

Cincinnati Sub-Zero

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## ALTITUDE CHAMBERS



[www.cszproducts.com](http://www.cszproducts.com)

# Altitude Chambers

CSZ Altitude Chambers combine temperature and altitude with optional humidity to test basic components or sub-assemblies for a variety of industries. Standard altitude chambers simulate altitude up to 100,000 feet (8.2 Torr) and higher levels optional up to 175,000 feet (.37 Torr). Optional extended ranges are also available to simulate sea level testing when your site is significantly above sea level.

Customized altitude chambers may be designed to meet the test requirements for RTCA DO-160E rapid decompression.



LTC (Low Temperature Chamber)



Below is a list of features and benefits included with your CSZ altitude test chamber.

### Easy Operation - Saves Time

The CSZ EZT-570S Touch Screen Controller offers a 7" or optional 10" touch screen and the latest in test chamber programming for ease of use. Standard features include data logging, data file access via memory stick or PC, Ethernet control and monitoring, alarm notification via email or phone text message, data file backup, full system security and more.

### Reliable Performance

Heavy-duty, solid components, and proven chamber design provide many years of trouble-free operation.

### Product Protection

A variety of electronic, refrigeration, and cabinet safeties are incorporated into the design, protecting both your product and chamber.

### Extensive Product Offering

With a variety of performance options to meet your testing need, chambers may also be designed for your application requirements.

### Dual Purpose for Greater ROI

Operates as an altitude chamber and separate temperature/humidity chamber.

### Robust Vacuum System

Heavy duty, high capacity vacuum pumps provide reliable performance. System is equipped for controlling altitude setpoints automatically with a regulating rate of ascent and descent by using manual adjustable valves. Flexible section in vacuum lines also prevents transmission of adverse vibration.



Dive valve rapidly decreases altitude

# Altitude Chamber Specifications

CSZ altitude test chambers are available in a variety of sizes and temperature ranges. Custom sizes and performance packages are also available to meet your specific application.

Model	CA-18	CA-37	CA-55
Workspace Volume	18 cu. ft. (510 L)	37cu. ft. (1048 L)	55 cu. ft. (1557)
Temperature Range	Single Stage: -34°C to 190°C (-30°F to 375°F) Tundra®: -45°C to 190°C (-49°F to 375°F) Tundra® II: -50°C to 190°C (-58°F to 375°F) Cascade: -68°C to 190°C (-90°F to 375°F)		
Optional Humidity Range	10% to 95% RH		
Altitude Range	100,000 ft. (8.2 Torr) Standard 175,000 ft (.37 Torr) Optional		
Internal Dimensions W x D x H Inches (cm)	32" x 32" x 32" (81 x 81 x 81)	40" x 40" x 40" (101 x 101 x 101)	40" x 60" x 40" (101 x 152 x 101)
External Dimensions W x D x H Inches (cm)	52" x 94" x 95" (132 x 238 x 241)	60" x 94" x 103" (152 x 238 x 261)	60" x 114" x 103" (152 x 289 x 261)

We offer a large selection of standard features and optional features with the flexibility to design the chamber to meet your specific requirements.





## Features & Options meet your Needs

### Standard Features

- Welded Steel Frame Construction
- Brushed Stainless Steel Interior
- 3" Access Port
- Removable Service Panels
- Non-Settling Low "k" Factor Foam or Fiberglass Insulation
- Fan Guards
- EZT-570S Touch Screen Controller
- Digital Display Temp. Limit & Alarm
- EIA-232/485 Computer Interface
- Vapor Proof Light with Switch
- Solid State Humidity Sensor\*
- Fused Electrical Components
- Oil Pressure Switches
- High and Low Pressure Switches
- Refrigeration Reset
- Refrigeration High Temperature Protection
- Refrigeration Pressure Gauges
- Compressor Overload Protection
- Humidity Demineralizer System\*
- Water-Cooled Condenser
- Zero Ozone Depletion Refrigerants
- Compressor Crankcase Heater
- Pressure Relief Devices

\*Humidity units only

### Optional Accessories & Custom Capabilities

- Additional Access Ports
- Stainless Steel Shelves
- Custom-Size Chambers
- IEEE-488 Computer Interface
- Chart Recorders
- EZ-View Software
- Main Power Disconnect
- Reverse Osmosis Humidity Water Filtration\*
- Running Time Meter
- Compliance to all Wiring Standards
- Automatic Altitude Control Valve
- Ultra High & Low Temperatures
- Remote Refrigeration
- Refrigeration Sound Deadening
- Recirculation Humidity Water System
- LN<sub>2</sub>/CO<sub>2</sub> Boost Cooling
- Dry Air Purge System

# 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
- Ethernet TCP/IP, EIA-232, EIA-485 communications



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
- Files may also be automatically backed up daily for hassle-free file management using FTP, FTP/FileWeb/DataWeb (LAN/WAN)

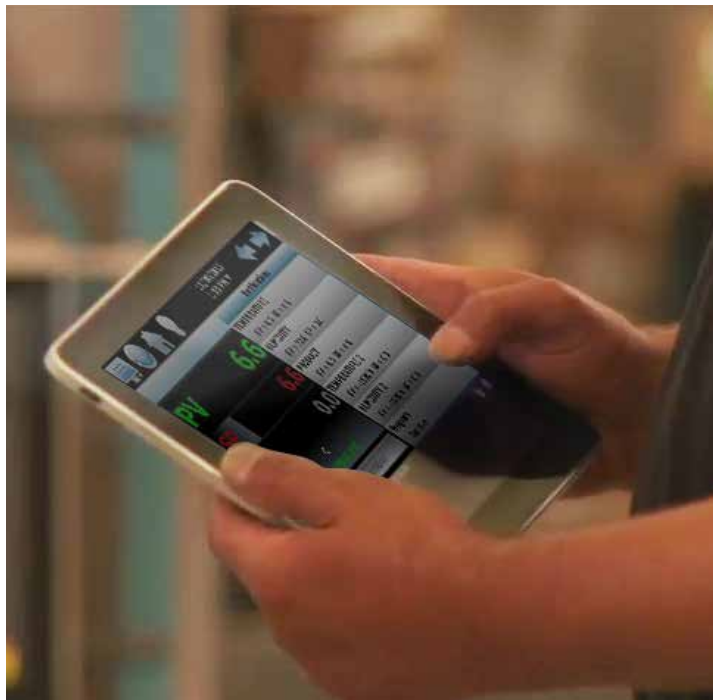
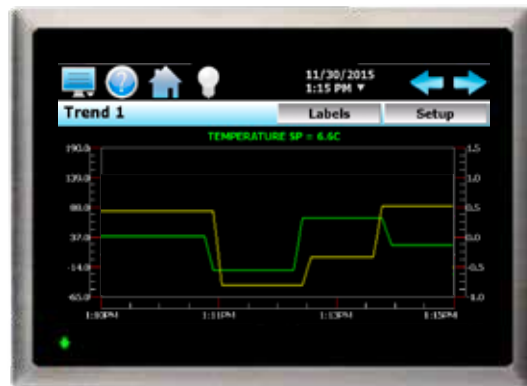


## User Convenience & Flexibility

- 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 AZLA 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, 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](http://www.wnatesting.com)**.



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