



SKC ENVIRON LAB PVT LTD.

ACCREDITED BY: NABL, DGAQA & ISO 9001:2015

a part of

SKC Group of Labs





About Us

We at SKC are driven by our passion, integrity, entrepreneurialism, and innovative spirit as we continually strive to fulfill our vision. These values guide us in all that we do. Our state-of-the-art test facility was incorporated in 2014, covering more than 20,000 sqft and operating 24x7. Accredited by NABL (ISO-17025) and DGAQA (Ministry of Defense), today, we serve over 400 customers from the Defense, Aerospace, Automobile, Electric Vehicle, Railways, Medical, Telecommunication, and Consumer Appliances industries. Our profound knowledge in product testing is niche, and we leverage it to educate our customers about safety, regulatory, and reliability standards."

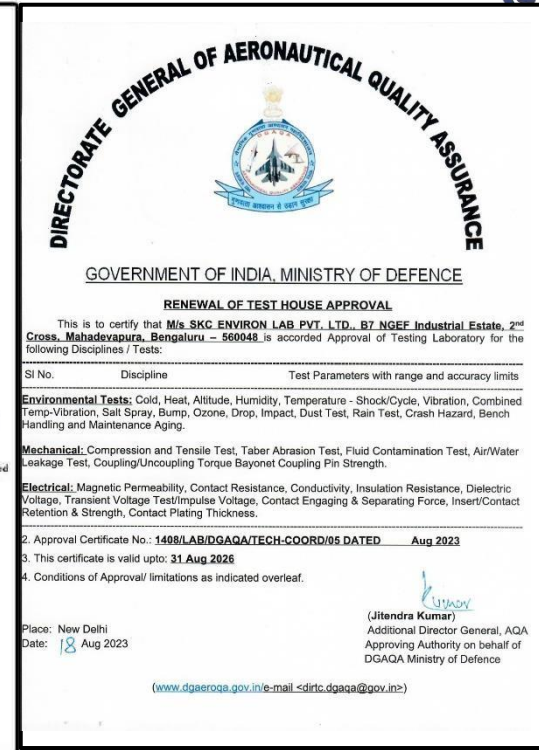


National Accreditation Board for Testing and Calibration Laboratories
CERTIFICATE OF ACCREDITATION
SKC ENVIRON LAB PVT LTD
 has been assessed and accredited in accordance with the standard
ISO/IEC 17025:2017
"General Requirements for the Competence of Testing & Calibration Laboratories"
 for its facilities at
 SKC ENVIRON LAB PVT LTD, B7 NGEF INDUSTRIAL ESTATE, 2ND CROSS, MAHADEVAPURA, BENGALURU URBAN, KARNATAKA, INDIA
 in the field of
TESTING

Certificate Number: TC-5648
 Issue Date: 02/02/2022 Valid Until: 01/02/2024

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : SKC ENVIRON LAB PVT LTD
 Signed for and on behalf of NABL
 N. Venkateswaran
 Chief Executive Officer

DIRECTORATE GENERAL OF AERONAUTICAL QUALITY ASSURANCE

GOVERNMENT OF INDIA, MINISTRY OF DEFENCE

RENEWAL OF TEST HOUSE APPROVAL

This is to certify that **Ms. SKC ENVIRON LAB PVT. LTD., B7 NGEF Industrial Estate, 2nd Cross, Mahadevapura, Bengaluru – 560048** is accorded Approval of Testing Laboratory for the following Disciplines / Tests:

Sl No.	Discipline	Test Parameters with range and accuracy limits
1.	Environmental Tests: Cold, Heat, Altitude, Humidity, Temperature - Shock/Cycle, Vibration, Combined Temp-Vibration, Salt Spray, Bump, Ozone, Drop, Impact, Dust Test, Rain Test, Crash Hazard, Bench Handling and Maintenance Aging.	
2.	Mechanical: Compression and Tensile Test, Taber Abrasion Test, Fluid Contamination Test, Air/Water Leakage Test, Coupling/Uncoupling Torque Bayonet Coupling Pin Strength.	
3.	Electrical: Magnetic Permeability, Contact Resistance, Conductivity, Insulation Resistance, Dielectric Voltage, Transient Voltage Test/Impulse Voltage, Contact Engaging & Separating Force, Insert/Contact Retention & Strength, Contact Plating Thickness.	

