

Cortech

High performance clad rolls



Core wire 表面處理技術工程公司：Cortech./已成立 2 家工廠分別設立在

- (1) 斯洛塞維亞--負責歐洲地區
- (2) 印度--印度鋼鐵廠軋鋼滾輪再生與鍛造模具修補工程。
 - 連鑄輪再生鍍補/熱軋輪再生鍍補。
 - 鋼鐵廠天車輪--製造與維修。
 - 耐磨板製造。
 - 冶金分析與測試。

生產規格能力：

- 滾輪修護焊接能力, 尺寸達 $\Phi 1,000 \times 7,000L$ 。
- 平面焊接：2,000mm*1,000mm(耐磨板)。

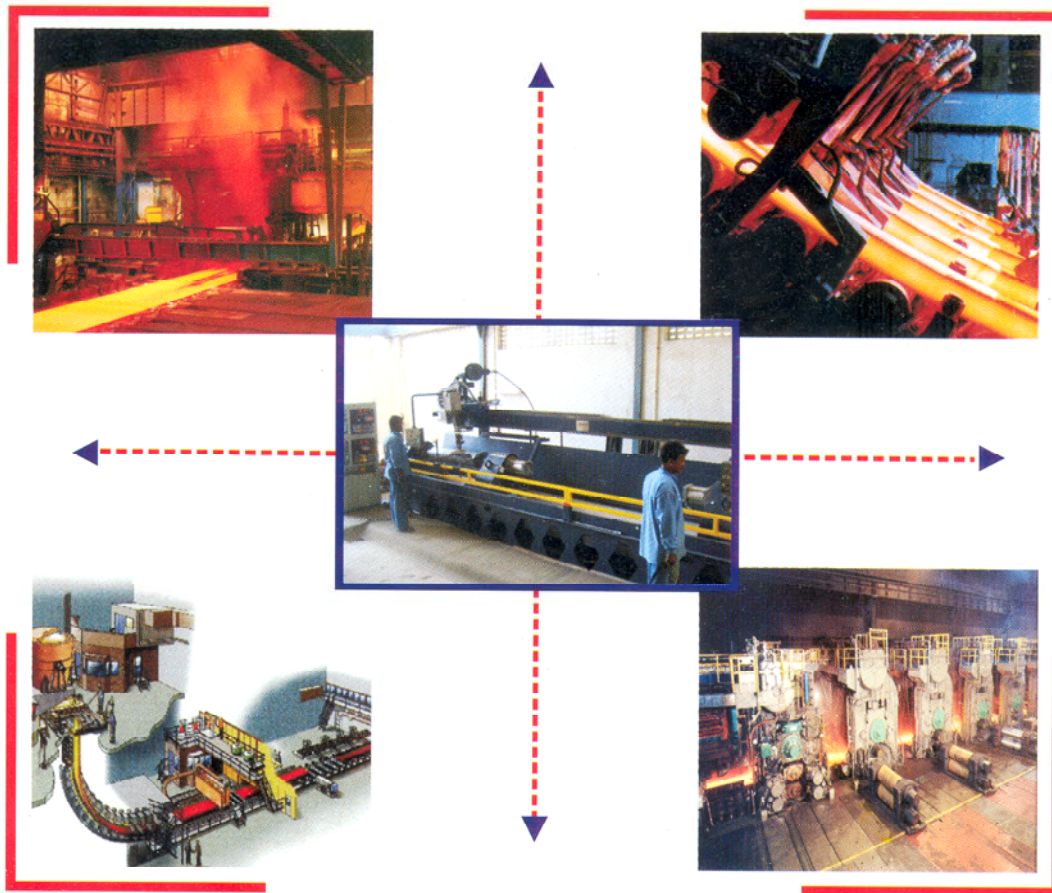
可焊接材質：

- 麻田散鐵不鏽鋼。
- 工具鋼。
- 高鉻鍍補 / 高鉻 + 鈦合金鍍補。





HARDFACED ROLLS

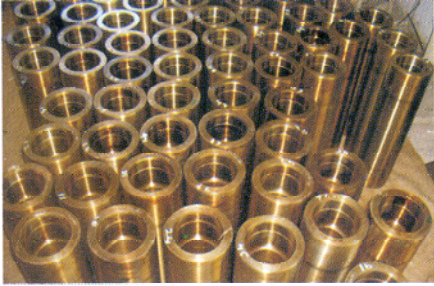


WEAR - RESISTANT. HIGH PERFORMANCE.

