MILESTONE
HELPING CHEMISTS



ADVANCED EXTRACTION
FOR FASTER WORKFLOWS
AND HIGHER PRODUCTIVITY



ETHOS™ X

Microwave Labstation



ENVIRONMENTAL



FOOD



POLYMER



FEED



INDUSTRIAL

DESIGNED FOR HIGH PERFORMANCE AND EASE OF USE

ADVANCED EXTRACTION FOR MODERN LABS

Microwave-assisted extraction is a well-established technique for the fast and efficient recovery of analytes from solid samples. By using closed vessels and controlled heating, the extraction solvent can operate above its atmospheric boiling point, increasing analyte solubility and significantly reducing extraction times compared to conventional techniques.

Unlike traditional methods such as Soxhlet or sequential extraction systems, microwave extraction provides faster turnaround times, lower solvent consumption, and improved reproducibility, enabling laboratories to increase productivity while maintaining high data quality.

Beyond extraction, the ETHOS X is a versatile microwave platform that can be configured to support additional sample preparation workflows, including digestion, high-temperature applications, and synthesis, adapting to evolving laboratory needs. This flexibility allows laboratories to expand the system to different applications without changing platform.



HIGH THROUGHPUT • Simultaneous processing of multiple samples

FAST TURNAROUND TIME • Short extraction cycles

MORE SUSTAINABLE • Reduced solvent consumption

RELIABLE AND REPRODUCIBLE RESULTS • Controlled conditions for consistent performance

VERSATILE PLATFORM • Expandable to multiple sample preparation workflows

SIMPLIFYING EXTRACTION ENSURING RELIABLE RESULTS

HIGH-PERFORMANCE HARDWARE & CONTROL

The ETHOS X is designed for high performance and reliability in demanding laboratory environments. Dual magnetrons ensure fast and uniform heating across all samples, while the robust stainless-steel construction and advanced safety features provide long-term durability. An integrated air-cooling system rapidly reduces vessel temperature between runs, minimizing turnaround time.

The platform is available in three terminal configurations (Easy, Up, and Plus), allowing laboratories to select the level of control and connectivity that best fits their needs. The intuitive touchscreen provides access to pre-set methods and user-defined programs, with real-time monitoring and automatic process control ensuring consistent and reproducible results.



	 **Plus** *configuration*	 **Up** *configuration*	 **Easy** *configuration*
Touch screen	10.1” display	6.5” display	5” display
Built-in library	●	●	●
SafeVIEW (camera)	●	●	
USB	●	●	●
CFR 21 part 11 compliant	●	●	●
Connection to balance	●	●	
Milestone connect	Integrated into the terminal	●	●
Milestone AI Agent (MAIA)	●		

ADVANCED CONTROL FOR RELIABLE EXTRACTION

Accurate temperature control is essential for efficient and reproducible extraction. The ETHOS X platform is equipped with Milestone's easyTEMP technology, an advanced contactless sensor that continuously monitors the real temperature of all vessels throughout the extraction process. This ensures precise control of operating conditions, enabling consistent performance across different samples and matrices. Continuous feedback between sensor and software allows automatic power regulation, ensuring stable and repeatable extraction conditions.





MILESTONE CONNECT AND MAIA

Milestone Connect is a dedicated platform for Milestone users, providing access to methods, applications, and system information to support the daily operation of microwave extraction workflows.

Integrated within Milestone Connect, MAIA, the Milestone AI Agent, delivers real-time guidance for method selection, troubleshooting, workflow optimization, and consumable identification, helping laboratories simplify operations and ensure consistent and reliable results.

milestone connect powered by AI

EXTRACTION CONFIGURATIONS

OPTIMIZED FOR DAILY WORKFLOWS

FASTEX-24

The fastEX-24 rotor is specifically designed for the extraction of organic pollutants from environmental and food samples such as dioxins, PAHs, PCBs and others. Based on disposable glass vial technology, it enables efficient extraction with low solvent consumption while simplifying sample handling and eliminating cleaning steps, ensuring high throughput and reproducible results.



SR-15

The SR-15 rotor is ideal for high-temperature extraction applications such as total fat determination, FAMEs, MOAH & MOSH analysis in food and feed. Its robust vessel design enables operation at elevated temperatures, ensuring efficient extraction of challenging analytes and supporting accurate and reliable results.



XTR-44

The XTR-44 rotor is designed for PFAS extraction from solid matrices, supporting EPA Method 1633. It processes up to 44 samples using polypropylene tubes, reducing contamination risks and eliminating cleaning for reliable, reproducible results.



RAR-15 AND MMR-15

The RAR-15 and MMR-15 rotors enable fast and efficient evaporation of extraction solvents under controlled conditions. Designed to streamline post-extraction workflows, they reduce manual handling and processing time, improving overall laboratory efficiency.



MMR-15



RAR-15

SFS-24

The SFS-24 simultaneous filtration system allows up to 24 samples to be filtered in just a few minutes. Its compact design reduces fume hood space requirements and simplifies sample handling, enabling faster and more efficient post-extraction processing.



DIGESTION ROTORS

Beyond extraction, ETHOS X can be configured with dedicated digestion rotors, extending the platform to elemental analysis applications. This flexibility allows laboratories to perform both organic and inorganic sample preparation using a single system, maximizing instrument utilization.



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Established in 1988, Milestone is headquartered in Italy with its R&D and manufacturing centre in Germany and Switzerland and offices in the United States, China, Japan and Korea. We operate worldwide through a network of over 100 exclusive distributors, all providing our customers with premium application and service support. Milestone's mission is to help chemists by offering them the most advanced instrumentation for sample preparation and direct mercury analysis in the world. Our industry-leading technology, in combination with fast, responsive service and applications support, allows Milestone to support our goal of giving you the highest return on investment possible.

ADDITIONAL MILESTONE SOLUTIONS



ETHOS™ X LEAN

Compact
Microwave Labstation



ETHOS™

Microwave Labstation



ultraWAVE 2 eco

Single Reaction Chamber
Microwave Digestion
System



DMA-80

Direct Mercury Analyzer

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