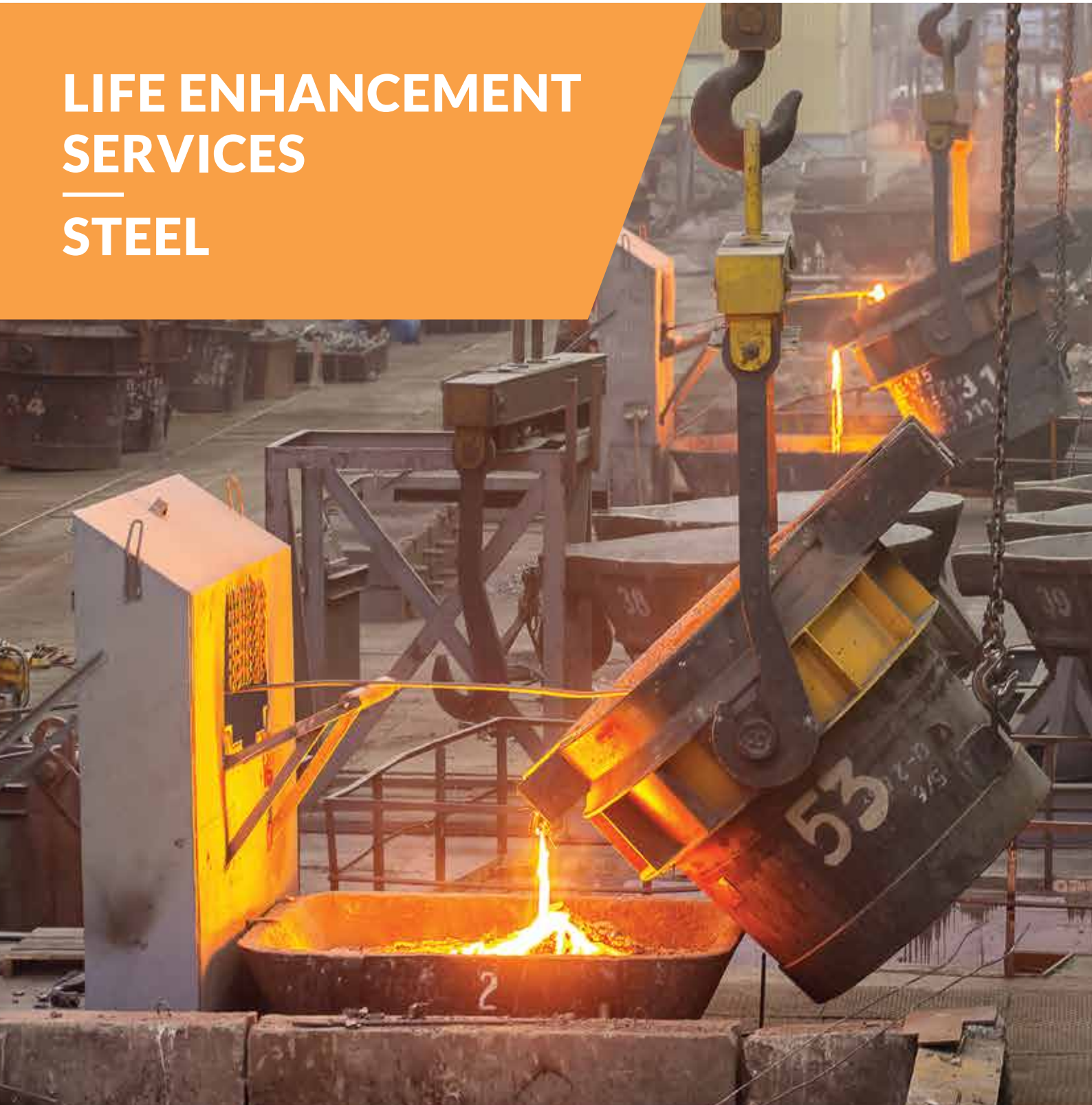


# LIFE ENHANCEMENT SERVICES — STEEL





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# INTERNALLY HARD-FACED PIPES FOR FURNACE FEED

SEAMLESS PIPES ARE HARD-FACED  
AND SUPPLIED WITH THE ASSEMBLY LIKE  
SHAFT FURNACE CHARGING DISTRIBUTOR ETC.



