

## SUCCESS STORY

### - Revamp of WALDRICH Roll Grinder – - ArcelorMittal Aviles Roll Shop Cold Strip Mill -

#### Machine Details

OEM : WALDRICH  
Year of Installation : 1975  
Model : WS III  
Control System : none  
Max. Roll length : 4.500 mm  
Max. Roll diameter : 650mm  
Max. Rollweight : 6to

#### Description of Project:

The WALDRICH RF6 roll grinder has been selected as one out of five projects at ArcelorMittal Aviles, in order to modernize the roll shops of the hot and cold strip mills. The roll grinder was a simple mechanical machine, this drives the customer to select the RF6 roll grinder to be completely retrofitted and adding a new control system, online measuring device, grinding support with linear guideways, sba motor spindle (for CBN grinding), roll coupling system, crack detection system, roll neck lubrication system and replacement/reparation of wear parts, e.g. headstock, tailstock, etc..

The machine was dismantled at ArcelorMittal and send to sba workshop for complete revamping.

#### Condition before:



**Scope of Supply :**

- CNC grinder control system – based on Beckhoff hardware
- Grinder Control Software (HCC KPM10)
- New control cabinet and complete machine cabling
- New machine cable chains
- Operator panel and hand wheel controller, joystick emergency stop
- Remote operator station for control centre
- SINAMICS Motor 1FT6, 120S controller and power module for Z-axis
- SINAMICS Motor 1FT6, 120S controller and power module for X-axis
- Power module for sba motor spindle – grinding wheel
- Siemens 1PH 7 main spindle motor and power module for headstock drive
- Stationary measurement device - online
- New grinding wheel head incl. sba motor spindle and linear guide ways
- Grinding wheel holders
- Quick wheel change system
- New equalizer unit mounted on headstock
- Grinding wheel diameter measuring (light trap system)
- Crack detection system – Combi US/ET
- sba grinder control software
- Replacement of wear parts (ball screw Z-axis, telescopic cover)
- Refurbishment service by scraping and alignment of Z guide ways
- Mechanical Service (headstock, tailstock, steady rests)
- Mechanical adaption tasks because of upgrade to CNC control
- New hydrostatic/hydrodynamic machine lubrication systems
- Set of steady blocks
- Installation, Start-up and Test of Components before delivery
- Teleservice
- LaserJet printer with extra paper cartridge
- Set of documentation
- Delivery and shipment DDU
- Retrofit of existing steady rest incl. soft loader
- Oil/air grinding seats lubrication system
- Upgrade crack detection system - surface wave
- Set of leveling shoes and anchor bolts
- Interface for RSMS according to SBA specification
- Steady motorization and clamping
- including automated pinion of tailstock for longitudinal roll positioning
- Spanish RD 1215/97 certification incl. necessary safety equipment and actions
- Dismantling and new installation after modernization (supplier premises)
- Start-up and Test Grinding at Customer Premises
- Operator Training on-site at customer premises after start up
- Training for maintenance staff during installation and start up

Condition after finished job :

