

Partners in Process Development

recovery of rare earth elements for
signature technologies using
hydrometallurgy extraction systems



**Contact our application
engineers for project
development support inquiries at
413.499.4818 or email us at
sales@rr-centrifuge.com!**

CLIENT CHALLENGE

Processing purified REEs such as Yttrium, Cerium, Neodymium, Europium, Terbium, and Dysprosium into high purity, commercially viable products ready for use in critical modern engineered electronic systems such as batteries, lights, hard drives, hybrid vehicles, and guidance systems.

Hydrometallurgical solvent extraction is the most critical and difficult stage of rare earth refining where effective extraction requires precise control of phase chemistry (pH, density ratios, concentrations, temperatures).



Mixer-settler for Hydrometallurgy

PARTNERS SOLUTION

Hydrometallurgical extraction is known as the preferred method for efficiently extracting these rare earth elements, which are known for their superconductivity, ferro-magnetism, and brightness. These properties are only achieved when elemental purity is accurately controlled.

In this modular, staged extraction architecture, Rousselet-Robatel mixer-settlers achieve 99.5 – 99.9% purity for REEs such as Nd, Dy, or Tb, which is the result of many cumulative mechanical extraction stages where high stage efficiency from stage to stage leads to improved purification levels.

It is this disciplined execution of complex, high-precision extraction processes where the mechanical stability of the system and its hydraulic control operate seamlessly together.

PAYOFF: Compatible, Sustainable, Proven

- **Compatible.** Equipment integrates into existing hydrometallurgy flow sheets.
- **Sustainable.** Lower energy consumption, decreased pollutant rates, and reduced emissions.
- **Proven.** Clients receive the benefit of Rousselet-Robatel's long history and extensive process knowledge that reduces operational risks and maintenance uncertainties while delivering exceptional chemical purity.

Rousselet-Robatel is your partner in process development. We are focused on delivering improvements within research labs and production facilities, and together with our clients, we transform the ordinary into the extraordinary.