## AREA OF CONCERN

Feed legs are subjected to continuous flow of very abrasive material like Sinter, Iron Ore or DRI etc. Normal pipes wear out very fast. It is expensive affair to go for frequent shut downs and replace worn out pipes. That causes huge production losses and down time cost.

## SOLUTION

Use of seamless pipes – eliminating possibility of puncture from joints – with internal hard-facing offer excellent resistance to sliding, abrasive wear. WOL for higher temperature applications are also available. The performance life is enhanced considerably.

## APPLICATIONS

Feed legs, down comer pipes, Spool pipes, Feed Chutes used for Limes Stone, Clinker, Slag, DRI, Iron Ore, Sinter, Dolomite or Coal.

## KEY PROCEDURE

- Procurement of seamless pipes & flanges (if involved)
- Carrying out WOL over inner surface by automatic, electronically controlled process (weld bead is longitudinal/ axial)
- Flange fitting & finishing
- Inspection

## SOME OF OUR END USERS

Almost all steel and cement plants across India.



# COMPONENTS FOR FURNACES

NEW MANUFACTURE

## AREA OF CONCERN

The body & rotor wears out due to heavy handling of material & it's abrasiveness. The gap between rotor blades & body increases making it difficult to control feed rate and smooth operation of rotor.

## SOLUTION

Refurbish the body and rotor with added features like use of 'Hardox' or 'Enduraplates' or 'Cast-fused' liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

## APPLICATIONS

Aerial Gas Distributor (AGD), Corex/ Midrex Furnace, Quench Tower, Gas

Cooling Tower (GCT), Blast Furnace Tuyers, Limes Stone, Clinker, Slag or Coal.

## KEY PROCEDURE

- Material procurement, testing & inspection
- Cutting on CNC flame / plasma cutting machine
- Assembly & inspection
- Full welding
- Finishing
- Inspection

## SOME OF OUR END USERS

Almost all steel and cement plants across India.



# ROLLING MILLS (CRM, HRM) - VARIOUS ROLLS

TOTAL REFURBISHMENT OR  
NEW MANUFACTURE

## AREA OF CONCERN

All rolls are subjected to high, metal to metal, abrasion at higher temperatures. Rolls wear out and mostly scratches are generated during operation rendering these useless.

## SOLUTION

It is required to have higher performance life to avoid frequent change. This can be achieved through higher metallurgical composition and hardness. Sometimes, when the wear is more, it is required to carry out rebuilding suitable to base material. All WOL is followed by PWHT.



## APPLICATIONS

Plate mills, CCP, Galvanizing Line, Coke Crushing etc.

## KEY PROCEDURE

- Material procurement, testing & inspection
- Undercut
- NDT of shaft & roller surface
- Weld Over lay
- PWHT
- Finished machining
- Inspection

## SOME OF OUR END USERS

- JSW Steel Ltd.
- Jindal Stainless (Hisar) Ltd.
- Jindal Steel & Power Ltd.
- Jindal Stainless Ltd.
- Essar Steel India
- SAIL



# LD CONVERTER - HOOD COATING

INNER SURFACE OF CONVERTER HOOD  
IS COATED BY THERMAL SPRAY

## AREA OF CONCERN

Converter Hood is a construction of number of tubes assembled together. Chilled water is circulated through these tubes to cool the hood. Tubes get thinned and then punctured due to severe abrasion at elevated temperatures caused by high velocity, airborne particles resulting into leakage in tubes and forcing a shutdown. Water if comes into contact with liquid metal, explodes and cause damage to human life as well as equipment.