2. Approval Certificate No.: **1408/LAB/DGAQA/TECH-COORD/05 DATED Aug 2023**
 3. This certificate is valid upto: **31 Aug 2026**
 4. Conditions of Approval/ limitations as indicated overleaf.

Place: New Delhi
 Date: 18 Aug 2023

(Jitendra Kumar)
 Additional Director General, AQA
 Approving Authority on behalf of
 DGAQA Ministry of Defence

(www.dgaerqa.gov.in/e-mail <sdirtc.dgaqa@gov.in>)

[Click here for NABL Scope](#)

A technical drawing of a mechanical assembly, showing various components and their arrangement.

Vision:

To establish SKC Labs as preferred partner for reliability, safety validation & qualification

Mission:

- Render high quality test services, value for money and timely technical assistance for meeting environmental test standard requirements.
- To be one stop solution for all testing activities which in turn optimize the time, quality and cost for the customer
- To achieve customer delight through continuous improvement, flexibility and prompt response
- To expand our testing services by adding new scope to meet new product testing standard requirements



Industries we cater...



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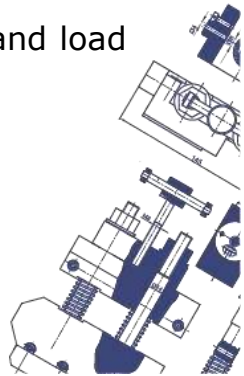


List Of Tests Offered

Vibration test: ambient condition up to 100g, Frequency of 3000 Hz, Capacity 5000kgf.

- Vibration test with temperature from -70 °C to +180°C , 10% to 95%RH
- Temperature Cycling test -70°C to +180°C
- Ramp rates: 10°C/min max. (linear as per IEC)
- Thermal shock test, transfer time 10s, -70 °C to +180°C
- Mechanical Shock test (20g to 200g)
- Bump test
- Hot, cold and Humidity test -70 °C to +180°C 95%RH
- Altitude Test (up to 150 m/s ramp rate)
- Dust Test (IEC 60529, ISO 20653 & JSS 55555)
- Rain drip test(MIL STD 810F)
- Ingress Protection(IP) Test 1X-6X, X1-X9.
- Thermal Shock Immersion test
- 5 Corrosion Test

- Torque and Bending test
- Transportation / Shipping related tests
- Ice Water Splash test
- Taber abrasion test for Ceramic related sample
- Endurance test (Radiator, Wiper, glove box etc)
- Automated drop test
- Customized endurance tests for various components
- Fluid Contamination test
- Toppling Test
- Push / Pull test at different speed and load
- Tensile, Compression, Peel off and Bending test
- Electrical tests
- Ozone test.



Major Test Standards Accredited By NABL



Test Name	Standards In Our NABL Scope	Test name	Standards In Our NABL Scope
Altitude test	MIL STD 810, JSS 55555, ISO 15003, RTCA DO-160F	Rain Drip Test	MIL 810F
Temp Cycling	IS 9000, IEC 60068-2, RTCA DO-160F	Humidity Test	EIA-364, RTCA DO-160F, MIL STD 810F, JSS 55555, IEC STD
Cold Test	IEC 60068, ISO 16750-4, IEC 60571, IS 9000	Salt Spray Test	JIS Z 2371, IEC 60571, MIL 1344A, MIL STD 810, JSS 55555, IS 9000, IEC 60068-2, ASTM B117, RTCA DO-160F
Corrosion Test	JSS-0256, JSS 55555	Shock Test	IEC 60068-2, ISO 16750-3, IS 9000, MIL- STD-810, MIL-PRF-28800, IEC 60571, DIN EN 60068-2, ISO 9022-31, JSS-0256
Damp Heat Test	ISO 16750-4, IS 9000, JSS 55555, IEC 60571, ISO16750-4, IEC 60068-2		
Ice Water Splash Test	ISO 16750-4	Temp Shock / Rapid change of Temp	MIL STD 810, IEC 60068-2, IS 9000, JSS 55555, JSS 0256, AIS 156
Drop Test	ASTM D 7386, MIL STD 810, ASTM D4169, ASTM D5276, IEC 60068, ISO 16750-4, IS 9000, ISO 16750, JSS 0256, JSS 55555, ISTA 1A 2A 3A	Dust Test	JSS-55555, IEC 60529, ISO 20653
		Vibration Test	ISO 12405-1, ISO 2247, MIL STD 810, JSS-0256, IEC 60068-53, MIL-PRF-28800F, IEC 61373, ASTM 999, JIS D 1601, ISTA 1A, 2A, 3A, IEC 60571, IEC 60068-2, ISO 16750-3, ASTM 4169, IS 9000, JSS 55555, ASTM D 7386, RTCA DO-160F, JSS 50101, AIS 038
Dry Heat / High Temperature	IEC 60068-2, IEC 60571, IS 9000, ISO 16750 -4	Bump Test	IEC 60571, JSS 55555, IS 9000, JSS-0256
Combined Temp & Vibration Test	ISO 16750-3		
Impact Test	JSS 55555	Dry Heat Test	IEC 60068-2, ISO 16750-4, IS 9000, IEC 60571