EXIT

WEAR - RESISTANT HARDFACED ROLLS FOR CASTERS & HOT STRIP MILLS

SERVING THE STEEL INDUSTRY



Corewire Surface Technology Pvt Ltd, a subsidiary of Corewire Ltd, UK, specialises in the manufacture of Wear - resistant Forged Rolls with application specific wires manufactured by the technology leader, Corewire, UK.

Using high capacity Submerged Arc Welding (SAW) process, ensuring high quality WELDCLAD™ surfaces, we are well equipped to meet the requirements of our customers.

We manufacture most designs of high quality Forged Steel Rolls and Roller Jackets as well as complete Roll Sets (with Housing) for continuous Casting Machines and Hot Strip Mills.

We have access to all the required facilities for manufacture and repair of all kinds of Forged Steel Rolls for Slab Casters, CSP's, Hot Strip Mills, Plate Mills, etc.



REDUCE DOWNTIME

With high performance 'WELDCLAD' Caster Rolls.

Application designed materials for weld surfacing of rolls used in the continuous casting of Slab, Bloom and Billet Casters.

- Hardfaced rolls for OEM suppliers.
- Hardfacing and reclamation of worn rolls for running casters.

Optimum performance through the use of proven materials to resist.

- Corrosion and erosion.
- Wear.
- Heat/thermal cycling.

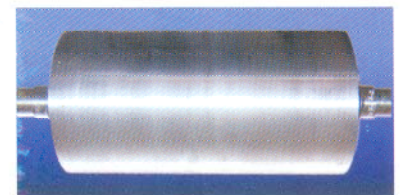


INCREASE ROLL LIFE

Hot Strip and Steckel Mills

Wide range of Wear and 'sticker' resistant materials.

- Top and Bottom Pinch Rolls.
- Descaler Rolls.
- Coil Box and Table Rolls.
- Wrapper and Transfer Rolls.



COREWIRE

EXIT

WELDCLAD™

ADVANCED WELDING TECHNOLOGY

CST offers Turnkey solutions to customers desiring to install Hardfacing facilities in-house for their repair and maintenance of rolls as well as complete Roll Management expertise for Casters and Hot Strip Mills.

RECLAIM AND REDUCE MAINTENANCE COSTS

Besides rebuilding and hardfacing of used forged Rolls, CST repairs other worn parts like Chocks, Wear Liners, Forging Dies, Crusher Rolls, etc. Our Machines have the capacity to rebuild components of upto 25 Tonnes.

FACILITIES

Auto SAW

- Capacity upto 2 Tonnes.
- High Deposition rates of 10 - 18 Kg/hr/head.
- Automated Flux feed and recovery cycle.

Semi - Auto SAW

- Capacity upto 6 Tonnes.
- Twin head for high deposition on long and large diameter jobs.
- Automated Flux feed system.

Heavy Duty SAW

- Capacity upto 25 Tonnes.
- Twin head for high deposition rates.

Machining Facilities

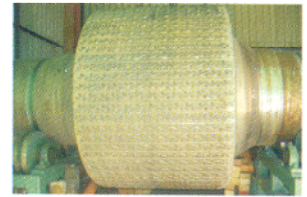
- Lathes for External and deep Hole drilling.
- Tapping and Internal profiling machines.

Heat Treatment

- Dedicated vendor based for heat treatment.
- Furnaces specifically designed for Roll heat treatment.

Quality Control

- QAP is designed to meet stringent quality demands of OEM customers.
- Our quality control programs ensure crack free rolls with strict dimensional control as required.



With our range of products and services and the complete backing of our parent company Corewire, UK, our medium sized company is well equipped to meet the challenges of the Cement and Forging industry in general and the Steel industry in particular.



PROVIDING SOLUTIONS TO OUR CUSTOMERS



Corewire Surface Technology Pvt. Limited

Wear - resistant Forged Rolls for Casters & Mills.



Corewire Limited

Tubular, flux and metal cored wires for hard surfacing applications.

Forgeweld

Forgeweld

Reclamation of forging dies to achieve increased life with lower die and forging costs.



Dymet Alloys

Specialists in the manufacture of cemented tungsten carbide products for a wide range of applications

[For further information about all our products and services, contact:](#)

Corewire Surface Technology Pvt. Ltd.

No. 6, Vanagaram Road,

Ayanambakkam,

Chennai - 600 095.

INDIA

Tel : (91) 44 2653 0563 / 1062

Fax : (91) 44 2653 0564

E-mail : sales@corewireindia.com



STEEL MILL ROLL REPAIRS

A service center located in the heart of Europe providing manufacturing and repair services to the *Steel and Die Forging Industries*.



