For Any Technical Questions, Please Contact at info@nodesus.com

Product Name: TRANSFORM Microwave Digestion System

Part Number:

Product Description:

TRANSFORM Microwave Digestion System(TRANSFORM 680/TRANSFORM 800):

TRANSFORM 680 microwave digestion systems

TRANSFORM 800 microwave digestion systems

Aurora's TRANSFORM Series of automatic top-loading, closed-vessel microwave digestions systems are equipped with high-pressure capabilities to enhance digestion quality while decreasing digestion time. These systems can simultaneously run up to 10 high-pressure vessels, while providing a fast, automated method to digest even the most difficult samples.

The TRANSFORM Series provides unparalleled safety, reproducible measurements, and ease of operation, allowing you to streamline your day-to-day operations. With two possible capacities (six or ten sample), up to 1200 W of power output, and continuous pressure and/or temperature monitoring, our TRANSFORM MW units can meet your digestion needs. These systems prepare samples for a range of downstream analyses, including AAS, AFS, Hg analyzers, ICP-OES, and ICP-MS.

Performance Features

TRANSFORM 680 microwave digestion systems

TRANSFORM 800 microwave digestion systems

√ Simultaneous loading and unloading of six (6) high pressure digestion tanks (up to 800 PSI)
√ Direct measurement of sample temperature with a precision of +1℃
√ Suitable for food, metallurgy, and electronics digestion

√ Simultaneous loading and unloading of ten (10) high pressure digestion tanks (up to 800 PSI)
√ Real-time monitoring of temperature and pressure during digestion
√ Top-loading auto-rotating door provides heavy-duty protection
√ More suitable for the treatment of petroleum, plastics, and other substances

Analytical Performance

√ Shortens digestion time (when compared with traditional digestion methods)

√ Reduces loss of volatile analytes and components

√ Eliminates environmental sample contamination

√ Reduces solvent consumption

√ Allows for unattended operation

√ Online EPA Method available

√ In-situ air cooling technology: fast, safe, and efficient

Standards and Certification

√ Compliance with RoHS and WEEE standards
√ Passed ISO 9001 and CE certification

Instrument Compliance

The TRANSFORM series conforms to various EPA methods and ASTM related standards. For user's convenience, EPA method has been pre-installed in the software. Any of these methods can be utilized to accommodate different types of sample preparation.

√ EPA 3015
Microwave-assisted Digestion of Aqueous Solution Samples
√ EPA 3051
Microwave-assisted Digestion of Sediments, Mud, Soil, and Petroleum
√ EPA 3052
Microwave-assisted Digestion of Organic Samples and Silica in Soil

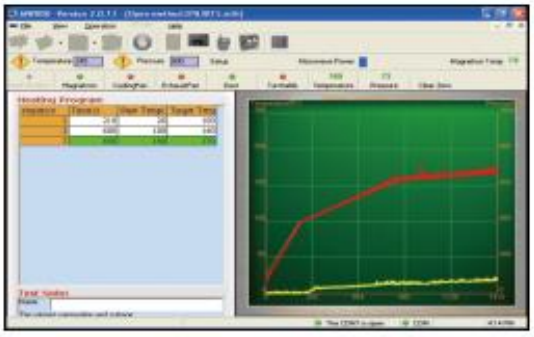
Features and Performance

TRANSFORM 800 Top View

TRANSFORM 800 Digestion Tank

Main Control Tank Connections

Software Interface



√ Safe external control via PC and software, allows remote control of magnetron, cooling fan, sample rotating disc, etc.

√ Real-time display of temperature and pressure curves during digestion

√ Real-time display of microwave emission power and temperature change of magnetron during digestion

√ Easy to change sample digestion procedures, such as adding/deleting digestion procedures

√ Pre-installation of EPA methods and parameters makes the digestion of various samples more convenient

Heavy Top Loading Furnace Body Safety Features

- Top-loading automatic door provides heavy-duty blast protection
- Double chamber, explosion-proof safety door, with inner chamber door spring device that can effectively absorb explostion shockwave and reduce blast pressure
- Automatic (computer-controlled) safety interlocking device secures blast door, whilst providing instrument insulation that ensures microwave leakage is < 5mW/cm^2

Automatic Door Safety Features

- Opening and closing of the door is computer controlled, reducing staff exposure to explosion risks
- Software continuously monitors the opening/closing process, ensuring that the door is closed before instrument sequence can begin

Safety Tank Features

- Double Layer Tank: High strength PEEK plastic-coated external tank and thickened TFM material
- nternal Tank: High temperature and pressure-tested, corrosion resistant
- Explosion-prevention film: film ruptures when pressure exceeds safety value, minimizing over-pressure and explosion risk

Outer tank

Inner tank

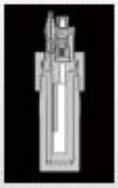
Preventive measures for acidic vapors

- Three-layer Teflon Antiseptic Surface Treatment
- Acidic Vapor Tank: collects acidic vapors released by the rupture of rupture-disks on the digestion tanks, eliminating acidic vapor diffusion, thus preventing furnace body corrosion and prolonging instrument service life
- Exhaust and Cooling: quickly removes acidic vapors from the chamber, followed by rapid air-cooling of samples

Precise control of the digestion process

- Platinum-sensors, monitor temperature and pressure; highly sensitive, guarantees accurate monitoring and control of temperature and pressure
- Real-time visual monitoring of temperature and pressure to ensure actual temperature consistent with preset temperature curve
- The sample disc rotates continuously in one direction, ensuring a more uniform distribution of heat
- Microwave non-pulse continuous emission, allowing microwave intensity adjustments according to the degree of heating that is required

Pressure Sensor



Temperature Sensor

Product Specification:

	TRANSFORM 800	TRANSFORM 680
External Dimension(mm)	(L)550×(W)490×(H)490	(L)480×(W)430×(H)430
Power Source	220V, 50Hz, 12A	220V, 50Hz, 12A
Weight (kg)	50	36
Microwave Power (W)	1200	1200
Cavity Volume (L)	34	18
Explosion-proof safety door	Included	Included
Sample Loading method	Top Loading, Electronic Control Safety Door	Top Loading, Electronic Control Safety Door
Temperature Control System	Platinum-coated,corrosion-resistanceprobeinreferencetank,abletowithstandwiderangeof temperatures, providing high accuracy.	
Pressure Control System	Reference tank piezoelectric crystal pressure sensor	N/A
Sample positions	10	
Cooling Mode	Air Cooling	Air Cooling
Sample Reaction Tank: Outer Tank	PEEK	PEEK
Sample Reaction Tank: Inner Tank	TFM	TFM
Volume of each digestion tank (mL)	50	80
Maximum Pressure (Psi)	2000	1600
Critical Temperature(℃)	300	300
Maximum Work Pressure (psi)	800	400
Maximum operating temperature(℃)	250	250