



भारत सरकार
Government of India
सूक्ष्म , लघु और मध्यम उद्यम मंत्रालय
Ministry of MSME

TESTING AND CALLIBERATION FACILITIES AVAILABLE AT
MSME TESTING CENTRES & TESTING STATIONS



गुणवत्ता संयोग की बात नहीं है, परीक्षण गुणवत्ता को सुनिश्चित करता है
Quality is not a matter of chance, Testing ensures quality

100% TESTING LEADS TO ZERO ACCIDENT
COMPROMISE WITH QUALITY IS INVITATION TO ACCIDENTS

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**Government of India
Ministry of MSME**

**MSME TESTING CENTRE, CHENNAI
NABL ACCREDITED LABORATORY (TC5135 & CC2506) / BIS RECOGNIZED**



Introduction :

MSME Testing Centre (MSME-TC), Chennai, formerly known as Regional Testing Centre, was established in the year 1974.

MSME-TC, Chennai is a premier Institute in Chennai provides common testing facilities for raw materials & final products and calibration of measuring instruments. Physical testing and Chemical Testing/Analysis of Ferrous/Non ferrous materials, Paints, export food products for radionuclide, water, Building materials, Cables & conductors, Transmission line accessories and Domestic Electrical appliances are the major activities of MSME-TC. Micro and Small Scale industries are the backbone stakeholders in availing MSME-TC services. Our customer base also include Government Departments like Railways, CPWD, RITES, AAI, BIS, Defence Establishments, Central & State public sector undertakings and other large scale industries in private sector .

Over the years, MSME-TC, Chennai had obtained accreditations from various prestigious institutions like NABL, BIS and AERB. MSME-TC, Chennai has created World Class Testing facilities to enlarge our scope of accreditation from time to time.

Testing Infrastructure Available:

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification
				Range / Size
1.	Mechanical	Hydraulic Pressure Comparator	1	1200 bar
		Hydraulic Pressure Sensor with Indicator	Sensors-6 Nos Indicator-1No	0-10 bar 0-40 bar 0-100 bar 0-400 bar 0-600 bar 0-1000 bar
		Hydraulic Pressure Generator	1	0-700 bar
		Pneumatic Electronic Comparator	1	-1 to 24 bar
		Pneumatic Pressure Sensor with Indicator	1	-1 to 24 bar
		Sushma Torque Measuring System-Motorized	Sensors-6 Nos Indicator-1 No	2 Nm 5 Nm 20 Nm 100 Nm 500 Nm 2000 Nm
		Sushma Torque Measuring System-Mechanical	Sensors-7 Nos Indicator-2No	20 Nm 50 Nm 100 Nm 200 Nm 500 Nm 1000 Nm 2000 Nm
		Profile Projector	1 No	350 mm with 20X magnification
		Dial Calibrator	1 No	upto25mm
		Compressive Testing Machine	1 No	500KN
		Le-Chatlier Bath	1 No	-
		Auto Clave	1 No	-
		Vibrating Machine Cement Cube	1 No	-
		Flexural Testing for Tiles	1 No	-
		Test Sieves	-	All Sizes As Per IS
		Impact Crushing Jig	1 No	As Per IS
		Vicat Apparatus	1 Nos	-
		Operating Test for Pressure Regulating Device	1 No	As per IS
		Test for Safety Relief Device	1 No	AS per IS
		Test set up for Proof Pressure Test and Bursting Pressure test	1 No	AS per IS
Test Equipment with setup for Pressure of outer Lid under pressure.	1 No	AS per IS		
Test Equipment with set up for Removal of inner lid under pressure.	1 No	As per IS		

		Test Equipment with set up for Bending strength test for handle.	1 No	As per IS
		Test Equipment with set up for impact strength test of handle	1 No	As per IS
		Automated Test set up for Fatigue Resistance test of Domestic Pressure Cooker Handle assembly.	1 No	As per IS
2	Leather	Tensile tester UTM	01	0-500kgf, accuracy, 0.001/0.01 kgf and 0.48%
		Bally flexometer	01	100 rpm, 5 rpm and ± 1.62 rpm
		Vamp flexometer	01	300cpm, 30 cpm
		WVP tester	01	1400 rpm, 100 rpm, ± 3.09 rpm
		Circular Rub fastness tester	01	150 rpm, ± 2 rpm,
		Hot air oven w/ accessories	01	300°C, LC 1°C, ± 0.75 °C
		Water Resistance Tester (Maeser)	01	90 rpm, ± 5 rpm and ± 1.62 rpm
		Abrasion Resistance tester	01	Uncertainty ± 1.62 rpm
		Veslic rub fastner	01	40 rpm, ± 5 rpm
		Crockmeter	01	60 rpm/ 9N, ± 0.2 N
		Leather Cracking tester	01	1000 N, 1/50,000 N
		Colour matching cabinet	01	---
		Thickness guage	01	0-8 mm, 0.02 mm, LC 0.01mm, ± 4.5 μ m
		Hardness Tester – Shore A	01	0-100° SHORE, accuracy, resolution, ± 0.6 SHORE A
		Hardness Tester – Shore D	01	0-100° SHORE, accuracy, resolution, ± 0.6 SHORE D
		Electronic balance with Density Kit	01	180 ± 0.1 mg
3	Electrical	Multiproduct Calibrator	1 No	AC/DC voltage and current, RTD, TC, Frequency, Power factor, AC/DC power
		AC Voltage & Current Standard	1 No	AC Current: 50Hz 100mA to 10A
		Digital Multimeter 6 ½ Digital Multimeter 7 ½	1 No	DC Voltage: 5 mV-1000V DC Current: 10mA to 20mA Resistance: 10 Ω to 100M Ω AC Voltage: 45Hz to 10kHz 10mV to 750V AC Current: 45Hz to 1kHz 100mA to 2.5 A Frequency: 4Hz to 10MHz

		High Stability Decade Mega ohm box	1 No	1M Ω to 10G Ω
		Standard Resistor	8 Nos	0.001 Ω to 1k Ω
		High precision Decade Resistance Box	1 No	1 Ω to 10 k Ω
		Standard Capacitance Box	1 No	350Hz to 1kHz 10pF to 1 μ F 1 μ F to 6F
		Standard Inductance Box	1 No	1kHz 1mH to 100H
		Handy Calibrator CA 150	1 No	Temperature 0-500 $^{\circ}$ C
		Torsion Testing Machine	1 No	Upto 10 mm Dia
		Tensile testing machine	1 No	0-2500N
		Tensile testing machine	1 No	0-5000N
		High Current Test Source	1 No	0-5000A
		High Current Test Source	1 No	0-1000A
4	Metallurgical	Universal Testing machine-1000KN	1	0-1000KN
		Universal Testing machine-600 KN	1	0-600 KN
		Tensile Testing Machine-12 Tonne	1	0-120 KN
		Universal pendulum Impact Tester –IT-30	1	0-30 KGM for Charpy 0-16.52 KGM for Izod
		Tenso Meter –	1	2Tonne
		Rock Well Hardness tester-RAS -1	1	0-150 Kgf HRC 0-60 Kgf HRB
		Vickers cum Brinell Hardness Tester	1	0-60 Kgf HRB 0-250 Kgf HV 0-187.5 Kgf HB
		Compression Testing Machine	1	0-50,000 Kgf
		Erichsen Cupping Testing machine	1	Up to 2 mm Thick
		Vickers Hardness Tester (Universal Hardness)	1	Up to 100 Kgf For HV, and all scales HRC,HB,HRB
		Wrapping Tester (a wire winding Testing machine)	1	Up to 18 mm dia
		Torsion Tester	1	Upto 10 mm Dia
		Stretching Machine	1	0-1000 Kgf
		Metallurgical Microscope (Image Analyser)	1	0 to 2000 X Magnification
5	Microbiology	Autoclave	04	121 $^{\circ}$ C \pm 2 $^{\circ}$ C
		Incubator	04	30 to 55 $^{\circ}$ C
		BOD Incubator	02	20 to 25 $^{\circ}$ C
		Refrigerator	02	2 to 8 $^{\circ}$ C
		Low freezer	01	-10 to -20 $^{\circ}$ C
		Laminar Air Flow	02	Sample preparation and sample processing
		Bio Hazard Safety Cabinet	01	Class II

	Analytical Balance	01	20 to 220gm
	pH meter	01	pH4.0/7.0/12.0
	UV Cabinet	01	360nm
	Water Bath	02	20 to 75°C
	Filtration set	02	filtration set 250ml
	Microscope	01	Examination of microbes
	Air Handling Unit	01	Class 10,000

Testing facility Available:

SL.NO	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1	Mechanical	Aggregates(Coarse/ Fine / M Sand)	IS 383,	All Tests
		Gypsum/ particle Board Products, Plywood	IS 2095, IS 3087, IS 12823, IS 303, IS 707&RDSO spec	All Tests
		Tiles,	IS 15622,IS 1237, IS 4457, IS 13755, IS 13630, IS 13753, IS 2690,	All Tests
		Doors & windows,	IS 4020, IS 2202,	All Tests
		Fly ash B ricks	IS 2185, IS 12894, IS 13757	All Tests
		Concrete cubes,	IS 516,	All Tests
		Cement,	IS 269,IS 1489	All Tests
		Bricks & precast blocks,	IS 4860,	All Tests
		Granite/ Marble, Kota stone	IS 3316	All Tests
		Carbon Billets	IS 2831*, IS 2830*	All Tests
		Carbon Steel Forgings	IS 2004*	All Tests
		TMT Bars / HRD Bars/ Reinforcement Steel (rebar),	IS 1786*	All Tests
		Galvanised Steel Sheets	IS 277*	All Tests
		Galvanised Stay Strand	IS 2141*	All Tests
		Galvanised Steel Chain Link Fence	IS 2721*	All Tests
		Hot rolled Steel Strips	IS 1077	All Tests
		Cold Rolled Steel Strips	IS 513*,IS 11513*	All Tests
		MS Wire	IS 280*	All Tests
		MS wires / strips and tapes for armouring of cables	IS 3975*	All Tests
		Steel wires	IS 4454*	All Tests
		Galvanised Steel Wires	IS 2581*	All Tests
		SS Kitchen Sink	IS 13983*	All Tests
		Steel Plates for Pr Vessels	IS 2002*	All Tests
		Structural Steels	IS 2062*	All Tests
		Finished leather, Foot wears, Industrial Products, Leather products	ISO 3376, ISO 3377, IS 5914, ISO 5402, ISO 5403, ISO 14268, ISO 17700, ISO 17704, ISO 11640,ISO 11641, BS 5424, ISO 17697, BS 3424,ISO 20433, ISO 17708,ISO 22654, ISO 20872,EN 12774,	All Tests

			BS 5131, SATRA TM 175/195/ 335/305/141/ 151 151/150/149/ 110	
		Copper materials, Aluminium alloys & products,	IS 2378,IS 191, IS 737,IS 733, IS 739	All Tests
		Stainless Steel,	IS 6911	All Tests
		Welds & welded test specimens	IS 1608	All Tests
		Milk Can	IS 1825	All Tests
		Manhole cover and paver blocks	IS 12592,IS 15658	Flexural /Compressive Strength
		Pressure cooker	IS 2347	All tests
2	Metallurgical	High Strength Deformed steel Bars and wires for concrete purposes Hot Rolled Medium and High Tensile Structural steels Steel Wire for Mechanical Springs	IS : 1786-2008 Is 2062-2011 IS 4454 art-1-2015	Tensile,Bend,rebend,Mass Deformation Characteristics 7 Pullout tests Tensile, Bend & Mass , Charpy Impact Tests Tensile,Bend,W rapping,Torsion Decarburization Depth, Coiling & Stretching, Cast of Wire Tests.
3	Electrical	Cables and wires	IS 8130,IS 5831, IS 1554*,IS 7098*, IS 3975,IS 694*,	All Tests
		Conductors	IS 398*	All Tests
		Transmission Line Equipment and Accessories-Aluminum conductors,	IS 398*	All Tests
		Bus bars,	IS 5561, IS 2121,	All Tests
		Conductor & earth wire accessories,	IS 5082	All Tests
		Electric power connectors,		All Tests
		Metal fittings,	IS 2486,	All Tests
		Transmission line spacers / dampers	IS 10162,IS 9708, IS 9708,	All Tests
4	Metallurgy	Packaged Drinking water	IS:14543-2016 Amend.2019	All Tests
		Natural mineral water	IS:13428-2005 RA-2014	All Tests
		Natural mineral water	IS:13428-2005 RA-2014	All Tests
		Drinking water	IS:10500-2012 Amend .2018	All Tests
		Plywood	IS:1734-1983 part 7	All Tests
		Hand sanitizer/ Floor Disinfectant/ Foodwash(Veg & Non Veg)	BS EN 1276-2009.	All Tests

Calibration facility available:

Srl no	Domain	Field	Sub group	IS standards
1	Mechanical	LENGTH	Outside /Inside/ Pitch micrometer, Dial Gauge, Bore Gauge (Dial Gauge alone), Vernier Caliper / Height Gauge upto 600 mm, Measuring Scale/Tape, Radius Gauge, Depth Gauge	IS 2921, IS 2966, IS 2967, IS 3651, IS 9112, IS 1270, IS 1481, IS 2092, IS 9483,
		ANGLE	Protractor, Bevel Protractor, Combination set	IS 2554, IS 4239
		PRESSURE & TORQUE	Pressure Gauge (Hydraulic) upto 1000 bar, Pressure Gauge (Pneumatic) upto 25 bar, Vacuum Gauge, 0-760 mm Hg, Torque Wrenches, 2-2000 Nm	DKD-R-6-1, IS 3624, ISO 6789:2003, IS 7145
2	Electrical	Alternating Current (< 1 GHz), Direct Current, Electrical equipment, Miscellaneous, Temperature, Simulation	Calibration of Instruments like Measure and Source, Voltmeter, Ammeter, Frequency Meter, PF Meter, LCR Meter etc. Multi Meter, Tong Tester/Clamp Meter, Decade resistance Box (All kinds), Milli ohm/Micro ohm Meter, Earth resistance tester, Megger, Insulation Tester, HV Tester, AC/DC regulated Power Supply Source	IS 15707, IS 3437, IS 6767, IS 10656, IS 1248, IS 8573, IS 2071, IS 6236, IS 1885, IS 13875,

Testing/Calibration Activity done for the Past 10 years:

SL.NO.	Financial Year	Total No of Sample received	Total No of Tests/calibration conducted	Total amount of revenue Earned (Rs Lakhs)
1.	2010-11	2632	32,067	84.01
2.	2011-12	2902	40,105	98.56
3.	2012-13	3167	47,614	140.62
4.	2013-14	3792	54,900	160.83
5.	2014-15	5312	90,118	175.19
6.	2015-16	6565	1,25,029	184.39
7.	2016-17	4719	74,454	286.29
8.	2017-18	5209	1,02,625	218.04
9.	2018-19	5826	1,02,765	195.15
10.	2019-20	6524	92,543	241.18

Achievements :

SL. No	Total no of Beneficiary	Micro	Small	Medium	CPS Us	SPSUs	Total
1	2009-10	432	287	361	2	3	1085
2	2010-11	388	406	314	18	11	1137
3	2011-12	452	366	395	18	5	1236
4	2012-13	488	409	567	8	3	1475
5	2013-14	541	603	498	48	8	1698
6	2014-15	896	774	402	51	16	2139
7	2015-16	702	806	765	366	21	2660
8	2016-17	87	970	722	284	19	2082
	2017-18	44	1026	894	388	17	2369
9	2018-19	55	1099	901	192	3	2250
10	2019-20	71	996	980	294	21	2362

Success story:

1. MSME TC, Chennai had established Water Testing Lab for drinking water for potable drinking water, packaged drinking water and natural mineral water in the year 2014 which includes microbiological and radiological testing.
2. Leather testing lab established in the year 2018.
3. Additional block for MSME TC, Chennai constructed and inaugurated in 2019 with an exclusive customer service cell for catering to customer needs.
4. MSME TC, Chennai is successfully conducting Swatchtha Pakhwada as per directions of HQ MSME TC premises and around Chennai city.
5. During the year 2020, new testing facilities for testing of pressure cookers and LPG gas stove is being created.
6. MSME TC, Chennai is upgrading the scope of accreditations with NABL, BIS and AERB year by year.
7. We are increasing our customer base and service to MSMEs year after year.
8. TC Chennai had bagged the order for testing of Mixer, Grinder and table fan from the State government under its free distribution schemes.
9. MSME TC, Chennai has installed solar panel 75 KVA and utilizing solar energy for organization and also connected to grid.

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**Government of India
Ministry of MSME
MSME TESTING CENTRE, KOLKATA
[NABL ACCREDITED LABORATORY
(T-0035 & for Calibration Laboratory as C -0046)
- BIS RECOGNIZED]**



Introduction:

MSME-TC, Kolkata was set up in the year 1974 and shifted to its owned building having floor area of 3200 square meter also supported by a group of well educated, enthusiastic dedicated technical personnel. MSME-TESTING CENTRE, Kolkata, being one of the four testing centers under the Ministry of MSME, Govt. of India is rendering Test and Calibration services to the MSMEs and Industrial Establishments as well as Inspection Agencies of Eastern & North-Eastern part of the country through its different laboratories viz. Chemical, Electrical, Mechanical, and Metallurgy with Non-Destructive Testing.

MSME-Testing Centre, Kolkata is an NABL accredited laboratory in the field of Testing & Calibration, (National Accreditation Board for Testing and Calibration Laboratories), A Constituent Board of Quality Council of India, Govt. of India, adopting the quality system as per International Standard ISO/IEC 17025 : 2017. Renewal of BIS recognition is under process.

Major industry in this region are Steel, Heavy Engineering, Mining, Minerals, Petrochemical, Cement, Pharmaceuticals, Food processing, Agriculture, Electronics, Textiles, Chemicals, Wood & Wooden Products, Tea and Jute are the major industries in Eastern & North Eastern India.

Besides MSMEs, some of our regular customers are Directorate of MSMEs, Govt. of West Bengal, RITES, NCC Ltd., BIS, CPWD, Railways, RDSO, Defence Organization (Indian Ordnance Factory, Indian Coast

Guard, North-eastern Region), Indian Railway Work Shop, BSNL, NTPC, ONGC, West Bengal State Electricity Board, Garden Reach Shipbuilders & Engineers Ltd, Airport Authority of India, Power grid, AIIMS, Steel Authority of India, Coal India Ltd, HSCC India Ltd & BANGLADESH.

Chemical Testing (Volumetric Analysis) Laboratory



Mechanical Calibration Laboratory



Hardness Testing Laboratory



Metallurgy Testing Laboratory Part-1



Metallurgy Testing Laboratory Part-2

Electrical Ceiling Type Fans Testing Lab

LED Lamp/LED Luminaries Testing Lab

100 KV High Voltage Testing Lab

CFL Testing Lab

Calibration of Instruments/Equipments Lab

Testing Infrastructure Available:

SL. NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification Range / Size
1.	Mechanical	Set of 112 Steel Gauge Blocks	01	Ranging size from 0.5mm to 100mm
		Monochromatic optical source for the measurement of fringe with the help of optical flat.	01	Type SML 230 Volts, Phase 1/ 55Watts
		Profile Projector	01	X – axis :0-250mm, Y- axis : 0-150mm Angular: 0°-360°
		Fluid Flow Meter	01	Meter size : 80 mm Flow Range: 0-2000 Lpm Accuracy :±2%
		Metroscope	01	Range: 0-60 mm Resolution: 0.0001
		Granite Surface Table	01	Range: 1000 mm × 160 mm
		Vernier Caliper	01	Range: 0 -130 mm, L.C. 0.02
		Vernier Caliper	01	Range: 0-300 mm L.C. 0.02
		Digimatic Caliper	01	Range: 0-150 mm L.C. 0.01 mm
		Digimatic Caliper	01	Range: 0-300 mm L.C. 0.01 mm
		Digimatic Micrometer	01	Range: 0-25 mm L.C. 0.001 mm
		Digital Height Gauge	01	Range: 0 – 600 mm L.C.: 0.01 mm
		Scale calibration unit	01	Range: 0-1000 mm L.C. 0.005 mm
		Steel Scale	01	Range: 0-1000 mm L.C. 0.5 mm upto 100 mm & 1.0 mm for 100-1000 mm
		Dial Gauge calibration unit	01	LC:0.001mm Range :0-25 mm
		Pressure Gauge	05	Range: 0-1 kg/cm ² 0-10 kg/cm ² 0-14 kg/cm ² 0-100 kg/cm ² 0-1000 kg/cm ²
		Pneumatic Air Compressor	01	Range: 0 – 12 kg/cm ²

2.	Electrical	Computerized CFL Photometric Test system (Testing Equipment for X & Y color coordination test for CFL Lamp)	01	Wattage upto 1000W, Current-10A, Voltage upto 300V, X-Y color coordination Lumen- 10000 etc.
		EMI Test signal Analyzer	01	10Hz to 30MHz
		LISN 16A, Single Phase	01	16A
		Antenna Van Veen Loop	01	2 meter Dia
		Loss of Mass Electric Oven	01	Amb. to 100 ⁰ C
		Ageing Air Oven for testing of GLS lamp	01	Amb. to 400 ⁰ C
		Hot Set Test Apparatus	01	Amb. to 400 ⁰ C
		DC High Voltage Test	01	0-3KV,DC
		AC High Voltage Test	01	0-7.5/15KV,AC
		Thermal Stability Test Apparatus	01	Amb. to 300 ⁰ C
		Water Bath	02	Amb. to 100 ⁰ C
		Electric Oven to Check Led Gears and Drivers	01	Amb. to 100 ⁰ C
		Digital Meg ohm Meter	01	50 Ω to 2 × 10 ¹⁹ Ω upto 1000V
		Impact Test Apparatus for Hand Lamps/ Luminaries and One No. of Pendulum Impact Test Apparatus	01	Impact energy up 20Nm
		Tumbling Barrel Apparatus	01	The width of the tumbling barrel 400mm
		Automated Type Glow Wire Test Apparatus With Test Chamber	01	Amb to 960°C
		Endurance Test, High Temperature (70°C) Life Test System Cum Switching Cycle Test System (Abnormal Condition) For LED Lamp/ LED Luminaries/Led Street Light/Tube Light (In Three Compartment)	01	Amb - 80°C and upto 300V,AC
		Thermal Test (Cap Temperature Rise) Equipment (Draught Proof Chamber)	01	Amb - 250°C No. of Channel-12
		Automatic Life Test Rack For Led Fixtures/Luminaries Suitable For Endurance Test and Lumen Maintenance Test	01	0 to 450 V ,AC
		Insulation Tester 500V and 1000V (digital)	01	0.01 M Ohm to 10 G Ohm at 250V /500V /1000V
		Digital Vernier Calliper	01	(0-200)mm
		Digital Micro meter	01	(0-25 mm)
		TRMS Multimeter 4 1/ 2 Digit	01	1000V/10A
		High-Precision Portable Resistance Meter (4-Wire)	01	upto 3.5 MΩ
		Photometric Test system for LED Lamp/LED Luminaries (All Type), LED Driver etc with Integrating sphere 2 Meter	01	Luminous flux range -0.01-200,000lm Color Temperature Upto 100000 K, Constant voltage DC power supply 60V , 5A , Voltage upto 600V ,Current - 20A , Power - 12000 W etc
		Access Test sphere probe for IP 1X degree of protection testing	01	50 +0.05 to 0 mm with force 50 N

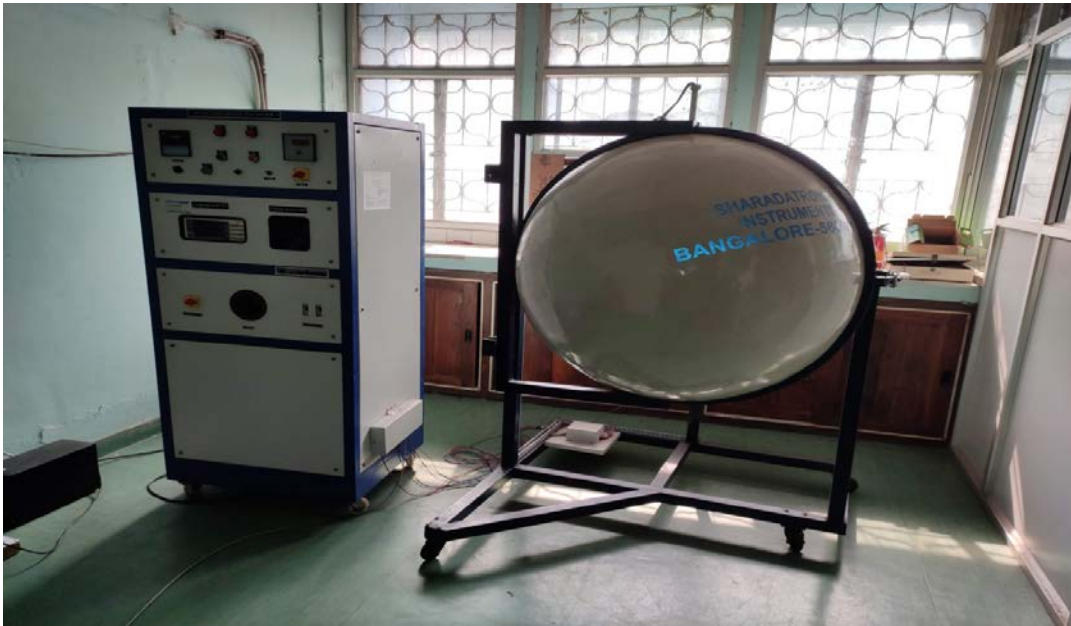
	Access test probe for IP 2X testing degree of protection testing	01	The metallic Jointed test finger and force 30 N. test finger the Access test probe \varnothing 12.5 +0.2 to 0 mm
	Access Test probe for IP 3X degree of protection testing	01	Test Probe and \varnothing 2.5 +0.05 to 0 mm with force 3N
	Access Test probe for IP 4X degree of protection testing	01	Test Probe and \varnothing 1.0 +0.05 to 0 mm with force 1N
	Hand held Digital Push and Pull dynamometer	01	0 to 100 N
	Infrared Thermometer	01	-50 to 1000 °C
	Non-Contact type Digital Tachometer	01	Upto 9999.9 RPM
	Major Calibration Instruments in Electrical Divisions		
	AC Voltage Divider, AC , RE	01	0-100KV, AC
	Standard Resistor box, Tinsley	01	1 mohm to 1000 Ohm
	2 Stage voltage Ratio transformer , Tinsley	01	Ratio upto 700
	Multifunction calibrator, Druck	01	Amb. To 1750 °C (K, J, R, S,T, etc)
	8 & ½ Dig it Multimeter , Fluke	01	0- 1000 V, AC/DC, 0-20 A AC/DC, Frequency,Resistance
	Digital Clamp on tester, Yokogawa	01	0-2000A
	High voltage Decade Resistance Box, Tinsley	01	Upto 500 G Ohm and upto 5 KV DC
	3 Ph. Digital power meter, Yokogawa	01	0 – 600 V , 0 – 20 A AC/ DC , Frequency & power 12000 W, Harmonics etc
	Multiproduct calibrator 5500A, Fluke	01	0- 1000 V, AC/DC, 0-11 A AC/DC, Frequency , Capacitance ,Resistance, Temperature by simulation method.
	Digital power meter WT 310 , Yokogawa	01	0 – 600 V , 0 – 20 A AC/ DC , Frequency & power 12000 W, Harmonics etc
	Furnace bath (High Temp.), Isotech	01	300 to 1200 °C
	AC/DC High voltage Divider, Hipotronics	01	0-100 KV, AC/DC
	Multiproduct calibrator 5502A, Fluke	01	0- 1000 V, AC/DC, 0-20 A AC/DC, Frequency , Resistance, Capacitance , Temperature by simulation method.
	AC Voltage Current Standard, Yokogawa	01	0-1000 V & 0 – 50A

