



# RANGO ENGINEERING solutions



Rango Engineering solutions manufacture and Provides a best service for the wide variety of test chambers. Our experienced technician's team will inspect calibrate and provide a high-quality service to ensure the chamber is working in top condition.

+91-7904028510,+91-8870345669

1/637 Annanagar, Chinnappampatti(PO),Pappampadi Village,Salem – 636306.

# Climatic test chamber

We manufacture the best Climatic test chambers with high quality and best performance at the affordable price. Test space will be designed as per customer requirement. These chambers replicate various environmental factors, including temperature, humidity and the parameters.



Temperature Range: -65deg C to 180deg C  
Humidity Range: 10% to 98%  
Volumes - 100, 250, 510, 1000, 1400 Liters

Models	Test area dimensions (mm)
RES-100L	400 X 500 X 500
RES-250L	600 X 600 X 700
RES-510L	800 X 800 X 800
RES-1000L	1000 X 1000 X 1000
RES-1400L	950 X 1350 X 1100

## Features: -

- High performance temperature, Humidity profile programmable controller.
- LAN/ RS-485/USB inter face, program + full color graphical view at HMI, USB Recording.
- Port hole will be provided on the side wall with silicone clouser plug.
- Sample viewing light and vacuumized viewing window.

## Construction: -

The chamber will be fabricated with the standard of 18SWG MS power coated material on the outside with a 16SWG SS304 Bright interior fully TIG welded for vapor tight finish.

Height adjustable and removable loading trays.

Door system with full front opening( If required double door can be provided as per customer requirement). Type compensating hinges with locking mechanism. Special D silicon gasket will be used for door beading.

Water cooled and air-cooled Mechanical Refrigeration system available with hermetic or semi hermetic compressors for better efficiency.

# Thermal Shock Chamber

Climatic chambers for thermal shock tests are used to subject the sample to severe shocks through the sudden and repeated passage from a high temperature to a low temperature area, with the aim of testing the components in various conditions or those subject to infantile mortality.

The sample is placed inside a movable basket which carries it from the cold compartment to the hot compartment and vice versa for a large number of cycles. These chambers have two test compartments and the passage of the sample from one to the other is carried out very quickly (usually within 10 seconds). Pneumatic Cylinder will be used for basked movement.

Hot Zone Temperature range : Ambient to 200degC

Cold zone temperature Range : -65deg C to 50deg C

Volumes : 60, 160, 250, 500 & 720Liters

Models	Test area dimensions (mm)
RES-60L	400 X 400 X 375
RES-160L	500 X 500 X 675
RES-250L	600 X 600 X 600
RES-500L	800 X 800 X 800
RES-720L	900 X 900 X 900



Models	Test area dimensions (mm)
RES-100ETC	400 X 500 X 500
RES-250ETC	600 X 600 X 700
RES-360ETC	400 X 800 X 900
RES-500ETC	785 X 800 X 800
RES-1000ETC	1000 X 1000 X 1000

## Environment test chamber

Chamber testing involves testing and exposing products to various environmental conditions that a product might encounter during its life cycle.

Temperature Range: -65deg C to 180deg C

Volumes: 100, 250, 360, 500 & 1000Liters

# Hot air oven

Hot air oven are manufactures in different sizes for high temperature simulation up to 300degC for curing, drying, ageing, annealing or any heat processing tests at higher temperature.

Temperature Range Ambient upto 300deg C



## Models

## Test area dimensions (mm)

RES-125L	500 X 500 X 500
RES-210L	600 X 600 X 600
RES-600L	605 X 960 X 1000
RES-1000L	1000 X 1000 X 1000
RES-1500L	1250 X 1250 X 900
RES-2000L	1000 X 1200 X 1700

## Construction

16 SWG SS202 Quality Stainless steel will be used in the interior and 16SWG MS power coated the Exterior of the chamber.

SS304 Fabrication Height Adjustable removable loading tray.

These chambers can be easily movable on the wheels to convenient place and are easy to maintain.

# Design Modification

chambers can be customized as per the customers requirement. Altering standard models to creating entirely new designs from scratch. Which includes cosmetic changes.

**Design Modification includes**

- Refrigeration Systems
- Electrical Circuits
- Splitting Refrigeration unit and chamber as per

# Re-installation

Chamber reinstallation involves the process of removing, relocating, or reinstalling all kind of Equipment's Includes an imported chamber, or any other specialized chamber, proper reinstallation is crucial to maintain functionality and accuracy.

**1. Preparation and Planning:**

- **Assessment:** Evaluate the existing chamber's condition, including any wear, damage, or outdated components and we will provide best

**Solutions.**

- **Documentation:** Ensure you have detailed documentation of the chamber's original installation, including electrical connections and refrigeration systems. If not, we will re-create the document as per the customer requirement.

# Spares

We have large and diverse stock of refrigeration and electrical spare parts to serve our customers. Additional spares will be provided for the chamber as per the customer Order Spares stocks will be available in our Inventory all the Time

# Refurbishment

Chamber refurbishment involves revitalizing existing chambers to extend their lifespan, improve safety, and enhance functionality. We aim to restore your Chambers, to as close as possible, to original condition. At very least, refurbishment involves reassembling and replacing components to restore equipment to full working order.

**Refurbishment includes**

- Fabrication
- Painting
- Componentry Repair/Replacement

# Calibration

We are providing NABL traceability Calibration certificate calibration. is the process of comparing measurement values provided by a device under test with those of Government standard to maintained the accuracy level.

