



PRODUCTS & SERVICES

General catalogue





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COMPANY PROFILE



AMB is the new reliable partner for your steel business.

The group is mainly formed by AMB plus complementary partners and it has born to fulfill the uprising market demand in terms of technology, turn-key projects, «green solutions» and economical figures.

For over 35 years AMB has been engaged in a continuous process of upgrade to the rapid technological worldwide evolution succeeding, sometimes to anticipate the market's choices.

AMB as always takes into account the technical informations coming from the field during the commissioning of the plants.

Thanks to this AMB introduces innovative systems for rolling mills, systems that are easily manageable by the customer's personnel.

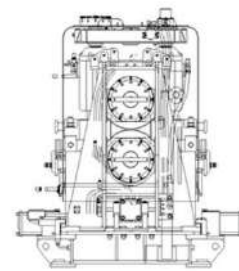
AMB is proud to offer its 360° services for the engineering, manufacturing, supply, erection and commissioning of EAF, LF CCM, re-heating furnaces and rolling mills for bars, sections, wire rod, profiles and flat products



All the past experiences helped us to increase the process know-how and permits AMB to offer a wide range of services and products for the rolling mill and satisfies the customer for the best production efficiency and performances of every plant



AMB is specialized in software for automation level 1-2-3, constructions of latest technology electricals panel for D.C. solutions, inverted for A.C. «green» energy efficiency solutions, field sensors, engineering and constructions, furnaces, automation, customer service after and before sales and everything you need for your steel business.



AMB always projected in the research for new solutions to make the plants more efficient, reliable and to support with their updated engineering and skilled personnel.

AMB also develops turnkey implementation plans and feasibility checks for customized product requirements as well as upgrading of existing plants.

COMBUSTION DIVISION

AMB FOR RE-HEATING

1. Pusher type furnaces
2. Walking hearth furnaces
3. Walking beam furnaces
4. Rotative for pipes furnaces
5. Heat treatment furnaces

SOFTWARE

Our software is developed on 40 years experience and assists the end user from the startup to the optimization and energy saving during the production

AMB provides specific solutions for the furnace managing and the control of the functional parameters, thanks to a user-friendly automation for any type of process. Thanks to its engineers AMB can develop the best furnaces on the base of the specific request and it can support at 360 degrees the end customer in every phase of the process of engineering, manufacturing and installation.

ENGINEERING AND CONSULTING

Our engineering team develops electrical and mechanical parts for all the requirements and they can obtain the best efficiency in all the plants. This is traduced in high quality products and with the least possible waste of the resources. We are proud to have italian engineers coming from a long experience in all the main fields of the steel industry.

AMB HAS THE LATEST ENGINEERING ALSO FOR

- Housingless stands
- Universal stands
- 2HI reversable stands for plates
- 4HI reversable stands for plates
- Down coilers
- ACG (Automatic Gauge Control Anti-Bending)
- New machines & plants
- Modification & upgrade
- Dismanting, shipments & installation
- Erections
- Commisioning
- Startup

Until the desired
production is achieved

AMB CONSULTING

- Consulting for steel business
- Assistance on contract & L/C
- Assistance with suppliers (shopping around)
- Assistance with costumers
- Assistance for erections,commissioning and startup
- Assistance with optimizations and plant upgrades

HELPS YOU TO ACHIEVE YOUR GOALS SUCCESFULLY

- Supervising
- Controls
- Feasibility
- Technical and commercial assistance in all phases of the project

MECHANICAL DIVISION



AMB uses the best and most qualified mechanical suppliers on the market

AMB has partners for manufacturing in Italy or abroad to guarantee the best products at a reasonable price



- Latest technology
- Housingless stand with axial adjustment
- Universal stands for sections
- Start/stop shears
- Cooling beds
- Sliding aprons
- Twin & rotary channels
- High speed flying shears
- Cold shears
- Wire rod lines
- High speed monoblocks
- Laying heads
- ...



