CSZ
Cincinnati Sub-Zero

TEMPERATURE/HUMIDITY
AGREE VIBRATION CHAMBERS

AV-Series

CV-Series

Vibration Chambers

Our AV/CV-Series chambers offer rapid temperature change rates to reduce product development time and improve product reliability. These chambers are available for temperature & vibration testing or temperature, humidity and vibration. All models are designed for compatibility with your choice of electrodynamic or mechanical vibration systems. While each model is manufactured to standard designs, they may also be custom engineered to meet a wide range of stringent test requirements.

Features & Benefits

- Simulates up to 3 Combined Environments in one Chamber

- Versatile - Chamber may interface with your existing vibration shaker or new shaker of your choice

- Dual Purpose - May be operated as a separate temperature/ humidity chamber maximizing your investment

- High performance with fast change rates for accelerated stress testing

- Customizable design to meet stringent test requirements

- User-friendly controls for easy integration into your test system

- Refrigeration design protects compressors and prolongs life keeping cool during all operating conditions

- Refrigeration design uses less power saving operating costs

- An electronic humidity sensor is used on all humidity models for accuracand minimal maintenance*

- Humidity water filtration system is included to filter impurities and protect your chamber interior*

Combined environmental testing environments with flexibility for use with new or existing vibration systems

Temperature Range

Cascade: -70°C to +190°C (-94°F to +375°F)
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: -54°C to 190°C (-65°F to 375°F)

Humidity Range

10% to 95% relative humidity as limited by a +85°C (+185°F maximum dry bulb and +7°C (+45°F) minimum dewpoint.

Standard Features

- 2.875" Access Port
- Non-Settling Fiberglass Insulation
- Fog-Free Wiperless Window
- Diaphragm Interface to Shaker
- Adjustable Chamber Height**
- Rear Sliding Door
- Brushed Stainless Steel Interior
- High Volume Air Flow
- EZT-570S Touch Screen Controller
- Internal Light with Switch

- Fused Electrical Components
- EIA-232/485 Computer Interface
- Solid State RH Sensor*
- Refrigeration Service Taps
- Digital Display Temp. Limit & Alarm
- Zero Ozone Depletion Refrigerants
- Refrigeration High Temperature Protection
- Water Cooled Condenser
- Refrigeration Pressure Gauges
- Humidity Demineralizer Water System*

* Humidity units only   ** AV-Series Only

Optional Accessories & Custom Capabilities

- Casters
- Shelving
- Additional Access Ports
- Vertical Lift Door
- Vibration Sound Deadening
- Cable Notch
- Solid Floor Plug
- Custom-Size Chambers
- Remote Instrument Console

- IEEE-488 Computer Interface
- Running Time Meter
- 50 Hz. Operation
- Electrical Disconnect Switch
- EZ-View Software
- Explosion-Proof Electrical
- Ultra High & Low Temperatures
- Compliance to all Wiring Standards
- Custom Control Interface Capability

3

AV-Series Specifications

AV-Series

Our AV-Series AGREE (Advisory Group on Reliability of Electronic Equipment) chambers combine temperature/ humidity and vibration for commercial and military testing. The AV-Series models have the optional capability to interface with both horizontal and vertical electrodynamic vibration systems with rear or vertical sliding doors.

