



सत्यमेव जयते

Government of India

**Office of the
Development Commissioner(MSME)
Ministry of Micro, Small & Medium Enterprises**

"NOTICE INVITING TENDER"

DIRECTOR, MSME – Testing Centre, New Delhi-20, invites sealed tenders from reputed manufacturers/suppliers/authorized dealers for supply of following stores.
Tender Enquiry No. Pur/M&E/Elect./09-10/MSMETC/ND Dated:30.12.09

SCOPE OF WORK

"Purchase of equipment for testing of Plug and Socket as per IS-1293-2005 and measuring instruments for Electrical lab as mentioned in the tender's sections "Scope of Work"

1. Bidders are requested to submit technical and commercial bids separately in sealed cover addressed to Director, MSME Testing Centre, Shahid Capt. Gour Marg, Okhla, New Delhi-110020.
2. The closing date for submission of duly completed tenders shall be 21.01.2010 till 17.00 hrs. It may be noted that the offer (Price Bid) shall be quoted in Indian Rupees only.
3. The MSMETC Administration, shall not be responsible for any delay in receipt of tenders if sent by post.
4. Tenders will be opened by purchase committee on 22.01.2010 at 11.00 hours at MSME-TC & will be Scrutinized before placing order on technical & commercially competitive tenderer.
5. Director, MSME Testing Centre reserves right of Cancel any or all the tenders without mentioning any reason.
6. The decision of the Director, MSME Testing Centre, New Delhi on recommendation of the purchase committee shall be final and have binding on all the tenders, No arbitrations / representations in this regard shall be entertained.

DIRECTOR
MSMETC, NEW DELHI-20

Please contact
Asstt. Director (Elect.)/HOD, MSME-TESTING CENTRE,OKHLA, NEW DELHI-20.
Telephone : 011-26312671 Fax : 011-26847973
Email:director@rtcnr.gov.in & Website:www.rtcnr.gov.in

Size : W-8 x H-15

Scope of Work

Testing Equipment for Plug & Socket as per IS: 1293/2005

S. NO.	Name of the Equipment	Technical Specification	Qty.
1.	Meggar / I.R. Test equipment As per Cl. 17.1	500V dc Output Range:- 2-Infinite Mega Ohm Accuracy:- $\pm 1.0\%$	01 no
2.	Conditioning Chamber / Humidity Chamber As per Cl. 16.3	a) Temp. of the air 0°C to 45°C & humidity cabinet containing between 90% & 96%. b) Inner sheet of SS of size 18"x18"x24". c) Outer body of MS with powder coating and transparent glass with wiper d) Digital temp. controller for dry temp. & Wet temp. with digital Rh indication & motorized air circulation with heavy duty motor. Accuracy:- $\pm 1.0\%$. & Least Count Temp. Indicator 0.1°C	01 no
3.	Temp. Rise Test Equipment As per Cl. 19.1 & Table -15.	i) Block of pinewood, filled around the box with plaster, thickness of the plaster between 10 to 15 mm. ii) 3 samples tested at a time in a single block. iii) Fitted with Digital temp. Indicator (accuracy class $\pm 1.0\%$), and Digital Ampere meter (accuracy class $\pm 0.5\%$) testing of samples up to 50 Amp.	01 no
4.	Withdrawal Pull Test Equipment As per Cl. 22.1 & 22.2	As per fig. 13 & fig 42 i) Withdrawal force 50N for 6 Amp samples and 54 N for 16 amp. samples. alongwith Principle weight. & supplementary weight. ii) The test plugs have finely ground pins of hardened steel, having a surface roughness not exceeding 0.8 micro meter. Test Pin- SS, Fixture of MS with powder coating.	01 no
5.	Test Finger Equipment As per Cl. 10.1	As per fig. 2 ; Tolerance on linear dimensions. 0 to 25 mm.: $\pm 0.05\text{mm}$ Over 25mm.: $\pm 0.2\text{mm}$	01 Set

6.	Cord Retention Equipment As per Cl. 23.2	As per fig. 14 ; Pull force 0 to 60 N.(Variable) Fixture/ Cabinet of SS	01 no
7.	Go-No-Go Gauge As per Cl. 9	As per annexure B of IS: 1293/05, Material of the gauges of SS	01 Set
8.	Go-No-Go Gauges (For Shutter Type Socket) As per Cl. 10.5	As per fig. 4 ; Steel gauge with a force upto 1N. Material of the gauge of SS	01 Set
9.	Non Solid Pin Equipment As per Cl. 14.2	As per fig. 31 ; Dial Gauge range 0-2mm, L.C. 0.01mm, force upto 100 N & Steel rod dia 4.8mm. Material of the gauge of SS & Fixture of MS	01 no
10.	Compression Test Equipment As per Cl. 24.5 & 25.4	As per fig. 22 ; Force subjected to 300N (Variable)- for mechanical strength test. As per fig. 28; Force subjected to 20N, cylindrical face of 25mm radius, width 15mm & length atleast 50mm-for verification of resistance to heat test. Material of the equipment of SS	01 no
11.	Glow Wire Test Equipment As per Cl. 28.1.1	Digital temp. controller 1200 °C with digital timer of 3 digits manually operated, Anti rust body, Material of the equipment of MS with powder coating Tip of the thermocouple as per ISS Accuracy:- $\pm 1.0\%$. Least count 1.0 °C	01 no
12.	Tumbling barrel As per Cl. 24.2	As per fig. 20 Height 500mm, thickness of steel plate 3mm with DC synchronous motor with speed control regulator and counter.	01 no

