

#### SALES PRESENTATION ON

## MECHANICAL TESTING EQUIPMENTS















## LIST OF TEST EQUIPMENT

- BALL PRESSURE TEST APPARATUS
- TEST FINGER APPARATUS
- 3. SHOCK TEST APPARATUS
- 4. CORD GRIP TEST APPARATUS
- 5. IMPACT TEST APPARATUS
- 6. TUMBLING BARREL APPARATUS
- SPRING IMPACT HAMMER



# 1. BALL PRESSURE TEST APPARATUS

#### • What It Is?

- > The Ball Pressure Test Apparatus is used to check the integrity of dielectric material with respect to resistance to elevated operating temperature.
- The Ball Pressure Test Apparatus model BP 21 takes care of this testing useful for insulator manufacturers and other electro-technical manufacturers who use insulating material in their electrical appliances. The BP21 is made of stainless steel for long life.
- It is mentioned in standards IEC 60335, IEC 60695, IEC 60950, IEC 61010, IS 302, IS 1293, IS 3854, IS 2215, BS, UL

#### • Models Available :

> The product is designed as per the specifications and drawings in the relevant standard.



- > All stainless steel construction.
- Magnifier with built-in scale for measuring the depression created by the ball pressure test apparatus.
- Supplied in a compact and neat carrying case.
- Precision engineered and manufactured for ball pressure test covering all popular standards.

#### • <u>Basic Specifications</u>:

- > Ball diameter: 5 mm.
- $\triangleright$  Force exerted on sample : 20 n, + \ 0.1 n.
- Material of construction : Stainless steel.
- Magnifier : X 10 magnification,0.1 + mm
- Resolution: 0~10mm scale



# **Key Benefits:**

> The tester is used to asses the effect of ball pressure typically on insulator surfaces in a hot environment

• Key Photos:



**Ball Pressure Test Apparatus** 



# 2. TEST FINGER APPARATUS

#### • What It Is?

- > **SCR ELEKTRONIKS** Designs for the Test of the products non Accessible of live parts through shutters, when the plug is in partial with the product.
- FLEXIBLE TEST FINGER is applied in every possible positions of the Test Product. Assuming a live Finger.
- > If there is a short then BUZZER will sound and the fault indicator will indicate the fault of the Test Product.
- ▶ It is mentioned in standards IEC 60669, IEC 60884 IS: 302 1979, IS 1293, IS 3854.

#### • Models Available :

> The product is designed as per the specifications and drawings in the relevant standard.



- Test Finger with spring loaded arrangement
- Flexible Test Finger
- Control Panel for Test Finger Apparatus

#### • Basic Specifications:

- Analog voltmeter for voltage Indication
- > Probe Flexible as per standard
- > Product dimension as per mentioned in standrds



# **Key Benefits**:

The product is used to test switchgears, wiring accessories and domestic appliances against electric shock during human handling

# • Key Photos:



Test Finger Apparatus



## 3. SHOCK TEST APPARATUS

#### • What It Is?

- SCR Elektroniks make Shock test Apparatus is used to test the Electrical accessories / appliances for their mechanical strength.
- > It is mentioned in standard IS 8828, IEC 60898.

#### • Models Available:

> The product is designed as per the specifications and drawings in the relevant standard



- Robust design for long lasting product life
- Adjustable product (dropping height) height
- DIN-Rail mounting arrangement

#### Basic Specifications:

- Motorized operation with settable number of drop cycles
- Digital indication of test cycles
- Adjustable motor speed
- > Test-ON, Test-OFF and Reset Pushbutton



## • Key Benefits :

The product tests the susceptibility of mechanical tripping of an MCB against repeated mechanical shocks induced by the equipment

#### • Key Photos :



Shock Test Apparatus



## 4. CORD GRIP TEST APPARATUS

#### • What It Is?

- > Cord Grip Test Apparatus for testing effectiveness of the retention in flexible cables.
- ▶ It is mentioned in standard IEC 60898-1 & IS 1293.

#### Models Available :

> The product is designed as per the specifications and drawings in the relevant standard.



- Settable weight (force)
- Counter to count number of pull offs
- Hinged plate for test specimen
- Crank or handle based arrangement for simplicity
- Pull offs are applied without jerks

## • Basic Specifications :

- > 50 N if the rated current is 2.5 A
- > 60 N if the rated current is from 2.5 A to 16 A and rated voltage upto 250 V
- > Screw based clamp arrangement for testing of cable by subjecting it to weight
- > 100 pull up rotations by handle



# **Key Benefits:**

> The product is used to test the tensile strength of the electric cord against a flexible force obtained by rotation of eccentric circular plate

### • Key Photos :



Cord Grip Test Apparatus



## 5. IMPACT TEST APPARATUS

#### • What It Is?

- > SCR Elektroniks make Impact Test Apparatus is used to test the Electrical Accessories / appliances for their mechanical strength.
- > It is designed as per IS 3854 1997

#### • Models Available :

> The product is designed as per the specifications and drawings in the relevant standard. The base plate and boxes, if any, can be customized as per diagrams in the standard



- Robustly built
- Can be mounted vertically or horizontally
- Tests a range of products of different application such as MCBs, switches and sockets

## <u>Basic Specifications</u>:

- > Striking Element hemisphirical face of radius 10 mm, made of Teflon, weighing 0.15 kg
- > Steel Tube 9 mm diameter and 0.5 mm thickness
- Striking force between 1 N to 2 N
- > Height of fall 250 mm



## • Key Benefits:

> The tester is used to test the mechanical strength against impact

## • Key Photos :



Impact Test Apparatus



# 6. TUMBLING BARREL APPARATUS

#### • What It Is?

- SCR Elektroniks make Tumbling Barrel Apparatus is specially designed and manufactured for use in laboratories involved in testing Appliances, Electrical Accessories, Luminaries and other related Electro technical products.
- > It is used to perform the test specified in many standards to determine compliance with safety requirements, particularly mechanical strength of test samples. SCR Elektroniks Makes Counter to count ON/OFF of Limit switch.

