

TENDER DOCUMENT

**For purchase of Testing Equipment & Accessories Under the Projects CoE/, ISDS/
Modernization/up gradation of Power Loom Service Centers (PLSCs)**

Total No. of Equipment : 47

Tender No. Nitra/Pur/P-2001

Sale of Tender Document & Downloading up to	: 14.07.2015 (05.30 PM)
Last date & time for acceptance of Tender	: 15.07.2015 (12.00 PM)
Tender opens on	: 15.07.2015 (03.00 PM)

TWO PART TENDERING

NORTHERN INDIA TEXTILE RESEARCH ASSOCIATION
(Linked to Ministry of Textiles, Govt. of India)
SECTOR-23, RAJ NAGAR, GHAZIABAD-201 002 (U.P.), INDIA
Phone No: 0120-2786434/451, 2783334/586/592/638
Fax No: 0120-2783596, e mail: mail@nitratextile.org
Website : www.nitratextile.org

VOLUME - I
(Part – 1)
TENDER FORM

INSTRUCTION TO TENDERER

1.0 GENERAL

1.1. Tender form may be downloaded from NITRA's website www.nitratextile.org up to 14-07-2015 till 05.30 PM. Alternatively printed copies can be obtained from NITRA's office at free of cost.

1.2 Modifications if any of the above documents will be made by addenda / corrigenda, copies of which will be sent in duplicate to each tenderer before the due date of the tender. One copy shall be signed, sealed and submitted packed along with the tender documents. Tender documents to be submitted, are as detailed hereafter.

The tenderer shall not make any additions / deletions to or amend the text of the documents except in so far as may be necessary to comply with any addenda / corrigenda issued. The tenderer shall use only tender documents as issued for submitting his quote and shall comply to various terms and conditions.

1.3 E-mail, Fax, Telex or Telegraphic tenders shall not be entertained.

1.4 The tender shall be filled in & submitted in English only. All accompanying literature and correspondence shall also be in English.

1.5 No claim for costs, charges, expenses incurred by the tenderer in connection with preparation of tender submission and for subsequent clarifications of their tender shall be accepted.

1.6 Bidders are required to submit Earnest Money Deposit minimum @ 2% of the 'Tender Value' (quoted) through Demand Draft, favoring 'Northern India Textile Research Association' payable at Ghaziabad. Disqualified bidder/bidders will get back their EMD within 30 days from the date of opening of financial bid/bids. Demand Draft submitted towards EMD shall be returned after receipt of performance Bank Guarantee from successful bidder.

1.7 Nitra reserves it right to alter, change, cancel partially or fully, rescind or modify the terms and conditions of tender without assigning any reason thereof.

2.0 TENDERER TO STUDY DOCUMENTS

- 2.1 Submission of the tender by the tenderer implies that he has read tender documents and has made himself aware of the specifications of machinery and the terms and conditions.
- 2.2 The tenderer shall be deemed to have full knowledge of documents and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
- 2.3 Any question regarding the tender document and discrepancies shall be directed to the Tender Issuing Authority in writing minimum 10 days prior to the due date of submission of tender. The Tender Issuing Authority shall issue all clarifications, interpretations, meanings and specific directions if any in duplicate in writing to all the tenderers. **One copy of these shall be returned duly signed and seal affixed along with tender submission.**

3.0 SUFFICIENCY OF THE TENDERER

- 3.1 The tenderer shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender and about the rates quoted by him and cover all his obligations under the tender.

4.0 METHOD OF TENDERING

Each and every paper of tender documents shall be signed by the authorized person(s) and seal affixed.

4.1.0 Authority of signing

- 4.1.1 If the tender is submitted by an individual, it shall be signed by him.
- 4.1.2 If the tender is submitted by a proprietary firm, it shall be signed by the proprietor.
- 4.1.3 If the tender is submitted by a partnership firm, it shall be signed by all the partners of the firm or by a partner holding the power of attorney for the firm for signing the tender, in which case, a certified copy of power of attorney shall accompany the tender.
- 4.1.4 If the tender is submitted by a limited company or a corporation, it shall be signed by a duly authorized person or the person holding the power of attorney for signing the tender, in which case a certified copy of the power of attorney shall accompany the tender.
- 4.1.5 All witnesses and sureties shall be persons of respectable status and probity and their full name, occupations and addresses shall be stated below their signatures.

4.2.0 Stating of Rates

- 4.2.1 The tender shall be filled in English with a neat hand / type and all the figures and words shall be legible.
- 4.2.2 The rates shall be written both in words and in figures. The tenderer shall also show the amount for each item, the total of each section and the grand total of the whole tender.
- 4.2.3 Correction if any shall make Correction, initialing, dating and rewriting.
- 4.2.4 In case of conflict between the figures and words in the rates, the latter shall prevail.
- 4.2.5 The tenders will be verified for accuracy in the arithmetical calculations.

