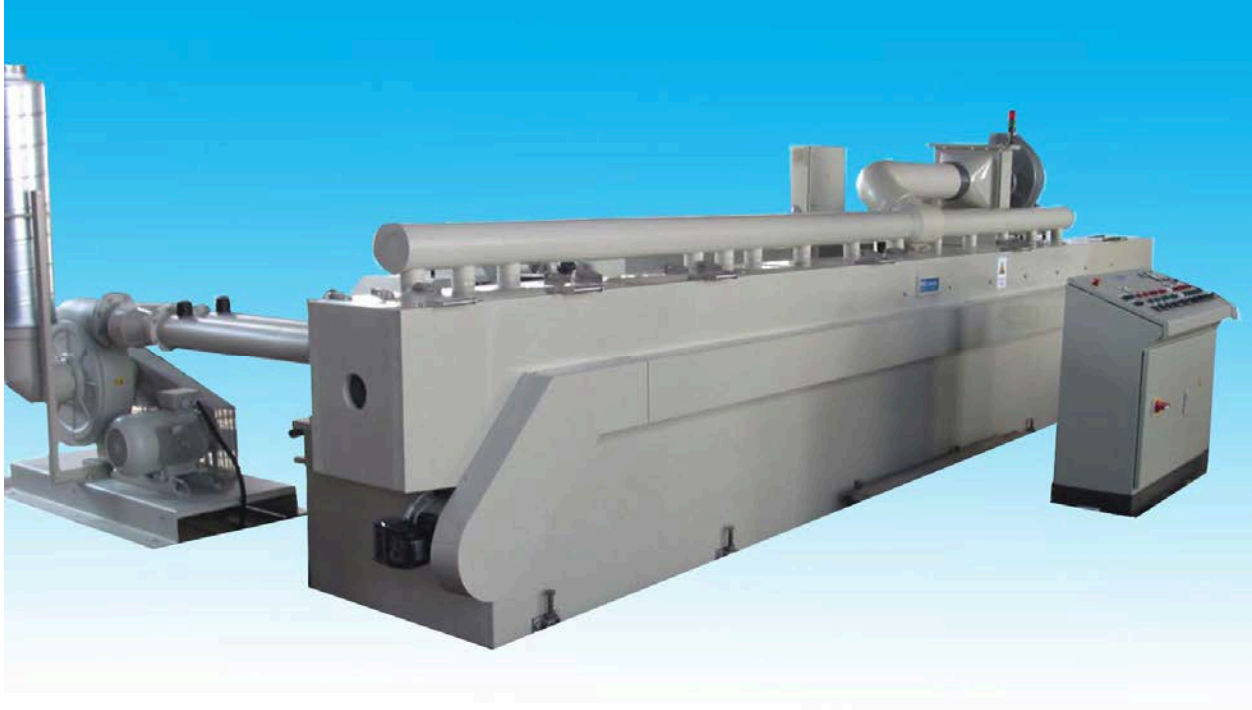


METAL BAR CLEANING LINES

CONTINUOUS ELECTROLYTIC
SURFACE TREATMENT PROCESS
FOR
ROUND & PROFILE BARS



**CONTINUOUS ELECTROLYTIC PICKLING UNITS
FOR PRESSED BARS UP TO 63 mm diameter**

TASK

Ferrous & non-ferrous metals are extruded by dies at very high temperatures. Because the extrusion process takes place in an open air environment, surface scale occurs to a greater or lesser extent, depending on the material concerned. In order to improve the sliding behavior and minimize the frictional force, a heat-resistant graphite paste is applied to the area of the extrusion die, residues of this paste remaining on the rod surface.

PROBLEM

Traditionally cleaning these heavily scaled rods, which are soiled by graphite, is done by an immersion pickling process in a bunch. This is normally carried out using approx. 15% solution of unheated sulphuric acid and the cleaning requires an immersion duration of between 5 and 30 minutes. Using this method to reduce oxide compounds from copper & brass, with a relatively complete layer of graphite, makes this process very difficult

SOLUTION

In order to solve this difficult task, we combine two cleaning processes, so that the rod surface is absolutely clean, with a treatment duration of between one and three seconds.

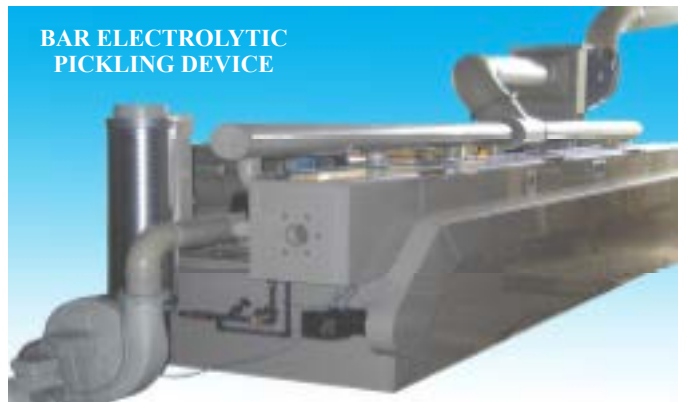
The current density is determined by the material type to avoid excessive pickling of the surface of the metal.

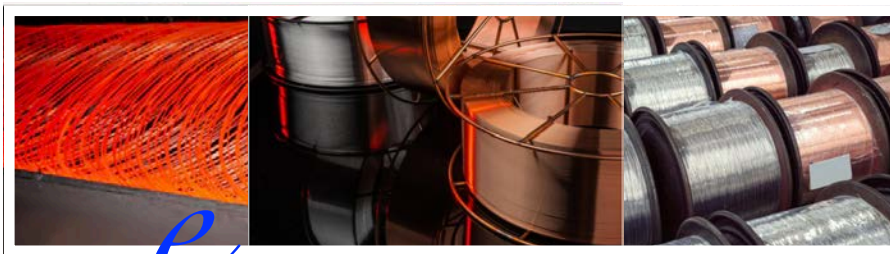
BATH CARE

Soiling of the acid bath is avoided by using a electrolytic separator to remove lubricant backing materials such as copper, zinc, tin, and graphite.

DESCRIPTION OF CLEANING UNIT

1. Cathodic blasting off of graphite residue
2. Electrolytic pickling in sulphuric acid with current densities with a max of 250 A / dm²
3. High pressure spray pickle with H₂SO₄ - 10%
4. Cathodic blasting off of loosened oxide layer





ELECTROLYTIC BAR DEGREASING

FOR ROUNDS: 7 - 63mm diameter

FOR BARS: 7 - 63mm diameter (SQUARE & HEXAGONAL)



BARS UP TO 12,000 mm



DEGREASING CHAMBER WITH ELECTRODES



ELECTROLYTIC PICKLING UNITS FOR BARS



DETAILED VIEW AT TH ELECTROLYTIC COPPER RECOVERY SYSTEM

