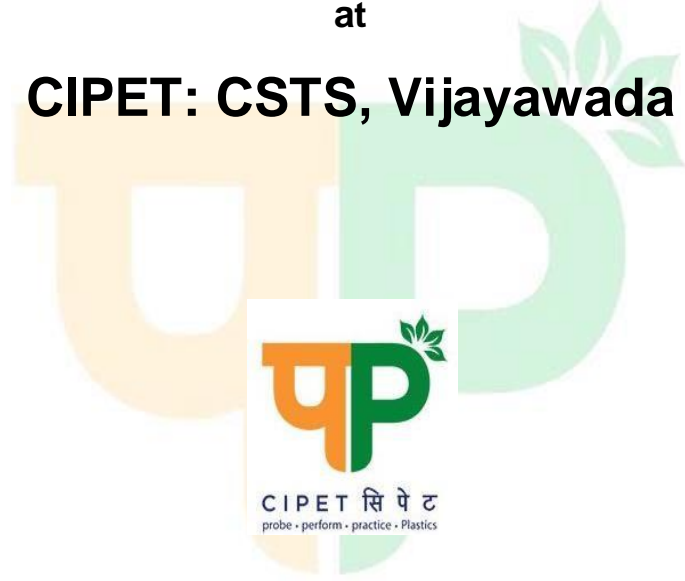


**E-Tender Document for
Supply and Installation of *Machineries /
Equipment***

at

CIPET: CSTS, Vijayawada



CIPET सि पे ट
probe · perform · practice · Plastics

LAST DATE FOR SUBMISSION OF BID: 28.09.2021

**CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING AND
TECHNOLOGY**

केंद्रीय पेट्रोकेमिकल्स इंजीनियरिंग एवं तकनीकी संस्थान

**CENTER FOR SKILLING AND TECHNICAL SUPPORT SERVICES
(CSTS): VIJAYAWADA**

कौशल एवं तकनीकी सहायता केंद्र (सि यस टि यस) : विजयवाड़ा

रसायन एवं पेट्रोसायन विभाग / Department of Chemicals & Petrochemicals

रसायन और उर्वरक मंत्रालय / Ministry of Chemicals & Fertilizers

भारत सरकार / Govt. of India



CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING & TECHNOLOGY

केंद्रीय पेट्रोकेमिकल्स इंजीनियरिंग एवं तकनीकी संस्थान

(Dept. of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizer, Govt. of India)

Survey No.377, Surampalli(Vi), Gannavaram(M), Vijayawada – 521 212

(Andhra Pradesh)

Email: cipetvijayawada@gmail.com

E-TENDER NOTICE

CIPET: CSTS, Vijayawada has invited bids through e-Tender **UNDER SINGLE STAGE TWO BIDS SYSTEM IN e-TENDER PORTAL (www.tenderwizard.com/CIPET)** from Reputed Suppliers/ Manufacturers / Authorized Dealer & Distributors having valid PAN, IT Return & GST Registration Certificate for supply & installation of the following equipment at CIPET:CSTS, Vijayawada.

| Sl. No. | Name of the Equipments / Machinery | E-Tender No. |
|---------|--|-------------------------------|
| 01 | Impact Tester for pipes with varying loads | CIPET/CSTS/VJA/PTC/2021-22/01 |
| 02 | Analytical Weighing Balance | CIPET/CSTS/VJA/PTC/2021-22/02 |
| 03 | Hydraulic Press set up for clamping of End Fittings for Pipes used for Hydrostatic Pressure Testing Machines | CIPET/CSTS/VJA/PTC/2021-22/03 |
| 04 | Vacuum Pump (For negative vacuum pressure testing for PVC pipes, DWC Pipes etc) | CIPET/CSTS/VJA/PTC/2021-22/04 |
| 05 | Universal Testing Machine | CIPET/CSTS/VJA/PTC/2021-22/05 |
| 06 | HDT / VSP Tester | CIPET/CSTS/VJA/PTC/2021-22/06 |
| 07 | Melt Flow Index Tester | CIPET/CSTS/VJA/PTC/2021-22/07 |

The last date & time for the submission of the bids is till 28.09.2021, 03:00 PM. Bidders are requested to visit the website **www.tenderwizard.com/CIPET** or **www.cipet.gov.in** and refer the e-tender No's mentioned against each equipment and submit their offers electronically.

For further clarifications, please contact 8093140230 / 9000422500

Joint Director & Head reserves the absolute right to accept/reject any of the tenders in part or full at any stage of the tender process without assigning any reasons thereof.

संयुक्त निदेशक और प्रमुख
Joint Director & Head

INSTRUCTIONS TO BIDDERS

(A) Introduction

Central Institute of Plastics Engineering & Technology (CIPET) – under the Dept. of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India is an ISO 9001: 2008 Certified, BIS Recognized, ISO/IEC: 17025-2005 (NABL) and ISO/IEC: 17020-2012 (NABCB) accredited institution focusing on STAR (Skill Training, Technology Support Services, Academic and R & D activities) concept for the benefits of Govt. organizations & industries in the country. CIPET is operating around 30 centers across the nation.

CIPET : CSTS - Vijayawada is established to cater the man-power needs of Plastics and allied industries of A.P through its Long-Term Training and Vocational Courses sponsored by Govt. of A.P and Govt. of India. The centre is equipped with State-of-the-art infrastructural facilities in the field of Plastics Processing, Testing, Tool Room & Design.

The Institute offers highly specialized and practical oriented training in the field of Plastics Engineering & Technology. These courses are particularly designed to ensure exposure of the candidate to practical problems involved in the relevant areas of study.

Further, the centre is exclusively providing Technical / Consultancy services to aspiring entrepreneurs and the students of various Engineering & Polytechnic colleges of A.P. in the field of Plastics, Processing, Testing, and Composites, Mould manufacturing & Design etc., The centre is also able to provide facilities to aspirants pursuing Ph.D., M.Tech., B.Tech. & Diploma wherein numerous trainees are benefitted through completion of their Project / Research work.

(B) The Bidding Documents

- **Content of Bidding Documents**

The Bidding Documents include;

- (a) Instruction to Bidders;
- (b) Terms and Conditions of Contract;
- (c) Schedule of Requirements;
- (d) Technical Specifications & Compliance Sheets;
- (e) Manufacturer's Authorization Form;
- (f) Bid Form and Price Schedules;
- (g) Contract Form;
- (h) Performance Security Form;
- (i) Deviation Statement;

- The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in rejection of the bid.

- **Amendment of Bidding Documents:**

- At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at their own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by amendment.
- In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bid, the Purchaser may, at their discretion, extend the deadline for the submission of bids

(C) Eligible Criteria for Bidders :

- Audited Balance sheet for the last 3 years
- Up-to-date IT return for the last 3 years, PAN Card, GST Registration Certificate.
- The Bidders must have satisfactorily supplied & completed installation of similar type of Instrument at-least 02 nos. in any Govt. Organisations/PSU/Corporate Sectors during the last 5 years. The Certificate in support / credentials of that from the user must be attached. The Customer Feed Back Certificate must be enclosed.
- Self declaration on **NO PENDING LITIGATION.**
- The vendor shall have local service and application office and infrastructure to attend visit within 48 hours.
- The vendor should furnish details of customers in India.
- The bidders shall give a list of his relatives working with the CIPET along with their designations and addresses.