4.3.0 Packing and Submission

- 4.3.1 The tender shall be submitted on or before and at the address given in Appendix-TF given in Tender Form. Any tender received after this date and time shall not be accepted. Tenders shall be packed, marked and sealed and submitted in original with documents listed below. **Tender shall be submitted in two separate sealed cover e.g. “Financial Bid” & “Technical Bid”.**
- 4.3.2 Sealed cover “**Financial Bid**” shall contain financial Specification
 - a) Bill of Quantities duly completed with price.
 - b) The undertaking that Tender Form is duly completed signed and sealed for entering into agreement with terms and conditions for this contract.
 - c) Covering letter in duplicate bringing out the tenderer’s reservations, if any, regarding compliance with the tender document and his own specific assumption, if any.
 - d) Bills/Schedule of Quantities duly completed with price which will be inclusive of all taxes (Service Tax, Sales Tax without ‘C’ Form/Concessional Rate), duties (Excise Duty, Custom Duty etc.) any other Govt. levies & all other charges (packing, forwarding, loading-unloading, erection and commissioning, insurance and any other incidental charges by what ever name called). No concessional Sales Tax Form will be provided
 - e) It is necessary to fill the Tender Value precisely. In case, all individuals’ items are not quoted, it will be deemed that that Tender Value is inclusive of quotes of all the individual items as per the tender document.
 - f) EMD - DD of not less than 2% of tender value to be submitted from any Scheduled Bank. The applicant without EMD will be out rightly disqualified. Companies who are registered as small industries by Government are exempted (self attested copy of the Registration Certificate is to be submitted along with tender document).

- g) Validity of bid/bids (technical & financial) should be 180 days.
- h) Volume I (Part -1) Instruction to Tenderer, Volume I (Part-2) - Tender Form, Appendix – TF , Volume-1 (Part-3) Terms & Conditions and addenda / corrigenda /clarification issued before due date of tender duly signed and sealed (in token of acceptance of documents) and Annexure - Format of Bank Guarantee.

4.3.3 Sealed cover “**Technical Bid**” shall contain

- a) Volume II, - Technical Specifications in details.
- b) List of items including spare parts with quantities for which the financial bid has been submitted.
- c) The equipment for which bid has been submitted should contain Cliental List of internationally reputed Testing Laboratories located in India and other countries,
- d) Profile of bidder’s organization.
- e) If the bidder does not manufacture the equipment, authorization of the manufacturer to the bidder for marketing and servicing the equipments in India should be enclosed along with the tender. In the absence of such authorization, the tender will not be considered.

4.3.4. Separate bid for each of the items should be submitted in an envelope super scribed **with the name of the item at the top, last date of submission, name and address of the bidder.**

4.3.5. The sealed envelope containing covers ‘**Financial Bid**’ & ‘**Technical Bid**’ as above shall be marked in the name of the **Chairman Purchase Committee, NITRA, Ghaziabad clearly indicating the name of the item for which the bid is submitted.**

5.0 TENDER TO BE VALID FOR

Rates quoted by the tenderer shall be valid for a period as given in Appendix-TF from the date of submission or till an extended date mutually as agreed on expiry of the said period.

The Tenderer shall not withdraw or revise or alter any conditions, rate(s) quoted within a stated period, unless he is called upon to do so in mutual agreement / negotiations. NITRA reserves the right to cancel the bid if the tenderer revokes or withdraws the tender within a stated period.

5.1 OPENING OF TENDER

5.1.1 The tender shall be opened by the Purchase Committee NITRA on the designated date and time in the confidence or event of any change in the date and time of tender opening, the same would be informed to the tenderer through public notice or individual correspondence

6.0 AGREEMENT

- 6.1 The successful tenderer shall be bound to implement the contract on receipt of intimation of acceptance from the Purchase Committee, NITRA.
- 6.2 The successful tenderer shall bear stamp duty and other expenses pertaining to preparation and execution of contract document / agreement.

7.0 PROCEDURE FOR REJECTION

- 7.1 The Purchase Committee, NITRA Ghaziabad reserves the right to accept or reject any tender or reject all tenders without giving any reasons for their decision.
- 7.2 Tenders are liable to be rejected in which any of the particulars / prescribed information is either missing or incomplete in any respect and or if the prescribed conditions are not fulfilled.
- 7.3 Canvassing in connection with tender is strictly prohibited and tender submitted by tenderers who resort to canvassing will be liable to rejection.
- 7.4 Tenders containing uncalled remarks or any additional conditions are liable to be rejected. Tenderer can bring out in his / their covering letter along with submission of tender cover "Financial Bid", his / their's any reservations, additions, omissions, and assumptions they might have made while pricing the tender. Tender Issuing Authority reserves the right to ignore such additions, deletion other than brought out in covering letter packed in cover "Financial Bid", by the tenderer. Decision of the Purchase Committee NITRA, Ghaziabad, in this regard shall be final and any non-compliance shall reject the bid.

VOLUME – 1
(Part – 2)

TENDER FORM

To,
The Chairman
Purchase Committee
NITRA
Sector-23, Raj Nagar
Ghaziabad – 201 002 (U.P.).

Sub : Supply of textile testing equipment/ machinery to NITRA, Ghaziabad and sub-units (PLSCs) as per the specifications and Quantities mentioned in the tender.

Dear Sir,

- a. Having examined the conditions of Tenders / Specifications of the machinery / equipments, we, the undersigned, offer to supply equipment/machines as mentioned in the Annexure as per the quantity and specifications given in the tender.
- b. We agree to abide by this tender for the period given in Appendix TF from the opening date fixed for receiving the same and it shall remain binding upon us for a mutually extended period agreed in writing by us.
- c. If our tender is accepted, we undertake to supply the Equipment/machinery and install the same in Nitra, Ghaziabad mentioned in the tender within the specified periods in Appendix-TF on receipt of written order from the Purchase Committee, NITRA.
- d. If our tender is accepted we will, obtain and arrange:
 1. Transit insurances
 2. Any other statutory obligation, if any, prior of commencement of supply of machinery.
- e. We agree to your right to cancel the order or stop payment without prejudice to any other right or remedy for the following failures on our part.
 1. Changes to tender are made within Validity Period as specified in Appendix-TF.
 2. Supply and installation of equipment/machineries is not commenced within specified period as given in Appendix-TF.
 3. Obligations under (e) above are not fulfilled.

