

# ATS-525 THERMOSTREAM®

DATASHEET AND SPECIFICATIONS

**-60° to +225°C**



Advanced Temperature Source for fast and precise thermal conditioning of components, parts, hybrids, modules, subassemblies, and printed circuit boards. Capable of ultra-low temperatures **without** the use of Liquid Nitrogen (LN<sub>2</sub>) or Liquid Carbon Dioxide (LCO<sub>2</sub>).

## PERFORMANCE:

**Temperature Range\***  
-60 to +225°C (50/60Hz)  
No LN<sub>2</sub> or LCO<sub>2</sub> Required

**Transition Rate\***  
-40 to +125°C, <12 seconds  
+125 to -40°C, <40 seconds

**System Airflow Output\***  
5scfm (2.4 l/s) Fixed Flow Rate

\*Under nominal operating conditions.

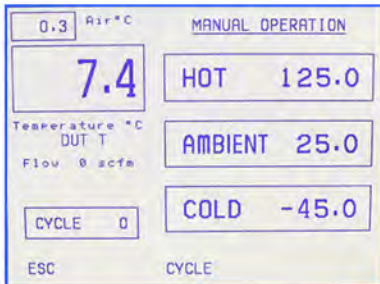
## TEMPERATURE CONTROL:

**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**  
thermocouples: type T & K



OPERATOR 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 Feature**  
**Heat Only Mode**  
reduces power usage when cold temperatures are not used

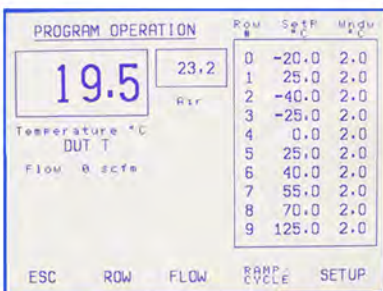
- ▶ Local & Remote Operations
- ▶ LabView™ drivers
- ▶ IEEE-488, RS232 ports
- ▶ customizable and savable test setups
- ▶ Program & Datalog Storage
- ▶ User Defined Temperature Limits

## ▶ Fully Adjustable Thermal Head

## APPLICATION OPTIONS:

- ▶ **Thermal Cap**  
5.5 inch ID Glass Thermal Cap to enclose your test subject
- ▶ **High Performance Air Dryer**  
(optional) a 20scfm air dryer for drying supply air to <-70°C dewpoint, refer to air dryer data sheet (SL10690) for technical specifications

- ▶ **System Cart**  
(optional) a castered, heavy-duty, steel cart for portability and easy mounting of thermal head and operator control module
- ▶ **Benchmount**  
(optional) conveniently clamps the thermal head to a benchtop or workstation



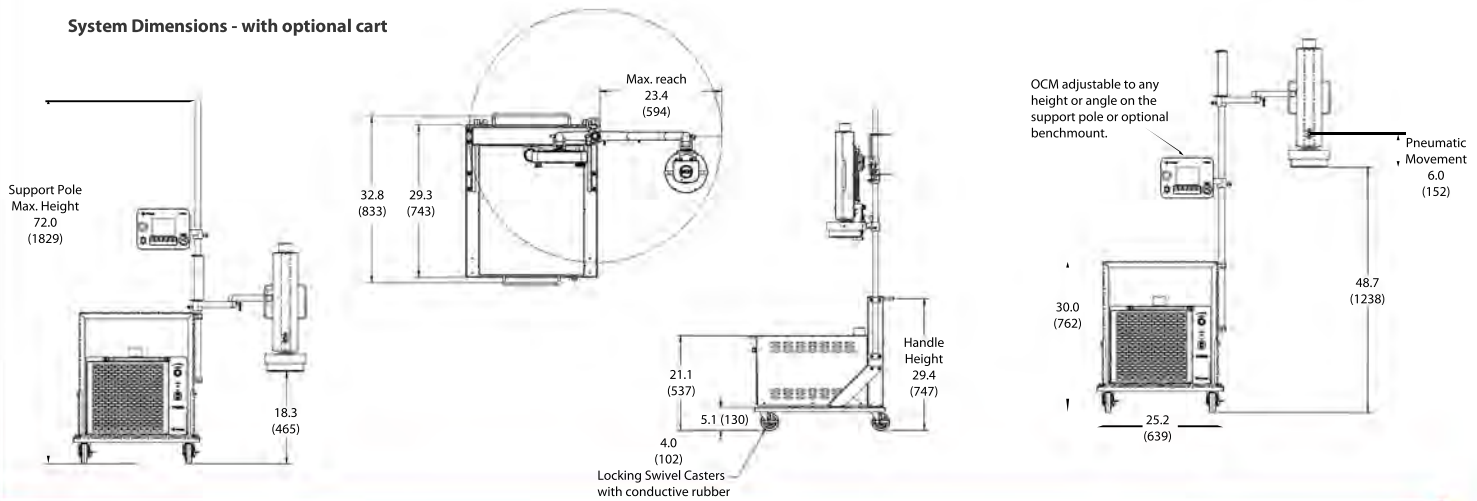
PROGRAM SCREEN



# Specifications

# ATS-525 THERMOSTREAM® Advanced Temperature Source

System Dimensions - with optional cart



## Weights and Dimensions

### Dimensions

**Controller:** 26.7cm (10.5 inches) wide X 20.7cm (8.13 inches) high X 9.8cm (3.8 inches) deep

**Chiller:** 51.3cm (20.2 inches) wide X 41.4cm (16.3 inches) high X 74.9cm (29.5 inches) deep

### Weight

**System:** 112.0kg (247lbs.)

**Chiller:** 74.5kg (157lbs)

**Chiller with Cart:** 100.8kg (215lbs)

### Noise Level

<60dBA

## Service and 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

## Facility Requirements

### Power<sup>2</sup>

115 ±10% VAC, 60Hz, 20amp (15amp available)  
100 ±10% VAC, 50Hz, 20amp (15amp available)  
200 ±10% VAC, 50Hz, 16amp  
220 ±10% VAC, 60Hz, 16amp  
230 ±10% VAC, 50Hz, 16amp

### Compressed Air<sup>3</sup>

#### Clean, Dry Air (CDA)

Filtered to 5 micron particulate contamination.  
Oil Content: <0.1 ppm, by weight, filtered to 0.01 micron oil contaminant.  
Dewpoint: <-70°C @ 6.2 BAR (90PSI)

#### Air Supply Pressure

5.5 to 7.6 BAR (90 to 110 PSIG)

#### Total Air Flow Rate Required

5.7 l/s (12 scfm)  
2.8 l/s (6scfm) minimum

#### Air Supply Temperature

+20° to +25°C; +22°C nominal

### Operating Environment<sup>3</sup>

#### Operating Temperature

+20° to +28°C; +23°C nominal

#### Humidity

0 to 60%; 45% nominal

<sup>2</sup> System is configured for operation within voltages listed above. Please specify power configuration with order.

<sup>3</sup> Under operating conditions which are greater or less than nominal, performance may be less than specification provided.



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ISO 9001 Certified

