

REFERENCE

GLOBAL SMELTERS WIRE ROD MILL , KANPUR

PLANT DESIGN DATA

PRODUCTIVITY : 40[t/h]
 BILLET LENGTH AND WEIGHT : 6 [m] 120 ~140 Sq [mm]
 FURNACE CAPACITY: 40[t/h]
 ROLLING MAX. FINISHING SPEED: 70[m/s]
 STEEL GRADES: Stainless steel , Alloy steel , Mild steel [5.5mm to 14mm]
 ROLLING MILL CONFIGURATION : 3 Hi Roughing Mill + 10 stands continous Mill +
 crop and Cobble Shears , Pinch Rolls + Cooling box + Wire rod Block + laying head +
 Coil handling equipment

TECHNICAL DATA

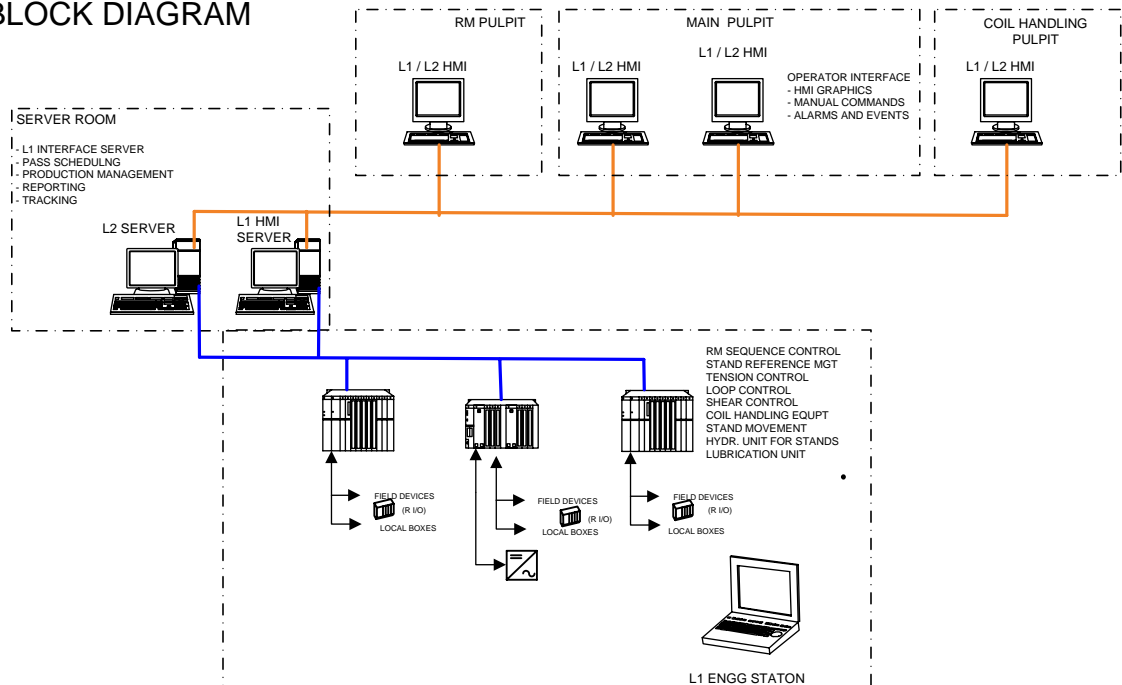
POWER PART

- AC DRIVES FOR CONTINUOUS ROLLING MILL BASED ON ABB ACS 800
- DRIVES COMMUNICATION BASED ON PROFIBUS
- DC DRIVES FOR PINCH ROLLS , SHEARS , WIRE ROD BLOCK BASED ON ABB DCS 800
- AC DRIVES FOR AUXILIARIES BASED ON ACS 550

AUTOMATION PART

- L1 CONTROL SYSTEMS BASED ON SIEMENS S7 400
- HMI BASED ON WINCC CLIENT / SERVER CONCEPT
- REMOTE I/O USED EXTENSIVELY
- ETHERNET BASED LOCAL AREA NETWORK

AUTOMATION BLOCK DIAGRAM



FUNCTIONS :