- f. Unless and until a formal agreement/purchase order is prepared and executed, this tender together with your written acceptance thereof, shall constitute a binding contract between us.
- g. We understand that you are not bound to accept the lowest or any tender you may receive.
- h. We agree to make a presentation of the products to be supplied by us, before the Purchase Sub-Committee on the date specified by it.
- i. Fluctuation in foreign exchange rates in respect of the imported equipment/machinery shall be borne by the equipment/machinery suppliers / authorized Agents.
- j. We hereby declare that the rates quoted by us are the lowest rates.
- k. In case of Imported Items, Please quote Free On Board value (at nearest foreign Airport/ Sea port) & Also quote separately CIP charges up to IGI Airport, New Delhi or ICD Patparganj / Tughlakabad, Delhi (whatever applicable). Also specify compulsorily the packing dimension, Nos. of Box / Cartoon & gross weight of each Box/Cartoon (Packing list). Please specify the name of the port &Country, from where the goods will be dispatched.

Authorized Signatory
to tenderer

Signature dated
Designation / Capacity
Name
Address

WITNESS 1

Signature

ADDRESS

Name

DATE

WITNESS 2

Signature

ADDRESS

Name

DATE

APPENDIX - TF

Sr. No.	Particulars	Remarks
1	Validity of Tender	180 days
2	Address, date and time of submission of the Tender Documents.	The Chairman, Purchase Committee, NITRA, Sector-23, Raj Nagar, Ghaziabad, U.P.-201002, India.
3	Supply, installation and commissioning of the machinery etc.	Within 3 months from the date of placement of order or advance paid failing which order may be cancelled.
4	Period of warranty / performance guarantee of machines.	3 Years
5	Submission of the Programme for delivery.	Within 21 days from the date of the acceptance of the order placed.

SEAL AND SIGNATURE OF TENDERER

* * * * *

VOLUME – I
(Part – 3)

TERMS AND CONDITIONS

1. Before submissions of the tender, the prospective bidders are expected to examine Technical Specifications of the equipment/machineries allied items required, terms and conditions, etc., given in the Tender Documents. Failure to furnish all information required by the Tender documents may result in the rejection of the bid. Detailed specifications of the items tendered and other accessories should be given, in the bid.
2. The descriptive leaflet giving the technical details of the equipment/machineries allied items should be supplied along with the quotation.
3. All accessories required for using the main equipment/machinery to make it fully operational for production are to be specified.
4. The suppliers of the machinery / equipment should provide both theoretical and practical training after commissioning the machinery or at an appropriate stage.
5. The price quoted should be exclusive of duty, ST, installation etc., which should be shown separately in the bid, if applicable. Freight and Insurance charges are to be indicated separately and the same will be paid at actual against supporting documents produced. Packing, forwarding and other charges as applicable are to be indicated separately in the tender.
6. The terms of payment in case of indigenous equipment/ machinery & accessories shall be as under :
 - a) 20% of the machinery cost ex-factory will be paid as advance against confirmation of orders.
 - b) 70% payment will be made against successful installation, commissioning and demonstration of satisfactory performance of the machinery / equipments at site.
 - c) Balance 10% payment will be made within one month from the date of installation & submission of Performance Guarantee for 12 months.
7. In case of Imported Items, 100% Payment will be made through Irrevocable Letter of Credit.
8. Delivery of the equipment/machineries should be as per the commitment from the date of receipt of initial payment against acceptance of order in case of Indigenous machinery and should not be extended.

9. **The pre-installation requirements including space, nature of civil work, power point, power requirement etc. are to be mentioned clearly in the technical bid.**
10. Separate bid for each of the items should be submitted in an envelope super scribed with the name of the item at the top, **“LAST DATE OF SUBMISSION: 15.07.2015 (12.00 PM), NAME AND ADDRESS OF THE BIDDER.** The sealed envelopes shall be marked in the name of **“The Chairman Purchase Committee, NITRA, Ghaziabad”.**
11. The list of organizations (with full addresses, telephone / fax no., e-mail addresses etc.) in India and abroad to which the equipment/machinery were supplied is to be provided in the bid for our reference. Preference will be given if the supplies are made to internationally reputed test houses both in India and other countries particularly for the bided equipment.
12. Validity of the tender should be available up to 180 days. The tender may be rejected if the validity is not given up to 180 days.
13. The supplier should take responsibility for delivering, installing and commissioning of the machinery inside the premises of NITRA, Ghaziabad at the places specified in the tender. The address will be specified in the Purchase Order.
14. Late / delayed tender offers will not be considered at all.
15. Any non-fulfillment of the stipulation given above will make the bid invalid.
16. If the tenders received are not sealed properly, they will not be considered at all.
17. Purchase Committee, NITRA reserves the right to accept or reject any or all the bids either in full or part without assigning any reason thereof.
18. The local supplier shall be entirely responsible for all taxes duties, license fees etc., incurred until delivery of the contracted goods (to the purchaser) up to place of delivery.
19. The delivery installation & commissioning period of the equipment/machinery as agreed to should not be extended under normal conditions. Suitable penalty for non-execution of the order may be enforced to the extent of 1% of the cost of machinery for every week extended. In case of the delay beyond scheduled period due to some unforeseen reason, written permission is required from the Chairman, Purchase Committee, NITRA, with proper justification to avoid penalty.
20. The equipment/machinery & accessories should be delivered, installed and commissioned at the address specified in the order. Service / operation / instruction / calibration manuals (in English) tool kit and gauges must also be supplied along with the machinery and accessories.

