

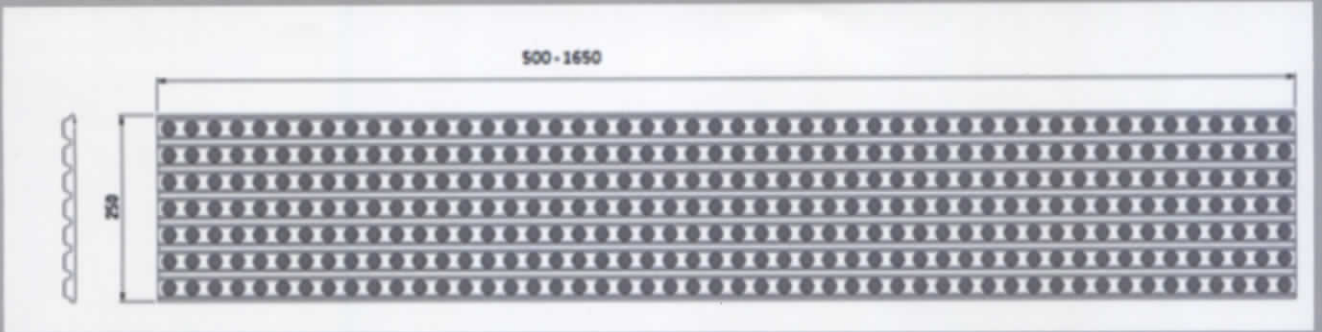
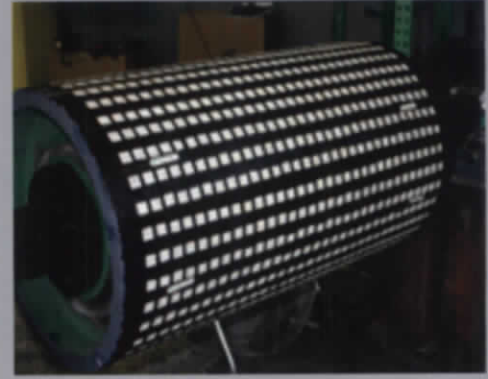


Ceramic Reinforced Conveyor Belt Drums

We are manufacturing highly wear resistant, ceramic reinforced driving drums for the conveyor belts operating under heavy conditions such as slurry and wet media. This is one of the high priority products for the worksites and mining fields since it prevents belt-drum slippings originating from slurry and wetness, ensures longer replacement and repairing period.

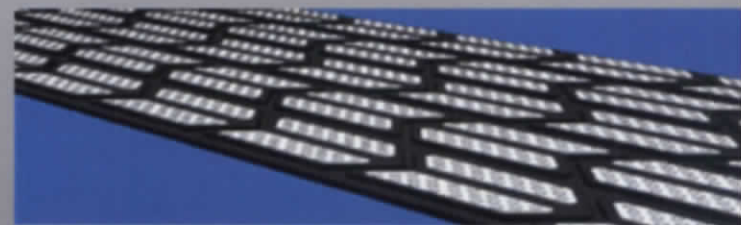
The friction between drum and belt has been increased by ceramic particles, tension of belt decreased so that easy operation of conveyor is ensured by decreasing the momentum affecting rolls, bearings and conveyor.

We are able to manufacture those drums in requested dimensions without any dimensional limitation for every sort of conveyor.



