

# MultiVIEW

## Microwave Digestion System



PETROLEUM



AGRICULTURE



GEOLOGY



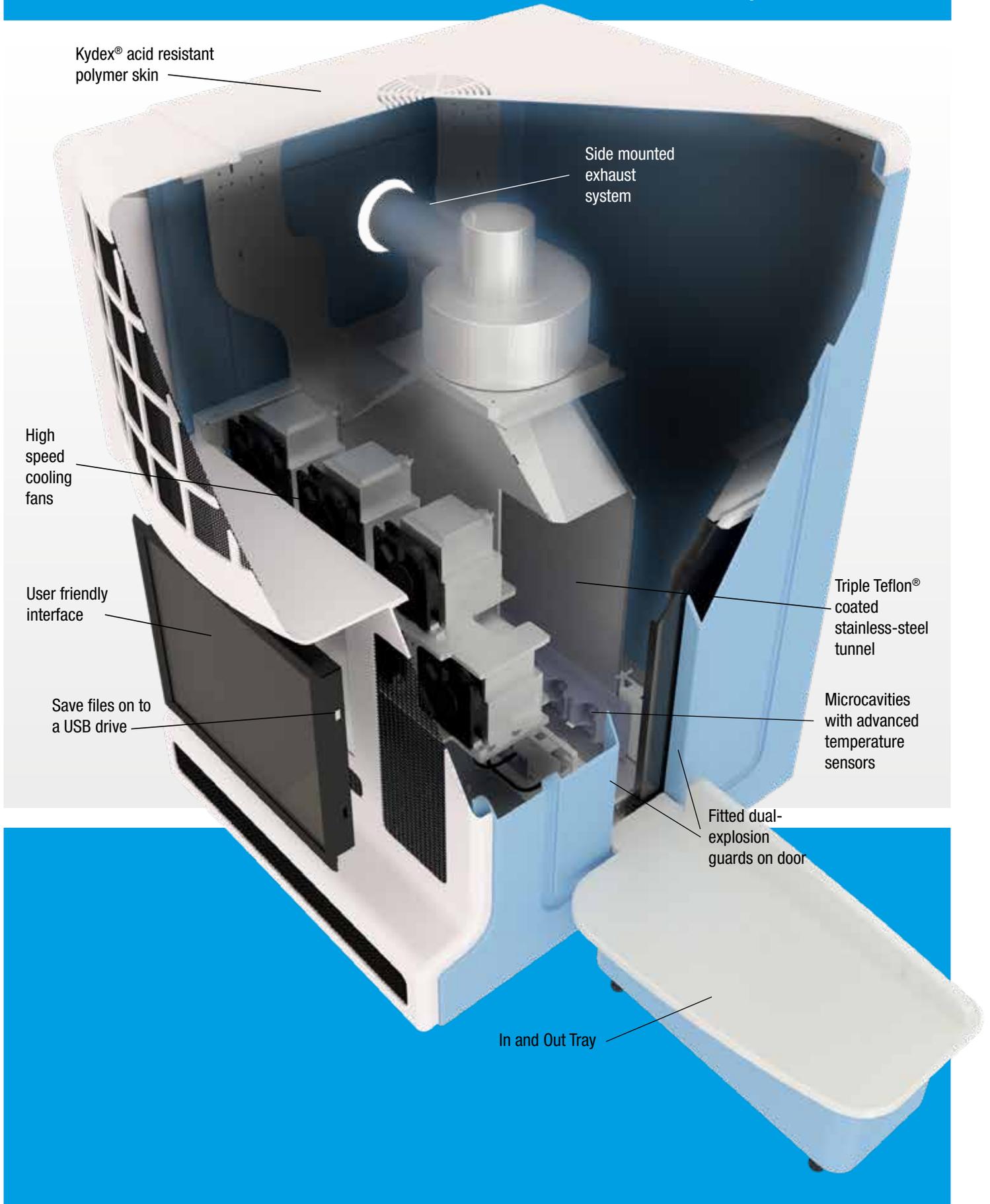
ENVIRONMENT



TEXTILES

The world's only, fully automated, high volume Microwave Digestion System

## MultiVIEW System



## Temperature Profiles



Method: USEPA 3015A; Vessel Type: Quartz; M/V: 0.5 g of Soil, 5 ml HNO<sub>3</sub>, 45 ml Water.