ELECTRICAL DIVISION

Thanks to its decades experience AMB is able to provide power panels and control systems for a complete automation of the system



Digidrive main features:

- Programmable ramp on the four quadrants with rounding
- Reading synchronism from the feeding transformer
- Automatic frequency matching in the field 45-65 Hz
- Control completely digital
- Microprocessor at 16bit
- Simple and functional programming
- All parameters related to the current ring are automatically set during self-calibration
- Control with particularly ready dynamicsprogramming from keypad to edge card, operating panel or PC
- Speed reaction from tachometer dynamo or encoder
- Temperature of exercise from 0 to 40°

STANDALONE D.C. DRIVE 2 AND 4 QUADRANT

DC drive in panel standalone up to 3500A - 4Q

DC drives in parallel up to 30.000A

Application: any DC Motors

Drive equipped with automatic circuit breaker. High protection of semiconductors and possibility to feed the armature converter with a voltage different from the auxiliary systems, so as to maintain a high standardization of spare parts

For particular applications where the detection of pollution due to harmonic is very important AMB has developed a conversion system of 24-pulse ripple on DC LV side (48-pulse ripple on AC MV side) with several advantages:

- Minor heating of transformers and cable
- Reduction of the noise due to armonics
- Better communications of the motors increasing of the capacity of the electrical network
- Power factor correction: important benefits for the dimensioning



STANDALONE A.C DRIVE 2 OR 4 QUADRANT

AC drive in parallel up to 10.000 A

Thanks to a careful develop of every panel the internal volume is optimized to simplify the finding and the changing of every component and guarantee the best ventilation and cooling

VARIOUS AC STARTING

Various AC starting in panel for any power needed applications: pumps, oil heaters, roller ways, transfers..
Any AC devices

AC SOFTSTARTES

A.C. Softstarter in panel stand alone, any power needed Application: pumps, fans ... any big AC motors

AUTOMATION HMI

AMB has great expertise knowledge and worldwide experience in engineering, supply and commissioning of equipment and automation solution for rolling mill is offered to the steel producer through highly productive and state-of-the-art components.

THE DIGIROLL SYSTEM

is a powerful instrument for the management of hot rolling trains for any type of profile and is the result of the know-how accumulated over a lot of years of activity in the steel making field and it can permit the achievement of important results in the management of the rolling mill. The base hardware of DIGIROLL system has been developed by using PLC available on the market, integrated with the necessary interfacing or using our own microprocessor that gives outstanding performances since 40 years

AUTOMATION PLC

Our PLC panels are developed for any type of application. The PLC is the heart of the whole system and our experience has enabled us to develop a suitable layout to maximize the reliability and easy maintenance.

The PLC communicates with the rest of the plant with standard digital or analog I/O and is equipped by profinet fieldbus to dialogue with the drives and other device

WITH PLC PANELS YOU CAN

- Increase the productivity
- Reduce the labor
- Improve of quality
- Reduce of dead times during the production phases
- Optimize of the resources management
- Reduce of the possibility of making mistake while beginning a new production campaign
- Possibility to have, in any moment, a complete check-up of all the working parameters visualized on the monitor
(angular speed and working load, linear speed of rolled bar, loop position, tension value etc..)

