

OUR TECHNOLOGY

COMPLETE CU ROD PLANTS

A large family from 5 tph up to 35 tph

Properzi has worked very hard during the last 50 plus years to be able to supply ETP copper rod plants that match the best combination of OEE, CapEx and OpEx. In fact, whatever the size of the plant, from medium to extra-large, the Properzi Engineering Team has dedicated extraordinary attention to the major details listed below; after all, it is well known that “the devil is in the details!”.



A Properzi Casting Machine.

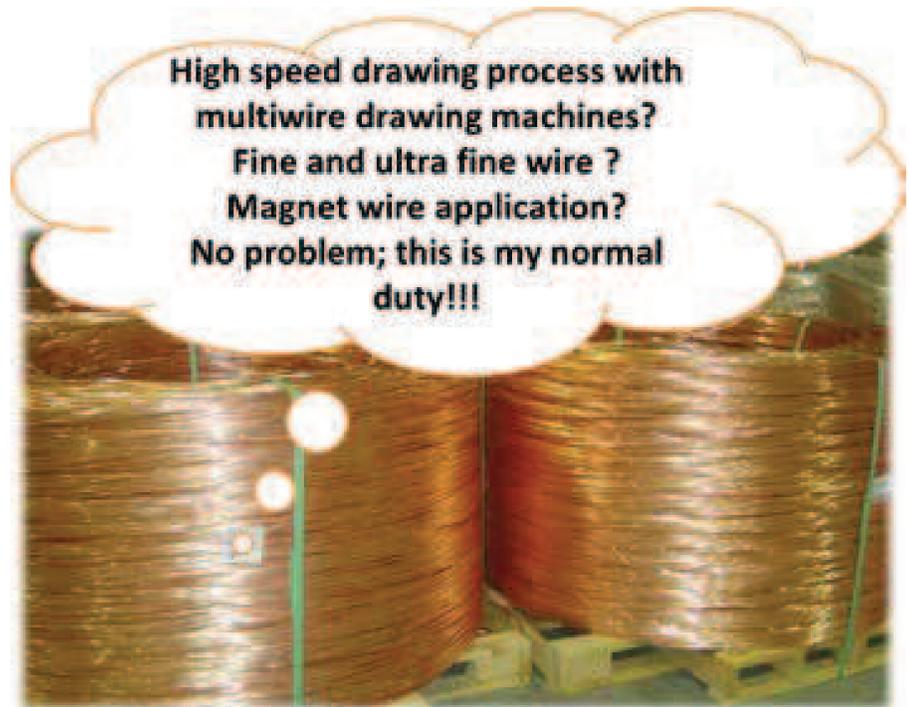
- **The cathodes charging machine** is designed to facilitate uniform scattering of cathodes so as to enhance the thermal efficiency of the vertical melting furnace.
- The use of **big-block refractories** in the melting furnace reduces the refractory installation time and increases the thermal efficiency of the vertical melting furnace; the lower the gas consumption, the better the OpEx.
- The burners of the vertical melting furnace use **nozzle mix burners** thus enhancing both thermal efficiency and safety of the furnace; in large and extra-large plants the third row of burners are tangential burners.



Rolling train and coiling area.

- Each row of burners in the vertical melting furnace **is controlled by a CO analyzer**; additional CO analyzers control the burners of the holding furnace and launders. This allows rapid analysis and prompt feedback.
- **Continuous detection of the temperature** of copper mould, steel belt and cast bar through dedicated pyrometers allows immediate indication of their correct working conditions.
- **The OXI-acetylene Sooting System** provides precise and repeatable soot application.

● **Properzi's unique combination of a roughing mill** with 2-roll rolling stands that provide the necessary high reduction rate **and a finishing monobloc mill** with the legendary 3-roll rolling stands, driven by only one motor, ensures rod diameter tolerance which surpasses the ASTM B49 specs.



All the above ingredients, combined with Properzi's know-how accumulated since we pioneered this process, allows our Users to maximize rod quality in order to reach and surpass magnet wire specifications and drawability below 0.10 mm when requested.

● **Needless to say, Properzi also offers an automatic packaging system for rod coils including pallets feeding, coil compacting, strapping, wrapping, etc. Rod can be collected in rosette type or concentric coils... and the journey continues!!!**



Automatic Packaging Line of a 25 tph Properzi Rod Plant.