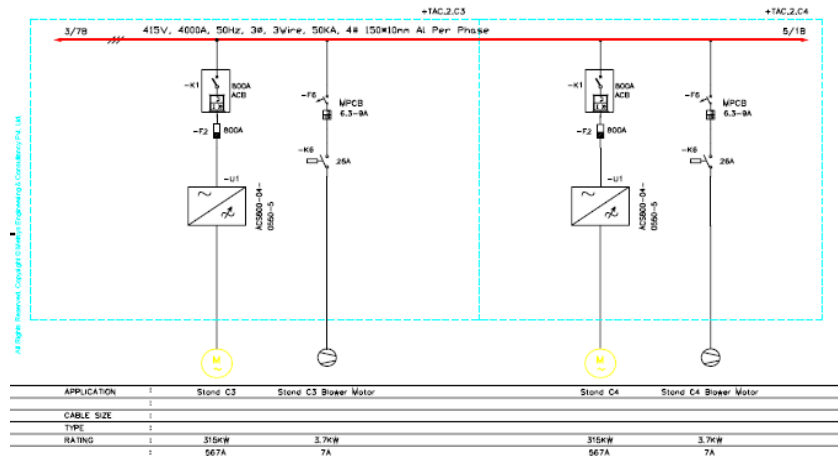
LEVEL 1

REVERSIBLE ROUGHING MILL CONTROL
 CASCADE REFERENCE GENERATION
 LOOP CONTROL
 TENSION CONTROL
 WATER BOX CONTROL
 CROP SHEAR CONTROL
 PINCH ROLL AND LAYING HEAD CONTROL
 COIL HANDLING EQUIPMENT CONTROL

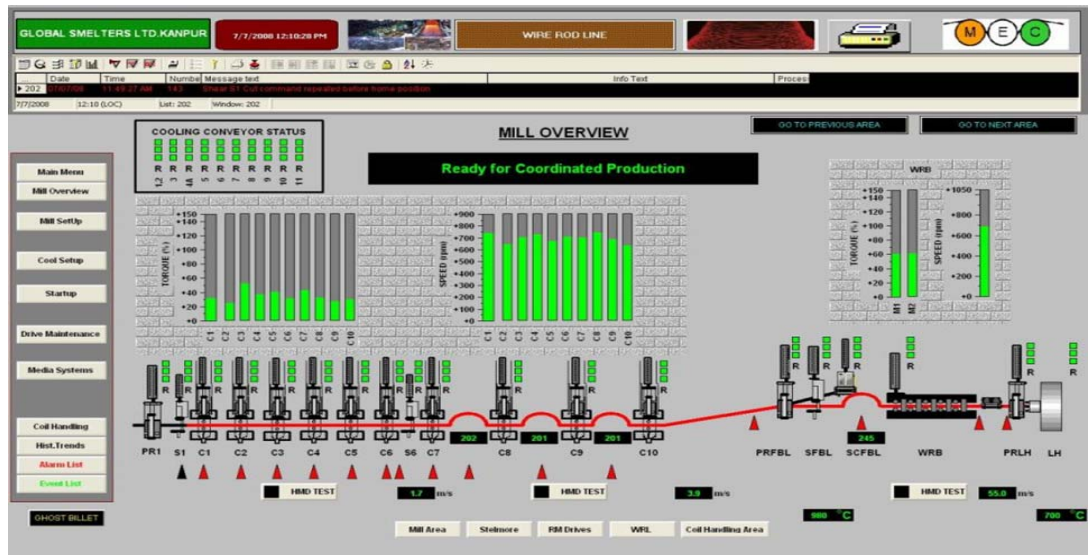
LEVEL2

PASS SCHEDULING
 SETPOINT MANAGEMENT
 TRACKING
 REPORTING
 PRODUCTION MANAGEMENT INTERFACE

SINGLE LINE DIAGRAM



EXAMPLES OF HMI



SYSTEMS AND PRODUCTS FROM LEADING VENDORS,
APPLICATION KNOWHOW FROM METSYS

COMPLETE SOLUTIONS FROM LEVEL 0 to LEVEL 3

LEVEL 3 – Agreement with Broner Metals of UK
combination of Metsys and Broner represents a substantial force that will ensure the most effective implementation of a strong MES solution through a combination of local availability of skilled and experienced resource backed by an extensive suite of MES solutions that are designed for metals.

LEVEL 0
- MV/LV power distribution
- Drive systems AC/DC
- AC/DC motors
- Instrumentation

LEVEL 1/1.5
- Equipment control systems
- Alarm and HMI operator interface
- Fast Data Acquisition systems
- Pass schedule handling systems
- Technological packages for
- AGC Control

LEVEL 2
- Production scheduling systems
- Tracking
- Reporting

COMPLETE SERVICES

- Engineering for turnkey packages
- Equipment healthiness study and up gradation reports
- fine tuning performance.
- study of productivity improvement
- Commissioning