

ENGINEERING SERVICES

Engineering for greener, smarter future





ENGINEERING CAPABILITIES

At Hydromet, we specialize in providing cutting-edge engineering solutions in hydrometallurgy, helping industries maximize metal recovery, optimize process efficiency, and achieve sustainable operations. Our expertise lies in developing, designing, and implementing advanced hydrometallurgical processes for metal extraction, purification, and value-added product recovery.

- Customized solutions for metal extraction from ores, concentrates, and secondary resources.
- Feasibility studies, techno-economic evaluation for commercial viability.
- Lab-to-commercial scale process scale up.
- Preparation of Basic and Detailed engineering packages.
- Design, engineering supply, erection and commissioning of pilot plants on lump-sum turnkey (LSTK) basis.
- End-to-end project execution from concept to commissioning

With a strong foundation in R&D-driven innovation, proprietary patented technologies, and a commitment to sustainability, we empower industries to transition towards efficient and eco-friendly metal recovery solutions.



PROJECT FEASIBILITY

A project feasibility study is the key to making informed, strategic decisions. Our expert team conducts in-depth analyses to assess the viability, risks, and potential returns of your project before you commit valuable resources.

Our Feasibility Study Services Include:

- **Market Analysis** – Understand demand, competition, and industry trends.
- **Technical Feasibility** – Evaluate operational and logistical requirements.
- **Financial Assessment** – Project costs, revenues, and profitability forecasts.
- **Legal & Regulatory Compliance** – Identify necessary permits and legal considerations.

Why Choose Us?

- **Data-Driven Insights** – We provide reliable, well-researched reports.
- **Tailored Approach** – Customized studies to fit your unique project needs.
- **Expert Guidance** – Our team has experience across various industries.

BASIC ENGINEERING



A Basic Engineering Package (BEP) is a crucial step in project development, bridging the gap between feasibility studies and detailed engineering. It provides the essential technical foundation needed for cost estimation, procurement planning, and final design.

What's Included in Our Basic Engineering Package?

- Site Survey Report
- Project Design Basis
- Process Design Basis
- Block Flow Diagram (BFD)
- Process Flow Diagrams (PFDs)
- Utility Flow Diagram (UFD)
- Material & Component Balance
- Chemical Consumption
- Process Description (PD)
- Equipment List
- Process Data Sheets
- Piping & Instrumentation Diagrams (P&IDs)
- Control Philosophy
- Line Schedule
- Piping Material Specifications (PMS)
- Indicative Plot Plan
- Equipment layout
- Legends



DETAILED ENGINEERING

Detailed Engineering is the final and most critical phase of project development, transforming concepts into actionable blueprints for construction, procurement, and installation. Our expert engineering team provides comprehensive and precise designs to ensure smooth execution, cost control, and regulatory compliance.

Our Detailed Engineering Services Include:

- ✓ Process & Mechanical Engineering
- ✓ Piping Engineering
- ✓ Electrical & Instrumentation (E&I) Engineering
- ✓ Structural & Civil Engineering
- ✓ 3D Modeling
- ✓ Material & Equipment Specifications
- ✓ Construction & Fabrication Drawings

Lump Sum Turnkey



At Hydromet, we offer Lump-Sum Turnkey (LSTK) solutions for hydrometallurgical and metal recovery projects, providing a one-stop solution from concept to commissioning. Our expertise in process engineering, project management, and technology integration ensures efficient, cost-effective, and timely project execution.

Our LSTK Capabilities

- Techno-economic feasibility studies
- Basic & detailed engineering
- Procurement and supply of custom-designed process equipment like reactors, leaching circuits, purification, solvent extraction, electrowinning systems
- Automation & digital process control solutions
- Construction, erection & site supervision
- Start-up assistance & operator training



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