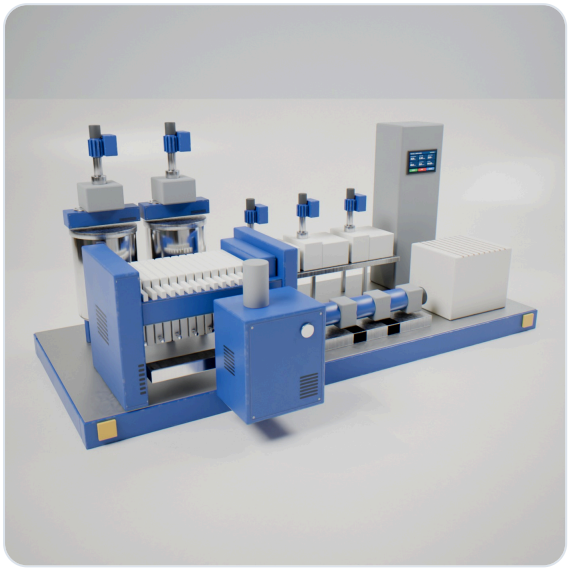
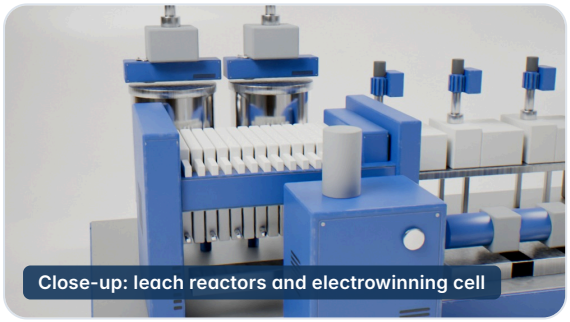
PRODUCT DATASHEET

Precious-Metal Recovery Line for E-Waste and Catalytic Converters

Leach, solvent-extraction, precipitation and electrowinning lines for gold, silver and PGMs

Product page





Close-up: leach reactors and electrowinning cell

OVERVIEW

The Tech Inc. Precious-Metal Recovery Line for E-Waste and Catalytic Converters recovers precious metals from shredded printed circuit boards, connectors and spent catalytic converters. The line leaches the metals into solution in corrosion-resistant reactors, separates them by solvent extraction or selective precipitation, and recovers them as metal or salt by electrowinning or reduction, with scrubbers for the fumes and treatment of the spent liquors.

TYPICAL DESIGN DATA

Feeds	Shredded boards, connectors, catalytic-converter powders
Metals	Gold, silver, palladium, platinum, rhodium
Materials	PP, PVDF, glass-lined and alloy wetted parts as the chemistry requires
Codes and standards	Pressure parts to ASME VIII where applicable; electrical to IEC 60204-1
Recovery	Electrowinning, cementation or chemical reduction
Emissions	Fume scrubbers; effluent treatment
Control	PLC with batch records

MODELS AND CAPACITIES

- **TI-PMR-P** – pilot, about 25 to 100 kg per batch
- **TI-PMR-1** – about 1 t/day
- **TI-PMR-5** – about 5 t/day
- **TI-PMR-PGM** – catalytic-converter line

Indicative feed capacity.

ORDERING CODE

Example **TI-PMR-1-PGM**: **1** capacity: P pilot or t/day; **PGM** feed: PGM converters, AU e-waste.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** pilot test campaign; effluent treatment; laboratory set-up; installation and commissioning.

KEY ADVANTAGES

- **Complete line** – leach to metal
- **Clean** – scrubbers and effluent treatment
- **Right materials** – PP, PVDF, glass-lined, alloy
- **Records** – batch data for metal accounting

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

Offices: Chennai · Toronto · Tallinn · Al Khobar

mail@techincresearch.com · +1 (289) 622-1032 · www.techincresearch.com

How to cite: Precious-Metal Recovery Line for E-Waste and Catalytic Converters (model TI-PMR). Tech Inc., Vaughan, Ontario, Canada. www.techincresearch.com/product-page/precious-metal-recovery-line

Disclaimer: All products, designs and content are the property of Tech Inc. Tech Inc. reserves the right to change specifications and details without notice. Images are for representation only; the supplied equipment may differ in appearance. Data are typical; final design to client specification.