

Mineral Solutions

Systems and Equipment for the Mining
and Metallurgical Industries



WestTech®

 **SWIRE WATER**

Build with confidence. WesTech provides process equipment for liquid/solids separation systems. From acid mine drainage to zinc tailings, WesTech will add value to your project for years to come.

Work with WesTech for:

- **Whole system design, supply, and construction**
- **Hassle-free implementation**
- **Open design consultation**
- **Quality equipment with long life cycles**
- **Superior service in every step of the process**

Mineral Process Solutions

WesTech offers solutions for mineral beneficiation, and tailings processing, along with mine and environmental water treatment. WesTech also provides package plants for smaller operation needs.

For more than 45 years, WesTech’s long experience in the mineral industry has been applied to hard rock and industrial minerals applications such as:

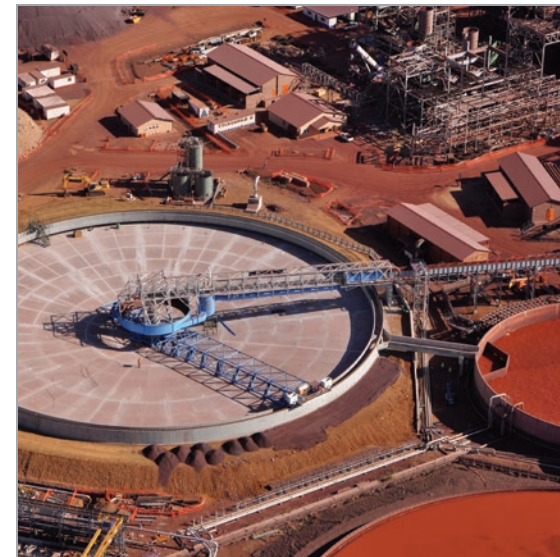
- | | |
|-----------------|--------------|
| • Alumina | • Molybdenum |
| • Bauxite | • Nickel |
| • Coal | • Oil Sands |
| • Copper | • Phosphate |
| • Gold | • Potash |
| • Iron Ore | • Silica |
| • Kaolin | • Tin |
| • Kimberlite | • Trona |
| • Lead | • Uranium |
| • Magnesium | • Zinc |
| • Mineral Sands | • Others |



Complete Systems

WesTech's liquid/solids separation experts design, engineer, and provide seamless integration to your overall plant design. Our system approach saves you time and resources while meeting your process objectives.

- Custom system design and integration
- Quality equipment with longer life cycles
- Superior service from concept, to startup, and well after the project is complete
- Electrical and piping design
- Project consultation, including laboratory bench-scale, field, and pilot testing

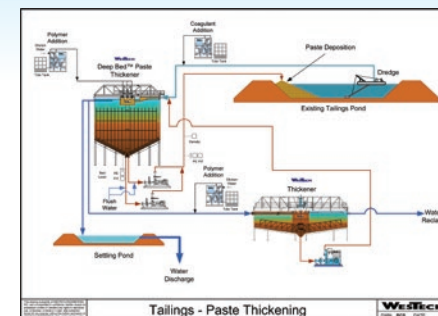
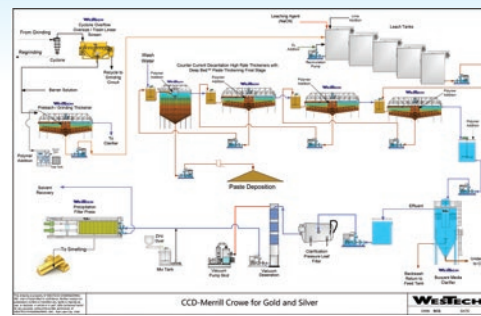
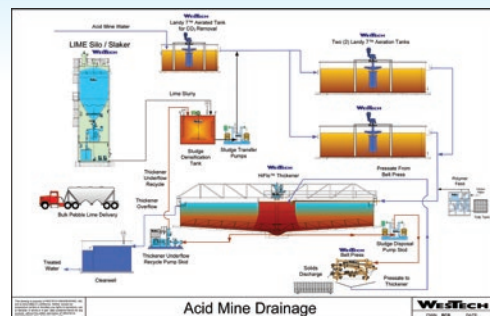


We have it covered

- Process flow diagrams
- Material balances
- Piping and instrumentation diagrams
- Layout/plot plan
- Pipe spools
- Pipe single-line diagrams (2D)
- General arrangement drawings
- Corrosion/expansion study
- Material selection diagram
- Lists (equipment, motor, instruments, valve)
- Weld maps
- Procedures and qualifications
- Health/environment and safety documents
- Bill of materials
- Pneumatic requirements
- 3D modeling
- Nondestructive examination and PMI
- Footings and foundation drawings
- Structural design-GA and details
- Project scheduling and reporting



WesTech Process Manual



The WesTech Process Manual contains more than 40 process flow sheets and their accompanying write-ups. It also includes in-depth explanations of our process equipment, as well as a section dedicated solely to relevant and varied case studies. See all available process flows sheets at:

westech-inc.com/industrial-process-manual

Equipment for Every Step



WesTech offers a wide array of process equipment for single applications and complete system packages.