3.	Metallurgical	Universal Testing Machine	01	Range : upto1000KN Accuracy :±1%
		Universal Testing Machine	01	Range : Upto10KN Accuracy :±1%
		Vickers Cum Brinell Hardness Tester	01	Upto 250 Kg, with Step 187.5, 62.5, 51.25, 15.625 Kgf. for Brinell 120, 100, 60, 50, 40, 30, 10, 5 Kg. for Vickers Accuracy :±1%
		Brinell Hardness Tester	01	Capacity: 3000 Kgf. Accuracy :±1%
		Rockwell Hardness Testing Machine	01	60 Kg., 100 Kg., 150 Kg. Accuracy :±1%
		Vickers Hardness Tester	01	Range : 1 – 50 Kgf., Accuracy :±1%
		Impact Testing Machine	01	Range : 0 – 30 Kgm
		Impact Testing Machine	01	Range :0-1.4 kgm
		Universal Testing Machine	01	Range :0-60KN Accuracy :±1%
		Class 1 Load cell with Display unit, Count:100000	01	Mode: Compression 0 – 2000 KN
		Class '1 Dynamometer (Bow Type)	05	Mode: Both Compression & Tension Range: 0-2.5 KN 0 – 10 KN 0 – 30 KN 0 – 300 KN 0 – 1000 KN
		Metallurgical Microscope	01	Range: 0 - 500X
		Wrapping Testing Machine	01	Range: 0 – 5 mm
		Torsion Testing Machine	01	Range: 0 – 5 mm
		Reverse Bend Testing Machine	01	Range: 0.3 – 10 mm
Andrex X-ray equipment	01	Radiation beam 57x40 Focal spot E3.0x3.0 mm oil insulated water cooled with cut off at 75 control unit Model 3002 Automatic.		
4.	Chemical	Optical Emission Spectrograph	01	Wavelength Range: 130 to 670 nm Pure metal & alloy analysis for Fe, Cu, Pb, Sn, Zn & Al
		Atomic Absorption Spectrometer	01	Hollow Cathode Lamps for Al, Fe, Pb, Sn, Zn, Cu, Sb, Bi, Ni, Cd etc.
		UV-Visible Spectrophotometer	01	Dual Beam Xenon Flash Lamp Range: 190-1100 nm
		Salt Spray Chamber	01	Volume: 250 Ltr
		QUV- Accelerated Weatherometer	01	UV Light wave length 313 nm

		Flash Point Apparatus a) Abel b) Pensky-Martene	02	a) Ambient to 50 ⁰ C b) Ambient to 370 ⁰ C
		Viscosity Bath	01	Temp. Range: Ambient to 60 ⁰ C Viscosity: As per Std.
		Taber Dry Abrasion Apparatus	01	30 mm wheel with specific load & digital control rpm.
		Wet Abrasion Apparatus	01	Digitally controlled cycles with Speed regulator
		Electro-Analyser	01	Cu: 0.01 to 99.99 % Pb: 0.01 to 99.99 %
		Gloss Meter 45 ⁰ & 60 ⁰	02	Range: 0 to 1000 GU LC: 0.1 GU
5.	Chemical	Refrigerated Temperature Bath (Methanol)	01	Range: (-)30 to 0 ⁰ C Temp. Stability: 0.01 ⁰ C
		Heating Circular Bath (Water)	01	Range: Ambient - 100 ⁰ C Temp. Stability: 0.01 ⁰ C
		Heating Circular Bath (Silicon Oil)	01	Range: 100 - 250 ⁰ C Temp. Stability: 0.01 ⁰ C

Photograph of each Equipments and machinery:

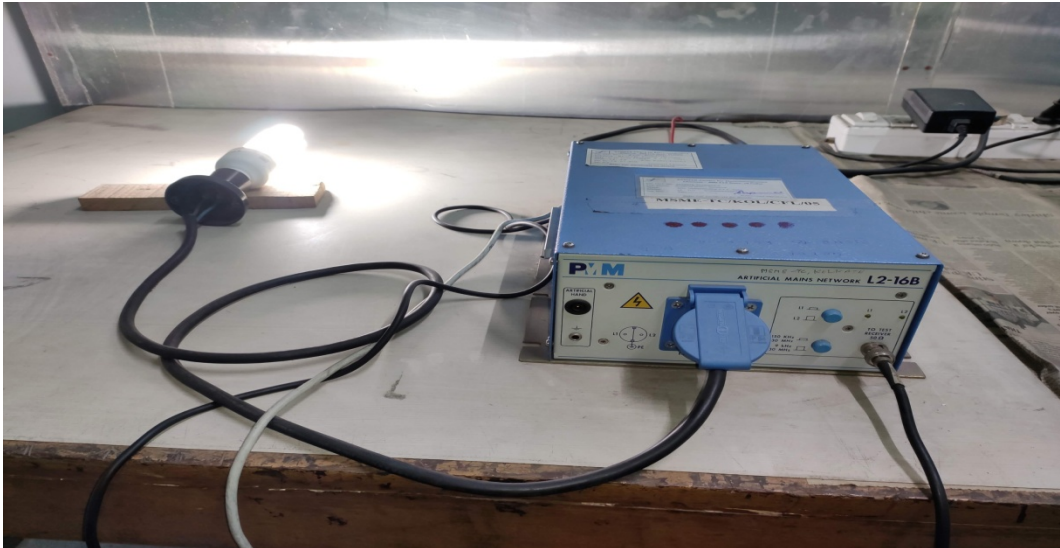
ELECTRICAL- DIVISION



**Name of Instrument: Computerized CFL Photometric Test system
Uses : Testing of CFL as per IS 15111(Pt-2)**



**Name of Instrument: EMI Test signal Analyzer
Uses : Testing of CFL/LED Lamp**



Name of Instrument : LISN 16A, Single Phase
Uses : Testing of CFL/LED Lamp



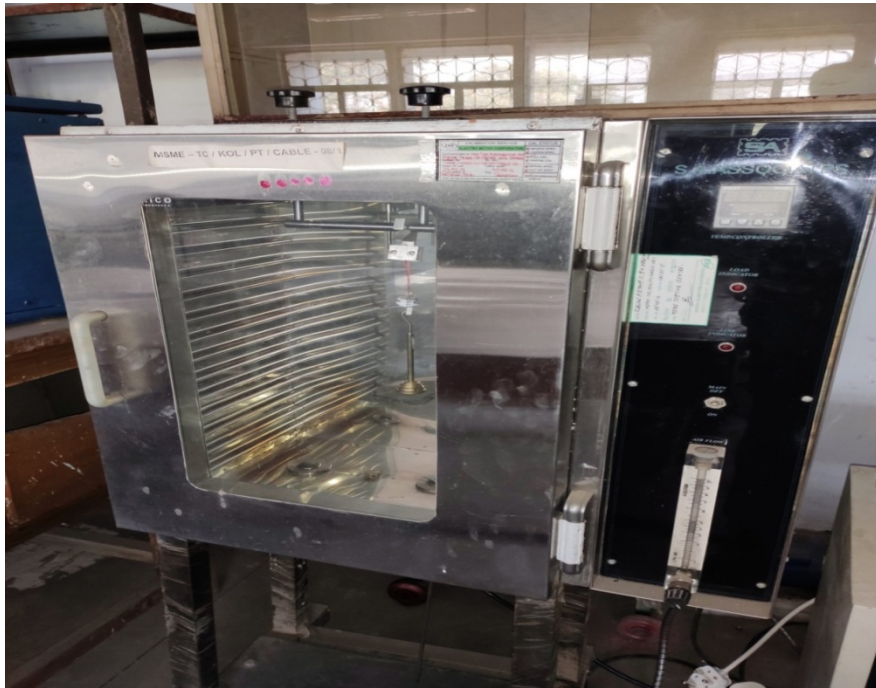
Name of Instrument : Antenna Van Veen Loop
Uses : Testing of CFL/LED Lamp



Name of Instrument : Loss of Mass Test Heating Cabinet
Uses : Testing Cables as per IS 694 & IS 7098



Name of Instrument :Ageing Air Oven
Uses : Testing of GLS Lamp as per IS 418 -2004



Name of Instrument : Hot Set Apparatus
Uses : Testing Cables as per IS 694 & IS 7098



Name of Instrument : DC High Voltage Test Set
Uses : Testing Cables as per IS 694 & IS 7098



Name of Instrument : AC High Voltage Test Set
Uses : Testing Cables as per IS 694 & IS 7098 & 16102 (Pt-1)



Name of Instrument : Thermal Stability Test Apparatus
Uses : Testing Cables as per IS 694 & IS 7098



Name of Instrument : Water Bath
Uses : Testing Cables as per IS 694 & IS 7098



Name of Instrument : Water Bath
Uses : Testing Cables as per IS 694 & IS 7098



Name of Instrument : Electric Oven to check LED Gears and Drives
Uses : Testing of LED Gears and Drives of LED luminaire as per IS 15885 (Part 1): 2011



Name of Instrument :Digital Megohm Meter
Uses: Testing of PVC and XLPE Cables as per IS: 694 & IS:1544(PT-1),IS:7098(Pt-1)



Name of Instrument : Pendulum Impact test apparatus
Uses : Testing of LED Luminaire, Meter box, junction box, LED street light, LED floodlight, Switch Testing.

Name of Instrument : Tumbling Barrel Apparatus
Uses : Testing of LED Luminaire, Meter box, junction box, LED street light, LED floodlight, Switch Testing

Name of Instrument :Automated Type Glow Wire Test Apparatus with Test Chamber
Uses :Testing of LED lamp, CFL, Ceiling fan, Meter box, junction box

**Name of Instrument :Endurance Test, High Temperature (70°C) Life Test System Cum Switching
Cycle Test System (Abnormal Condition) For LED Lamp/ LED Luminaries/
Led Street Light**
Uses : Testing of LED Lamp/ LED luminaries

Name of Instrument : Thermal Test (Cap Temperature Rise) Equipment (Draught Proof Chamber)
Uses : Testing of LED Lamp/ LED luminaries

Name of Instrument : Life Test Rack For Led Fixtures/Luminaries
Uses : Testing of LED Lamp/ LED Luminaries

Name of Instrument :Insulation Tester 500V and 1000V
Uses : Testing of PVC Cable, XLPE Cable, Ceiling Fan, LED Lamp, CFL Lamp, LED Luminaries

Name of Instrument :Digital Vernier Caliper (0-200)mm
Uses : Testing of PVC Cable, XLPE Cable, Ceiling Fan, LED Lamp, CFL Lamp, LED Luminaries

Name of Instrument: Digital Micro meter (0-25 mm)
Uses : Testing of PVC Cable, XLPE Cable

Name of Instrument : TRMS Multimeter 4 1/2 Digit
Uses : Testing of Ceiling Fan, LED Lamp, CFL Lamp, LED Luminaries

Name of Instrument :High-Precision Portable Resistance Meter (4-Wire)
Uses : Testing of PVC Cable, XLPE Cable

**Name of Instrument :Photometric Test system for LED Lamp/LED Luminaries (All Type),
LED Driver etc with Integrating sphere 2 Meter**
Uses : Testing of LED lamp, CFL, LED street light, LED floodlight, LED Luminaries



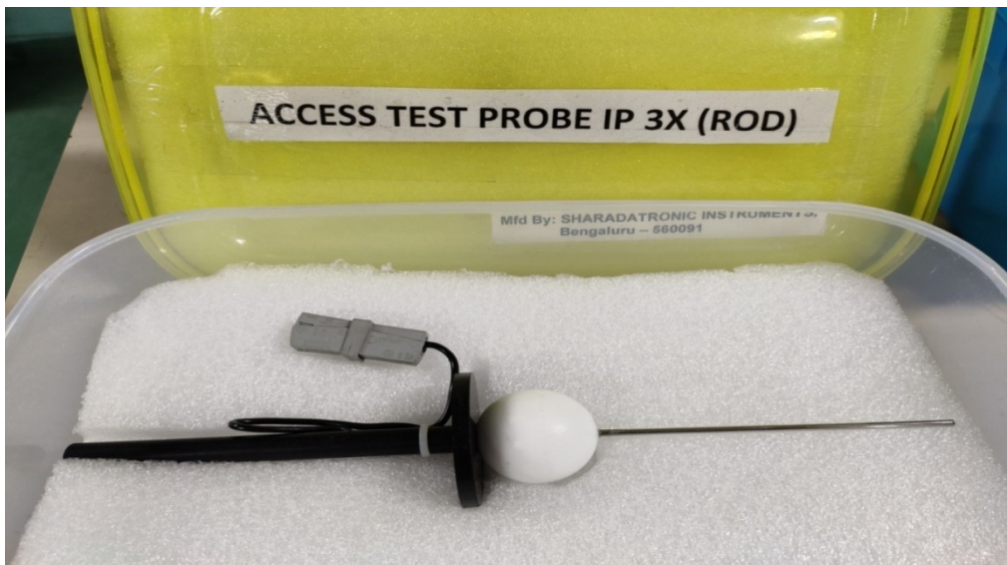
Name of Instrument : IP 1X Test probe(S phere) for Degree of Protection
Uses : Testing of LED lamp, CFL, LED street light, LED floodlight, LED Luminaries



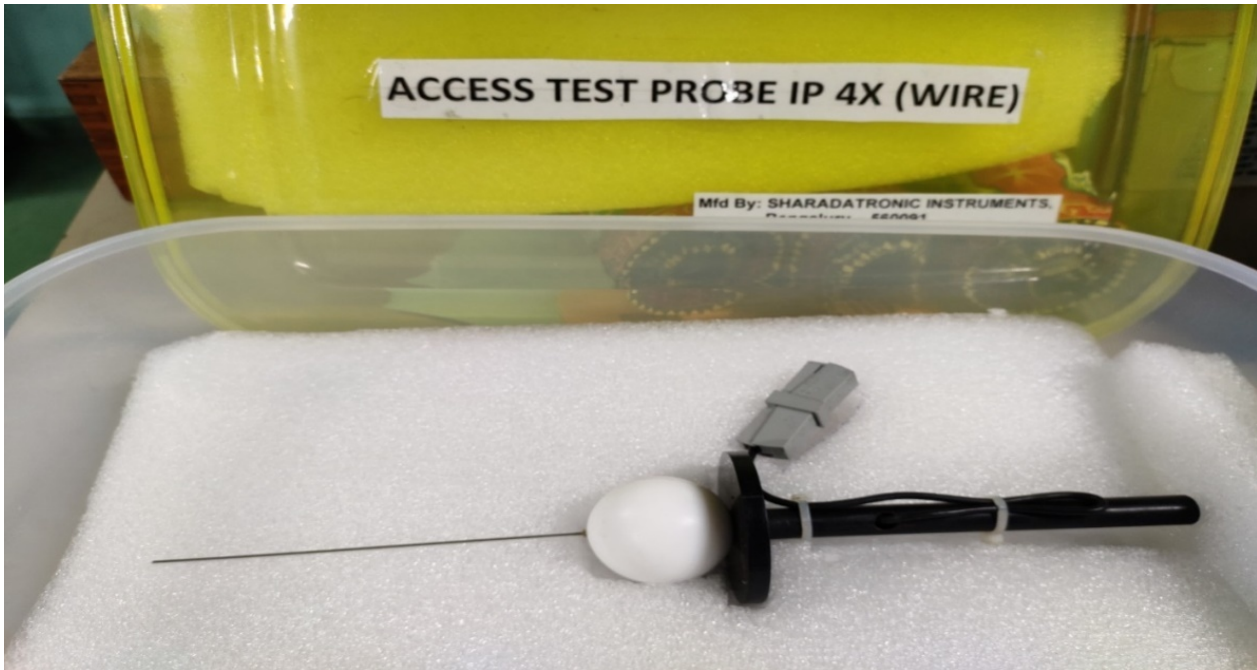
Name of Instrument : IP 2X Test probe Sphere for Degree of Protection
Uses : Testing of LED lamp, CFL, LED street light, LED floodlight, LED Luminaries



Name of Instrument : IP 2X Test probe Jointed Test Finger for Degree of Protection
Uses : Testing of LED lamp, CFL, LED street light, LED floodlight, LED Luminaries



Name of Instrument : IP 3X Test probe for Degree of Protection
Uses : Testing of LED lamp, CFL, LED street light, LED floodlight, LED Luminaries



Name of Instrument : IP 4X Test probe for Degree of Protection
Uses : Testing of LED lamp, CFL, LED street light, LED floodlight, LED Luminaries



Name of Instrument : Infrared Thermometer
Uses : Measurement of Temperature



Digital Tachometer
 Uses : Measurement of Fan RPM



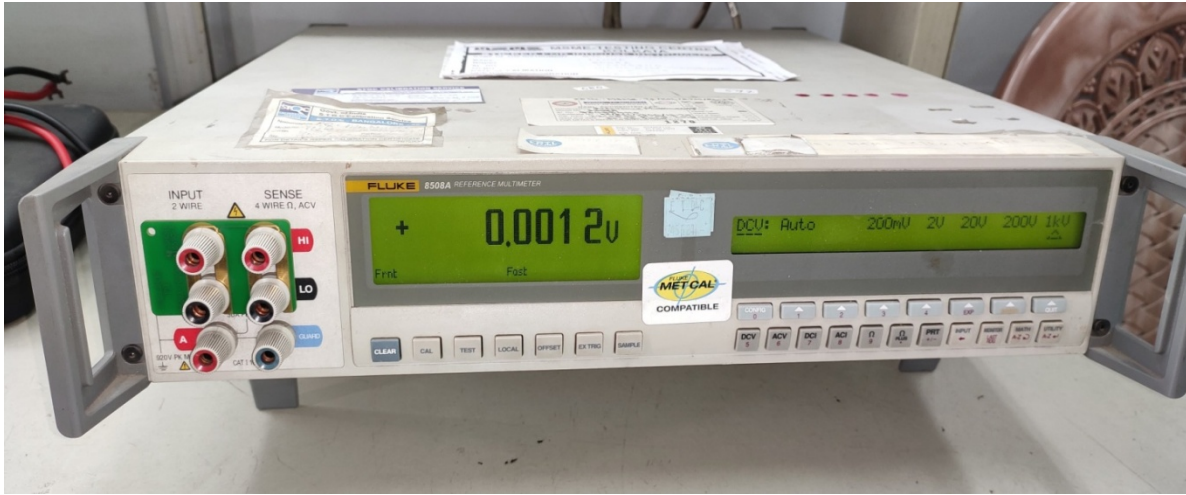
Standard Resistance Box
 Calibration of Micro Ohm meter / Earth Tester



Name of Instrument :2 Stage Voltage ratio Transformer
 Uses : Calibration of Transformer Turns Ratio



Name of Instrument :Multifunction calibrator, Make Druck
 Uses : Calibration of Temperature indicator with sensor



Name of Instrument : 8 & ½ Digit Multimeter
Uses : Calibration of Source instrument like AC/ DC Voltage and Current & Resistance



Name of Instrument : Digital Power Meter 3 Phase
Uses : Calibration of Power , Harmonics , Power Factor etc



Name of Instrument: Multi Product Calibrator, Fluke, USA
Uses : Calibration of AC/DC Voltage, AC/DC Current , Frequency, Capacitance etc.



Name of Instrument :Digital Power Meter
Uses : Calibration of Source Instruments

Name of Instrument: Furnace Bath (High Temperature)
Uses: Calibration of Thermocouple / Digital Temperature Indicator with sensor

CHEMICAL DIVISION

Optical Emission Spectrometer

Uses: Chemical composition of Metal & Metal alloys for Ferrous & non-Ferrous Metal

Salt Spray Chamber

Uses: To test the corrosion resistance property of Paint.



QUV- Accelerated Weatherometer
Uses: Durability test of Paint

Atomic Absorption Spectrometer
Uses: To test trace elements of Non-Ferrous metal

Gloss Meter 45⁰
Uses: To check the Gloss Property of Paint

Gloss Meter 60⁰
Uses: To check the Gloss Property of Paint

Viscosity Bath

Uses: To check the Viscosity of oil in a particular temperature

UV-Visible Spectrophotometer

Uses: to test the trace elements in Non-Ferrous metal



Taber Dry Abrasion Tester

Uses: To check the loss of coating on paint surface

Wet Abrasion Tester

Uses: To check the loss of coating on paint surface

Pensky-Martene Flash Point Apparatus
Uses: To test the Flash point for Oil

Abel Flash Point Apparatus
Uses: To test the Flash point for Paint

Electro-Analyser

Uses: To estimate Copper & Lead by Electrolysis method

Refrigerated Bath (Methanol)

Uses: Require to calibrate Thermometers below ambient temperature

Heating Circulator Bath (Water)

Uses: Require to calibrate Thermometers from ambient temperature to 100⁰C

Heating Circulator Bath (Silicon Oil)

Uses: Require to calibrate Thermometers above 100⁰C

Mechanical Division

Dial Gauge Calibration Unit

Digital Height Gauge, 0 - 600 mm

Scale & Tape Calibration Unit

Set of Gauge Blocks

Measuring Cylinder

Monochromatic Checklite

Digimatic Caliper, 0 – 150 mm

Metroscope

Flow Testing Machine

Weighing Balance

Zip Crane

Bending Testing Machine

Profile Projector, L.C. 0.005 mm

Pneumatic Air Compressor

Hydrostatic Pressure Testing Machine

Platform Type Weighing Scale

Metallurgy Division

Universal Testing Machine, Cap. 1000 KN



Universal Testing Machine, Cap. 10 KN



Wrapping Testing Machine

Izod Impact Testing Machine

Vickers Hardness Tester

Metallurgical Microscope

Brinell Cum Vickers Hardness Tester

Load Testing Machine

Brinell Hardness Tester



Impact Testing Machine

Rock well Hardness Tester

TESTING FACILITY AVAILABLE:

Sl. No.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1.	Mechanical & Metallurgy			
1.1	Building Materials	TMT Bar	IS 1786: 2008	Tensile Strength, 0.2 % Proof Stress, Yield Stress, % Elongation, Nominal Mass, Bend & Rebend, Total % Elongation at Maximum Force (Agt), Dimension Test, Chemical Composition.
1.2	Building Materials	Hot Rolled Medium And High Tensile Structural Steel	IS 2062: 2016	Tensile Strength, Yield Stress, % Elongation, Freedom From defects, Bend, Impact Test, Dimension Test Chemical composition.
1.3	Building materials	Hollow Steel Sections For Structural Use	IS 4923: 2013	Tensile Strength, Yield Stress, % Elongation, Dimension & Weights, Straightness & Twist, etc.
1.4	Building Materials	Hot Rolled Steel Sections For Doors, Windows And Ventilators	IS 7452: 2013	Visual, Dimension, Mass, Bend Test etc.
1.5	Building Materials	Steel Door Frames	IS 4351: 2008	Visual, Dimension etc.
1.6	Building Materials	Steel Doors, Windows And Ventilators	IS 1038: 1993	Visual, Dimension, Fillet Weld Test, Micro & Macro Test etc.
1.7	Mechanical Properties of Metals	Metallic Materials	IS 1599: 2012	Bend Test
1.8	Mechanical Properties of Metals	Metallic Materials	IS 1500: 2005	Brinell Hardness Test
1.9	Mechanical Properties of Metals	Metallic Materials	IS 1757: 2003	Charpy Impact Test [Including Sub Zero Temperature upto (-) 40 °C]
1.10	Mechanical Properties of Metals	Mechanical Testing Of Metals	IS 10175 (Part 1): 2003	Erichsen Cupping test
1.11	Mechanical Properties of Metals	Metallic Materials - Izod Impact Test	IS 1598: 2007	Izod Impact Test
1.12	Mechanical Properties of Metals	Threaded Steel Fasteners	IS 1367 (Part 3): 2002	Visual, Proof Load, Wedge Load, Vickers Hardness Test, Decarburization Test, Tensile Strength, Yield Stress, Surface Discontinuity, % Elongation, Chemical Composition.
1.13	Mechanical Properties of Metals	Metallic Materials	IS 1586: 2006	Rockwell Hardness Test (HRA, HRB, HRC)
1.14	Mechanical Properties of Metals	Cables	IS 10810 (Part 37): 2001	Tensile test for Armouring Materials- tensile strength and elongation at break of armouring materials
1.15	Mechanical Properties of Metals	Metallic Materials	IS 1608: 2005	Tensile Test

1.16	Mechanical Properties of Metals	Zinc Wire	IS 12447: 2003	Dimension, Visual, Tensile Test, Wrapping, Torsion Test, Chemical Composition.
1.17	Mechanical Properties of Metals	Metallic Materials	IS 1501: 2002	Vickers Hardness Test
1.18	Mechanical Properties of Metals	Cables	IS 10810 (Part 3): 2001	Wrapping Test for aluminium wires
1.19	Mechanical Properties of Metals	Metallic Wire	IS 1755: 2006	Wrapping Test
1.20	Mechanical Properties of Metals	Hexagonal Head Bolts	IS 1363 (Part 1 & 2)	Dimension, Chemical Composition.
1.21	Metallography Test	Fusion Welded Joints And Weld Metal In Steel	IS 3600 (Part 9): 2003	Micro & Macro Analysis
1.22	Performance/Durability /Safety Test	Steel Tubes, Tubulars And Other Wrought Steel Fittings	IS 1239: 2010	Tensile Strength, Yield Stress, % Elongation, Freedom From defects, Bend, Flattening Test, Leak Proof Test, Dimension Test, Chemical Composition
1.23	Performance/Durability /Safety Test	Butterfly Valve For General Purpose Upto 300 MM	IS 13095: 2013	Visual, Dimension, Proof Pressure Test, Hydrostatic Leakage Test, Dye Penetrant Test etc.
1.24	Performance/Durability /Safety Test	Cast Iron Fittings For Pressure Pipes Up to 300NB	IS 1538: 2013	Visual, Dimension, Proof Pressure Test, Hydrostatic Leakage Test, Hardness Test etc.
1.25	Performance/Durability /Safety Test	Cast Iron Manhole Covers	IS 1726: 2007	Visual, Dimension, Mass, Crushing Strength Test etc.
1.26	Performance/Durability /Safety Test	Centrifugally Cast (Spun) Iron Spigot And Socket Soil,Waste, Ventilation And Rainwater Pipes, Fittings, And Accessories	IS 3989: 2009	Visual, Dimension, Proof Pressure Test, Hydrostatic Leakage Test, Hardness Test etc.
1.27	Performance/Durability /Safety Test	Drums, Large Fixed Ends	IS 1783 (Part 1 & 2): 2014	Dimension, Drop Test, Pressure, Volumes Test etc.
1.28	Performance/Durability /Safety Test	Centrifugally Cast (spun) Ductile Iron. Pressure Pipes For Water, Gas & Sewage	IS 8329: 2010	Visual, Dimension, Proof Pressure Test, Hydrostatic Leakage Test, Hardness Test etc.
1.29	Performance/Durability /Safety Test	Fire Hose Delivery Couplings, Branch Pipe, Nozzles & Nozzle Spanner	IS 903: 2008	Visual, Dimension, Hydrostatic Pressure etc.
1.30	Performance/Durability /Safety Test	Landing Valves	IS 5290: 2008	Dimension, Flow, Hydraulic Pressure, Water Tightness Test
1.31	Performance/Durability /Safety Test	Non Pressure Stoves	IS 2980: 2015	Ability to withstand Heavy Load, Dimension, Fuel temperature, Stability, Surface Temperature, Thermal Efficiency Test etc.
1.32	Performance/Durability /Safety Test	Sluice Valve for Water Works Purposes upto 300NB	IS 14846: 2010	Visual, Dimension, Hydrostatic Pressure Test, Leakage Test, Dye Penetrant Test etc.
1.33	Performance/Durability /Safety Test	Swing Check Type Reflux (non-return). Valves for Water Works Purposes, Single-door. Pattern	IS 5312 (Part 1): 2009	Visual, Dimension, Hydrostatic Pressure Test, Leakage Test etc.