Advantages

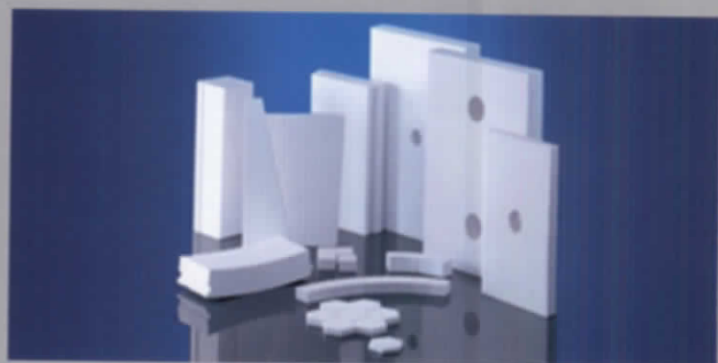
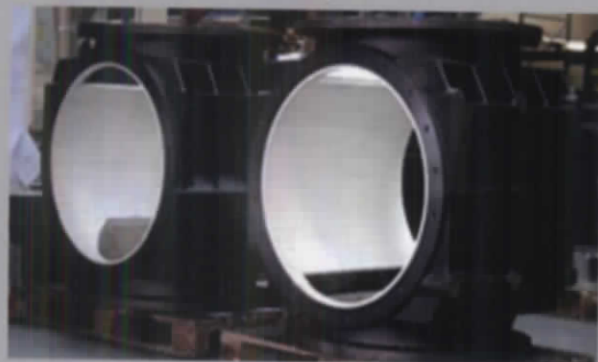
- Circular or nailed ceramic particles (depending on the working conditions)
- Profiled surface for flowing of water or slurry,
- Low tension of belt due to high friction capacity, so prevention of fast wearing and tearing of the belts,
- Extending the lives of rolls, bearings and gear boxes by ensuring easy and low powered operation of conveyor,
- Excellent wear resistance, longer working life,
- Easy mounting



Wear and Corrosion Resistant Ceramic Plates

The plates made of technical ceramics and called modern materials meet many requirements under very hard working conditions such as abrasion, corrosion and high temperature resistance.

Işık Teknoloji has a production capability for those high performance plates



The plates are particularly being used on the machinery of steel mills, mines, mineral processing and preparation plants, papermaking and pulp, chemical and medical, petrochemistry, power plants and nuclear energy, cement – concrete and general machinery industries.

Our plates ensures excellent wear resistance at very high temperatures including 1400-1800 C

In addition to plates with standard dimensions, it is possible to manufacture plates in different dimensions and shapes in accordance with customers' requirements.



IŞIK TEKNOLOJİ

CERAMICS, METALLURGY AND COMPOSITES

Kau-Ser Wear and Impact Resistant Composite Plates

Kau-ser is a kind of composite wear plate composed of rubber and ceramic material and has an excellent wear resistance mainly under the medium and light duty working conditions. Due to its wear resistance and noise absorbing properties it is used in many applications such as feeders, transfer chutes, bunkers and feeding cones, points of transfer and truck cases..

Properties and Advantages

- Excellent resistance under the friction/gouging abrasion conditions of the fast flowing bulk materials,
- Long lasting working life under impact wear with small angle
- Non-deforming properties owing to the steel plate on the mounting surface
- Lowering the noise and vibrations to very low levels,
- Easiness of application and mounting,
- Lightness

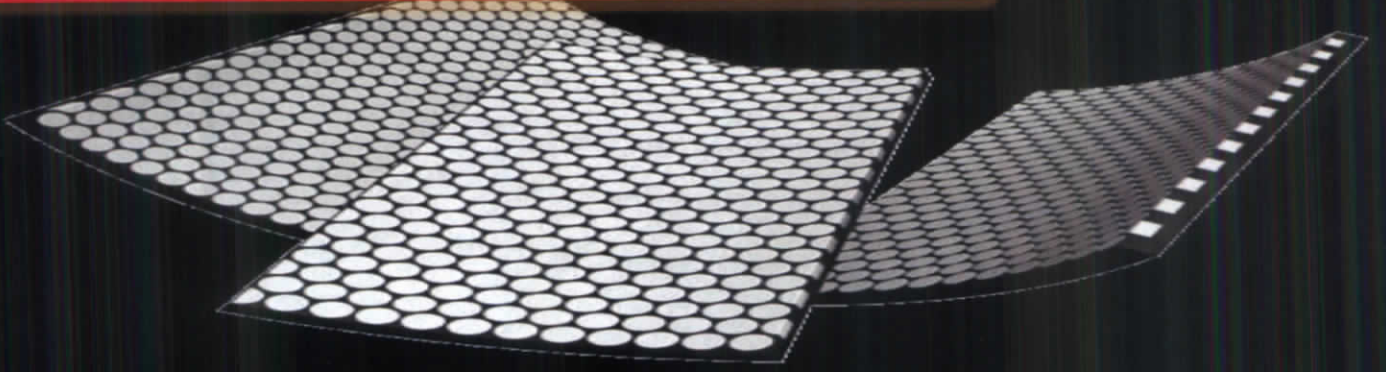
Environmentally Compatible

- • Resistance to almost all acids and water,
- • Compatible with almost all lubricants and chemicals of medium concentrations
- • Heat resistance up to 70 C



