VTS-1

CSZ
Cincinnati Sub-Zero

THERMAL SHOCK CHAMBERS

DTS-16

VTS-1

www.cszproducts.com

Vertical Thermal Shock Chambers

Detect product defects before they get to your customer

Compact Thermal Shock Chambers consist of a hot/cold zone. Product is transferred between these zones for rapid product temperature changes.

These chambers offer 1-9 ft3 of interior workspace volume, superior performance, and small footprint coupled with many standard features to provide exceptional value. The lower chamber also contains both heating/cooling and may be operated as a separate temperature cycling chamber for greater return on investment.

Product Features

The EZT-570S controller provides flexibility and a full range of user-friendly features that combine to simplify programming along with built-in safeties to protect your chamber and product under test.

RS-232/485 serial communications.

The product transfer carriage provides smooth, steady transfer of your product between the hot/cold chambers. Special design does not require compressed air to operate [1].

Door safety interlocks prevent the door from being opened during operation.

Emergency stop button shuts down power to chamber.

Traveling cable port for routing cables and wires from the product under test to an external device.

Removable panels provides easy access to all systems for maintenance purposes.

Compact size and casters provide mobility with leveling legs to secure and level your chamber [1].

Rapid airflow through the workspace to facilitate fast part temperature change rates.
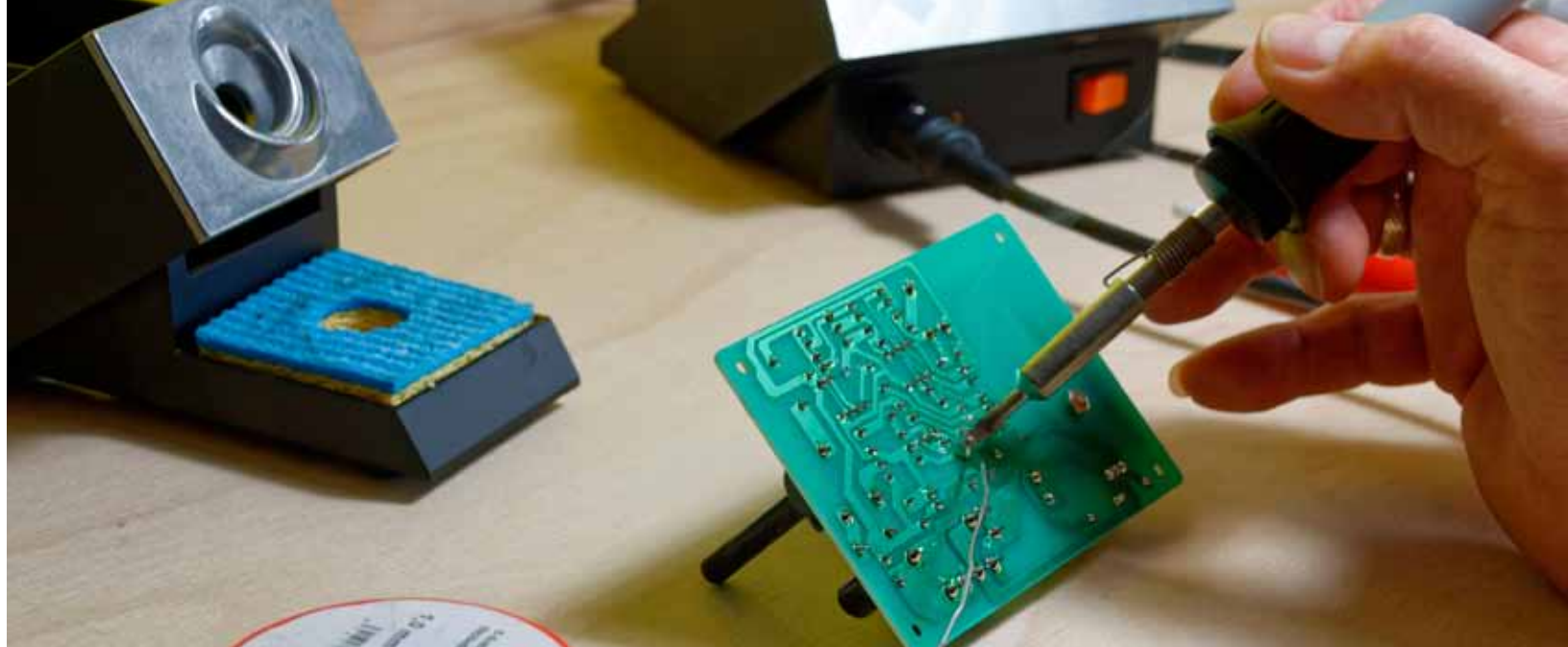
Environmentally safe, zero ozone depletion potential refrigerants are used to protect the environment.