1.34	Plastic & Plastic Products	Plastic & Plastic Products - Cables	IS 10810 (Part 11): 1984	Accelerated Ageing
1.35	Plastic & Plastic Products	Plastic & Plastic Products - Cables	IS 10810 (Part 6 & 7): 1984	Tensile & Elongation Test
1.36	Plastic & Plastic Products	Plastic & Plastic Products - Cables	IS 1554 (Part 1 & 2): 1988	Tensile & Elongation Test
1.36	Plastic & Plastic Products	Plastic And Plastic Products – Thermosetting Synthetic Resin Bonded Laminated Sheets	IS 1998 :2003	Flexural/Cross Breaking Strength Test
1.37	Rubber & Rubber Products	Rubber & Rubber Products	IS 3400 (Part 4): 2012	Accelerated Ageing
1.38	Rubber & Rubber Products	Rubber & Rubber Products	IS 3400 (Part 10): 2003	Compression Set Test
1.39	Rubber & Rubber Products	Rubber & Rubber Products	IS 3400 (Part 2): 2003	Shore Hardness – Type A
1.40	Rubber & Rubber Products	Rubber & Rubber Products	IS 3400 (Part 1): 2003	Tensile Strength & Elongation Test
1.41	Rubber & Rubber Products	Rubber & Rubber Products – Gland Packing	IS 5414: 2012	Dimension
1.42	Rubber & Rubber Products	Rubber & Rubber Products – Laminated Sheet	IS 1998 :2003	Flexural/Cross Breaking Strength Test
1.43	Rubber & Rubber Products	Rubber & Rubber Products – Washer	IS 937: 2007	Dimension, Chemical Composition
1.44	Wood & Wood Products	Wood & Wood Products - Plywood	IS 1734 (Part 4): 2003	Glue Shear Strength
1.45	Wood & Wood Products	Wood & Wood Products - Plywood	IS 1734 (Part 11): 2003	Static Bending Test, Modulus of Rupture
1.46	Wood & Wood Products	Wood & Wood Products – Wood Particle Boards & Boards From Other Lingocellulosic Materials	IS 2380 (Part 4): 1977	Modulus of Rupture
1.47	Wood & Wood Products	Wood & Wood Products – Wood Particle Boards & Boards From Other Lingocellulosic Materials	IS 2380 (Part 14): 1977	Screw & Nail Holding Test
1.48	Wood & Wood Products	Wood & Wood Products – Wood Particle Boards & Boards From Other Lingocellulosic Materials	IS 2380 (Part 5 & 6): 1977	Tensile Test
1.49	Non-Destructive Testing : Metals & Alloys	Metallic Materials	IS 3658: 1999	Liquid Penetrant Test
		Metallic Materials	IS 1182: 2014	Radiography Test by X-Ray
		Metallic Materials	IS 4853: 2013	Radiography Test by X-Ray
2.	Electrical			
2.1	Group :Cells and Batteries	Multipurpose Dry Batteries (R 03, R 6, R 14 & R 20 Type)	IS: 8144-2018	Checking of Dimensions and Terminal, Checking of Markings, Delayed Life Test, Delayed Life Test under Dry Heat Conditions, Initial Life Test, Leak Test
2.2	Group :Conductors and Conducting Materials	Aluminium Conductors for Overhead Transmission purpose	IS 398 (Part 1 to 4)	Resistance Test as per CI 12.5 of IS 398 (Part 1 & 3), CI 13.6 of IS 398 (Part 2), CI 12.4 of IS 398 (part 4): 1996
2.3	Group :LAMPS,	Compact Fluorescent	IS 15111 (Part 1	Lamp Wattage (0 to 250 V), Lumen

	LUMINARIES & ACCESSORIES	Lamps : Self Ballasted Lamps for General Lighting Services (CFL) for 2700 K / 6500 K	& Part-2): 2002	Maintenance (upto 25W & 250V), Luminous Flux (upto 25W & 250V), Colour, X - Y Coordinates up to 6500 K / 2700 K, Colour, X - Y Coordinates up to 6500 K / 2700 K, Dimension, Harmonics, Lamp Efficacy, Power Factor, Starting & Run-up, Test for Conducted Emission of radio Frequency Disturbances, Test for Radiated Emission of Radio Frequency Disturbances, Cap Temp. Rise, Fault Conditions, Insulation Resistance Electric Strength (Before & After Humidity Treatment), Interchangeability, Marking, Mechanical Strength, Protection against Electric Shock, Resistance to Flame & Ignition, Resistance to Heat, Life Test.
		Safety Requirements for Incandescent Lamps (Tungsten Filament Lamp for Domestic and Similar General Lighting Purposes up to 200 W & up to 250 V)	IS 15518 (Part 1): 2004	Marking, Accidental Live Parts (On Lamp Caps), Creepage Distance, Insulation Resistance, Interchangeability, Lamp Cap Temp. Rise Test, Protection Against Accidental Contact (Edison Screw Caps), Resistance to Torque Test, Safety at End of Life
		Tungsten Filament Lamps for domestic and similar general Lighting Purpose up to 200 W and up to 250	IS:418-2004	Marking, Lamp Dimension, Initial Readings Test - Luminous Flux Initial, Initial Readings Test – Wattage, Life Test Requirements - Life Individual Lamp, Lumen Maintenance, Life Test Requirements - Truncated Average
2.4	Group :LAMPS, LUMINARIES & ACCESSORIES	Self - Ballasted LED lamps for General Lighting Services up to & including 60 Watt and up to 250 V (Safety requirements)	IS 16102 (Part 1): 2012	Marking, Cap Temp. Rise , Creepage Distance & Clearance, Fault Conditions, Insulation Resistance Electric Strength (Before & After Humidity Treatment) , Interchangeability, Mechanical Strength, Protection against Electric Shock, Resistance to Flame & Ignition, Resistance to Heat
2.5	Group :Rotating Electrical Machines	Electrical Ceiling Type Fans	374-2019 & Cl. No. 8 to 32 of IS 302 (Part2/Sec 80):2017	Endurance Test , Interchangeability, Performance Requirements, Power Input, Safety Requirements, Silent Operation, Speed and Power Factor, Speed Regulators, Starting , Test for Harmonics Distortion , Size, Test for Harmonic Distortion
		Propeller Type AC Ventilation Fans	IS: 2312-1967	AC Leakage Test, Air Delivery , Earthing Continuity, Electrical Input, Fan Speed , High Voltage, Insulation Resistance , Power

				Factor, Mechanical Endurance test (for Regulator only), Starting, Temperature Rise , Temperature Rise By Resistance Method, Moisture proofness (for Regulator only)
2.6	Group : Cables & Wires (Non-NABL)	Polyvinyl chloride insulated unsheathed And sheathed cables/cords with rigid and Flexible conductor for rated voltages Up to and including 450/750 v	IS: 694-2010	Conductor resistance test, Test for overall dimensions and thickness of insulation /sheath, Loss of mass test, Shrinkage test, Heat shock test, Hot deformation, Thermal stability, Flammability test, High voltage test (water immersion test), Insulation resistance, High voltage test,
2.7		PVC insulated (heavy duty) electric cables, Part 1: For working voltages up to and including 1 100 V	IS: 1554(P-1)-1988	Conductor resistance test, Test for overall dimensions and thickness of insulation /sheath, Loss of mass test, Shrinkage test, Heat shock test, Hot deformation, Thermal stability, Flammability test, High voltage test (water immersion test), Insulation resistance, High voltage test,
		Specification for Cross linked Polyethylene insulated PVC sheathed cables	IS: 7098(P-1)-1988	Conductor resistance test, Test for overall dimensions and thickness of insulation /sheath, Loss of mass test, Shrinkage test, Thermal stability, Hot set , Water absorption, Insulation resistance, High voltage test, Flammability test,
		Aerial Bunched Cables for working voltages up to and including 1100 Volts	IS: 14255-1995	Conductor resistance test, Test for overall dimensions and thickness of insulation /sheath, Loss of mass test, Shrinkage test, Thermal stability, Hot set , Water absorption, Insulation resistance, High voltage test, Flammability test,
2.8		Self - Ballasted LED lamps for General Lighting Services up to 250 V (Performance Requirements)	IS 16102 (Part 2): 2012	Lamp Power, Lumen Maintenance ,Luminous Flux, Colour rendering Index, Dimension, Harmonics, Lamp Efficacy, Power Factor, Test for Conducted Emission of radio Frequency Disturbances, Test for Radiated Emission of Radio Frequency Disturbances
		LED Luminaries for Road and Street Lighting	IS : 10322-5-3, 2012	Creepage Distances And Clearances, Provision For Earthing, Terminals, Protection Against Electric Shock, Endurance Tests And Thermal Tests, Resistance To Dust And Moisture, Insulation Resistance And Electric Strength, Resistance To Heat, Fire And Tracking, Photometric Tests (Chromaticity Coordinate, CCT, Dominant WL, Purity, Render Index, Flux, Efficacy), Voltage, Current, Power & Harmonics
2.9	Group :LAMPS,	LED Luminaries for	IS : 10322-5-5,	Creepage Distances And

	LUMINARIES & ACCESSORIES (Non-NABL)	Flood lights	2013	Clearances, Provision For Earthing, Terminals, Protection Against Electric Shock, Endurance Tests And Thermal Tests, Resistance To Dust And Moisture, Insulation Resistance And Electric Strength, Resistance To Heat, Fire And Tracking, Photometric Tests (Chromaticity Coordinate, CCT, Dominant WL, Purity, Render Index, Flux, Efficacy), Voltage, Current, Power & Harmonics
		Fixed General Lighting purpose Luminaries	IS : 10322-5-1, 2012	Creepage Distances And Clearances, Provision For Earthing, Terminals, Protection Against Electric Shock, Endurance Tests And Thermal Tests, Resistance To Dust And Moisture, Insulation Resistance And Electric Strength, Resistance To Heat, Fire And Tracking, Photometric Tests (Chromaticity Coordinate, CCT, Dominant WL, Purity, Render Index, Flux, Efficacy), Voltage, Current, Power & Harmonics
2.10	Group Environmental Test Facility	Degrees of Protection Provided By Enclosures	IS/IEC 60529 - 2001	Degree of Protection IP test for first Numeral Characteristics :IP 1X to IP 6X(RESISTANCE TO DUST/ Dust Protection test) and Degree of Protection IP test for second Numeral Characteristics: IPX1 to IPX6(Vertically falling rain drop testing, Oscillating test tube test, Jet – Proof Test)
2.11	Group :Miscellaneous (Non-NABL)	General Requirements For Enclosures For Accessories For Household And Similar Fixed Electrical Installations	IS: 14772-2000	Marking, Dimensions, Protection against electric shock, Provision for earthing ,Construction, Resistance to ageing, to humid , conditions, ingress of solid objects and to harmful ingress of water, Mechanical strength, Resistance to heat, Resistance of insulating material to abnormal heat and fire Resistance to rusting , Resistance of tracking
2.12	Group: Domestic Electrical Appliances (Non-NABL)	Switches for domestic and similar purposes	IS 3854 : 1997	Rating, Marking, Checking of Dimensions, Protection against electric shock, Provision for earthing , Resistance to ageing, to humid , conditions, ingress of solid objects and to harmful ingress of water, Mechanical strength, Resistance to heat, Resistance of insulating material to abnormal heat and fire Resistance to rusting, Resistance of tracking etc.
2.13	Group: Domestic Electrical Appliances (Non-NABL)	Electric Immersion Water Heaters	IS 368: 1992	Protection against electric shock, Input, Temperature-rise, Insulation resistance and electric strength at operating temperature, Earthing

				connection, High voltage etc.
2.14	Group: Insulating Materials & Insulators (Non-NABL)	Adhesive Insulating Tape	IS:2448(pt-1)-1963	Checking of Dimensions, Test for Adhesion, Test for Electrical Strength Test after Ageing and Storage etc.
2.15	Fluorescent Lamps (Non-NABL)	Ballasts for Fluorescent Lamps	IS:1534 (Part I) - 1977	Visual examination, Test for terminals for external wiring, Test for screws, current-carrying parts and connections, Testing of provision for earthing, Test for creepage distance and clearance, Protection against accidental contacts and electric shock , Test for moisture resistance and insulation, Test for limitations of ballast heating , Test for resistance to heat Resistance to corrosion etc.
2.16	Group: Insulating Materials & Insulators (Non-NABL)	INSULATING MATS FOR ELECTRICAL PURPOSES	IS:15652:2006	Dimensions, Thickness, Marking, Insulation resistance, Leakage current, ac di-electric strength
2.17	Group: Inductors and Transformers (Non-NABL)	SINGLE OPERATOR TYPE ARC WELDING TRANSFORMERS (On-Site only)	IS:1851-1997	Insulation resistance test , No load and open-circuit voltage test, Load characteristic test , Temperature-rise test, High voltage test and Insulation resistance test etc
2.18	Relays (Non-NABL)	Gas-Operated Relays	IS:3637-1966	High voltage and insulation resistance test
2.19	Solar Light (Non-NABL)	Solar Street Light	LM-79-2008	Photometric Tests (Chromaticity Coordinate, CCT, Dominant WL, Purity, Render Index, Flux, Efficacy), Voltage, Current, Power & Harmonics
2.20	Solar Radio (Non-NABL)	Solar powered Radio	Customer Specification	Measurement of Voltage , Current and Power
2.21	Electric Fuses (Non-NABL)	Carriers and Bases used in re-wireable type electric fuses for voltages up-to 650V	IS : 2086-1993	Visual Examination, Dimension, Insulation Resistance , mechanical endurance , mechanical Strength, withdrawal force, temperature rise, high voltage test, water absorption, test on ceramic material, High voltage test after series of immersion in water etc.
3	Chemical			
3.1		Steel Wire	IS 6528: 1995	Chemical composition
		Stainless Steel Bars and Flats	IS 6603:2001	Chemical composition
		Cold rolled sheet	IS 513:2016	Chemical composition
		Steel Tubes For Structural Purposes	IS 1161:2014	Chemical composition
3.2	Aluminium & Aluminium Alloys	Wrought Aluminium and Aluminium Alloy Sheet and Strip	IS 737:2008	Chemical composition
		Aluminium and Aluminium Alloy Ingots and Castings	IS 617:1994	Chemical composition
		Wrought Aluminium and Aluminium Alloy Wire	IS 739:1992	Chemical composition
3.3	Copper & Copper Alloys	Copper	IS 191:1980	Chemical composition

		Chemical Analysis of Copper	IS 440:1964	Chemical composition
		Copper Wire Nails	IS 725:1961	Chemical composition
3.4	Zinc & Zinc Alloys	Zinc Wire	IS 12447:1988	Chemical composition
		Rolled zinc plate, sheet and strip	IS 2258:1981	Chemical composition
3.5	Tin & Tin Alloys	Tin Ingot	IS 26:1992	Chemical composition
3.6	Lead & Lead Alloys	Pig Lead	IS 27:1992	Chemical composition
		Lead sheets and strips	IS 405:1992	Chemical composition
3.7	Antifriction Bearing Alloys	Rosin-cored solder wire	IS 1921:2005	Chemical composition
3.8	Metallic coating & Treatment solution	Hot-dip Zinc Coatings on Mild Steel Tubes	IS 4736:1986	Mass of Zinc Coating, Uniformity of Coating, Adhesion of Coating.
		Thickness of Tin Coating	IS 1359:1992	Mass / Thickness of Tin Coating
		Thickness of Cadmium Coating	IS 1572:1986	Mass / Thickness of cadmium Coating
		Thickness of Nickel Coating	IS 13677:1993	Mass / Thickness of Nickel Coating
		Thickness of Anodised Coating	IS 6697:1998	Thickness of Aluminium Coating
3.9	PAINTS & SURFACE COATING	Ready Mixed Paints Synthetic Enamel (Exterior, Interior, Undercoating), Surfacer	IS 158:2015, IS 168:2016, IS 9862:2017, IS 133:2004, IS 2932:2013, IS 2933:2013, IS 139:2018, IS 104:2017	Drying Time, Consistency, Flash Point, Corrosion Resistance Test, Pigment content, Accelerated Weathering Test etc.
		Black Japan Paint	IS 341:2016	Drying Time, Consistency, Flash Point, Corrosion Resistance Test, Pigment content, etc
		Aluminium Paint	IS 2339:2013	Drying Time, Consistency, Flash Point, Corrosion Resistance Test, Pigment content, Non volatile Content etc.
		Red Oxide Zinc Chrome Primer	IS 2074:2015	Drying Time, Consistency, Flash Point, Viscosity, Salt Spray, Non volatile Content etc.
		Poly Urethane Paints	M&C/PCN/100/2018	Drying Time, Consistency, Flash Point, Corrosion Resistance Test, Pigment content, Accelerated Weathering Test etc
		Epoxy Primers	M&C/PCN/100/2018	Drying Time, Consistency, Flash Point, Viscosity Corrosion Resistance Test, Pigment content, etc
		Knifing Putty	IS 5083:1988	Drying Time, Consistency, Flash Point, Viscosity etc
3.10	Lubricating Oil (Non-NABL)	Quenching Oil	IS 2664:1980	Saponification Value, Acidity, Viscosity, Ash, Flash Point etc.
3.11	Water Treatment Chemicals (Non-NABL)	Ferric Alum	IS 299:2012	Insoluble matter, Soluble Iron Content, Water soluble Aluminium Compound, pH, Free Acidity etc.
		Poly Aluminium Chloride	IS 15573:2018	Aluminium Content, Basicity, Sp. Gravity. Toxic Substances, pH etc
		Sodium Hypochlorite	IS 11673:1992	Density, Available Chlorine, Free Acidity etc.
3.12	Water (Non-NABL)	Construction water	IS 456:2000	pH, Organic Solid, Inorganic Solid, Suspended matter, Chloride

				Content etc.
		Reagent Grade water	IS 1070:1992	pH, Colour retention, Silica Total Solid etc.
3.13	Wood & Wood Products (Non-NABL)	Plywood for General purpose	IS 303:1989	Moisture Content, Density, water resistance etc.
		Flush Door Shutter	IS 2202:1999	End immersion Test, Knife test, Slamming Test etc.
		Shuttering plywood	IS 4990:2011	Moisture Content
		Wood Particle Board	IS 3087:2005	Moisture Content, Density, Swelling of Water, Water absorption etc.
3.14	Building materials(Non-NABL)	Ordinary Portland Cement	IS 8112:2013	Chemical composition
		Portland Pozzolana Cement	IS 1449:2010	Chemical composition
		Portland Slag Cement	IS 455:2015	Chemical composition
		Bentonite	IS 2911:2010	Sand Content, Liquid Limit, Swelling in Water, pH etc.

CALIBRATION FACILITY AVAILABLE:

Sl. No.	Domain	Field	Sub-Group	BIS Standard		
1.	Mechanical & Metallurgy					
1.1	Mechanical	Mechanical Calibration	Dimension (Basic Measuring Instrument, Gauge etc.)			
			Calipers of All Types, Upto 600 mm, L.C. 0.01 mm	IS 16491 (Part 1): 2016 [Using Gauge Blocks/Length Bars]		
			External Micro meter, Upto 200 mm, L.C. 0.01 mm	IS 2967: 1983, RA 2019 [Using Gauge Blocks/Length Bars]		
			Vernier/Digital Height Gauge, Upto 600 mm, L.C. 0.01 mm	IS 2921: 2016 [Using Gauge Blocks/Length Bars]		
			Scale 0 to 1000 mm L.C. 0.5 mm/1 mm	IS 1481: 1970, RA 2014 [Using Scale & Tape Calibration Unit]		
			Tape 0 to 25 m L.C. 0.5 mm	IS 1269 (Part 2): 1997, RA 2018 [Using Scale & Tape Calibration Unit]		
			Slip gauge Upto 100 mm	IS 2984: 2003, RA 2019 [Using Gauge Blocks/Slip Gauge Comparator]		
			Dial Indicator 0 to 25 mm L.C. 0.01 mm	IS 2092: 1983: RA 2019 [Using Dial Gauge Calibrator]		
1.2					Pressure Indicating Devices	
					Pressure Pneumatic Pressure Dial Pressure Gauge, Pressure Indicator 0 to 20 bar	IS 3624: 1987, RA 2018 [Using Digital Pressure Calibrator]
			Hydraulic Pressure – 9.8 to 53.9 bar Dial Pressure Gauge – 68.7 to 88.3 bar Pressure Gauge – 98.1 to 686.7 bar	IS 3624: 1987, RA 2018 [Using Dead Weight Tester]		
1.3			UTM, Tension Creep and Torsion Testing Machine			
			Verification of Force Testing Machine, Compression (Class 1 & 2), 10 KN to 2000 KN	IS 1828 (Part 1): 2015 [Using Force Proving Instrument Load Cell/Bow Dynamometer]		
1.4			Hardness Testing Machines			
			Brinell Hardness HBW 2.5/187.5 HBW 5/750 HBW 10/3000	IS 2281: 2005 [Using Standard Hardness Block]		

			Rockwell Hardness HRC	IS 1586: 2000 [Using Standard Hardness Block]
			Vickers Hardness HV 30 HV 5	IS 1754: 2002, RA 2012 [Using Standard Hardness Block]
2.	Electrical	ELECTRO TECHNICAL DISCIPLINE	Alternating Current (< 1 GHz) (Source Mode)	
			AC Voltage – 1mV to 1000V @ 50 Hz	Using Multi Product Calibrator Fluke 5502A, USA by Direct Method
			AC Current - 33 μ A to 20 A @ 50 Hz	Using Multi Product Calibrator Fluke 5502A, USA by Direct Method
			AC Power (At UPF)- 1W to 10000W @50Hz	Using Multi Product Calibrator Fluke 5502A, USA by Direct Method
			Capacitance – 220pF to 300nF	Using Multi Product Calibrator Fluke 5502A, USA by Direct Method
			AC Current - 20A to 50A @ 50Hz	AC Voltage Current Standard Yokogawa, 2558 by Direct Method
			AC Current - 20 A to 800A AC High Voltage - 1KV to 90 KV	Using Current Transformer with Power meter by Comparison method Using AC/DC High Voltage. Divider KVM-100- B, Hipotronics by Direct Method
			Voltage/Turn Ratio Measurement of Transformer winding – Ratio 5 to 700	Using 2 Stage Voltage Ratio Transformer, Tinsley by Direct Method
			Burden (VA & P.F.) (upto 63.5V & upto 5A) – 2.5VA to 100VA (PF 0.8, 1.0)	Using Digital Power Meter WT230, Yokogawa, AC Voltage Current Standard, 2558, Yokogawa, by Comparison method
			AC Current Ratio - 5A/5A to 50A/5A	Using AC Voltage Current Standard, 2558, Yokoga w, Digital Power Meter, WT230, Yokogawa by Comparison method
			AC Current Ratio – 50A/5A to 800A/5A	Using CT with Digital Power Meter, WT230, Yokogawa by Comparison method
			Power Factor – 02 to unity (Lag, Lead)	Using Digital Power Meter WT 230 by Comparison method
			Direct Current (Source Mode)	
			DC Voltage - 1mV to 1000 V	Using Multi Product Calibrator Fluke 5502A, USA by Direct Method

			Frequency – 50 Hz to 1 MHz(Measure Mode)	Using Reference Multi Meter Fluke , 8508A by Direct Method
			Time – 5s to 90 Min	Using Programmable Time Totalizer , TIM-T, Prestigeby Comparison method
			DC Current – 10 μ A to 20 A	Using Multi Product Calibrator Fluke 5502A,USA by Direct Method
			DC Power - 1W to 12000W	Using Multi Product Calibrator Fluke 5502A,USA by Direct Method
			DC Resistance (Low 4 Wire) - 1m Ω to 10m Ω	Using Resistance Standard 4737B by Direct Method
			DC Resistance (Low 4 Wire) - 1 Ω	Standard Resistor, Vaiseshika Electron Devices, 9409D by Direct Method
			DC Resistance (High 2 wire) 1 Ω to 500G Ω	Multi Product Calibrator, Fluke 5502A,USA /Meg Ohm Decade Box, Tinsley, 4720by Direct Method
			Direct Current (Measure Mode)	
			DC Voltage – 1.0mV to 1000V	Using Reference Multi Meter Fluke , 8508A by Direct Method
			DC Current – 10 μ A to 20 A	Using Reference Multi Meter Fluke , 8508A by Direct Method
			DC Resistance - 1 Ω to 20 G Ω	Using Reference Multi Meter Fluke , 8508A by Direct Method
			DC High Voltage - 1KV to 90 KV	Using AC/DC High Voltage. Divider KVM-100-B,Hipotronicsby Direct Method
			Temperature Simulation	
			Temperature Simulation Method without thermocouple /RTD (Indicator/ Controller/Recorder)- (-)200 $^{\circ}$ C to 1300 $^{\circ}$ C K-type - (-)200 $^{\circ}$ C to 1350 $^{\circ}$ C J-type - (-)210 $^{\circ}$ C to 1200 $^{\circ}$ C R-type - 150 $^{\circ}$ C to 1700 $^{\circ}$ C S-type - 150 $^{\circ}$ C to 1700 $^{\circ}$ C	Using Multi Product Calibrator Fluke 5502A,USA by Direct Method
			Time & Frequency	
			Frequency - 10 Hz to 1 MHz (Source Mode)	Using Multi Product Calibrator Fluke 5502A,USA by Direct Method

			On Site Calibration	
			Alternating Current (< 1 GHz) (Measure Mode)	
			AC High Voltage - 1KV to 90 KV	Using AC/DC High Voltage. Divider KVM-100-B, Hipotronics by Direct Method
			AC Current - 5mA to 20A	Using Digital Power Meter WT 230 by Direct Method
			AC Current – 20A to 400A	Using Current Transformer with Digital Power Meter, WT230 by Comparison method
			Voltage/Turn Ratio Measurement of Transformer winding – Ratio 5 to 700	Using 2 Stage Voltage Ratio Transformer, Tinsley by Direct Method
			Direct Current (Measure Mode)	
			DC High Voltage - 1KV to 90 KV	Using AC/DC High Voltage. Divider KVM-100-B, Hipotronics by Direct Method
			DC Current- 5mA to 20A	Using Digital Power Meter, WT230, Yokogawa by Direct Method
			DC Voltage – 10mV to 300V	Using Digital Multimeter, H.P., 34401A by Direct Method
		Thermal Discipline	Temperature	
			RTD Temperature Indicator/Controllers/ Digital Thermometer/Recorder with sensors (Type k, R, J, S & Pt-100) 50 °C TO 1200 °C	Using Digital Temperature Indicator with Sensor (SPRT) Multifunction Calibrator R-Type Thermocouple by Comparison method
3	CHEMICAL			
3.1	Chemical	Thermal Discipline	Temperature: Liquid in Glass Thermometers 0 °C to 30 °C 30 °C to 90 °C 90 °C to 230 °C	Digital Temperature Indicator with Sensor (PRT) by Comparison Method
3.2		Balance	Single Pan Digital Balance (Not under the scope of NABL Accreditation)	By Comparison Method with Standard weights.

Testing/Calibration Activity done for the Past 10 years:

SL. NO.	Financial Year	Total No of Sample tested	Total No of Tests/calibration conducted	Total amount of revenue Earned
1.	2010-11	3773	61,615	79,11,333
2.	2011-12	8,749	76,023	84,98,084
3.	2012-13	5163	59,930	83,20,364
4.	2013-14	2289	43,124	72,24,135
5.	2014-15	1552	21,806	73,33,496
6.	2015-16	1656	15,199	75,25,012
7.	2016-17	3296	39,794	79,57,587
8.	2017-18	2,458	36,845	81,68,745
9.	2018-19	1712	35,413	83,48,529
10.	2019-20	845	27,650	61,30,894

Achievements :

SL. No	Total no of Beneficiary	Micro	Small	Medium	CPSUs	SPSUs	Others
1.	2010-11	985	114	164	81	59	376
2.	2011-12	1382	207	138	43	57	476
3.	2012-13	493	82	57	75	52	84
4.	2013-14	399	76	30	44	59	66
5.	2014-15	820	122	71	81	59	234
6.	2015-16	562	80	88	72	59	75
7.	2016-17	486	53	47	59	71	35
8.	2017-18	202	100	2	79	151	109
9.	2018-19	175	75	2	117	95	43
10.	2019-20	117	70	3	39	55	64

Success story along with photographs:

TESTING OF DC ARC WELDING RECTIFIER

DC ARC Rectifier plays a vital role in various applications of industries and first time the Electrical Laboratory of this Testing Centre has carried out on site testing of DC Arc Welding Rectifier having ratings of 200A, 1- ϕ , 315A, 3- ϕ and 500A, 3- ϕ as per IS 4559-1993 and Tungsten Inert Gas (TIG) Welding Equipment as per IS 9604-1994.



