



ETV - SERIES

**ENVIRONMENTAL
TEST CHAMBER**

**VIBRATION
INTERFACE**



High performance & inherent reliability...

ENVIRONMENTAL TESTING CHAMBERS WITH VIBRATION SHAKER INTERFACE

Vibration Test Assembly Integrated Environmental Test Chamber

INTRODUCTION:

Vibration test assembly with Environmental Test Chamber is designed and manufactured as per specific requirement of the customers meeting various international standards.

Combined chamber consists of Environmental Test Chamber, Vibration Shaker Interface Provision, HMI/PC PLC based Control System etc.,

This chamber is designed with unique features to meet the control parameters like Temperature, Humidity (optional) and 3 Axis Vibration Controls which are specified in the specification.

CHAMBER DESIGN:

Chamber is designed and manufactured in Cantilever mono block construction with motorized precise height adjustment mechanism to interface shaker. Structure of the chamber is divided in two main sections a) Outer chamber b) Inner chamber. Outer chamber is constructed / fabricated with CRCS with electrostatic powder coating to resist all kind of weather changes. Inner chamber is constructed/ fabricated with Stainless steel 304 grade sheet metal with proper reinforcement to hold thermal stress. In between the outer and inner chamber there will be an insulation using high density low conduction mineral wool insulation to avoid thermal losses.

Chamber door will have multi-pane toughened insulated window with automatic heating control system to avoid conduction for a clear view-thro. Heavy duty adjustable door hinges are used on the left-side of the chamber and on the right of the door there will be a door-locking arrangement for easy operation of the door opening and closing. Between the inner chamber and door double layer silicon gasket is used to avoid leakage. (Refer photos.)



Silicon Rubber Sealing



Door Locking Mechanism



Heavy Duty Di-casted Hinges



Clear Workspace With Illumination

Bottom of the chamber will have specially designed interchangeable hood with interface mechanism to couple the shaker and chamber during combined tests.

Chamber will be moved up and down vertically through friction-free guided U channel and wheel.

Chamber will be moved horizontally manually using heavy duty castor wheel with railing

Multi-level diagonally joined airlock silicone rubber sealing the door and chamber with conduction free isolation mounts.

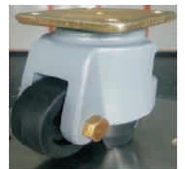
Test chamber shall have illumination lamps with pre-set cut-off timings.

Insulated door with viewing window of size 400 x 500 / 500 x 700 MM or suitable with condensation free heaters. Sensors for detection of open door and safety shut-down of chamber operation and alert message on the screen.

Feed-through holes: Two sizes of 75 mm diameter access ports with to connect the product during active test conditions.



The chamber shall be mounted on 4" Heavy-duty castor wheels and leveling pads ensuring easy erection & movement of the system



Independent compartment will be provided for Refrigeration and control system in one unit. Refrigeration system is designed with Mechanical single stage/Cascade air/water cooled refrigeration system using Hermetic/Semi hermetic compressors. Refrigeration system comprises of control accessories such as Heat exchanges, Solenoid, pressure controls, Expansion devices etc., of reputed makes.

FEATURES

FEATURES OF ENVISYS VIBRATION CHAMBERS

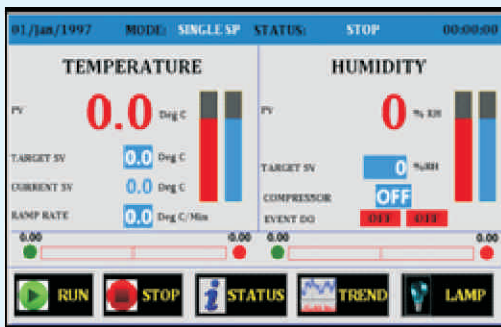
Color Touch Screen Programmer

The most on-board communication ports like RS-232, RS-485, USB, Ethernet and USB host port Additional SD card up to 2 GB memory for data and program storage

Direct real time trend capture and storage provision on the controller

On demand auto tuning

Three level security for different user access



Leak Free Refrigeration



HOW DOES IT BENEFIT CUSTOMERS / USERS

Touch screen controller allows the user to easily view and access online real time trend graphical display of your test cycle results through the 7" Resistive Analog touch screen controller and also can be operated through web server using a PC from any remote location. In addition USB host port allows direct transfer of log files, program files and report to the external storage devices like Hard disk USB drive.

No need of any additional PC or software for data-logging your test results

Refrigeration section with maintenance access frames which simplifies the maintenance and exclusive single copper pipelining design to prevent leakages in the refrigeration lines

Refrigeration compressor works on "ON DEMAND" technology which reduces the power consumption of your equipment by 25% whereby saving your huge sum of running cost of your equipment over the years.

Construction

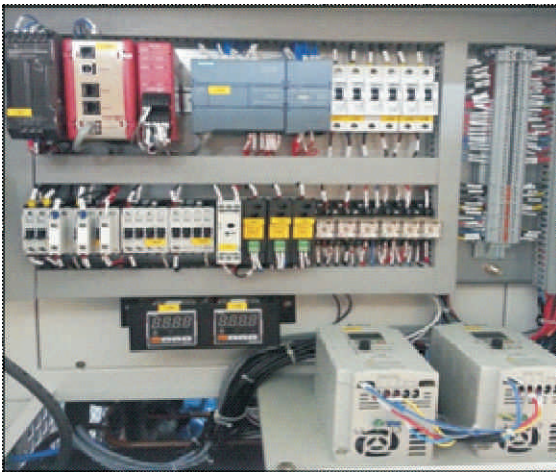


High precision fabrication using CNC operated turret and laser fabrication for construction of modularly designed chamber with exterior and interior panels using high grade materials

Easy opening access panels for all the maintenance required sections of the chamber for easy servicing feasibility

Aesthetics: Highly impressive finished panels with eco-friendly multi-layer powder coated panels for high temperature resistance, phosphate free and bonderized anti-corrosive surfaces.

Electrical / Safety Panel Board



Electrical panel wiring as per DIN norms using printed ferrule lines and identification of components for simplification of maintenance and easy replacement of failed components by the lab user.

The above are few differentiated advantages of Envisys Environmental Range of Test Chambers. However each model of Envisys test chamber has its unique features designed with user in mind, best of manufacturing practices, high quality materials and competitive prices.

Models:

Parameters	Specifications
ETV150 - 40T/70T 40H/70H	550X400X700 MM
ETV300 - 40T/70T 40H/70H	650X600X800 MM
ETV600 - 40T/70T 40H/70H	800X850X900 MM
ETV950 - 40T/70T 40H/70H	1000X100X950 MM
ETV1400-40T/70T 40H/70H	1100X1350X950 MM
Volume	150,300,600,950&1400 Litres
Temp	-40/-70 to 180°C
Relative Humidity	10 to 95% RH

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ET-touch color touch programmer

RS-232, RS-485, USB, Ethernet and USB host port

Height adjustable specimen racks

Cable ports

Built-in web server which allows remote monitoring and operation of your test chamber from any internet connected PC or Smart Phone



ENVISYS[®]
reimagining the environment

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