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CONTIROD® FOR COPPER WIRE ROD PRODUCTION

Integrated melting, casting and rolling plant

With more than five decades of experience, the CONTIROD® process is used for high-end applications, meeting the quality requirements of copper rod producers. Continuous development has improved product quality and minimized energy consumption. The modular concept of CONTIROD® provides the possibility of tailor-made solutions that meet customers' specific demands. It is an integrated process for manufacturing copper rod from copper cathodes and clean copper scrap.

Wire rod produced in CONTIROD® plants is used for a wide range of final applications. High-end processing on high-speed multi-strand drawing machines, enameled wire, and multi-fine wire is produced using CONTIROD®. High efficiency combined with high-quality copper rod production is key to your competitiveness. Low OPEX and the best possible results in quality are the major drivers for your business.

PRODUCTION STEPS

- Charging of cathodes and clan scraps into the shaft melting furnace
- Pre-heating and melting of the charged material in the vertical arranged furnace vessel
- The melt is guided via launders and holding furnace for dosing into the casting machine
- The twin-belt casting machine forms the liquid copper into a rectangular cast strand
- The cast strand is guided through a bar preparation zone before it enters the rolling mill
- In the rolling mill the rectangular cast bar is formed to a round rod with diameter 8 mm, other diameters are possible on demand
- Deoxidation, cooling and coiling is creating the finished product.
- Rod coil handling facilities for packing and covering are in the down-stream of the plant ctangular cast strand

KEY ADVANTAGES AT A GLANCE

HIGH-EFFICIENCY COPPER MELTING

- **High-volume Shaft Furnace:** Continuous melting with automatic lambda combustion control
- **Green-Ready:** Future-proof production with high-efficiency, hydrogen-ready gas burners.
- **High Thermal Efficiency:** Optimized furnace geometry and charging to reduce fuel consumption and thermal loss.
- **Smart Control:** Process transparency via intelligent sensors and camera monitoring.

ADVANCED ROLLING MILL PRECISION

- **Superior Quality:** Individual AC drives for each stand ensure a flawless surface and homogeneous structure.
- **Maximum Flexibility:** Versatile mill configuration for a wide range of precise round and flat dimensions.
- **Low Operating Costs:** Robust, frequency-controlled motors cut energy use and minimize ring wear for peak plant availability.

FINISHING & PACKAGING

- **Advanced Cooling:** Two-stage alcohol deoxidation ensures an oxide-free surface, followed by precise water cooling and laser diameter control.
- **Automated Handling:** Integrated coil station with automated strapping for high-speed output.
- **Protective Packaging:** Foil and wax coating prevent oxidation during transport and storage.

AUTOMATION, DIGITALIZATION & SERVICE

- **Smart Automation:** Advanced control en-sures reproducible quality and maximum safety while reducing energy use.
- **Digital Intelligence:** Real-time analytics provide full production transparency to optimize plant performance.
- **Lifecycle Support:** Our global service, maintenance, modernization, and training ensure long-term plant availability.

Contact details
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