TESTING OF BREATH ALCOHOL ANALYSER

Now a days Breath Alcohol Analyser is widely used to analyse the alcohol content in the breath of loco pilot in Indian Railways and it was a great opportunity to carry out the testing of Breath Alcohol Analyser as per RDSO Specification from Electrical Laboratory of this Testing Centre.



TESTING OF AUTOMATIC WATER PUMP CONTROLLER DEVICE

Automatic Water Pump Controller Device is popular in various office buildings and Apartments to conservation of water and the first time Electrical Laboratory of this Testing

Centre has carried out the testing of Automatic Water Pump Controller Device

TESTING OF LED FLOOD LIGHT

Now a days the use of LED are very popular for domestic, commercial, industrial, road and street lightning etc. in view of conservation of energy. First time Electrical Laboratory of this Testing Centre has measured the Lumen Measurement of LED Flood Light.



TESTING OF AUTOMATIC WATER PUMP CONTROLLER DEVICE

Automatic Water Pump Controller Device is popular in various office buildings and Apartments to conservation of water and the first time Electrical Laboratory of this Testing

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TESTING OF LED FLOOD LIGHT

Now a days the use of LED are very popular for domestic, commercial, industrial, road and street lightning etc.in view of conservation of energy. First time Electrical Laboratory of this Testing Centre has measured the Lumen Measurement of LED Flood Light.



- **TESTING OF CONTROL TRANSFORMER**

M/s Indusree, Kolkata-86 was regularly sending the Transformers to Central Power Research Institute, Bangalore. They have approached MSME-Testing Centre Kolkata for testing their control Transformer as per IS 11171. MSME-Testing Centre Kolkata accepted the challenge and our Electrical officers carried out the testing of transformers from 5 KVA to 100 KVA at the unit premises satisfactorily in the first time of the history of MSME-Testing Centre Kolkata.



Our concerted efforts save time & money for the customer. This is indeed a great pleasure & satisfaction to the Team MSME-TC, Kolkata.

- **TESTING OF SOLAR POWERED RADIO:**

Solar Energy is a renewable free source of energy that is sustainable and totally inexhaustible, unlike fossil fuels that are finite. It is also a non-polluting source of energy and it does not emit any greenhouse gases when producing electricity.



MSME-TC, Kolkata has tested a Solar Powered Radio embedded with Solar PV module, first time in Electrical Laboratory. In this test we conducted the performance testing of solar powered radio at sun light by measurement of Open Circuit Voltage (Voc), Maximum Voltage (Vm), Maximum Current

(Im), Short Circuit current (Isc). This test has been conducted for the purpose of a new product development of a Micro Unit, to ensure quality of product. The name of unit is Geetanjali Solar Enterprise, P-14, Kasba Industrial Estate, Phase-I, E. M. Bypass, Kolkata – 700 107.



- Installation & successful utilization of NIC Developed Common Software for online operation starting from Sample receive to ONLINE report availability to customers. We started the operation from Nov.2019
- Establishment of Export Facilitation Centre for providing Handhold support to MSMEs who desire Exports. The Cell is working in close coordination with DGFT & Different Export facilitation Centre. The Cell was set up in Dec 2019.

The following special activity was carried out during the COVID period:

a) **Testing of LED based Solar Street Light:**

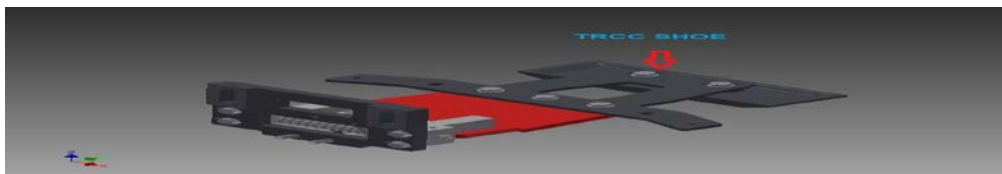
At present the use of Solar PV based lighting products are very popular for domestic, commercial, industrial, street lightning purposes and also in the view of conservation of energy. Using Renewable Energy recourses also helps support the environment by reducing the use of coal and fuel, which also causes pollution. LEDs is the most efficient way of bright light & it reduces the consumption by half of what it used to be earlier. The LED based solar lightings consists of series of LEDs, PV module & battery the PV modules receives heat from sun and converts it to electrical energy which is stored in the battery cell and during night the battery supplies power to the LEDs to provide light. Using of LED based solar lighting can not only reduce the net energy consumption but also relief the environment from exhausting the non-renewable recourses and pollution. The LED based solar street lights are required to be manufactured as per specified by The Ministry of New and Renewable Energy (MNRE) Thus, for the first time Electrical Laboratory of this Testing Centre has conducted **Photometric tests such as Chromaticity Coordinate, Colour temperature, Efficacy, Lumen, Render Index, Electrical Input Power, Voltage, Current etc. on Solar Street Lights as per LM-79-2008 and has successfully completed the tests.**

b) **TESTING OF LED STREET LIGHT**

Now a days the use of LED are very popular due to Lighting plays a pivotal role in ensuring proper visibility and the safety of the residents & in addition, the CO2 emission is lower as compared to conventional lighting sources, hence promoting a greener and better tomorrow. An LED street light is an integrated light that uses light emitting diodes (LED) as its light source. These are considered integrated lights because, in most cases, the luminaire and the fixture are not separate parts. In manufacturing, the LED light cluster is sealed on a panel and then assembled to the LED panel with a heat sink to become an integrated lighting fixture. LED street lighting is an long-lasting and a cost-effective choice for illuminating the street as per requirements, LED street lighting is energy efficiency compared to conventional street lighting fixture technologies such as high pressure sodium (HPS) and metal halide (MH). There are many advantages of using LED street lights like Low energy consumption, Long and predictable lifetime, Quick turn on and off , Higher light output even at low temperatures and even LED street lights have Reduced glare which is helpful for the human eyes . Thus, for the first time Electrical Laboratory of MSME-Testing Centre has conducted Photometric tests such as Chromaticity Coordinate , Colour temperature, Efficacy, Lumen, Render Index, Electrical Input Power, Voltage, Current etc. on LED Street Lights as per LM-79-2008 and has successfully completed the tests.



- a) Resistivity test on Third Rail Current Collector Shoe material of which is IS:1865-SG-500/7 for Metro Railways Kolkata which is performed for the first time in the Electrical Division.



- b) This testing centre capable of testing of **Sodium Hypochlorite solution** as per IS 11673: 1992. Several samples have been tested by this testing centre during last few years. It is used as a disinfectant. **To prevent contamination due to COVID 19**, Sodium Hypochlorite solution is sprayed with 4% to 1% concentration of available chlorine by the Municipal & State authority in hospitals, offices, market places, shopping malls, railway stations or any densely populated areas. Enquiry received over phone on this item during lockdown period. Total 12 Nos. of Sodium Hypochlorite solutions have been tested till now from April 2020 as per IS 11673: 1992.

Samples of Sodium



Hypochlorite tested for MS Es

- c) Poly Urethane Paints, Primers, Surfacer, Undercoating and Putty as Per RDSO standards, M&C/PCN/100/2018 and Defence standard has been tested during this period. Samples manufactured by various MSME units for all over India inspected & sent through RDSO, Lucknow and Naval Dept. Total 52 nos of paints items have been tested during this period.



Samples of Paint samples received from Naval dept.

ADDRESS:

MSME-Testing Centre,

M/o MSME, Govt. of India.

111 & 112 B.T. Road

Kolkata – 700108

Website: <http://www.rtcer.nic.in/>

E-mail: dctc-er@dcmsme.gov.in, msmetccsc@gmail.com

Customer Service Cell No. : 9007766660, 985260111



**Government of India
Ministry of MSME
MSME TESTING CENTRE, Mumbai
[NABL ACCREDITED LABORATORY (T-0338)& BIS RECOGNIZED]**



INTRODUCTION:

MSME Testing Centre, Mumbai provides testing facilities to industries in general and small scale industries in particular for raw materials, semi-finished and finished products, manufactured by them. This Centre is equipped with the State of art indigenous and imported equipment's in the disciplines of Chemical, Mechanical, Metallurgical and Electrical Engineering to undertake Performance test, Type test and Acceptance test of semi-finished, finished products etc. This Centre is accredited by National Accreditation Board of Testing Laboratories (NABL) as per ISO:17025 and recognized by Bureau of Indian Standard (BIS). MSME Testing Centre (WR), Mumbai is one amongst the four testing Centre setup under the aegis of Ministry of Micro, Small & Medium Enterprises, Government of India. The MSME Testing Centre (WR), Mumbai is located in the MSME Development Institute (MSME-DI), Mumbai premises, with its jurisdiction of Western Region comprising of Maharashtra, Gujarat, Madhya Pradesh, Chhattisgarh & Goa. MSME Testing Centre (WR), Mumbai also has two field Testing Stations (MSME-TS), located at Kolhapur (M.S.) and Bhopal (M.P.) for providing testing facility in the respective region/state jurisdiction.

TESTING FACILITIES:**(a) ELECTRICAL LABORATORY**

Domestic Wires, Power & Cables, Electrical Accessories, Domestic Electrical Appliance, LED & Conventional Luminaries, Switchgears, Control Panels, UPS, Invertors, Medical Equipment's, Cable Glands etc. as per National & International Standards.

(b) CHEMICAL LABORATORY

HDPE & PVC Pipes, Polymers, Papers, Paints, Textiles & Stationery items, Non-stick Cookware's, Coating Thickness, Cement, Toys... etc.

(c) METALLURGY LABORATORY

Tensile test, Bend test, Re-bend test of ferrous & non-ferrous metals, Elemental Analysis of metals, Tensile & Physical test of ERW Pipes, Mild steel, cast iron pipes and fittings etc.

(d) MECHANICAL LABORATORY

Domestic Pressure Cooker, Sewing M/c., Flushing Cisterns, Water Closet Seat & Cover, Salt Glazed Stoneware Pipes, Tiles, LPG Stoves, Ply wood, MDF/HDF & Block Board, Door Shutter, Fire Extinguishers, Asbestos Corrugated Cement Sheet, Valves & Taps, Tower Bolts, Hinges & Rubber products. Test setup for testing of Precast concrete, Cast Iron, FRP/GRP Manhole covers. ,

Testing Infrastructure Available (Mechanical/Metallurgy) :

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification
				Range / Size
1.	Mechanical / Metallurgy	Tensometer	01	0.01 – 20kN
2.		Compression Testing Machine	01	0.002 – 30kN
3.		Compression Testing Machine	01	2 – 500 kN
4.		Compression Testing Machine	01	0.1 – 600kN
5.		Compression Testing Machine	01	0.1 – 2000kN
6.		Universal Testing Machine	01	0.12/1.2 – 600 kN
7.		Universal Testing Machine	01	0.05 – 1000 kN
8.		Rockwell Hardness Tester	01	B & C Scale
9.		Vickers cum Brinell Hardness Tester	01	5, 10, 30 HV
10.		ERW Pipe Bending Machine	01	Φ10 – 50mm

Photograph of each Equipments and machinery (Mechanical/Metallurgy):



CTM 2000kN



CTM 500kN

UTM 1000kN

CTM 600kN

UTM 600kN

**ERW Pipe Bending Machine
Φ10-50mm**



CTM 30kN



Tensometer 20kN



Testing facility Available (Mechanical/Metallurgy)

Sl. No.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1.	Mechanical	Glazed Stoneware Pipes and Fittings	IS:651-2007	All Tests
2.	Mechanical	Precast Concrete Manhole Cover	IS:12592-2002	All Tests
3.	Mechanical	Plastic Flushing Cistern for Water Closets and Urinals	IS:7231-1994	All Tests
4.	Mechanical	U.P.V.C. Pipes for potable water supplies H.D.P.E. Pipes for Water supplies	IS: 4985: 2000 IS:12235(1):2004	Dimension : Outside diameter, Wall Thickness
5.	Mechanical	H.D.P.E. Pipes for Water supplies	IS: 4984-2016	Outside diameter, Ovality, Wall Thickness,
6.	Mechanical	H.D.P.E. Pipes for Sprinkler	IS: 14151-1999	Ovality, Outside diameter, Wall Thickness
7.	Mechanical	Aluminum Utensil	IS: 1660-2018	Inside Diameter, Thickness
8.	Mechanical	Conduits for Electrical Installation	IS:9537(3)-1983	Impact Test
9.	Mechanical	Cable trunking & ducting	IS:14927-	Dimension : Outside diameter, Wall Thickness Impact test, Cover retention test
10.	Mechanical	Rigid Conduits of Insulating Material	IS:9537(3)-1983 IS:9537(2)-1981	Dimensions Compression test Bend test
11.	Mechanical	Steel conduits	IS:9537(2)-1981	Dimensions Compression test Bend test
12.	Mechanical	Ferrous metallic product	IS:1608-2018 IS:1239-2004 IS:116-1998 IS:513-2008 IS:1079-2009	Dimension, Tensile strength, Yield stress, % elongation
13.	Mechanical	Ferrous Material Hardness test Rockwell (HRC)	IS:1586-2018	Hardness test Rockwell (HRC)
14.	Mechanical	Ferrous Material Hardness test Vickers (HV)	IS:1501-2013	Hardness test Vickers (HV)

15.	Mechanical	Mild Steel Tubes, Tubular and Wrought Steel Fittings	IS:1239(1)-2004	Bend Test, Dimension, Flattening Test, Galvanizing, Leak Proof Test, Marking, Tensile Test, Workmanship
16.	Mechanical	Ferrous Material : Steel Tubes for structural purpose	IS:1161-1988	Dimension, Flattening Test, Galvanizing, Straightness, Tensile Test, Weight, Workmanship
17.	Mechanical	Ferrous Material : ERW Pipe	IS:2062- IS:1239-2004 IS:1161-1998 IS:1599-2019 IS:2329-2005	Dimensions Bend test Flattening test
18.	Mechanical	Ferrous Material Welded Steel Joint	IS:3600(5)-2018 IS:3600(4)-1984 IS:3600(3)-2018	Bend test Tensile strength test
19.	Mechanical	Glazed Stoneware Pipe	IS:651-2007	Hydraulic Pressure test
20.	Mechanical	Pressed Ceramic Tiles	IS:15622-2006	Dimension
21.	Mechanical	Plastic Flushing Cistern for Water Closets and Urinals	IS:7231-1994	Construction, Discharge Capacity, Discharge Rate, Endurance Test, Finish, Marking,
22.	Mechanical	Concrete	IS:516-1959	Compressive Strength
23.	Mechanical	Cast Iron Manhole Cover And Frame	IS:1608-2018 IS:1726-1991	Coating Test, Load Test, Marking, Tensile Test, Dimension
24.	Mechanical	Precast Concrete Manhole Covers & Frames	IS 12592-2002	Shape & Dimensions, Edges Protection (Frame & Cover), Lifting Hook Diameter, Load Test & Marking, Placing & Compaction, Load Test
25.	Mechanical	Fire extinguishers	IS:15683-2006	Hydraulic Test Pressure
26.	Mechanical	Domestic Pressure Cooker	IS:2347-2006	Hydraulic Burst Pressure Test Capacity
27.	Mechanical	LPG Stove	IS:4246-2002	Thermal Efficiency Test
28.	Mechanical	LPG Mini Domestic Water Heater	IS:15558-2005	Thermal Efficiency Test
29.	Mechanical	Rubber Sheet	IS:3400(23)-2002	Shore A Hardness

30.	Mechanical	Plywood	IS:1734-1983 IS:710-2010	Moisture content
31.	Mechanical	Wood	IS:287-1993	Moisture content, Dimensions
32.	Mechanical	Grey Iron Castings	IS 1500: 2019 IS:210-2009 IS:1608-2018	Brinell Hardness Test, Hydrostatic Test, Tensile Test, Transverse Test
33.	Mechanical	Flushing Cistern for Water Closets and Urinals (other than Plastic)	IS 774: 2004	Construction, Discharge Capacity, Discharge Rate, Endurance Test, Finish, Marking

Testing Infrastructure Available (Chemical) :

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available
1	Chemical	<ul style="list-style-type: none"> a. Fourier-Transform Infrared (FTIR) Spectrometer b. Hand X-Ray Fluorescence (XRF) Spectrometer c. Atomic Absorption Spectroscopy d. Compression Testing Machine (Integral Proving Ring) e. Optical Emission Spectroscopy (OES) f. Xenon Test Chamber g. UV Accelerated Weatherometer h. Glossmeter i. Horizontal and Vertical Flame Chamber j. Salt Spray Chamber k. Deep Freezer l. Coating Thickness Tester 	One Number Each

Photograph of each Equipment's and machinery (Chemical):





Compression Testing Machine



Hand X-Ray Fluorescence (XRF) Spectrometer



Horizontal and Vertical Flame Chamber



Optical Emission Spectroscopy (OES)



GLOSS TESTER



Xenon Test Chamber



Testing facility Available (Chemical)

SL.NO.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1	Chemical	a. Cable Trunking and Ducting Systems for Electrical Installations	IS 14927	All Test
		b. Conduits for Electrical Installations.	IS 9537	All Test
		c. Fittings For Rigid Non-Metallic Conduits.	IS 3419	All Test
		d. Chemical Analysis in Metals & its Alloys	IS 513, IS 6911, IS 21, IS 2062, IS 1379, IS 1239	Identification of Polymer Metals Identification, Grade Verification
		e. Paper & Paper product	IS 1848, IS 12766, IS 14490	Partial Testing
		f. Plastic Identification	ASTM D 5477	Polymer Identification
		g. Metals Identification, Grade Verification, and Sorting non-destructive test	ASTM E1476	Metals & Alloys
		h. UPVC Pipes for potable water	IS 4985	Anodic Coating thickness
		i. High density polyethylene pipes for water supply	IS 4984	Partial Testing
		j. Anodic coatings on aluminum and its alloys	IS 1868	Partial Testing

Testing Infrastructure Available (Electrical) :

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available
1.	Electrical	Sphere Integrator	1 No.
		Endurance M/c for Socket & Top	1 No.
		Programmable Environmental Chamber (Kaleido Scope)	1 No.
		Glow Wire	1 No.
		Tensile Strength Test	1 No.
		Oxygen & Temp Index Apparatus	1 No.
		Dust Chamber	1 No.
		Profile Projector	1 No.
		Environmental Test Chamber	1 No.
		Programmable Environment Chamber	1 No.
		Ingress Protection Against Water (IP Test)	1 No.

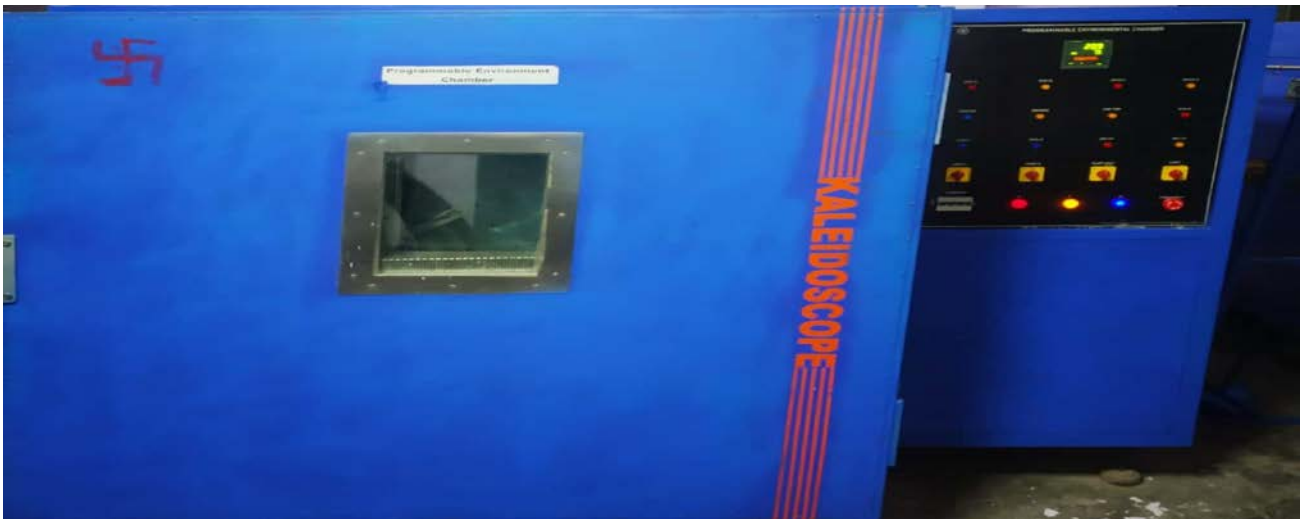
Photograph of each Equipment's and Machinery (Electrical) :



Sphere Integrator



Endurance M/c for Socket & Top



Programmable Environmental Chamber



Tensile Strength Test



Glow Wire Test



Oxygen & Temp Index & Apparatus



Dust Chamber



Profile Projector Environmental Test Chamber (Cold Chamber)



Endurance Test M/c for Food Mixer

Ingress Protection Against Water (IP Test)

Testing facility Available (Electrical):

Sl. No.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1.	Electrical	PVC Insulated Cables for working voltage up to & including 1100 Volt	IS:694-2010	All Tests
		Plugs and Socket-Outlets of rated voltage up to and including 250 V. and rated current up to 16 A.	IS:1293-2005	All Tests
		Switches for Domestic and similar purposes	IS:3854-1997	All Tests
		Domestic Electric Food Mixer (Liquidizes & Grinders)	IS:4250-1980	All Tests
		General Requirements For Enclosures For Accessories For Household And Similar Fixed Electrical Installations	IS:14772-200	All Tests
		Self-Ballasted LED Lamps For General Lighting Service	IS:16102-2012	All Tests
		DC/AC Supplied Electronic Controlgear for LED Modules	IS:15585: 2011	Insulation Resistance test, Marking
		Electric Ceiling Type Fan and Regulator	IS:374-1979	Fan Speed and Input, High Voltage
		Electric Pedestal Type Fan and Regulator	IS:1169-1967	Electrical Input Test, High Voltage Test, Leakage Current Test
		Enclosures for Accessories for Household and Similar Fixed Electrical Installation	IS:14772-2000	Markings, Protection against electric shock, Provision for Earthing, Resistance of insulating material to Abnormal Heat and Fire, Resistance to ageing, to humid condition, ingress of solid objects and to harmful ingress of water, Resistance to Heat, Resistance to Tracking Test

		Fixed General Purpose Luminaries	IS:10322(4)-1984 IS:10322(5)-1987 IS:10322(2)-1982 IS:10322-2012	Insulation Resistance, Electric Strength, Protection against Electric Shock, Provision for Earthing, Resistance to Moisture, Visual Examination
		Flood Lights	IS:10322(4)-1984 IS:10322(5)-1987 IS:10322(2)-1982 IS:10322-2012	Insulation Resistance, Electric Strength, Protection against Electric Shock, Provision for Earthing, Resistance to Moisture, Visual Examination
		Food Mixer and Grinder	IS:10322(4)-1984 IS:4250-1980 IS:302-2008 IS:10322(5)-1984	Insulation Resistance, Electric Strength, Protection against electric shock, Resistance to heat (Ball Pressure Test), Resistance to Heat (Ball Pressure Test), Resistance to moisture Input & Current, Insulation Resistance Test , (After Moisture Treatment) Leakage Current at operating Temperature, Moisture resistance Test, Provision for Earthing,
		Plugs and Socket Outlets	IS:1293-2005 IS:14772-2000	Checking of Dimensions, Insulation Resistance, Electric Strength, Making and Breaking Capacity, Normal Operation, Protection against electric shock, Resistance of insulating material to Abnormal Heat and Fire, Resistance to ageing, to harmful ingress of water and humidity, Resistance to Heat, Temperature Rise
		Portable General Purpose Luminaries	IS:10322(4)-1984 IS:10322(5)-1987 IS:10322(2)-1982 IS:10322-2012	Insulation Resistance and Electric Shock, Protection against Electric Shock, Provision for Earthing, Resistance to Moisture, Visual Examination

		Recessed Luminaries	IS:10322(4)-1984 IS:10322(5)-1987 IS:10322(2)-1982 IS:10322-2012	Provision for Earthing, Insulation Resistance and Electric Strength, Protection against Electric Shock, Resistance to Moisture, Visual Examination
		Road & Street Light Luminaries	IS:10322(4)-1984 IS:10322(5)-1987 IS:10322(2)-1982 IS:10322-2012	Provision for Earthing, Insulation Resistance and Electric Strength, Protection against Electric Shock, Resistance to Moisture, Visual Examination
		Self-Ballasted LED Lamps for General Lighting Services	IS:16102(1)-2012	Insulation Resistance and Electric Strength, Marking, Protection against Electric Shock, Resistance to Heat (Ball Pressure Test)
		Switches for Domestic and similar purpose (6A, 10A & 16A)	IS:3854-1997	Markings, Protection against electric shock, Resistance to ageing, to harmful ingress of water and humidity, Insulation Resistance and Electric Strength, Making and Breaking Capacity, Mechanical strength, Normal Operation, Protection against electric shock, Resistance to Abnormal Heat and Fire (Glow wire test), Resistance to HeatTerminals
		Armoured & unarmoured single/ twin/ three and multicore XLPE Insulated and PVC Sheathed Cables for working voltage up to & including 1100 Volt(upto 400 sqmm)	IS:10810(14)-1984 IS:5831-1984 IS:10810(12)-1984 IS:7098(1)-1988 IS: 10810(2)-1984	Heat Shock Test for Insulation & Sheath, Shrinkage test for Insulation & Sheath, Temperature Index Test, Tensile Test for Aluminium

			<p>IS 10810(1)-1984</p> <p>IS: 8130(1)-1984</p> <p>IS:10810(5)-1984</p> <p>IS:8130-1984</p> <p>IS:10810(45)-1984</p> <p>S:10810(43)-1984</p> <p>IS:10810(58)-1984</p> <p>IS:10810(64)-1984</p> <p>IS:10810(6)-1984</p> <p>IS:10810 (3)-1984</p>	<p>conductor,</p> <p>Annealing Test (for Solid Copper Conductor),</p> <p>Conductor Resistance,</p> <p>High Voltage Test (at room temperature),</p> <p>Insulation Resistance (Volume resistivity),</p> <p>Oxygen Index Test,</p> <p>Shrinkage test for Insulation & Sheath,</p> <p>Temperature Index Test,</p> <p>Tensile Test for Aluminium conductor,</p> <p>Thermal Stability,</p> <p>Thickness of Insulation,</p> <p>Thickness of Sheath,</p> <p>Wrapping test for Aluminium cond</p>
		<p>Armored & unarmored single/ twin/ three and multi-core PVC Insulated and PVC Sheathed Cables for working voltage up to & including 1100 Volt (Upto 400 sqmm)</p>	<p>IS:1554 (1)-1988</p> <p>IS:10810(10)-1984</p> <p>IS:10810(11)-1988</p> <p>IS:5831-1984</p> <p>IS: 1554(1)-1988</p> <p>IS: 10810(1)-1984</p> <p>IS: 8130-1984</p> <p>IS:1554(1)-1988</p> <p>IS:10810(5)-1984</p> <p>IS:8130(5)-1984</p>	<p>Ageing in air oven,</p> <p>Loss of mass in air oven,</p> <p>Annealing Test (for Solid Copper Conductor),</p> <p>Conductor Resistance</p> <p>Elongation at break of Insulation,</p> <p>Elongation at break of Sheath,</p> <p>Heat Shock Test for Insulation & Sheath,</p> <p>High Voltage Test (Water Immersion),</p> <p>Insulation Resistance,</p>

			IS:10810(7)-1984 IS 5831-1984 IS: 1554(1)-1988 IS: 10810(14)-1984 5831(2)-1984 IS:1554(1)-1988 IS:10810(45)-1984 IS: 1554(1)-1988 IS:10810(43)-1984 IS:5831-1984 IS:1554(1)-1988 IS: 5831-1984 IS:5831(2)-1984 IS:10810(6)-1984 IS: 10810(3)-1984 IS:8130-1984 IS:10810(45)-1984 IS:1554(1)-1988 IS: 10810(58)-1984 IS 10810(64)-1984 IS: 10810(2)-1984	Loss of mass in air oven, Shrinkage test for Insulation & Sheath, Tensile Strength, Thickness of Insulation, Thickness of Sheath, Wrapping test for Aluminium conductor, High Voltage Test (at room temperature), Oxygen Index Test, Temperature Index Test, Tensile Test for Aluminium conductor, Thermal Stability, Thickness of Insulation
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Testing/Calibration Activity done for the Past 10 years:

SL.No.	Financial Year	Total No of Sample Tested	Total No of Tests/calibration conducted	Total amount of revenue Earned (in lakhs)
1.	2010-11	2230	15230	113.7
2.	2011-12	1607	14165	99.07
3.	2012-13	1436	13557	110.20
4	2013-14	1835	15881	120.89
5	2014-15	1875	6940	136.06
6	2015-16	1615	11998	201.03
7	2016-17	1533	13066	187.56
8	2017-18	1254	20052	210.07
9	2018-19	1810	17734	217.39
10	2019-20	1882	17347	200.57

Achievements :

SL. No	Total no of Beneficiary	Micro	Small	CPS Us	SPSUs	Others
1	2010-11	45	54	12	10	548
2	2011-12	80	119	10	10	378
3	2012-13	50	64	15	12	409
4	2013-14	60	81	14	12	547
5	2014-15	53	70	18	14	1539
6	2015-16	33	60	17	13	854
7	2016-17	104	173	12	12	1232
8	2017-18	50	65	20	12	893
9	2018-19	102	166	20	12	1149
10	2019-20	110	160	18	12	1506

Success Story:**SUCCESS STORY****Product Name: Fuel Saver Equipment for LPG**

M/s. Futuristic Gas Systems Pvt. Ltd., 303, Powai Plaza, Central Avenue, Hiranandani Gardens, Powai, Mumbai – 400076 contacted this centre for testing of Fuel Saving Capacity of Fuel Saver Equipment which was developed by them for saving of precious LPG for household purposes. Initially, they were not clear how the parameters for fuel saving capacity should be determined. In consultation with our Director Shri Vijay Kumar & concerned testing officers, a technical data specification (TDS) was designed to ascertain the fuel saving capacity of the Fuel Saver equipment.