IŞIK TEKNOLOJİ

CERAMICS, METALLURGY AND COMPOSITES



Kau-Ser Wear and Impact Resistant Impact Plates

Standard Products

Product	Width(mm)	Length(mm)
KTS - 25	250	500
KTS - 50	500	500

* Talebe göre istenilen ölçülerde plakalar yapılabilmektedir.

K-70 Rubber

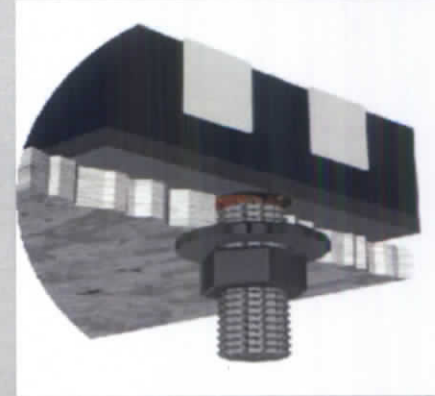
5 mm plate

Ceramic



Mounting

The advantage of easy mounting by stud welded bolts or screws or welding .



We offer this high quality product at variety of sizes and capacities and according to the customer required specifications at very reasonable prices.

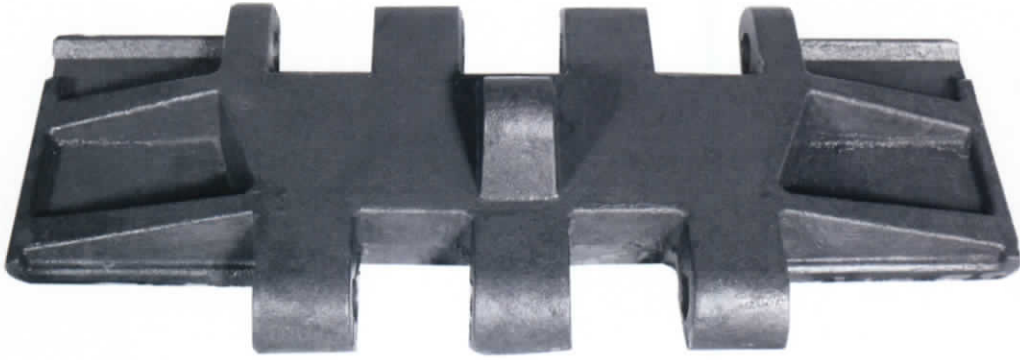
Işık Çelik has the most complete line of materials of any hydrocyclone manufacturer. We evaluate each application and recommend the hydrocyclone not only best suited for the separation requirements but also best suited for minimizing maintenance costs. We try to mix the materials so the higher wear areas (apex, lower cone, inlet head) wear out at the same time so downtime and replacement costs are minimized. Most of the materials are stocked in the commonly used parts. We always work with the customer on testing various materials to achieve the goal of lowest possible operating costs.



The pumps used for the transportation of water, slurry and mineral mixtures are made of corrosion-wear resistant alloys. We are able to ship those kinds of wear resistant parts; in as - cast, machined and finished condition to the coal mining, mineral mining, chemical and power generation industries in the country and abroad.

With advanced corrosion-wear resistant materials ensure that high wear life, operating cost reduction and increased plant availability.