21. During the guarantee / warrantee period, servicing / maintenance should be undertaken regularly, subsequently Servicing/maintenance should be undertaken by the manufacturer or authorised agency of the manufacturer.
- 22. Warranty / performance guarantee period of three years should be given in respect of all the machinery and accessories supplied. Terms for service contract after the expiry of said warranty period are to be quoted separately.**
23. The manufacturer / supplier may indicate the Status of the Manufactured Product / or of the performed services as regards to ISO 9000 quality system..
24. List of servicing centres in India is to be indicated with detailed address, telephone no. / fax no. / e-mail address etc.
25. All pre-installation requisites such as Cables, Plugs, Compressor, Stabilizer etc. should be provided by the supplier along with the equipment/ machinery. NITRA, Ghaziabad concerned will provide adequate space, electricity & water, as the case may be, for the successful installation and commissioning of the equipment/ machinery.
26. The Capacity statement of equipment, plant and past performance details should be provided.

NOTE: The bidder has to specifically state that the clauses one to all as above have been read and understood and agree to comply all the above mentioned clauses individually.

ANNEXURE

**FORMAT OF BANK GUARANTEE OF 10% OF CONTRACT VALUE
(ON NON-JUDICIAL STAMP PAPER OF RS.10/-)**

Bank guarantee No. _____ Date : _____
This deed of guarantee made this _____ day of _____ 20 _____ (Two Thousand
----- Only) (Name and address of the Bank) _____

hereinafter referred to as 'the Bank') which expression shall where successors and assignees of the Bank and the Chairman, Purchase Committee, Nitra, which expression shall unless repugnant to the context of the meaning thereof include its legal representatives, successors and assignees.

WHEREAS the Nitra has placed its Purchase Order bearing No. _____ dated _____ on (name and address of the party) _____

(hereinafter called 'the supplier' for the supply of _____).

AND WHEREAS the Chairman, Purchase Committee, Nitra has agreed to pay to the supplier final 10% of the value of the equipment on submission of a Bank Guarantee of equal amount, which will be kept valid upto _____ being the period of 12 calendar months from the date of Bank Guarantee.

In consideration of the Chairman, Purchase Committee, Nitra having agreed to pay to the supplier Rs. _____ Rupees _____ only) being the last 10% of the value of the equipment, we (name of the Bank) hereby undertake and guarantee to make repayment to the _____ of the said 10% amount or any part thereof which does not become payable to the supplier by the Chairman, Purchase Committee, Nitra in accordance with the subject to the terms and conditions of the said order within _____ days from the date of dispatch / from the date of receipt of the material at site. The Bank further undertakes not to revoke this guarantee during its currency except with the previous consent of the Chairman, Purchase Committee, Nitra in writing and this guarantee shall be a continuous and irrevocable guarantee up to a sum of Rs. _____ (Rupees _____ only).

The Bank shall not be discharged or released from this guarantee by any arrangement between the supplier and the Chairman, Purchase Committee, Nitra with or without the consent of the Bank or any alterations in the obligation of the parties or by any indulgence, forbearance shown by the Chairman, Purchase Committee, Nitra to the supplier and the same shall not prejudice or restrict remedies against the Bank nor shall the same in any event be a ground of defence by the Bank against the Chairman, Purchase Committee, Nitra. We (name of the Bank) do hereby undertake to pay an amount equal to 10% of the order value being the amount due and payable under this guarantee without any demur, merely on demand from the Chairman, Purchase Committee, Nitra stating that the amount claimed is due to the Chairman, Purchase Committee, Nitra. In case the Chairman, Purchase Committee, Nitra puts forth a demand

in writing on the Bank for the payment of the amount in full or in part against this Bank guarantee, the Bank shall be considered that such demand by itself a conclusive evidence and proof that the supplier has failed in complying with the terms and conditions stipulated by the Chairman, Purchase Committee, Nitra in the purchase order and payment shall be made to the Chairman, Purchase Committee, Nitra without raising any dispute regarding the reasons for any such lapse/failure on the part of the supplier.

This guarantee shall be in addition to and without prejudice to any other securities or remedies which the Chairman, Purchase Committee, Nitra may have to hereinafter possess against the supplier and the Chairman, Purchase Committee, Nitra shall be under no obligation to marshal in favour of the Bank any such securities or fund or assets that the Chairman, Purchase Committee, Nitra may be entitled to receiving or have a claim upon and the Chairman, Purchase Committee, Nitra at its absolute discretion may vary, exchange renew, modify or refuse to complete or enforce or assign any security or instrument.

The Bank agrees that the amount hereby guaranteed shall be due and payable to the Chairman, Purchase Committee, Nitra on the Chairman, Purchase Committee, Nitra serving with a notice requiring the payment of the amount and such notice shall be deemed to have been served on the bank either by actual delivery thereof to the Bank or by dispatch thereof to the Bank by Registered Post shall be deemed to have been duly served on the Bank notwithstanding that the notice may not in fact have been delivered to the Bank.

In order to give full effect to the provisions of this guarantee, the Bank hereby waives all inconsistent with the above provisions and which the Bank might otherwise as guarantor be entitled to claim and enforce.

NOTWITHSTANDING anything contained herein before, the liability under this guarantee is restricted to Rs. _____ (Rupees _____ only). The guarantee shall remain in force till the _____ and unless the guarantee is renewed or a claim is preferred against the Bank within three months from the said date all rights of the Chairman, Purchase Committee, Nitra under the guarantee shall cease and Bank shall be released and discharged from all liability hereunder.

(SIGNATURE)

PLACE :

DATE :

SEAL

CODE NO.

NOTE : SUPPLIERS SHOULD ENSURE THAT SEAL AND CODE NO. OF THE SIGNATORY IS PUT BY BANKER, BEFORE SUBMISSION OF THE BANK GUARANTEES.

