

During transportation or at the site of the end user, a product will come under some type of vibration motion. Using vibration test chambers, manufacturers can determine if a product can withstand the rigors during its normal life span. Often, vibration testing is combined with another test criteria such as humidity and temperature, in the case of our chambers, during testing of a product.

The AGREE method of testing, an acronym for The Department of Defense **A**dvisory **G**roup on **R**eliability of **E**lectronic **E**quipment, was originally designed to perform specific temperature, humidity and vibration tests in order to improve the quality and reliability of military hardware and to conform with MIL-STD 781 and 883. AGREE test chambers are now used to perform reliability, qualification and ESS for many industries including electronics, automotive, and telecommunications equipment.

Russells AGREE chambers meet the requirements of MIL-STD 781A, B, and also C with incorporation of our 781C option. Their proven performance in installations around the world for many years is a testament to their superior design and construction.

The RBV Series is designed for use with mechanical and electro-dynamic vibration test systems and Russells assumes the responsibility for compatibility of the chamber and vibration system. The easily removable chamber-to-shaker mechanical interface is designed for ease of loading and unloading of the test items. The interface (diaphragm and frame assembly) can easily be replaced with the optional solid floor assembly to allow testing without vibration if so desired.



Russells Technical Products can design vibration chambers to mate to any vibration system. An optional chamber lift system is available to accommodate both X and Y axis testing. All models can be custom tailored to your test requirements for temperature change rates or workspace size.

Model No. Series Cu. F1.	Dimensions									Multi pane Window
	Workspace			Exterior			Machinery			
	W	D	H	W	D	H	W	D	H	
RBV -14-	28°	28°	30°	40°	58°	80°	62°	42°	83°	20° x 20°
RBV -32-	40°	40°	38°	52°	72°	86°	62°	42°	83°	20° x 20°
RBV -42-	54°	38°	36°	66°	76°	86°	76°	42°	83°	24° x 24°
RBV -61-	54°	54°	36°	66°	92°	86°	76°	42°	83°	24° x 24°
RBV -81-	54°	54°	48°	66°	92°	98°	76°	42°	83°	24° x 24°
RBV -108-	72°	54°	48°	84°	92°	98°	76°	42°	83°	24° x 24°
RBV -117-	78°	54°	48°	90°	92°	98°	76°	42°	83°	24° x 24°
RBV -144-	72°	72°	48°	84°	110°	98°	76°	42°	83°	24° x 24°

Chamber Performance:

Temperature Ranges:

-100 degree F to + 350 degree F
 (-73 degree C to + 177 degree C)

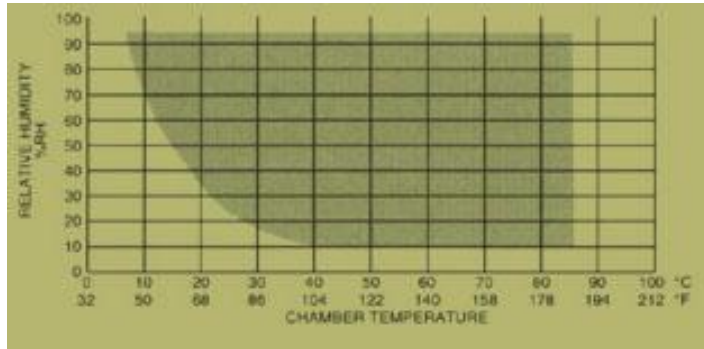
Temperature Change Rates:(Average)

- 9 degree F (5 degree C) per minute
- *18 degree F (10 degreeC) per minute
- *27 degree F (15 degree C) per minute
- *36 degree F (20 degreeC) per minute

*not all models

Humidity Range: (optional)

10% to 95% within the bounds of a 40F (4C) minimum dewpoint and a 185F (85C) maximum dry bulb.



Standard Chamber Features:

Cabinet

- Brushed 304 series stainless steel liner which is heliarc welded and dye checked.
- Insulated 25K factor.
- Welded steel frame.
- Removable service panels with Quick Opening fasteners.
- Silicone diaphragm frame gaskets.
- Two dual silicone door gaskets.

Instrumentation

- Microprocessor program controller.
- High limit temperature safety switch.
- Hide mount or free standing remote instrument console.
- Microprocessor based recorder. Silicone diaphragm frame gaskets.

Electrical

- All wiring to NEC standards. Insulated 25K factor.
- 120 volt control circuit transformer.
- Fully enclosed electrical panel.
- All components fused.
- System function switches.
- All wiring identified.
- Adjustable high heat limiter.
- Redundant master heat contactor.
- Heater switching by mercury or solid state contactor(s)
- Heater protection via circulator/heater interlock.

Refrigeration

- Ozone friendly cascade refrigeration system.
- Energy-saving full range cycling with refrigeration by pass system.
- Low stage de super heater.
- Pressure limit switches. System function switches.
- Relief valves.
- Automatic water valve.
- ASME certified expansion tank and condenser.
- Low stage oil separator.
- Joints sil-fused or silver soldered.
- Stainless steel condensate pans.

Optional Accessories:

- Air cooled condenser.
- Cable Slot.
- Chamber lift system for vertical and horizontal vibration systems.
- CO2 or LN2 cooling systems.
- Distilled water reservoir.
- Doors; double, sliding , vertical lift.
- E.C.A. Systems.
- Energy saving high temperature refrigeration system.
- Electrical main power disconnect switch.
- Electrical shaker interface.
- Mil 781 C moisture injection system.
- GN2 purge system.
- Ports: Glove, Round, Square.
- Refrigeration gauges.
- Remote refrigeration system.
- Running time meter.
- Shelves
- Sound deadening: machine section vibration compartment.
- Windows.

Optional Instruments:

- Computers.
- Computer interface.
- Computer software.
- Auxiliary relays.
- Strip chart recorders.
- Product safeguard.