



BALAJI DYNAMICS



DESIGNED FOR
PERFECT TESTING

Balaji Dynamics is an organization which is committed to deliver reliable and accurate testing solution to its customers. Our test chambers are designed to maintain consistent & stable environments, ensuring precise testing and minimizing discrepancies in results.

We provide different types of test chambers as per customer's requirement with unique designs & different capacities of test chambers.

We understand that, different industries have unique testing requirements and hence, we offer customizable testing chambers that can be tailored to your specific needs. From size and capacity to specialized features, we can make a test chamber that perfect which will fulfill all your requirements.

Our main aim is to Research, Design, Develop and Manufacture, Assembly, Integrated and Testing the test chambers up to the mark which can fulfill all the purpose with minimum defects in testing the components.

Environmental Test Chamber is a versatile equipment to perform environmental test in compliance with National and International standards like ISO, ASTM, IS, IEC, JIS etc. Moreover we, at Balaji Dynamics also offer Environmental chambers on rental basis which can cater for your short term testing goals in a very cost effective and Economical way. Old systems can be refurbished/upgraded as per customer's requirement.

Balaji Dynamics has a dedicated and highly trained and skilled team to offer On-Site service support. We also offer all types of services including Annual maintenance contracts **(both preventive and comprehensive)**.



OUR PRODUCTS

- ✓ Manufacturing of entire range of Environmental Test Chambers and other Industrial machines, equipment as per customer requirements.
- ✓ Service & Maintenance, Annual Maintenance Contract of Environmental Test Chambers, Air Conditioning Unit and all type of Machines.
- ✓ Supply of all types of Industrial materials ie. Hardware, Chemical, Electrical, Hydraulic & Pneumatic etc.
- ✓ We mainly focus on Research, Design, Development, Manufacturing, Assembly, Integration and Testing.

Climatic Test Chamber/ High Low Temperature Test Chamber – CTC

Technical Data Sheet

- Temperature Range: $-40^{\circ}\text{C} + 180^{\circ}\text{C} \pm 1^{\circ}\text{C}$
 $-70^{\circ}\text{C} + 180^{\circ}\text{C} \pm 1^{\circ}\text{C}$
- Humidity Range: 20% to 98%, $\pm 3\%$ RH
- Dew Point Range: $+4^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
- Climate Range: $+25^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
- Rate of Change of Temperature: $\#3^{\circ}\text{C} / \text{Minute}$ $\#5^{\circ}\text{C} / \text{Minute}$ $\#10^{\circ}\text{C} / \text{Minute}$ $\#15^{\circ}\text{C} / \text{Minute}$



Standard Test Space:

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
CTC - 120	120	450	450	600
CTC - 200	200	600	600	600
CTC - 500	500	750	750	900
CTC - 1000	1000	1000	1000	1000

- Test Space can be provided as per customer requirement.
- All performance measured at Room temperature / Ambient of $\pm 25^{\circ}\text{C}$ to $\pm 2^{\circ}\text{C}$
- Appearance & Design of Chamber may vary depending on the internal dimension

Features

- ✓ Dual loop Microprocessor programmer, Touchscreen based HMI with ethernet facility.
- ✓ Unlimited real time recording of temperature measured values versus time (log on Pen Drive).
- ✓ Recordings in CSV format (Comma Separated Value) for easy export to Excel® to Pendrive via USB
- ✓ interface placed on the front panel.
- ✓ Cycles as per requirement can be programmed directly from the touchscreen.
- ✓ Remote Monitoring through PC on Ethernet with VNC. VNC will be free download version.

Salt Spray / Corrosion Test Chamber – SST

Technical Data Sheet

- Temperature Range: +35°C to + 60°C ±1°C
- Humidity Range: Saturated Condition
- Fog Collection: 0.5 to 2ml per hour
- Control System: PID type OR Programmable Microprocessor based control system
- Systems & Control features: CFC free Hermetically sealed refrigeration system
- Performance: Conform
- Salt Spray Test: IS 9000, IS 5528, IS 6910, ASTM B 117, JIS 2371, UNICHEM, DIN ISO 9227
- CASS Test: ASTM B 368



Standard Test Space:

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
SST - 120	120	600	450	450
SST - 200	200	700	600	500
SST - 270	275	900	600	500
SST - 450	450	1500	600	500

- Test Space can be provided as per customer requirement
- Appearance & Design of Chamber may vary depending on the internal dimension
- All performance measured at Room temperature / Ambient of ±25°C to ±2°C

Thermal Shock Test Chamber – TSC

Technical Data Sheet

- Temperature Range: Hot Zone: +50°C to +220°C $\pm 1^{\circ}\text{C}$ Cold Zone: +50°C to -80°C $\pm 1^{\circ}\text{C}$
- Humidity Range (in Cold Zone) (Optional) : 20% to 98%, $\pm 3\%$ RH
- Dew Point Range for Humidity test: $+4^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
- Climate Range for Humidity test: $+25^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
- Options: Humidity In Cold Zone.