Optional Accessories

- Additional Basket/Shelf
- Chart Recorders
- Digital High/Low Limit & Alarm
- Run Time Meter
- IEEE-488 Interface
- EZ-View Software

- Digital Output Option
- Digital Input Option
- Main Power Disconnect Switch
- Dry Air Purge
- LN2 Boost
- Window1

[1] VTS-1 & VTS-3 only

VTS-Series

The induced thermal stresses can reveal hidden manufacturing defects in electronic sub-assemblies and other components by the expansion and contraction of critical parts. Design meets MIL-STD 883, 1010.8 along with a variety of other thermal shock test specifications.

Model	VTS-1	VTS-3		VTS-9
Workspace Volume	1 cu. ft. (28L)	3 cu. ft. (85L)		9 cu. ft. (255L)
Product Carrier Dimensions	15"W x 10.5"D x 11"H (38cm x 27cm x 28cm)	20"W x 16"D x 16"H (51cm x 41cm x 41cm)		25"W x 25"D x 25"H (64cm x 64cm x 64cm)
Exterior Dimensions	34"W x 62"D x 70"H (86cm x 158cm x178cm)	40"W x 79"D x 79"H (102cm x 200cm x 201cm)		119"W x 98"D x 96"H (302cm x 249cm x 244cm)
Temperature Range	Hot Chamber: +50°C to +210°C Cold Chamber: -75°C to + 190°C			Hot Chamber: +115°C to +210°C Cold Chamber: -75°C to + 190°C
Product Load (Based on Mill-Std 883G, Method 1010.8 Test Condition C)	8 lbs (4 kg)	17 lbs (8 kg)		50 lbs (23 kg)
Maximum Product Load	20 lbs (9 kg)	66 lbs (30 kg)		190 lbs (86 kg)
Recommended Minimum Service Amps	200/208-230V, 50/60 Hz 1 Ph 3 Ph 100 Amps 80 Amps	200/20/-230V, 50/60 Hz 3 Ph 125 Amps	380/460V, 50/60 Hz, 3 Ph 60 Amps	380/460V, 50/60 Hz 3 PH 125 Amps

[1] Custom size chambers are also available.

Our unique chamber design passes equal volumes of high velocity conditioned air over the product, resulting in rapid product temperature changes.

Custom VTS-144

Double-Duty Thermal Shock Chambers

Test twice as much product at the same time!

The DTS Air-to-Air Thermal Shock Chambers are designed to perform tailored environmental stress screening of component and board level electronic assemblies. This system is designed for large components/loads and ideal for manufacturing environments.

DTS chambers consist of three zones: a hot chamber on each end with a cold chamber in the middle. This design allows product to be moved between the zones simultaneously with two product baskets - exposing twice as much product in one system to maximize your investment.

Standard Features

The EZT-570S controller provides flexibility and a full range of user-friendly features that combine to simplify programming along with built-in safeties to protect your chamber and product under test.

RS-232/485 serial communications with Ethernet control & monitoring.

Smooth carriage transfer via a pneumatic air cylinder designed with multiple safeties. The air cylinder is protected from the environment to insure long life.

Door safety interlocks prevent the door from being opened during operation.

Removable panels provides easy access to all systems for maintenance purposes.

Rapid airflow through the workspace to facilitate fast part temperature change rates.

Environmentally safe, zero ozone depletion potential refrigerants are used to protect the environment.