Accordingly, testing was carried out in two stages on two full LPG cylinders i.e. one without Fuel Saver Equipment & another with Fuel Saver Equipment attached to LPG Stove with 20 ltrs. of water filled in two containers & water heated to 90°C on continuous basis for 5 hrs per day till both the cylinders were empty. Gas Flow setting was maintained at 28mB throughout the test. Test was carried out for almost 16 days. LPG gas consumed & time consumed were recorded for each stage.

A Total Gas Saving of 15.35% was observed after the testing which considerably excellent amount of LPG is saving.

Considering the present situation of ever increasing demand for LPG Gas & gap between supply & demand, this Fuel saving equipment with a gas saving of 15.35% will definitely help LPG consumers to effectively utilize the LPG gas to the best and also open up huge potential for this product.





Product Name: Prosthetic Foot(Artificial Foot)

One of the final year student of All India Institute of Physical Medicine and Rehabilitation, Haji Ali Park, Mahalaxmi, Mumbai -400034 Ms. Gargi Khare, who is conducting her dissertation on “Development of a Universal Prosthetic Foot” contacted this centre for conducting Mechanical Testing i.e. Cyclic Test for 5000 cycles of the prosthetic foot being developed as a part of her project work. This prosthetic foot is going to be used for disabled persons only. Accordingly, testing was carried out by applying the load on the forefoot area (toes area) where maximum load is exerted while walking. The test was carried out for 5000 cycles successfully. After the test, foot was checked for any crack or failure. There was no crack or any type of failure observed after the test.

- » Considering the noble motive behind the development of prosthetic foot, Ms. Gargi Khare was exempted from paying test charges.





Product Name: Target Shooting Rifle & Pistol

M/s. Precihole Sports Pvt. Ltd., with their unit situated at Babosa Industrial Park, Saravali village, Bhiwandi-421302 submitted 2 nos. samples of Target Shooting Rifles namely SX100, Model: 0.177 Pegasus & NX100, Model no. 0.177 Polaris and 1 no. sample of Target Shooting Pistol SP50, Model no. 0.177 Phoenix for Rifle Zeroing Test, Visual Inspection & Dimensions along with other accessories.

In Rifle Zeroing Test, basically a test for determination of precision performance of rifle & pistol, 3 consecutive shots at Black Circle of Target paper at a distance of 10 mtrs for Rifle & 5mtrs for Pistol were carried out for the first time. Tests were carried out as per party's technical data specifications.

These Target Shooting Rifle & Pistol are starting equipment for aspirants of Target Shooting who want to participate in various national level competitions & target shooting events & at annual functions of school, inter college etc. Besides that, target shooting has been acclaimed to be the stress relieving exercise worldwide. These rifles & pistols require no license from licensing authorities





Safe Fan Rod/Pipe that Prevents Suicide Attempt from Hanging from Ceiling Fan

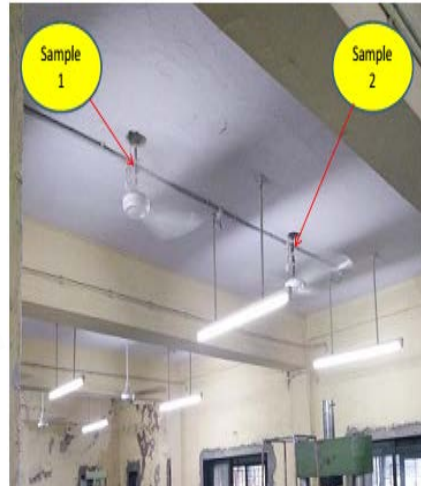
M/S Safe Solutions Industries, Bhandup, Mumbai, contacted this centre for testing their patented product 'Safe Fan Pipe' that can be used in place of an ordinary pipe (down rod) for hanging ceiling fan. The use of this unique pipe would save any attempt to hang from fan, as the pipe will open from its central joint if load on Fan exceeds 20Kgf and expands with help of spring fitted in the pipe, and thus, a person trying to hang from fan will get deposited on the ground safely.

As this Safe Fan Rod was invented and developed for the first time in the country, with view to get acceptance amongst customers, Safe Soln. Ind. Had approached us and had a couple of meetings with Dy. Directors, Mr. T R Sharma & Mr. Manoj Vats as well as Asst. Director Mr. A G Telang to understand how to go about testing. After deliberations, a Technical Data Specification (TDS) was prepared for testing rod for using it for hanging ceiling fan.

Four Tests were done: 1. **Operational Test**; to test that the fan runs on the Safe Fan Rod fine and there is variation in length of rod and no breakdown or undue vibrations during running for specified time period. 2. **Safety Factor Test** to ensure that if the load equal to 3 times the normal fan weight is applied, the joint of rod would remain intact i.e. there will be no variation in length of rod after load application for two hours. 3. **Axial Sudden Pull/Impact Test** to ensure that if load on the fan exceeds 22kgf to 23Kgf then rod opens from centre and the spring in it expands to over 900 mm. 4. **Environmental Test (Corrosion Resistance Test)** finally, to ensure that Safe Fan Rod does not get deteriorated in humid or sea face condition, and run the fan in different environment, salt bath test for 96 hrs was done. All the tests were successfully conducted & rod sample passed all the tests as per TDS.

The proprietor was very much satisfied with the support from the test team and management, as the lab created facilities for carrying out these tests, which were new for the MSME TC, Mumbai.

As informed by the proprietor, as per National Crime Record Bureau (NCRB), there are 1.3 Lacs suicides taking place in India. Of this, 60% are taking place by means of hanging. Most of them are by hanging from **ceiling fan**. In view of this, the Safe Fan Rod, felt to be the need of an hour. Keeping in view this point, the tests were carried out for this innovative & potential life saving product to see it gets recognition due to tests done at **MSME TC, Mumbai** to get confident amongst end users of this **Safe Fan Rod** for saving lives.



Spring
Expanded to
1000mm+
without
breaking



PRODUCT NAME : ARTIMASTER

One of the entrepreneur M/s. Intgeni Energy Solutions Pvt. Ltd.,Sewri (West), Mumbai – 400 015 manufacturing of Energy Efficient equipment & accessories was approached this Centre for testing of ARTMASTER an energy saving equipment for Split type Air Conditioner.

It was a unique product with no specified procedure for conducting the test. With the consultation of manufacturer a technical specification for the testing was prepared and job was accepted.

Performance test was conducted with 1.5 Ton split AC installed in draught free room and operated for 8 hours without and with using of Artimaster. Measured the various parameters like KWH, Compressor Current, Evaporation in & out temperature, Condenser in & out temperature, Room temperature at various points, Suction pressure etc. in both the cases i.e. with and without Artimaster.

After the installation of Artimaster,

- * Discharge pressure drops due to increase in condensing area,
- * The refrigerant gets additionally cooled,
- * The T at evaporator increases. More heat is absorbed at the evaporator.
- * The additional heat is rejected at the condenser, making T at condenser to increase.

Room set point is attained quickly making the compressor to cut off quickly or makes compressor to reduce the load.

Less energy is needed to run the compressor.

Less current drawn by the compressor while running also reduces the energy consumption.



Product Name : Microcontroller Based Battery Charger

- » M/s. PANVA Engineering Pvt. Ltd., A mbad, Nasik manufacturing of Battery Charger and Distribution Boards was approached this Centre for testing Microcontroller Based Dual Float Cum Boost (DFCB) Battery Charger as required by MSETCL.
- » Microcontroller Based Battery Charger was newly introduced by manufacturer for supply to MSETCL. With the consultation of manufacturer a technical specification for the testing was prepared and accepted job for 2 no. of following Microcontroller Based Dual Float Cum Boost (DFCB) Battery Charger.
- » 48 V/ 50 A
- » 220V/ 50A
- » DFCB consisted of two separate Float cum Boost Charger FCBC1 & FCBC2 and tested for following functional test for both the charger on Float and Boost mode :
- » Voltage Regulation, Measurement of Ripple, Load limiter characteristics, Short circuit test at No load & Full load at rated voltage for sustained short circuit, Efficiency, Temperature Rise, Temperature compensation feature demonstration test etc.





Product Name: AC Distribution Board

M/s. PANVA Engineering Pvt. Ltd., Ambad, Nasik manufacturing of Battery Charger and Distribution Boards was approached this Centre for Degree of Ingress Protection Test (IP) of AC Distribution Board as required by MSETCL.

Degree of Protection IP 43 test was conducted as per specification IEC : 60529 on AC Distribution Board 440 V, 3 Phase, 4 wire of size 5650 mm x 2300 mm. IP X3 (2nd characteristics) Degree of protection against spraying water was carried out by spraying water by hand held device spray nozzle as per Cl. 14.2.3(b) of IEC: 60529.

It was the first time that IP 43 test was carried out on such large size sample.



Address: **The Director,
MSME-Testing Centre (WR),
Govt. of India, Ministry of MSME
Kurla Andheri Road, Saki Naka,
Mumbai-400 072.**

Website: www.msmebcmumbai.gov.in
E-mail: dctc-wr@dcmsme.gov.in
Customer Cell No: 022-28570588 / 28576998



Government of India
Ministry of MSME
MSME Testing Centre, Okhla, New Delhi-110020
(NABL Accredited Laboratory (Lab Code- TC 7167) – (BIS Recognized: 8101204)



Introduction:

Ministry of MSME has set up four MSME -Testing centers (TCs) in 1974 at New Delhi, Mumbai, Chennai and Kolkata. MSME -Testing Centers for providing testing and calibration facilities to industries in general and Micro, Small & Medium Enterprises in particular for raw materials, semi-finished and finished products, manufactured by them. Testing centers are equipped with indigenous and imported state of art equipments in the disciplines of Chemical, Mechanical, Metallurgical and Electrical to undertake Performance test, Type test and Acceptance test of semi-finished, finished products etc. These centers also undertake calibration works for Measuring Instruments and Equipment conforming to national and International standards. Centers are accredited by internationally recognized National Accreditation Board of Testing & Calibration laboratories (NABL) certification as per ISO (17025). These centers are recognized by various departments like Bureau of Indian standards, Railways (RDSO), Defense (CSD & DGQA) etc. In order to provide testing facilities in the area with cluster of industries and some strategic areas, the Government of India has set up seven MSME -Testing Stations (TSs) in 1982 at Jaipur, Bhopal, Kolhapur, Hyderabad, Bangalore, Puducherry and Ettumanur. These Testing Stations in fact act as extension of the MSME- TCs thereby serving the needs of the industries situated in far-flung areas. The MSME- Testing Stations are regularly modernizing/upgrading their facilities to cater to the need of industries in general and Micro, Small & Medium sector in particular, situated in their locality.

*** Major industrial activity in the region :**

Hi-tech & Service Industries and part of manufacturing activities which are allowed in the city as most of the industries are shifted from Delhi;

MSME-TC, New Delhi has a vast customer base across India and proud to be associated with many organizations since inception for providing quality products through testing. Apart from local MSEs there are many recognized (Large & Small) organizations in the private, public and non-profit sectors who are availing the testing services of the Centre, some of which are as follows; -

1. **Delhi Metro Rail Corporation;**
2. **Canteen Stores Department Ministry of Defence;**
3. **Central Board of Secondary Education;**
4. **NDMC ,SDMC ,EDMC**
5. **Public Sector Undertakings Like BEL ,SAIL , GAIL , IOCL ,RINL , AAI, RITES etc;**
6. **Private Industries like Havells , Bajaj , Prestige , Philips , Escorts etc;**
7. **State public sector undertakings like UP State Bridge Corporation Ltd.;**
8. **Noida Authority, Delhi Development Authority, NBCC;**
9. **Airport Authority of India Ltd., (L);**
10. **Indian Railway Vigilance; and many more....**

Testing Infrastructure Available:

SL. No.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification (Range/ Size)
1.	Electrical	VAWH unit	8	Range: 0 to 300 Volt, 0 to 10 Amps, Least Count : 0.1 Volt, 0.01 Amps, 0.01KW, Make/Model No : Sanso Soft
2.	Electrical	Pressure Gauge	8	Range: 0 – 4.2 kg/cm ² , Least Count : 0.1 kg/cm ² , Make Manometer
3.	Electrical	Conditioning/ humidity chamber	1	Make/Trade Mark : Ajay
4.	Electrical	Leakage Current Meter	2	S. No. /Model no. 17261
5.	Electrical	PID Digital Temp. Indicator/Controller	3	Make:Tecno
6.	Electrical	Digital Temp. Indicator/RH indicator	2	Make: Tecno
7.	Electrical	Oxygen Index a)Pid Temp Controller	1	Make: SENCOR INDIA
8.	Electrical	b) Pid Temp. Controller		Make: SENCOR INDIA
9.	Electrical	c) Rota meter		Make: SENCOR INDIA
10.	Electrical	d) Rota meter		Make: SENCOR INDIA
11.	Electrical	HCL Test a) Pid Temp. Controller	1	Make: SENCOR INDIA

12.	Electrical	b) Rota meter		Make: SENCOR INDIA
13.	Electrical	Torque Measurement a)Load cell (FHP Motor)	1	Make: Prefect
14.	Electrical	Dig ital tacho meter	1	Make:Tecno
15.	Electrical	Dig ital Temperature Indicator with Sensor	8	Range: 0 to 199.9 0C, Least Count : 0.1 0C, Make/Model No : APCL
16.	Electrical	Dig ital Earth Resistance Tester	1	Model No./ Type No: IE S.No.:724, Make/Trade Mark:
17.	Electrical	Dig. Temperature Data Logger (8 Ch)	1	Range : 0-200 °C, SL. No. 2931701, Make/Type : Dig ital Instrumentation
18.	Electrical	Ageing Oven	1	Make/Trade Mark : Ferrotek
19.	Electrical	Electronic Balance	1	Model No./Type No. : BP110S, SL. No. : , Code No. : 70303763, Make/Trade Mark : Sartorius
20.	Electrical	Thermal Stability Test Apparatus	1	Make/Trade Mark : Saifi Scientific Industries
21.	Electrical	5 Point Temperature Indicator (For Electric Iron)	1	Make/Trade Mark :Prolific Engineer
22.	Electrical	Water Absorption Equipment	1	Make/Trade Mark : Pankaj Thermotech
23.	Electrical	Deep Freezer	1	Make/Trade Mark :Narang Scientific Works Pvt. Ltd.
24.	Electrical	Water Tank	12	Make/Trade Mark :Shakti Industries
25.	Electrical	Humidity Chamber (Big)	1	Make/Trade Mark : Narang Scientific Works Pvt. Ltd.
26.	Electrical	Humidity Chamber (Small)	2	Make/Trade Mark : Narang Scientific Works Pvt. Ltd.
27.	Electrical	Water Bath (Big)	1	Make/Trade Mark : Narang Scientific Works Pvt. Ltd.
28.	Electrical	Hot Air Oven	1	Make/Trade Mark : Ferrotek Equipments
29.	Electrical	Hot Air Oven	1	Make/Trade Mark : PROLIFIC
30.	Electrical	Air/Oxygen Bomb Test Apparatus	1	Make/Trade Mark : Sensor India
31.	Electrical	Water Bath (Small)	1	Make/Trade Mark : Narang Scientific Works Pvt. Ltd.
32.	Electrical	Insulated tank	1	Make- Ferroteck,Range 0to 99.9 0C, Least count 0.1 0C
33.	Electrical	ROTAMETER (for Water)	1	0-10 liters
34.	Electrical	ROTAMETER (for Water)	1	0-100 liters
35.	Electrical	Analog type Vane Anemometer	1	0-100
36.	Electrical	Analog type Vane Anemometer	1	0-100

37.	Electrical	Stop watch	4	Model No./ Type No: Nova 501 , Code No.: Make/Trade Mark: GEM Nova
38.	Electrical	VAW Meter	6	Model No./ Type No: 200/2000W Sl. No. 137 Make/Trade Mark: IE
39.	Electrical	VAW Meter With CT	2	Model No./ Type No: 200/2000W Sl. No. 143 Make/Trade Mark: IE
40.	Electrical	AC H.V. Tester	1	Sl.No.2875/0103 &2945/0104 Make/Trade Mark: SIS 5 KV
41.	Electrical	AC H.V. Tester	1	Model No./ Type No: Make/Trade Mark: ARCOM
42.	Electrical	AC H.V. Tester	1	Sl.No.0111 & 0112, Make/Trade Mark: ASI (Novo)
43.	Electrical	AC H.V. Tester	1	Model No./ Type No: Sl. No.15387/1002 Make/Trade Mark: SIS 5 KV
44.	Electrical	Digital Clamp Meter(Tong Tester)	1	Model No./ Type No: 2608 Sl. No. 701581 Make/Trade Mark: CIE
45.	Electrical	Cord Flexing (Counter)	1	Sl. No. 701581 Make/Trade Mark: AIS
46.	Electrical	Flexing Test (Apparatus counter)	1	Make/Trade Mark: SI
47.	Electrical	Digital Panel Meter (Frequency Meter)	1	Make/Trade Mark: sigma
48.	Electrical	Multi test panel for appliance testing	1	Make/Trade Mark:
49.	Electrical	Million Mega Oh m Meter with multi test panel		No: MM 99 Sl. no. 11,15,6135 Make/Trade Mark: IE
50.	Electrical	Million Mega Oh m Meter	1	Model No./ Type No:MMO-20H Make/Trade Mark: Sigma
51.	Electrical	DMM	1	Model No./ Type No:M3900 MSMETC/M&E/Elect/2 66(B) S.No.:2005100306 Make/Trade Mark: Mastech
52.	Electrical	DMM	2	Model No./ Type No:87 S.No.:68910536 Make/Trade Mark: Fluke
53.	Electrical	Power Factor Meter	1	Model No./ Type No:PD 39/EPF S.No.:489F Make/Trade Mark: Autonix
54.	Electrical	Digital Frequency Meter DPM 302	1	Model No./ Type No:SIS S.No.:16885 Cl. No.: 0.1 Make/Trade Mark:

55.	Electrical	Equipments for LED Interchangeability	1	As per specification
56.	Electrical	Equipments for LED Bending test Equipment	1	As per specification
57.	Electrical	Equipments for LED Axial Pull Test Apparatus	1	As per specification
58.	Electrical	Equipments for LED Equipment to determine the bending moment imparted by the lamp holder	1	As per specification
59.	Electrical	Equipments for LED Torsion test equipment for mechanical strength	1	As per specification
60.	Electrical	Equipments for LED Cap temperature rise test	1	As per specification
61.	Electrical	Equipments for LED Draught proof enclosure/cap temp. rise measuring apparatus	1	As per specification
62.	Electrical	Equipments for LED Fault condition	1	As per specification
63.	Electrical	Hydraulic Press	1	As per specification
64.	Electrical	Flame Retardant Test Equipment	1	As per specifications
65.	Electrical	Smoke Density	1	0-60 deg LC1 deg, 0-10 V LC 1 V, 0-540 sec LC 0.01 sec
66.	Electrical	Test Finger	1	As per specifications
67.	Electrical	Hot deformation hanger and weights	1	0-100 grams LC 0.0001 grams
68.	Electrical	Wheat stone Bridge	1	1 mohm-10.000 ohms LC0.001
69.	Electrical	Std. Resistance Box	1	0.001 -1 k LC 0.0001
70.	Electrical	Std. Mega Ohm Resistance Box	1	2- 2GM LC 0.01 M
71.	Electrical	Million Mega Ohm Meter	1	2- 2GM LC 0.01 M
72.	Electrical	H.V. Voltage Impulse Generator	1	0- 3 KV LC 0.01 KV
73.	Electrical	Digital Multimeter	2	As per Catalog
74.	Electrical	Torque Screw Driver	1	0-1.5 Nm LC 0.001 Nm
75.	Electrical	Torque Screw Driver	1	0-5 Nm LC 0.001
76.	Electrical	Hot set Oven Weights for hot set oven(2)	1	Make: Safi, 0-200 deg LC 0.1 deg, 0-100 grams LC 0.0001 grams
77.	Electrical	Water Bath	1	Make: Safi, 0-100 deg LC 1 deg
78.	Electrical	DC Regulated Power Supply	1	Digital, 0-60 V 1V, 10 amp.0.1 A
79.	Electrical	Endurance test Equipment for Blender	1	Make: Pankaj
80.	Electrical	Coupler test for Cordless Electric Kettle	1	Make: Pankaj
81.	Electrical	IPX1	1	Make: Pankaj
82.	Electrical	Suspension System (for ceiling fan)	1	0-3 Tan LC 0.001 kg
83.	Electrical	Torsion test System (for ceiling fan)	1	0-60 Nm LC 0.01 Nm
84.	Electrical	Torque Test Measurement (for FHP)	1	Make: Load Master, 0-100 Kg, LC 0.001 kg, 0-9999 rpm LC 001 rpm
85.	Electrical	Regulator Endurance test (for ceiling fan)	1	Make: Ekta, 0-300 V LC 0.1 V, 0-5 A LC 0.001 A, 0-1200 W LC 0.1 W, 0-1.0 LC 0.002
86.	Electrical	Glow wire Test Equipment	1	Make: Ekta, 0-1200 deg. LC 0.1, 5 A LC 001, 0-99 9 sec LC 0.1 sec

87.	Electrical	Endurance test Pannel-1	4	Make: Ajay, 0-300V, LC: 1.0, 0-2000W, LC: 0.1, 0-10 a LC: 0.01, 0-9999 count LC: 1.0, Timer 0-99.59, 91Time, Totalized 0-829992999 Hr. LC:1.0, Energy Meter 0-999999 K w h LC:0.01
88.	Electrical	Multi test Panel	1	Make: Ekta,0-300 V LC 0.001 V, 0-10 A LC 0.001 A, 0-200 MICRO A LC 0.001 MICRO A, 0-55 HZ LC 0.00 HZ, 0-8 KW LC 0.1 KW, 0-99 SEC LC 0.1 SEC ISOLATING, 0-100 V LC 0.001 V FOR FINGER, -1.0 LAG/LEAD LC 0.001, 0-2 MOHMS LC 0.1 MOHMS, 0-20 V LC 0.001 V FOR ECRT, 0-30 A LC 0.001 A FOR ECRT
89.	Electrical	Inclined plane Digital Angle Protector	1	Make: Ekta, 0-90 LC 1
90.	Electrical	5 Point Temp. Distribution	1	Make: Ekta, 0-600 0C LC 1
91.	Electrical	Drop Test (For Electric Iron)	1	Make: Ekta, 0-10 LC 0.001A, 0-300 V LC 0.001 V, 0-9999,LC:1
92.	Electrical	Pressure Test apparatus (+/- ve)	1	Range: 0-14 Kg/sq.cm,LC0.2 Kg/sq.cm, Range: 0-760 mmHg ,LC 10 mm Hg
93.	Electrical	Digital Micro Ohm Meter	1	Make: IE, 1999 micro Ohms to 19.99 K Ohms,LC1 micro/.01 mohms/.001 ohms/.01 ohms/0.1 ohms/.001 Kohms/0.01 Kohms
94.	Electrical	Temp. Scanner(8 channels), (8 channels) & (16 channels)	1	Make: Audiotronix, 0-600 deg LC 1, 0-600 deg LC 1, 0-600 deg LC 1
95.	Electrical	Flame Retardance Test	1	As per standard
96.	Electrical	IPX3 & IPX4	1	Make: Ajay
97.	Electrical	Digital Multifunctional copier	1	Make: KONICKA
98.	Electrical	DC high voltage Tester	1	Make: Ajay , 0-9999 hr LC 1 hr Acc 1%, 0-1.999 kV LC 0.001
99.	Electrical	Test wall corner	1	Make: Ajay, 0-300 V LC 0.01 V ACC 1.0 %, 0-15 A LC 0.001 A, 0-5000 W LC 0.1 W, Z LC 0.01 HZ, LED/LAG LC 0.001, 0-300 deg LC 1, 0-60 min LC 0.01 sec
100.	Electrical	Cord flexing test apparatus	1	Make: Ajay, 0-300 V LC 0.01 V Acc 1%, 0-15 A

				LC 0.001 A, 0-5000 W LC 0.1 W, 45-50 Hz LC 0.01 Hz, lead/lag LC 0.001, 0-999999 LC 1
101.	Electrical	Dust proof Chamber	1	Make: Ajay, 0-100 Mpa LC 1 Mpa Acc1%, 0-200 min. LC 1 min
102.	Electrical	EMC Fast Transient Immunity Test	1	Make: Prima
103.	Electrical	EMC Surge Immunity Test	1	Make: Prima
104.	Electrical	Performance tests of Stat. St. Water Heater	1	Make; Sadahna, 0-5 kwh LC 0.001 kwh Ac 1.0 %, 0-1.999.9 deg LC 0.1, 0- 200 deg LC 0.1, 0-300 V LC 0.01 V, 0-5 KW LC 0.001 , 0-60 min. LC 0.01 sec, 10-20/5 A LC 0.001 A, 0-10.00 LC 0.01 Kg/sq cm., 0-10 LC 1ml, 0-25 LC 5 ml, 0-50 LC 5 ml
105.	Electrical	Project profile	1	Make: A jay
106.	Electrical	Cyclic Programmable environmental test	1	Make: Ajay , -70 to 65 deg LC 0.1 Acc 1%, 30- 100 RH LC 0.1, 0-60 minutes LC 0.01 sec, Acc +/- 1.0 %
107.	Electrical	Hand Held Device to Verify spray (IPX3/4)	1	As per specifications
108.	Electrical	Test device to verify Water Jet	1	As per specifications
109.	Electrical	Deep Freezer	1	Make: SADHANA, 80 to 70 deg.C
110.	Metallurgy	Universal Testing Machine(Analogue)	1	0 to 60 KN 0 to 120 KN 0 to 300 KN 0 to 600 KN
111.	Metallurgy	Universal Testing Machine(Digital)	1	0 to 600 kN
112.	Metallurgy	Tensile Testing Machine	1	0 to 50kN
113.	Metallurgy	Tensile Testing Machine	1	0 to 250N 0 to 2500N
114.	Metallurgy	VICKER'S CUM BRINELL HARDNESS TESTER	1	HV 5 to HV 30
115.	Metallurgy	ROCKWELL HARDNESS TESTER	1	HRA-0 - 100 HRC-0 - 100 HRB-0 - 90
116.	Metallurgy	COMPRESSION TESTING MACHINE	1	0 to 500 KN
117.	Metallurgy	PIPE BENDING MACHINE	1	0 to 90°
118.	Metallurgy	PIPE BENDING MACHINE	1	0 to 180°
119.	Metallurgy	BALANCE WITH MASSES	1	0 to 10 Kg.
120.	Metallurgy	COMPRESSION TESTING MACHINE (FOR INSULATING CONDUITS)	1	FABRICATED
121.	Metallurgy	FREEZER,(-20 to 50° C)	1	(-20 to 50° C)