TECHNICAL SPECIFICATIONS
(Volume-II)
List of Equipment and Machinery

Sr. No.	Description	Quantity	Location
1	Stelometer with torsion balance	1	VNS-1
2	Fabric Stiffness tester	2	VNS-1; KNP-1
3	Conditioning chamber	4	VNS-1; KNP-1; TND-1; GKP-1
4	Fabric Thickness Tester (Digital)	2	VNS-1; GKP-1
5	Fluorescent Illuminated Magnifier with spring loaded Arm and Lamp	2	VNS-1; GKP-1
6	Carpet Abrasion Tester	1	PNP-1
7	Electronic Analytical Balance	1	VNS-1
8	Beeslays Balance	1	VNS-1
9	Digital Temperature cum humidity meter	2	VNS-1; GZB-1
10	Twist Tester for single & double yarn	1	VNS-1
11	Random Tumble (ICI) Pilling Tester	1	VNS-1
12	Digital fabric Strength Tester	1	VNS-1
13	Electronic Wrap Reel	1	VNS-1
14	Fabric Drape Tester	1	VNS-1
15	Bursting Strength Tester	1	VNS-1
16	GSM Cutter	1	VNS-1
17	Microscope	1	VNS-1
18	Crimp Tester	1	VNS-1
19	Tear Strength Tester	1	VNS-1
20	Colour Matching cabinet	3	VNS-1; KNP-1; GZB-1
21	Felting Shrinkage Tester	1	LDH-1
22	Crockmeter	1	VNS-1
23	Drying Oven	5	VNS-1; GZB-4
24	Launderometer	1	VNS-1
25	Soxhelet Extractor	1	VNS-1
26	Hard Card Punching machine	1	VNS-1
27	Jacquard (400 hook) with installation pillars	1	VNS-1
28	Powerloom with 24 hook dobby	1	VNS-1
29	Automatic Pirn Winding Machine	1	VNS-1
30	D. G. Set 10 KW	1	VNS-1
31	LCD Projector	4	VNS-1; GZB-3
32	Desktop	31	VNS-1; GZB-30

Sr. No.	Description	Quantity	Location
33	Scanner	1	VNS-1
34	B/W laser printer	1	VNS-1
35	Needle Loom	1	GZB-1
36	Warping Machine for Needle Loom	1	GZB-1
37	Double Decker Braiding Machine	1	GZB-1
38	Electronic CSP Tester	1	VNS-1
39	Quardant Balance	1	GZB-1
40	Nep Templates	1	GZB-1
41	Weighing Balance- Digital display	1	GZB-1
42	Baer Sorter	1	GZB-1
43	Digital Thickness gauge & compressibility Tester	1	GZB-1
44	Winch (Lab Model) m/c	1	GZB-1
45	Double Deck Yarn Covering Machine	1	GZB-1
46	Computerized Loom	1	GZB-1
47	Automatic Winding Machine	1	GZB-1

(1) **Stelometer : for Varanasi**

Objective : To determine strength & elongation of fibre tufts

Scope : Cotton , wool and synthetic fibres

Instrument Details:

Based on constant rate of loading .

Strength reading on graduated scale from 0-7 Kpa (step 0.1 kpa) elongation reading on a graduated scale from 0- 50 % .

Complete with 0” clamps and 1/8” spacer, Fibre Pretension Tweezers, clamps holder, Tweezer Holders, and relating tweezers .

A torsion balance with a capacity of 5 mg and an accuracy of 0.01 mg

Built in accordance with ASTM D 2524 , IWTO 32 , 82

Accessories Required :

Pressly clamp with 1/8” spacer, torque vice, fibre clip, pair of comb, sample clip, wrench and tweezers.

Related Standard :

ASTM D 1445 , ISO: 3060 , BS 5116

(2) Fabric Stiffness Tester (Pneumatic): for Varanasi & Kanpur

Objective : To determine fabric stiffness using circular bend procedure .

Scope : Woven & Knitted fabrics

Instrument Details:

- A plunger of 25.4 mm diameter pushes the fabric through a 38 mm diameter orifice for a distance of 57mm in 1.7 seconds and the maximum force is recorded . Instrument is provided with pneumatic cylinder, controls and digital force gauge 50 kgf with peak-hold facility.
- Stainless steel base that includes a vertical column to which the pneumatic cylinder and gauge are mounted.
- The base having a filter regulator with gauge to which the air supply is connected .
- The base having two palm actuator valves.
- Plunger & Plunger ring plate as per ASTM D 4032

Spares & Accessories :

Template to cut 4 inch x 8 inch fabric

Calibration certificate from NABL accredited lab

Reference Standard : ASTM D 4032

(3) Conditioning Chamber : For Varanasi, Tanda, Kanpur and Gorakhpur

Objective : To condition the textile samples prior to testing

Scope : Fibre , Yarn , Fabric and other textile materials

Instrument Details:

Laboratory conditioning chamber with following specifications :

Relative Humidity :40 -90 %(Max Tolerance, $\pm 2\%$ from set)

Temperature : 20-50 Degree C (Max Tolerance, $\pm 2\%$ from set)

Capacity : 200 litres

Manual digital set : Digital Indicating controller for temperature & Humidity

Stainless steel Shelf -2 Position

Forced air circulation

Self contained heating ,refrigeration and steam generator humidifier

Vapour tight welded stainless steel interior

Self contained re-circulating humidity system with 24 liter reservoir (obviates need for piped de-ionised water)

2 channel automatic programmer

Self contained re-circulating humidity system with 24 ltr reservoir

Accessories Required :

Extra stainless steel self

Calibration certificate from NABL accredited lab

(4) Fabric Thickness Tester (Digital) : for Varanasi and Gorakhpur

Objective : To measure thickness of sarees, dress materials etc. and also compressibility of carpets , batting , blankets and pile fabrics.