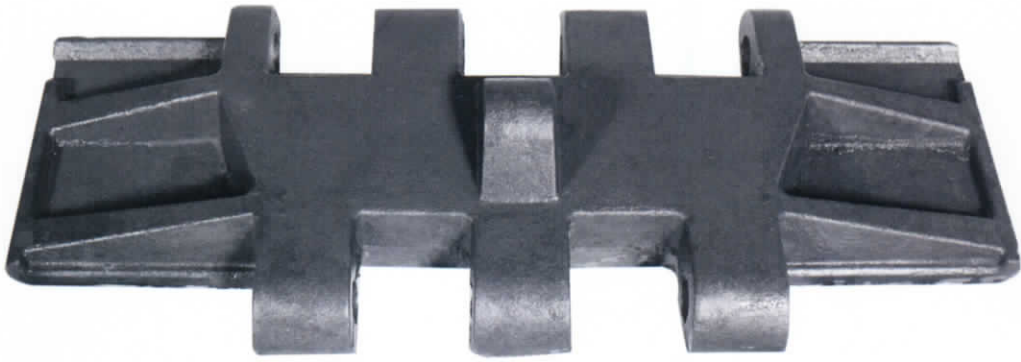
*"We invite you to use our
Super-X alloy for earth moving tooth "*

Işık Çelik manufactures most of the tips and adapters used on the earthmoving equipment.

Our tips and adapters are designed for longer life, easier serviceability and cost effectiveness. We can lower your replacement costs by optimising wear material, production cost and significantly improving machine performance.

If you want to look at cost per ton , you need to make a trial with our specifically developed alloy `Super X`. It may have most optimized alloy for your application with its ability to withstand penetrating shocks, wear, gouging and abrasive action associated with material handling







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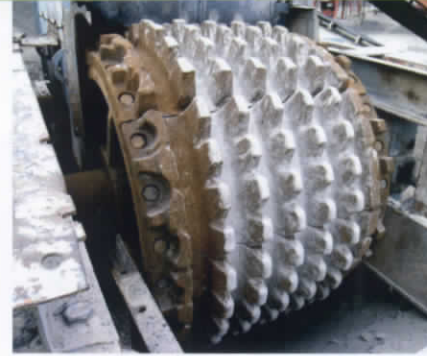
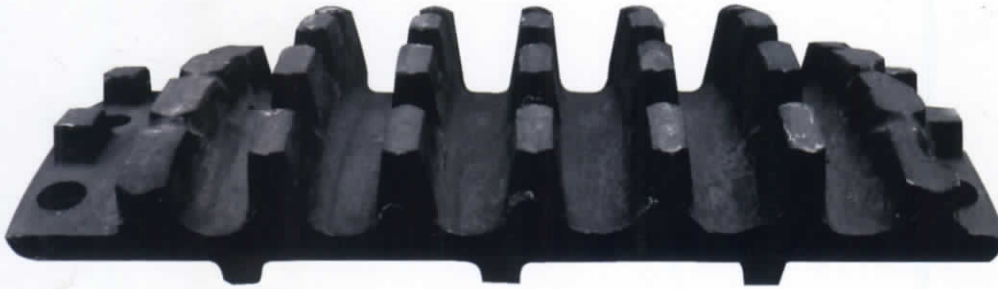




"With our rolls, we help you to reduce power demand while minimizing product fines."

Işık Çelik can manufacture a wide range of alloys, from manganese steels to high chromium irons and martensitic steels, depending on the material to be processed its hardness, friability, size and capacity requirement.

All roll tooth pattern can be applied on customer's request with trapezoid, slugger, and smooth profile.





"Our field experience has proven that our castings ensure more wearing life on cone crushers."

Work hardening austenitic manganese steels have long been the standard for mantles and concaves of the cone crushers, and they are still the best choice in many applications.

Where tramp iron is an unavoidable problem, this material is the best choice to minimize part breakage.

Işık Çelik can offer and supply those parts by choosing the best alloy combination for your particular application considering the ore to be crushed, sectional thickness, proper fitness and performance.



We are able to offer a wide variety of alloys, from manganese steels to bimetallic hammers depending on your particular needs.

We manufacture all hammers under strict quality control and production procedures beginning from the design of gating and rising to the heat treatments specific to the parts.

We know that the chemical compositions including trace elements and the heat treatment of castings is critical to trying to predict casting life.



Bi-Metallic Hammer



Işık Çelik has a lot of alternative materials and heat treatment combinations to optimise your grinding process. We produce parts with just right levels of hardness and toughness for your application, choosing from our high chromium alloy irons, Cr-Mo steels, high strength martensitic steels or austenitic manganese steels.





*"On the production of cubical materials
we propose to use our high chromium
irons"*

High chromium cast iron is the generally preferred material. All castings are manufactured according to the international standards by adding some modifications which Işık Çelik has gained through its experience by years.