Our Major Customers

Defence and Aerospace Clients



Automotive Clients





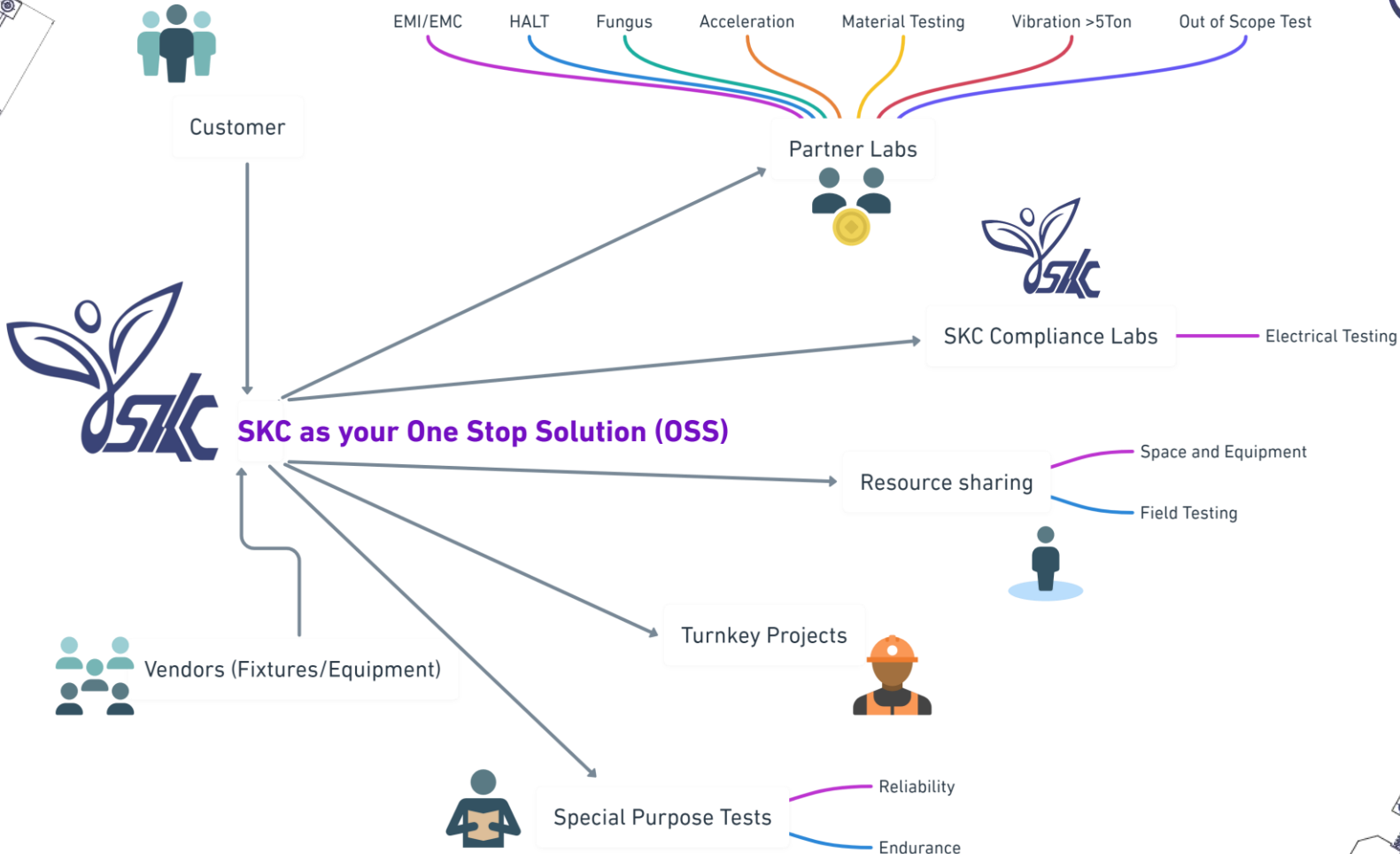
Our Major Customers

Railway Electronic and Medical Clients

AMETEK SAINT-GOBAIN BGG HASELMEIER NASH Forus
 Trumen HUEGLI TECH iTriangle
 DELOPT Neotech ABB GE Transportation HCL HealthCube
 Cambium Networks AQUA TECH SKANRAY BHARAT ELECTRONICS Continental Engineering Services TE