(D) Terms & Conditions :

- **Taxes** :All taxes, duties, packing, forwarding& installation have been included in the quoted rate.
- Application Fee Rs. **1180/- (Including GST)**
- **EMD** : In compliance to the No. OM released by Procurement Policy Division, Department of Expenditure, Ministry of Finance, Government of India vide No.: F.9/4/2020-PPD, dated: 12.11.2020, the Earnest Money Deposit (EMD) to be submitted by the bidders shall be treated as "NIL"
- The below are the bank details of CIPET: CSTS Vijayawada for NEFT/RTGS towards application/EMD/:
 - Name of the Account : CIPET VTC VIJAYAWADA
 - Bank Name : SBI
 - Account No : 34977031901
 - IFSC Code : SBIN0005947
 - Address : SBI SME BRANCH, NEAR SAI HOTEL CENTRE, AUTONAGAR, VIJAYAWADA, ANDHRA PRADESH
- **Performance Security** : 10% of the Purchase Order value shall be submitted by the party towards performance security within 07 days of receipt of Purchase Order in the form of Demand Draft/NEFT/RTGS/Bank Guarantee. The Performance Security will be refunded after 60 days from the due completion of all the contractual/performance including warranty obligations pertaining to supply and installation of the equipment/machinery and satisfactory functioning of the supplied equipment/machinery. DD shall be drawn in favour of CIPET VTC VIJAYAWADA payable at VIJAYAWADA
- **Warranty / Guarantee** :The Instrument should be covered under 2 year warranty / guarantee from the date of installation and commissioning. At the time of acceptance of PO, the successful bidder should submit an indemnity bond on 100/- stamp paper stating that the firm shall fulfill all the requirements during the warranty/Guarantee period.

- Return of EMD/other deposits by the bidder shall be returned without any interest.
- **Delivery Period:** Supplier should be delivered the instrument within 08-10weeks from the date of receipt of Purchase Order, failing which liquidated damage @ 0.5% per week shall be deducted from the final payment, for each week of delay beyond the delivery period upto maximum of 2%.
- **Payment :** 90% after supply of Instrument & balance 10% after successful installation, commissioning & Training as per our Technical Specifications & subject to fulfillment of other terms & conditions of the e-Tender documents. The contractor shall submit all the relevant working guidelines and successful installation report duly approved by the respective official of the centre towards the release of the balance payment after installation.
- Force Majeure Clause shall be invoked during the supply and installation of the equipment/machinery due to prevailing COVID-19 situations only with due consideration and grant of permission by the competent authority of CIPET: CSTS, Vijayawada.
- Relaxation in the norms for Startup and Micro & Small Enterprises in Public Procurement shall be provided on Tender Fee, Prior Experience, Annual Turnover criteria. The appropriate MSME/NSIC Certificate should be submitted along with the other tender documents in the e-tender.
- Purchase preference shall be given to the local supplier as per the provisions in the OM No.: P-45021/2/2017-PP(BE-II) (E-43518), dated: 09.07.2020 of Ministry of Commerce and Industry department for promotion of Industry and Internal trade (Public Procurement Section).
- After issuance of the Purchase order, if the party doesn't accept the PO issued in compliance with the guidelines of this tender document, the EMD shall be forfeited. If the party after acceptance of PO and submission of Performance guarantee, fails to complete the installation/any other contractual obligations towards satisfactory running of the equipment/machinery, performance security shall be forfeited.
- The Bidder shall provide the Bank accounts details along with Scanned copy of cancelled cheque for onward transaction.
- The vendor should have technical support in the area of application and service available within the country.
- In case of any up-gradation of software then the same should be provided free of cost by the supplier/manufacturer.
- Power and receptacle/socket as per Indian Standards should be provided.
- Appropriate tool box/kit for routine maintenance should be provided with the equipment
- On-site (at CIPET: CSTS, Vijayawada) installation, demonstration and training for system operation and maintenance as well as application support should be provided by the vendor at its own cost.
- Tenders should specify & provide all mandatory and other accessories required for installation, commissioning and running the machine.
- The repairing/rectification/replacement/configuration required, if any, of the items under warranty must be done at CIPET: CSTS, Vijayawada by the bidder.

- The Annual Maintenance Charges (AMC) 3 Years should be quoted separately (Optional), which should not be quoted in the Price Bid.
- The supplier should mention the model & make against the Instrument.
- **Spares:** The supplier must confirm in writing that the spares for the instrument will be available for a period of at least 05 (Five) years after the Instrument supplied.
- **Bid document:** The vendor should read the e-Tender documents carefully before quoting. It shall be deemed that the vendor has gone through the documents carefully and has understood its implication.
- **Technical bid:** The Technical Bid should accompany with full technical literature, leaflets of the technical features of the Instrument must be submitted for evaluation.
- **Declaration:** The bidder should attach a self-declaration statement that he is not debarred/ blacklisted or banned from any Central Government / PSU / State Govt / any Corporate Sector.
- **Manual:** Complete set of service manual for diagnostics, trouble shooting and maintenance along with electronic circuit diagram (in English) – hard and soft copy should be provided with the instrument
- The e-Tender, submitted by the Bidder who have already been declared as Black Listed or whose contract was terminated for dissatisfactory supply or who was unable to supply any Institute/Organization run by the State / Central Government / PSU / Corporate Sectors will not be considered even his being the lowest rate.
- The Bidder should provide relevant documents regarding the Partnership Firm/Public/Pvt. Ltd. Company/Cooperative society.

Pre-Requisites

- Pre-installation requirements indicating details of power requirement, utility air, water, ventilation, safety device, if any, along with the foundation requirement needed for installation & commissioning should be provided prior to supply of Machine.
- Appropriate tool box/kit for routine maintenance should be provided with the equipment
- All documents (i.e. operating & service manuals, drawings etc.) and original softwares relevant to the instrument and its accessories must be supplied.
- Power and receptacle/socket as per Indian Standards should be provided.
- The vendor shall attend by visit within 48 hours of need.

Training

- Training at vendor site and onsite for system operation and maintenance as well as application support should be provided by the vendor at its own cost.
- Prices quoted should be on Delivered Duty Paid (DDP) basis to CIPET:CSTS-Vijayawada.
- Any legal disputes subject to Vijayawada, India jurisdiction only

Delivery and Documents

(a) For Imported Goods

- Original and three copies of Supplier's invoice showing Goods description, quantity, unit price, total amount.
- Original and three copies of the negotiable clean, on –board bill of lading marked freight prepaid and three copies of non-negotiable bill of lading.
- Five Copies of packing list identifying contents of each package.
- Insurance Certificate.

- Manufacturer's /Supplier's guaranty certificate.
- Traceable Calibration Certificate issued by Accredited Calibration agency and
- Certificate of Origin.

(b) For Domestic Goods:

Original and Three copies of:

- Copies of the Supplier invoice showing Goods description, quantity, unit price, total amount.
- Railway receipt /Acknowledgement of receipt of goods from the consignee(s);
- Manufacturer's /Supplier's guarantee Certificate;
- Traceable Calibration Certificate issued by Accredited Calibration agency,
- Certificate of origin and
- Document evidence for GST Registration /Octroi etc., wherever applicable, bearing seal of office of issue indicating payments made extra.