Specifications	DTS-16-22-22		DTS-27-30-30	
Workspace Volume	16 cu. ft. (453L)		27 cu. ft. (765L)	
Product Test Area Dimensions	30"W x 30" D x 30"H (76.2cm x 76.2cm x 76.2cm)		36"W x 36"D x 36"H (91.4cm x 91.4cm x 91.4cm)	
Exterior Dimensions	200"W x 88"D x 94"H (508cm x 224cm x 239cm)		218"W x 94"D x 100"H (554cm x 239cm x 254m)	
Temperature Range	Hot Chamber : +70°C to +210°C (+158°F to +410°F) Cold Chamber: -75°C to + 190°C (-103°F to +375°F)			
Product Load (Based on Mill-Std 883G, Method 1010.8 Test Condition C)	50 lbs each (23 kg)		100 lbs each (45 kg)	
Maximum Product Load	200 lbs (90 kg)		200 lbs (90 kg)	
Recommended Minimum Service Amps	230V, 3 Ph 400 Amps	460V, 3 Ph 225 Amps	230V, 3 Ph 500 Amps	460V, 3 Ph 275 Amps

Optional Accessories

- Additional Basket/Shelf
- Chart Recorders
- Digital High/Low Limit & Alarm
- Run Time Meter
- IEEE-488 Interface
- EZ-View Software

- Digital Output Option
- Digital Input Option
- Main Power Disconnect Switch
- Dry Air Purge
- LN2 Boost

EZT-570S Touchscreen Controller

The Next Generation Controller with Smartphone Technology

All features are built into the controller interface so no additional software or internet is required for access to all the features the controller has to offer.

Communications & Connectivity

- Monitor and/or Control the chamber remotely for anytime, anywhere access from any device using LAN VNC.
- Alarm notification sends email and/or text messages.
- Email built-in to send data, alarm, audit trail files directly from controller.
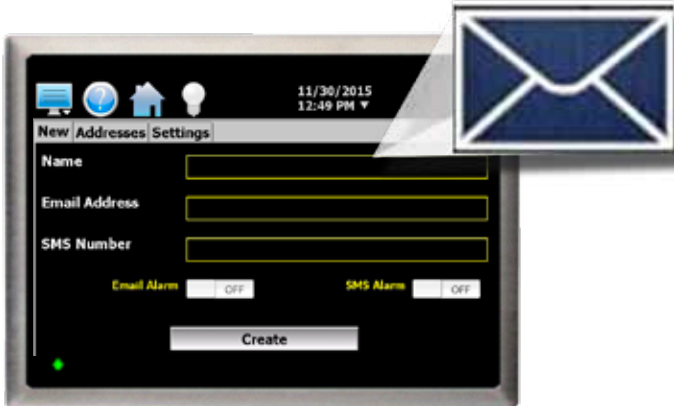
Save valuable time with the ease of use of the EZT-570S featuring fewer steps to accomplish your daily testing needs while incorporating simplified operation and programming to test faster.

Profiling

- Profiling includes up to 99 steps and 1000 cycles.
- Program ramp steps entering time or °C/min.
- Programs may be written using product control function.
- Easily review profile using trend chart or review list of steps before running profile.
- Profile status view displays current step, estimated start/stop date and time and more.
- Profiles may be transferred to different chambers via USB or optional EZ-View software.
- Automated delay profile start.