Scope : Sarees, Dress materials, suiting, shirting, carpets, Batting Polyester, Quilting fabrics, Blankets, Pile fabrics and other textile fabrics

Instrument Details:

A thickness tester consists of flat circular pressure foot and a flat circular anvil. A fixed pressure is applied on the fabric under examination with the help of dead weight placed over it's stem. The faces of the pressure foot and the anvil are ground flat and made parallel.

Pressure foot : 41.2 mm²

Range : 0-25 mm

Least count : 0.01mm

Accessories Required :

Set of weights ranging from 20-2000 g/cm²

Calibration certificate from NABL approved lab

Related Standard :

ISO 1765

BS 4051

BS 4098

BS 4223

(5) Fluorescent Illuminated Magnifier with spring loaded Arm and Lamp: for Varanasi & Gorakhpur

Specification :

Magnification : 20 X or more with adjustable focus for sharp viewing with reflected & transmitted light at top and bottom

Base plate : Acrylic sheet size min 45cm x 25 cm (Min)

Lens diameter : 4-5 inch

Standard Light source at top and bottom (below the base plate)

Dual switch for viewing with reflected light and transmitted light source

(6) Carpet Abrasion Tester : for Panipat

Objective : To test the carpet sample for abrasion resistance .

Scope : All types of carpets and textile floor covering

Instrument Details:

Specimen and abradant are clamped to the ends of two vertical shafts, the centres of which are offset. The shafts rotate in the same ,direction and at the same speed, giving a motion described by Schiefer which ,ensures constant relative velocity between specimen and abradant at all parts of the specimen. The abradant head is weight loaded to give the recommended pressure. The test specimen is a circle of 38mm diameter which is held in the specimen head by a screw clamp. The

number of rubs (revolutions) required for a test can be set on a predetermining counter and the number carried out is shown on a totaliser.

Specification :

Machine consisting of Specimen holder rotating at approximately the same speed and in same direction as the circular holder but with the axes of rotation offset

Rotation speed of specimen holder and abradant holder = 156 ± 3 rpm

Exposed area of specimen : 645 mm²

Exposed area of abradant : 1100 mm²

Distance between axes of specimen holder and abradant holder : 25.4 mm

Abrading Pressure : 0.54 kg/cm²

Standard abradant fabric : Standard polyester abradant (PE 280)

Wool Felt of Mass : 750 ± 50 GSM , Thickness , 2.5 ± 0.3 mm

Accessories Required :

Soft bristle brush for removal of loosened fibre to weighting

Related Standard :

BS EN 1813 ; IWS 122 & 283

(7) Electronic Analytical Balance : for Varanasi

Specification :

Weighing capacity 250 g and accuracy : 0.001 g

Digital reading (LCD display) , RS 232 Port

Pan size : 90 mm Ø

Sealed Housing

Auto Calibration

(8) Beeslays Balance : for Varanasi

- Suitable for measuring count of yarn in fabric in Ne, Tex & any other system

(9) Digital Temp. cum humidity meter : for Varanasi & Ghaziabad

- Temp- 0-100 RH- 20- 90 %

(10) Twist Tester (Hand operated)- Single & Double Yarn: for Varanasi

- Suitable to measure twist of single & double yarn by untwist-retwist method

- Test length adjustable upto 50 cm/20 inch for S/Z yarn

(11) Random tumble (ICI) pilling tester (Std IS/ ASTM) : for Varanasi

- Suitable for checking pill rating of woven & knitted fabrics

- Two box type

- Auto stop

(12) Digital fabric strength tester - Capacity- 500lb/250kg : for Varanasi

- Motor driven, Digital gauge in lb/kg with load cell

- Suitable clamps to test fabric tensile strength

- Arrangements for measuring elongation with auto stop

- (13) Electronic Wrap Reel for yarn count : for Varanasi**
Objective: To produce skeins of yarn of a predetermined length and number of turns for count &lea strength testing.
Specifications:
- Circumference : 54 inch
 - Complete with yarn package stand & pretension device
 - Fitted with predetermined counter & precision cutter
 - Auto stop at preset length
 - Min 7 position support creel
- (14) Fabric Drape Tester (Std BS5058/EN9073) : for Varanasi**
- Suitable to measure drape coefficient by tracing a shadow of draped fabric on paper. Complete with tracing papers (Min 100) of various applicable sizes.
- (15) Bursting Strength Tester (ASTMD3786): for Varanasi**
- Suitable to determine bursting strength of woven , knitted and Non woven Fabrics using rubber diaphragm & by application of pneumatic load
 - Maximum capacity 1500Kpa/200 PSI
- (16) GSM Cutter : for Varanasi**
- Suitable to cut round samples (standard size) for GSM testing
 - Minimum Blades and pads extra to be supplied
- (17) Microscope: for Varanasi**
Objective: for magnifying and viewing yarn and fibre structure
- Revolving nosepiece with option for fitting 4 objective lenses
 - Objective lens capacity – 4x, 10x, 40x and 100x
 - Eyepiece lens capacity -10x
 - Coarse and fine focus, stage with 2 clips
 - Illuminator – steady LED light source
- (18) Crimp Tester: for Varanasi**
Objective: to determine actual usage of yarn by calculating the crimp in yarn affected by weaving or knitting
Standards: ASTM D3883
- (19) Tear Strength Tester : for Varanasi**
- Capacity – 1600g to 6400g
 - Clamp size – 35.5mm x 15.5mm each clamp
 - Distance between clamps – 2.5 ± 0.25 mm
 - Scale reading – 0 to 100%
 - Calibration check weights – at 1600g
 at 3200g
 at 6400g
 - two additional blades
 - facility for adding augmenting weights at front and back