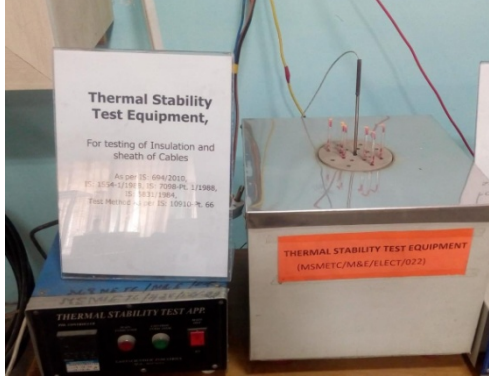

122.	Metallurgy	OVEN	1	(0 to 300 ° C)
123.	Metallurgy	WEIGHING MACHINE	1	STANDARD SCALE INDUSTRY
124.	Metallurgy	MICROMETER (MITUTOYO)	1	MITUTOYO
125.	Metallurgy	VERNIER CALIPER	1	MITUTOYO
126.	Metallurgy	DIGITAL CALIPER	1	MITUTOYO
127.	Metallurgy	DIGITAL MICROMETER	1	MITUTOYO
128.	Metallurgy	PIPE BENDING MACHINE (FOR INSULATING CONDUIT)	1	Light, Medium and Heavy (20MM and 25MM)
129.	Metallurgy	DEAD WEIGHTS FOR IMPACT TESTING MACHINE (PVC)	2	FABRICATED
130.	Metallurgy	DEAD WEIGHTS FOR TORSION TESTING MACHINE	4	Tarnogrocki
131.	Metallurgy	BENDING MANDRELS 7 NOS	7	12R, 15R, 18R, 24R, 50R, 5 6R, 64R
132.	Metallurgy	BENDING AND REBENDING MANDRELS 14 NOS	14	10R, 16R, 22R, 30R, 34R, 5 0R, 60R, 70R, 80R, 90R, 10 0R, 125R, 140R, 150R
133.	Metallurgy	GAUGES FOR CHECKING MINIMUM INSIDE, MINIMUM OUTSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF CONDUITS,	25	BAKER (20MM, 25MM, 32MM, 4 0MM, 50MM)
134.	Metallurgy	GAUGE FOR CHECKING MINIMUM INSIDE DIAMETER OF CONDUITS OF INSULATING MATERIALS AFTER BENDING	6	BAKER (Light, Medium and Heavy (20MM and 25MM))
135.	Metallurgy	GAUGE FOR CHECKING MAXIMUM INSIDE AND MAXIMUM OUTSIDE DIAMETER OF SOCKET END	10	BAKER (20MM, 25MM, 32MM, 4 0MM, 50MM)
136.	Metallurgy	CIRCULAR STEEL PLATE	1	300MM
137.	Metallurgy	VERNIER CALIPER	1	MITUTOYO
138.	Metallurgy	VERNIER CALIPER	1	MITUTOYO
139.	Metallurgy	VERNIER HEIGHT GAUGE	1	MITUTOYO
140.	Metallurgy	THREAD RING GAUGES (GO) & (NO GO)	10	BAKER (20MM, 25MM, 32MM, 4 0MM, 50MM)
141.	Metallurgy	DRY & WET THERMOMETER	1	ZEAL
142.	Metallurgy	DRY & WET THERMOMETER	1	ZEAL
143.	Metallurgy	DRY & WET THERMOMETER	1	ZEAL
144.	Metallurgy	DRY & WET THERMOMETER	1	ZEAL
145.	Metallurgy	DRY & WET THERMOMETER	1	ZEAL
146.	Metallurgy	MEASURING TAPE FOR TTM 2500N	1	KMI
147.	Chemical	Electrochemical Analyzer	01	0.01% to 99.99%; ± 0.01%
148.	Chemical	Flash Point Apparatus, Close cup (Pansky-martain)	01	As per the thermometer used
149.	Chemical	Mercury Analyzer	01	20 to 200 ng ± 0.001 PPM
150.	Chemical	Muffle Furnace	02	Upto 12000 C; ± 20 C
151.	Chemical	Analytical weight Box	01	10mg-100gm; Calibrated
152.	Chemical	Measuring Equipments (S.S. Scale: Vernier Caliper; Micrometer)	01 each	30cm, 250m, 0-25 mm respectively.
153.	Chemical	Wt./Liter Cup 100.0 CC	01	Cap.; 100.0 cc; ± 0.01 cc
154.	Chemical	Wet abrasion Tester	01	As per IS: 428/715
155.	Chemical	Refrigerator; (Kelvinator)	01	286 Lit.


156.	Chemical	Hegman Gauge (Scale)	01	0-8; ± 1 Heg man.
157.	Chemical	IS Sieve, 8" dia	01 No. each	45, 53, 63, 74, 105, 149, 210, 250, 297, 300, 355, 420, 425, 595, 600, 710, 841, 850, 1000, 1200, 1680, 2800, 3350, 3360 micron.
158.	Chemical	Stainless Steel Disc	01	60mm dia; 0.7mm thick
159.	Chemical	Flexibility & Adhesion Test Apparatus	01	As per IS: 101 (Pt.-5/2)-88
160.	Chemical	Sartorius Single Pan Electronic Balance (No.2)	01	Up to 230 gm; ± 0.0001 gm.
161.	Chemical	Hot air Oven	02	Upto 2500 C ± 10 C
162.	Chemical	Wear Tester for Road Marking Paint	01	As per IS: 164-81
163.	Chemical	Ford Cup No.4	01	As per IS: 101(1/5)-89
164.	Chemical	Stop Watch, Calibrated	01	60 sec.
165.	Chemical	P-Fund Crypto Meter	01	IS: 101(4/1)-88
166.	Chemical	Digital Hygrometer	01	RH% upto 100%
167.	Chemical	Electronic Precision Balance	01	Upto 6kg.
168.	Chemical	Humidity Cabinet	01	Temp. 10 to 600 C Humidity 40-95 %
169.	Chemical	pH meter	01	pH 0-14 ± 0.001
170.	Chemical	Motorized Scratch test apparatus	02	Constant speed 3-4 cm/sec
171.	Chemical	Carbon Determination apparatus	01	As per IS; 6226(Pt.I) 0.01 to 5% ± 0.01 %
172.	Chemical	Gloss Meter for Paints	01	IS: 101(Pt. 4/sec.4) 1998, 600, 450
173.	Chemical	Deep Freezer	01	Range Upto -250 C
174.	Chemical	Ring & Ball Apparatus	01	As per IS: 1205-1979
175.	Chemical	Flash Point Apparatus Abel. Type & Penskey Martine type	02	00 C to 350 00 C
176.	Chemical	Tergotometer	01	As per IS: 4955-2001
177.	Chemical	Salt Spray Chamber	02	Temp. upto 350 C
178.	Chemical	Optical Emission Spectrometer (OES)	01	0.1 to 20 %
179.	Chemical	Atomic Absorption Spectrometer (AAS)	01	1 PPM to 100 PPM
180.	Chemical	Microwave Digester	01	Qualitative
181.	Chemical	Microscope	01	Qualitative
182.	Chemical	Compression testing machine	01	500 KN
183.	Chemical	Compression testing machine	02	3000
184.	Chemical	Centrifuge Machine	01	0-6000 RPM; ± 100 RPM
185.	Mechanical	Slip Gauge set M 122 Pcs	01	0.5mm-100mm
186.	Mechanical	Slip gauge set M 14 Pcs	01	1mm-1.009mm
187.	Mechanical	Gauge Block Calibrator	01	0.5mm-100mm
188.	Mechanical	Universal Measuring Microscope	01	Linear upto 200 mm
189.	Mechanical	Universal Length Metroscope	01	upto 100mm
190.	Mechanical	Electronic level	01	upto 2000 sec of arc
191.	Mechanical	Roughness standard	01	Ra - 3.15/0.39 μ m
192.	Mechanical	Standard Length (17 No's)	01	25 to 400 mm
193.	Mechanical	Thread Measuring Wires	01	0.173 to 2.309 mm
194.	Mechanical	Slip gauge Accessories Pin	01	5 mm
195.	Mechanical	Digital Caliper	01	upto 200 mm
196.	Mechanical	Micrometer	01	0-25 mm
197.	Mechanical	Micrometer	01	25 - 50 mm
198.	Mechanical	Vernier Height gauge	01	upto 450 mm

199.	Mechanical	Plunger Dial Guage	01	0 - 10 mm
200.	Mechanical	Lever type Dial indicator	01	0 - 0.14 mm
201.	Mechanical	Surface Plate	01	1600 x 1000 mm
202.	Mechanical	Mandrel	01	18 mm Dia
203.	Mechanical	Right Angle	01	90°
204.	Mechanical	Digital Pressure Gauge	01	1000bar
205.	Mechanical	Plunger Dial Guage	01	50 - 0 - 50 µm
206.	Mechanical	Caliper Checker	01	0-600 mm
207.	Mechanical	Opacity Meter	01	0 to 100 %
208.	Mechanical	Slip Gauge Set 111pcs.	01	0.5mm-100mm
209.	Mechanical	Measuring Tap	01	0-30 Mtr
210.	Mechanical	Aneriod Barometer	01	720-790mmhg
211.	Mechanical	Manometer Scale	01	0-1000 mm
212.	Mechanical	Manometer Scale	01	500-0-500 mm
213.	Mechanical	Manometer Scale	01	500-0-500 mm
214.	Mechanical	Digital Ane mo meter	01	0.5 - 14 m/s
215.	Mechanical	Digital weighing Balance	01	10 kg
216.	Mechanical	Measuring cylinder	01	2000 ml
217.	Mechanical	Measuring cylinder	01	1000ml
218.	Mechanical	Measuring cylinder	01	5000ml
219.	Mechanical	Measuring cylinder	01	500 ml
220.	Mechanical	Measuring cylinder	01	100 ml
221.	Mechanical	Bench type Thickness gauge	01	0-10 mm
222.	Mechanical	Flow meter	01	3 ltr
223.	Mechanical	Digital stop watch	01	0-1 hr
224.	Mechanical	Co meter	01	0-999 PPM
225.	Mechanical	Pressure gauge	01	0-2.1kg/cm2
226.	Mechanical	Pressure gauge	01	0-2.1kg/cm2
227.	Mechanical	Pressure gauge	01	0-4.2kg/cm2
228.	Mechanical	Pressure gauge	01	0-4.2kg/cm2
229.	Mechanical	Pressure gauge	01	0-1.06kg/cm2
230.	Mechanical	Pressure gauge	01	0-1.06kg/cm2
231.	Mechanical	Pressure gauge	01	0-14kg/cm2
232.	Mechanical	Pressure gauge	01	0-7kg/cm2
233.	Mechanical	Pressure gauge (Pump)	01	0-1060 kg/cm2
234.	Mechanical	Pressure gauge (Cooke r Lab	01	0-21kg/cm2
235.	Mechanical	Pressure gauge	01	0 to 10.6kg/cm2
236.	Mechanical	Digital Lux meter	01	0-2000Lu x
237.	Mechanical	Sound level meter	01	30-130dB
238.	Mechanical	Analog stop watch	01	0-1 hr
239.	Mechanical	Mass of impact ball	01	1 kg
240.	Mechanical	Dead Weight	01	2 kg
241.	Mechanical	Dead Weight	01	2 kg
242.	Mechanical	Dead Weight	01	5 kg
243.	Mechanical	Dead Weight	01	5 kg
244.	Mechanical	Dead Weight	01	5 kg
245.	Mechanical	Dead Weight	01	5 kg
246.	Mechanical	Dead weight	01	1 kg
247.	Mechanical	Mass of impact ball	01	0.5 kg
248.	Mechanical	Dead weight	01	10 kg
249.	Mechanical	Auto Clave Digital Temperature indicator	01	0 - 199 °C
250.	Mechanical	Digital Temp. indicator (LPG water heater)	01	0 - 200 °C
251.	Mechanical	Digital Temp indicator (LPG water heater)	01	0-200 °C
252.	Mechanical	Muffle Furnace (Dig ital Temp. Indicator)	01	0 - 1000 °C

253.	Mechanical	Auto Clave (Pressure Gauge	01	0-2kg/cm2
254.	Mechanical	Torque Wrench	01	3-14 N-m
255.	Mechanical	Steel Scale	01	0-1000 mm
256.	Mechanical	Hot Air Oven PID Controller	01	0-300 °C
257.	Mechanical	Digital Indicator (Cooker Handle Test)	01	0-20mV, 0-30 kgf
258.	Mechanical	Thread Plug Gauge	01	1BA (N)
259.	Mechanical	Thread Plug Gauge	01	M5 x 0.8 - 6H
260.	Mechanical	Thread Ring Gauge	01	M5 x 0.8 - 6g
261.	Mechanical	Thread Plug Gauge	01	1/8" X 28 (BSP-G)
262.	Mechanical	Thread Plug Gauge	01	1/4" X 19 BSPT(Syst.B)
263.	Mechanical	Thread Plug Gauge	01	1/2" X 14 BSP
264.	Mechanical	Hand held Digital Thermometer with Sensor (Multi Stem)	01	minus 50 to 200 °C
265.	Mechanical	Digital Temperature indicator (Hand Held)	01	0 to 199.9 °C
266.	Mechanical	Digital Temperature indicator (Hand Held)	01	0 to 199.9 °C
267.	Mechanical	Thread Ring Gauge	01	1/8" X 28 BSP
268.	Mechanical	Thread Ring Gauge	01	1/4" X 19 (BSP)
269.	Mechanical	Thread Ring Gauge	01	G 1/2" X 14 BSP
270.	Mechanical	Hanging Type Barometer	01	640 to 810 mmhg
271.	Mechanical	Dead Weight	01	50 Kg
272.	Mechanical	Torque Wrench	01	1.5 N-m
273.	Mechanical	Hot Water Bath (PID Controller)	01	0-200 °C
274.	Mechanical	Digital Thermo Hygrometer	01	minus 50 to 70 °C 10 to 99% RH
275.	Mechanical	Digital Thermo Hygrometer	01	minus 50 to 70 °C 10 to 99% RH
276.	Mechanical	Digital Thermo Hygrometer	01	minus 50 to 70 °C 10 to 99% RH
277.	Mechanical	Digital Thermo Hygrometer	01	minus 50 to 70 °C 10 to 99% RH
278.	Mechanical	Digital Thermo Hygrometer	01	minus 50 to 70 °C 10 to 99% RH
279.	Mechanical	Dry Gas Meter	01	upto 100 l
280.	Mechanical	Pressure gauge (PNG)	01	0 - 2.5 kg/cm2
281.	Mechanical	Pressure gauge (PNG)	01	0 - 50 mbar
282.	Mechanical	Data Logger for LPG Stove fire hazard setup	01	0 - 99.99 min
283.	Mechanical	Data Logger for LPG Water heater fire hazard setup	01	0 - 99.99 min
284.	Mechanical	Glass Thermometer (LPG)	01	minus 10 to 110°C
285.	Mechanical	Glass Thermometer (LPG)	01	minus 10 to 110°C
286.	Mechanical	Glass Thermometer (LPG)	01	minus 10 to 110°C
287.	Mechanical	IR Thermometer (Temp Gun	01	(-)50°C to 500°C
288.	Mechanical	Temp. Countr of MFI	01	0-400 °C
289.	Mechanical	Weights for MFI	01	2.16 & 5.0 kg
290.	Mechanical	Weighing scale for MFI	01	0.2 - 400 g
291.	Mechanical	Timer for Melt Flow Index	01	0 - 999.9 sec
292.	Mechanical	Digital Timer for SBPT	01	0 - 99.99 min
293.	Mechanical	Pressure Gauge for SBPT	01	0 - 30 kPa


Photograph of each Equipments and machinery:


SL. No.	Domain	Name of the Machinery & Equipment Available	Photographs of each Equipments and machinery:
1	Electrical	Oxygen Index a)Pid Temp Controller	
2	Electrical	Thermal Stability Test Apparatus	
3	Electrical	Humidity Chamber (Small)	
4	Electrical	Hot Air Oven	



5	Electrical	Air/Oxygen Bomb Test Apparatus	
6	Electrical	VAW Meter With CT	
7	Electrical	ACH.V. Tester	
8	Electrical	Flexing Test (Apparatus counter)	
9	Electrical	Million Mega Ohm Meter	



10	Electrical	Equipments for LED Bending test Equipment	
11	Electrical	Equipments for LED Axial Pull Test Apparatus	
12	Electrical	Equipments for LED Cap temperature rise test	
13	Electrical	Flame Retardant Test Equipment	

14	Electrical	Smoke Density	
15	Electrical	H.V. Voltage Impulse Generator	
16	Electrical	Endurance test Equipment for Blender	
17	Electrical	Coupler test for Cordless Electric Kettle	

18	Electrical	IPX1	
19	Electrical	Torque Test Measurement(for FHP)	
20	Electrical	Glow wire Test Equipment	
21	Electrical	Endurance test Pannel	
22	Electrical	Multi test Panel	


23	Electrical	5 Point Temp. Distribution	
24	Electrical	Drop Test (For Electric Iron)	
25	Electrical	Pressure Test apparatus (+/- ve)	
26	Electrical	Temp. Scanner(8 channels), (8 channels) & (16 channels)	
27	Electrical	IPX3 & IPX4	






28	Electrical	DC high voltage Tester	
29	Electrical	Test wall corner	
30	Electrical	Cord flexing test apparatus	
31	Electrical	Dust proof Chamber	
32	Electrical	EMC Fast Transient Immunity Test	




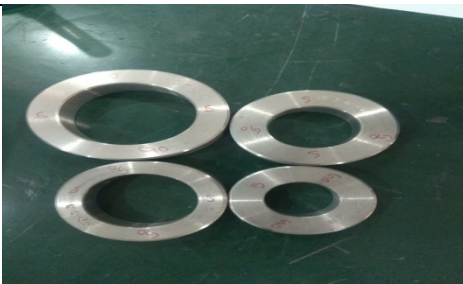

33	Electrical	EMC Surge Immunity Test	
34	Electrical	Performance tests of Stat. St. Water Heater	
35	Electrical	Project profile	
36	Electrical	Cyclic Programmable environmental test	
37	Metallurgy	Universal Testing Machine(Analogue)	

38	Metallurgy	Universal Testing Machine(Digital)	
39	Metallurgy	Tensile Testing Machine	
40	Metallurgy	Tensile Testing Machine	
41	Metallurgy	VICKER'S CUM BRINELL HARDNESS TESTER	
42	Metallurgy	ROCKWELL HARDNESS TESTER	
43	Metallurgy	COMPRESSION TESTING MACHINE	


44	Metallurgy	PIPE BENDING MACHINE	
45	Metallurgy	PIPE BENDING MACHINE	
46	Metallurgy	BALANCE WITH MASSES	
47	Metallurgy	COMPRESSION TESTING MACHINE (FOR INSULATING CONDUITS)	
48	Metallurgy	FREEZER	

49	Metallurgy	OVEN	
50	Metallurgy	WEIGHING MACHINE	
51	Metallurgy	MICROMETER (MITUTOYO)	
52	Metallurgy	VERNIER CALIPER	
53	Metallurgy	DIGITAL CALIPER	



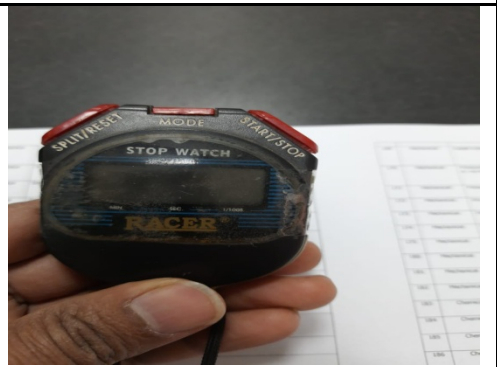


54	Metallurgy	DIGITAL MICROMETER	
55	Metallurgy	PIPE BENDING MACHINE (FOR INSULATING CONDUIT)	
56	Metallurgy	DEAD WEIGHTS FOR IMPACT TESTING MACHINE(PVC)	
57	Metallurgy	DEAD WEIGHTS FOR TORSION TESTING MACHINE	
58	Metallurgy	BENDING MANDRELS 7 NOS	





59	Metallurgy	BENDING AND REBENDING MANDRELS 14 NOS	
60	Metallurgy	GAUGES FOR CHECKING MINIMUM INSIDE, MINIMUM OUTSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF CONDUITS	
61	Metallurgy	GAUGE FOR CHECKING MINIMUM INSIDE DIAMETER OF CONDUITS OF INSULATING MATERIALS AFTER BENDING	
62	Metallurgy	GAUGE FOR CHECKING MAXIMUM INSIDE AND MAXIMUM OUTSIDE DIAMETER OF SOCKET END	
63	Metallurgy	CIRCULAR STEEL PLATE	



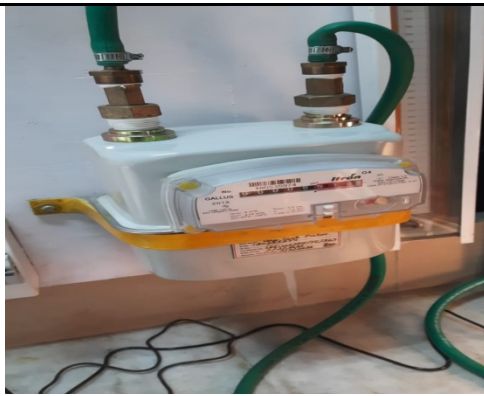

64	Metallurgy	VERNIER CALIPER	
65	Metallurgy	VERNIER HEIGHT GAUGE	
66	Metallurgy	THREAD RING GAUGES (GO)& (NO GO)	
67	Metallurgy	DRY & WET THERMOMETER	
68	Metallurgy	DRY & WET THERMOMETER	


69	Metallurgy	MEASURING TAPE FOR TTM 2500N,	
70	Mechanical	Slip Gauge set M 122 Pcs	
71	Mechanical	Gauge Block Calibrator	
72	Mechanical	Universal Measuring Microscope	
73	Mechanical	Electronic level	



74	Mechanical	Roughness standard	
75	Mechanical	Glass Thermometer (LPG)	
76	Mechanical	Digital Anemometer	
77	Mechanical	Digital weighing Balance	

78	Mechanical	Digital Temperature indicator(LPG water heater)	 <p>The image shows a digital temperature indicator for an LPG water heater. It features a central digital display showing '00.0' and a 'TEMP DATA LOGGER' label above it. On the left, there's a display for 'INLET' temperature showing '73.5' and '0.0'. On the right, there's a display for 'OUTLET' temperature showing '2.18' and '0.0'. Below the displays are buttons for 'POWER', 'FUSE', 'ALARM', and 'SYSTEM'. A red indicator light is visible under the 'POWER' button. At the bottom, it says 'SADHANA TEST AND CALIBRATION' and 'MCH-8866402469'.</p>
79	Mechanical	Muffle Furnance (Digital Temp. Indicator)	 <p>The image shows a muffle furnace with its lid open. The interior is lined with a light-colored material. The control panel on the front has a digital temperature display and several buttons. The furnace is mounted on a metal stand with drawers.</p>
80	Mechanical	Dig ital stop watch	 <p>The image shows a digital stop watch held in a hand. The watch is black with red accents and has a digital display showing '00:00:00'. It has buttons for 'MODE', 'START/STOP', and 'SPLIT/RESET'. The brand name 'RACER' is visible on the watch face.</p>
81	Mechanical	Aneriod Barometer	 <p>The image shows an aneroid barometer. It has a circular dial with a needle pointing to a value. The dial is marked with pressure values in both mmHg and hPa. The brand name 'SADHANA' is visible on the dial.</p>
82	Mechanical	Measuring cylinder (consolidated cost sr. no.27 to 31)	 <p>The image shows a measuring cylinder and a beaker. The measuring cylinder is marked with volume values. The beaker is marked with 'BOROSIL GLASS' and '200 ml'.</p>



83	Mechanical	Measuring cylinder	
84	Mechanical	CO meter	
85	Mechanical	Pressure gauge (Pump) (consolidated cost sr. no.33 to 37)	
86	Mechanical	Digital Lux meter	




87	Mechanical	Auto Clave (Pressure Gauge)	
88	Mechanical	Pressure gauge (PNG) (consolidated cost sr. no.42 to 46)	
89	Mechanical	Dry Gas Meter	
90	Mechanical	Hot Air Oven (PID Controller)	





91	Mechanical	Hand held Digital Thermometer (Multi Stem)	
92	Mechanical	Digital Thermo Hygrometer	
93	Mechanical	Opacity Meter	
94	Mechanical	Torque Wrench	


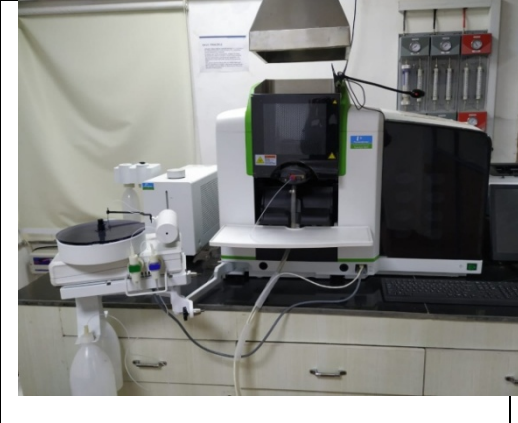

95	Mechanical	IR Thermometer (Gun)	
96	Mechanical	Digital Thickness Gauge Dead Weight type	
97	Mechanical	Synthetic Blood Penetration Tester	
98	Mechanical	Melt Flow Index Tester	



99	Chemical	Flash Point Apparatus, Close cup	
100	Chemical	Muffle Furnace	
101	Chemical	Measuring Equipments (Vernier Caliper; Micro meter)	
102	Chemical	Refrigerator; (Kelvinator)	

103	Chemical	Flexibility & Adhesion Test Apparatus	
104	Chemical	Hot air Oven	
105	Chemical	Wear Tester for Road Marking Paint	
106	Chemical	Ford Cup No.4	

107	Chemical	Stop Watch, Calibrated	
108	Chemical	New Muffle Furnace	
109	Chemical	Humidity Cabinet	
110	Chemical	pH meter	

111	Chemical	Motorized Scratch test apparatus	
112	Chemical	Gloss Meter for Paints	
113	Chemical	Deep Freezer	
114	Chemical	Salt Spray Chamber	

115	Chemical	Optical Emission Spectrometer (OES)	
116	Chemical	Atomic Absorption Spectrometer (AAS)	
117	Chemical	Microscope	
118	Chemical	Compression testing machine (Cube)	

119	Chemical	Centrifuge Machine	
120	Chemical	Compression testing machine(Bricks)	

Testing facility Available:

