

# TRANSFORM Series

Microwave Digestion



**SOLUTIONS FOR LIFE SCIENCE & ENVIRONMENTAL SCIENCE** 

#### Microwave Digestion Systems

Aurora's TRANSFORM Series of automatic top-loading, closed-vessel microwave digestion systems is 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. These systems prepare samples for a range of downstream analyses, including AAS, AFS, Hg analyzers, ICP-OES and ICP-MS.



#### **Benefits**

- Decreases digestion time from hours to minutes (compared to conventional methods)
- Eliminates volatile element loss
- Prevents environmental sample contamination
- Minimizes solvent consumption
- Allows for complete understanding of reaction conditions through computer-controlled software

#### TRANSFORM Series Features

- Fluoropolymer-coated vessel liners
- High efficiency cooling system
- 1200 W continuous microwave power output with inverter technique
- Evenly distributed microwave field chamber
- Integrated EPA protocols and methods directory
- Extensive safety precautions
- Direct sensing and control of sample temperature

Instrument	Number of Vessels	Maximum Temperature	Maximum Pressure
TRANSFORM 680	6	250°C	400 psi
TRANSFORM 800	10	250°C	800 psi

#### Temperature and Pressure Control and Sensing

The innovative pressure sensor technology of the TRANSFORM 800 provides the most accurate pressure range possible. Combined with the temperature probe, the pressure sensor ensures that users have complete control of reaction conditions. The advanced thermocouple probe enables fast and accurate temperature control and sensing.



The TRANSFORM 800 Chamber

#### **Unparalleled Safety**

The TRANSFORM Series was built with operator safety as the top priority. The system is built with 4-level protection to ensure the user's safety if the pressure rises above safe limits:

- 1. Round, pressure-resistant, fluoropolymer-coated **stainless steel chamber** contains an explosion
- Spring-loaded inner lid cavity buffers unexpected shock
- Top-loading automatic door provides heavy-duty protection
- 4. **Reinforcement bar** secures the system's lid in place

Additional safety features include:

**High Quality Engineered Plastics** allow a maximum vessel pressure of 3000 psi.

**Rupture Disks** burst to release vapors into a collection reservoir.

**Temperature and Pressure Sensors** allow for complete understanding of the reaction status.



TRANSFORM 800 Vessel Carousel

#### Standard Methods Compliance

The TRANSFORM Series is compliant with a variety of EPA methods and ASTM and USP standards. The software comes with a variety of pre-installed EPA methods for the operator's convenience.

#### EPA Method 3015

Microwave-assisted acid digestion of aqueous samples and extracts

#### EPA Method 3051

Microwave-assisted acid digestion of sediments, sludges, soils and oils

#### EPA Method 3052

Microwave-assisted acid digestion of siliceous and organically-based matrices

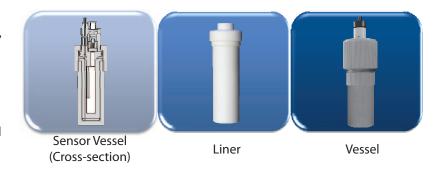
#### **USP 233**

The analysis of elemental impurities in drug products, drug substances and dietary ingredients.

#### Ease-of-Operation

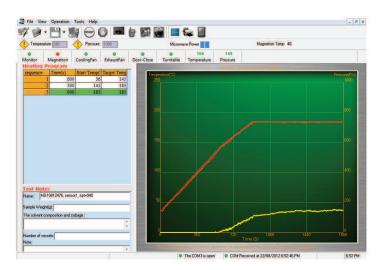
The TRANSFORM Series is simple to install and operate. It allows for easy one-step operation and total computer control. The carousel and vessels can be easily removed and replaced with a second set. This allows operators to continuously digest samples with no delay between runs.

#### **Digestion Vessels**



#### **User-Friendly Software**

- Flexibility to program individual methods for customizable sample preparation
- Windows-based software for real-time temperature and pressure control
- EPA methods and parameters pre-installed to allow for common sample digestions
- $\bullet \ Virtually \ unlimited \ method \ storage \ capacity$



TRANSFORM 800 Software Interface

#### Regulatory Standards and Certification

- RoHS and WEE compliant
- ISO 9001 certified

# **Smart Solutions for Elemental Analysis**

## TRANSFORM Microwave Applications











FOOD AGRICULTURAL FISHING	ENVIRONMENTAL	ELECTRONICS MANUFACTURING TEXTILE	PETROCHEMICAL MINERALS METALLURGICAL	MEDICAL BIOLOGICAL PHARMACEUTICAL
Seafood	Wastewater	Toys	Rocks & Minerals	Blood & Urine
Seeds	Soil & Sludge	Cotton	Steel & Alloys	Animal Tissue & Fluids
Poultry	Crude Oil	Plastics	Metals	Drug Tablets

### **Specifications**

	TRANSFORM 680	TRANSFORM 800
Dimensions ( $W \times L \times H$ )	48 x 46 x 43 cm / 19" x 18" x 17"	48 x 55 x 48 cm / 19" x 22" x 19"
Weight	30 kg / 66 lb	50 kg / 110 lb
Power Output	1200 W	1200 W
Vessel Volume	60 mL	50 mL
Electrical Requirements	220 V/12 A	220 V/12 A



Aurora has achieved ISO 9001 certification of quality for the development, manufacturing and marketing of analytical instruments.









PLEASE NOTE: Instrument specifications may change without notice as an ongoing effort of product improvement.

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