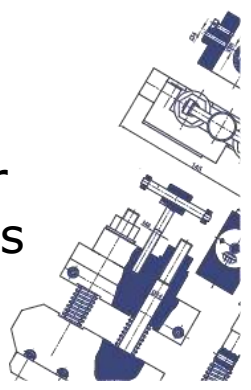
Other Clients

CSA GROUP wipro UL SGS TÜVRheinland Shiram Institute for Industrial Research TÜV SÜD intertek

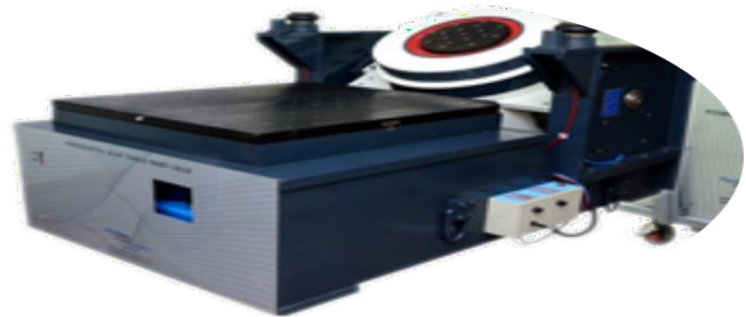
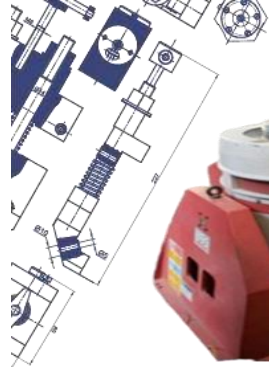


A technical drawing or schematic diagram in the top-left corner, showing various mechanical components and their assembly, rendered in blue lines on a white background.

Why SKC Group

- Two labs with more than 20,000 sqft area
 - More than 8 years of solid experience in Testing Laboratory field, serving more than 400 customers.
 - Expertise in conducting various tests for companies like Mercedes Benz, OLA Electric, Ather Energy, Mahindra Electric, HAL, BHEL etc.
 - Existing Electrical infrastructure (SKC Compliance lab) can be utilized for electrical testing.
 - Experienced Mechanical & Electrical engineering team.
 - Team of 45 members working in 3 shifts (24x7), 365 days.
 - We have created an ecosystem as One stop solution provider for majority of the tests - tied up with majority of testing labs in Bangalore & South India
- 
- A technical drawing or schematic diagram in the bottom-right corner, showing various mechanical components and their assembly, rendered in blue lines on a white background.

Vibration Testing Equipment Details



Technical Specs

Force : 100kgf to 5 Ton

Frequency range: 1Hz to 3000 Hz

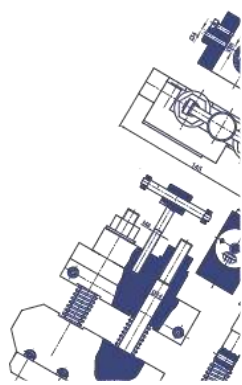
Test Modes: in X, Y & Z axis with Sine, Random, Shock, SOR, ROR

Max. Acceleration: 100g and **Max. Displacement:** ~76mm

No of Shakers: 5

Slip Table: size up to 1m for X & Y axis.

Mounting Support: Head expander size up to 1m with Vertical load support for Z axis



Vibration Testing With Temperature



Technical specs:

Force: 1100kgf to 5000kgf

Test Modes: in X, Y & Z axis with Sine, Random, Shock, SOR, ROR

Max. Acceleration: 100g and

Max. Displacement: ~76mm

Integrated Chambers: 2

Mounting Support: Head expander size up to 1m with Vertical load support for Z axis and Slip table with size up to 1m for X & Y axis.