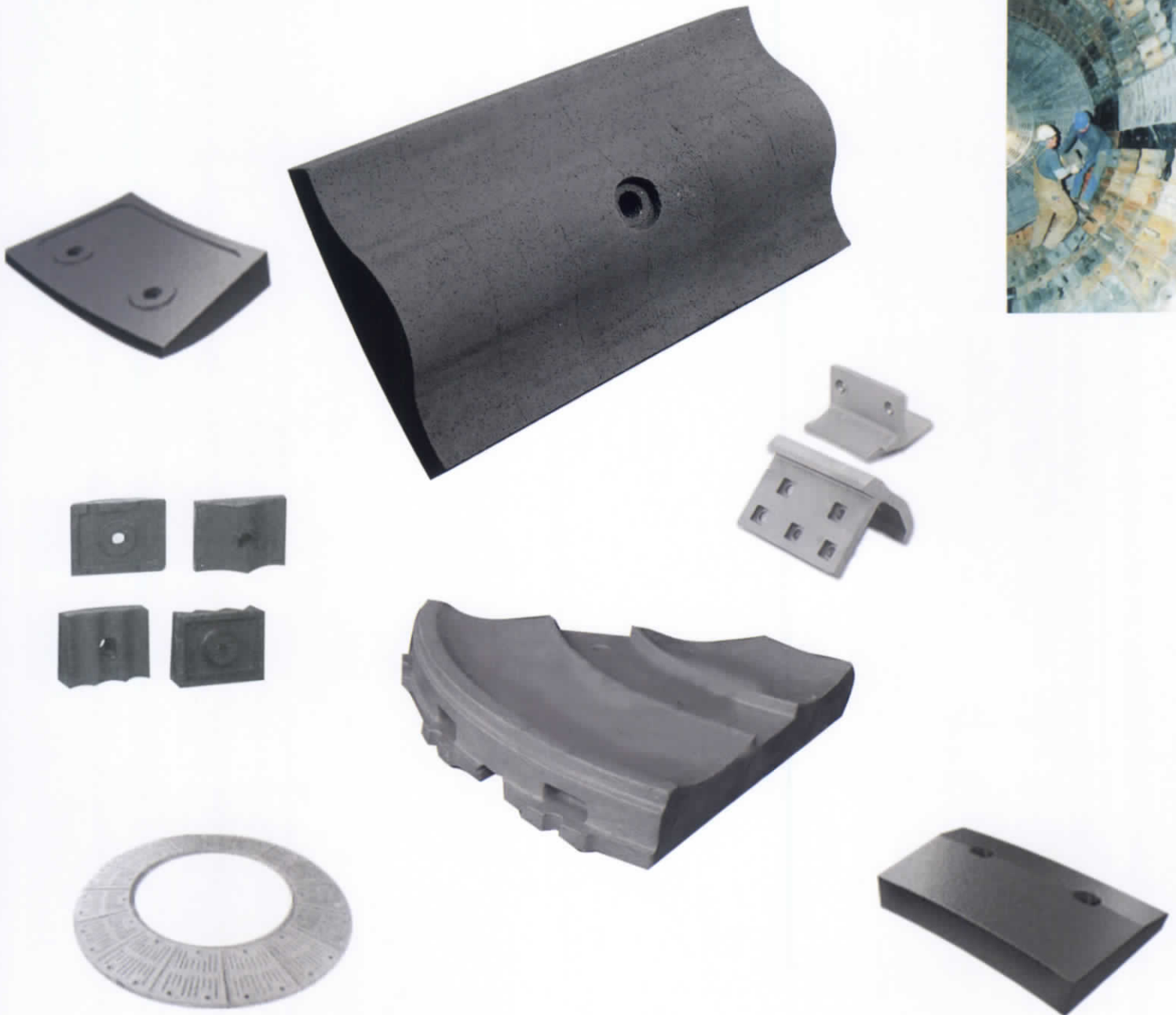
What we have been doing at Işık Çelik to improve;

- Longer wear life.
- Reduction of localized wear.
- Lower total maintenance costs.
- Better production.
- Lower cost per ton of material produced.