Sl. No.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1.	Mechanical	Copper Alloy Fancy Single Tap, Combination Tap Assembly & stop valve for water Services	IS 8931 -1993	Type Testing
2.	Mechanical	Melt Flow rate	IS 13360: 1999 (pt.4)	Type Testing
3.	Mechanical	Domestic Gas stove use with PNG	IS 17153 : 2019	Type Testing
4.	Mechanical	2-Way and 3-Way suction collecting heads for firefighting purposes	IS:904: 1983	Type Testing
5.	Mechanical	Couplings, Double Male and female Pattern for fire Fighting	IS 901: 1988	Type Testing
6.	Mechanical	Fire Hose Delivery Couplings, Branch pipe, Nozzles and Nozzle spanner	IS 903: 1993	Type Testing
7.	Mechanical	Fire Hydrant	IS:908: 1975	Type Testing
8.	Mechanical	Fire Extinguisher. Cap.- 135 ltrs	IS 14951: 2001	Type Testing
9.	Mechanical	Hospital Bed	IS 7378: 1974	Type Testing
10.	Mechanical	Trolley Patient	IS 4036: 1967	Type Testing
11.	Mechanical	Razors	IS:7370: 1974	Type Testing
12.	Mechanical	Safety Razor Blades	IS:7371: 1982	Type Testing
13.	Mechanical	Scissors	IS:989: 1982	Type Testing
14.	Mechanical	Staplers	IS:5349: 1986	Type Testing
15.	Mechanical	Staples	IS:5348: 1981	Type Testing
16.	Mechanical	Twin Blade Cartridge	IS:13031: 1990	Type Testing
17.	Mechanical	Twin Blade Razor Handles	IS:13777: 1993	Type Testing
18.	Mechanical	Single Use Rubber Examination Glove	IS 15354: 2003	Type Testing
19.	Mechanical	Umbrella	IS:2920: 1981	Type Testing
20.	Mechanical	Umbrellas, Folding- Manual	IS:10675: 1983	Type Testing
21.	Mechanical	Door Handle for Mortice lock	IS 4992-1975	Type Testing
22.	Mechanical	Float Glass	IS 14900 – 2000	Type Testing
23.	Mechanical	Mortice Lock	IS 2209 – 1976	Type Testing
24.	Mechanical	PE/AL/PE Composite Pressure Pipes For Hot & Cold Water Supplies	IS15450 - 2004	Type Testing
25.	Mechanical	Rubber Hose	IS 444 - 2017	Type Testing
26.	Mechanical	Performance of Handles attached to cookware	IS 13359: 1995	Type Testing
27.	Metallurgy	Aluminium conductors for overhead transmission purposes: part 2 aluminium conductors, galvanized steel - reinforced	398:2:0:96	As per IS
28.	Metallurgy	Cast copper alloy screw-down bib taps and stop valves for water services	781:0:0:84	As per IS
29.	Metallurgy	Cold-twisted steel bars for concrete reinforcement	1786:0:0:08	As per IS
30.	Metallurgy	Hard drawn steel wire for concrete reinforcement	432:2:0:82	As per IS
31.	Metallurgy	Hollow steel section for structural use	4923:0:0:97	As per IS

32.	Metallurgy	Mild steel and medium tensile steel bars	432:1:0:82	As per IS
33.	Metallurgy	Mild steel wire for general Engg. purpose	280:0:0:06	As per IS
34.	Metallurgy	Mild steel wires, strips and tapes for armouring of cables	3975:0:0:99	As per IS
35.	Metallurgy	Precast concrete manhole covers and frames part-1, covers,pt-2 , frames	12592:0:0:02	As per IS
36.	Metallurgy	Rigid plain conduits of insulating material	9537:3:0:83	As per IS
37.	Metallurgy	Rigid steel conduits for electrical installations	9537:2:0:81	As per IS
38.	Metallurgy	Steel pipes for water and sewage	3589:0:0:01	As per IS
39.	Metallurgy	Steel tubes for mechanical and general engineering purpose	3601:0:0:06	As per IS
40.				
41.	Metallurgy	Steel tubes for structural purposes	1161:0:0:98	As per IS
42.	Metallurgy	Steel tubes used for water wells	4270:0:0:01	As per IS
43.	Mechanical	Steel tubes, tubular and other wrought steel fittings - part 1 : steel tubes	1239:1:0:04	Type tests
44.	Electrical	Electric ceiling type fans and regulators	374:0:0:79	Type tests
45.	Electrical	Electric food mixers (liquidizers and grinders)	4250:0:0:80	Type tests
46.	Electrical	electric immersion water heaters	368:0:0:14	Type tests
47.	Electrical	electric instantaneous water heaters	8978:0:0:92	Type tests
48.	Electrical	electric irons	366:0:0:91	Type tests
49.	Electrical	electric radiators	369:0:0:92	Type tests
50.	Electrical	mineral filled sheathed heating elements	4159:0:0:02	Type tests
51.	Electrical	propeller type ac ventilating fans	2312:0:0:67	Type tests
52.	Electrical	pvc insulated cables	694:0:0:10	Type tests
53.	Electrical	safety of household & similar electrical appliances (pt-2) particular req. sec-14 electric kitchen machines	302:2:14:09	Type tests
54.	Electrical	safety of household & similar electrical appliances (pt-2) particular req. sec-15 appliances for heating liquids	302:2:15:09	Type tests
55.	Electrical	safety of household and similar electrical appliances pt-2, particular req-sec 35:electric instantaneous water heater	302:2:35:11	Type tests
56.	Electrical	safety of household and similar electrical appliances - stationary storage type electric water heater	302:2:21:11	Type tests
57.	Electrical	safety of household and similar electrical appliances-electric immersion water heaters	302:2:201:08	Type tests
58.	Electrical	safety of household and similar electrical appliances-electric iron	302:2:3:07	Type tests
59.	Electrical	safety of household and electrical appliances-electric radiators	302:2:30:07	Type tests

60.	Electrical	single phase a.c. industrial motors for general purpose	996:0:0:79	Type tests
61.	Electrical	stationary storage type electric water heaters	2082:0:0:93	Type tests
62.	Chemical	laundry soaps	285:0:0:92	As per IS
63.	Chemical	liquid soap	4199:0:0:01	As per IS
64.	Chemical	metal polish, liquid	5487:0:0:92	As per IS
65.	Chemical	ready mixed paint air drying, red oxide-zinc chrome, priming	2074:0:0:92	As per IS
66.	Chemical	shoe polish, paste	1746:0:0:92	As per IS
67.	Chemical	soft soap	7532:0:0:74	As per IS
68.	Chemical	Aluminium and Aluminium alloys	1285:0:0:02	Chemical composition
69.	Chemical	toilet soaps	2888:0:0:04	Type tests
70.	Chemical	tower bolts, ferrous metals	204:1:0:91	Chemical composition
71.	Chemical	tower bolts, non-ferrous metals	204:2:0:92	Chemical composition
72.	Chemical	Burnt Clay Bricks	IS: 1077:0:0:92	Compressive strength, Water absorption, Efflorescence
73.	Chemical	Water for construction	IS:456:0:0: 2000	As per (Cl.5,4)
74.	Chemical	TMT Bar	IS:1786 :0:0: 08	Chemical composition
75.	Chemical	Stainless steel plate, sheet and strip	IS:6911 :0:0: 92	Chemical composition
76.	Chemical	Ceramic Tiles	IS:15622 :0:0: 2006	Water absorption, Resistance to acid & alkali
77.	Chemical	Cement	IS:269, 8112,12269	Physical & Chemical test
78.	Chemical	Paver Block	IS:15658 :0:0: 06	Compressive strength, Water absorption,
79.	Chemical	Copper	IS:191 :0:0: 2007	Copper purity
80.	Chemical	Detergent Powder	IS:4955 :0:0:2001	As per IS

Calibration facility available:

SL. No.	Domain	Field	Sub Group	BIS Standards
1.	Mechanical	Dimension (Basic Measuring Instrument	bevel protractor LC:1 degree	IS 4239 : 1970
2.	Mechanical	Dimension (Basic Measuring Instrument	bevel protractor LC:5 min	IS 4239 : 1970
3.	Mechanical	Dimension (Basic Measuring Instrument	Caliper (Vernier/Dial/ Digital) LC:10µm	IS 3651 : 1982
4.	Mechanical	Dimension (Basic Measuring Instrument	Dial Gauge (lever type) LC: 0.001mm	IS 2092 : 1983
5.	Mechanical	Dimension (Basic Measuring Instrument	Dial gauge plunger type LC:0.001 mm	IS 11498 : 1985
6.	Mechanical	Dimension (Basic Measuring Instrument	Dial gauge plunger type LC:0.01 mm	IS 11498 : 1985
7.	Mechanical	Dimension (Basic Measuring Instrument	external micrometer LC 1 µm	IS 2967 : 1983
8.	Mechanical	Dimension (Basic Measuring Instrument	Height gauge (Vernier/ Dial/ Digital) LC 10 µm	IS 2921 : 2016
9.	Mechanical	Dimension (Basic Measuring Instrument	Height gauge (Vernier/ Dial/ Digital) LC 20 µm	IS 2921 : 2016
10.	Mechanical	Dimension (Basic Measuring Instrument	Mandrel Diameter roundness	S 7262 : 1996
11.	Mechanical	Dimension (Basic Measuring Instrument	Mandrel Diameter squareness	S 7262 : 1996
12.	Mechanical	Dimension (Basic Measuring Instrument	Measuring Pin/Thread Measuring Wire	IS 11103 : 1984
13.	Mechanical	Dimension (Basic Measuring Instrument	Measuring Tape LC : 0.5 mm	IS 1269 : Part 2 : 1997
14.	Mechanical	Dimension (Basic Measuring Instrument	Micro meter Setting Rod/Length Bar	IS 2966 : 1964
15.	Mechanical	Dimension (Basic Measuring Instrument	pitch gauge	IS 4211 : 1993
16.	Mechanical	Dimension (Basic Measuring Instrument	Plain Plug Gauge	IS 6137 : 1983
17.	Mechanical	Dimension (Basic Measuring Instrument	plain ring gauge	IS 3485 : 1983
18.	Mechanical	Dimension (Basic Measuring Instrument	Radius gauge	IS 5273 : 1969
19.	Mechanical	Dimension (Basic Measuring Instrument	Steel Scale LC:1 mm	IS 1481 : 1970
20.	Mechanical	Dimension (Basic Measuring Instrument	Straight edge thickness = 50 mm parallelism	IS 2220 : 1990
21.	Mechanical	Dimension (Basic Measuring Instrument	straight edge thickness = 50 mm Straightness	IS 2220 : 1990
22.	Mechanical	Dimension (Basic Measuring Instrument	straight edge thickness = 50 mm straightness & parallelism	IS 2220 : 1990
23.	Mechanical	Dimension (Basic Measuring Instrument	surface plate	IS 7327 : 2003
24.	Mechanical	Dimension (Basic Measuring Instrument	Surface Roughness Ra Ry Rz	IS 3073 : 1967
25.	Mechanical	Dimension (Basic Measuring Instrument	test sieves	IS 460 : Part 1 : 1985
26.	Mechanical	Dimension (Basic Measuring Instrument	V Block Parallelism,	IS 2949 : 1992

			Flatness, Squareness,	
27.	Mechanical	Dimension (Basic Measuring Instrument	V Block V angle	IS 2949 : 1992
28.	Mechanical	Dimension (Precision Instruments)	glass scale LC:0.001 mm	IS 1480 : 1970
29.	Mechanical	Dimension (Precision Instruments)	glass scale LC:0.1 mm	IS 1480 : 1970
30.	Mechanical	Dimension (Precision Instruments)	glass scale LC:0.5 mm	IS 1480 : 1970
31.	Mechanical	Dimension (Precision Instruments)	slip gauge	IS 2984 : 2003
32.	Metallurgical	Force Measuring Devices	Proving Ring	IS:4169:1988

Testing/Calibration Activity done for the Past 10 years:

SL. No.	Financial Year	Total No of Sample tested	Total no of Tests/calibration conducted	Total amount of revenue Earned
1.	2010-11	----	----	
2.	2011-12	----	----	----
3.	2012-13	----	----	----
4.	2013-14	----	----	----
5.	2014-15	----	----	----
6.	2015-16	1698	10591	97,52,695
7.	2016-17	1682	12696	92,56,569
8.	2017-18	1365	16507	99,14,773
9.	2018-19	2278	14579	1,23,25,531
10	2019-20	1792	19196	1,30,00,033

Achievements:

SL. No.	Total no of beneficiary	Micro	Small	Medium	CPSUs	SPSUs	Others	Total
1.	2010-11	----	----	----	----	----	----	----
2.	2011-12	----	----	----	----	----	----	----
3.	2012-13	----	----	----	----	----	----	----
4.	2013-14	----	----	----	----	----	----	----
5.	2014-15	----	----	----	----	----	----	----
6.	2015-16	----	154	----	----	----	1470	1624
7.	2016-17	----	88	----	----	----	1670	1758
8.	2017-18	----	82	----	----	----	1155	1237
9.	2018-19	----	94	----	----	----	2144	2238
10	2019-20	----	464	----	----	----	1954	2418

Success story:

We all know presently the World is struggling with Covid – 19. The Pandemic has compelled each of us to contribute the best to mankind whereas MSMEs are promised to bring Covid related quality products for domestic and International of PPE Kits Items related to Covid 19. The specification & details of the items as per related IS/EN, are as below:-

S. No.	Name of the Item	Standards
1.	Single use rubber examination gloves	As per IS:15354, BS-EN-455-1, EN 455
2.	Covid Hospital ICU Bed, Fowler's	As per IS: 7378
3.	Patient carrying Trolleys, Dressing Trolley, Mayo Trolley(SS) & Crash Cart (Medication Trolley)	IS: 4036
4.	Covid 19 Plastic stick having Swab Fiber to collect samples from throat & Nose of patient	As per customer requirements to identify Polyester/Rayon

5.	Electric Sanitizer Machine	IS: 302 As per IS test method
6.	Anti Covid Formulation (Testing of concentration)	Specific gravity and Flash point test as per customer requirements
7.	Blood Penetration Testing Equipment	As per National & International
8.	UTM of surgical gloves	As per National & International

MSME Testing Centre, Okhla, New Delhi, finds it satisfactory and a move towards fight against pandemic to serve you're the best in testing of aforesaid PPE Kits items related to Covid 19 as per National and International Standards

8. Additional information if any:

- A) The MSME- Testing Centre, Okhla, New Delhi, and Electrical Laboratory got empanelled with Bureau of Energy Efficiency (BEE) in the Year 2017 under Check Testing of Appliances/Equipments registered under Standard & Labelling (S&L) Programme for testing of following Equipments/Appliances
- 1) Ceiling Fans ;
 - 2) Water Heaters/Electric Geysers;
 - 3) Liquefied Petroleum Gas Stoves ;
- B) The Testing Centre, Okhla, New Delhi, is also empanelled with Rashtriya Ispat Nigam Ltd., Vishakhapatnam, Andhra Pradesh, for the testing of metallurgical products/items.
- C) The testing of following products has been upgraded and modernized to automated mode which was previously done manually –
- 1) Ceiling Fan,
 - 2) Geyser,
 - 3) Compression Testing Machine; (CTM)
 - 4) Universal Testing Machine; (UTM)
 - 5) Optical Emission Spectrometer; (OES)
 - 6) Atomic Absorption Spectrophotometer; (AAS)
- D) The Centre is also benefitting the **Air force** by testing Metal Components for indigenized projects.

Address:

MSME Testing Centre
(NABL ACCREDITED & BIS RECOGNISED LAB)
Shaheed Capt. Gaur Marg, (Opp. Modi Flour Mill)
Okhla, New Delhi -110 020
 Website: www.msme-tc-nr.gov.in
 E-mail: dctc-nr@dcmsme.gov.in
 Customer Cell No: 011- 49539515, 26312587, 49097946



**Government of India
Ministry of MSME**

**MSME TESTING STATION, JAIPUR
(BIS RECOGNIZED)**



Introduction:

Government of India, Ministry of MSME has established testing stations at various places in the country with an objective to provide testing facilities to MSME units to enable them to manufacture goods conforming to acceptable standard specifications and also provide third party assurance to various Govt./Private Agencies and help MSME in the area of Upgradation of quality.

OUR MISSION:

MSME Testing Station is committed to achieve excellence in the field of testing services for its customers through good professional practices by involving trained personnel well versed with quality documents/procedures and by continual improvement in effectiveness of documented management system as per specific requirements of national and international standards

CLIENT BASE:

Our client base includes various MSMEs in the Mechanical, Metallurgy, Civil, Chemical, Paper, Glass and Ceramics industries. Government organizations and research institutes.

Testing Infrastructure Available:

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification
				Range / Size
1.	Mechanical & Metallurgy	C.T.D/TMT/Round Angle , Flat, Beam, Channel Sheet, etc Manhole product Common Burnt Clay Building Bricks CC cube and paver block	AS per Endosed list ANX-1	IS :1786 : 2008 IS 2062: 2011 IS 456: 2000 IS 12592:2002 IS 15658: 2006 IS 1077: 1992
2	Chemical	Steel ,Aluminum Copper and its Alloys Paper Waters Test for Construction		IS 1786, IS 2062, 304, 302, IS 456:2000 , IS 1060:1969and as per customer specification
3.	G&C	Cement Road Aggregate Glazed ceramic tiles		IS; 269-1967,8112-1989,12269-1967, 12330-1988, 1489-1991 IS:383, IS:1237/IS 15622/13630

Photograph of Equipments and machinery :

Paper testing



Tile testing



Cement testing



Chemical Composition



Mechanical Metallurgy



Testing facility Available :

SL.NO.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1	Mechanical & Metallurgy	C.T.D/TMT/Round	IS :1786 : 2008	Tensile Test Hardness Test Breaking Load Test Compression Test, bend & rebend
		Angle , Flat, Beam, Channel Sheet, etc	IS 2062 : 2013	Tensile Strength, Yield Stress, % Elongation , Nominal Mass
		Manhole product	IS 1726 and IS 12592	Compression and load bearing
		Common Burnt Clay Building Bricks	IS:1077	Compression, water absorption and efflorescence test
		CC cube and paver block	IS 456 & IS 15685	Compression, water absorption
2	Chemical	Steel ,Aluminum Copper and its Alloys	IS 1786, IS 2062, 304, 302, and as per customer specification	Chemical composition
		Paper	IS 1060	All test except microscope test
		Waters Test for Construction	IS-456;2000	ALL test
3	G& C	Cement	IS; 269-1967,8112-1989,12269-1967, 12330-1988, 1489-1991	All test
		Road Aggregate as per	IS:383	All test
		Glazed ceramic tiles	IS:1237/IS 15622/13630	All test

Testing/Calibration Activity done for the Past 10 years:

SL.NO.	Financial Year	Total No of Sample tested	Total No of Tests/calibration conducted	Total amount of revenue Earned
1.	2010-11	26959	26959	4744087
2.	2011-12	20497	20497	7041498
3.	2012-13	21713	21713	6291579
4	2013-14	20102	20102	7527261
5	2014-15	26376	26376	7262235

6	2015-16	29589	29589	9233533
7	2016-17	27691	27691	9817935
8	2017-18	23962	23962	9939775
9	2018-19	19377	19377	9076221
10	2019-20	12425	12425	6291015

Achievements:

SL. No	Total no of Beneficiary	Micro	Small	Medium	CPSUs	SPSUs	Others
1	2009-10	3165	-	-	-	-	814
2	2010-11	3916	-	-	-	-	292
3	2011-12	1962	-	-	-	-	729
4	2012-13	1873	-	-	-	-	905
5	2013-14	2146	-	-	-	-	128
6	2014-15	1181	-	-	-	-	1320
7	2015-16	138	-	-	-	-	1748
8	2016-17	37	-	-	-	-	1427
9	2018-19	106	-	-	-	-	1393
10	2019-20	102	-	-	-	-	1004

Address: Bais Godam Industrial Es tate, Jaipur -302006

Website: www.msmedijainpur.gov.in

E-mail: dcts-jai pur@dcms me.gov.in

Customer Cell No: 0141-2212090



Government of India
Ministry of MSME

MSME TESTING STATION, BENGALURU
(NABL ACCREDITED LABORATORY (TC-3789) - BIS RECOGNIZED)



Introduction:

MSME- Testing Station Bengaluru recognised Electrical Testing Centre of Govt of India under the Ministry of MSME, The main objective of this Testing Station is to provide Testing and quality improvement of the products being manufactured by the MSMEs, MSME Testing Station Bengaluru well equipped for conducting Tests as per Indian standards specification for the following Electrical Products

Testing Infrastructure Available:

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification
				Range / Size
1	Electrical	High voltage Tester (AC).	Single	,0 -10KV (AC)± 5% for HV & 0-1000mA, ±10% for mA,0-9999 sec.
2		High voltage tester (DC).	Single	.0 - 10KV(DC)± 5% for HV & 0- 300mA ±10% for mA, 0- 9999 sec.
3		Weighing Balance.	„	0 to 200 grams, ±0.1 mg.
4		Temperature Oven,3 Phase	„	0 to 200°C, ±3°C
5		Cold impact apparatus.	„	0-100 grams
6		Digital Vernier caliper.	„	0 to 200 mm, Resolution:0.01 mm,accuracy: ± 0.02mm
7		Ageing oven.	„	,0 to 100°C., 0-500 Hrs.,air flow meter 0.1- 1 CMH
8		Hot water bath.	„	0 to 80°C, 0-500 Hrs.
9		Thermal stability oven.	„	0 to 400°C
10		Digital Micro-ohm meter.	„	,0 to 2000 ohms, ±(0.03% rdg + 5 digit)
11		Measuring scale (meter).	„	1meter,L.C 0.5mm
12		Test finger eqpt.	„	0-50V.
13		Cable dumb-bell making fly press.	Two	Dimensions as per IS:694:2010,4mm,0-50mm &0-75mm
14		Flammability test apparatus.	Single	, Dimensions as per IS:694:2010,0-45 degree angle,0-600 mm length
15		Standard Resistors.	Three Nos	1 ohms, 20 ohms, 1 k-ohms
16		Hot deformation measuring set Weights.	Eight Nos	0-1000 grams, accuracy:01 gram
17		Vernier Calliper.	Single	,0-600mm,accuracy. ± 02 mm
18		Thermo hygrometer.	„	0-100° C, accuracy ± 1 degree ,0- 99% RH± accuracy 1% RH
19		Digital Earth leakage meter.	„	0-300V,0-2 Amps
20		Hydraulic Hot press	„	0-250 °C,0-9999sec
21		Conductor clamp	„	1000mm, accuracy ± 1mm
22		SS steel mandrills	„	(20mm to 43mm) accuracy ± 0.1mm
23		Analog stop watch(seconds Timer)	„	0 to 60 min., L.C 01 Sec
24		Deep Freezer	„	0 to (-)40°C ± 0.2°C
25		Digital clamp meter	„	,0- 1000A, 0-750V,0-1000 ohms.
26		Digital AC power meter	„	3 phase, 0-400V, 0-3kW.

27		Analog Seconds Timer	„	WT-210,0 to 15 minutes
28		Digital Power Meter & voltmeter of photometric control panel	„	0-600 volts/0-300watts/0-20amps
29		Torsion test apparatus	„	0-5 Nw-Mtrs
30		Cyclic timer	„	0-99 minutes
31		Servo control stabilizer	„	,0-10 kVA,0-270V, 0-40Amps.
32		Million Meg-ohm meter	„	,0- 10x10*6 M-ohms
33		Frequency Meter	„	,0-100 Hz
34		Hi-current test panel	„	0-1000 Amps,0-100V,0-9999 sec.
35		Sound level meter	„	30 – 130 dB
36		Anemometer	„	0- 27Mtrs/Sec
37		Frequency converter	„	0-60 Hz.
38		Digital Stroboscope	„	,0-20000 RPM,0-240 Hrs.
39		Humidity chamber	„	0-60 °C,0-98% RH.
40		Digital micro-meter	„	0- 25mm & Resolution:0.001mm
41		Digital multi-meter	„	AC/DC voltage: 0 to 600V AC/DC current: 0 to 10 A, Resistance: 0 to 30 MΩ
42		Digital Insulation Tester	„	0 to 1000 Meg-ohms, 500/1000V volts
43		Motorized torsion Testing Machine	„	,0 to 999 counts, L.C 1
44		Digital Tensile Testing machine	„	0 to 2500 Newton's
45		Oxygen/Temp. Index test Apparatus	„	Air flow meter 0-2 LPM
46		Halogen Acid Gas test Equipment	„	Air flow meter 0-2 LPM & Temp. Controller
47		Smoke Density test apparatus	„	,0-7 Kgs./sq. cm
48		Humidity Temp. meter	„	0-100 C, accuracy ± 1 degree ,0- 99% RH ± accuracy 1% RH

Photograph of each Equipments and machinery:

Testing facility Available :

SL.NO.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1	Electrical	1) PVC Insulated Electric cables for Working Voltages up to and Including 1100V	IS:694 2010	Type and Acceptance Test
		2) PVC Insulated (Heavy duty)Electric cables	IS:1554(Part-1)1988	Type and Acceptance Test
		LED Lights and Luminaries	IS 16106-2012	Luminous intensity & Electrical Test
		Fans & Blowers	As per customer specification	Electrical and air flow Test
		1.Florescent Tubular Lamps (FTL)	IS 2418--1977	Luminous intensity& Electrical Test
		2.Compact Florescent Tubular Lamps (CFL) 25 watts	IS 15111--2002	Luminous intensity& Electrical Test
		3.HPSV Lamps 70 w,150w ,250w,400w	IS 9974—1981	Luminous intensity& Electrical Test
		3. Ballest for .Florescent Tubular Lamps (FTL)except thermal endurance and current wave form Test	IS 6616—1982	Luminous intensity& Electrical Test
		INDIVIDUAL TESTING FACILITIES	As per customer specification	Type Test.
		a)Annealing Test, b)Conductor Resistance Test, c)Overall dimension Test d)Tensile strength test e) loss of mass test. f)Shrinkage Test g)Heat shock Test h)Hot deformation Test i)High voltage test j) Flammability test. k)high voltage AC test room temperature. l)protection against electric shock m)Test at 60Hz frequency .n)Temperature rise Test o) Electric insulation test and leakage current Test p) Moisture resistance test and electric strength Test. Q) Earthing connection Test r)Screw and connection Test.		

		s)Creepage distance and clearance Test t)Resistance to heat fire and tracking Test u)Resistance to rusting Test		
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Testing Activity done for the Past 10 years:

SL.NO.	Financial Year	Total No of Sample tested	Total No of Tests/calibration conducted	Total amount of revenue Earned
1.	2010-11	65	360	1.94
2.	2011-12	74	425	3.58
3.	2012-13	94	537	10.26
4	2013-14	88	523	4.75
5	2014-15	42	345	3.31
6	2015-16	50	310	1.77
7	2016-17	29	110	1.85
8	2017-18	36	210	2.40
9	2018-19	35	155	2.11
10	2019-20	18	128	1.79

Achievements:

	Total no of Beneficiary	Micro	Small	Medium	CPSUs	SPSUs	Others
1	2010-11	31	30	0	0	0	4
2	2011-12	30	44	0	0	0	0
3	2012-13	50	41	0	0	0	2
4	2013-14	43	45	0	0	0	0
5	2014-15	25	16	1	0	0	0
6	2015-16	25	20	1	0	0	9
7	2016-17	10	12	1	0	0	7
8	2017-18	20	11	0	0	0	5
9	2018-19	10	21	0	0	0	4
10	2019-20	10	7	0	0	0	1

Address:

MSME Testing Station, MSME Campus Rajaji nagar Industrial Estate Bengaluru -560010

Website msmedi bangalore.gov.in

E-mail. asstdirblr@bsnl.in

Customer Cell No: STD code -:08023202540



Government of India
Ministry of Micro Small & Medium Enterprises
MSME-TESTING STATION, BHOPAL (M.P.)