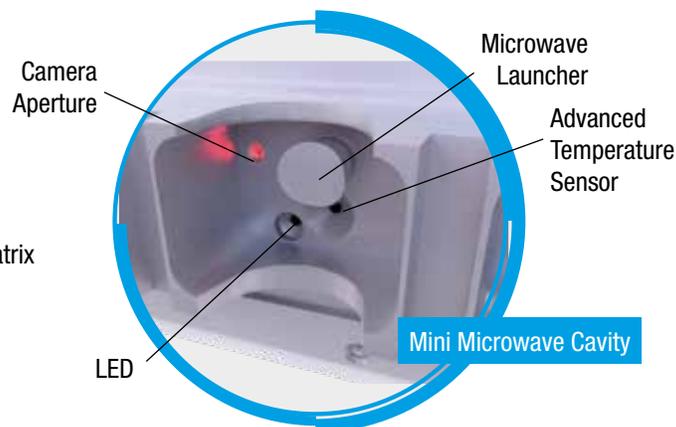
## UNIQUE FEATURES

- ▶ Side mounted Rack loading for User Safety and Automation
- ▶ Digest up to 12 samples with up to 12 different Methods simultaneously
- ▶ Capable of automatically running up to 300 samples with up to 4 **AutoLOADER** Units
- ▶ Run samples in Quartz or Teflon® vessels in the same Rack with the same or different Methods
  - Use Quartz Vessels for convenience, cost, low background, and visibility
  - Use Teflon® Vessels for HF digestions
- ▶ Rack loading and unloading is partially automated for quick exchange of vessels
  - Reduce down time between digestion runs
- ▶ Sample identification tracked throughout using RF tags
- ▶ Robust Construction plus best materials suitable for operation in a corrosive environment
  - Kydex® skin, triple Teflon® coated stainless-steel tunnel
  - Complete separation of Tunnel with Samples from all other parts of the instrument
- ▶ CE/CU/CSA approved

## MINI - MICROWAVE CAVITY

With **MultiVIEW**, each sample is digested in its own mini-microcavity which includes its own:

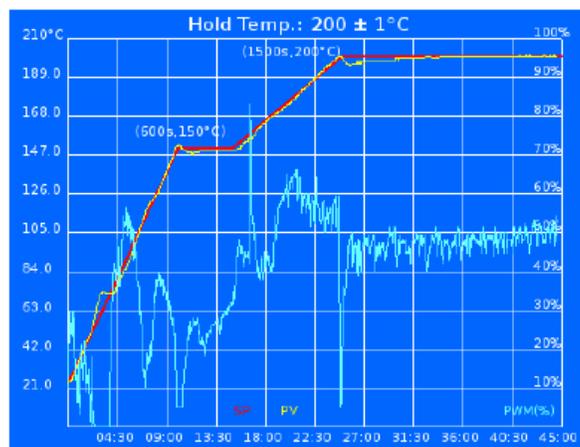
- Focused Microwave energy to ensure reproducible digestions every time
- New Inverter Power Source
- New Temperature Detector System
  - Able to monitor temperature from ambient to 250 °C
  - Provides temperature reporting independent of sample type and acid matrix
  - With individual vessel temperature control and monitoring for multi matrix operation
- Run different types of samples simultaneously in the same rack



## UNIQUE DIGESTION RACKS/VESSELS



- High speed loading and unloading of vessels reduces turn-around time
- Teflon® or Quartz Vessels can be placed in the same rack for convenience
  - Also means Method Development can be achieved in fewer runs
- Quartz Vessels are transparent and calibrated
  - Normalization can be done directly in the calibrated Quartz Vessels
  - Each vessel has multiple calibrations to Class "A" specifications to increase productivity
- Quartz vessels cool down faster than Teflon® vessels for post-digestion process
- Quartz Vessels are transparent allowing the ability to view sample vs Teflon® vessels
- Serialized Safety Pressure caps with Certificate of Pressure
- Vessels rated at 90 Bar
- Patented vent and seal technology at 34 Bar



Method: InfantFormula, Vessel Type: Quartz, M/V: 0.7511g, Remarks: ,  
Sample-ID: Infant Formula, Status: Successfully digested.

