ni-Mo alloyed	45-52 HRC
Martensitic / manganese composite	Hard martensitic face, austenitic Mn body	50 HRC face, tough core

CRUSHER WEAR PARTS

SBM Blow Bars

Replacement bars for SBM impactors, cast to drawing or reverse-engineered from a worn sample.

OVERVIEW

Melco produces replacement blow bars for SBM impact crushers used across European and Middle Eastern aggregate operations. The bars are cast to the customer drawing where one is available, and reverse-engineered from a worn sample where it is not.

APPLICATIONS

- SBM impact crushers, mobile and static
- Quarry aggregate and road base production
- Limestone and hard rock crushing
- Recycling and demolition waste processing

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A532 Cl. II Type B (15Cr-3Mo)	14-18% Cr, 2.5-3.5% Mo, 2.4-3.0% C	58-64 HRC
ASTM A532 Cl. II Type D (20Cr-Mo)	18-23% Cr, 1.5% Mo max, 2.0-3.3% C	58-63 HRC
Low-alloy martensitic steel	0.3-0.5% C, Cr-Ni-Mo alloyed	45-52 HRC
Martensitic / manganese composite	Hard martensitic face, austenitic Mn body	50 HRC face, tough core

CRUSHER WEAR PARTS

Rubble Master & McCloskey Blow Bars

Bars for compact mobile impactors working demolition and recycling feed, where tramp metal is a daily fact.

OVERVIEW

Compact mobile impactors from Rubble Master, McCloskey and Eagle spend much of their life on demolition and recycling sites, crushing reinforced concrete, brick and asphalt. That feed almost always contains rebar and other tramp metal.

APPLICATIONS

- Rubble Master, McCloskey and Eagle mobile impactors
- Reinforced concrete and demolition waste
- Asphalt and road planings recycling
- On-site crushing spreads with mixed feed

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A128 Grade A	1.05-1.35% C, 11.0-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
ASTM A128 Grade B-3	0.9-1.05% C, 11.5-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
ASTM A128 Grade C	1.05-1.35% C, 11.5-14.0% Mn, 1.5-2.5% Cr	220-250 BHN as-cast
Low-alloy martensitic steel	0.3-0.5% C, Cr-Ni-Mo alloyed	45-52 HRC

SHREDDER WEAR PARTS

Manganese Steel Shredder Hammers

Hadfield steel hammers for automobile and scrap shredders, solution treated for maximum toughness.

OVERVIEW

Shredder hammers take the most violent duty in a scrap yard. In an automobile shredder the hammer strikes car bodies, engine blocks and occasional unshreddable material at rotor speeds that leave no room for a brittle casting.

APPLICATIONS

- Automobile and ELV shredders
- Scrap metal shredding and recycling lines
- Hammer mills in metal recovery plants
- Wendt, American Pulverizer and Texas Shredder machines

MATERIAL GRADES

Grade	Typical composition	Hardness
ASTM A128 Grade A	1.05-1.35% C, 11.0-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
ASTM A128 Grade B-3	0.9-1.05% C, 11.5-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
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SHREDDER WEAR PARTS

Dual Hardness Shredder Hammers

Hammers with a hardened striking face over a tough body, for longer face life without giving up impact resistance.

OVERVIEW

A conventional manganese hammer is tough everywhere but relies entirely on work-hardening for its wear face. A dual hardness hammer starts with a genuinely hard striking region backed by a tough, ductile body, so the face resists abrasion from the first hour while the eye and shank keep their impact resistance.

APPLICATIONS

- Automobile and ELV shredders on dense scrap
- High-throughput scrap recycling lines
- Operations replacing hammers on face wear rather than breakage
- Shredders where hammer change-out downtime is costly

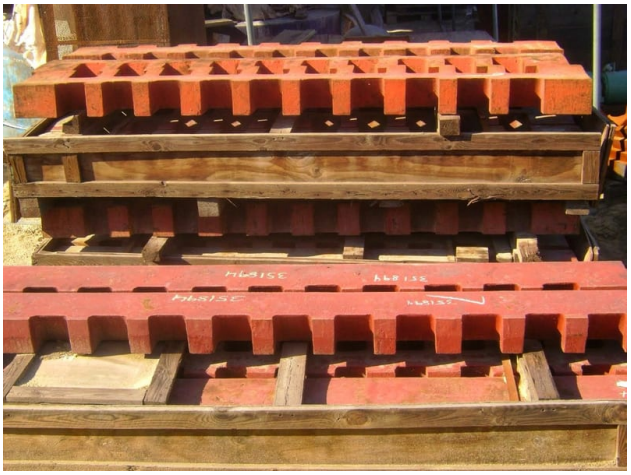
MATERIAL GRADES

Grade	Typical composition	Hardness
Dual hardness (hard face)	Alloyed white iron / martensitic wear region	55-62 HRC
Dual hardness (body)	Austenitic manganese steel, ASTM A128	200-229 BHN, work-hardening
ASTM A128 Grade A	1.05-1.35% C, 11.0-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened
ASTM A128 Grade B-3	0.9-1.05% C, 11.5-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened

SHREDDER WEAR PARTS

Shredder Grates & Grids

Grates and grids that set shredder product size, cast in manganese and alloy steel to survive the discharge zone.



OVERVIEW

Grates and grids control the product size leaving a shredder. Material stays in the mill until it is small enough to pass. That makes them a process control component as much as a wear part: as the openings wear, product size drifts and downstream separation suffers.

APPLICATIONS

- Automobile and scrap shredder discharge grates
- Hammer mill grid bars and screen sections
- Metal recycling lines needing controlled product size
- Replacement grates for Wendt, Metso and Lindemann machines

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Grade	Typical composition	Hardness
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SHREDDER WEAR PARTS

Shredder Anvils & Rotor Caps

Anvils that take the hammer strike and rotor caps that protect the rotor body between hammer positions.

OVERVIEW

The anvil is the fixed surface a shredder hammer drives material against, and it absorbs the same energy the hammer does. Rotor caps sit between hammer positions and protect the rotor body itself, the one component in the mill that is genuinely expensive to replace.

APPLICATIONS

- Automobile and scrap shredder anvils
- Rotor cap protection between hammer positions
- VSI crusher anvils and impact surfaces
- Hammer mill breaker plates and impact surfaces

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