

Precious Metal Recovery & Refining Equipment | 99.8% purity

Precious Metal Electrolytic Recovery Machine

High-frequency pulse recovery that pulls gold and silver straight out of spent solution as metal.



Developed in-house, this machine reduces silver, gold, copper or nickel ions directly to metal under automatic intelligent control, reaching 99.8 percent purity with a recovery rate of 99 percent or better on gold and silver. Available in one, two, three and four-head configurations.

The problem it is built for

Drag-out tanks, strip solutions and rinse waters carry away real money, and the concentration is too low for anyone to bother with chemically. Electrolytic adsorption makes low-concentration recovery worth doing, and the residual liquid comes back inside discharge limits.

Published specification

Parameter	Value
Product name	Electrolytic gold recovery equipment
Brand	XHF
Function	Recovering precious metal in the plating solution
Recovery rate	>=99% gold and silver; >=90% copper, nickel, platinum, palladium
Output purity	99.8%
Principle	High-frequency pulse electrolytic adsorption
Shell material	PP
Voltage	220 V / 380 V
Power	300 W / 350 W / 400 W / 500 W
Key components	PLC, motor, pump
Tare weight	50 kg

Parameter	Value
Delivery time	7 to 15 days
Warranty	1 year
Place of origin	Guangdong, China

Precious Metal Electrolytic Recovery Machine - features and applications

What is built into it

Feature	What it does
Electrolytic adsorption, automatically controlled	Metal ions in solution are reduced onto the cathode and the deposit is peeled off for re-refining. Intelligent control handles the current so the deposit does not splash or over-electrolyse.
One to four heads	The same cell scales by head count, so a workshop running one plating line and a plant running four can both be matched without changing technology.
Works on the dilute streams	Plating solution, drag-out tank, strip solution, plating rinse waters, iodine and iodide etching solution, e-waste stripping solution and spent photographic developer are all named applications.
Residual silver below 20 mg/L	On spent fixer, the published figures are a recovery rate of 98 percent or better with residual silver in the treated liquid below 20 mg/L, which is inside environmental discharge standards.
PP tank, replaceable electrodes	Acid and alkali resistant throughout, modular so electrodes can be swapped and the cell cleaned, with a continuous operating life described as over eight years.

Where it is used

- Recovery of gold, silver, rhodium, platinum and palladium from plating solutions and drag-out tanks
- Recovery from plating rinse waters and strip solutions
- Gold and silver from iodine and iodide etching solutions
- Precious metals from e-waste stripping solution and electronic plating waste
- Silver from spent photographic fixer and developing solution

Questions buyers ask

How pure is the metal it produces?

99.8 percent, per the source description. Recovery rate is 99 percent or better for gold and silver, and 90 percent or better for copper, nickel, platinum and palladium.

What power does it draw?

300, 350, 400 or 500 W depending on configuration, at 220 V or 380 V. Tare weight 50 kg.

Does it work on spent fixer solution?

Yes, and that is one of the best-documented cases. Waste fixer typically runs 3 to 6 grams of silver per litre, so 20 litres of solution yields roughly 80 grams of silver in one operation.

Does it need extra reagents?

On fixer, no. The spent fixer itself is the electrolyte; no additional reagent is added.

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