Model	Cooling Performance Empty Chamber in Minutes			Heating Performance Empty Chamber in Minutes			Live Load Capacity in Watts		Workspace Dimensions	Overall Dimensions	Maximum Vibration Table Size
	24°C to			24°C		-68°C					
	-40°C	-54°C	-68°C	93°C	190°C	24°C	-40°C	-54°C	Inches (cm)	Inches (cm)	Inches (cm)
AV-14-6-6	16	22	35	10	20	10	2,500	2,000	28" x 28" x 30" (71 x 71 x 71)	110" x 74" x 94" (279 x 188 x 239)	24" x 24" (61 x 61)
AV-33-10-10	16	21	35	10	20	10	4,000	3,300	40" x 40" x 36" (102 x 102 x 91)	122" x 74" x 94" (310 x 188 x 239)	36" x 36" (91 x 91)
AV-33-15-15	5	8	14	7	15	10	6,000	4,500	40" x 40" x 36" (102 x 102 x 91)	128" x 82" x 112" (325 x 208 x 284)	48"x 30" (122 x 76)
AV-41-10-10	16	22	36	10	15	12	4,000	3,300	54" x 36" x 36" (137 x 91 x 91)	136" x 70" x 94" (345 x 178 x 239)	48"x 30" (122 x 76)
AV-41-15-15	6	8	16	7	10	10	6,000	4,500	54" x 36" x 36" (137 x 91 x 91)	142" x 78" x 112" (361 X 198 x 284)	48"x 30" (122 x 76)
AV-41-27-27	5	7	12	7	10	10	10,000	7,000	54" x 36" x 36" (137 x 91 x 91)	142" x 78" x 112" (361 X 198 x 284)	48" x 48" (122 x 122)
AV-61-10-10	20	27	46	10	25	15	4,000	3,300	54" x 54" x 36" (137 x 137 x 91)	158" x 97" x 112" (401 x 246 x 284)	48" x 48" (122 x 122)
AV-61-15-15	7	10	18	15	35	20	6,000	4,500	54" x 54" x 36" (137 x 137 x 91)	164" x 97" x 112" (417 x 246 x 284)	48" x 48" (122 x 122)
AV-61-27-27	6	8	16	5	15	10	10,000	7,000	54" x 54" x 36" (137 x 137 x 91)	164" x 97" x 112" (417 x 246 x 284)	48" x 48" (122 x 122)
AV-81-10-10	22	30	51	10	30	15	4,000	3,300	54" x 54" x 48" (137 x 137 x 122)	158" x 97" x 124" (401 x 246 x 315)	48" x 48" (122 x 122)
AV-81-27-27	7	9	17	5	12	10	10,000	7,000	54" x 54" x 48" (137 x 137 x 122)	164" x 97" x 124" (417 x 246 x 315)	48" x 48" (122 x 122)
AV-108-10-10	25	34	57	10	25	16	4,000	3,300	72" x 54" x 48" (183 x 137 x 122)	176" x 97" x 124" (447 x 246 x 315)	66" x 48" (168 x 122)
AV-108-27-27	7	10	20	6	15	10	10,000	7,000	72" x 54" x 48" (183 x 137 x 122)	182" x 97" x 124" (462 x 246 x 315)	66" x 48" (168 x 122)
AV-117-10-10	27	38	65	10	25	16	4,000	3,300	78" x 54" x 48" (198 x 137 x 122)	182" x 97" x 124" (462 x 246 x 315)	72" x 48" (183 x 122)
AV-117-27-27	7.5	10	18	6	15	10	10,000	7,000	78" x 54" x 48" (198 x 137 x 122)	188" x 97" x 124" (478 x 246 x 315)	72" x 48" (183 x 122)
AV-121-10-10	27	37	64	15	35	16	4,000	3,300	66" x 66" x 48" (168 x 168 x 122)	170" x 109" x 124" (432 x 277 x 315)	60" x 60" (152 x 152)
AV-121-27-27	7.5	10.5	34	6	15	10	10,000	7,000	66" x 66" x 48" (168 x 168 x 122)	176" x 109" x 124" (447 x 277 x 315)	60" x 60" (152 x 152)
AV-144-10-10	30	41	72	15	35	20	4,000	3,300	72" x 72" x 48" (183 x 183 x 122)	176" x 115" x 124" (447 x 292 x 315)	66" x 48" (168 x 122)
AV-144-27-27	8	11	21	6	15	10	10,000	7,000	72" x 72" x 48" (183 x 183 x 122)	182" x 115" x 124" (462 x 292 x 315)	66" x 48" (168 x 122)

Notes: Height is based on a shaker height of 33". Performance based on 60 Hz. operation and +75°F ambient air. For 50 Hz. operation, stated performance and air flow will be approx. 17% less.

CV-Series
Temperature/Humidity/Vibration Chambers

The CV-Series temperature/humidity and vibration chambers are designed to integrate with vibration systems in only the vertical mode of operation.

Model	Cooling Performance Empty Chamber in Minutes			Heating Performance Empty Chamber in Minutes			Live Load Capacity in Watts		Workspace Dimensions	Overall Dimensions	Maximum Vibration
	24°C to			24°C		-68°C	-40°C	-54°C	Inches (cm)	Inches (cm)	Body Diameter
	-40°C	-54°C	-68°C	93°C	190°C	24°C					
CV-8-3.5-3.5	8	12	16	6	12	7	1,700	1,200	24" x 24" x 24" (61 x 61 x 61)	66" x 97" x 72" (168 x 246 x 183)	23
CV-16-3.5-3.5	13	19	25	12	32	14	2,000	1,600	30" x 30" x 30" (76 x 76 x 76)	66" x 103" x 78" (168 x 262 x 198)	29
CV-16-6-6	10	15	25	10	20	10	3,000	2,400	30" x 30" x 30" (76 x 76 x 76)	66" x 103" x 78" (168 x 262 x 198)	29
CV-16-10-10	5	7	14	6	13	7	3,500	2,600	30" x 30" x 30" (76 x 76 x 76)	66" x 103" x 78" (168 x 262 x 198)	29
CV-32-3.5-3.5	20	27	37	12	32	17	2,000	1,600	38" x 38" x 38" (97 x 97 x 97)	66" x 112" x 86" (168 x 284 x 218)	36
CV-32-6-6	12	17	27	12	32	17	3,000	2,400	38" x 38" x 38" (97 x 97 x 97)	70" x 114" x 86" (178 x 290 x 218)	36
CV-32-10-10	9	12	17	9	22	12	4,500	3,500	38" x 38" x 38" (97 x 97 x 97)	70" x 114" x 86" (178 x 290 x 218)	36
CV-32-15-15	7	9	12	8	18	10	5,500	4,500	38" x 38" x 38" (97 x 97 x 97)	76" x 121" x 86" (193 x 307 x 218)	36
CV-64-3.5-3.5	32	42	62	22	72	27	1,500	1,100	48" x 48" x 48" (122 x 122 x 122)	66" x 128" x 100" (168 x 325 x 254)	46
CV-64-6-6	22	27	37	22	72	27	2,500	2,100	48" x 48" x 48" (122 x 122 x 122)	76" x 128" x 100" (193 x 325 x 254)	46
CV-64-10-10	11	17	24	12	27	14	4,500	3,500	48" x 48" x 48" (122 x 122 x 122)	76" x 128" x 100" (193 x 325 x 254)	46
CV-64-15-15	9	11	17	10	22	12	5,500	4,500	48" x 48" x 48" (122 x 122 x 122)	76" x 136" x 100" (193 x 345 x 254)	46

