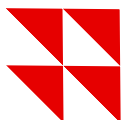




AMB

PRODUCTS

shaping steel, building trust



Steel Solutions Built to Last



ROLLING MILL SUPPLY

With **almost 50 years** of experience **AMB Rolling Mill Solutions** delivers **turnkey 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**, and intelligent field sensors — ensuring top performance, ease of operation and innovative **Green Solutions** aimed at reducing energy consumption and environmental impact.

AMB also offer:



CONSULTING



ENGINEERING



REVAMPING



Electrical Division

AC and **DC** drive panels are available as standalone units for a wide range of industrial applications.

DC drive panels support **2 or 4 quadrants** operation, up to **3500A** (up to **30,000A** in parallel). They are suitable for any type of **DC motor** and include features such as **automatic circuit breakers** for **semiconductor protection** and the ability to **power** the armature converter **separately from auxiliary systems**, ensuring high standardization of spare parts.

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
Single Panel	2Q	Rolling mill Stands, Generator, or any unidirectional D.C. motor
Single Panel	4Q	Start-Stop flying shears, or any bidirectional D.C. Motors
Double Panel	4Q	Rolling mill Stands, or any bidirectional D.C. Motors
Multiple Panel	4Q	Slubbing mill Stands, Plate mill, 2HI reversible mill, or any bidirectional D.C. Motors with need for low harmonic distortion

A.C. Drive Panels

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



A.C./D.C. Motor Drives

product	type	use
Slip Ring	A.C. Motor starting	It has statoric A.C. breaker and rotor resistor steps (medium voltage & current). Is used for roughing mill stands etc..
Various A.C. Startings	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





Automation

At the core of our automation is the **DIGIROLL** system, a powerful PLC-based platform designed for the control of hot rolling trains 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 **Profinet fieldbus** 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	use
Sensors	Detector	Hot metal detectors, loop scanner, bar counter and all the field sensors (Level 0)
Digiroll	Monitoring and supervising	To manage hot rolling trains 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 DP) and with computers in Ethernet.
Control desk	With SCADA software	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	To connect all local devices (proximity, switches, photocells..)

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.

product	type	use
Power Center	For new plants	To optimize the dimensioning of the plant
Power Factor correction system	Reduces harmonies and	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	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.



Combustion Division

product	type	use
Walking Beam Furnace	Up to 150 tons/h in hot charge , 130 tons/h in cold charge , reaching 1230°—and beyond	Improve production with kick-in for hot and cold charging. Automatic regulation. Final product: Rebar 8-40 . Round Bar 12-40 . The use of high efficiency burners, allows to reduce CO2 and NOx emissions.
Pusher Furnace	Up to 100 tons/hour —and beyond	Have an excellent efficiency due to no moving internal parts. Automatic regulation and Automation
Walking heart Furnace	Up to 150 tons/hour —and beyond	The TOP is equipped with the Gas fired Burners, while the LOWER PART is equipped with fixed and mobile parts, for the handling of the material to the interior of the furnace
Rotative Furnace for Pipes	Swirl burners, heat recuperator regulation	This system highly automatized, allow charge and discharge with an robotic arm into a rotative furnace



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



Water & Air Treatment

product	type	use
Complete WTP	Attention to the environmental issues	WTP for the treatment of the water following the chemical parameters required
Cooling tower	Specifically sized for cooling the water before the tanks	Preparing the water to be used in hot environment
Pumps and Booster pumps	For high and low pressure	Available in different types for different fluids
Scraping bridge	Mechanical separator for scale and oil from setting tank	The skimmer collect on the surface the oil for cleaning the water
Oil skimmers	Strip moves on the water surface	To capture oil and move it into a suitable tank
Reverse osmosis	Water purification process	To purify water from the impurities achieving the correct chemical characteristics
Valves, meter and sensors	For every device	To manage and control in real time the plant



Mechanical Division

Our flexible Rolling Mills, designed with the latest updated technology, are optimized for medium production levels and engineered to reduce transformation costs. With the addition of a few complementary machines — such as a straightening machine and a magnetic stacker — the plant can also produce a wide range of **merchant bars**, including **long products**, **plates**, **angles**, **flats**, **U-channels**, and **squares**.

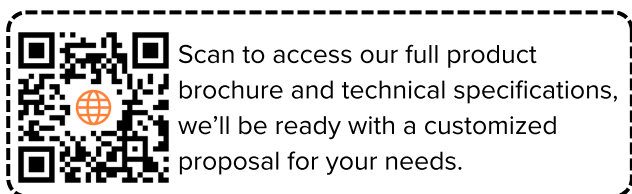
The concept is to minimize **the initial investment** while ensuring the efficiency and reliability of a modern plant. Moreover, the system is designed to be **easily expandable** in the future without requiring radical modifications, keeping the plant aligned with technological advancements.

The **Housingless** technology (Horizontal, Vertical & Convertible configuration) permits the **optimal distribution** of the separating force, the faster change of rolling cylinder and the easy maintenance. These cartridge stands provide **high stiffness** and minimal spring effect, guaranteeing **close tolerances** and *superior quality* in the final product.

Key features include **compact** chock housings, **short** screwdowns with **large diameters**, and **symmetrical** roll opening for **precise gap adjustment**. Chocks are **balanced** with springs to **maintain correct dimensions** across the entire bar length, while **oscillating chocks** compensate for roll bending, **preventing excessive loads** on the roller bearings. Four-row cylindrical roller bearings and thrust bearings handle axial loads efficiently, and axial regulation of the upper roll ensures **perfect groove alignment**.

Additional advantages include an onboard rest bar to support the rolling guides and the ability to install the cartridge in either horizontal or vertical positions. The design also allows easy removal from the line and quick roll changes.

product	type	use
Housingless Stand	Universal stands for long products. Horizontal, Vertical & Convertible configuration.	<ul style="list-style-type: none">Rolls diameter: 350 to 450 mm.Roll barrel: 600 mm.Roll Neck: 200 mm.Compatibility with automatic adjustment systems
Reversible Stands	2Hi & 4Hi . For flat products. Horizontal, Vertical & Convertible configuration.	Close tolerance. High quality of the final products due to their high stiffness and low spring effect . They guarantee the highest level of productivity together with a large product mix and outstanding quality.
Housingless Stand AH Series	Horizontal, Vertical & Convertible configuration.	Compact and robust design with balanced chocks, reliable bearings, and precise roll regulation. Versatile installation, easy maintenance, and other smart features ensure high performance and durability.
Wired rod lines	Universal area	Process for reheating and rolling steel billets.
Start stop Flying shear	Up to 30m/s	For cutting the material to length before the cooling bed
Rotative high speed shear	Up to 30m/s	For cutting the material to length before the cooling bed
Cold shears	High speed machine	Used to cut the final product to the required length.
Cooling Beds	Magnets can be installed to maximize braking power	Cooling beds ensures uniform air cooling of the products. The Amb Rotary Drum ensure impressive speed and precision.
Twin and Rotary channels		
Bundling area	Universal area	Bundle the final product



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



CONTACTS

+39 0303580849

Via Gutenberg 1, Poncarale
(BS), Italy

info@amb.it