

# Aerospace | Defense Test Chambers - Thermal Vacuum Solutions

Stand the test of time.

[www.weiss-na.com](http://www.weiss-na.com)



# Successful Take-Off. Safe Touch-Down.

Whether satellites, rockets, airplanes or helicopters; modern aircraft are exposed to extreme stress during use. When it comes to the development, quality assurance and production of new technologies, with Weiss Technik, you're playing it safe. Our chambers can simulate any condition that your testing requires. We have partnered with companies and agencies in the defense industry, let us help you ensure that your products excel in all applications.





# Altitude Test Chambers

Transition rapidly between hot and cold temperature zones

## EA Series Altitude Test Chambers

Our vast experience with altitude test chambers, thermal vacuum, low temperature and space simulation test chambers can provide you with the right solution. We offer both pre-engineered and custom altitude test chambers.

- Designed to simulate altitude conditions up to 100,000 feet
- Offer simultaneous temperature/altitude testing from site altitude to 65,000 feet
- Humidity test can be conducted at site altitude only
- Temperature Range: -70°C (-94°F) to +180°C (+356°F)
- Humidity Range: 10%RH to 98%RH



# Thermal Shock Chambers

Transition rapidly between hot and cold temperature zones

## Thermal Shock Test Chambers in any Configuration

Pass your stress test with Weiss Technik thermal shock temperature chambers, designed to provide rapid transitions between HOT and COLD temperature zones. These chambers are available in two or three zones in vertical and horizontal configurations. Other types of chambers include liquid thermal shock which provides immediate thermal shock of your product.

- $\pm 0.3$  to  $\pm 1.0$  °C temperature deviation
- <10 second basket transfer time
- <15 minute recovery time
- Air cooled (TS60) and water cooled options
- Temperature Range (Hot Chamber): 50°C (122°F) to +220°C (428°F)
- Temperature Range (Cold Chamber): -80°C (-112°F) to +70°C (158°F)



Horizontal



Liquid



Vertical

# Vibration Test Chambers

Shaking up reliability

## EV Series AGREE Vibration Test Chambers

The EV Series AGREE style chambers are offered in various sizes and accommodate electro-dynamic, mechanical vibration systems or roll-in product carts. The EV Series offers flexibility to be used as a test chamber with or without vibration tables.

- Temperature Range: -70°C (-94°F) to +180°C (+356°F)
- Humidity Range: 10%RH to 98%RH (EVH Models)



EV Series

# Temperature & Humidity Test Chambers

Weiss Technik Temperature & Humidity test chambers offer many pre-engineered and custom sizes to fit your exact testing requirements.



Endurance Series

## Reach-In

We provide a full line of standard and custom reach-in chambers that feature sizes and options that fit your exact testing requirements. Intelligent engineering, mobile space saving design, maximum air-flow and accurate gradients with many sizes and configurations to choose from for maximum testing flexibility. Reach in Endurance Values as what is shown. 7, 12, 21, 35, 54 cubic feet models available.

- Temperature Range: 180°C (356°F) to -40°C (-40°F)
- Temperature Range: 180°C (356°F) to -70°C (-94°F)
- Humidity Range: 10%RH to 98%RH



WW Series

## Walk-In/Drive-In

Our Walk-In/Drive-In chamber solutions for the robust testing required for Defense testing applications. With superior strength and durability our chambers offer heavy load flooring, modular or welded construction, various wall thicknesses for high heat and humidity and multiple sizes to fit any testing requirement.

- Temperature Range: -70°C (-94°F) to +180°C (+356°F)
- Humidity Range: 20%RH to 95%RH

# Specialty Chambers

A test chamber for every application

## Specific Chambers for your Specific Test

Wind, Dust, Sun, Rain, Heat all are extreme conditions that products and components must withstand in Defense applications. Weiss Technik offers a broad range of specialty test chambers to meet your specific test requirement. See our complete line or let one of our Product and Application engineers help find the right chamber solution.



Dust



UV Light



Spray/Splash

# Space Simulation Systems

Creating the environment for mission success with unrivaled support and confidence

## Dynavac



Dynavac, now part of the Weiss Technik family of brands, offers highly configurable standard platforms and fully custom systems tailored to meet unique test requirements.

