



Thermo Scientific Systems Solutions



Custom. Compliant.
Complete.

Thermo
SCIENTIFIC

Thermo Scientific Systems Solutions

Our Commitment

We are committed to being the global leader in environmental monitoring applications, where our market knowledge, instrument technology, and field experience continues to help customers succeed in protecting people and the environment.



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knowledge technology experience

Your Application

We understand that system design, integration, and support are all about knowing the application. It's about creating solutions that work at your site, the way you need it. Our applications expertise comes from over 40 years of providing monitoring solutions to help our customers. Whether it's to meet regulatory standards, or achieve more efficient process controls or to research environmental impacts, we have a variety of field-proven solutions for your application.

Field Proven

When NO_x and SO₂ monitoring solutions were needed for the Acid Rain program, we were there. When the U.S. EPA enacted PM- 2.5 monitoring requirements, we were there with an established Federal Reference Method. When the Clean Air Mercury Rule (CAMR) was promulgated and a solution for mercury monitoring was needed, we were there, and when the challenges of the future arise, we will be there too.

Our Instruments and Systems

are designed for multiple applications, leveraging platform commonalities and providing field-proven performance. Designed for the utility industry to meet the CAMR, our Thermo Scientific Mercury Freedom System led the way with more than 500 shipments of systems for installation in coal-fired utilities, using a simple design that combines performance with ease of use. Since then, we've successfully adapted the Mercury Freedom System for monitoring mercury in other applications, such as cement kilns, waste incinerators, munitions disposal plants and process control.



Mercury Freedom System

We've got your application covered.

Applications Include:

- | | |
|-------------------------------------|------------------------------|
| Fossil-Fuel, Steam-Generation Units | Glass Manufacturing |
| Waste Incinerators | Grain Elevators |
| Portland Cement Plants | Pharmaceutical Manufacturing |
| Petroleum Refineries | Metal Smelters |
| Gas Turbines | Chemical Plants |
| Basic Oxygen Furnaces | Sulfur-Recovery Units |
| Sewage-Treatment Plants | Landfill Gas Combustions |
| Fertilizer Plants | Air-Quality Networks |
| Ethanol Plants | Area/Fenceline Monitoring |
| Pulp and Paper Mills | Munitions Disposal |



Compliance

As your partner in compliance, our systems are designed with the necessary protocols to ensure your monitoring reports are accurate and accessible. Our system solutions can be designed to help you comply with U.S. EPA Part 60 or Part 75 performance standards, as well as other U.S and International ambient and source air monitoring standards.

Proven Designs

We are dedicated to providing our customers with a cost-effective, high-performance solution that exceeds expectations and sets the standard for system instrumentation. Traditional, field-proven platforms, such as our iSeries instruments platform, are known in the industry for advanced electronics and ease of maintenance. Advanced platforms for ambient and particulate monitoring, like our 1405 Series of monitors and the new Partisol iSeries samplers, prove that traditional methodologies, combined with today's technology, can make monitoring easier than ever.

customer-focused solutions

Technologies

Our global team of scientists investigates the latest technologies to drive product advancement and partner with all other internal teams to ensure that only quality products, with the best price and performance, are available to our customers. Utilizing our own proprietary, field-proven technologies, in addition to industry preferred methods, we offer innovative and customer-focused solutions.

Technologies include:

- TEOM
- Beta Attenuation
- Light Scattering (Nephelometry)
- FTIR
- NDIR
- Chemiluminescence
- Pulsed Fluorescence
- FID
- Cold-Vapor Atomic Fluorescence
- Quantum Cascade Lasers
- Mid-IR DFG Lasers
- UV Absorption

Methods

We recognize that preferred methods for monitoring may vary by application or by geography. While a wet-basis dilution method may be particularly suitable for coal-fired utility monitoring, it is more common to use a dry-basis, full-extractive method for a gas-turbine application. We are proud to offer numerous monitoring methods, such as hot-wet or cold-dry full extractive, dry and wet-basis dilution, as well as continuous or manual particulate sampling, ensuring there is a Thermo Scientific monitoring method that's right for your application.

Methods include:

- Hot-wet Full Extractive (FTIR)
- Cold-dry Full Extractive (needs chiller)
- Wet-basis Dilution
- Dry-basis Dilution
- Continuous Sampling
- Manual Sampling

Configurations

In addition to offering traditional monitoring solutions, we also provide flexible system designs to meet your specific facility needs. Through our comprehensive portfolio of probe and H (DAHS) offerings, enhanced by our exclusive third party relationships, and a wide range of systems components, we are able to offer a superior choice of system options that are customizable to your application needs.



Complete System Solutions

Our modern manufacturing and integration facilities include dedicated system-integration cells that can be easily adapted to support the varied configurations of multiple systems. The combination of utilizing lean manufacturing principles, including visual management and integrated quality control, with our unmatched engineering and integration experts results in greater consistency of quality and higher reliability. Our ISO 9001- certified manufacturing facilities are located in North America, Asia and Europe, with additional system integration capabilities in India, the United States, China and the Netherlands.

Scope of Capabilities

Partnering with preferred suppliers, we offer more system component options to better meet your specifications and ensure that your system requirements are met from start to finish.

Components Include:

- System Engineering and Manufacturing
- OEM Instruments and Parts
- Preferred Third-Party Instruments and Components
- Data Acquisition and Storage Programs
- Instrument Testing Support
- Maintenance Services and Support



Process

Our step-by-step integration process encompasses initial proposal through drawings, checklist, factory acceptance, training, installation and startup. Utilizing our integration services for your system means direct access to our expertise as the system manufacturer throughout the process, and delivers the time and cost efficiencies of using a single supplier. With each step, we work closely with your team to analyze your specific needs, applying our experience, to design your custom solution, and ensure all stakeholders approve before proceeding to the next step.

Support

As the Original Equipment Manufacturer (OEM) we provide quality-assured repairs using only factory certified parts. Coupled with our comprehensive systems knowledge base and experienced service teams, we offer uncompromised system reliability.

more options

Contact Us

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For more information about Thermo Scientific Instrument, systems, components, service or support, please visit www.thermoscientific.com/systems. For ordering information, please contact your Thermo Fisher Scientific representative.



Service and Support

Our Field Service, Technical Support, Customer Service and Depot Repair teams are trained using hands-on, class room and real-world application techniques, ensuring you get the right answer the first time, every time. We also provide a number of service offerings to assist in the integration, installation and performance maintenance of your instruments. These services include application and maintenance training, depot repair, refurbishment and exchange services, calibration certification services, rental and loaner equipment programs, and on-site Field Support Engineers, technical and applications support.

We continue to support our customers with advanced online resources. Our Air Quality Instruments Online Library allows our customers access to product documents and information on a constant basis. Available 24 hours a day and seven days a week, the online library provides quick access to information, regardless of time zone or office hours.

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