The above documents shall be received by the Purchaser before arrival of the goods (except where the goods have been delivered directly to the consignee with all documents) and if not received, the supplier will be responsible for any consequent expenses.

• **Warranty/Guarantee**

- The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except insofar as the design or material is required by the Purchaser's Specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied Goods in conditions obtaining in the country of final destination.
- This warranty/guarantee shall remain valid for 24 months after the Goods or any portion thereof as the case may be, have been delivered and Commissioned at the final destination indicated in the Contract.
- The Purchaser shall promptly notify the Supplier, in writing, of any claims arising under this warranty.
- Upon receipt of such notice, the Supplier shall, with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the Purchaser.
- If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- The Supplier must provide the following warranties:
 - (a) The equipment proposed is Complete in every way
 - (b) The hardware/software specification, Capabilities and performance characteristics are as stated in the bidder's proposal and accompanying documentation.
 - (c) The supplier will offer to the Purchaser all technological updates, cost reductions and facilities, which are offered to other clients, in India, during the Contract

tenure.

If the supplier is acting directly for the manufacturer of the Goods and Services, the Manufacturer must honor these guarantee.

The MAINTENANCE SERVICE shall be as follows.

- (a) Free maintenance services shall be provided by the Supplier during the period of warranty.
- (b) The maximum response time for maintenance complaint from any of the destination specified in the Schedule of requirements (i.e. time required for supplier's maintenance engineer to report at the installation after a request call/email is made or letter is written) shall not exceed 24 hours.

• **Liquidated Damages:-**

If the Supplier fails to deliver any or all of the goods within the time period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the contract, deduct from the Contract Price, as liquidated damages, a sum equivalent @ 0.5% per week shall be deducted from the final payment, for each week of delay beyond the delivery period upto maximum of 2% of the delayed goods or services Contract price. Once the maximum is reached, the purchaser may consider termination of the contract

(E) Preparation of Bids

1. Bid Form

The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the Bidding Documents, indicating for the goods to be supplied, a brief description of the Goods, their country of origin, quantity and prices

2. Agents and service facilities in India :

If a foreign bidder has engaged an Indian agent, it will be required to give the following details in the offer:

- (i) The name and address of the local agent;
- (ii) What service the agent renders; and
- (iii) The amount of remuneration for the agent included in the offer

3. Documents establishing Bidder's Eligibility and Qualifications

- The Bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.
- The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the Purchaser's satisfaction:
 - (a) In the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods manufacturer or producer to supply the goods in India.
 - (b) In the case of a Bidder not doing business within India, the Bidder is or will be (if successfully represented by an agent in India) equipped and able to carry out the Supplier's maintenance, repair and spare-parts stocking obligations prescribed by the Conditions of the Contract and / or Technical Specifications
 - (c) The Bidder has the financial, technical, and production capability necessary to perform the Contract and meets the criteria outlined in the qualification criteria specified as per the Tender norms.

4. Period of Validity of Bids

- Bids shall remain valid for 120 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the Purchaser as non-responsive.

5. Submission of Bids

- i) The detailed technical specification of the equipment is enclosed in Bid document, Offer should be of two parts Viz., “**TECHNICAL BID**” and “**COMMERCIAL BID**” The content of the both bids should be as under;

(a) TECHNICAL BID should include the following:-

- ✓ Detailed specification of the base equipment (Product Make & Model) along with the specification of accessories, which are included in the Base unit.
- ✓ Scope of supply
- ✓ Deviation Statement
- ✓ Product Literature/Brochure
- ✓ Proforma for Performance Statement
- ✓ Qualification Criteria
- ✓ List of spare parts included (without quoting the price) (the acceptance and rejection of spare parts will be at sole discretion of CIPET:CSTS-Vijayawada)
- ✓ List of optional accessories with their technical specification. (without quoting the price)
- ✓ Manufacturer’s Authorization Form
- ✓ Bid Form
- ✓ Any other information which the bidder would like to state about the technically of the equipment.

(b) COMMERCIAL BID should include the following:-

- ✓ Statement showing the price of the each items of spare parts which is mentioned in the Technical Bid
- ✓ Conditional bids will not be accepted. The condition laid down by CIPET:CSTS-Vijayawada is final and binding on all bidders.
- ✓ The quote should be in Indian Currency (INR).
- ✓ CIPET:CSTS Vijayawada reserves the right to accept or reject any or all tenders either in part or in full without assigning any reasons thereof.

The bids, which are not containing the statements, mentioned in 5 (i) (a) & (b) are liable to be rejected.

- The proforma of Annexures in the Bidding document, wherever necessary, should be typed on the bidder’s letter head and upload the same.
- Price Schedule should be submitted in the prescribed format given under price schedule of the Bidding Document.
- The Deviation Statement enclosed should be duly filled in and submitted along with Bidding Document. If the bidder is offering more than one options/models a separate. Deviation statement for each of such quotes should be submitted along with the offer.
- Quotes received without price schedule and deviation statement as per our prescribed format, will summarily be rejected.
- Relaxation of Norms for Startup and Micro & Small Enterprises in Public Procurement on Prior Experience – Prior Turnover Criteria.

6. Deadline for Submission of Bids

The Purchaser may, at its discretion, extend this deadline for submission of bids by amending the Bid Documents, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the dead-line as extended.

7. Evaluation and Comparison of Bids

- The Purchaser will evaluate and compare the bids previously determined to be substantially responsive.
- The availability in India of spare parts and after-sales services for the equipment offered (imported goods) – in the bid; (the inclusion of cost of spare parts for comparison as per requirement will be at sole discretion of CIPET:CSTS-Vijayawada. Also,CIPET: CSTS-Vijayawada reserves right to accept any bid and to reject any bid or all bids.

(F) Award of Contract

- **Post Qualification**

- The Purchaser will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the Contract.
- The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder as well as such other information as the Purchaser deems necessary and appropriate.
- An Affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

- **Purchaser's right to vary Quantities at Time of Award**

- The Purchaser reserves the right at the time of award of Contract to increase or decrease of the quantity of goods and services specified in the Schedule of Requirements without any change in price or other terms and conditions.

- **Purchaser's Right to Accept any Bid and to Reject Any or All Bids**

- The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidders or Bidders of the grounds for the purchaser's action.

MANUFACTURER'S AUTHORIZATION FORM

No.....dated.....

To
**CIPET: CSTS, Vijayawada,
Survey No.377, Surampalli(Vi),
Gannavaram(M), Vijayawada – 521 212**

Dear Sir

Ref: Bid Reference

We who are established and reputable
manufacturers ofhaving factories at
.....and.....do hereby authorize
M/s.....
M/s.....
M/s.....etc (Name and
address of Agents) to bid and conclude the contract with you against the above Bid are authorized
to bid and conclude the contract in regard to this business against this specific Bid.

We hereby extend our full guarantee and warranty as per the Terms and Conditions of Contract for
the goods offered for supply against this invitation for bid by the above firms.

Yours sincerely,

(Name)

for and on behalf of M/s.....

(Name of Manufactures)

Note: This letter of authority should be on the letterhead of the manufacturing concern and should
be signed by a person competent and having the power of attorney to bind the manufacturer

PERFORMANCE SECURITY FORM

To:

CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY,
Survey No.377, Surampalli(Vi), Gannavaram(M), Vijayawada-521 212.

