CSZ
Cincinnati Sub-Zero

Z-PLUS BENCHTOP
Temperature / Humidity Chambers

![CSZ Cincinnati Sub-Zero logo]

Stackable Benchtop Model Saves Floor Space
Expandable for Future Applications

Flexible to meet your test space and requirements

Our new 8 cu. ft. benchtop test chamber is ideal for the most common testing applications, available as temperature only unit or temperature and humidity chamber. This particular model is designed for multiple use cases, offering flexbility and the ability to test more product in the same workspace. The chamber may be used in a variety of configurations:

1. Standard benchtop model, placed on existing table top.
2. Single chamber with optional cart provides storage for test equipment on the supplied shelf, saving space.
3. Stacked chamber configuration with the optional cart, saves floors space, **doubling test capacity in the same footprint. Run two different tests in separate chambers without taking up additional space in your lab.**

EZT-570S Controller & USB port

Communications, External DUT & Customer Event Connections

Enhanced Air Flow

4" Access Port

Fog-Free Viewing Window

Adjustable, Slide-Out Shelf

4" Access Port

Single-Handed, Lockable Latch

Single Unit with Optional Cart

Double Unit with Optional Cart

Cabinet Features

The contemporary and smooth cabinet design is aesthetically pleasing to fit the style of your laboratory. Stainless steel interior with oven-baked, powder-coated exterior for added durablity.

- Two, 5" access ports centered on the left-hand and right hand sides for ease of cable routing. Ports are fully welded to eliminate leaks and increase chamber life

- One adjustable product shelf slides out to provide easier access to your product. The shelf design is non tipping and supports large product loads

- Single-handed, lockable latch operation for ease of use

- Fog-free viewing window provides product viewing

- Interior light illuminates chamber workspace and product

- Removable side panels allow for easy access to all systems

- Double gasketing assures a vapor tight seal and insulation minimizes heat loss

- Each chamber is fully pressure tested to eliminate potential leaks

Z-Plus Benchtop Temperature/Humidity Chambers

Refrigeration Features

- Environmentally safe refrigerants are non-flammable, and have a zero Ozone Depletion Potential (ODP)
- Refrigeration service taps and refrigeration pressure gauges are included for easy maintenance
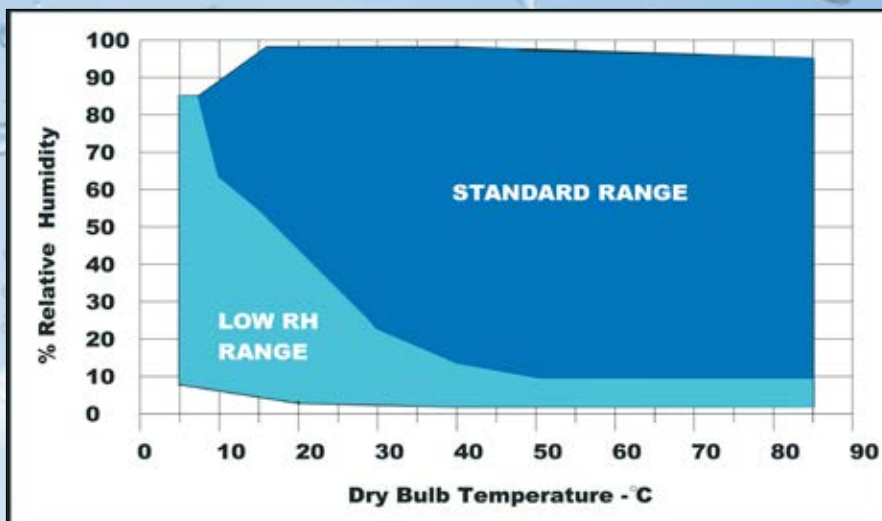- Refrigeration system saves energy costs and prevents coil frost up for efficient operation

Our patented Tundra® system offers increased performance, reduces maintenance and energy usage, saving up to 54% on operational costs. Available in temperature ranges as low as -45°C. See pg. 7 for details.

Electrical & Safety Features

- All wiring between the electrical panel and the various components pass through terminal strips for easy maintenance. Wiring is color coded and identified with numbers that correspond to system schematics
- Multiple safety devices include a primary over-temperature limit to protect your product and an over-temperature safety limit to protect the chamber. All branch power and control circuits are individually fused
- UL-508A listed electrical panel

Communications

- Z-Plus models come equipped with TCP/IP and EIA-232 serial communications, for monitoring & control, and optional IEEE-488 GPIB
- Safety relay connection is provided to protect your device under test by removing power to it when the chamber is not running

Humidification System (ZPBH Models)

- The Z-Plus features our fast response, tight control, humidity system. Humidification systems allow for humidity and moisture resistance testing meeting a variety of commercial and military standards
- These systems include an electronic, solid-state humidity sensor for accuracy and minimal maintenance

PC Software Controls Multiple CSZ Chambers

Using our optional EZ-View windows software, from one central PC you are able to monitor, control, datalog, create profiles, and receive alarm notifications. This software package allows you to control up to 31 chambers.

