CSZ
Cincinnati Sub-Zero

ENVIRONMENTAL CHAMBERS &
COLD STORAGE FREEZERS ROOMS

FOR PHARMACEUTICAL AND MEDICAL DEVICE INDUSTRY

Environmental Chambers & Cold Storage Freezer Rooms

Keeping your products on schedule allows you to deliver life-saving products to patients sooner.

We understand the importance of having reliable and stable chambers to ensure tests are completed in a timely manner while complying with regulatory standards.

Whether your testing is for R&D, cold storage, cold chain testing, clinical trials or ongoing stability, our chambers and freezer rooms provide uniform temperature/ humidity conditioned environments for worry-free operations with a control system that is easy to use and saves time.

Our products are used for testing and storage by a variety of industries, including:

- Pharmaceutical products / packaging
- Medical products / packaging
- Personal care products
- Consumer products
- Research

Stability Testing Applications

Stability chambers meet the requirements of ICH Q1A, USP, ISO, IEC, ISTA, ASTM and other test specifications within the performance range of the chambers. Applications include, but are not limited to: stability testing, pharmaceutical, life science, biomedical storage, research and more.

Our reach-in and walk-in stability chambers specifically meet the stability testing ICH Q1A guidelines for drug substances and products. These chambers adhere to the sections of the testing guideline overview listed below.

Section	Description	Condition		Duration
2.1.7.1 & 2.2.7.1	Storage Conditions for Drug Substances or Products	General Case Long Term	25°C, ±2°C/60% RH ±5% RH or 30°C, ±2°C/65% RH ±5% RH	12 months
		Intermediate	30°C, ±2°C/65% RH ±5% RH	6 months
		Accelerated	40°C, ±2°C/75% RH ±5% RH	6 months
2.1.7.2 & 2.2.7.4	Drug Substances or Products for Storage in a Refrigerator	Long Term	5°C, ±3°C	12 months
		Accelerated	25°C, ±2°C/60% RH ±5% RH	6 months
2.2.7.3	Drug products packaged in Semi-Permeable Containers	Long Term	25°C, ±2°C/40% RH ±5% RH or 30°C, ±2°C/35% RH ±5% RH	12 months
		Intermediate	30°C, ±2°C/65% RH ±5% RH	6 months
		Accelerated Not More than	40°C, ±2°C/75% RH ±25% RH	6 months

Cold Storage Freezer Rooms

BioStore® Freezer Rooms

Consistent & Reliable Ultra Low Cold Storage

As the need for vaccines and pharmaceuticals rise worldwide, CSZ BioStore® ultra-cold freezer rooms offer an ideal solution customers with bulk cold storage needs. These freezer rooms address cold storage concerns of reliably storing material at consistently low temperatures. Ideal for the storage of vaccines, pharmaceutical, genetic material (DNA), donor tissues, and allografts for surgical transplantation.

The BioStore freezer rooms contain individual freezer compartments with temperatures from -75°C up to -40°C (-103°F to -40°F). The compartments are cooled by external and redundant conditioning units to protect critical samples also offering less maintenance and energy savings as opposed to multiple individual freezers. These freezer rooms are comprised of an entry room of 2-8°C and -20°C storage room with multiple freezer compartments (10, 20 or more). This is ideal for large capacity storage to replace multiple upright freezers and cold chambers with a single room.


BioStore Benefits

- Includes fully redundant (single or dual) backup cooling systems that guarantee continuous operation to protect valuable samples and materials.
- Reduces the amount of floor space required for equivalent individual freezers.
- Utilizes less power per cubic foot.
- Saves operating costs by dissipating less condenser heat into the room, saving on operating costs of the building's cooling system.
- Reduces maintenance and repair costs by only maintaining one system instead of multiple, individual freezers.
- Minimizes frost accumulation.

Freezer compartments with white painted exterior.