Wear-resistant and heat-resistant castings made from a range of alloys are required to meet the demanding conditions of cement production. Throughout cement plants, from the quarry where raw materials are mined and crushed to the finish mills where clinker is ground, wear-resistant castings are indispensable. Heat-resistant castings, on the other hand, are used in pyroprocessing equipment.





Because of material properties have a direct effect on part life and performance, Işık Çelik produce a range of alloys.

By communicating with the customer to determine specific application and service requirements, we can recommend materials featuring suitable properties. Properly balancing mechanical properties, e.g., wear resistance versus fracture resistance, can minimize operating and replacement part costs.



Bi-Metallic Hammers



High Manganese Steel



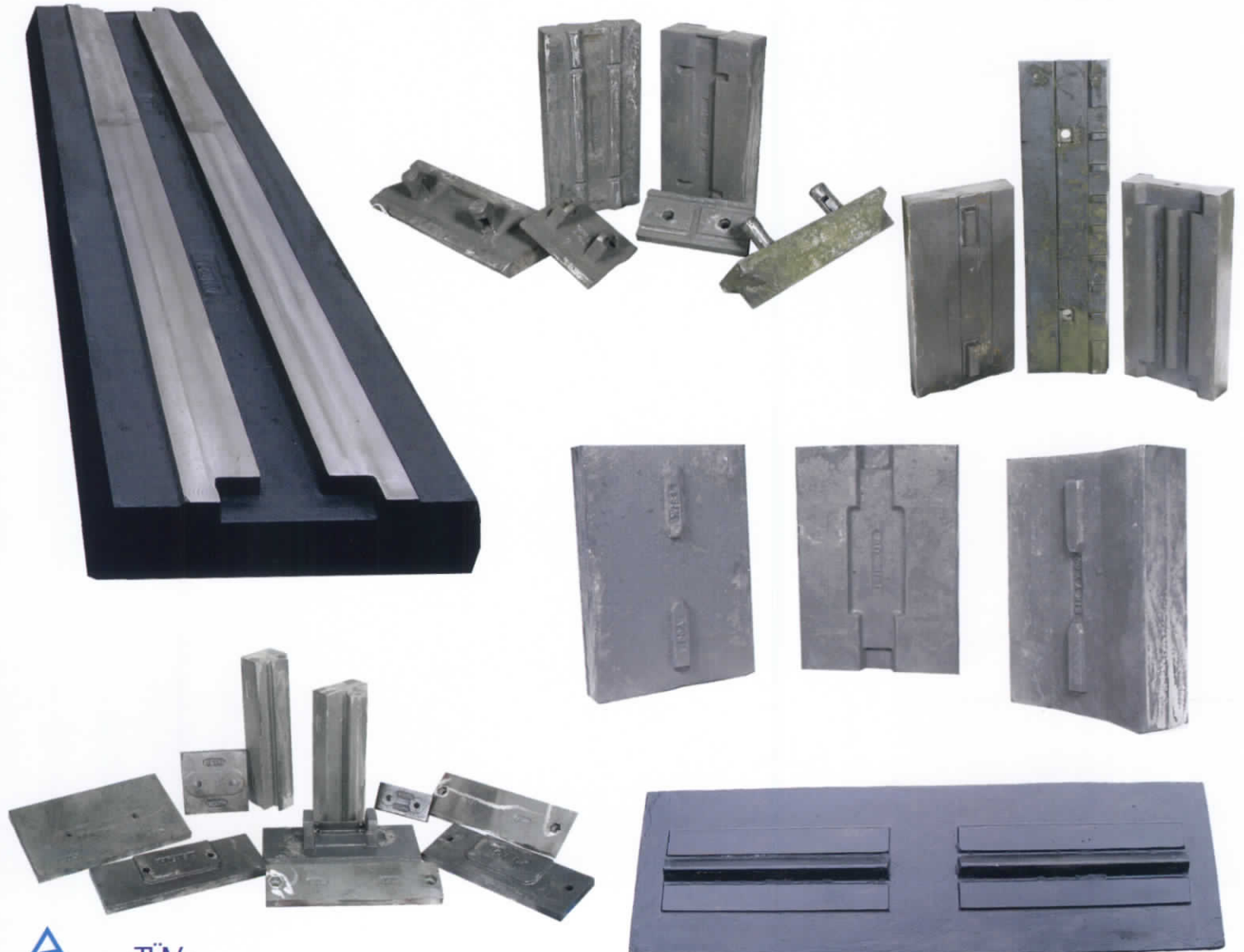


"We increase the wear life of the replacables by alloying, micro-alloying and special heat treatment procedures."

