

Temptronic

ThermoStream® Systems

Precision Temperature Sources

High speed thermal testing and conditioning



inTEST Thermal Solutions
an inTEST Company

North America Models 600/800 Series (60Hz)

Rapid, Precise Temperature Forcing with ThermoStream® Systems

ThermoStreams are portable temperature control systems for high-speed testing, conditioning, characterization, and verification of electronic components, sensors, ICs, and PCBs. Bring temperature to your test by directing the ThermoStream's -100 to +300°C air flow to your device under test. ThermoStreams are ideal for high-throughput lab or production applications where small-mass test subjects need to be rapidly, and precisely temperature controlled.

Benchtop and floor standing models are available with a variety of enclosures, fixtures, and attachments to isolate the test subject during temperature exposure. Intuitive controls offer localized touch-screen or remote operations for convenient setup and execution of complex thermal cycling programs.

Increase Throughput

- Ultimate low down to -100°C
- Ultimate high up to +300°C
- Rapid temperature cycling up to 18°C/sec
- Enclosures for components and PCBs

Convenient Operation

- Remote control
- No LN₂ required
- Extended reach to accommodate your test heads
- Power saver feature during idle periods

ATS-600 Series Temperature Forcing Systems

A variety of systems designed to meet Commercial and Military Temperature Test Requirements

The ATS-600 family includes benchtop and floor standing models designed with flexibility of operating requirements to stay within a facility's limited power and air supply capabilities.

ATS-645-M



MODEL	TEMPERATURE RANGE
ATS - 605	-20°C to +225°C
ATS - 615	-45°C to +225°C
ATS - 625	-60°C to +225°C
ATS - 635	-60°C to +225°C
ATS - 645	-80°C to +225°C

ATS-605



ATS-625



ATS-800 Series Temperature Forcing Systems

Improve throughput with systems capable of transition rates up to 18°C per second.

The ATS-800 family offers high-capacity, floor standing models for maximum thermal horsepower. Increase throughput with wider temperature ranges and higher air flows to accelerate temperature transition rates.

The ATS-800 Series delivers enough thermal power to control high heat dissipating power devices and larger test subjects to MIL-STD temperatures and beyond. These models are configured with either a mechanical, articulated arm or a turret, each compatible with enclosures and chambers.



ATS-830-T

MODEL	TEMPERATURE RANGE
ATS - 810	-80°C to +225°C
ATS - 810 WM	-80°C to +225°C <i>water cooled</i>
ATS - 830	-90°C to +225°C <i>high capacity</i>
ATS - 850	-90°C to +300°C <i>high temp, high capacity</i>
ATS - 870	-100°C to +225°C <i>ultra-low temp</i>



ATS-810-M

ECO-600/800 Series Temperature Forcing Systems

The ECO Series is designed for any environment where audible noise and heat dissipation are concerns. It operates on an energy-efficient, 20 amp, 60Hz circuit with proprietary technology delivering quiet, smooth sounding operation. Additionally, the system **does not require annual leak testing** because its gas charge is below the CO₂ equivalent limit for greenhouse gas emissions as specified by Regulation EU 517/2014.

These fast, precise temperature forcing systems provide effective testing and conditioning of electronic components, boards and modules. Built with proven ThermoStream reliability and supported worldwide.

MODEL	TEMPERATURE RANGE
ECO - 660	-60°C to +200°C
ECO - 810	-80°C to +225°C



ECO-810-M



ECO-660

International Models 500/700 Series (50/60Hz)

Rapid, Precise Temperature Forcing with ThermoStream® Systems

ThermoStreams are portable temperature control systems for high-speed testing, conditioning, characterization, and verification of electronic components, sensors, ICs, and PCBs. Bring temperature to your test by directing the ThermoStream's -100 to +300°C air flow to your device under test. ThermoStreams are ideal for high-throughput lab or production applications where small-mass test subjects need to be rapidly, and precisely temperature controlled.

Benchtop and floor standing models are available with a variety of enclosures, fixtures, and attachments to isolate the test subject during temperature exposure. Intuitive controls offer localized touch-screen or remote operations for convenient setup and execution of complex thermal cycling programs.