Choose from a complete selection of options for flexibility and increased performance such as LN2 Boost for faster transitions

Optional Accessories

- Dry Air Purge
- Recirculating Water Supply
- Humidity Water Filtration
- Demineralizer Cartridge Filters
- LN2 Boost Cooling
- Low RH
- GN2 Purge
- Water Pressure Regulator
- Running Time Meter
- IEEE-488 Computer Interface
- Windows-Based Software
- Chart Recorder

- Additional Shelves Refrigeration Monitor Package
- Customer Event Digital Outputs
- Digital Inputs
- Heat Only
- Blank Door without window
- Main Power Cord
- Main Power Disconnect
- Redundant Product Hi/Low Limit
- Reinforced Chamber Floor
- Reinforced Shelf
- EZ-View PC Software

Z-Plus Benchtop Performance Specifications

	ZPB(H) - 8
Workspace Volume	8 Cu Ft (230 L)
Workspace Dimensions WxDxH in (mm)	24"W x 24"D x 24"H (610 x 610 x 610)
Exterior Dimensions WxDxH in (mm)	36.5" x 80" x 35.5" (927 x 2032 x 902)
Exterior w/ Single Unit Cart* WxDxH in (mm)	36.5"W x 80"D x 63"H (927 x 2032 x 1600)
Exterior w/ Double Unit Cart* WxDxH in (mm)	37"W x 80"D x 80.5"H (940 x 2032 x 2044)
Temperature Range	Tundra®: -45°C to +190°C (-49°F to 375°F)
Temperature Control Tolerance	±0.5°C at steady state condition after stabilization
Humidity Range Optional Range	10% to 98% RH 5% to 98% RH
Humidity Control Tolerance	±3% RH at steady state conditions after stabilization
Distributed Shelf Load Capacity	110 lbs.

	Cooling Performance with Empty Chamber in Minutes from:				Cooling Rate [2]	Heating Performance with Empty Chamber in Minutes from:		
	24°C			85°C	°C / min	24°C		-34°C
Model	-18°C	-34°C	-40°C	-40°C		93°C	190°C	24°C
ZPB-8-2-SCT/AC	6	12	18	30	4.1	10	30	10
ZPB-8-3.5-SCT/AC	4	8	12	22	5.6	3.5	12	3.5

	Live Load Capacity Watts			Electrical Power Requirements Full Load Amps [1]	
Model	-18°C	-34°C	-40°C	208/240V, 1 Phase	208/240V, 3 Phase
ZPB-8-2-SCT/AC	1800	950	725	31	27
ZPB-8-3.5-SCT/AC	2110	1100	925	-	37

Performance is based on 240V, 60 Hz. operation and a 24°C ambient. Lower voltages will extend heating performance.

[1] Electrical requirements based on temperature only units. Amperage may increase on humidity models. See quotation for actual values.
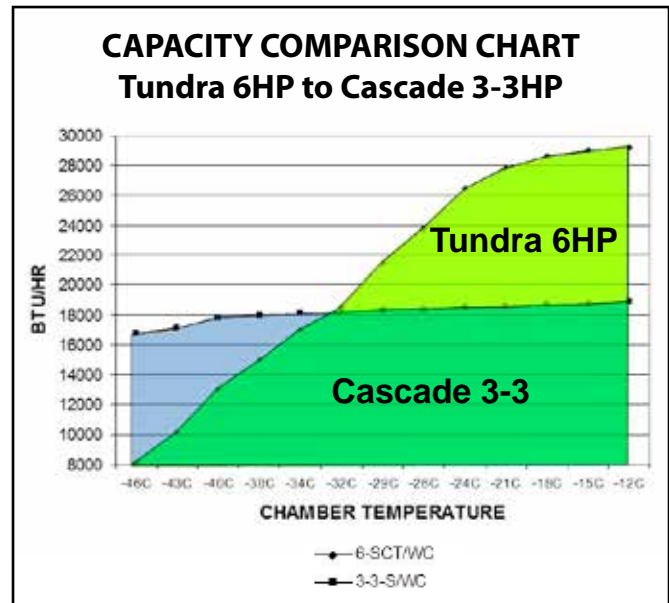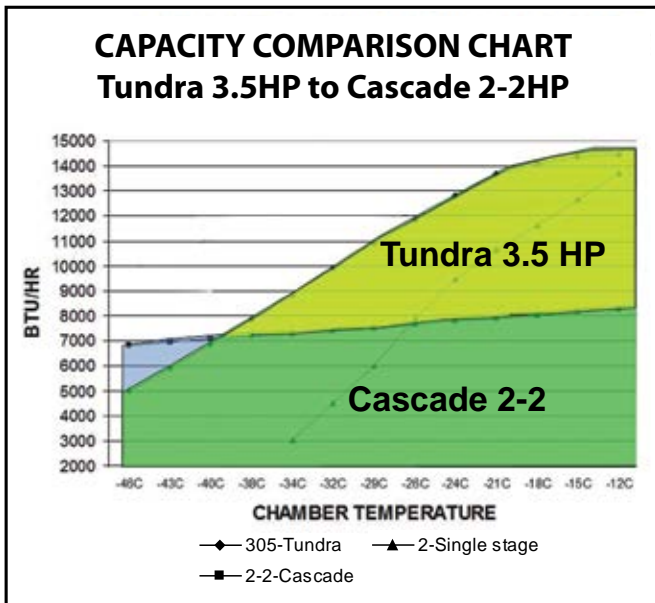
[2] From +85°C to -40°C

