Cincinnati Sub-Zero

MICROCLIMATE®

BENCHTOP & COMPACT TEST CHAMBERS

www.cszproducts.com

MicroClimate® Chambers

MicroClimate chambers simulate a full range of temperature and/or humidity conditions. These chambers are designed to provide users with a compact chamber for testing small components and products for a variety of industries. Whether you need to perform temperature cycling tests or expose your product to steady state temperature environments, these chambers will maintain precise and accurate temperature/humidity control throughout your test. Choose from benchtop and reach in models to fit your laboratory testing needs.

MicroClimate Benchtop Temperature Chamber shown in the stacked position.

Compact Size Saves Space

Temperature and Humidity testing combined with a small footprint make the MicroClimate the number one choice for testing small components and products. Customers also save valuable floor space in their test laboratory.

Quality & Reliability

The MicroClimate is designed with quality in mind. Each unit is carefully constructed with fully welded seams and ports to prolong chamber life. Each chamber is inspected at each point of the production process and fully tested prior to leaving our facility.

Easy Installation

Benchtop and 115V upright models offer easy installation at any location.

Stackable Design Offers Flexibility

Benchtop models may be stacked saving floor space and allowing for manual thermal shock testing.

Performance to Fit Your Application

Select from your choice of 115V or 230V models for faster heating & cooling performance. The NEW MC-3-1-1-HAC rapid cycling model now has cooling transition rates of 5ºC/min.*

*Based on 85˚C to -40˚C

Standard Features

- Shelf Supports
- 2” Access Port with Plug (MCB-1.2)
- 3” Access Port with Plug (MC-3)
- Leveling Legs (MC-3)
- Humidity Demineralizer Filter*
- Solid State Humidity Sensor*
- EZT-430i Touch Screen Controller
- Ethernet Control and Monitoring
- RS-232 Computer Interface
- Refrigeration Service Taps
- Refrigeration High Temperature Protection
- Zero Ozone Depletion Refrigeration

* Humidity Units Only

MC-3 shown with optional window and humidity

Optional equipment is economically priced to enhance performance and customize your chamber to meet your needs. A complete selection of optional accessories are available.

Optional Accessories

- Shelves
- Access Ports
- Optional Cart with Casters (MCB)
- Viewing Window with Interior Light
- LN2 Boost
- Recirculating Water
- Dry Air Purge (MC-3)
- IEEE-488 Interface
- Chart Recorder
- Digital Display Temp. Limit & Alarm
- 50 Hz. Operation
- Watlow F4 Controller
- Windows-Based Software Package to control monitor up to 31 chambers

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: -70˚C to +190˚C (-94˚F to +375˚F)	
Optional Humidity	10% to 95% RH	

*Ultimate low for MC(H)-3-.33-.33-HAC models is -65°C

EZT-430*i* Touchscreen Controller

YOU CHOOSE!

Choose from drop-down menu navigation or icon-based navigation like smartphone/ tablet technology

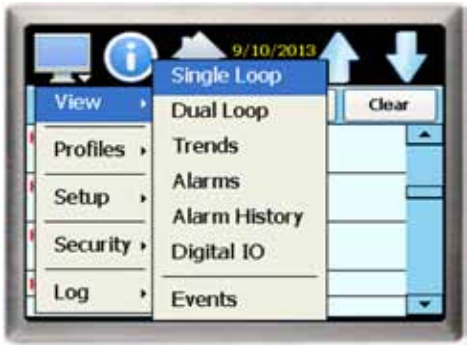
Communications & Connectivity

- Ethernet capability to remotely monitor and control multiple test chambers. Wired, wireless, local area network or World Wide Web Ethernet connectivity provides anytime, anywhere access using a PC or PDA device.
- Alarm notification system sends email and/or text phone messages in the event of a test chamber alarm, saving valuable tests while reducing downtime.
- Integrated email sends data files directly from the controller with a touch of a button.

Main View

Data Logging

- Data logging with custom file names, batch & lot numbers, operator events & digital signatures.
- Automated “Ethernet” back-up of data files provides “hassle free” file management.
- Easily download profiles, alarm files, audit trail files and data files to USB memory stick in a compatible .CSV file format. Also import profiles to other chambers saving valuable profile entry time.
- Access data files directly from controller or PC.



Windows - Based Navigation

User Convenience & Flexibility

- Real time & historical trend graphs.
- Unlimited number of profiles. Each profile up to 64 steps with up to 3 events per loop.
- Profile status view.
- 27 different languages – one setting updates icons, menus and help screen
- Notification window accessed by pressing the date/time field in the icon bar includes current PV and SP, name of active profile, alarm status, data logging, current user, IP address web/VNC status, and SD storage remaining.

Icon - Based Navigation

Enhanced Functionality

- Selectable power failure/recovery options.
- Fully configurable alarm settings.
- Full system security allows up to 30 different users with four different levels of security.

MicroClimate Specifications

Physical Specifications		
Model	**MCB(H)-1.2 Benchtop**	**MC(H)-3 Upright**
Workspace Volume	1.2 cu. ft. (34 Liters)	3 cu. ft. (85 Liters)
Interior Dimensions	16” W x 11” D x 12” H (40.64cm x 28cm x 30cm)	17” W x 17” D x 18” H (43.2cm x 43.2cm x 45.7cm)
Exterior Dimensions	37” W x 32” D x 28” H (94cm x 81cm x 71cm)	27.5” W x 38.75” D x 65.5” H (70cm x 98.43cm x 166cm)

Add approximately 6” (15cm) to exterior width for humidity units. Addition of certain options may increase dimensions.

MicroClimate Performance

	Cooling Performance with Empty Chamber in Minutes from:					Heating Performance with Empty Chamber in Minutes from:				
	24˚C					24˚C		-25˚C	-34˚C	-68˚C
	-18˚C	-25˚C	-40˚C	-54˚C	-68˚C	94˚C	190˚C	24˚C	24˚C	24˚C
MCB(H)-1.2-.33-H/AC	12	20	-	-	-	10	35	8	-	-
MCB(H)-1.2-.33-.33-H/AC	-	-	25	35	60	10	35	-	10	15
MC(H)-3-.33-.33-H/AC	-	-	35	65	110 [1]	20	75	-	20	25
MC(H)-3-.5-.5-H/AC	-	-	22	32	48	6	18	-	7	8
MC(H)-3-1-1-H/AC	-	-	12	16	24	2.5	10	-	3.5	4

[1] MC(H) -3-.33.33-H/AC model rated to -65˚C
Performance is based on 60 Hz. operation and a 24˚C ambient. Certain options may affect performance. For 50 Hz operation, stated performance and air flow will be less. Specifications are subject to change.

	Live Load Capacity Watts				Electrical Power Requirements Minimum Amp Service	
Model	**0˚C**	**-18˚C**	**-40˚C**	**-54˚C**	**115V**	**230V**
MCB(H)-1.2-.33-H/AC	200	150	-	-	20	16 [1]
MCB(H)-1.2-.33-.33-H/AC	-	-	175	100	20	16 [1]
MC(H)-3-.33-.33-H/AC	-	-	175	100	20	-
MC(H)-3-.5-.5-H/AC	-	-	350	250	-	30 [2]
MC(H)-3-1-1-H/AC	-	-	800	500	-	40 [2]

[1] Models available in 230V/50Hz. Contact factory for 230V/60Hz requirements.
[2] Models available in 230V/50/60Hz

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.**

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