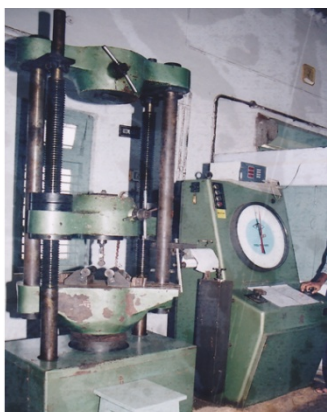
INTRODUCTION:

MSME-Testing Station, Bhopal is working since 1983 to cater the needs of Testing and Quality improvement of Industrial sector with preference to Micro, Small and Medium Enterprises in and around Madhya Pradesh. The objective is to provide testing facilities and consultancy to MSMEs with a thrust on quality improvement of raw material and finished products and help in improving quality of products of MSME for participation in Govt. stores purchase programme. One unit of BHEL is located in Bhopal and most of the MSMEs in the surrounding are vendors to BHEL, engaged in fabrication work. Some of the units are engaged in manufacture of transformers and other electrical items. Our most of the customers include MSME units, MPEB, FCI, CPWD, State Govt. Departments, IISER Bhopal, Coach Rehabilitation Workshop Bhopal, CIAE Bhopal.

Testing Infrastructure Available:

Sl.No.	Domain	Name of the Machinery & Equipment available	Number of Machinery & Equipment available	Specification
				Range/ Size
1.	Mechanical	Tensile Testing Machine	01	2.5 KN
2.	Electrical	---	---	---
3.	Metallurgical	Universal Testing Machine	01	600 KN
4		Rockwell Hardness Testing Machine	01	HRA, HRB, HRC, BHN
5		Electronic Weighing Balance	01	21 Kgs
6		Outside Micrometer	01	0-25 mm
7		Dial Vernier Caliper	01	
8.	Electronics	---	---	---
9.	Food	---	---	---
10.	Chemical	Abrolins Carbon- Sulphur Apparatus	01	---
11.		Mettler weighing balance	01	100 Gms
12		Electrolytic Analyser	01	---
13		Digital pH Meter	01	---

Photograph of equipments and machinery



Universal Testing Machine



Tensile Testing Machine



Rockwell Hardness Testing Machine



Digital pH Meter balance



Abrolins Carbon- Sulphur Apparatus



Mettler weighing

Testing facility available:

Sl.No.	Domain	Name of the Product	BIS Specification	Details / Type of testing
1.	Mechanical	Common Burn Clay Brick	IS:1077	Compressive strength & Water absorption
		Concrete cubes	IS:456	Compressive strength
		Rubber	IS:3400	Tensile Strength , elongation & water absorption
		Glass fibre sheet	IS:10192	Tensile, Compressive, CBS & Water absorption
		FRP Sheets	IS:1998	Tensile, Compressive, CBS & Water absorption
		Flush door	IS:2202 (part 1)	End immersion, Glue adhesion, knife test
		Plywood	IS:303,710	Tensile strength , Glue adhesion, Moisture content
2.	Electrical	Nil	Nil	Nil
3.	Metallurgical	All Metal	IS:1608	Tensile Test
		All Metal	As per customer requirement	Breaking load test of welded joint
		TMT Bars/ TOR Steel	IS:1786	Tensile Test, Bend Test, Re-bend Test, Weight per meter
		Structural Steel	IS:2062	Tensile Test, Bend Test, Weight per meter
		Materials requiring Bond strength test	As per customer requirement	Bond Strength
		Fusion or welded joint	As per customer requirement	Macrostructure test
4.	Electronics	Nil	Nil	Nil
5.	Food	Nil	Nil	Nil
6.	Chemical	Bleaching Powder	IS:1065	Percentage of Chlorine, Total Chlorine
		Sodium Hypochlorite	IS:11673	Percentage of Chlorine, Total Chlorine
		Ferric & Non-Ferric Alum	IS:260 & 299	All elements
		Pure Silver & Silver Brazing Rod	IS:2113,4646	Percentage of Metal
		Hard Coke	IS:439	Calorific Value
		Water Samples	IS:456	pH value, Acidity, Alkalinity
		Copper & Copper Alloys	IS :191/440	Purity percentage of metal
		FRP Sheets and materials	IS:1998/12866	Density , Glass content, Flammability

Testing/ Calibration Activity done for the past 10 years:

Sl.No.	Financial Year	Total No. of Samples Tested	Total No. of Tests/ Calibration conducted	Total amount of revenue earned
1.	2010-11	2513	6996	15,75,427/-
2.	2011-12	2088	6772	14,60,926/-
3.	2012-13	2398	9019	23,27,901/-
4.	2013-14	1997	8946	22,89,868/-
5.	2014-15	2134	9937	27,65,963/-
6.	2015-16	2008	8818	36,04,963/-
7.	2016-17	1551	7554	29,29,000/-
8.	2017-18	823	5013	22,09,115/-
9.	2018-19	938	4652	21,28,470/-
10.	2019-20	676	2424	12,02,315/-

Achievements :

Sl.No.	Total no of Beneficiary	Micro Small Medium			CPSUs	SPSUs	Others
		Micro	Small	Medium			
1	2010-11		303*				184
2	2011-12		390				113
3	2012-13		434				119
4	2013-14		501				89
5	2014-15		497				187
6	2015-16		416				185
7	2016-17		564				120
8	2017-18		249				84
9	2018-19		247				57
10	2019-20		172				46

Address : 47-E, Industrial Area, Govindpura, Bhopal - 462023 (M.P)

E- Mail : dcts-bhopal@dcmsme.gov.in

Customer Cell No : 0755-2586075



**Government of India
Ministry of MSME
MSME TESTING STATION, Hyderabad**



Introduction :-

MSME-Testing Station, Hyderabad, a Central Government laboratory, situated at A1,Industrial Estate, Sanathnagar, Hyderabad, Telangana state was established as Field Testing Station (FTS) in the year - 1983 by Government of India under Small Industry Development Organization (SIDO). This office is located in prominent area. Hyderabad is mainly defence establishments like DRDO, HAL, Ordnance Factory, Midhani, RCI, BDL and BHEL.

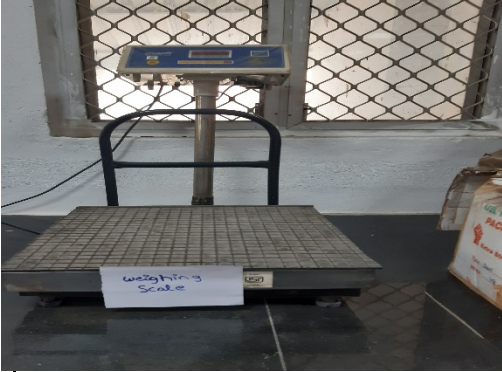
This lab main customers are CPWD, Defence, HAL, NTPC, BDL, Post Office, Universities, L&T, Railways , State Government Institutions and MSME's.In this Institute is equipped with Mechanical, Metallurgy, Chemical, Electrical and Product testing equipments to do tests like Material Testing,Paper Testing, Mould Growth, Corrosion Resistance, Environmental, Cable, Resistance, Voltage Breakdown, High Voltage Testing and Building Material Testing like cubes, cement, sand etc.

Testing Infrastructure Available:

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification
				Range / Size
1.	Mechanical Lab	UTM	1	1000KN
		Torsion tester	1	4mmØ
		Cupping tester	1	0.8mm thick
		UTM	1	600KN
		Impact tester	1	0 to 300 Joules
		Tensile tester	1	0 to 2500N
2	Electrical Lab	Transformer	1	100 KV capacity
		Oxygen Index machine	1	
		Halogen Testing apparatus	1	
		Smoke Density machine	1	
		Air source machine	1	
		High voltage breakdown machine	1	2000V
		Digital micro-OHM meter	1	1999m-19.99k
		Thermal stability Teast Appt.	1	150Degree C
		Ageing oven	2	100°C
		High voltage Tester	1	100 KV/100mA
		Flammability Test Apparatus	1	For Cable testing
		High voltage test apparatus	1	10KV
		Million meg ohmmeter	1	500V
		Contact connection	1	1-2, 3-4 for 5 KV 2-3 for 10 KV
Generator	1			
3.	Metallurgical Lab	Tensile testing machine	1	2500N
		UTM	1	250 KN
		Spectro (OES)	2	Ferrous & Nonferrous materials analysis
		Hardness testers		
		a) Rockwell	1	A, B, C (0-150 Kg)
		b) Brinell cum Vickers	1	Up to 250 kg
Microscope	1	50-1500X		
4.	Product Lab	Compression Testing Machine	1	3000KN
		Los Angeles Abrasion Testing Machine	1	5000gm (Drum speed 30-33 rpm)
		Tiles Abrasion Testing Machine	1	50/500 kgfor 100/1000kgf at 6 kg/cm ²
		FIE Laboratory Jaw crutches Machine	1	100x150mm (max Size of feed 30mm)
		Wood & Metal cutting Machine	1	6.5' Hx13"W to 12"H23"W
		Hot air oven	1	600x600x600mm

		Hot air oven	1	300x300x300mm
		Curing tank	1	1000x600x500mm capacity
		Water bath	1	1000x600x600mm capacity
		Weight scale	1	50kgs
		Weight scale		4kgs
		Double wall oven for bitu men	1	Power 1300 W (dimensions: 330x330x330mm) (Outside dimensions: 500x500x900m Weight approx. : 35Kg
		Hu mid ifier & De Hu mid ifier	1	36kg/H
		Dig ital vibrating Machine	1	12000 to 15000 vibration per minute weight : 25mm x 400mm, 40x450mm & 60x584mm
		Water bath (small)	1	-80/+250 °C
		Autoclave for ceramic tile testing	1	Dual Load Cells 5KN, 30KN
		Environmental chamber	1	Temperature from-60° C to +120°C Optional Humidity, 50L Vo lu me
		Ductility testing machine	1	Max carriage travel 1500mm(Adjustable from 5 to 100mm/Min)
5	Chemical	Weight machine	2	1.220gm 2. 300kg
		Magnetic stirrer	1	1000 ml capacity
		Heating mantle	2	1000 ml, 500 ml
		Cold chamber	1	300 liters
		High accuracy temp. chamber	1	10 to 200°C
		Mould growth chamber	1	RH ambient to 100% 10 to 200°C
		Salt spray	2	1000Ltrs,400Ltrs
		PH meter	1	PH Test
		Paper testing machines		
		Thickness machine	1	0 TO 8.5mm
		Cobb machine	1	-
		Brightness machine	2	Up to 100%
		Gloss machine	1	Gloss 100
		Tear machine	1	0 -1000MN
		Tensile machine	1	Tensile test
		Smoothness machine	1	5 to 3000
		Double fold machine	1	Double fold test
		Stiffness machine	1	Stiffness test

PRODUCT TESTING LAB









ELECTRICAL TESTING LAB

MECHANICAL & METALLURGICAL LAB

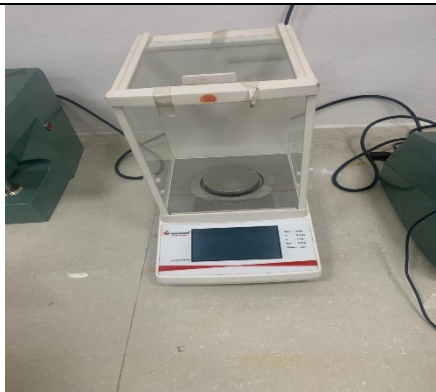


CHEMICAL TESTING LAB





PAPER TESTING LAB



Testing facility Available :

Sl. No	Domain	Name of the Product	BIS Specification	Details/Type of Testing
1	Electrical	PVC Insulated Cable Up to 1100V	IS: 694 - 1990	Electrical resistance: Conductor & Insulation, High Voltage, flammability & Tensile
		Cross linked polythene Insulated PVC Sheathed cable	IS: 7098 Part-1	Tensile, water absorption, Hot-set, loss of mass, Hot deformation, Heat Shock, Turmel stability at 200 ⁰ C, Adhesion test, Mass of zinc, Dip test, Resistance of armour, conductor resistance
2	Chemical	Coated (Chromatized, anodized)	ASTM B 117	Salt spray,
		PCBs, lace, connector	JSS 5555	Mould growth
		Admixture	IS 9103	Dry Malt Content, Ash Content, Relative Density, pH
		Water for construction	IS 450	pH, acidity, alkalinity, solids :Organic, Inorganic, sulphates, chlorites,
		Zn Chrome Primer	IS 104	Drying time, flexibility adhesion, colour, finish, Consistency, water content, corrosion resistance
		Elche primer	IS 5666	Drying time, finish, consistency,
		Aluminium Paint	IS 2339	Drying time, flexibility adhesion, finish, Consistency, corrosion resistance
		Iron base Copper Base, Aluminium Base,		Chemical Spectro
3	Product	OPC	IS 8112 & IS 12269	Fineness, soundness, setting time, compressive strength,
		Granite	IS 3316	Specific gravity, water absorption
		Tiles	IS 15622	Water absorption, modulus of rupture, chemical resistance
		Wood	IS 287	Moisture content
		Pulverized fuel ash lime bricks & common bricks	IS 12894 & IS 1077	Compression strength, water absorption
		Aggregate	IS 383	Water absorption, los-angels abrasion, grading, Specific gravity,
		CC Cubes	IS 516	Compressive strength
		Flush door shutter	IS 2202 Part-1	End immersion, knife test, Glue adhesion
	Paper	Printing, copier, Computer	IS 1878 Part-1, IS 14490 & IS 12766	GSM, pH, Tensile Index, Tear, Cobb, Brightness, Glass, Opacity, Bulk, Moisture content, ash Content, Smoothness, wax Pick, double fold
	5	Metallurgy	Metals, & alloys	IS 1754, 1789 & 1586
Metals & Alloys			IS 11959 & 4163	Metallography
6	Mechanical	TMT bars	IS 1786	Tensile, Bend, Re-Bend
		MS Plates, Angles, Channels, Beams, Etc.,	IS 2062	Tensile, Bend
		SS Plates & Rods	IS 6911	Tensile
		Brass rods, Plates	IS 292	Tensile
		Aluminium Alloys	IS 733 & IS 617	Tensile
		Copper samples	IS 613	Tensile
		Alloy steels	IS 5517	Tensile
		Steel pipes	IS 1239 & 4923	Tensile
		Cold roll sheets & Strips	IS 513	Tensile, Bend
		All metals	IS 1599	Bend test

Testing Activity done for the Past 10 years:

SL.NO.	Financial Year	Total No of Sample tested	Total No of Tests/calibration conducted	Total amount of revenue Earned(Rs)
1.	2010-11	7,073	9,871	54,36,000
2.	2011-12	6,535	20,786	69,07,000
3.	2012-13	2,045	5,345	86,08,967
4	2013-14	2,855	12,957	1,14,17,491
5	2014-15	2,324	11,438	1,25,55,945
6	2015-16	1,786	4,414	1,50,05,850
7	2016-17	1,817	4,238	1,50,74,223
8	2017-18	2,059	4,448	1,53,44,000
9	2018-19	2,640	9,083	1,46,73,050
10	2019-20	2,807	7,578	1,25,60,768

Achievements :

SL. No	Total no of Beneficiary	Micro	Small	Medium	CPSUs	SPSUs	Others	Total MSMEs
1	2010-11	155	451	70	6	2	70	677
2	2011-12	120	416	75	7	2	34	616
3	2012-13	100	275	70	5	3	30	447
4	2013-14	149	495	170	8	2	167	824
5	2014-15	198	680	130	4	3	157	1,015
6	2015-16	125	576	105	10	6	214	822
7	2016-17	120	585	90	5	6	539	800
8	2017-18	156	678	125	8	5	572	972
9	2018-19	108	435	127	7	4	246	672
10	2019-20	145	654	100	9	5	219	913

Additional Information: Officer- in- Charge: S.VIJAYA KUMAR, Joint Director

Address: MSME-Testing Station,A-1,IndustrialEstate,Sanathnagar

Hyderabad-500018,Telangana(state)

Website:<http://msmehyd.ap.nic.in>

E-mail:dcts-hyd@dcmsme.gov.in

Customer Cell No :040-23704371



**Government of India
Ministry of MSME
MSME TESTING STATION, PUDUCHERRY**



Introduction:

MSME Testing Station under the Office of the Development Commissioner (MSME), Ministry of Micro Small Medium Enterprises (MSME), Government of India, formerly known as Field Testing Station was formed on 05.06.1986.

The main object of this Testing Station is to provide Testing and quality improvement of the products being manufactured by the Micro, Small & Medium Enterprises. MSME TS, Puducherry is well equipped for conduction tests as per Indian Standard Specifications or any Standard Specification for the following products:- Reinforcement bars – TMT/CRS/HCRM, Structural Steel (Angles/Beams, Channel, etc), Aggregates, Sand (Fine Aggregates), M-Sand, Cement (OPC 43 & 53, PPC, SRPC), Wood, Wooden Flush Doors, Gypsum Plaster Board, Wooden particle board, Pre laminated particle Board, Tiles – Cement Concrete flooring, Tiles – Ceramic/Vitrified/Glazed, Stoneware pipes, Bricks – Burnt clay, Bricks – Fly Ash, Pressed clay tiles, Hollow/Solid bricks, Paver Blocks, Cement Concrete Cubes , Granite, Marble, Steel tube, Bolt, PVC Pipes, GI Pipes and Ductile Pipe. It is a state-of-art testing source for CPWD, Railways, IGCAR, PWD and etc.

Testing Infrastructure Available:

SL.NO.	Domain	Name of the Machinery & Equipment Available	Number of Machinery & Equipment Available	Specification
				Range / Size
1.	Mechanical	Universal Testing Machine Capacity	1	1000KN
		Compression Testing Machine Capacity	1	2000KN
		Autoclave Capacity	1	10.6 (kg/cm ²)
		Abrasion Machine	1	--
		Tile Flexural Strength Testing Machine Capacity	1	500kg
		Aggregate Impact Tester	1	--
		Humidity Chamber	1	--
		Vibration Machine	1	--
		Ageing Oven	1	--
		Vibrating table	1	--
		Sieve shaker	1	--
		Fine test sieves	1 (set)	--
		Test sieves coarse	1 (set)	--
		Electronic weighing machine	1	--
		Moh's hardness tester	1 (set)	--
		Concrete test hammer	1	--
		Cube Mould	1	--
		Vicat Apparatus	1	--
		Mortar Mixer	1	--

Photograph of each Equipments and machinery:













Testing facility Available :

SL.NO.	Domain	Name of the Product	BIS Specification	Details / Type of Testing
1	Mechanical	Reinforcement bars – TMT/CRS/HCRM	IS 1786:2008	Tensile, Bend, Rebend, Chemical composition.
		Structural Steel (Angles/Beams, Channel, etc)	IS 2062:2011	Tensile, Bend, Chemical composition.
		Aggregates	IS 383:1970	Particle size, Impact value, Abrasion value, Flakiness, etc.
		Sand (Fine Aggregates) M-Sand	IS 383:2016 IS:2116-1980 IS:1542-1992	Particle size, Bulkage, Water absorption, etc.
		Cement (OPC 43 & 53, PPC, SRPC)	IS 8112:2013 IS 12269:2013 IS 1489-1991 IS 12330:1988	Setting time, Std. Consistency, Percentage of residue, Soundness, Compressive strength.
		Wood	IS 287:1993	Moisture content, Density.
		Wooden Flush Doors	IS 2202:1999	Dimension, End immersion, Knife test, Glue adhesion.
		Gypsum Plaster Board	IS 2095:2011	Dimension, Transverse strength.
		Wooden particle board	IS 3087:2005	Dimension, Density, Water absorption, Moisture content, etc.
		Pre laminated particle Board	IS 12823:2009	Density, Water absorption,

				Swelling in water, etc.
		Tiles – Cement Concrete flooring	IS 1237:2012	Dimension, Water absorption, Transverse strength, etc.
		Tiles – Ceramic/Vitrified/Glazed	IS 15622:2017	Dimension, Water absorption, Modulus of rupture, etc.
		Stoneware pipes	IS 651:2007	General Quality, Glazing, Absorption.
		Bricks – Burnt clay	IS 1077:1992	Dimension, Water absorption, Compressive strength, Efflorescence.
		Bricks – Fly Ash	IS 12894:2002	Dimension, Water absorption, Compressive strength, Efflorescence.
		Pressed clay tiles	IS 2690:1993	Dimension, Water absorption, Flexural strength.
		Hollow/Solid bricks	IS 2185:2005	Dimension, Compressive strength, Water absorption.
		Paver Blocks	IS 15658:2006	Compressive strength, Dimension.
		Cement Concrete Cubes	IS 456:2000	Compressive strength.
		Granite	IS 14223:1995	Moisture content, Dry density, Specific gravity, Water absorption, etc.
		Marble	IS 1130-1969	Dimension, Moisture absorption, Specific gravity, Scratch hardness.
		Steel tube	IS 1239:2004	Dimension, Tensile.
		Bolt	IS 1367:2002	Dimension, Tensile.
		PVC Pipes	IS 4985:2000	Dimension, Visual appearance, Long. Reversion, Density.
		GI Pipes	IS 1239:2004	Dimension, Tensile, Bend, Workmanship.
		Ductile Pipe	IS 8329:2000	Dimension, Tensile.

Testing/Calibration Activity done for the Past 10 years:

SL.NO.	Financial Year	Total No of Sample tested	Total No of Tests/calibration conducted	Total amount of revenue Earned in Rs. lakh
1.	2010-11	2367	16780	32.15
2.	2011-12	2401	22079	36.42
3.	2012-13	2481	32458	50.15
4.	2013-14	1675	13466	32.32
5.	2014-15	1087	15529	46.85
6.	2015-16	869	13811	55.82
7.	2016-17	1070	15722	39.18
8.	2017-18	815	12845	35.45
9.	2018-19	2474	17318	48.23
10.	2019-20	1713	11991	31.33

Achievements:

SL. No	Total no of Beneficiary	Micro	Small	Medium	CPS Us	SPSUs	Others
1	2010-11	--	--	1426	--	--	501
2	2011-12	--	--	1730	--	--	441
3	2012-13	--	--	2070	--	--	411
4	2013-14	--	--	1435	--	--	240
5	2014-15	--	--	287	--	--	800
6	2015-16	2	--	71	--	--	796
7	2016-17	2	--	24	--	--	1044
8	2017-18	1	--	23	--	--	815
9	2018-19	2	--	22	--	--	1016
10	2019-20	3	--	21	--	--	885

Success story along with photographs:

With reference to O/o. Ministry of MSME, New Delhi letter No. E-23014(4)/2020-GA, MSME Testing Station, Puducherry participated in the "Cleanliness Drive (CD)" during FY 2020-21.

MSME Testing Station, Puducherry has under taken "Cleanliness Drive" under the able guidance of the Director In-charge, of MSME Testing Centre, Chennai.

The officer and Staffs of Testing Station participated voluntarily in cleaning the office building, entrance, Boundary and surroundings of office building. This office has taken action under cleanliness programme.

MSME TS, Puducherry has been performed the CD on the day of Gandhi Jayanti. The Swachhta awareness posters released under Cleanliness Drives by Officer and staffs of MSME-TS, Puducherry.





Address:

MSME TESTING STATION,

No. 110, Kamaraj Salai, Tindivanam High Road,

Thattanchavady,

Puducherry – 605 009.

E -mail: dcts-pondy@dcmsme.gov.in

Customer Cell No: 0413-2248110



**Government of India
Ministry of MSME
MSME TESTING STATION, KOLHAPUR**



INTRODUCTION

MSME Testing Station at Kolhapur caters the needs of testing and Quality improvement of the industrial sector. The prime object of MSME Testing Station is to provide testing facilities, conducting training programmes and provide consultancy with thrust on quality improvement. MSME Testing Station also helps industry to adopt improved and updated technology so as to strengthen their capabilities. MSME Testing Station, Kolhapur is equipped with testing Machinery and equipment conforming to high standards of accuracy.

Testing Infrastructure Available :

S. No.	Domain	Description of Equipment/ Instruments & Accessories	Number of Machinery & Equipment Available	Specification Range / Size
1	Mechanical	Rockwell Cum Brinell Hardness Tester HRA. HRC, HRB & BHN. 187.5,2.5 HBW	1	Make-FIE Model RAB
		Vickers Hardnes Tester HV 5, HBW 187.572.5 TESTER	1	Make-GDR, Model – HPO
		UNIVERSAL TESTING MACHINE Capacity-100TON	1	Make SSS Instruments Model- 100 Ton
		UNIVERSAL TESTING MACHINE Capacity- 60 TON	1	Make-FIE, Model- UTN
		UNIVERSAL TESTING MACHINE Capacity-100kN	1	Make- Mohar, Capacity- 100kN
		IMPACT TESTING MACHINE 300J & 120d (168 J)	1	Make- Testwell, Model- TIT 30
		RUBBER TENSILE TESTING MACHINE Cap.2500N	1	Make-KMI, Model-1.3D
		2	Chemical	Electronic Weighing Balance (120 gm)
Electronic Weighing Balance (10kg)	1			Make & Model Contech Instruments
Hot Air Oven (0-250 deg.C)	1			Make & Model Lab Hosp Instruments
Muffle furnace 0-1000 deg.C	1			Make & Model Lab Hosp Instruments
Spectrometer Determination of Ferro Alloys Elements	1			Make- Metal Power Model- Metavision
Carbon Sulphur apparatus	1			-

Photograph of each Equipments and machinery :



100 TON CAPACITY UTM FULL



10 TON CAPACITY UTM



60 TON CAPACITY UTM



HRC/HRB HARDNESS TESTER



VICKERS HARDNESS TESTER



IMPACT TESTING MACHINE



CARBAN/SULPHUR APPARATUS



OVEN/MUFFLE FURNACE



FUMING HOOD



FEROUS NON FEROUS SPECTRO PHOTO METER



MICROSCOPE (2000X MAX)



POLISHING MACHINE

Testing facility Available :

Sl. No	Domain	Name of the Product	BIS Specification	Details/Type of testing
1	Chemical	Ferro Alloys. Pig Iron. Coal& Coke. Cast Iron. Steel.	IS 13938,IS 1559,IS 12614 IS 12308 IS 1350 IS 15338 IS 9879	Determination% of(Fe,Mn,Cr,etc) Determination% Fe. Ash content &VM. Determination% of(Fe,Mn,Cr,etc) Determination% of(Fe,Mn,Cr,etc)
2	Mechanical	Metallic materials. Metallic materials. Metallic materials. Metallic materials. Metallic materials.	IS 1608 IS 1586 IS 1608 IS 1598 IS 1608	Tensile Test. Hardness Test. Transverse Test Impact Test. Breaking Load Test.
3	Metallurgical	Steel.	IS 1748	Microstructure analysis.

Testing Activity done for the Past 10 years:

SL.NO.	Financial Year	Total No of Sample tested	Total No of Tests/calibration conducted	Total amount of revenue Earned in (Rs.)
1.	2010-11	11159	11159	21,47,730
2.	2011-12	9637	9637	17,69,380
3.	2012-13	7349	7946	15,38,435
4.	2013-14	7039	7039	15,85,860
5.	2014-15	5144	5145	9,38,157
6.	2015-16	3702	3705	13,13,224
7.	2016-17	1353	1416	9,54,000
8.	2017-18	579	628	7,45,000
9.	2018-19	286	302	4,17,000
10.	2019-20	270	336	4,34,000

Achievements :

SL. No	Total no of Beneficiary	MSME	Non MSME
1	2009-10	1225	226
2	2010-11	1316	141
3	2011-12	2240	147
4	2012-13	2055	74
5	2013-14	1415	85
6	2014-15	1227	89
7	2015-16	507	152
8	2016-17	138	53
9	2018-19	78	39
10	2019-20	54	169

Address:

P-31, M.I.D.C Shirol Industrial Area, Kolhapur-416122.

E -mail: dcts-kolha@dcmsme.gov.in.

Customer Cell No: STD (0230) code – 2469366

100% TESTING LEADS TO ZERO ACCIDENT
COMPROMISE WITH QUALITY IS INVITATION TO ACCIDENTS