WHEREAS.....(Name of Supplier)

Hereinafter called "the Supplier" has undertaken, in pursuance of Notification of Contract No..... dated, 20..... to supply

..... (Description of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has stipulated by you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract. AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the day of20.....

Signature and Seal of Guarantors

.....
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.....
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Date

Address :.....

PROFORMA FOR PERFORMANCE STATEMENT

(for Simple Goods/equipment for a period of last three years)

Bid No.....Date of opening.....Time.....Hours

Name of the Firm.....

| Order placed By (Full address of Purchaser) | Order No and date | Description and quantity of ordered equipment | Value of order | Date of completion of delivery | | Remarks indicating reasons for late delivery, if any | Has the equipment been satisfactorily functioning? |
|--|----------------------|--|-------------------|--------------------------------|--------|--|---|
| | | | | As per Contract | Actual | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| <hr/> | | | | | | | |

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Signature and seal of the Bidder

PROFORMA FOR DEVIATION STATEMENT

Bid Ref No.

Date of Opening

Time :

Name of the Firm

Name of the Equipement quoted

Model No.:

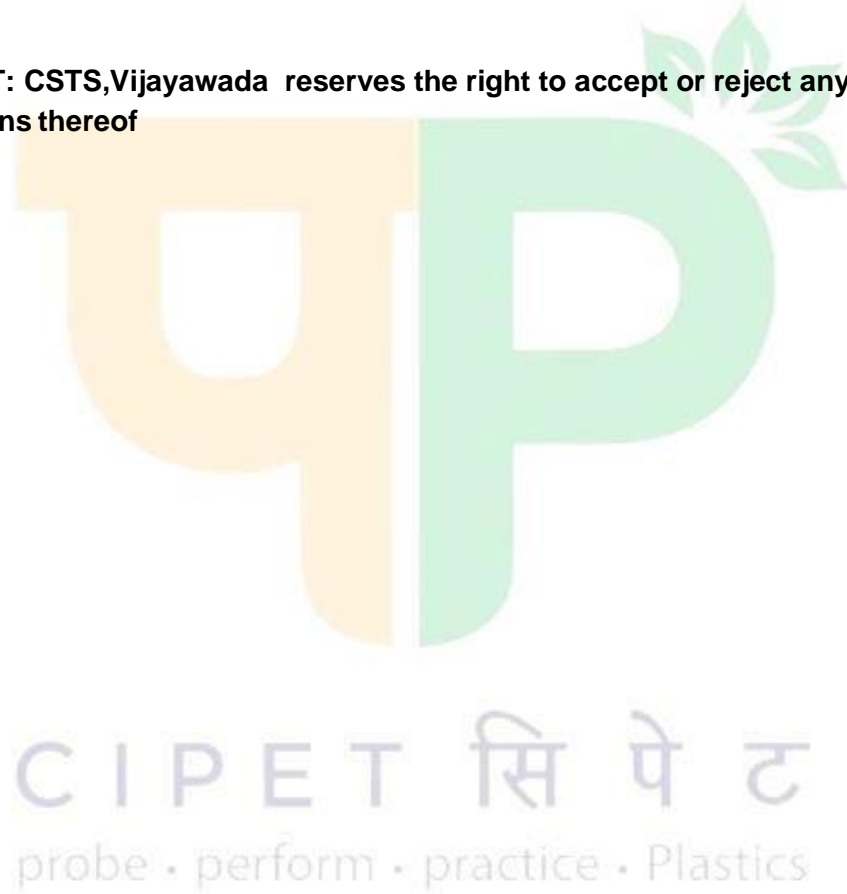
| Purchaser's Specification | Bidders Specification | Deviation, if any | Justification | Remarks |
|---------------------------|-----------------------|-------------------|---------------|---------|
| | | | | |

Note : Separate Deviation statements should be submitted along with the bid for all models / alternative quotes.

Note :- Further if any e-Tender queries please contact the following officials of etenderwizard:

| Sl. No. | Name of the Official | Contact Number | e-mail ID |
|----------------|-----------------------------|-----------------------|---------------------------|
| 01. | Shri D Anjaneya Sharma | 8093140230 | cipetvijayawada@gmail.com |
| 02. | Shri Tagore S V K Batta | 9000422500 | admecipetvja@gmail.com |

CIPET: CSTS,Vijayawada reserves the right to accept or reject any or all tenders either in part or in full without assigning any reasons thereof



IPET – CSTS, VIJAYAWADA
List of machinery/equipment, Technical Specifications.
PLASTICS TESTING CENTER