Sizes and configurations are customized to meet your specific application and needs
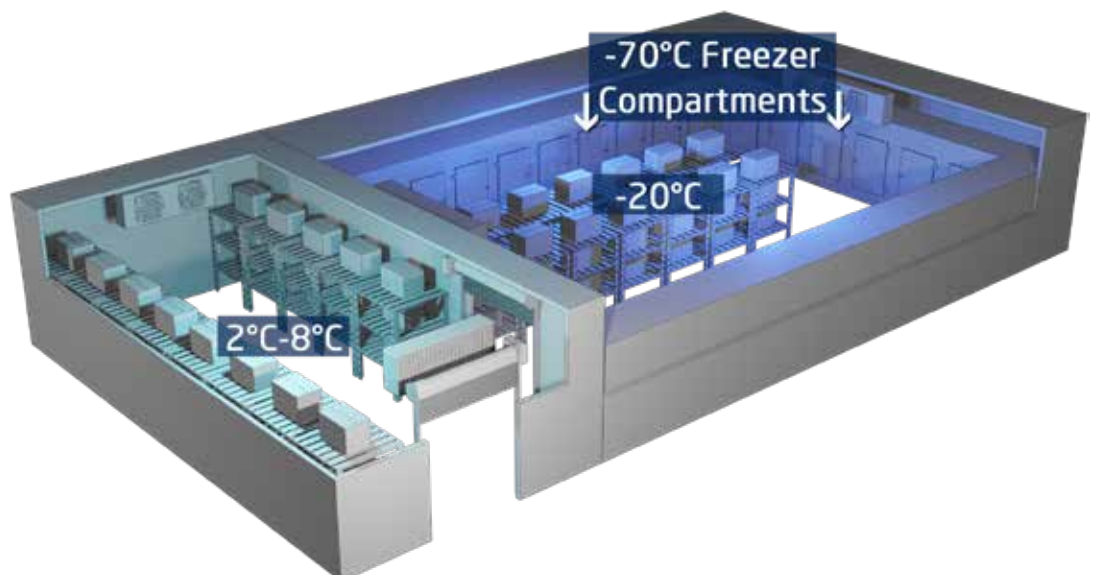
WMST Series
Walk-In Stability Chambers

Controlled environments for stability testing/storage

Stability rooms are available in temperature and/or humidity with a temperature range of -20°C to +60°C (-4°F to +140°F) and optional humidity from 10% to 95%. These rooms are designed with ceiling mounted conditioning systems and modular panel construction. All rooms have stainless steel interior and white embossed or optional aluminum embossed exterior. All CSZ stability chambers meet ICH Q1A guidelines.

Walk-In Stability Chambers Benefits

- Wide temperature & humidity range from -20°C to +60°C to meet a variety of test and storage conditions for more versatility.
- Superb CSZ EZT-570 21 CFR Part 11 Compliant touch screen controller with data logging, data file access with USB stick, Ethernet control and monitoring, alarm notification via email and/or phone text message, data file backup system, full system security, audit trail, digital signatures, power recovery options and more.
- EIA-485 & EIA-232 computer interface for communications with software and the ability to control multiple chambers.
- Cabinet is insulated with CFC-free polyurethane foam for thermal protection. Finish consists of durable white or embossed aluminum scratch/rust resistant exterior and corrosion resistant stainless steel interior.
- 8' wide x 78" high door with heated viewing window and vapor proof lights (double doors available).
- Integral air-cooled condenser.
- 2" cable port for temperature monitoring or mapping.
- Electronic humidity sensor on humidity models.
- IQ, OQ, PQ protocol available. On-site validation is optional.

PharmaEvent Stability Chambers

PharmaEvent Stability Chambers
Testing According to ICH Guideline Q1A

Our PharmaEvent stability chambers have been specially developed to meet the requirements of test laboratories in the pharmaceutical industry. Temperature and humidity models are available in sizes ranging from the compact benchtop to the largest 3-door model (models C/280, C/600, C/1300 and C/2000). The exceptional quality construction, innovative product features, accuracy and smart touchscreen control allows for the safest, easiest, and most reliable stability testing. Furthermore, the systems are designed to work at 5 °C continuously without defrosting.

	C/280	C/600	C/1300	C/2000
Workspace Volume cu. ft. (liters)	10 (280 l)	21 (600 l)	46 (1300 l)	71 (2000 l)
Temperature Range	+2°C to +70°C			
Humidity Range	20% to 90% RH			

Safe and Easier Stability Testing

- Compact size allows for easy fit through doorways
- Uni-Flow airflow design provides precise uniformity
- Patented Sterile Steam System (SSS)
- Energy efficient, low power draw
- Meets ICH Q1A guidelines
- Quiet Operation
- WebSeason® Controller Interface
  - Program, Control and Monitor your testing
- S!MPATI® pharma Software complies with FDA 21 CFR Part 11 (Optional)

PharmaEvent Photostability Chambers
Photostability Testing to ICH Guideline QIB

Our PharmaEvent photostability chambers have been designed to specifically meet the stringent light testing requirements of the life sciences industry. These chambers are designed to specifically meet the requirements of ICH guideline Q1B Option 2, which specifies exposure to lighting from cool white and ultraviolet-A fluorescent lamps. The chamber features the specific lamps that are the spectral reference of the ICH guidelines. With built-in light sensors, Weiss provides a unique integration calculator to automatically expose product to a programmable setting of 1.2 million lux-hours and 200 watt-hours per square meter; full exposure testing is complete in less than 3 days.

