

## ATS-810-WM THERMOSTREAM®

**-80° to +225°C**

The ATS Series temperature forcing systems are designed for the demanding 24/7 production environment. They provide fast, precise, and robust production-level testing and conditioning of electronic components, boards and modules. Capable of ultra-low temperatures **without** the use of Liquid Nitrogen (LN<sub>2</sub>) or Liquid Carbon Dioxide (LCO<sub>2</sub>). Built with proven reliability and supported worldwide, the ATS Series is ideal for any mobile temperature testing environment.

### PERFORMANCE:

#### Temperature Range\*

-80 to +225°C

No LN<sub>2</sub> or LCO<sub>2</sub> Required

#### Transition Rate\*

-55 to +125°C, approx. 10 seconds or less  
125 to -55°C, approx. 10 seconds or less

#### System Airflow Output\*

4 to 18scfm (1.9 to 8.5 l/s) Continuous

\*under nominal operating conditions  
ultimate low temperatures (±1°) achieved at 12scfm

### TEMPERATURE CONTROL:

#### Temperature Display & Resolution

+/- 0.1°C

#### Temperature Accuracy

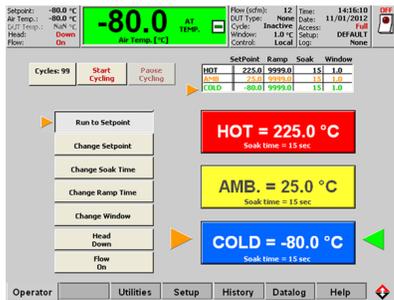
1.0°C (when calibrated against NIST standard)

#### DUT Temperature Control

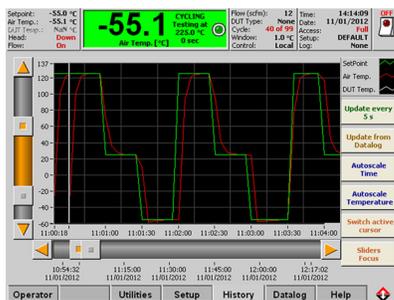
Proprietary control algorithm enables DUT temperature to be directly controlled

#### DUT Sensor Ports

Internal diode, thermocouples (T & K), RTD (100 Ohm platinum)



OPERATOR SCREEN



DATALOG SCREEN

### FEATURES:

#### Frost Free Feature

Dry air purge for tester interface, prevents condensation: 0.5 to 3scfm (0.25 to 1.5 l/s)

#### ECO Friendly Features

- Automatic Power Reduction: reduces power usage during idle periods
- Heat Only Mode: reduces power usage when cold temperatures are not used

#### Heated Defrost Feature

Quickly removes moisture buildup from internal chiller

#### Fully Adjustable Thermal Head

- Windows® OS
- Local & Remote Operations
- LabView™ & LabWindows® drivers
- Program & Datalog Storage (via ethernet or USB)
- On-Screen Help
- User Defined Temperature Limits
- Ethernet, IEEE-488, RS232 ports
- USB, keyboard, mouse, & printer ports
- Customizable and savable test setups

### APPLICATION OPTIONS:

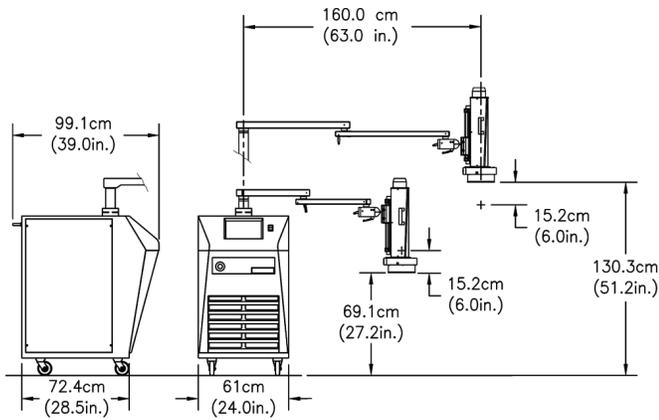
#### Thermal Cap or FlexExtender Hose

4.5 or 5.5 inch ID Thermal Cap or optional FlexExtender Hose for connection to external Thermal Chambers or enclosures

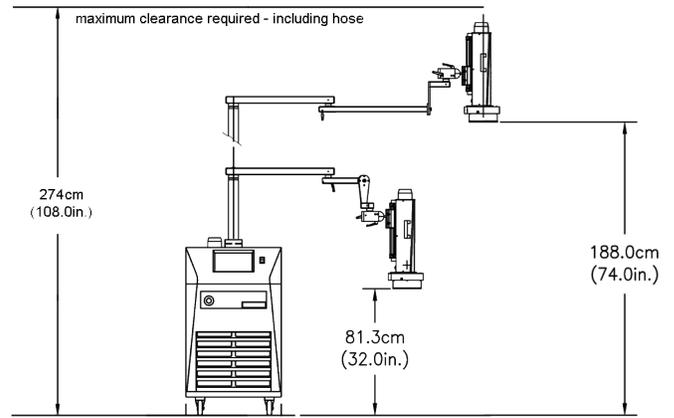
#### MobileTemp™ Thermal Chambers

Temperature Chambers designed specifically for uses with ATS THERMOSTREAM® Systems. See Additional Datasheets for details.





**SYSTEM DIMENSIONS  
STANDARD**



**SYSTEM DIMENSIONS  
EXTENDED HEIGHT**

## FACILITY REQUIREMENTS

Power<sup>1</sup>

**60Hz only, system does not operate at 50Hz**  
200 - 250 VAC (230V nominal), 60Hz, 30 amp, 1phase

### FACILITY WATER SUPPLY<sup>2</sup>

Cooling Water

3.5 gpm (13.25 lpm)  
20°C inlet water temperature  
20-30 psi (1.38 to 2.07 bar) pressure differential for water inlet and outlet.  
Cooling water must be non-corrosive

### OPERATING ENVIRONMENT<sup>2</sup>

Operating Temperature

+20° to +28°C; +23°C nominal

Humidity

0 to 60%; 45% nominal

### CONNECTION INFORMATION

<sup>3</sup>/<sub>4</sub>" Female NPT fittings for connecting Facility Water Supply (IN) and Return (OUT) to the unit.

## WEIGHTS & DIMENSIONS

Base <sup>3</sup>	Width: 61.0 cm (24 in.), Depth: 72.4 cm (28.5 in.), Height: 108 cm (42.5 in.)
System Weight	Not packed: 236 kg (520 lbs.) Packed: 365 kg (805 lbs.)
Mobility	Four static dissipative, swivel caster wheels
Maximum Reach	160.0cm (63 in.)
Maximum Operating Height	130.3 cm (51.2 in.) Extended height option: 188.0 (74.0 in.)
Minimum Operating Height	69.1 cm (27.2 in.) Extended height option: 81.3 (32.0 in.)
Noise Level	<65dBA

## SERVICE & SAFETY

Refrigerants	HCFC and CFC-free, non-toxic, non-flammable
Serviceability	Auto-diagnostics and field replaceable modules
Over Temperature Protection	+230°C (factory set): Operator can set high and low air temperature limits

<sup>1</sup>System is configured for operation within voltages listed above using an internal transformer. Please specify power configuration with order

<sup>2</sup>Under operating conditions which are greater or less than nominal, performance may be less than specification provided

<sup>3</sup>An additional 20.3cm (8 in.) clearance is required for supply connections and cabinet ventilation

