



WINNER

1995 R&D 100 Awards Winner **Polymer Filtration (PF) System**

Features:

The Polymer Filtration (PF) System incorporates advanced metal-ion recovery technology in a compact, cart-size apparatus. Our system

- Uses water-soluble metal-binding polymers in combination with ultrafiltration;
- Selectively captures valuable metal ions for direct reuse, preventing the formation of sludge; and
- Easily meets EPA discharge limits, reducing industry liability.

Applications

Current—Recovering metal ions from electroplating rinse waters and recycling them to the original electroplating baths.

Future—

- Processing the waste streams from mining operations and acid mine drainage.
- Recovering silver from photofinishing and printing wastes.
- Eliminating trace impurities from municipal waste water.
- Removing toxic metals from drinking water.

Benefits:

The Polymer Filtration (PF) System is the next-generation technology for recovering, concentrating, and recycling metal ions from industrial waste waters, thereby conserving valuable resources and reducing pollution. In its current application for the electroplating industry, the system can be sized for both large and small operations and can eliminate the formation of at least 50,000 tons of metal-containing sludge a year. Potentially applicable to virtually every field requiring advanced metal recovery techniques, the PF System is a revolutionary process that will affect industry worldwide.