integrated solutions
in mineral beneficiation plants
A Trusted Partner

Our innovation and commitment to the minerals industry make us your integrated solutions partner. Our technologies, engineering experience and process knowledge provide you with “end-to-end” solutions that improve quality and efficiency as well as save you time and money.

The central part of our offering is our sampling solutions with integrated analysis. We then tailor these solutions to your specific needs. We also provide engineering design support for your project development.

We offer expert knowledge, innovative Thermo Scientific instruments and comprehensive service from the feasibility stage all the way through to operational beneficiation plants.

A comprehensive range of Thermo Scientific elemental and particle size analyzers for mineral beneficiation and flotation plants, coupled with leading sampling systems, provides an integrated solution that maximizes availability and accuracy with minimal head loss.
Our Capabilities in Beneficiation Include:

- Elemental Analysis—X-ray Fluorescence (XRF) and Prompt Gamma Neutron Activation Analysis (PGNAA)
- Particle Size and Moisture Analysis
- Metallurgical Slurry Sampling integrated with specialized process solutions in collection, transfer, screening and distribution
- Other Sampling Solutions (Gravity, Pressure Pipe, and Launder)
- Density and Level Measurement

Our analysis and sampling systems can be configured for all plant sizes; to meet technical constraints and to provide the lowest total cost of ownership.

Our instruments supply reliable and accurate process data, providing the critical input to the process control system, which leads to improved recovery, lower costs and environmental compliance. This allows operators to optimize their process, while serving as a foundation for significant savings and improved profitability.

Thermo Scientific Critical Process Information

High Availability

High Accuracy

Use in Process Control Leads to Benefits

Client Confidence in the Data
providing end-to-end solutions in mineral beneficiation plants

for Engineering, Project Management and Consultancy Companies

The Power to help you Profit

During the project development phase, we offer a range of solution options to meet a plant’s requirements for integrated analysis and sampling.

Our unique approach to slurry sampling means lower head loss across the sampling stations that leads to lower construction costs.

Our flange to flange design enables you to save on design hours as we take design responsibility from inlet to outlet, providing the highest level of process functionality at the most competitive cost.

Integrated Flexible Solutions
Increased Functionality
Savings on Design Hours
Lower Plant Construction Costs
providing end-to-end solutions in mineral beneficiation plants

for Mining Companies (End Users)

Lowering Cost of Ownership
We provide a solution package that lowers costs and increases profits.

Our customized designs flow from the earliest stage of feasibility into the operating phase, enabling critical and timely process analysis into your process control system; whilst offering the lowest total cost of ownership.

High availability and high accuracy from the analysis system allows you to increase recovery, improve final product quality and achieve process gains.

Integrated Plant Efficiency
• Recovery
• Minimized costs
• Final product quality

Increased Profit

Lower Total Cost of Ownership
Maintenance/Utility Costs
Our integrated, customized and engineered solutions provide advantages in both capital expenditure and system solution performance. Some examples are:

- Escondida Los Colorados (Phase 3.5), Escondida Laguna Seca (Phase 4)
- Cerro Verde
- Batu Hijau
- Telfer
- PT Freeport Indonesia
- Ok-Tedi
- Lumwana
- Minto
- Oyu Tolgoi
- Peñasquito

Varied solutions provided to these projects include:

- High accuracy
- High availability
- Sampling, elemental and particle size analysis without sample or return pumps
- On-line plant recovery calculation
- Dedicated analysis on critical streams
- Minimum assay update time (for automatic control loops)
- Unique ability to incorporate process functionality (collection, transfer, screening and distribution)
- Ability to sample, analyse and return in limited space – installation layout
- Metallurgical Accounting quality sampling

Global Sales and Service Offices

Our global sales and service network offers regional fabrication and project management that lowers costs for our clients.

Service and Support

We offer a complete array of services designed to help you gain a competitive advantage. These range from around-the-clock support with guaranteed response times, customized training and a commitment to new performance and technology. Our certified field personnel are available when you need them to ensure your instruments provide the most accurate and available data, helping you optimize your process.

Service Agreement

Invest in peace of mind with a Thermo Scientific service agreement tailored to your individual requirements. Benefits include:

- Reduce Downtime
- Flexible Coverage
- Priority Response
- Parts / Spares
- Established / Forecasted Costs
- Ongoing training
Thermo Fisher Scientific — a global presence

We think globally, and act locally.
Integrated Solutions in Mineral Beneficiation Plants

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