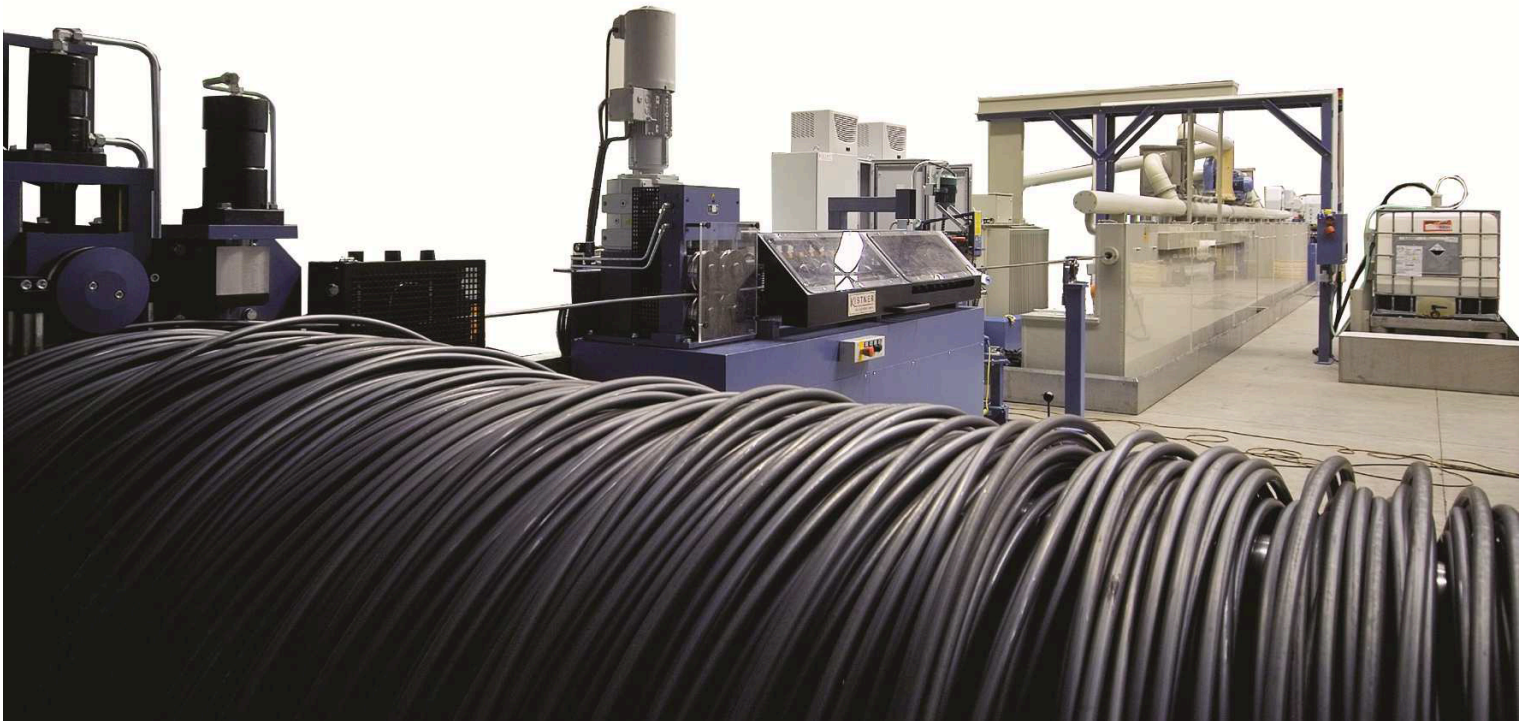


WIRE CLEANING LINES

ELECTROLYTIC CLEANING PROCESSES
FOR
SINGLE WIRE LINES & HIGH METERING RATES

ELECTROLYTIC & CHEMICAL CONTINUOUS PICKLING EQUIPMENT FOR LEAD PATENTING & GALVANIZING LINES

- FOR REMOVAL OF WIRE ROD SCALE WITH H_2SO_4
- FOR REMOVAL OF DRAWING AGENTS & STEARATE





WIRE *e* CLEANING PROCESS SYSTEMS

PROCESS DESCRIPTION:

A very clean wire surface is needed as a precondition for further processing and coating. That means that the lubricants and stearates, from the previous drawing process, have to be removed from the wire surface.

Conventional degreasing processes that work with high temperatures and / or with the support of ultrasonic sound, are often too slow in their processing speed to be applied to a fast operating process.

APT solved this problem by developing the WIRE *e*-CLEANING PROCESS SYSTEM. This process allows surface cleaning within seconds, by applying very high current density at changing polarization.

During the electrolytic cleaning process, continuous current flows to any spot on the metal surface and generates small hydrogen and dioxygen blisters according to polarization.

The pollutant particles are blasted away from the surface by the emerging gas pressure and result in a precision clean surface. Electrolysis is especially suitable in cases you need very clean surfaces.