Steel Industry Products & Services include the manufacture and repair of:

- Continuous Slab Caster Rolls
- Continuous Billet/Bloom Caster Rolls
- Hot Strip Mill Rolls
- Pickling Line Entry Rolls
- Section Mill Rolls
- Other Process Line Rolls



- Manufacture and Repair of Crane Wheels
- Manufacture of Wear Plate
- Metallurgical Analysis and Testing



Capacity:

Rollwelding: Ø 1000mm * 7000mm long

Flat welding: 2000mm * 1000mm (i.e. Wearplate)

Welding materials include Martensitic Stainless, Tool Steels, Nb and Cr Carbides

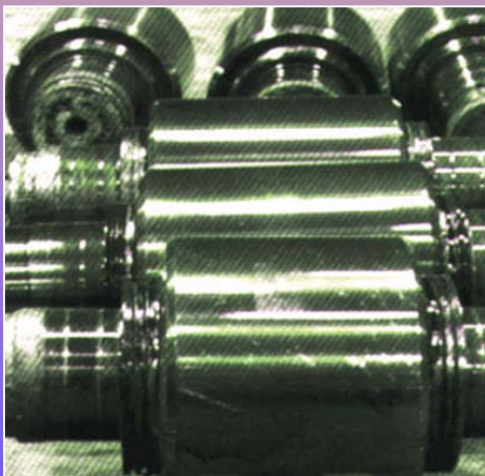
Significant lifetime improvements possible

Example: 900mm Top Pinch Roll

	Cast Iron Roll	Weldclad 4 Roll
Cost New	€ 35.000,-	€ 48.500,-
Repair Cost	Not possible	€ 27.500,-
Live between regrinds	1 - 2 Months	4 Months
Ø reduction during regrinds	4-5 mm	1 mm
Number of campaigns	4	15
Reason for removal	50 / 50 – wear / pick up	wear
Annual cost for (2) coilers Year 1	~ € 160.000,-	~ € 107.000,-
Hardness Profile of the rolls	<p>Diagram showing hardness profiles for Cast Iron Roll and Weldclad 4 Roll. The Cast Iron Roll shows a hardness profile of 57 HRC at the surface, decreasing to 38 HRC at 25 mm depth. The Weldclad 4 Roll shows a hardness profile of 54 HRC at the surface, decreasing to 50 HRC at 25 mm depth. The diagram also indicates the thickness of the weldclad layer at various depths: 5 mm, 10 mm, 15 mm, 20 mm, and 25 mm.</p>	



REFERENCES



- Caster Rolls Evraz Vitkovice Steel (Czech Rep.)
- Straightener Rolls Evraz Vitkovice Steel
- Plate Mill Rolls Evraz Vitkovice Steel
- Transport Rolls Evraz Vitkovice Steel
- Transport Rolls USS Košice (Slovakia)
- Caster Rolls ArcelorMittal Ostrava (Czech Rep.)
- TTM Morava (Czech Rep.) Crane Wheels, Pipe Mill Rolls
- Transport Rolls ArcelorMittal Bremen (Germany)
- Caster Rolls MAKSteel Skopje (Macedonia)
- Tube Mill Rolls Profitube Košice (Slovakia)

COREWIRE SURFACE TECHNOLOGY s.r.o.

Jakobyho 19
040 01 Košice
Slovakia

Tel: +421 55 6222497

Fax: +421 55 6220409

Direct: Sascha Plewka - sascha@corewire.com - +43 664 4219301
Juraj Ondaš - juraj@corewire.com - +421 911 626 701

Workshop: Cesta do Hanisky 5
044 54 Košice – šaca
Slovakia

Languages Spoken:



FORGING DIE AND PLANT REPAIRS



Proven „Forgeweld“ Materials

Quick Turnaround

For Hammer and Press Applications

Global References

GENERAL PROCESS OUTLINE:

Arc-air gouging

Preheat

Weld repair using Forgeweld Materials

Equalizing Temperature

Slow Cool

Post Weld Heat Treatment



Arc-air gouged Axle Beam Block



Welded Axle Beam Block

Lifetime Improvements

Die Cost Reduction due to reclaim vs. new

Reduction of new die material consumption

Utilization of obsolete shapes for new products

Hardnesses of 35-50 HRC

Thermal cracking resistance

Impact and Wear resistance

Also for Trimming Tools



Ram Repairs

Bolster Repairs



Also repairs of Ring
Rolling Mandrels and
other Downstream
processing equipment.

COREWIRE SURFACE TECHNOLOGY s.r.o.
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