Shelf with UV-A lamps

Shelf with cool white lamps

	C/250/L	C/500/L
Workspace Volume cu. ft. (liters)	9 (235 l)	18 (460 l)
Temperature Range	+5°C to +50°C (Lights off) +5°C to +50°C (250 L), +10°C to +50°C (500 L) (Lights on)	
Humidity Range	20% to 90% RH	

Benchtop Model C/250/L (2 light tiers)

Upright Model C/500/L (4 light tiers)

Z-Plus Temperature/Humidity Chambers

Z-Plus
Temperature/Humidity Chambers
From basic to accelerated stress testing

Whether you need to perform basic temperature cycling or rapid cycling, the Z-Plus offers a variety of sizes, temperature ranges and performance packages that meet your testing needs with over 150 different models to select from with and without humidity. Designed for ease-of-use, reliability and performance, this line of temperature and/or humidity chambers is ideal for freeze/thaw, cold chain and thermal cycle testing.

- EZT-570 Touch Screen Controller simplifies operations and reduces programming time.

- Two 4" (10 cm) access ports are include on the left and right side of your chamber for ease of cable routing.

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

Adjustable product shelf slides out
for easy access to your product

	ZP(H)-8	ZP(H)-16	ZP(H)-32	ZP(H)-44	ZP(H)-64	ZP(H)-80	ZP(H)-96
Workspace Volume	8 cu.ft. (230 L)	16 cu. ft (450 L)	32 cu. ft. (900 L)	44 cu. ft. (1250 L)	64 cu. ft. (1810 L)	80 cu. ft. (2265L)	96 cu. ft. (2718L)
Temperature Ranges	Single Stage: -34℃ to +190℃ (-30°F to +375°F) Tundra®: -45℃ to +190℃ (-49°F to +375°F) Cascade: -70℃ to +190℃ (-94°F to +375°F)						
Optional Humidity Range	10% to 98% RH Optional Low 5% RH						

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MicroClimate®

Temperature/Humidity Chambers Compact chamber takes minimal floor space

MicroClimate chambers simulate a full range of temperature and/or humidity conditions. These chambers are ideal for research designed to provide users with a compact chamber for testing small components and products. Two sizes are available which include a 1.2 cu. ft. (33 L) benchtop model and a 3 cubic ft. (84 L) floor models with casters.

Contemporary design combined with a small footprint, simple installation and economical price make these units the ideal choice for any laboratory.

- Small footprint saves valuable floor space in your laboratory
- Benchtop chamber incorporates a stackable design saves floor space and allows users to perform manual thermal shock tests
- 115V models provide easy installation with no special electrical connections needed.

Workspace Volume	1.2 cu. ft. (34 L)	3 cu. ft. (85 L)
Temperature Range	Single Stage: -30°C to +190°C (-22°F to +375°F)	-
	Cascade: -68°C to +190°C (-90°F to +375°F)	
Optional Humidity	10% to 98% RH	

MC-3 Model

Benchtop Model

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, EIA-232, EIA-485 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
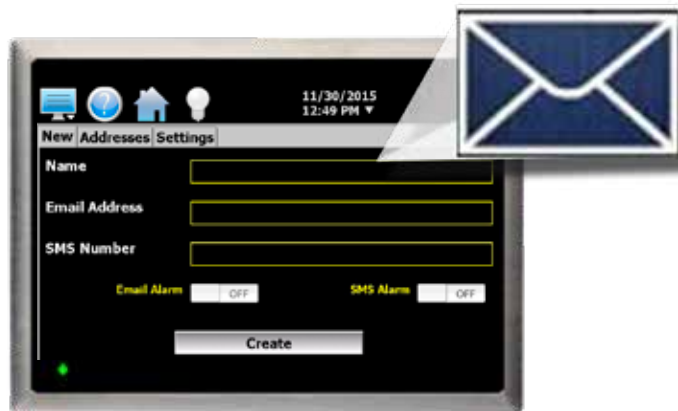
Data Logging

- 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 any of one of 28 languages – one setting updates icons, menus and help screen
- 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
- Configurable alarms 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
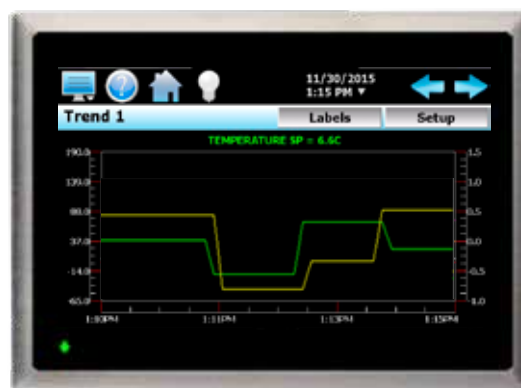
Enhanced Communications & Control Options

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

Request Information

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The Testing Standard.

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