ACID RETARDATION
FOR PICKLING BATHS
REGENERATION
RESIBED

WITH AN ATTENTIVE
EYE TO NATURE

CONDOROILCHEMICAL
CHEMICAL PRODUCTS FOR INDUSTRY

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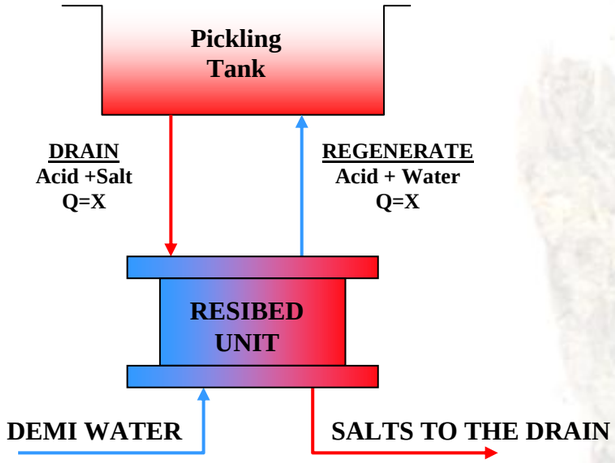
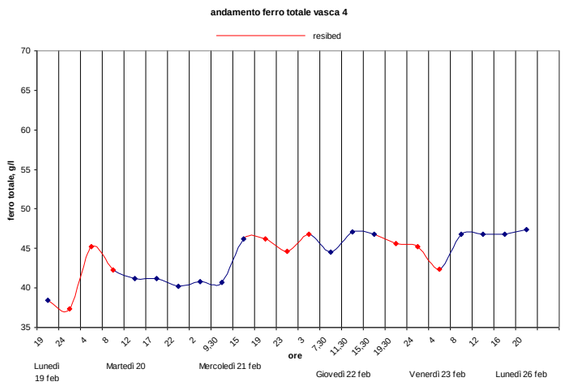
ACID RETARDATION FOR PICKLING BATHS REGENERATION
RESIBED UNIT

WORKING PRINCIPLES

Passage speed of the salts inside particular chromatographic resins is higher that the free acid speed.

By checking the elution times it is possible to stop free acids inside the resin and then recover them with a water flow equal to the discharged salts flow.





ADVANTAGES

PRODUCTIVITY

- Constant pickling activity
- No remaking of the baths
- Better quality of pickling

ECONOMIC

- Savings in pickling products
- Savings in sludge disposal
- Savings in labor

PLANT DESCRIPTION

The plant has a modular structure and is made by a series of equivalent beds. It can simply be dimensioned according to the customer needs.

Each beds can process 500 l/h of pickling solution recovering the free acid.

The plant is managed totally automatic by a PLC.

THE BED

The metals and the acids are kept constant in the pickling bath.

RESIBED PROCESS

Resibed Regeneration Unit operation is based on the capacity of proper ionic retardation resins to slow down the flow of the mineral acids, which are present in a pickling solution, while the metallic salts are let passing through.

The absorption process is reversible therefore the acid absorbed by the resin can be removed by a simple passage in water in order to be recovered in the pickling baths.

The system does not require any chemical reagent. Energetic consumption is limited to the functioning of pumps of very low deliveries.

This technique, which has been introduced in the stainless steel pickling field since a long time, allows to keep the working baths with a constant metal content, avoiding to drain and to purify the free acids which are partially recovered.

APPLICATION FIELDS

Recovery of acids from pickling solutions for:

- STAINLESS STEEL (TRADITIONAL AND NITRIC FREE)
- CARBON STEEL (HYDROCHLORIC AND/OR SULPHURIC BASED)
- NICKEL – TITANIUM AND ITS ALLOYS

Recovery of acids from solutions for anodic oxidation