Frequency range: 1Hz to 3000 Hz

Climatic chamber: -70°C to +180°C ,

Ramp Rate: 1 to 10°C / min (IEC Standard)

Max Dimension of Integration chamber: 1000*1000*1000mm



Mechanical Shock & Thermal Shock



Mechanical Shock Technical Specs

Platform Size : 700mm x 700mm

Acceleration range: 20g to 200g (3ms to 30ms)

Test Axis: Z axis (Others Axes – Sample Orientation has to be changed)

Pay Load Capacity: 200Kgs(Max)

Drop Height: Adjustable up to 300mm

Waveform: Half sine

Hole Pattern: M-10 threaded

13 Pitch: 100 x 100 (in mm)



Thermal Shock Chamber (2 No's)

Hot Zone : Ambient to +200 °C

Cold Zone : -65°C to 0°C

Test space : 900*700*700mm

Transfer Time < 10 sec

Load Capacity(Weight)-80kg

Climatic Chambers (12 Nos)



Hot, Cold & Humidity Chamber

Various Tests(Storage / Operation): Thermal Cycling, Damp Heat (Humidity + Heat), Low Temperature, Dry Heat

Temp. Range: -70°C to +180°C

No of chambers: 12

Max Inner dimension : up to 1200*1600*1200mm

Humidity : 95% RH

Ramp Rate: 1°C to 10°C/min

Combined Altitude Temperature Humidity Chamber (CATH)



CATH

Altitude range: Atmospheric to 10mbar

Chamber Temp. range: -70°C to +180 °C

Humidity: 10% to 95% RH

Inner Space: 1000*1000*950mm

Ramp Rate: 1 °C per min

External power can be applied or measured to DUT

Altitude Chamber / Rapid De-Compression

Low pressure : up to 1mbar

High pressure : 1700 mbar

Chamber Temp.: Ambient

Inner Space: 500*500*700mm

Ramp Rate: Up to 150 m/s

2 Port holes for active test.....

Salt Spray Chambers & Ice Water Shock Chamber



Salt Spray / Cyclic Corrosion Chamber

Cycle: Dry, High Humidity, Dwell, Wet

Usable space: 1500*750*750mm

Temp. Range: Ambient to +60 °C

Humidity Range: UP to 93% RH

Tank Capacity : 125 L

Meets various standards like ASTM B 117, DIN, ISO, FLTm, JIS, MIL, MIL-STD-810F & JIS Z2371 etc.

Ice Water Shock Test(Splash Water Test)

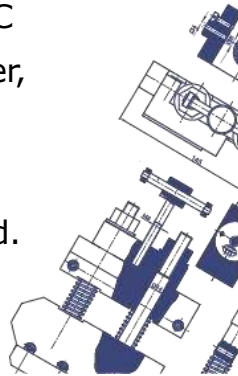
Chamber Temp Range: Ambient to +120°C

Water Temp Range: 0°C up to +5°C

Spray Fluid: Arizona dust with water, Salt solution & DM water.

Test Bench: 700*800*800mm

Sample Up to 60kg can be simulated.



IP Testing As Per IEC/IS 60529 & ISO 20653



Key Features: IPX1 & IPX2

Size of the drip tank 1000*1000 mm

IP X1: Drip Test – Vertical falling water drops: $1^{0/+0.5}$ mm/min & test duration 10 min

IPX2: Drip Test – Vertical falling water drops at 15-degree tilt: $3^{0/+0.5}$ mm/min & test duration 2.5 min on each tilt position

Turntable Size- 350 mm dia



KEY Features: IPX3 & IPX4

Oscillating tube spray + 60° (+ 180°) from vertical dist. (max 200mm) for 10min Spray nozzles spray + 60° (+ 180°) from vertical 10 l/min for 5min



KEY Features: IPX5 & IPX6

IPX5: Water Jet – Nozzle diameter 6.3mm and 2.5 to 3.0 meters distance, 12.5l/min +/- 5%, test duration 1 min/m² at least 3min.

IPX6: Powerful Water Jet – Nozzle diameter 12.5 mm and 2.5 to 3.0 meters distance, 100 l/min +/- 5%, test duration 1 min/m² at least 3min.



IP Testing As Per IEC/IS 60529 & ISO 20653



KEY Features: IPX7 & IPX8

Tank dimensions of 2000*1500*1500 mm

DUT immersed 1m below water surface for 30min duration

IPX8 to be conducted as per IS/IEC 60529:2001 14.2.8

KEY Features: IPX9K

High pressure and temperature water jets positioned at 0, 30,60 and 90 degree angles.



Rain Drip Test

Volume of water: 280Ltr/m²/Hr.