#### • Key Benefits:

> The test bench is used to assess any possible damage arising out of falling inside the barrel for a pre-set amount of time and revolutions.



- Self contained compact unit that can be floor mounted.
- Laminated wooden barrel mounted on a sturdy support frame.
- Motorized operation enables ease of use.
- > Rotation Speed of five RPM, providing a fall rate of ten falls per minutes.
- > Steel base plate fixed at both ends of the barrel as specified in the standards.
- Digital pre-set four digits counter with bright LED duel display, membrane keypad Selection And battery back-up to memorize count value in case of power cut off.
- Audible / Visible 'Find of Test' indication.
- > Transparent acrylic sliding cover allows easy loading and unloading of the test sample, and allows inspection during the test. Cover can be locked during the test.
- > Two castor wheels and one adjustable foot provide mobility as well as leveling facility.
- Non contact proximity sensor ensure reliable operation Barrel JOG Switch to bring the barrel to upright position after End of Test.



# **Basic Specifications:**

- > Drop Height: 500 mm
- Base Plate : 3 mm thick Steel Plate.
- Rotation Speed : 10 Falls per minute (5 rpm)
- Control: Digital Pre Set Counter, 4 digits, with battery back-up.
- Sensor: Non contact Inductive Proximity Sensor, 12 mm diameter.
- Indicator : Power ON, Barrel ON, End of Test (Audible beeper)
- > Access: Through sliding acrylic cover with magnetic latch & key lock.
- > Drive: AC Induction motor, geared, with reduction pulley and V-Belt.
- > Power: 110 V AC, 50/60 Hz single phase.
- Safety Fuse: 2 Amp., slow blow, glass cartridge, 35 x 6 mm.
- Dimension: 450 mm W x 750 mm D x 1000 mm H approximate.



# • Key Photos:



Tumbling Barrel Apparatus



## 7. SPRING IMPACT HAMMER

#### • What It Is?

SCR ELEKTRONIKS have developed The tester tests strength and resilience of the domestic appliance / switchgear / wiring accessory under test against striking force derived from a mechanically charged spring hammer

#### Models Available :

> The product is designed as per the specifications and drawings in the relevant standard



- Simple portable design
- Material not prone to rust
- Supplied in a wooden case to prevent damage during transit

### • Basic Specifications :

- > Striking Element 10 N Force
- Mass of assembly 250 gm not exceeding 1 J and 500 gm not exceeding 2 J
- Distance of striking element 8 mm to 12 mm



# Key Photos :



Spring Impact Hammer



### Documentation That Will Be Provided With Product :

- Layout (dimensions, etc.)
- Metering and PCB termination diagram
- Power wiring diagram
- Control wiring diagram
- User manual
- Data acquisition module details (for PC based variants)
- Signed warranty certificate
- Calibration certificates (NABL optional)



## • Why SCR Elektroniks ?

- Since 1975: Rich Experience In Test And Measurement
- Customized Solution
- Dedicated After Sales Support Team
- Designed More Than 100 Different Products
- In- House Team Of Micro-controller Design, Electrical And Electronic Design, Micro Controller Development, LabVIEW (PC) Software And PLC Logic, Production, Testing And Commissioning And Support
- In-house Development Of Critical Electronic And Electrical Meters, Modules And Components
- ISO 9001: 2015 Certified By Bureau Veritas Maintaining High Quality In Our Internal Process
- Listed By IEC In The Past
- Fair And Consistent Pricing
- Our Ultimate Prize: Customer Delight



# Clients Of Mechanical Testing Equipment's:

Sr. No	Customer Name
1	M/s. Tri Spectrum
2	M/s. Great White
3	M/s. Victory Instruments
4	M/s. SGS india
5	M/s. Elin Appliances
6	M/s. Philips
7	M/s. Intertek
8	M/s. Crompton Greaves
9	M/s. Godrej
10	M/s. Marc Enterprises
11	M/s. UL India



11	M/s. Havlls
12	M/s. Aragon Instruments LLC
13	M/s. Bajaj
14	M/s. L&T
15	M/s. Legrand
16	M/s. Anchor Electrical
17	M/s. polycab Wires
18	M/s. Hager Electro
19	M/s. Al-Motawase Factory
20	M/s. Orient Electricals
21	M/s. Alfanar Electrical Systems
22	M/s. Gallic Electrotechnology
23	M/s. Lighting Technology
24	M/s. HPL Electric & Power Ltd
25	M/s. Hi-Fi Industries
26	M/s. Great White
27	M/s. Novateur Electrical



11	M/s. Honeywell
12	M/s. Rotax
13	M/s. Panasonic
14	M/s. Pacific Rim Alliance
15	M/s. C&S
12	M/s. Maya Appliances
13	M/s. Teknic Electromeconics
28	M/s. R R Ispat
29	M/s. Central Electrical Testing Laborartory
30	M/s. Wipro

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# THANK YOU