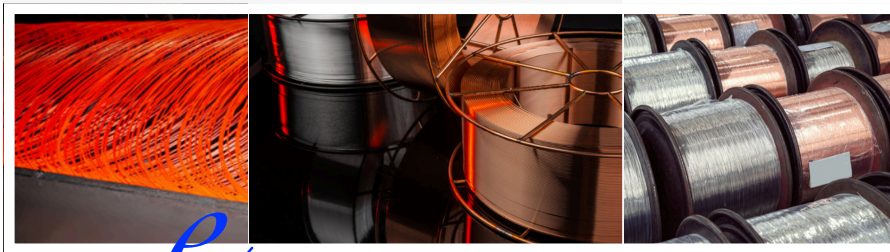
WIRE SURFACE WITH & WITHOUT CLEANING



MULTI-WIRE DEVICE

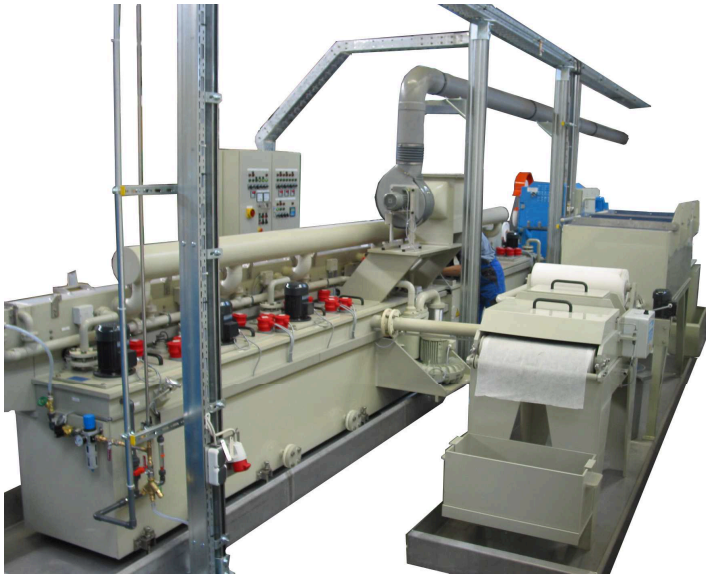
BENEFITS:

- INCREASED PRODUCTION LINE SPEEDS
- INCREASED CLEANING RESULTS
- LOWER PRODUCTION OVERHEAD COSTS



ELECTROLYTIC CONTINUOUS DEGREASING SYSTEMS UP TO 12 m/s

FOR REEL-TO-REEL PROCESSES:

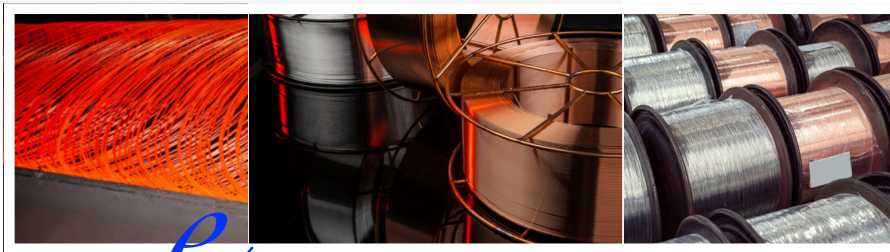


FOR FOLLOWING DRAWING PROCESSES:



**MULTI-WIRE DEGREASING UNITS IN FRONT OF
THE ANNEALING FURNACE, 24 STRANDS**



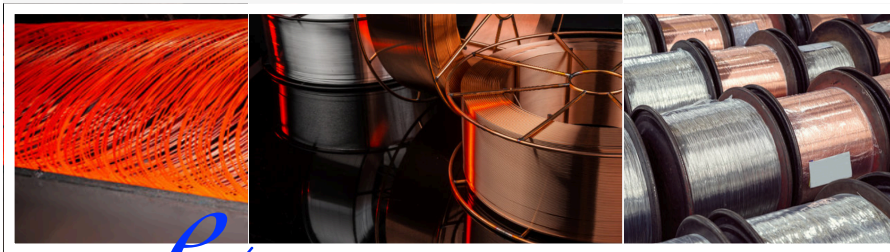


**ELECTROLYTIC CONTINUOUS PICKLING UNIT FOR ANNEALED
NON-FERROUS WIRES WITH POLISHING DRAWING**



**ELECTROLYTIC CONTINUOUS PICKLING UNIT FOR WIRE ROD
UP TO 60 m/min. WITH FINISHING TREATMENT**





CHEMICAL CONTINUOUS PICKLING UNITS WITH HCl FOR LEAD PATENTING & GALVANIZING LINES



FLOOD TANK WITH GUIDE BARS



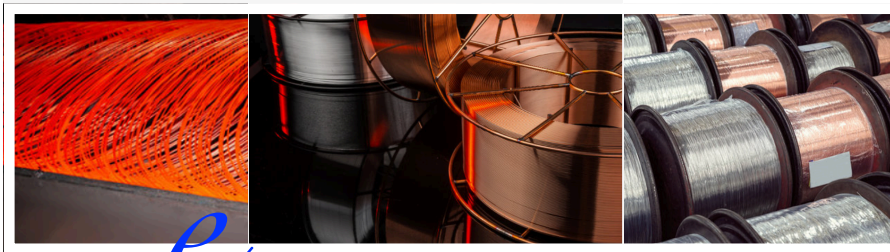
PICKLING UNIT WITH FLUX BATH AND OPEN HOOD



**CONTINUOUS PICKLING UNIT - 40 STRANDS
"TYPE CLOSED"**



ELECTROLYTIC PICKLING UNIT



WIRE *e* CLEANING PROCESS SYSTEMS



CONTINUOUS PICKLING UNIT - 10 STRANDS



HIGHT ADJUSTABLE WIRE DEFLECTION



EXHAUST AIR SCRUBBER WITH FAN