- (20) **Colour Matching Cabinet: for Varanasi, Kanpur & Ghaziabad**
Objective: To access the colour matching of yarn and dyed or printed fabrics or any material anyway coloured as per American Buyers.
Instrument details & requirements:
 Latest Design and feather touch microprocessor based control panel
 All lights are as American Standards.
 This consists of six standard light sources, CWF, D65, TL84, UVB, U 30, and INCA.
 Interior paint, matching with Munsell N/7, which strictly adheres to the American Standards.
 It should be provided with closing and opening doors.
 Instrument should be provided with movable Table/ metallic stand (Cup board).
 It should be provided with Lux meter calibrated from NABL accredited laboratory.
- (21) **Felting Shrinkage Tester: for Ludhiana**
Objective: To test felting shrinkage of woolen textiles
Instrument details & requirements:
 The instrument should includes all the accessories required to perform felting shrinkage test on wool fabric.
 The standard brand washing machine (5-6 kg capacity) Front Loading should be provided
 A tumble dryer matching the capacity of washing machine shall be provided with the item
 Shrinkage measuring template should be provided along with the item
Related Standard: It should fulfill the felting shrinkage as per IS 1313
- (22) **Crockmeter (Motorized Rubbing Fastness Tester (Dry & Wet) : for Varanasi**
Objective : to determine colour fastness to rubbing (Dry & Wet) of textiles
 Diameter of the Rubbing Finger : 16 mm & 25 mm
 Load on the Finger : 9 N & 20 N
 Length of the Traverse : 100 ±5 mm
 Counter (Re-settable) : 4-Digit Counter
 Motor driven auto stop
 Standard: IS : 766, ISO : 105 X-12
- (23) **Drying Oven : for Varanasi & Ghaziabad**
 - Suitable for drying fabric samples and heating solutions.
 - Temperature range – upto 250⁰C (auto temp control)
 - Capacity – 50 liters
 - Interior – Stainless steel
 - Forced air circulation

- (24) Launderometer for Varanasi**
- Temperature range – upto 80⁰C
 - Number of beakers (jars) – 8 with capacity 500±50 ml
 - Corrosion resistant
 - Carriage RPM – 40±2
- Standards : IS / ISO: 105 C10
- (25) Soxhelet Extractor : for Varanasi**
- Number of heads – 6 with individual heating arrangement and separate timers
 - Heating range – 20⁰C to 280⁰C
 - All glass ware – minimum 2 sets (for each head) including conical flask of 100 ml capacity and assembly.
- (26) Hard Card Punching Machine : for Varanasi**
- Suitable for punching standard hard cards upto 400 hooks
 - foot operated
 - with graph mounting board, parallel ruler and ruler sliding device
- (27) Mechanical Jacquard 400 hooks : for Varanasi**
- number of hooks – 400 with chain / lever drive from loom shaft
 - double lift double cylinder type – suitable for fine to medium variety fabrics
 - with all required accessories for ready to run condition
- (28) Power loom with 24 hooks doobby : for Varanasi**
- working width – 52” with warp & weft stop motions
 - Peg doobby – medium – 24 hooks
 - in ready to run condition
- (29) Automatic Pirn Winding Machine : for Varanasi**
- with bunch motion
 - number of spindles – 04
 - auto pirn trolly with rotary magazine
 - auto thread stop motion
 - suitable for spun & filament yarn winding
 - suitable to accommodate pirns from 180 mm to 220 mm
- (30) Silent D. G. Set 10 KVA, 3phase for Varanasi**
- with AVR system
 - 3 phase, 50 Htz
 - Brushless, Class H insulation
 - starting system 12 V DC Battery
 - Air /Water cooled type
 - Fuel tank capacity – sufficient for working 8 to 10 hrs.

- (31) LCD Projector : for Varanasi & Ghaziabad**
 Connectivity : VGA & HDMI Resolution : 800 x 600
 Brightness : >2700 Lumens
 Display : LCD Functionality
 Networking Aspect Ratio : 43
 Minimum 2 year onsite warranty
 Brand : Epson/ Sharp/LG
- (32) Desktop : for Varanasi & Ghaziabad**
 4th Generation Intel Core i3/ 2 GB RAM DDR3/ 500 GB HDD/ DVD RW/18-19”
 LED/ Windows 8 (Preloaded OEM) with 3 year onsite warranty.
- Brand : HP/Lenovo/Dell/
- (33) Scanner : for Varanasi**
- Flatbed Scanner with document feedersuitable for scanning one/both side
 - Minimum 48 bit colour scanning
 - Minimum 2400 dpi resolution
 - Minimum 50 page Automatic Document feeder
 - Document scanning at minimum 15 ppm
 - Image scanning at minimum 6 ipm
 - Size A4
 - Connectivity – USB 2.0
- Brand : HP
- (34) B/W Laser Jet Printer : for Varanasi**
 Display – 2 line LCD (text & graphics)
 Internal memory – minimum 128 MB
 Print Resolution – upto 1200 x 1200 dpi
 Duty Cycle – upto 50,000 pages
 Print speed – upto 33 ppm
 Media type supported – Paper (plain, green mode, light, heavy bond, colour, letterhead, preprinted, recycled, rough); envelopes, labels, Tranparencies, cardstock
 Media size supported – A4, A5, A6, B5 (JIS)
 Output tray capacity – minimum 150 sheets
 Automatic two side printing
 Brand : HP
- (35) Needle Loom : for Ghaziabad**
 Objective : To weave elastics, tapes and webbings (medium to heavier) and other items used in protective textiles
- | | |
|-----------------|-----------------------|
| Number of Heads | : 04 |
| Weaving width | : 50 – 65 mm per head |
| Design chain | : 8 – 48 |
| Heald frames | : 12 – 16 |