We can offer a wide range of alloys, from manganese steels to high chromium cast irons and bimetallic blow bars, their hardness changing from 58 to 64 HRC depending on the application.

Işık Çelik has broad experience on the selection of right material and production techniques for highly abrasive materials such as basalt and quartz.

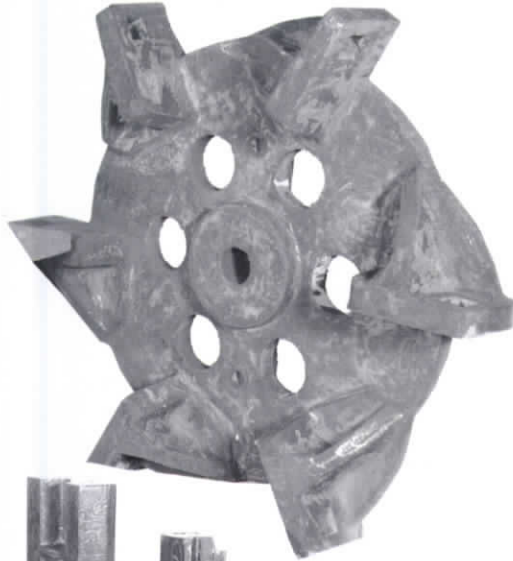
The production is strictly controlled from the selection of charge materials to the finishing operations by spectrometer, metallurgical hardness and non-destructive testing.



"We manufacture composite Bi-Metallic castings based on our own technology."

Heat treatment requires special process control equipment and attention of the staff. Compositional, dimensional tolerances are tighter and Işık Çelik always aims to do better than specified.

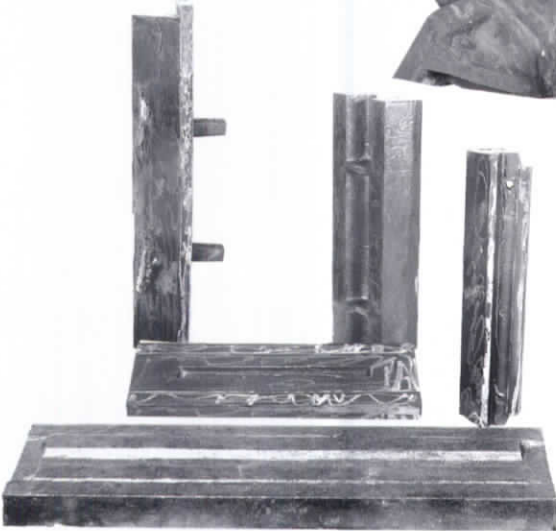
Most of the standard replacables are kept in our stocks for early shipment.



Bi-Metallic technology is a process which combines two different materials on the same component. By this process it is possible to produce a composite casting which has extraordinary wear resistance and sufficient toughness for the application, that is two extreme properties of two different materials.

Working life of Composite Bi-Metallic hammers and blow-bars can be 3-5 times of conventional high manganese steel castings, depending on the type of wear. It saves in crushing and grinding costs, repairs and workmanship.

*This technology has been developed by Işık Çelik



"We are choosing practically proven alloy combinations for maximum toughness."

Besides we manufacture all other cast parts which are used on the construction of jaw crushers in cast iron and cast steel such as pitmans, stationary stocks, bearing-housings, fly-wheels etc.

Final microstructure is checked by metallurgical examinations.





"We reduce your pre-crushing expences with our special high manganese alloys"

The right composition with less trace elements and strictly controlled heat treatment is essential for crusher jaws.

Işık çelik is able to offer and manufacture all grades of manganese steel castings with compositions and heat treatment producers matching to your particular application.

We heat treat castings of various thicknesses according to proven schedules of heat soaking at various tempratures and quench accordingly.