Notes: Height is based on a shaker height of 33". Performance based on 60 Hz. operation and +75°F ambient air. For 50 Hz. operation, stated performance and air flow will be approx. 17% less.

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.
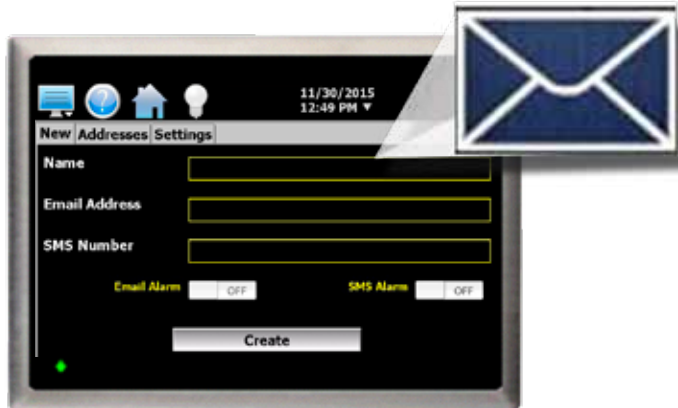
Data Logging

- 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.
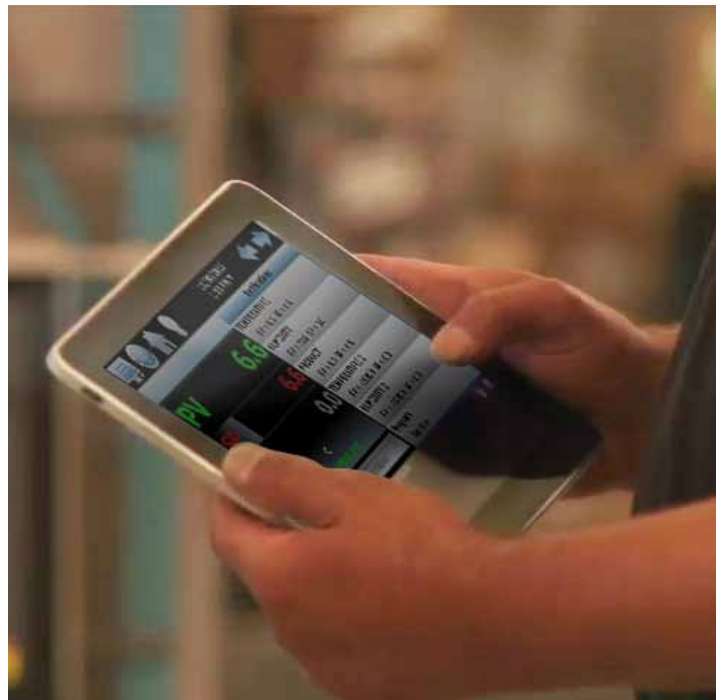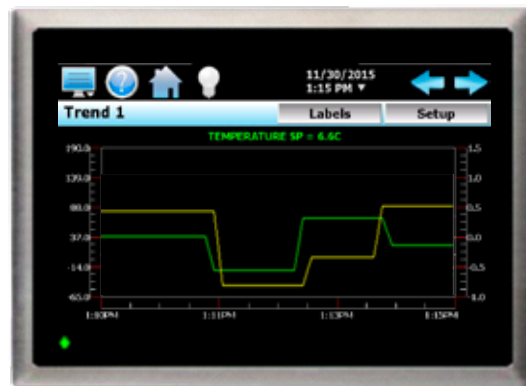
Enhanced Communications & Control Options

- 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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