## Racks

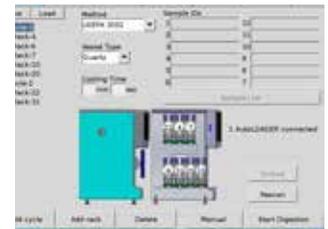


## SOFTWARE INCLUDES

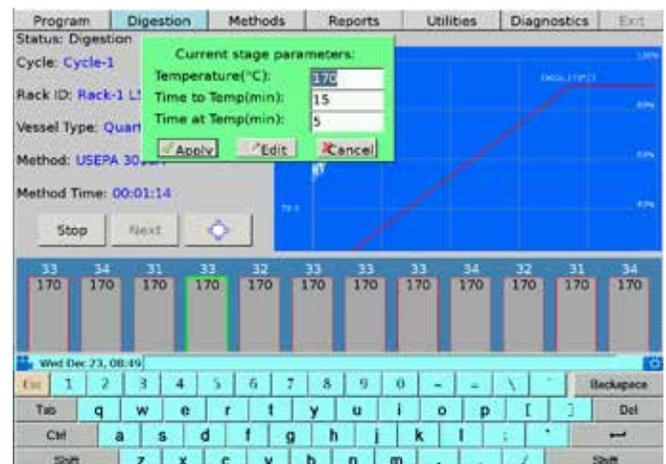
- RF tags identify sample racks and provide automatic sample identification
- Create and Save unlimited number of methods
- Call up stored methods with a simple key stroke
- Run up to 12 samples in a Rack
  - Run a single sample or up to 12 different samples in the same Rack
  - Run Teflon® or Quartz Vessels in the same Rack identified in software
- Use a single method for all samples in a rack or in a cycle
- Use multiple sample methods in a Rack
- Multiple step digestions
  - Variable “Time to Temperature” and Variable “Time at Temperature”
- Use a unique sample method for each Rack in a multi-Rack sequence



Setup method parameters.



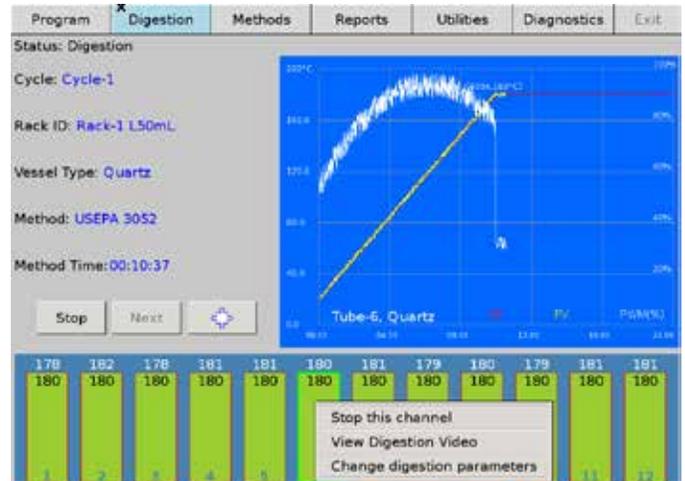
Setup method parameters for the MultiVIEW AutoLOADER.



Setup up Digestion Parameters with ease.

## LARGE 15" COLOUR TOUCH SCREEN PROVIDES

- ▶ Complete visibility of all operational parameters, tabbed for easy access and convenience, including
  - Program
  - Digestion and cooling
  - Method creation and call up
  - Reports
  - Utilities
  - Diagnostics
- ▶ Ability to see, stop, and adjust a method on the fly
- ▶ Full digestion scan of Temperature vs Time for all 12 digestions in real time
- ▶ View individual channels full screen for maximum detail



