MILESTONE
HELPING CHEMISTS




# RELIABLE
EXTRACTION
MADE SIMPLE




# ETHOS™ X LEAN

## Compact Microwave Labstation



ENVIRONMENTAL



FOOD



POLYMER



FEED



INDUSTRIAL

# DESIGNED
## FOR HIGH PERFORMANCE AND EASE OF USE

### ELEVATED EXTRACTION EFFICIENCY

Microwave-assisted extraction is a well-established technique for the 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 reducing extraction times compared to conventional techniques.

Unlike to traditional methods such as Soxhlet or sequential extraction systems, microwave extraction simplifies sample preparation, reduces solvent consumption, and improves reproducibility, making it easier to adopt in routine laboratory environments while ensuring reliable results.

Beyond extraction, the ETHOS X LEAN is a versatile microwave platform that can be configured to support additional sample preparation workflows, including digestion and other applications, providing flexibility as laboratory needs evolve.




**EFFICIENT PROCESSING** • Reliable extraction

**SIMPLIFIED OPERATION** • Easy-to-use system

**SAFE BY DESIGN** • Built-in features ensure safe operation at every step

**RELIABLE AND REPRODUCIBLE RESULTS** • Consistent performance

**VERSATILE PLATFORM** • Expandable to multiple applications

# SIMPLE TO USE SAFE TO OPERATE

## FULL CONTROL AND RELIABLE OPERATION

The ETHOS X LEAN is designed to make microwave extraction accessible and easy to manage. The system ensures uniform heating across all samples, enabling consistent results without complex setup or unnecessary configuration. Its robust construction and integrated safety features provide reliable and safe operation from the very first use.

An integrated air-cooling system reduces vessel temperature at the end of each run, allowing samples to be handled safely and supporting a smooth workflow.



The ETHOS X LEAN features an intuitive control interface, designed to simplify microwave extraction workflows. Most runs require only a few steps: select a method and press START, with all key parameters managed automatically to ensure safe and reproducible results. The integrated method library reduces setup time and supports method selection, enabling users to operate the system with confidence and minimal training.



## RELIABLE CONTROL AND BUILT-IN SAFETY

Accurate and safe temperature control is essential to ensure reliable extraction results. The ETHOS X LEAN uses Milestone's easyTEMP technology, an advanced contactless sensor that directly monitors the real temperature of the sample in each vessel. This enables uniform heating, safe operation, and consistent, reproducible results across different matrices.



## MILESTONE CONNECT

Milestone Connect provides access to a comprehensive library of methods, applications, and technical resources to support users in their daily activities. From method guidance to practical tips and documentation, it offers immediate access to valuable information, helping users get started quickly and operate the system with confidence.



# FLEXIBLE
# CONFIGURATIONS
# FOR YOUR APPLICATIONS

## FASTEX-12

The fastEX-12 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 reproducible results.



## SR-6

The SR-6 rotor is ideal for extraction that requires more robust conditions such as total fat determination, FAMEs, MOAH and MOSH analysis in food and feed. Its robust vessel design enables operation at elevated temperatures, ensuring efficient extraction of target analytes and supporting accurate and reliable results.



## XTR-30

The XTR-30 rotor is designed for PFAS extraction from solid matrices, supporting EPA Method 1633. It processes up to 30 samples using polypropylene tubes, reducing contamination risks and eliminating cleaning for reliable and reproducible results.



## RAR-15 AND MMR-12

The RAR-15 and MMR-12 rotors enable efficient evaporation of extraction solvents under controlled conditions. Designed to streamline post-extraction workflows, they reduce manual handling and processing time, simplifying laboratory operations.



*MMR-12*

*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 LEAN 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.



# MILESTONE
## HELPING CHEMISTS

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**

Microwave Labstation



**ETHOS™ LEAN**

Compact
Microwave Labstation



**ultraWAVE 2 eco**

Single Reaction Chamber
Microwave Digestion
System



**DMA-80**

Direct Mercury Analyzer

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