



AMB

AUTOMATION

shaping steel, building trust

With **almost 50 years** of experience **AMB Rolling Mill Solutions** delivers **turnkey Automation solutions** covering every stage of the process — including **re-heating furnaces**, continuous **casting machines**, and **rolling mills** for **bars**, **sections**, **wire rod**, **profiles**, and **flat products**.

AMB integrates Level 1-2-3 automation, state-of-the-art electrical panels, user-friendly HMI control systems for every part of the plant, and intelligent field sensors — ensuring top performance, ease of operation and innovative Green Solutions aimed at reducing energy consumption and environmental impact.

OUR MAJOR REFERENCES

PK People Steel Mills (Pakistan)



Super alloy steel **Rolling Mill**

HARDWARE
A.C. MOTOR DRIVES
A.C. MOTOR



IT DANIELI (Italy)



Water Treatment Plant & Automation

HARDWARE
A.C. MOTOR DRIVES

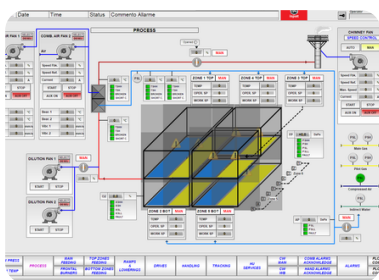
IT OLIFER (Italy)



Revamping of a complete Rolling Mill Plant

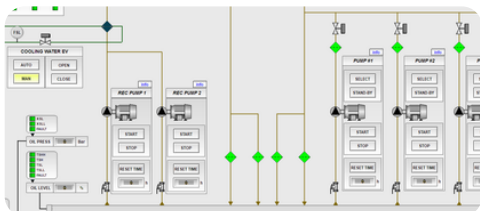
HARDWARE
A.C. MOTOR DRIVES

BD GPH Ispat (Bangladesh)



Walking Beam Reheating Furnace Engineered, commissioned and installed by AMB

HARDWARE
A.C. MOTOR DRIVES
A.C. MOTOR



SA AL-ITTEFAQ (Saudi Arabia)



Complete Rolling Mill Engineered, commissioned and installed by AMB

HARDWARE
D.C. MOTOR DRIVES



Software PLC

At the core of our automation is the **DIGIROLL** system, a powerful PLC-based platform designed for the control of hot rolling mills for *any profile* type. Built on proven hardware—either market-standard PLCs with dedicated interfaces or AMB's proprietary **microprocessors**—DIGIROLL ensures high performance, reliability, and ease of maintenance.

The main **control desk** is user-friendly and designed to enhance productivity, with intuitive **HMI** pages for setting operating *parameters*, *real-time monitoring*, and *fast recipe changes* with just a few clicks.

Our Automation communicate via **digital/analog I/Os** and many **Fieldbus Networks** to seamlessly connect drives and devices. The system *increases productivity*, *reduces labor* and *downtime*, *improves quality*, and minimizes errors during production setup, while providing complete real-time control of key parameters like angular speed, linear bar speed, loop positions, and tension values.

product	type	spacifications
Sensors	Detector	Hot metal detectors, loop scanner, bar counter and all field sensors (Level 0)
Digiroll	Monitoring and supervising	To menage hot rolling mills for any type of profile. Automation for any application (level 1), The PLC communicates with I/O peripherals and drives in Fieldbus Network (default Profinet) and with computers in Ethernet.
Control desk	With SCADA/HMI	For the commands of all devices with SCADA Software (Level 2), is possible connect the SCADA software with the managing software for the complete static and ordering system (Level 3)
Local box	With remote I/O and Fieldbus Network	To connect all local devices (proximity, switches, photocells..)



Power Optimization

In a rolling mill plant, the **SVC** (Static Var Compensator) and **SVG** (Static Var Generator) systems play a crucial role in maintaining electrical power line optimization. Both are designed to **compensate reactive power**, **improve the power factor**, and **stabilize voltage levels**, especially during the rapid load variation typical of motors and power converters. These systems help increase overall plant efficiency, reduce disturbances on the electrical network, and prevent equipment failures or downtime.