Increase Throughput

- Ultimate low down to -100°C
- Ultimate high up to +300°C
- Rapid temperature cycling up to 18°C/sec
- Enclosures for components and PCBs

Convenient Operation

- Remote control
- No LN₂ required
- Extended reach to accommodate your test heads
- Power saver feature during idle periods

ATS-500 Series Temperature Forcing Systems

A variety of systems designed to meet Commercial and Military Temperature Test Requirements

The ATS-500 family includes benchtop and floor standing models designed with flexibility of operating requirements to stay within a facility's limited power and air supply capabilities.

ATS-545-M



MODEL	TEMPERATURE RANGE
ATS - 505	-20°C to +225°C
ATS - 515	-45°C to +225°C
ATS - 525	-60°C to +225°C
ATS - 535	-60°C to +225°C
ATS - 545	-80°C to +225°C

ATS-505



ATS-525



ATS-700 Series Temperature Forcing Systems

Improve throughput with systems capable of transition rates up to 18°C per second.

The ATS-700 family offers high-capacity, floor standing models for maximum thermal horsepower. Increase throughput with wider temperature ranges and higher air flows to accelerate temperature transition rates.

The ATS-700 Series delivers enough thermal power to control high heat dissipating power devices and larger test subjects to MIL-STD temperatures and beyond. These models are configured with either a mechanical, articulated arm or a turret, each compatible with enclosures and chambers.



ATS-730-T

MODEL	TEMPERATURE RANGE
ATS - 710	-80°C to +225°C
ATS - 710 WM	-80°C to +225°C <i>water cooled</i>
ATS - 730	-90°C to +225°C <i>high capacity</i>
ATS - 750	-90°C to +300°C <i>high temp, high capacity</i>
ATS - 770	-100°C to +225°C <i>ultra-low temp</i>



ATS-710-M

ECO-500/700 Series Temperature Forcing Systems

The ECO Series is designed for any environment where audible noise and heat dissipation are concerns. It operates on an energy-efficient, 20 amp, 50/60Hz circuit with proprietary technology delivering quiet, smooth sounding operation. Additionally, the system **does not require annual leak testing** because its gas charge is below the CO₂ equivalent limit for greenhouse gas emissions as specified by Regulation EU 517/2014.

These fast, precise temperature forcing systems provide effective testing and conditioning of electronic components, boards and modules. Built with proven ThermoStream reliability and supported worldwide.

MODEL	TEMPERATURE RANGE
ECO - 560	-60°C to +200°C
ECO - 710	-80°C to +225°C



ECO-710-M



ECO-560

Product Comparison

North America Models 600/800 Series

MODEL	TEMPERATURE RANGE	TRANSITION RATE (HEATING COOLING)	POWER REQUIREMENTS (60Hz only)
ATS - 605	-20°C to +225°C	0 to +125°C, <3 min +125 to 0°C, <4 min	115 ±10% VAC, 15 amp, 1phase 230 ±10% VAC, 10 amp, 1phase
ATS - 615	-45°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	115 ±10% VAC, 20amp (15amp available) 220 ±10% VAC, 20amp
ATS - 625	-60°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	115 ±10% VAC, 20amp 220 ±10% VAC, 20amp
ATS - 635	-60°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	Chiller Power: 220 ±10% VAC, 16amp Compressor Power: 220 ±10% VAC, 30amp
ATS - 645	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ATS - 810	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ATS - 810 WM	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ATS - 830	-90°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ATS - 850	-90°C to +300°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ATS - 870	-100°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ECO - 660	-60°C to +200°C	-40 to +105°C, <15 sec +105 to -40°C, <35 sec	200 - 250 VAC (230V nominal), 30 amp, 1phase
ECO - 810	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC, 20 amp, 1phase

