

# Milestone: helping chemists

Leading microwave sample preparation and more



Milestone has been active since 1988 in the field of advanced microwave sample preparation. With over thirty patents and more than 20.000 instruments installed worldwide – covering large and small research institutions, as well as universities and industrial laboratories, Milestone is the acknowledged industry leader in microwave technology.

The company provides the scientific and industrial communities with the most effective, safest and highest quality instrumentation for Microwave Digestion, Microwave Extraction, Microwave Assisted Synthesis, Scale-up, Direct Mercury Determination and Microwave Ashing.

# Microwave digestion

Reliable microwave digestion is the first and fundamental step for successful AA, ICP-OES, or ICP-MS analyses.









#### **ETHOS UP**

# High performance microwave digestion system

- Rotor-based digestion system for both routine and challenging applications
- EasyCONTROL software
- Stainless steel construction and patented vent-and-reseal technology
- Web-based resource center provides up-to-date information and extended instrument control

#### **ETHOS EASY**

# Advanced microwave digestion system

- Rotor-based digestion system for both routine and challenging applications
- EasyCONTROL software
- Stainless steel construction and patented vent-and-reseal technology
- Web-based resource center provides up-to-date information

#### **UltraWAVE**

# The game changer in microwave digestion

- The UltraWAVE completely removes the handling related to the opening/closing of the vessels
- 15 samples are processed in 45 minutes.
- Any combination of sample types can be digested simultaneously
- Disposable glass vials eliminate vessel cleaning, method development is virtually obsolete

#### **UltraCLAVE**

### Simultaneous, fully automated microwave digestion system

- All steps are automatically performed and controlled by the system's operating software
- Choice of standard racks for 6 to 77 individual sample containers (glass, quartz, or TFM)
- Any combination of sample types can be digested simultaneously
- Savings thanks to reduced acid usage, consumables and labour





### Wide range of digestion rotors for your application

Milestone offers an wide range of rotors and vessels, from high-pressure and high-throughput rotors, medium-pressure digestion rotors, evaporation and extraction rotors, and high temperature muffle furnace for fusions up to 1200°C.



### **Mercury determination**



DMA-80 evo

#### Direct Mercury Analyser for solid, liquid and gas samples

- Precise determination down to ppt level
- Unparallelled ease-of-use
- Single, long-lasting calibration for all matrices
- High productivity and efficiency
- · Unattended operation
- Turnaround time: 6 min
- Low running costs, easy maintenance



DMA-1

#### No sample preparation needed

- No sample preparation nor other wet chemistry required
- Detection limit: 0,003 nanograms
- · Easy maintenance
- Compliant with the US EPA method 7473, ASTM method D-6722-01 and ASTM method D-7623-10

#### Clean chemistry



**duoPUR and subPUR** Quartz sub-boiling distillation system



traceCLEAN
Acid steam cleaning system for PTFE, quartz and glassware and ICP/ICP-MS accessories



**subCLEAN**PTFE sub-boiling distillation system

### Microwave extraction



**ETHOS X** 

# Advanced microwave extraction system

- for GC and HPLC analysis
- for environmental samples (US EPA 3546)
- for Total Fat determination in dairy
- for Green Extraction of natural products

### Microwave ashing



**PYRO** 

# Microwave technology for ashing procedures

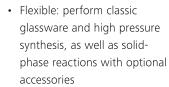
- Advanced Microwave Muffle Furnace
- · Over 90% time saving
- 3 interchangeable configurations
- No exposure to heat and fumes
- ASTM, USP, SEMI and ISO compliance

## Microwave synthesis



flexiWAVE

# Advanced flexible microwave synthesis platform



- Reactions completed in minutes
- Lower by-products formation and sample contamination.
- Fast and homogeneous heating of samples



**SynthWAVE** 

### High pressure capabilities

- Bears temperatures up to 300°C and pressures to 199 bar.
- Quick evaluation of different catalysts, solvents and reaction conditions
- High microwave power density of (1.5kW/L) and powerful stirring

Available in Australia exclusively at

Metrohm Australia Unit 11, 56 Buffalo Rd Gladesville NSW 2111 PO Box 433, Ryde, NSW 1680