### Thermal Vacuum Chambers

Our thermal vacuum systems expertly simulate the extreme conditions of space. As a trusted partner in the aerospace sector, we support every facet of flight testing and space simulation—from hardware space qualification and bakeout to testing for small satellites, large spacecraft, and manned space capsules. Our systems are engineered to replicate a diverse range of environmental conditions, ensuring precise testing and qualification of space flight hardware. With flexible options for pumping systems, thermal control, and instrumentation, each system can be tailored to meet your specific testing requirements.

### These systems and applications include:

- Thermal vacuum chambers in standard and custom-designed solutions from small vacuum chambers to large field-constructed systems.
- Electric propulsion test systems to develop, test and qualify electric thrusters.
- Vacuum bakeout systems remove volatiles and contaminants in preparation for flight.
- Heat flux enclosures precisely replicate the temperatures of extreme space conditions.
- A variety of thermal control systems are available from mechanical refrigeration, liquid cooling systems, cold plates and temperature-controlled platens.





# Technology/Patented Solutions

## Are you testing tomorrow's innovations with yesterday's technology?

Future Proof Your Testing with LEEF, LOW GWP (Global Warming Potential) and our Patented Air-Flow options. Weiss Technik Future- Proof technology offers products that are many years ahead getting the most out of your testing.



- **Reliability:** Up to 70% improved accuracy
- **Productivity:** Reduce test time - Up to 60% faster
- **Cost Savings:** Up to 40% Energy Savings



- R-449A Refrigerant
- Lower Carbon Footprint
- Supports Corporate & Federal Sustainability Programs



## Controllers & Software

### Connectivity - Integration - Access - From Anywhere in the World.

#### WEBSeason® Chamber Control



More comfort and better usability with WEBSeason®

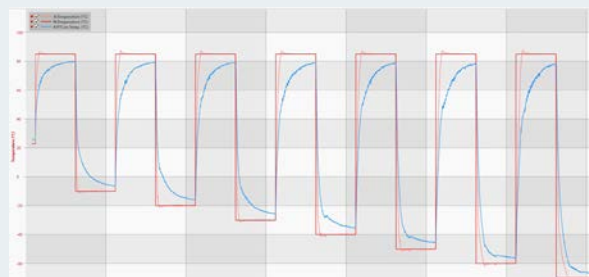
- Access from any Device
- Precise Controls
- Easy Touchscreen Control
- Real time multi-user, multi-language interface



#### Complete Remote Access with SIMPATI



SIMPATI System Control Software enables full chamber control and operation via remote access. The operation of test systems becomes easy and time-saving. The integrated monitoring feature enhances the reliability of your test systems.



# Service Support

## We're here to help

Our products are backed by our global factory trained service department. With over 400 service technicians located throughout the globe.

We offer our customers a wide variety of services including the following:

- After hours support helpline
- Preventive maintenance program
- Chamber start-up
- Installations
- Emergency service
- Technical support
- Spare parts & materials
- Calibrations per ISO 17025 (instrument and chamber)
- Chamber diagnostics, troubleshooting and evaluations
- Equipment upgrades and retrofits
- Refrigerant removal and disposal
- Chamber liner leak test
- Chamber modifications
- Equipment relocations
- Training on proper equipment use and programming
- Rental programs /used equipment
- Service on all makes and models

## Quality - Count on Weiss Technik

Weiss Technik helps make the task of compliance with the QS9000 3rd Edition Calibration Mandate much simpler. There is no need for you to take the time to actively seek an accredited laboratory. Weiss Technik, certified ISO9001 in 1997, can provide the latest required ISO/IEC 17025 (A2LA accredited) calibration services at your facility. These services meet 17025 requirements and ensure that your company is in compliance with the most recent changes in the QS9000 3rd Edition mandate.



Weiss Technik North America, Inc. Calibration Services are accredited by A2LA to ISO/IEC 17025



Weiss Technik North America, Inc. Quality System is registered to ISO9001:2015



# Passionately innovative.

We work in partnership to support companies across the globe in research, development, production and quality assurance.

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