PRODUCT DATASHEET

Chelating Ion-Exchange Metal Recovery Columns

Lead–lag chelating resin columns that recover metals from process liquors and plating baths

Product page





Close-up: resin columns and valve manifold

OVERVIEW

The Tech Inc. Chelating Ion-Exchange Metal Recovery Columns recovers metals from dilute process liquors, rinse waters and spent plating baths, where precipitation is wasteful. The liquor is filtered and passed through two or three resin columns in lead–lag; chelating resin captures the target metal, and when the lead column is loaded it is rinsed and regenerated with acid, giving a concentrated metal solution for electrowinning or crystallisation.

TYPICAL DESIGN DATA

Flow	About 0.5 to 10 m^3/h
Resin	Chelating or other ion-exchange resin chosen for the metal
Columns	FRP or lined steel
Codes and standards	Vessels and pipework to the client's specification; electrical to IEC 60204-1
Regeneration	Acid, with rinse recovery
Measurement	PH, conductivity and flow
Control	Automatic cycles

MODELS AND CAPACITIES

- **TI-IXR-0.5** – about 0.5 m^3/h
- **TI-IXR-2** – about 2 m^3/h
- **TI-IXR-10** – about 10 m^3/h
- **TI-IXR-3C** – three-column merry-go-round

Indicative liquor flow.

ORDERING CODE

Example **TI-IXR-2-3C**: **2** flow, m^3/h; **3C** columns: 2C lead–lag, 3C merry-go-round.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual.
Options: third column; online metal analyser; regenerant recovery; installation.

KEY ADVANTAGES

- **Selective** – chelating resin
- **Less sludge** – than precipitation
- **Concentrates metal** – for reuse
- **Automatic** – service and regeneration

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