| S.No | Name of the Equipment/Instrument | Specifications | Qty | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|--|---|------|---------------|---------------|---|-----------|---|---|--------------------------------|---|---|-------------------|---|---|---|--------------------|---|---------------------------|--|---|---------------------------|---|---|------------------------------|---|---|------------|---|---|--------------|---|--------|
| 01 | Impact Tester for pipes with varying loads E-Tender No.: CIPET/CSTS/VJA/PTC/2021-22/01 | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S.No</th> <th style="text-align: center;">Specification</th> <th style="text-align: center;">Range / Value</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Standards</td> <td>IS 4985, IS 12818, IS 13592, IS 12235, IS 15328, IS 15778</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Falling weight testing machine</td> <td>Main frame with graduated guide rail fixed in a true vertical Position to accommodate the weights / mass strikers (sl No. 5) with pulley system</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Release Mechanism</td> <td>Release mechanism with free vertical fall from variable height up to at least 2 Meter measured from the top surface of the test specimen of upto diameter 630 mm pipes, with an accuracy of ± 10 mm. Pulley system shall be attached at the top</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Max. Fall Height With calibrated scale (preferable)</td> <td>2050mm ± 10 mm</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Mass of the Striker (kgs)</td> <td>0.25, 0.5, 0.8, 1.0, 1.25, 1.6, 2.0, 2.5, 3.2, 4.0, 5.0, 6.3, 8, 8.3, 10.0, 12.5 and 16.0 kg</td> </tr> <tr> <td style="text-align: center;">6</td> <td>Specimen holder for pipes</td> <td>'V' Block base size 300 mm length 'V' Angle : 120°</td> </tr> <tr> <td style="text-align: center;">7</td> <td>Dimensions of Nose / Striker</td> <td>d 25 & d 90 as per IS 12235, IS 15328. Also any other Nose / Striker as per IS 16647, IS 12818, IS 13592,</td> </tr> <tr> <td style="text-align: center;">8</td> <td>Additional</td> <td>The Strikers, Sturdy Impact Tester Rail shall be chrome plated / rust free and shall have an easy mechanism to adjust height and release weights.</td> </tr> <tr> <td style="text-align: center;">9</td> <td>Certificates</td> <td>All Weights shall be NABL Calibrated on CIPET Vijayawada name</td> </tr> </tbody> </table> | S.No | Specification | Range / Value | 1 | Standards | IS 4985, IS 12818, IS 13592, IS 12235, IS 15328, IS 15778 | 2 | Falling weight testing machine | Main frame with graduated guide rail fixed in a true vertical Position to accommodate the weights / mass strikers (sl No. 5) with pulley system | 3 | Release Mechanism | Release mechanism with free vertical fall from variable height up to at least 2 Meter measured from the top surface of the test specimen of upto diameter 630 mm pipes, with an accuracy of ± 10 mm. Pulley system shall be attached at the top | 4 | Max. Fall Height With calibrated scale (preferable) | 2050mm ± 10 mm | 5 | Mass of the Striker (kgs) | 0.25, 0.5, 0.8, 1.0, 1.25, 1.6, 2.0, 2.5, 3.2, 4.0, 5.0, 6.3, 8, 8.3, 10.0, 12.5 and 16.0 kg | 6 | Specimen holder for pipes | 'V' Block base size 300 mm length 'V' Angle : 120° | 7 | Dimensions of Nose / Striker | d 25 & d 90 as per IS 12235, IS 15328. Also any other Nose / Striker as per IS 16647, IS 12818, IS 13592, | 8 | Additional | The Strikers, Sturdy Impact Tester Rail shall be chrome plated / rust free and shall have an easy mechanism to adjust height and release weights. | 9 | Certificates | All Weights shall be NABL Calibrated on CIPET Vijayawada name | 01 set |
| S.No | Specification | Range / Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Standards | IS 4985, IS 12818, IS 13592, IS 12235, IS 15328, IS 15778 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Falling weight testing machine | Main frame with graduated guide rail fixed in a true vertical Position to accommodate the weights / mass strikers (sl No. 5) with pulley system | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Release Mechanism | Release mechanism with free vertical fall from variable height up to at least 2 Meter measured from the top surface of the test specimen of upto diameter 630 mm pipes, with an accuracy of ± 10 mm. Pulley system shall be attached at the top | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Max. Fall Height With calibrated scale (preferable) | 2050mm ± 10 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Mass of the Striker (kgs) | 0.25, 0.5, 0.8, 1.0, 1.25, 1.6, 2.0, 2.5, 3.2, 4.0, 5.0, 6.3, 8, 8.3, 10.0, 12.5 and 16.0 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Specimen holder for pipes | 'V' Block base size 300 mm length 'V' Angle : 120° | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Dimensions of Nose / Striker | d 25 & d 90 as per IS 12235, IS 15328. Also any other Nose / Striker as per IS 16647, IS 12818, IS 13592, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Additional | The Strikers, Sturdy Impact Tester Rail shall be chrome plated / rust free and shall have an easy mechanism to adjust height and release weights. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Certificates | All Weights shall be NABL Calibrated on CIPET Vijayawada name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 02 | Analytical Weighing Balance E-Tender No.: CIPET/CSTS/VJA /PTC/2021-22/02 | <table border="1"> <thead> <tr> <th data-bbox="555 81 645 153">S.No</th> <th data-bbox="645 81 1034 153">Specification</th> <th data-bbox="1034 81 1818 153">Range / Value</th> </tr> </thead> <tbody> <tr> <td data-bbox="555 153 645 193">1</td> <td data-bbox="645 153 1034 193">Range</td> <td data-bbox="1034 153 1818 193">Upto 220 / 250 gm</td> </tr> <tr> <td data-bbox="555 193 645 233">2</td> <td data-bbox="645 193 1034 233">Accuracy / Repeatability</td> <td data-bbox="1034 193 1818 233">0.01 mg</td> </tr> <tr> <td data-bbox="555 233 645 304">3</td> <td data-bbox="645 233 1034 304">Features</td> <td data-bbox="1034 233 1818 304">Density measurement kit Shall have inbuilt density calculation mechanism</td> </tr> <tr> <td data-bbox="555 304 645 344">4</td> <td data-bbox="645 304 1034 344">Display</td> <td data-bbox="1034 304 1818 344">Backlit Display</td> </tr> <tr> <td data-bbox="555 344 645 384">5</td> <td data-bbox="645 344 1034 384">Weighing units</td> <td data-bbox="1034 344 1818 384">mg, g</td> </tr> <tr> <td data-bbox="555 384 645 424">6</td> <td data-bbox="645 384 1034 424">Output</td> <td data-bbox="1034 384 1818 424">RS 232</td> </tr> <tr> <td data-bbox="555 424 645 523">7</td> <td data-bbox="645 424 1034 523">Accessories</td> <td data-bbox="1034 424 1818 523"> i) ISO 17034 Certified Reference Weights of 1 gm, 4 gm, 50 gm & 100 gm ii) Density measurement kit </td> </tr> </tbody> </table> | S.No | Specification | Range / Value | 1 | Range | Upto 220 / 250 gm | 2 | Accuracy / Repeatability | 0.01 mg | 3 | Features | Density measurement kit Shall have inbuilt density calculation mechanism | 4 | Display | Backlit Display | 5 | Weighing units | mg, g | 6 | Output | RS 232 | 7 | Accessories | i) ISO 17034 Certified Reference Weights of 1 gm, 4 gm, 50 gm & 100 gm ii) Density measurement kit | 01 set |
|------|---|--|------|---------------|---------------|---|----------|--|---|--------------------------|---|---|----------|--|---|---------|--|---|----------------|--|---|--------|---|--------|-------------|---|--------|
| S.No | Specification | Range / Value | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Range | Upto 220 / 250 gm | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Accuracy / Repeatability | 0.01 mg | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Features | Density measurement kit Shall have inbuilt density calculation mechanism | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Display | Backlit Display | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Weighing units | mg, g | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Output | RS 232 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Accessories | i) ISO 17034 Certified Reference Weights of 1 gm, 4 gm, 50 gm & 100 gm ii) Density measurement kit | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03 | Hydraulic Press set up for clamping of End Fittings for Pipes used for Hydrostatic Pressure Testing Machines E-Tender No.: CIPET/CSTS/VJA /PTC/2021-22/03 | <table border="1"> <thead> <tr> <th data-bbox="555 531 645 603">S.No</th> <th data-bbox="645 531 913 603">Specification</th> <th data-bbox="913 531 1818 603">Range / Value</th> </tr> </thead> <tbody> <tr> <td data-bbox="555 603 645 667">1</td> <td data-bbox="645 603 913 667">Function</td> <td data-bbox="913 603 1818 667">To fit end fittings for Hydrostatic pressure testing of HDPE pipes upto 630 mm</td> </tr> <tr> <td data-bbox="555 667 645 770">2</td> <td data-bbox="645 667 913 770">Dimensions</td> <td data-bbox="913 667 1818 770"> i) Platen size suitable for pipe fitting up to 630 mm Diameter ii) Vertical Day Light Min 1200 mm, Horizontal Day Light Min 800 mm </td> </tr> <tr> <td data-bbox="555 770 645 818">3</td> <td data-bbox="645 770 913 818">Capacity</td> <td data-bbox="913 770 1818 818">i) 15 Ton or more as required to fit 630 mm pipe in end fittings</td> </tr> <tr> <td data-bbox="555 818 645 922">4</td> <td data-bbox="645 818 913 922">Type</td> <td data-bbox="913 818 1818 922"> Semi Automatic. Hydraulic cylinder Mounted on Top Stroke Movement : Downward </td> </tr> <tr> <td data-bbox="555 922 645 1225">5</td> <td data-bbox="645 922 913 1225">Accessories</td> <td data-bbox="913 922 1818 1225"> Equivalent HP motor of reputed brand 3 phase + neutral Sufficient Hydraulic Oil for immediate installation / operation of the equipment Adequate hydraulic hoses for operation of the system shall be provided Pressure gauge can be provided </td> </tr> <tr> <td data-bbox="555 1225 645 1359">6</td> <td data-bbox="645 1225 913 1359">Others</td> <td data-bbox="913 1225 1818 1359"> i) Metal of the Entire system shall be non rusting type. ii) Equipment shall be Powder coated iii) Machine shall be ground mounted type to avoid vibration during the range of its operation. </td> </tr> </tbody> </table> | S.No | Specification | Range / Value | 1 | Function | To fit end fittings for Hydrostatic pressure testing of HDPE pipes upto 630 mm | 2 | Dimensions | i) Platen size suitable for pipe fitting up to 630 mm Diameter ii) Vertical Day Light Min 1200 mm, Horizontal Day Light Min 800 mm | 3 | Capacity | i) 15 Ton or more as required to fit 630 mm pipe in end fittings | 4 | Type | Semi Automatic. Hydraulic cylinder Mounted on Top Stroke Movement : Downward | 5 | Accessories | Equivalent HP motor of reputed brand 3 phase + neutral Sufficient Hydraulic Oil for immediate installation / operation of the equipment Adequate hydraulic hoses for operation of the system shall be provided Pressure gauge can be provided | 6 | Others | i) Metal of the Entire system shall be non rusting type. ii) Equipment shall be Powder coated iii) Machine shall be ground mounted type to avoid vibration during the range of its operation. | 01 set | | | |
| S.No | Specification | Range / Value | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Function | To fit end fittings for Hydrostatic pressure testing of HDPE pipes upto 630 mm | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Dimensions | i) Platen size suitable for pipe fitting up to 630 mm Diameter ii) Vertical Day Light Min 1200 mm, Horizontal Day Light Min 800 mm | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Capacity | i) 15 Ton or more as required to fit 630 mm pipe in end fittings | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Type | Semi Automatic. Hydraulic cylinder Mounted on Top Stroke Movement : Downward | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Accessories | Equivalent HP motor of reputed brand 3 phase + neutral Sufficient Hydraulic Oil for immediate installation / operation of the equipment Adequate hydraulic hoses for operation of the system shall be provided Pressure gauge can be provided | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Others | i) Metal of the Entire system shall be non rusting type. ii) Equipment shall be Powder coated iii) Machine shall be ground mounted type to avoid vibration during the range of its operation. | | | | | | | | | | | | | | | | | | | | | | | | | |