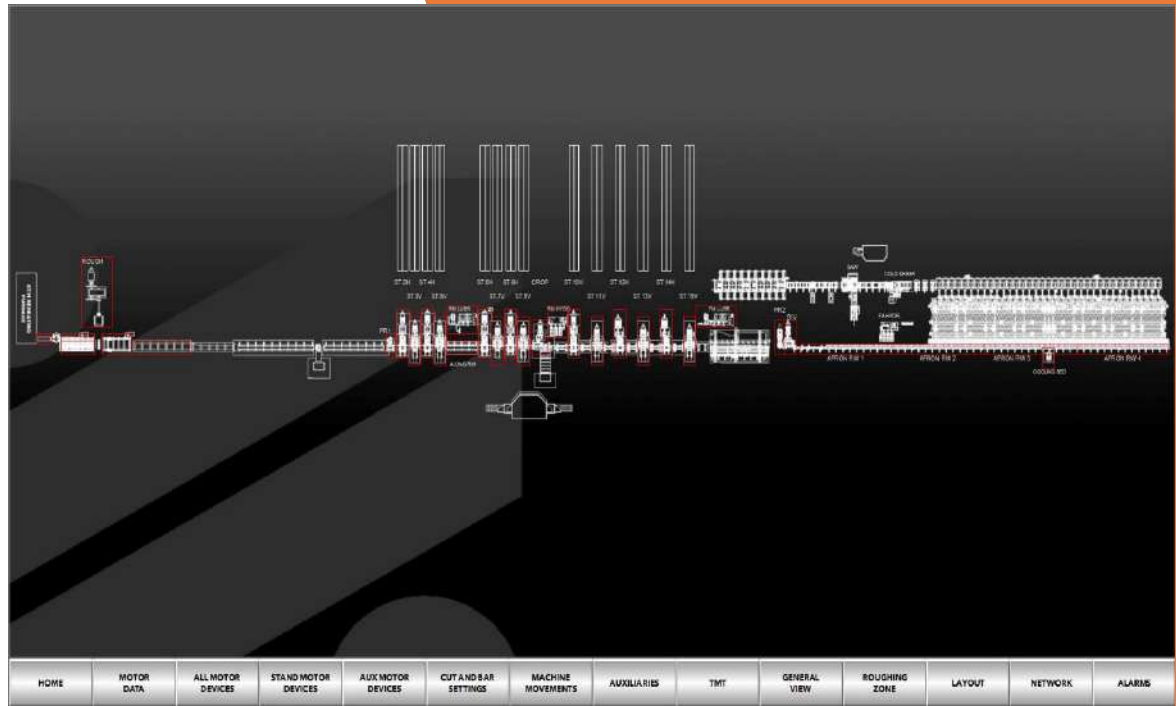


FOR RE-HEATING
FURNACES

FOR ROLLING
MILLS



FOR PLATES/
COILS MILLS



The main control desk is specifically designed to be user friendly and improve the production.

The pages of HMI allow the setting of the operating parameters and the real-time monitoring of the plant.

With a few clicks you can also switch from one recipe to another processing

AMB SENSOR

The AMB Videosystem Computo vision system allows to count the bar heads which pass on the conveyor downstream the shear and the alignment device.

The heads are analyzed and counted in the appropriate registers which can be interrogated by the PLC via Profibus.

The system also provides a communication via Ethernet that is used for the initial calibration and for data exchange (in parallel with the Profibus).

The system can be equipped, upon request, with a PT100 sensor to be inserted inside the vision system.

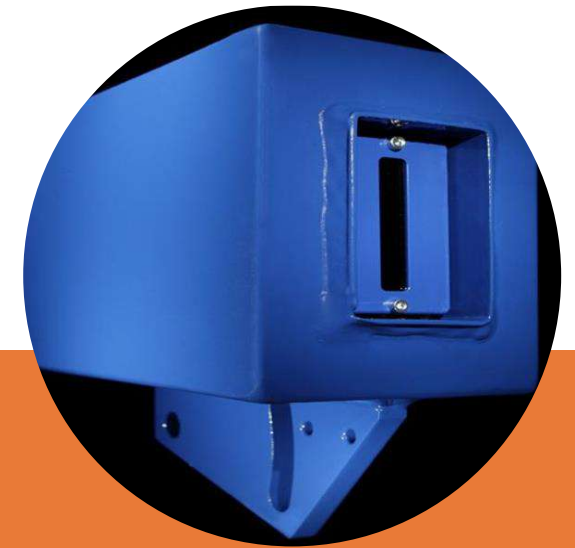
The system is composed of a power supply switchboard and a vision system cooled on three sides in such a way as to be positioned close to the bars



A500 Loop scanner

Hot material position detector used in rolling mills to detect the material loop position in rolling stand. Thanks to the reaction time that is lower than 3 milliseconds, the device is suitable for detecting very fast event of material in transit.

Framing and detection distance that can be redefinier in relation of application, thanks to the use of interchangeable C pinch lenses and external selector switch



A110 Photocell

Hot material presence detector generally used in rolling mills to detect the material presence in real time.

The A100 detects object at temperature ranging from 550° to 1400°C, also in low visibility situation, like in presence of steam. Thanks to the reaction time that is lower then one millisecond, the device is also suitable for detecting very fast event of material transit

GREEN SOLUTION

TO REACH THIS GOAL AMB

The AMB is always committed to develop new technology to improve the productivity and simultaneous reduce the management and the maintenance cost, anticipating what will be need in a world increasingly focused on energy saving and efficiency

Has developed a new line of inverter able to feed motors up to 10.000A.

This technology in combination with the high-efficiency motors is able to consume 10% less compared to a D.C. drive with the same power





TREATMENT WITH ION

- Exchange resins
- Demineralizing
- Water softening for hot water circuits protection
- Decarbonation
- Deferrization and demanganization
- Dosing stations
- Water purifying
- Industrial waste water treatments

FLUIDS DESTRIIBUTION

- Water
- Oxygen
- Methan
- Compressed air

PUMPING STATIONS

- Direct/indirect cooling circuits for continuous casting machines.
- Direct/indirect cooling circuits for rolling mills

DECANTATION

- Circular or rectangular setting basins.
- Recirculating sludge settlers.
- Hydrocyclones

FILTRATION

- Sand filters.
- Sand collector candle filters
- Carbon filters

WATER TREATMENT

CONTACTS



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