



## ATS-515 THERMOSTREAM®

**-45° 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\*

-45 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\*

4 to 10 scfm (1.9 to 4.7 l/s) Continuous

\*Under nominal operating conditions. Transition rates achieved with 20amp system, 10scfm

### TEMPERATURE CONTROL:

#### Temperature Display & Resolution

+/- 0.1°C

#### Temperature Accuracy

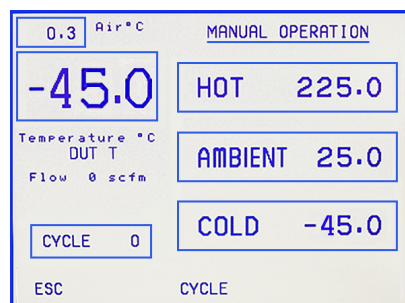
1.0°C (when calibrated against NIST standard)

#### DUT Temperature Control

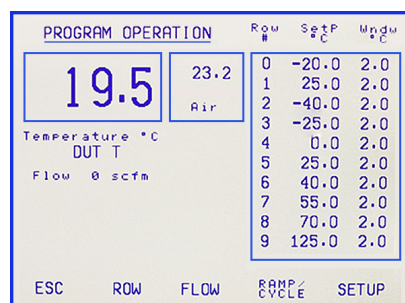
Proprietary control algorithm enables DUT temperature to be directly controlled

#### DUT Sensor Ports

Thermocouples (type T & K)



OPERATOR SCREEN



PROGRAM SCREEN

### FEATURES:

#### Frost Free Feature

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

#### Fully Adjustable Thermal Head

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

### APPLICATION OPTIONS:

#### Thermal Cap

5.5 inch ID Glass Thermal Cap to enclose your test subject

#### High Performance Air Dryer

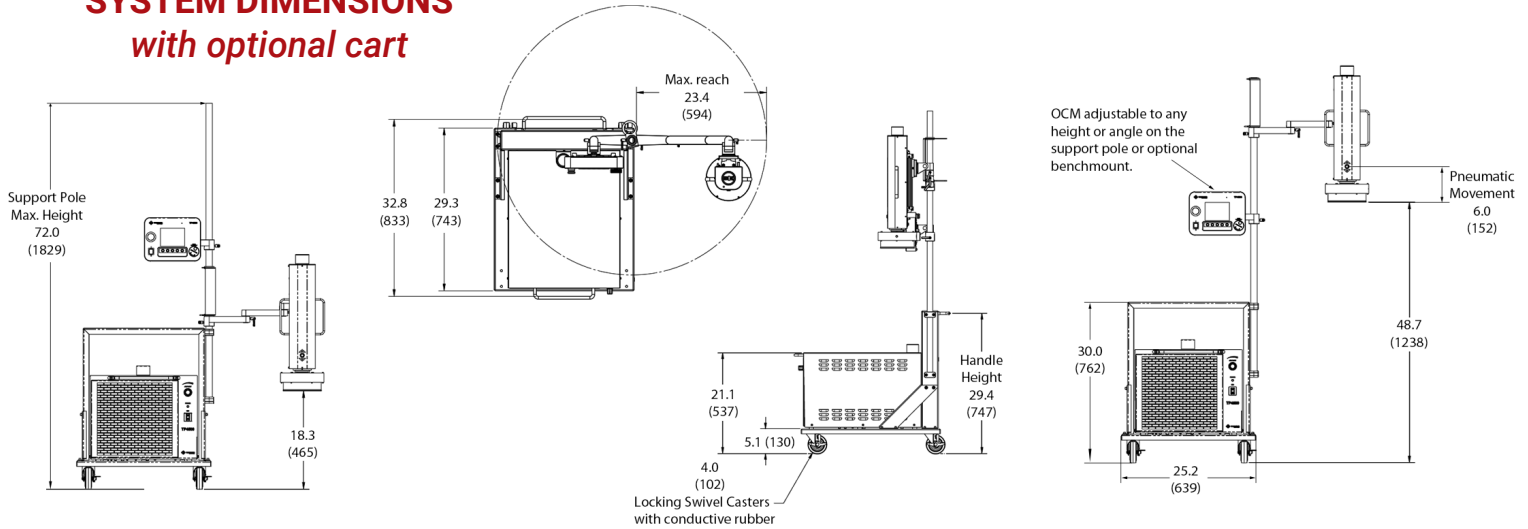
(optional) A 20scfm air dryer for drying supply air to <-70°C dewpoint, refer to air dryer data sheet (SL10690) for technical specifications

#### System Cart

(optional) A castered, heavy-duty, steel cart for portability and easy mounting of thermal head and operator control module



## SYSTEM DIMENSIONS with optional cart



## FACILITY REQUIREMENTS

Power <sup>1</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
<b>COMPRESSED AIR<sup>2</sup></b>	
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
<b>OPERATING ENVIRONMENT<sup>2</sup></b>	
Operating Temperature	+20° to +28°C; +23°C nominal
Humidity	0 to 60%; 45% nominal

## WEIGHTS & DIMENSIONS

Dimensions	<b>Controller:</b> 10.5 inches (26.7 cm) wide 8.1 inches (20.6 cm) high 3.8 inches (9.7 cm) deep <b>Chiller:</b> 20.2 inches (51.3 cm) wide 16.3 inches (41.4 cm) high 29.5 inches (74.9 cm) deep
Weight	<b>System:</b> 247 lb (112.0 kg) <b>Chiller:</b> 157 lb (71.2 kg) <b>Chiller with Cart:</b> 215 lb (97.5 kg)
Noise Level	<60dBA

## 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. 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