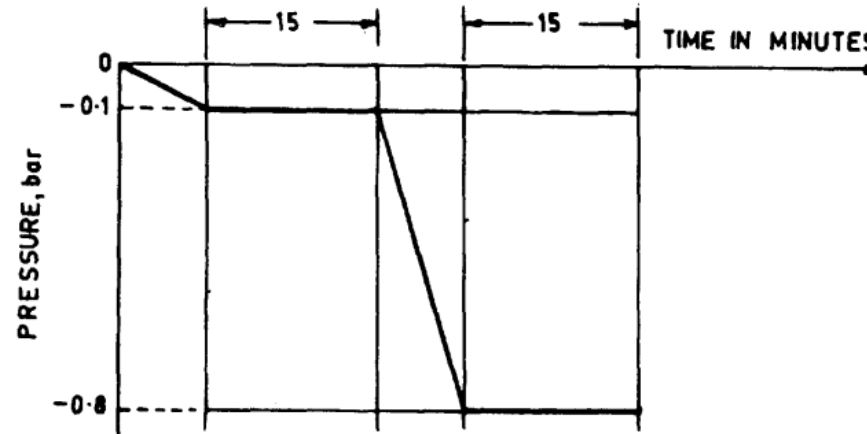
04

**Vacuum Pump
(For negative
vacuum
pressure
testing for PVC
pipes, DWC
Pipes etc)**

E-Tender No.:
CIPET/CSTS/VJA
/PTC/2021-
22/04

| S.No | Specification | Range / Value |
|------|---------------|--|
| 1 | Function | Test set up consisting of Programmable Vacuum pump control system, timer, isolating valve. The entire test set up shall be programmed such that Control device connected to the test specimen, preferably at the immovable end of the apparatus, and capable of applying and maintaining two required levels of negative pressure of the pipe section mounted into the socket of the component to be tested. |
| 2 | Standard: | Able to perform the testing as per IS 12235 Pt.8/Sec 3 , IS 15328, IS 16098, IS 16647 etc |
| 3 | Requirement | i) An isolation valve between the test piece and the vacuum pump shall be provided. ii) Accuracy of pressure gauge / transducer shall be 0.01 bar. iii) Range: upto “- 1 bar” or less iv) Able to perform test in cycles as per Fig 1 v) Able to note the readings of pressure drop upto 0.01 bar during the test duration |
| 4 | Accessories | i) Extra Vacuum Pump Oil of capacity of the pump / motor shall be supplied |

01 set



NOTE — The pressure changes from one pressure level to the next do not necessarily have to take place at strictly linear rates.