*Convenient operational tabs, at the top of the screen, for ease of use.*

## AUTOMATE TODAY... OR ADD AUTOMATION IN THE FUTURE

**MultiVIEW** Microwave Digestion System with the **AutoLOADER** Automatic Rack Loading Accessory

- ▶ Single **AutoLOADER** Unit can run 7 Racks of either 75 ml Teflon® or 75 ml Quartz vessels, or
  - Run mixed Racks of Teflon® and Quartz vessels.
- ▶ Couple up to 4 **AutoLOADER** Units, 300 samples, in series to maximize throughput in off-hours
- ▶ Fully controlled by **MultiVIEW**
- ▶ Add or Remove Racks during an on-going digestion cycle



## MultVIEW SAFETY FEATURES

- › Unique Rack design requires no personal contact when venting vessels
  - Ensures user safety around hot acid vapors
  - Chemist is not required to hold vessel to vent
- › With real time temperature monitoring and control, exothermic reactions are possible without venting
- › Temperature is read every 1 second on all vessels for tight temperature control to avoid venting and loss of sample
- › High Speed Exhaust Fan automatically speeds up during cooling
- › Side mounted, explosion-proof door on right side and not in front to
  - Protect the user
  - Save Space
  - Provides for hands-off automation
  - On opening, interlocks disable high voltage to magnetrons



## CERTIFICATIONS:

### EMC Tested and Approved.

EMC Emissions and Immunity Tested covering: FCC Part 18, subpart C; IEC/EN 61326-1; IEC/EN 61000-3-11; IEC/EN 61000-3-12; IEC/EN 61000-4-4; IEC/EN 61000-4-5; IEC/EN 61000-4-6; IEC/EN 61000-4-8.

### Product Safety\*.

CAN/CSA-C22.2 NO. 61010-1-12; CAN/CSA-C22.2 NO. 61010-2-010; UL 61010-1; UL 61010-2-010; IEC/EN 61010-1; IEC/EN 61010-2-010.

### Radiation Hazard Power Density.

Tested according to 21 CFR Par 1030.10 C) 1,2,3 and IEC 61010-1 Clause 12.4.

\* Critical safety components used in the **MultVIEW** are in compliance with CE, CSA and UL. All polymeric materials used in the **MultVIEW** are UL Recognized and have the appropriate flammability rating. Vessels are tested to three times pressure venting maximum.



## SPECIFICATIONS

### PHYSICAL

- › Height: 40"
- › Width: 24"
- › Depth: 28"
- › Weight: 245 lbs

### ENVIRONMENTAL

- › Ambient Operating Temperature: 10 ~ 35 °C
- › Relative Humidity: 30 ~ 80%
- › Altitude: Up to 2000 m
- › Pollution Degree: Degree 2

### ELECTRICAL

- › Nominal Voltage: 230V
- › Current: 20A
- › Frequency: 50/60 Hz
- › Installation/Overvoltage Category: Category II
- › Power Consumption (W): 4400
- › Apparent Power (VA): 4600

## ORDERING INFORMATION

010-625-001 **MultVIEW** Microwave Digestion System  
010-625-002 **MultVIEW** with **AutoLOADER**  
010-625-004 **AutoLOADER**

010-625-005 **MultVIEW** Rack, 75 ml Quartz, Calibrated  
010-625-006 **MultVIEW** Rack 75 ml Teflon® Vessels



## ALSO AVAILABLE

### **DigiPREP 240 MS**

High Temperature Block Digestion System  
For sample digestions from ambient to 240 °C

010-500-420

### **DigiPREP 240 MS (230V)**

010-500-421

### **DigiPREP 240 MS Combi (230V)**



### **MinWAVE**

Microwave Digestion System

For smaller labs  
Digest 6 samples per rack

010-600-016

### **MinWAVE** Rotating Digestion Module, 110V

... and more



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Instrument product lines include the **EasyPREP** series of analytical automated analyzers, the **DigiPREP** family of graphite digestion blocks, and the **MinWAVE** and **MultiVIEW** series of automated microwave digestion systems.

**CONOSTAN** and **PlasmaCAL** are well known brands from our Chemistry Department while **DigiTUBEs**, **DigiFILTERs**, **PlasmaFORM** Cones, **PlasmaFLOW** Nebulizers, and **EasyFLOW** pump tubing stem from our Supplies Manufacturing unit.

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