Sand & Dust Test Chamber



Model:PS-DC1000

Sand & Dust Test Chamber is a specialized instrument to determine durability of products against dirt, sand, and dust. It simulates dry, windy, and desert-like conditions under a controlled atmosphere. Dust test chamber is a robust and precisely designed testing system developed to evaluate the resistance of enclosures, components, and assemblies against airborne dust and sand particles.

The inner test area is lined with glass reinforced plastic (GRP) sheets, offering excellent resistance to abrasion and chemical exposure while ensuring long operational life. In Presto Enviro sand & dust test chamber, high-efficiency circulation blowers create a uniform suspension of dust particles that ensures consistent and repeatable testing results. An airtight construction of sand and dust test chamber prevents leakage and ingress of external contaminants, maintaining strict test integrity. This pressurized seal keeps the amount of particles steady in the test area, stopping harmful dust from getting out into the lab. The outer enclosure is fabricated from heavy-duty mild steel with a powder-coated finish, ensuring structural strength, corrosion resistance, and durability even under continuous operation. Robust housing is engineered to withstand the mecha nical vibration and abrasive force generated by high-velocity air circulation systems over long-term testing cycles.

The dust test chamber is supplied with a dedicated control panel featuring advanced digital controls for precise test manage ment. This interface allows manufacturers to calibrate the exact agitation intervals, vacuum pressure, and duration to meet specific international testing protocols. Sand & dust test chamber is designed with mobility in consideration; the system is mounted on industrial-grade caster wheels, allowing easy relocation within the laboratory. Such mobility enables laboratories to reconfigure their testing floor as needed while ensuring the unit remains stable and level during active operation.

Specificaations

Parameter	Specification
Line Voltage	380–440 V AC, 3 Phase, 50/60 Hz
Temperature Range	15 °C to 45 °C
Internal Chamber Size	1000 × 1000 × 1000 mm (modifiable on request)
Power Consumption	Max. 3000 VA
Heater Capacity	150 W
Dust Circulation Turbine	1100 VA
Depression Turbine Power	1100 VA
Air Flow Totalizer – 1	0.06–10 m³/h ±3% (0.06–0.12), ±2% (>0.12)
Air Flow Totalizer – 2	0.016–6 m³/h ±3%
Depression Sensor	0–50 mbar, 4–20 mA output
Max. Permissible Pressure	200 mbar
Timer Range	0-9999 hours
Compressed Air Requirement	3-4 bar

Key Features

- Standard chamber size 1200 x 800 x 800 mm (customizable on request)
- Inner lining made of GRP sheets for superior wear and chemical resistance
- Uniform dust circulation system for consistent particle suspension
- PLC-controlled HMI interface for intuitive operation and automation
- Independent control panel with:
  Digital preset timer (up to 9999 hours) with memory backup
  Hour meter for monitoring test duration
- Fully airtight construction to ensure contamination-free testing
- Blower speed regulation for controlled and uniform dust floating
- Integrated heating arrangement to prevent dust condensation
- Heavy-duty castor wheels for easy movement
- Designed for continuous laboratory and industrial usage