NEGATIVE PRESSURE TEST REGIME

| | | <p>05</p> <p>Universal Testing Machine</p> <p>E-Tender No.: CIPET/CSTS/VJA /PTC/2021-22/05</p> | <table border="1"> <thead> <tr> <th data-bbox="539 49 645 121">Si. No</th> <th data-bbox="645 49 1832 121">Specification</th> </tr> </thead> <tbody> <tr> <td data-bbox="539 121 645 225">1</td> <td data-bbox="645 121 1832 225">Load capacity: up to 100 KN Load Frame Stiffness shall be adequate to withstand the tests to the maximum load / elongation limit</td> </tr> <tr> <td data-bbox="539 225 645 277">2</td> <td data-bbox="645 225 1832 277">Load Cells of 1 KN, 10 KN & 100 KN with +/- 0.5% accuracy with self recognition option.</td> </tr> <tr> <td data-bbox="539 277 645 330">3</td> <td data-bbox="645 277 1832 330">Cross travel: 1000mm or better to accommodate Environmental Chamber</td> </tr> <tr> <td data-bbox="539 330 645 383">4</td> <td data-bbox="645 330 1832 383">Horizontal daylight : 550 mm or better</td> </tr> <tr> <td data-bbox="539 383 645 486">5</td> <td data-bbox="645 383 1832 486">Variable speed from 0.01 mm/ min to 500 mm/min accuracy should be from 0.1% to 100% of capacity, overload safety should be 150% and <u>should be shear web type loadcells only with self-recognition</u></td> </tr> <tr> <td data-bbox="539 486 645 555">6</td> <td data-bbox="645 486 1832 555">Extensometer to use in both Ambient and with Chamber to the maximum travel of 700 mm or better</td> </tr> <tr> <td data-bbox="539 555 645 643">7</td> <td data-bbox="645 555 1832 643">Should be accompanied by NABL calibration certificates for all the relevant Parameters viz load cells, strain rate & extension etc as per ASTM D 638, ASTM E4, ASTM E 83, ISO 7500 Pt.1, ISO 9513.</td> </tr> <tr> <td data-bbox="539 643 645 770">8</td> <td data-bbox="645 643 1832 770">Computer with latest Window based Application Software with Pre-Configured Test Methods of various Standards (ASTM, ISO, DIN etc.) to meet Tension, Compression, Flexural, Shear Test etc. and able to test strengths / modulus (secant, young's etc), Poisson ratio and other versatile possible parameters, and option to create User defined Test sequences.</td> </tr> <tr> <td data-bbox="539 770 645 839">9</td> <td data-bbox="645 770 1832 839">The software should have system to generate, save & retrieve the test results with graphs and data in the form of PDF & Excel.</td> </tr> <tr> <td data-bbox="539 839 645 959">10</td> <td data-bbox="645 839 1832 959">The machine controller must be closed loop controller and should work with any of the connected transducer mode: Load, Strain, Stroke and Stress etc. Machine should have safety limit switches & software safety interlocks for safety of the system Machine shall have provision for easy attaching accessories, hand held devices etc.</td> </tr> <tr> <td data-bbox="539 959 645 1070">11</td> <td data-bbox="645 959 1832 1070">Environmental Chamber (-70 Deg C to +150 Deg C) Minimum Dimensions of chamber: Internal Height 650mm, Width 230 mm and Depth 225mm or better.</td> </tr> <tr> <td data-bbox="539 1070 645 1139">12</td> <td data-bbox="645 1070 1832 1139">All required fixtures for Tensile, Compression, Flexural, Shear Test etc.</td> </tr> <tr> <td data-bbox="539 1139 645 1414">13</td> <td data-bbox="645 1139 1832 1414"> <ol style="list-style-type: none"> 1. Fixtures with width of 50 mm jaws for both 100KN & 10KN load cells. The fixture shall be compatible to be used in chamber 2. Spring actuated fixtures for testing of small samples 3. Rubber faced pneumatic fixture for thin Films/sheets. Fixtures shall be compatible to test solid products / films / sheets / woven sacks/ rubbers / filament/ropes / fibers etc <ol style="list-style-type: none"> 4. Extra 100 width Jaw shall be provided to fit with 100KN & 10KN load cells for performing tests on above mentioned products 5. Additional fixture and complete set up for performing coefficient of friction tests for PLB ducts. </td> </tr> <tr> <td data-bbox="539 1414 645 1482">14</td> <td data-bbox="645 1414 1832 1482"> <ol style="list-style-type: none"> 1. Machine & software should have the overload safety system. 2. Machine must be compliance with international safety standards. </td> </tr> <tr> <td data-bbox="539 1482 645 1528">15</td> <td data-bbox="645 1482 1832 1528">Software to asses & generate the graphs with required overlaying data for R&D activities. Software shall have inbuilt ASTM / ISO Library methods and option to create User defined Test</td> </tr> </tbody> </table> | Si. No | Specification | 1 | Load capacity: up to 100 KN Load Frame Stiffness shall be adequate to withstand the tests to the maximum load / elongation limit | 2 | Load Cells of 1 KN, 10 KN & 100 KN with +/- 0.5% accuracy with self recognition option. | 3 | Cross travel: 1000mm or better to accommodate Environmental Chamber | 4 | Horizontal daylight : 550 mm or better | 5 | Variable speed from 0.01 mm/ min to 500 mm/min accuracy should be from 0.1% to 100% of capacity, overload safety should be 150% and <u>should be shear web type loadcells only with self-recognition</u> | 6 | Extensometer to use in both Ambient and with Chamber to the maximum travel of 700 mm or better | 7 | Should be accompanied by NABL calibration certificates for all the relevant Parameters viz load cells, strain rate & extension etc as per ASTM D 638, ASTM E4, ASTM E 83, ISO 7500 Pt.1, ISO 9513. | 8 | Computer with latest Window based Application Software with Pre-Configured Test Methods of various Standards (ASTM, ISO, DIN etc.) to meet Tension, Compression, Flexural, Shear Test etc. and able to test strengths / modulus (secant, young's etc), Poisson ratio and other versatile possible parameters, and option to create User defined Test sequences. | 9 | The software should have system to generate, save & retrieve the test results with graphs and data in the form of PDF & Excel. | 10 | The machine controller must be closed loop controller and should work with any of the connected transducer mode: Load, Strain, Stroke and Stress etc. Machine should have safety limit switches & software safety interlocks for safety of the system Machine shall have provision for easy attaching accessories, hand held devices etc. | 11 | Environmental Chamber (-70 Deg C to +150 Deg C) Minimum Dimensions of chamber: Internal Height 650mm, Width 230 mm and Depth 225mm or better. | 12 | All required fixtures for Tensile, Compression, Flexural, Shear Test etc. | 13 | <ol style="list-style-type: none"> 1. Fixtures with width of 50 mm jaws for both 100KN & 10KN load cells. The fixture shall be compatible to be used in chamber 2. Spring actuated fixtures for testing of small samples 3. Rubber faced pneumatic fixture for thin Films/sheets. Fixtures shall be compatible to test solid products / films / sheets / woven sacks/ rubbers / filament/ropes / fibers etc <ol style="list-style-type: none"> 4. Extra 100 width Jaw shall be provided to fit with 100KN & 10KN load cells for performing tests on above mentioned products 5. Additional fixture and complete set up for performing coefficient of friction tests for PLB ducts. | 14 | <ol style="list-style-type: none"> 1. Machine & software should have the overload safety system. 2. Machine must be compliance with international safety standards. | 15 | Software to asses & generate the graphs with required overlaying data for R&D activities. Software shall have inbuilt ASTM / ISO Library methods and option to create User defined Test | <p>01 set</p> | |
|--------|--|--|--|--------|---------------|---|---|---|---|---|---|---|--|---|---|---|--|---|--|---|---|---|--|----|---|----|--|----|---|----|--|----|---|----|---|----------------------|--|
| Si. No | Specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Load capacity: up to 100 KN Load Frame Stiffness shall be adequate to withstand the tests to the maximum load / elongation limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Load Cells of 1 KN, 10 KN & 100 KN with +/- 0.5% accuracy with self recognition option. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Cross travel: 1000mm or better to accommodate Environmental Chamber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Horizontal daylight : 550 mm or better | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Variable speed from 0.01 mm/ min to 500 mm/min accuracy should be from 0.1% to 100% of capacity, overload safety should be 150% and <u>should be shear web type loadcells only with self-recognition</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Extensometer to use in both Ambient and with Chamber to the maximum travel of 700 mm or better | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Should be accompanied by NABL calibration certificates for all the relevant Parameters viz load cells, strain rate & extension etc as per ASTM D 638, ASTM E4, ASTM E 83, ISO 7500 Pt.1, ISO 9513. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Computer with latest Window based Application Software with Pre-Configured Test Methods of various Standards (ASTM, ISO, DIN etc.) to meet Tension, Compression, Flexural, Shear Test etc. and able to test strengths / modulus (secant, young's etc), Poisson ratio and other versatile possible parameters, and option to create User defined Test sequences. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | The software should have system to generate, save & retrieve the test results with graphs and data in the form of PDF & Excel. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | The machine controller must be closed loop controller and should work with any of the connected transducer mode: Load, Strain, Stroke and Stress etc. Machine should have safety limit switches & software safety interlocks for safety of the system Machine shall have provision for easy attaching accessories, hand held devices etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Environmental Chamber (-70 Deg C to +150 Deg C) Minimum Dimensions of chamber: Internal Height 650mm, Width 230 mm and Depth 225mm or better. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | All required fixtures for Tensile, Compression, Flexural, Shear Test etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | <ol style="list-style-type: none"> 1. Fixtures with width of 50 mm jaws for both 100KN & 10KN load cells. The fixture shall be compatible to be used in chamber 2. Spring actuated fixtures for testing of small samples 3. Rubber faced pneumatic fixture for thin Films/sheets. Fixtures shall be compatible to test solid products / films / sheets / woven sacks/ rubbers / filament/ropes / fibers etc <ol style="list-style-type: none"> 4. Extra 100 width Jaw shall be provided to fit with 100KN & 10KN load cells for performing tests on above mentioned products 5. Additional fixture and complete set up for performing coefficient of friction tests for PLB ducts. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | <ol style="list-style-type: none"> 1. Machine & software should have the overload safety system. 2. Machine must be compliance with international safety standards. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Software to asses & generate the graphs with required overlaying data for R&D activities. Software shall have inbuilt ASTM / ISO Library methods and option to create User defined Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | | | methods / sequences. Graphs shall be generated in versatile units (CGS/MKS/SI Unit systems). | | |
| | | 16 | Machine must be compliance with international safety standards in all safety aspects, document evidence must be submitted | | |
| | | 17 | Online UPS of Min 10kVA or suitable for 1 hour back up power for entire set up. | | |
| | | 18 | Warranty for min 2 years | | |
| | | S.No | Specification | Range / Value | |
| | | 1 | No. of Stations | 3 Stations | |
| | | 2 | Temperature Range | Ambient to 300°C | |
| | | 3 | Accuracy | ±0.1°C | |
| | | 4 | Rate of Heating | Regulator / System for setting of Variable Rate of Heating as per standards and user defined. | |
| | | 5 | Loads | i) Weights of suitable sizes so that the specimen can be loaded to a fiber stress of 0.455 MPa [66 psi] or 1.82 MPa [264 psi] and other weights to perform HDT as per other mentioned relevant standards. ii) For VST- Weights 10 N, 50 N. The combined weight along with mass of rod for which the weight to be mounted shall be 10 N ± 0.1 N & 50 N ± 0.5 N and as per the requirement of mentioned standards. | |
| | | 5 | Conforms to | ASTM D 648, ASTM D 1525, IS:4985, IS:12235, IS:12818 ISO:75 and ASTM D 1525, ISO 306, ISO 75 | |
| 06 | HDT / VSP Tester E-Tender No.: CIPET/CSTS/VJA /PTC/2021-22/06 | 6 | • Features | <ul style="list-style-type: none"> • Microprocessor-based apparatus generates continuous data throughout ramped and constant temperature tests during the entire test cycle with digital display. • Suitable to test different samples at the same time • Homogenous temperature distribution set up up to 300°C LVDT transducers for allowing very accurate specimens deformation measurement • Independent thermoresistance mounted on each station to allow accurate temperature measurements. The sensor and related electronics shall be accurate to at least ±0.1°C. • Thermocouples shall comply with the requirements of Specification ASTM E 608/ E 608M. Resistance thermometers shall comply with the requirements of Specification ASTM E 1137/E 1137M. Document proof for the same shall be submitted. • Correction terms, taking into account thermal expansions of the apparatus, are automatically applied to each test for a reliable deflection measurement • System to prevent the specimen falling into the oil bath • Provision for Circulating system of water shall be provided for cooling | 01 set |