Standard Test Space:

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
TSC - 27	27	300	300	300
TSC - 90	90	450	450	450
TSC - 200	200	600	600	600

- Test Space can be provided as per customer requirement
- Appearance & Design of Chamber may vary depending on the internal dimension
- All performance measured at Room temperature / Ambient of $\pm 25^{\circ}\text{C}$ to $\pm 2^{\circ}\text{C}$

Features

- ✓ Dual loop Microprocessor programmer, Touchscreen based HMI with ethernet facility.
- ✓ Unlimited real time recording of temperature measured values versus time (log on Pen Drive).
- ✓ Recordings in CSV format (Comma Separated Value) for easy export to Excel® to Pendrive via USB interface placed on the front panel.
- ✓ Cycles as per requirement can be programmed directly from the touchscreen.
- ✓ Remote Monitoring through PC on Ethernet with VNC. VNC will be free download version.
- ✓ Air cooled / Water cooled Semi Hermetic type. CFC free refrigeration system Performance Conform IS 9000, DEF-STD-133, IEC 68 Specifications
- ✓ PID type controllers OR Microprocessor programmer, Touchscreen based control system with ethernet facility, Recorder. Air cooled / Water cooled / Semi Hermetic type CFC free refrigeration system.
- ✓ Transfer Time: < 10 Sec.
- ✓ Performance: Conform IS 9000, JSS 55555, 50101, IEC 68, MIL- STD-202, 810, 883, DEF-STD-133 Specifications.

Rain Test Chamber – RN

Technical Data Sheet

- Standard Test Space RN (IS 9000 / JSS 55555)

Features

- Performance:** Conform to IS 9000, JSS 55555, JIS D 0203, IS 12063, IEC 60529 (IP), DIN 40050 IP 1 TO 9K & ISO 20653 IP 1 TO 9K
- IS 9000 / JSS 55555** Rain spray nozzles as per IS 9000 / JSS 55555. total 8 nozzles, four nozzles at the top four corners inclined at 45 degree and 4nozzles in the center of each four sides. Pressure Gauges for each nozzle. Rotameter to monitor rate, Rotating Table.
- IS 12063 / IEC 60529 (IP)** Drip Test Setup as per IPX1/X2 Oscillating pipe formed in to a semi-circle with nozzles as per IP X3/4/4K Jet Nozzle as per IP X5/6/6K/9K
- JIS D 0203** Rotating nozzle and Rotating table as per JIS D 0203 Rotating Table will be provided with variable speed.



Standard Test Space:

RN (IS 9000 / JSS 55555)

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
RN - 1750	1750	1200	1200	1200

RN (JIS/IEC)

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
RN - 420	420	750	750	750
RN - 1000	1000	1000	1000	1000

- Test Space can be provided as per customer requirement
- Appearance & Design of Chamber may vary depending on the internal dimension
- All performance measured at Room temperature / Ambient of $\pm 25^{\circ}\text{C}$ to $\pm 2^{\circ}\text{C}$





Dust Test Chamber – DST

Technical Data Sheet

- **Temperature Range:** 5°C above ambient to + 80°C ±1°C
- **Performance:** Conform IS 9000, JSS 55555, IS 12063 / IEC 60529 (IP), JIS D 0207 (C & F)
- **ISO 9000/ JSS 55555** Dust agitator mechanism as per IS 9000 / JSS 55555 designed to give 25 grams ±5 grams in 5 minutes. Dust measuring device conforming to JSS 55555.
- **ISO 12063/ IEC 60529 (IP)** Dust dispersing and suspension arrangement using blower and motor. Vacuum pump with vacuum valve, dust filter, Pressure gauge & Rotameter with manometer tube to fulfil specifications.
- **JIS D 0207** Circulating dust test 'C' High pressure blower to generate velocities of 5m/s and 10m/s.
- **Floating Dust Test (F)** Dust suspension using pneumatic nozzles with timer.

Standard Test Space:

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
DST - 90	420	750	750	750
DST - 200	1000	1000	1000	1000

Vibration Test Chamber – VTC

Technical Data Sheet

- Temperature Range: -40°C + 180°C ±1°C
- Humidity Range: 20% to 98%, ±3% RH
- Dew Point Range: +4°C to +85°C
- Climate Range: +25°C to +85°C
- Rate of Change of Temperature: #3°C / Minute #5°C / Minute #10°C / Minute #15°C / Minute
- Interface For Shaker: False floor with round / rectangular cutout for vertical / slip table integrat



Standard Test Space:

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
VTC - 200	200	600	600	600
VTC - 500	500	750	750	900
VTC - 1000	1000	1000	1000	1000

- Test Space can be provided as per customer requirement
- Appearance & Design of Chamber may vary depending on the internal dimension
- All performance measured at Room temperature / Ambient of ±25°C to ±2°C

Cyclic Corrosion Test Chamber – CCT

Technical Data Sheet

- **Temperature Range:** +25°C to + 80°C ±1°C
- **Humidity Range:** Saturated Condition 20% to 98% ±3% variable as per test condition
- **Fog Collection:** 0.5 to 2ml per hour
- **Control system:** PID type OR Programmable Microprocessor based control system with touch screen for cyclic chamber
- **Systems & Control features:** CFC free Hermetically sealed refrigeration system
- **Salt Spray Test:** IS 9000, IS 5528, IS 6910, ASTM B 117, JIS 2371, UNICHEM, DIN ISO 9227
- **Performance:** Condensed water test as per ISO 6270
- **CASS Test:** ASTM B 368



Standard Test Space:

Model No.	Volume (Liters)	W (MM)	D (MM)	H (MM)
CCT-1000	1000	1500	850	800
CCT-1500	1500	2000	1000	750

- Test Space can be provided as per customer requirement
- Appearance & Design of Chamber may vary depending on the internal dimension
- All performance measured at Room temperature / Ambient of ±25°C to ±2°C





We mainly focus on Research, Design, Development,
Manufacturing, Assembly, Integration and Testing.

CORRESPONDANCE DETAILS:

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