

## I HARDWARE

- › High pressure single reaction chamber (SRC) technology with stainless steel construction
- › Chamber volume 990 ml with 900 ml PTFE/TFM liner
- › Ability to run any acid chemistry using vials with loose-fitting caps, eliminating the need for manual sealing
- › SRC design ensures the same temperature and pressure conditions in all samples simultaneously
- › Simplified manual lift design for easy handling of the cover and rack
- › Two lateral panels to secure easy access to the reactor cover in full safety
- › SRC securely closed by double interlocked stainless steel clamps
- › Sensors ensure the correct positioning of the SRC cover during opening and closing of the SRC
- › High microwave power (900W) for fast heating
- › Microwave energy optimized to the shape of the SRC for even energy distribution (no sample rotation is needed) and maximum efficiency
- › Integrated exhaust system extracts acid fumes away during chamber venting and opening
- › Pre-pressurization of the chamber with an inert gas to prevent sample boiling and eliminate risk of cross-contamination
- › Separated inlet and outlet high-pressure lines to minimize risk of contamination
- › Automated venting of the chamber at the completion of the microwave program
- › Built-in silent air cooling, combined with an heat exchanger on the stainless-steel reactor, ensures fast cooling and prevents overheating during operation
- › Failsafe mechanism to safely release pressure into the exhaust in the case of an over-pressurization event (over 199 bar)
- › Analog manometer for easy reading of SRC pressure
- › Safety valve enables manual release of pressure after a digestion cycle, in case of power failure

- › Colored LED strip on the bottom of the front provides real-time visualization of process status

## I USER INTERFACE

- › Integrated touchpad with 6,5" TFT display, 640x480 VGA resolution with 262K colors. Multiple USB ports for connection with balance, printer, mouse and keyboard
- › Connection to the network via LAN
- › Operating software: Multilevel access, icon-driven and multi-language software (Chinese, English, French, German, Italian, Japanese, Polish, Portuguese, Russian, Spanish, and Turkish), software with multilevel access allowing the user/administrator the edit, save and run a virtually unlimited number of methods
- › Built-in documentation: library of methods, dashboards for the samples processed and system status
- › Additional features: sample list table, 21 CFR part 11 compliant, auto-save of the runs, search functions in the method library
- › Counter and automatic notification on the maintenance intervals

## I REACTION SENSORS

- › In-situ temperature sensor to directly control the temperature of the entire chamber and in all vials simultaneously
- › Operating maximum temperature up to 300°C
- › Pressure transducer directly monitors and controls the pressure in the SRC and all vials simultaneously
- › The stainless-steel reactor tested at 330 bar
- › Operating pressure up to 199 bar
- › Built-in temperature sensor to monitor and control the external temperature of the chamber, preventing overheating
- › Built-in thermal switch and sensor to monitor magnetron temperature

## I MILESTONE CONNECT

- › Web-based platform accessible from any device (PC, tablet, or smartphone)
- › 24/7 support through a knowledge hub with extensive documentation
- › Resources available include spare parts lists, technical notes, user manuals, video tutorials, updated application notes, and a complete collection of relevant scientific articles
- › Remote monitoring of the system from any device connected to the same network via the Milestone Connect web-app

## I OFFICIAL METHODS COMPLIANCE

- › US EPA: US EPA 3052, US EPA 3051A
- › ASTM: ASTM D4309-96, ASTM D-5765, ASTM D-6010
- › ICH Q3D, USP <232> and <233>
- › RoHS, WEEE and ELV

## I OTHER FEATURES

- › Ability to process different sample types and different digestion chemistries within in the same run, and at the same temperature and pressure conditions
- › Disposable glass vials can be used, eliminating the vial cleaning step
- › Ability to digest samples in glass, quartz or PTFE/TFM vials - even within the same run
- › Vials fitted with simple, loose fitting caps - vessel assembly/disassembly is eliminated
- › Digested sample can be stored in the vial - no transfer error or additional contamination risk due to transfer

## I OTHER INFORMATION

- › Dimensions: 465 (w) x 645 (d) x 830 (h) mm
- › Weight: 92 Kg
- › Power supply: 230 V, 50-60 Hz

Number of Vial	Vial Material	Vials Volume (ml)
4	Glass (disposable)	70
	Quartz	35
	PTFE/TFM	70
5	Glass (disposable)	40
	Quartz	40
	PTFE/TFM	40
15	Glass (disposable)	15
	Quartz	15
	PTFE/TFM	15
22	Glass (disposable)	10
	Quartz	10
	PTFE/TFM	7