Data Logging

- Configurable log interval, data file length, filename, operator entered batch & lot information as well as an unlimited number of operator notes saved to the data file.
- Access data files directly from controller or PC.
- Easily download profiles, alarm files, audit trail files and data files using LAN (FTP, email) and/or USB in a compatible .csv file format for ease of use. Files may also be automatically backed up daily for hassle-free file management.
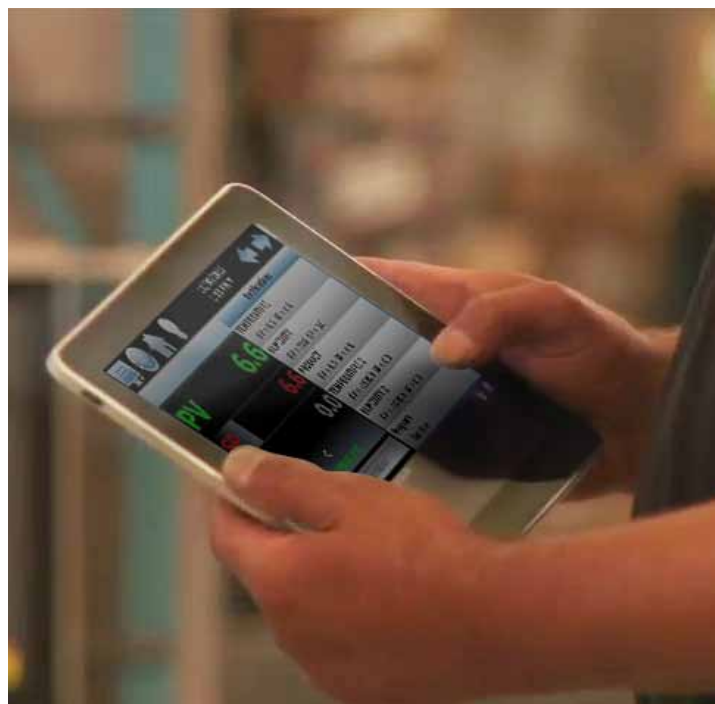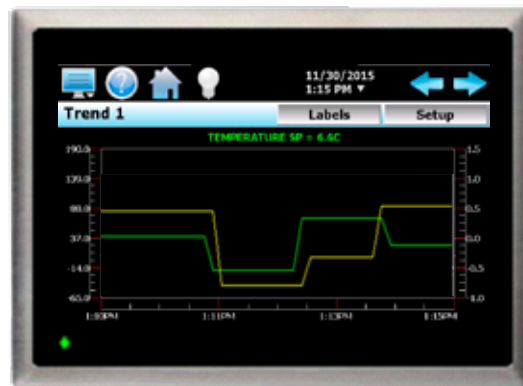
User Convenience & Flexibility

- Controller may be configured in 28 languages
- Selectable power failure/recovery options.
- Full system security allows up to 30 different users with four different levels of security.
- Audit trail files track changes in settings by each user.
- Configure alarm setting and maintenance alerts.

Graphing Technology

- Real-time trend display graph with adjustable time and min/max values.
- Up to eight configurable trend graphs with left & right axis
- Graph historical data files
- Zoom in/out of graphs for a closer look.

Enhanced Communications & Control Options

- Digital input option provides 8 inputs that can be configured for various control functions including starting, stopping and pausing a profile. "Wait for" function allows the user to pause a profile during a particular step of the profile until a specific digital input is turned on or off.
- Digital output "customer event" feature provides 15 programmable outputs. Each output can be configured to perform other operations including alarm or profile status indicators for more control over your testing.
- Optional refrigeration monitor package displays and data logs temperatures and refrigeration system compressor suction/discharge pressures.
- Condensation control option helps prevent condensation from collecting on the part by automatically managing the air dewpoint.
- Bar code option allows user to scan barcode to start profile and to add notes to current data file when datalogging.

Cincinnati Sub-Zero is a product brand of Weiss Technik North America, Inc. Weiss Technik North America is a member of the Weiss Technik group of companies, a division of the Schunk Group with its headquarters in Heuchelheim, Germany. Weiss Technik is the world's largest manufacturer of environmental simulation systems and employs more than 2,400 people in 22 group companies in 15 countries.

Testing Services

Our A2LA Accredited Test Laboratory provides environmental simulation testing utilizing the latest test technology to meet your testing needs from product qualification testing, overflow testing and /or third party product validation. Capabilities include Temperature, Humidity, and/or Vibration, Thermal Shock, Burn-in, Radiator Testing, Altitude, Vibration, HALT/HASS, Shock, Salt Spray, Cyclic Corrosion test and Drop Testing. Serving you from two locations in **Cincinnati, OH** and **Sterling Heights, MI**.

FOR MORE INFORMATION please call our Testing headquarters at
513-793-7774 or visit **www.wnatesting.com.**

503.1 & 503.2

The Testing Standard.

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