Drip hole Pattern:

20mm*20mm

Needle internal Dia: 0.5mm

Water fall height: >1.0m



IP Dust Testing As Per IEC/IS 60529, ISO 20653 & JSS55555



Dust Chamber – 3 No.s

Key Features: IP 5X, IP 6X, K5, K6

(As per JSS 55555/ISO 20653/IEC 60529)

Usable Inner space: 2000*1000*1500mm (for IEC 60529)
& 1000*1000*1000mm (for JSS 55555 & ISO 20653)

19 **Temp Range:** Ambient to +50 °C

UTM, Drop and Ozone Equipments

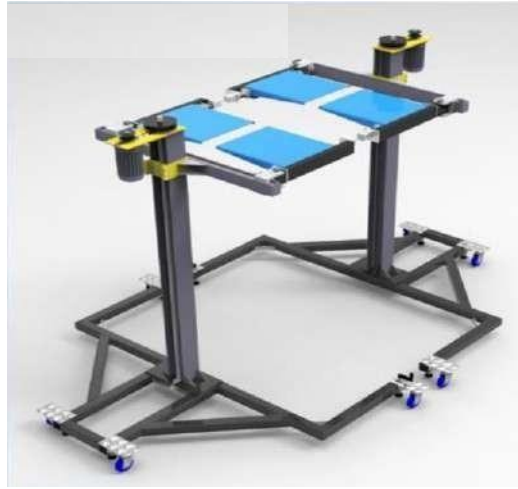


UTM

Load capacity: 0 – 30 kN

Speed: 10 to 500 mm / min
configurable

Load vs Displacement or Load Vs. Time
or Displacement Vs. Time graphs can be
generated



Automated Drop Test

Max. load : 100 kg

Max. lift height : 1.8m

Drop from all sides, corners, edges
can be done



Ozone Test

Dimensions

500*500*600 mm

(150L)

Ozonized Air Flow 50-
300L/min.

ASTM D1149 ISO1431

Endurance Testing Equipment : Servo Actuator



Technical Specs:

Make: Vzero, Spain

Force: 100kN

Stroke: ± 250 mm

Max Speed: 0.5m/s

Max Working Pressure: 250bar

Miscellaneous Equipment Capabilities



Hot Air Oven

Temp. Ambient to 250°C
Chamber :
1000*1000*1000 mm



Acoustic Enclosure For Noise Measurement:

Background noise 30 dBs,
Dewetran 8 Channel Universal input DAQ

100 Kgf shaker with Sine, Random and Shock test capability



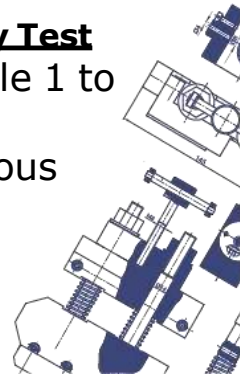
Muffle Furnace

Size –
300*300*300mm
Max Temperature – 1150 °C



Stability Test

Tilt angle 1 to 15°
for various loads



Miscellaneous Equipment Capabilities



Needle Flame Test

Flame: Up to 100 mm
application time:
5/10/20/30/60/120s
angle of application – 0 to 90°
adjustable
temperature range: 100 to 700°C



Glow Wire Test

Wire loop Ni/Cr 4mm dia
Penetration Depth 7mm
Electrically heated up to
960 °C



BUMP TEST

Bump counts – 1 to 50
bumps
Drop Height: 50mm
Support size: 1000*1500mm
Sample mass: >7Kg
Duration 30min



Scratch

Resistance Tester

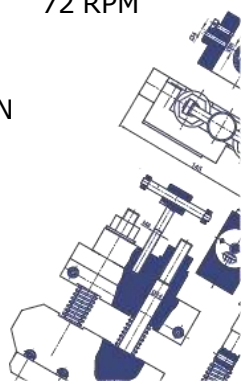
Scratch Angle: 80-85°
Force: 10 N ± 0.5 N OR 50N
Scratch Speed up to 1000
mm/s ± 5 mm/s
Radius of Steel Pin: 0.25
mm ± 0.02 mm
Tip Angle of Steel Pin 40°



Abrasion Tester

Make – Taber

Load on the
samples: 250,
500 and 1000g
Speed: 60 and
72 RPM





Our Sister Concern

SKC compliance lab

Click below for capabilities & Facilities.

[SKC Compliance Lab.](#)

THANK YOU