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| | | | | <ul style="list-style-type: none"> The indenting Tip for VSP Testing and attachment for HDT shall strictly comply to above mentioned standards with document proof. | |
| | | 7 | Oil | <ul style="list-style-type: none"> Silcone Oil of superior grade to withstand continuous heating at standard temperatures with full chamber capacity shall be supplied. | |
| | | S.No | Specification | Range / Value | |
| | | 1 | Temperature Range | Ambient to 400°C. Microprocessor based PID Controller, program control and display of test results Temperature control with two heater elements, resolution 0.01 °C 5 temperature calibration sets, each with their respective parameter files | |
| | | 2 | Accuracy | ±0.1°C or better | |
| | | 3 | Timer | Inbuilt Digital timer, with a range of 999.9 sec with buzzer indication facility, resolution better than 0.01 s | |
| | | 4 | Test Chamber | Electrically heated with PID Based Digital Temperature Control. Corrosion resistance piston and barrel | |
| | | 5 | Test Weights | All Weights shall be supplied as per ASTM D 1238 | |
| | | 6 | Die | Material: Tungsten carbide | |
| | | | | 8.0 mm ± 0.025 mm Length 2.095 ± 0.005 mm bore & as per the standards | |
| | | | | The bore of the orifice and its finish are critical. It shall have no visible drill or other tool marks and no detectable eccentricity. The bore of the orifice shall be manufactured by techniques known to produce finishes approximately 12 rms or better in accordance with ANSI B46.1. | |
| | | 7 | Barrel / Cylinder | Requirement shall fulfill to all the mentioned standards of SI No.8 | |
| | | 8 | Conforms to | ASTM D 1238 (Procedures A, B, C), ISO 1133-2, IS 2530, ASTM D 3364, DIN 53735, BS 2782, IS 13360 : Part 4 : Sec 1 : Subsec 1 : 2000 | |
| | | 9 | Features | <ul style="list-style-type: none"> Standard tungsten carbide die Quick-release slide system for the die Guided piston design for accurate positioning into the barrel Integrated support for accessories and consumables High-Precision Encoder to measure MVR, up to 40 data points acquisition for a single test Corrosion-resistant barrel, pistons, and dies for chemically-aggressive materials Motorized Melt Cutting Device | |
| 07 | Melt Flow Index Tester | E-Tender No.: CIPET/CSTS/VJA /PTC/2021-22/07 | | | 01 set |

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| | | | | <ul style="list-style-type: none"> • Die Plugging Device to prevent material flowing during pre-heating • Wide range of test masses and dies for all materials and testing standards • High resolution position transducer to measure volume output, resolution 0.025 mm/impulse • Half die for procedure C and equipment compatible to perform Procedure C as per ASTM D 1238 • Enable to start the measurement automatically after the pre-melt time. • Able to measure both Melt Flow Rate & Melt Volume Rate • Suitable software for PC Control and advanced data analysis | |
| | | 10 | Extra Accessories | <ul style="list-style-type: none"> • Calibrated Go-No-go Gauge shall be supplied • Suitable Tweezers / Spanners/ other required tools to be supplied • 02 Nos Spare Die shall be provided. | |
| | | 11 | Calibration & Other Requirements | <p>Machine must be compliance with international safety standards in all safety aspects. Maintenance Manuals, calibration certificates shall be provided. Vendor shall arrange installation and onsite training minimum two days for free of cost.</p> | |

Format of bid security declaration from bidders in lieu of EMD

I/ We, the authorized signatory of M/s..... Participating in the subject tender No..... for the item/Job ofdo hereby declare:

- (I) That I/We have availed the benefit of waiver of EMD while submitting our offer against the subject Tender and no EMD being deposited for the said tender.
- (II) (ii) That in the event we withdraw/modify our during the period of validity or I/we fail to execute formal contract agreement within the given timeline or I/we fail to submit a Performance Security within the given timeline Or I/we commit any breach of Tender Conditions/Contract which attracts penal action of forfeiture of EMD and I/we will be suspended from being eligible for bidding/ award of all future contract(s) of Central Institute of Petrochemicals Engineering & Technology (CIPET) for a period of one year from the date of committing such breach.

Signature and Seal of Authorized Signatory of Bidder

Name of Authorized Signatory.....

Company Name.....

Date :