		Material of the equipment of MS	
13.	Impact Test Equipment (Pendulum Type) As per Cl. 24.1	As per fig. 16, 17 & 18 Radius of hemispherical face of striking element-10mm. mass of striking element-150gm +/-1gm & Rockwell hardness of HR-100. The axis of the pivot-1000 +/-1mm.	01 no
14.	Traveling Micro Scope As per Cl. 25.2	Dial gauge range 0-10mm, with Vertical & Horizontal scale L.C. 0.01mm. Accuracy:- +1.0%	01 no
15.	Plug Pin Fixing Equipment As per Cl. 24.10	As per fig.25 and Annexure "A" <u>Dia of hole for Current pin.(D)</u> 6/10A - 5.08+6mm. Tole. +/- 0.5mm 16A - 7.06+6mm. Tole. +/- 0.5mm <u>Dia of hole for Current pin.(C)</u> 6/10A - 7.06+6mm. Tole. +/- 0.5mm 16A - 8.71+6mm. Tole. +/- 0.5mm Material -SS	01 no
16.	Endurance Test Equipment As per Cl. 20 & 21	As per fig 12 & a) 3 nos. of variable inductive & resistive load of 40 Amp. b) Variable inductive load to achieve 0.2 to 0.9 pf attached with one digital volt meter, digital P.F.meter (with selector switch), three digital Ammeter & three digital counter. Accuracy:- ±0.5%. Fixture Body-M.S/ Rust proof/powder coated.	01 no
17.	Flexing Test Equipment As per Cl. 23.4	As per fig. 15 The oscillating member is moved through an angle of 90° (45° on either side of the vertical) and rate of flexing 60 per minute or dc synchronous motor with speed regulator. Body material;- MS Gauges / Fixture :- Rust proof	01 no
18.	Lateral Strain Test Equipment As per Cl. 13.14	As per fig. 6 ; Force exerted is 5N Material of Fixture :- SS.	01 no
21.	Damage to Conductor As per Cl. 12.2.5	As per fig. 32 ; Rate of revolution per minute-10+/-2. with speed control regulator. Material of Fixture :- SS	01 no

List of Measuring Instruments

S.No.	Name of the Instruments	Range	Accuracy	Qty.
1	Portable Type precision Grade Moving Iron AC. Volt Meter	0-20 V.	+/- 0.5 % of Full Range	01 no.
2	Portable Type precision Grade Moving Iron AC. Volt Meter	0-300 V.	+/- 0.5 % of Full Range	01 no.
3.	Portable Type precision Grade Moving Iron AC. Volt Meter	0-500 V.	+/- 0.5 % of Full Range	01 no.
4.	Portable Moving Coil Transducer Type Frequency Meter	45-60 Hz.	+/- 0.5 cycles	01 no.
5.	Portable precision Grade Single phase Single Element Dynamometer Type Wattmeter	0-1999W	+/- 0.5 % of Full Range	01 no.
6.	Portable Moving Iron AC KV Meter	0-5KV	+/- 0.5 % of Full Range	01 no.
7.	Portable Type precision Grade Moving Iron AC. Ammeter	0-20 A.	+/- 0.5 % of Full Range	01 no.
8.	Portable Type precision Grade Moving Iron AC. Ammeter	0-30 A.	+/- 0.5 % of Full Range	01 no.
9.	Portable Type precision Grade Moving Iron AC. Ammeter	0-50 A.	+/- 0.5 % of Full Range	01 no.
10.	Portable Moving Coil Micrometer	0-5 mAmp. L.C- 0.01 m Amp	+/- 0.5 % of Full Range	01 no.
11.	Portable Moving Coil Micrometer	0-10 mAmp. L.C- 0.01 m Amp	+/- 0.5 % of Full Range	01 no.
12.	Portable Moving I.R Meter	500 V DC/ 0-100 M.Ohms- infinite	+/- 0.5 % of Full Range	01 no.
13.	Portable Single Phase Single Element Dynamometer Type	0.5 Lag -1-0.5 lead	+/- 0.5 % of Full Range	01 no.

	Power Factor Meter			
14.	Portable Precision Grade Single Phase Single Element Dynamometer Type KW Meter	Upto 7.2 KW	+/- 0.5 % of Full Range	01 no.
15.	Portable Type VAW Meter	0-5 KW 0-300V, 30 Amp, C.T. operated, PF 0.1-1 and overload protection with reset switch	+/- 0.5 % of Full Range	02 no.
16.	Clamps and Fixtures for Measurement of Conductor Resistance used in cable testing Low resistance clamping leads with wooden fixer & Galvanometer (nullify deflection) a) Wooden Fixer b) Galvanometer nullify deflection c) DC Source d) Senior Kelvin Bridge Multiplier (X) e) Current Reversing Switch	1.0 meter length Zero Deflection 0.20 Amps (Variable) i) 0-0.01 ohm ii)0.01-100 ohm iii)Range-0.0000-0.001ohm Reverse/ off/Forward	-----	01 Set