

INORGANIC SAMPLE PREPARATION SYSTEMS



Comprehensive Solutions for Acid Digestion, Dilution, and Laboratory Automation

ISO 9001, EPA 3050, EPA 3051A, EN 13657, ISO 15587

ToronPrep™-Series by Torontech is a complete range of automated and manual inorganic sample preparation systems designed to simplify and accelerate digestion, dilution, and handling processes prior to elemental analysis.

Developed for laboratories performing ICP-OES, ICP-MS, and AAS measurements, the Inorganic Sample Preparation Systems Series integrates automated acid-adding, liquid handling, and high-temperature digestion technologies, enabling laboratories to achieve faster turnaround, improved safety, and greater reproducibility.

Whether for routine testing, research, or industrial quality control, Torontech provides robust and user-friendly systems that streamline every step of the inorganic sample preparation workflow.

Innovative Sample Preparation Technology

- Automated Precision – Fully programmable acid addition, dilution, and liquid transfer eliminate manual pipetting errors and enhance traceability.
- High-Efficiency Heating – Graphite block and hot plate digesters deliver uniform heating for consistent wet digestion results.
- Smart Safety Systems – Over-temperature and over-pressure protection, chemical-resistant materials, and intelligent diagnostics safeguard both operator and equipment.
- Flexible Configurations – Modular system design allows seamless integration with Torontech's ToronMD™-Series Microwave Digestion Systems.
- Corrosion-Resistant Construction – PTFE-lined chambers, quartz elements, and stainless-steel housings ensure long-term reliability in harsh acid environments.

Integrated Workflow with Torontech

Together, the Inorganic Sample Preparation Systems Series Microwave Digestion Systems and Inorganic Sample Preparation Systems Series Sample Preparation Systems provide a complete, modular platform for all stages of inorganic analysis — from acid dosing and digestion to dilution and sample transfer — enabling laboratories to achieve unmatched productivity, consistency, and data integrity.

APPLICATIONS

Key Applications

- Environmental sample digestion and dilution (soil, sludge, wastewater)
- Food and feed preparation for heavy-metal analysis
- Geological and mineral acid digestion
- Industrial quality control and process monitoring
- Laboratory automation for repetitive liquid handling and dilution tasks

FEATURES

Advantages

- Enables fully automated sample preparation workflows

- Reduces human error and operator exposure to hazardous acids
- Ensures reproducible and contamination-free digestion
- Integrates seamlessly with Torontech's analytical testing instruments
- Compact, energy-efficient designs suited for modern laboratories

Compliance and Quality

The ToronPrep-Series is manufactured under ISO 9001 quality management and CE-certified for safety.

Systems support globally recognized analytical methods including EPA 3050, EPA 3051A, EN 13657, and ISO 15587, ensuring reliable results in regulated environments.

TECHNICAL SPECIFICATIONS

Technical Highlights

- Temperature range: ambient to 450 °C (graphite & hot plate models)
- Dispensing precision: ± 1 % (acid-adding and liquid handling systems)
- Multi-stage programmable methods for automated operations
- Durable chemical-resistant construction (PTFE, graphite, quartz)
- Modular interfaces compatible with ToronMD-Series digesters



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