## SOLUTION

Abrasion resistant coating on inner surface of hood extends the performance life of tubes at the same time ensuring proper transfer of heat. Chances of tubes getting punctured frequently are reduced considerably. This ensures availability of equipment & Safety to human & equipment – both. Old tubes (without puncture) or new tubes can be coated either on ground or 'in-situ'.

## APPLICATIONS

Bend, top or bottom parts of Converter Hood of LD.



## KEY PROCEDURE

- Material procurement, testing & inspection
- Undercut
- NDT of shaft & roller surface
- Weld Overlay
- PWHT
- Finished machining
- Inspection

## SOME OF OUR END USERS

- JSW Steel Ltd.
- Jindal Stainless (Hisar) Ltd.
- Jindal Steel & Power Ltd.
- Jindal Stainless Ltd.
- Essar Steel India
- SAIL

# SINTER PLANT - CRUSHER, STARS AND GRIZZLY BARS

SUPPLY OF NEW, WITH BUILD-IN  
ENHANCED LIFE



## AREA OF CONCERN

Both Sinter Crusher Star and Grizzly Bars are subjected to severe abrasion at very high temperatures.

The abrasiveness of Sinter kills these components and changing these very frequently affects the performance of crusher and warrants huge expenses on account of shut down.

## SOLUTION

Manufacture of new Stars and Grizzly Bars is done by casting and rolled plates respectively. After finished machining, hard facing is carried out with FCW specially developed for such critical applications. The performance life is enhanced considerably.

## KEY PROCEDURE

- Development of drawing & pattern
- Casting & Material procurement, testing & inspection
- Weld Overlay
- Finished machining
- Inspection

## SOME OF OUR END USERS

- JSW Steel Ltd.
- Tata Steel Ltd.
- Bhushan Power & Steel Ltd.



# BLAST FURNACES - BLT FEED CHUTE

TOTAL REFURBISHMENT OR  
NEW MANUFACTURE

## AREA OF CONCERN

It is critical part of the Blast Furnace used to feed material and distribute it evenly into the furnace. Replacement is very time consuming and warrants shutdown of one of the most critical units in steel making. Chute is subjected to impact of falling material, sliding abrasion and elevated temperature. The performance of the chute depends upon that of wear liners. Most of the time the extent of wear is such that even the mother plate gets punctured.

## SOLUTION

Refurbish the body – repair punctured area, check 'goose-neck', manufacture new liners, new jackets & new heat shields, new fasteners.



Maintain alignment. Liners to be of 'Hardox' or 'Enduraplates' or 'Cast-fused' liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

## APPLICATIONS

All designs of Blast Furnaces.

## KEY PROCEDURE

- Material procurement, testing & inspection
- Receipted inspection of chute
- Removal of old liners
- Repair of mother plate, goose neck
- Manufacture of new liners, struts, fasteners and cross bars
- Assembly of liners, struts & cross bars
- Finishing
- Inspection

## SOME OF OUR END USERS

- Paul Wurth India Pvt. Ltd.
- JSW Steel Ltd.
- Bhushan Steel Ltd.
- SAIL

# BLAST FURNACES - BELL AND HOPPER

TOTAL REFURBISHMENT OR NEW MANUFACTURE



## AREA OF CONCERN

Both, bells and hoppers act like valve allowing material entry into Blast Furnace and preventing escape of hot gas at the same time. During opening & closing of these, hot gas containing air borne particles cause abrasion on seating areas of Bell & Hopper. This wear causes gap between bell & hopper thus leakage of hot gas starts and that further deteriorates the component.

## SOLUTION

Refurbishment of bell & hopper includes rebuilding of worn out areas, mostly contact zone of bell & hopper and hard facing it specially developed alloy that offers very high hardness and

machining – both. Burden area of hopper & bell is hard faced with an alloy that doesn't require machining. Static balancing and leakage test is carried out to ensure 100% matching of seats. The performance life is enhanced considerably.

