

ThermoJet™ Precision Temperature Cycling System

Overview

ThermoJet is a precision-controlled temperature forcing system that delivers an airstream of up to 20 SCFM to rapidly change the temperature of a product or Device Under Test (DUT).

ThermoJet delivers temperature transition speeds unmatched in the industry, and only ThermoJet can deliver -80°C all the way to 20 SCFM.

ThermoJet also delivers best-in-class electronic control, ergonomics and economy.

Additional ThermoJet Features at a Glance

- Highest thermal capacity available in the industry
- CFC and HCFC free
- Uses off-the-shelf refrigerants with easy availability and economy
- External thermocouple with auto-tuning for convenient temperature control and monitoring of DUT
- IEEE-488 and RS232 remote interfaces available
- Backed by more than 30 years of thermal engineering expertise
- 10 programmable temperature profiles; 0.1°C increments
- Complete data logging capabilities



Call **800-824-0400**
or visit www.ftssystems.com



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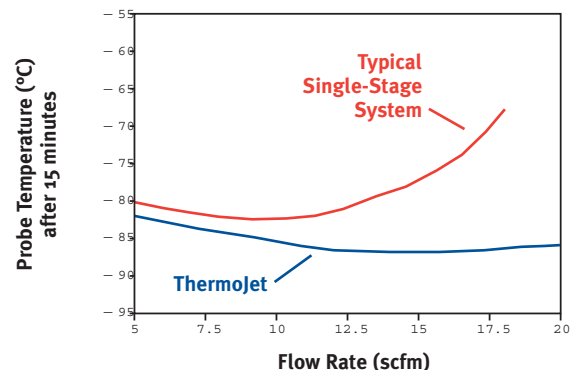


For Faster Temperature Cycles & Extended Low Temp Testing.

Why you should consider ThermoJet:

- ▶ Maintain -80°C at 20 SCFM... you get true extended low temp testing. This means your devices (even large ones) get to lower temperatures, get there faster and stay there longer.
- ▶ Cascade refrigeration system reliably delivers vigorous temperature cycling, even in a 24/7 operating environment.
- ▶ Portable space-saving touchscreen controller.
- ▶ Compact footprint (21 x 27) and caster-mounted for mobility.
- ▶ Cycle from $+200^{\circ}\text{C}$ to -65°C in less than 10 seconds... you save time.

Only ThermoJet can reach extreme low temps and stay there.



Applications

- ▶ Temperature cycling of larger devices in less time
- ▶ Thermal shock
- ▶ Stress screening
- ▶ Temperature characterization of electronic components, circuit boards, electromechanical devices, or materials
- ▶ Extreme heating/cooling
- ▶ Testing ICs over different temperatures

ThermoJet Accessories

General Accessories	
Model	Description
THJ-TC1	Thermocouple kit
Shrouds (phenolic recommended above +125°C)	
Model	Description
SH35T1	Transparent, 3.5 ID x 2 deep
SH45T1	Transparent, 4.5 ID x 2 deep
SH55T1	Transparent, 5.5 ID x 2 deep
TJ-SHP-35	Phenolic 3.5 ID x 2 deep
TJ-SHP-45	Phenolic 4.5 ID x 2 deep
TJ-SHP-55	Phenolic 5.5 ID x 2 deep
TJ-SHP-44	Phenolic 4 ID x 4 x .75
TJ-SHP-46	Phenolic 4 ID x 6 x .75
TJ-SHA-44	Acrylic 4 x 4 x .75
TJ-SHA-46	Acrylic 4 x 6 x .75
Insulation-Silicone Sponges	
Model	Description
PAC-SS1	1 x 1 x .25
PAC-SS3	1 x 1 x .5



ThermoJet Specifications

Temperature

Maximum Low	-80°C @ 20 SCFM
Maximum High	+225°C
Accuracy	1°C
Setability	0.1°C
Indication	0.1°C
Stability	0.1°C at discharge nozzle
Sensors	Special limits of error type-K thermocouples
Calibration	Software controlled
Ramp Rate	1°C to 1600°C min. or max.
Max. Ramp Rates	+200°C to -65°C in <10 seconds -80°C to +200°C in <10 seconds

Air Filtering

Water	Coalescent
Oil	Coalescent
Particle	Sintered bronzed mesh

Air Flow (Output)

Input	25 SCFM @ 100-125 psig, dew point 10°C
Output	5-20 SCFM
Setability	1 SCFM

Air Drying

Heatless Regenerative	-85°C dew point
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Physical Characteristics

Footprint	21 wide x 27 deep (54 cm x 69 cm)
Arm Reach	55 radius (140 cm)
Work Surface Height	38 (100 cm)
Weight	425 lbs (193 kg)
Mobility	4 full-swivel, lockable casters

System Controller

Program	10 programs of 8 segments each
Type	Microprocessor PLC-based PID
Safeties	Low flow, over temp., EMO interlock
Status Indication	Air input, heat, air temp, air/DUT control OK, run/idle, purge heat, defrost, power
Available Limits	Max. ramp rate, min./max. air temperatures

System Requirements

Temperature	+12°C to +28°C
Humidity	0% to 65% RH
Electrical	208-230V/50/60 Hz/1 ph/30A
Air	25 SCFM at 100-125/psig, dew point 25°C

NOTES:

1. Specifications based on 230V, 60 Hz at 15 SCFM, ambient 23°C, 50% humidity.
2. System may be used with lower pressure at reduced specifications.

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