International Models 500/700 Series

MODEL	TEMPERATURE RANGE	TRANSITION RATE (HEATING COOLING)	POWER REQUIREMENTS
ATS - 505	-20°C to +225°C	0 to +125°C, <3 min +125 to 0°C, <4 min	200 - 250 VAC (230V nominal) 50/60Hz 10 amp, 1phase
ATS - 515	-45°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	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
ATS - 525	-60°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	115 ±10% VAC, 60Hz, 20amp (15amp available) 100 ±10% VAC, 50Hz, 20amp (15amp available) 200 ±10% AC, 50Hz, 16amp 220 ±10% VAC, 60Hz, 16amp 230 ±10% VAC, 50Hz, 16amp
ATS - 535	-60°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	Chiller Power: 220 ±10% VAC, 50/60Hz, 16amp Compressor Power: 220 ±10% VAC, 50/60Hz, 30amp
ATS - 545	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal) 50/60Hz 30 amp, 1phase
ATS - 710	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal) 50/60Hz 30 amp, 1phase
ATS - 710 WM	-80°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal) 50/60Hz 30 amp, 1phase
ATS - 730	-90°C to +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal) 50/60Hz 30 amp, 1phase
ATS - 750	-90°C to +300°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	200 - 250 VAC (230V nominal) 50/60Hz, 30 amp, 1 phase
ATS - 770	-100°C to +225°C	-40 to +125°C, <12 sec +125 to -40°C, <40 sec	200 - 250 VAC (230V nominal) 50/60Hz, 30 amp, 1 phase
ECO - 560	-60°C to +200°C	-40 to +105°C, <15 sec +105 to -40°C, <35 sec	200 - 250 VAC (230V nominal) 50/60Hz 30 amp, 1phase
ECO - 710	-80°C TO +225°C	-55 to +125°C, <10 sec +125 to -55°C, <10 sec	200 - 250 VAC (230V nominal), 50/60Hz, 20 amp, 1phase

ThermoStream® Accessories



Thermal Caps (T-Caps):

Non-conductive, ESD safe glass enclosures to isolate the test subject and direct air flow. Affixes directly to ThermoStream.



Hoods:

A compact, extremely portable, chamber that is ideal for bringing components, assemblies, and other parts to temperature directly at the test site or benchtop.



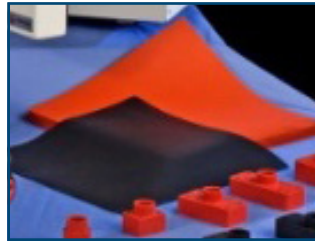
Top Load/Clamshell:

Ideal for temperature test and conditioning of materials and components including: ICs, MEMS, and Optical Transceivers. Enables low temperature testing in a frost-free, thermal enclosure.



Front Load:

Ideal for temperature test and conditioning of materials and components including: ICs, MEMS, and Optical Transceivers. Enables low temperature testing in a frost-free, uniform, thermal chamber.



Non-Conductive Mats & Insulation:

Non-conductive mats reduce heat loss while allowing convenient access to wired devices.

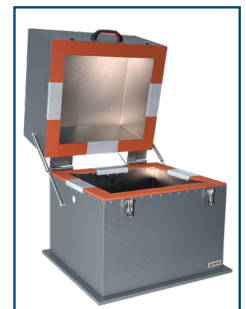
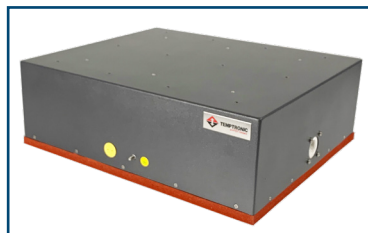
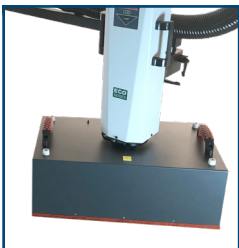


Air Dryer:

Air Dryer for temperature forcing systems enables frost-free low temperature test and conditioning of materials and components including: ICs, MEMS, and Optical Transceivers.

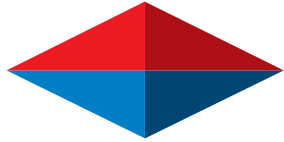
Custom Enclosures:

Custom Enclosures can be available upon request. We offer a wide range of shapes, sizes, and configurations that accommodate the needs for test access, cable routing, test visibility, wide temperature ranges, and rapid temperature transitions. Contact us for more information: info@inTESTthermal.com.



Learn more at:

inTESTthermal.com/Temptronic/Thermostream/Accessories



inTEST Thermal Solutions

an inTEST Company

inTEST Thermal Solutions (iTS) specializes in the design and manufacture of thermal test and process cooling systems. Our breadth of products and in-house engineering capabilities allow us to be a single-partner-solution for thermal test and process cooling needs. We are recognized globally for our expertise in precise control of extreme thermal environments, from -185 to +500°C, with rapid transitions or long dwell times. The iTS family includes three product brands: Temptronic, Sigma Systems, and Thermonics. inTEST Thermal Solutions is a wholly owned subsidiary of inTEST Corp, Mount Laurel, New Jersey, USA.

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