ELECTRICAL DIVISION HARDWARE

D.C. DRIVE PANELS:
Unidirectional (2Q)
Bidirectional (4Q)
Multiple Panel (4Q)

A.C. DRIVE PANELS:
Single Drive (Chopper option)
Multi Drive (With FFE or AFE supply)
STARTING FOR ANY A.C. DEVICE
AUTOMATION PLC
REMOTE I/O
CONTROL DESK
LOCAL BOX
POWER CENTER



204 **Automation** projects/interventions
successfully installed/commissioned

45 **Revamping Automation** projects
successfully commissioned



SOFTWARE

AUTOMATION PLC (LEVEL 0-1-2)
DIGIROLL SYSTEM
SCADA SOFTWARE / HMI
FIELDBUS NETWORKS



MOTORS

D.C. MOTOR
ASYNCHRONOUS A.C. MOTOR
SYNCHRONOUS A.C. MOTOR
BRUSHLESS A.C. MOTOR
SLIP RING A.C. MOTOR



POWER OPTIMIZATION

POWER FACTOR CORRECTION SYSTEM:
Static Var Compensator (SVC)
Static Var Generator (SVG)

AC drive panels, also available in **2 or 4 quadrant** standalone solutions, can reach up to **10,000A** when connected in parallel. They are designed with optimized internal layouts for easy access, component replacement, and efficient ventilation. Additionally, various AC soft starters in standalone panels are available for high-power applications such as pumps, fans, oil heaters, roller ways, and transfer systems, making them versatile solutions for any AC motor-driven equipment.

D.C. Drive Panels

product	type	use
Unidirectional	2Q	Rolling mill Stands, Generator, or any unidirectional D.C. motor
Bidirectional	4Q	2HI / 4HI Mill Stands, Start-Stop flying shears, pinch-rolls, cooling beds or any bidirectional D.C. Motor

A.C. Drive Panels

product	type	use
Single Drive	Standalone with blanking chopper option	Roller ways, Chain transfer, A.C. pinch-rolls, or any A.C. Motor
Multi Drive	With FFE or AFE supply for energy recovery	Rolling mill Stands, or any A.C. Motor



A.C./D.C. Motors

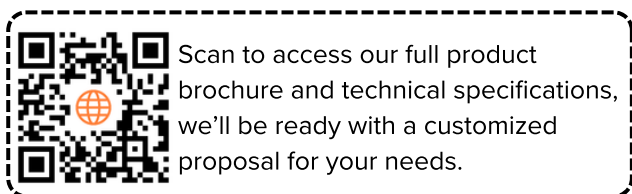
product	type	use
Slip Ring	A.C. Motor starting	It has statoric A.C. breaker and rotoric resistor steps (medium voltage & curent). Is used for roughing mill stands etc..
Asynchrono us a.c. motor	Various A.C. startings in panel, any power needed	For pumps, oil heaters, roller ways, transfers.... Any A.C. devices.
A.C. softstarter	A.C. softstarter in panel stand alone, any power needed	For pumps, fans.... For any big A.C. motors

product	type	specifications
Power Factor correction system	Reduces harmonies and stabilizes voltage	Reduce the impact of the inductive load on the power grid. With the correction of the power factor, we have best efficiency (lower consumption of the motors), and reduction of voltage drops .
SVC & SVG	Reduces harmonies and minimizes flicker	The SVC uses thyristor-controlled reactors and capacitors to regulate reactive power, while the SVG employs more advanced power electronics to provide a faster and more precise response. This makes SVG particularly suitable for the highly dynamic conditions of rolling mills.



Electrical Division

AC and **DC** drive panels are available as standalone units for a a wide range of industrial applications. **DC drive panels** support **2 or 4 quadrants** operational, up to **3500A** (up to **30,000A** in parallel). They are suitable for any type of DC **motor** and include features such as the control and monitoring of the couple, current, voltage and the speed of the motor. Also the drive monitor many alarms of the converter and the motor like temperature, fans and any external safety.



Scan to access our full product brochure and technical specifications, we'll be ready with a customized proposal for your needs.



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