*Optional

Go Green with our Tundra® Cooling System

Tundra is a patented refrigeration system design that uses one compressor and is available in temperature ranges as low as -45ºC. This system provides additional performance for fast transition rates, increased live load capacity and can save up to 54% on energy costs.

The Tundra systems offers these benefits:

- Increased Performance
- High Reliability
- Quiet Operation
- Energy Efficient

- Improved Serviceability
- Reduced Utility and Maintenance Cost
- Increased Value

ENERGY SAVING

CAPACITY COMPARISON CHART
Tundra 3.5HP to Cascade 2-2HP

Tundra 3.5 HP

Cascade 2-2

BTU/HR

CHAMBER TEMPERATURE

—◆— 305-Tundra   —▲— 2-Single stage
—■— 2-2-Cascade

CAPACITY COMPARISON CHART
Tundra 6HP to Cascade 3-3HP

Tundra 6HP

Cascade 3-3

BTU/HR

CHAMBER TEMPERATURE

—◆— 6-SCT/WC
—■— 3-3-S/WC

EZT-570 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 and serial communications

Save valuable time with the ease of use of the EZT-570 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 USB or email from controller in a compatible .csv file format for ease of use. Also import profiles to other chambers saving valuable profile entry time
- Files may also be automatically backed up daily for hassle-free file management using FTP. FTP/FileWeb/DataWeb (LAN/WAN)
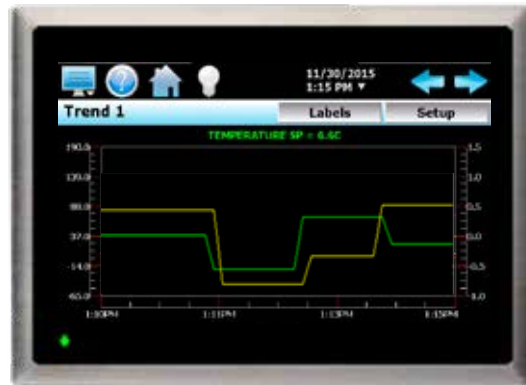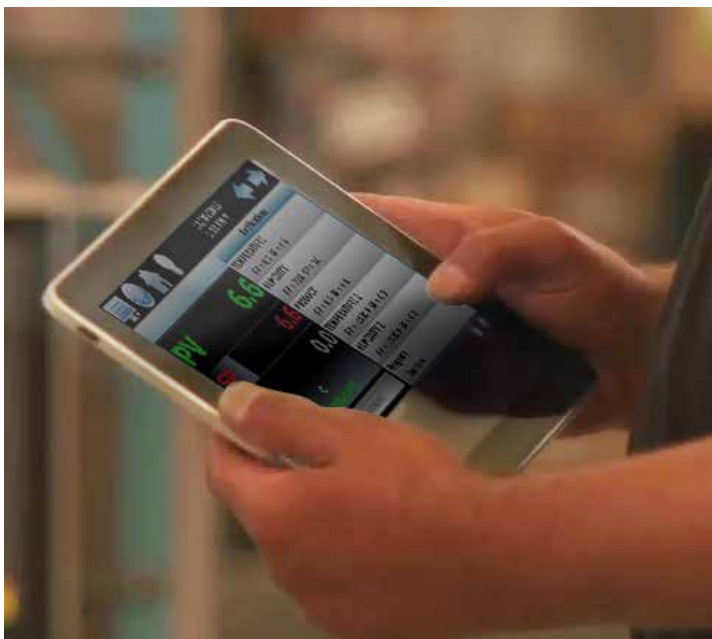
User Convenience & Flexibility

- Controller may be configured in 11 languages (additional available)
- 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 (optional)

Graphing Technology

- Real-time trend display graph with adjustable time and min/max values
- Four configurable trend graphs with left & right axis (additional available)
- 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

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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 2,900 people in 18 group companies in 15 countries.

Request Information

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The Testing Standard.

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