## APPLICATIONS

All blast furnaces with bell type design.

## KEY PROCEDURE

- Material procurement, testing & inspection
- Undercut on seat areas of bell & hopper
- NDT of bell & hopper
- Weld Over lay over seat & burden area
- Finished machining
- Balancing
- Leakage test
- Inspection

## SOME OF OUR END USERS

- SAIL
- Simplex Engineering & Foundry Works Private Ltd.
- Sunflag Iron and Steel Co. Ltd.
- Gerdau Steel India Pvt Ltd.





# COAL WASHERY - CENTRIFUGE, BOWL, SCREEN

TOTAL REFURBISHMENT OR  
NEW MANUFACTURE



## AREA OF CONCERN

It is used in Coal Washeries. When the gap becomes wider between rotor and outer body, the efficiency goes down. Screw, tiles and liners wear out due to abrasiveness of coal. The gap between rotor blades & body increases making it difficult to control feed rate and smooth operation of rotor.

## SOLUTION

Refurbish the body and rotor with added features like use of 'Hardox' or 'Enduraplates' or 'Cast-fused' liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

## APPLICATIONS

Coal Washeries.

## KEY PROCEDURE

- Dismantling
- Material procurement, testing & inspection
- Fabrication & welding
- Finished machining
- Fitting of wear resistant liners
- Balancing
- NDT
- No-load trial

## SOME OF OUR END USERS

- Tata Steel Ltd.



# THROAT ARMOUR PLATES FOR BLAST FURNACES

MANUFACTURE OF MTA  
(THROAT ARMOUR) PLATES



## AREA OF CONCERN

Throat Armour Plates are used in Throat of a Blast Furnace to protect the throat from in-flow of material which causes severe abrasion at elevated temperatures. Use of ordinary casting will not last longer and will have to be replaced very often.

## SOLUTION

Fabricated Throat Armour Plates with hard-faced surface will deliver excellent performance of the plate against wear. Use of added features like use of 'Hardox' or 'Enduraplates' or 'Cast-fused' liners for enhanced resistance to severe abrasion. The performance life is enhanced considerably.

## APPLICATIONS

All Blast Furnaces.

## KEY PROCEDURE

- Material procurement, testing & inspection
- Cutting on CNC flame / plasma cutting machine
- Assembly & inspection
- Full welding
- Finishing
- Inspection

## SOME OF OUR END USERS

Almost all steel and cement plants across India.

# SMS - HOT METAL LADLE CAR WHEELS

TOTAL REFURBISHMENT

## AREA OF CONCERN

Contact surface and collar of the wheel wears out very fast to continuous, metal to metal rubbing. This makes the wheel weak which may break during operation or absence of collar make cause derailment and cause serious accident.

## SOLUTION

Refurbishment of wheel is done by WOL process using suitable welding consumables and collar is also re-generated. Finished machining is done after proper PWHT. The hardness of the wheel is maintained between 40 to 42 HRC. This prevents further wear. The performance life is enhanced considerably.

## APPLICATIONS

All rail wheels but mainly Ladle Car which is critical.

## KEY PROCEDURE

- Material procurement, testing & inspection
- Undercut on OD & flange
- NDT
- Weld Overlay
- Finished machining

## SOME OF OUR END USERS

- JSW Steel Ltd.
- SAIL





## THE COMPANY

Ador Fontech Limited was incorporated on August 22, 1974 and set its course on repair welding from December 1, 1979. Initially, it started functioning as a trading unit under the banner of 'Cosmics General Engineering'. Thereafter, a process was initiated to bring in the best of technology to India from across the globe. Through dint of application engineering, the Company enriched itself to become a manufacturing organisation and today, it is a total solution provider.

## VISION

Our vision is to be considered as the partner of first choice by our customers.

## MISSION

Our mission is to partner with our customers in implementing value-added reclamation, fusion, surfacing, spraying and environmental solutions.

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