Weft density : 2.5 – 40 per cm
 Weft feeding : Fan disc or any other advanced system
 Desirables : 1. Standard beam creel (16 beams of 300x300 mm)
 1. Lock thread attachment
 2. Rubber feeder attachment
 3. Heavy duty take-up system
 4. Complete set of accessories including beams, heald frame, healds & reed for ready to run loom condition.
 5. Dobby chain links for 16 shafts – 48 picks
 6. Standard spares for 5 years
 7. One set of all electronic cards & specific cables & wiring with sockets

(36) Warping Machine for Needle Loom: for Ghaziabad

Creel capacity : 120 – 160
 Beam size : 300 mm dia x 300 mm
 Brake system : Electromagnet instant braking
 Desirables : 1. Anti static Oiling device
 2. Digital controls & monitoring
 3. Slow start with adjustable acceleration
 4. All accessories for ready run condition
 5. One set of all electronic cards & specific cables / wiring with sockets
 6. Standard spares for 5 years

Note: Preference will be given to double beam (02 beams at a time) warping systems.

(37) Double Decker Braiding Machine: for Ghaziabad

Type of machine : Vertical type capable of duplex braiding on cables used in iron presses
 No. of spindles : 16 – 24 each head
 Desirables : 1. Rubber feeder attachment
 1. Auto thread stop
 2. Complete set of accessories including 2 sets of bobbins, thread guides of different diameters etc. for ready to run condition
 3. One additional set of all electronic cards, specific cables and wiring with socket if any.
 4. Standard spares for 5 years

Note: Preference will be given to flat and circular both braiding systems.

- (38) **Electronic CSP Tester : for Varanasi**
 Capacity- 200lb/100kg
 - Motor driven, Based on pendulum loading principal
 - Dial gauge in lb/kg
 - Suitable to test lea strength of all type of yarns.
- (39) **Quardant Balance : for Ghaziabad**
 - Suitable for measuring count of sliver, roving & yarn in Ne
- (40) **Nep Templates : for Ghaziabad**
 - Nep template with 34 round hole of 1 square inch of acrylic / Card board
- (41) **Weighing Balance – Digital display : for Ghaziabad**
 - Capacity 1 Kg Least count 0.1 gm
 - Pan size- 15-20 cm
- (42) **Baer Sorter : for Ghaziabad**
 - Suitable to measure length of cotton fibers
 Complete with Acrylic transparent sheets 2pcs of 6x8 inch & 3x8 Inch
 & Fiber mounting templates 2 pcs of 6x8 inch & 3x8 Inch
- (43) **Digital Thickness gauge & compressibility Tester: for Ghaziabad**
Objective:
 To measure thickness and compressibility of carpets, batting, blankets and pile fabrics.
- Scope:**
 Carpets, batting polyester, quilting fabrics, blankets, pile fabrics and other textile fabrics
- Instrument Details:**
 A thickness gauge consists of flat circular pressure foot and a flat circular anvil. A fixed pressure is applied on the fabric under examination with the help of dead weight placed over it's stem. The faces of the pressure foot and the anvil are ground flat and made parallel.
 Pressure foot: 41.2 mm²,
 Range: 0-25 mm
 Least count: 0.01mm
- Accessories Required:**
 Set of weights ranging from 20-2000 g/cm²
 Calibration certificate from NABL approved lab
- Related Standard:**
 ISO 1765
 BS 4051
 BS 4098

44. Specification of Winch (Lab Model) m/c : for Ghaziabad

1. Table top Winch (Lab model) dyeing machine shall have provision to dye hank, knitted, delicate woven samples.
2. Dyeing machine made of stainless steel (SS)
3. Machine shall have arrangement for additions of dyes and chemicals during the processing.
4. 9-10 litre of liquor capacity
5. Electrical Heating system shall be provided to dye material up to 95°C.
6. Microprocessor based control panel to control temperature ,time etc of dyeing shall be provided

Complete accessories shall be supplied to make machine ready to use.

(45) Double Deck Yarn Covering Machine : for Ghaziabad

- | | |
|------------------|---|
| a. Model | Lab model having 6-10 spindles |
| b. Covering type | single / double – optional |
| c. Take-up speed | 40 to 100 mtr / min |
| d. Final package | cone / cheese |
| e. Wraps per mtr | 150 to 4500 |
| f. Spindle pitch | standard (200 mm) |
| g. Others | adjustable flanged bobbin speed, rubber core feeder and individual drum thread stop |

(46) Computerized Loom : for Ghaziabad

- | | |
|-----------------------------|---|
| Type | Integrated table top type |
| Weaving width | 16 – 20 inches |
| Heald frames | 16 – 24 |
| Design selection (shedding) | Automatic (computerized) with on loom design editing facility |
| Connectivity | USB 2.0 with OS Windows & Linux |
| Picking | Shuttle / single rapier |

(47) Automatic Winding Machine : for Ghaziabad

- i. No. of drums – Lab Model (minimum capacity not less than 4 spindles)
 - ii. Electronic yarn clearing system
 - iii. M/c speed > 1600 mpm
 - iv. Individual splicer
- Winding on cone angle- 5°57'