Sedimentation

- Clarification
- Thickening
- Paste thickening
- Flocculation
- Solids contact clarification



Filtration

- Vacuum filtration
- Pressure filtration
- Media filtration



Systems

- Process solution integration
- Pumping systems
- Chemical feed systems
- Optimization
- Plant automation

Specialty Screening

- Media retention screens
- Linear screens

Other

- Polishing systems
- Reactive chemistry
- Particle classification



1. Acid Mine Drainage (AMD)

WesTech AMD technologies include high-density sludge processes, innovative reactive chemistry, and proven separation and dewatering equipment.

2. Pre/Post Solvent Extraction

Reduction of “crud” is critical in solvent extraction processes. WesTech’s wide range of filtration and separation equipment, buoyant media clarifiers, and double-vee hopper clarifiers ensure proper performance in your SX-IX circuit.

3. Countercurrent Decantation (CCD) Circuit

CCD for recovery of valuable liquids or solids is a core WesTech technology. Combining efficient inter-stage mixing and state-of-the-art sedimentation provides high process performance for multi-stage washing needs.

4. Scrubber Treatment

Scrubber treatments include weak acid neutralization as well as hydrometallurgical recovery of values from smelter exhaust gases. Our thickening, clarification, and filtering equipment meets the needs of these demanding services.

5. Concentrate Thickening and Dewatering

Flotation concentrates are easily thickened and dewatered with WesTech HiFlo™ thickeners. State-of-the-art feed systems, such as froth suppression, make WesTech the supplier of choice for your concentrate needs.

6. Mill Water Treatment

The demand for water in mineral processing is often greater than its availability. We have the expertise and technology from raw water to reuse which ensure consistent water quality for your milling and process requirements.

7. Tailings Treatment and Water Recovery

WesTech’s technologies push forward tailing performance with HiDensity™ thickeners, large-volume Horizontal Belt filters and paste generation – all keys in the evolution of tailings disposal and water recovery.

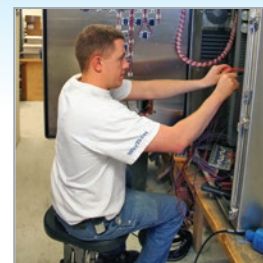
8. Paste System Increase in Tailings Dam Capacity

WesTech’s range of PasteThick™ technologies, Deep Bed™, HiDensity™, TitanTraction™ thickeners, and paste systems, are proven to increase tailings impoundment volume, reduce tailings storage risk, and increase overall plant water recovery.

Support and Service

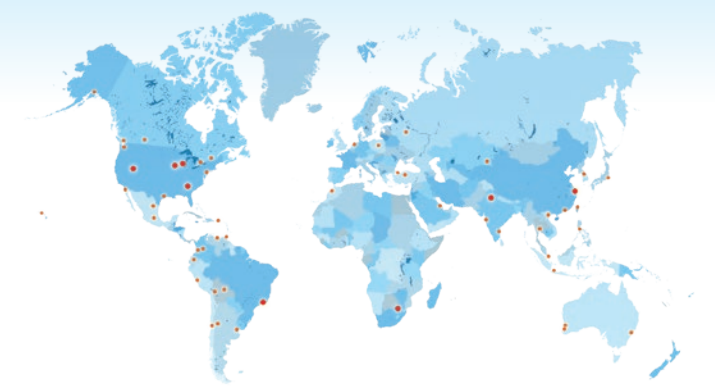
Whether it is lab testing to determine the right process, or having field service personnel install new parts, we are committed to help keep your plant running.

- Electrical/programming
- Field service
- Full-service parts department
- Computational Fluid Dynamics (CFD)
- Upgrades and retrofits



Global Reach

WesTech equipment includes the support of a global network of experienced engineers and qualified sales agents. We maintain offices and partnerships throughout the world to give you access to our products and services. Contact us to arrange a visit with a local representative in your area.



Teams and Systems Delivering High-Value Performance

WesTech is known for integrity, quality, customer service, and process expertise. From our equipment and processes to our expert staff, we are more than a supplier in mineral liquid/solids separation.

- **Worldwide coverage** – operations offices and technology centers in the United States, Brazil, China, India, Peru, and South Africa
- **Expertise in minerals market** – Industrial equipment for refineries, power plants, agricultural operations, manufacturing sites, steel mills, and many others
- **Over 45 years in the industry** – more than 15,000 installations worldwide

Contact us to learn more about our experience and capabilities, and how we can help with your project.



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