TENDER DOCUMENT No. 33

INVITATION FOR BIDS IN TWO BIDS SYSTEM FOR

SUPPLY OF

EQUIPMENTS /MACHINERIES FOR MINIATURE ERI SPINNING PLANT

TO

DEPARTMENT OF SERICULTURE, MEGHALAYA

DATE OF OPENING 21.01.2020   AT 3.00 P.M
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Note: No Bidder shall contact the purchaser on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded – Please see Instructions to the Bidders.
SECTION – 1
LETTER SUBMITTING TENDER

The Director,
CSTRI, Central Silk Board,
1st Floor, CSB Complex,
B T M Layout, Madiwala,
BANGALORE – 560 068.

Sir,

Regarding : Supply of Equipments / Machineries for Miniature Eri Spinning Plant– Reg/

2. I/We agree to supply Machineries and Equipments as per specifications and terms and conditions to CSTRI, Bangalore. For this I have quoted rates separately towards supply of Equipments to the aforesaid destination.
3. I/We agree to enter into the Non-disclosure Agreement in the prescribed format
4. Our offer is valid for a period of 180 days from date of opening of tender.
5. I/We have deposited Earnest Money Rs……………/- (Rupees ………………… Only) by demand draft. The said amount shall not carry any interest.
6. I/we do hereby agree that this sum shall be forfeited by you in case I/we withdraw our offer before expiry of validity or in the event our tender is accepted and if I/We fail to execute contract when called upon to do so.
7. I/We understand that you are not bound to accept the lowest or any tender that you receive.

Yours Faithfully,

(SUPPLIER/MANUFACTURER)

Seal with date

Tender submitted on.....................before........................ P.M.
1. PREAMBLE:

Central Silk Technological Research Institute, Central Silk Board, Bangalore is a Central Government Organization under Ministry of Textiles, Govt. of India engaged in conducting research and development activities in post cocoon technology for the development of silk industry in India.

2. Presently the Central Silk Technological Research Institute [CSTRI], Central Silk Board, Ministry of Textiles, Government of India, Bangalore invites bids from the eligible machinery manufacturers to procure equipments/ machineries for “Miniature Eri Spinning Plant ”. The selected supplier/ manufacturer has to supply these equipments to Department of Sericulture, Meghalaya as per the schedule of requirement.

Sd/-
DIRECTOR
SECTION - III

TERMS & CONDITIONS:

1. The Tender documents may be downloaded from the CSB web site www.csb.gov.in, or from CSTRI website: www.cstri.res.in. Tender documents are also available at www.eprocure.gov.in.

2. The equipments is to be supplied and commissioned at a designated place in Meghalaya State as per Department of Sericulture, Govt. of Meghalaya instructions as per the schedule of requirements.

3. The interested manufacturers should upload their bids in TWO BID SYSTEM on e-procurement portal only. Please refer for full details at page No.09&10 under Clause No.4. The last date for upload of the Bids at e-procure portal upto 2.00 P.M. on 20.01.2020 The quotations will be opened on 21.01.2020 at 3.00 P.M.

4. Earnest Money Deposit (EMD equal to 2% of total cost of equipment by demand draft drawn in favour of the Director, CSTRI payable at Bangalore should be submitted. Quotations received without EMD will be rejected.

5. The bidder has to undertake non-disclosure agreement with CSTRI, CSB, Bangalore.

6. It should be noted that the patented/proposed for patenting machineries / equipments of Miniature Eri Spinning Plant are the sole property of CSTRI, CSB, Bangalore and Patent rights are reserved with CSTRI, CSB, Bangalore only.

7. The Director, CSTRI, CSB, Bangalore reserves the right to accept or reject any or all the tenders. However, the bidder is at liberty to seek clarification in respect of bidding conditions, bidding process and/or reasons for rejection of the bid.

Place: Bangalore-68
Date: DIRECTOR
SECTION-IV
IMPORTANT POINTS TO BE NOTED

Date and Time Schedule

The details of date & time were published in e-procurement portal

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<td>The Director, CSTRI, BANGALORE (offline)</td>
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<td>Bid opening date for Technical proposal (Online)</td>
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<td>To be notified later on.</td>
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INSTRUCTION TO BIDDERS

General guidance for e-Tendering:

Instructions / Guidelines for electronic submission of the tenders have been annexed for assisting the contractors to participate in e-Tendering.

1. Registration of Supplier/ Manufacturer:

Any Supplier/ Manufacturer willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, through logging on to https://eprocure.gov.in The Bidder is to click on the link for e-Tendering site as given on the web portal.

2. Digital Signature certificate (DSC):

Each Bidder is required to obtain a Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated in above. DSC is given as a USB e-Token.

The Bidder can search and download NOTICE INVITING TENDER (NIT) , Tender Document(s) and Addenda & Corrigenda (if any) electronically from computer once he logs on to the website mentioned using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

3. Participation in more than one work:

A prospective bidder shall be allowed to participate in the supply either in the capacity of individual or as a partner of a firm. If found to have applied severally in a single tender enquiry, all his applications will be rejected for that job.

A prospective bidder (including his participation in partnership) shall be allowed to participate in single work as mentioned in the list.

4. Submission of Tenders:

Tenders are to be submitted through online to the website stated in Clause A.1 in two folders at a time for all the equipments / machinery (should quote price for individual components of package) one is Technical bid & the other is Financial bid before the prescribed date & time using the Digital Signature Certificate (DSC). Virus free scanned copies of the documents are to be uploaded duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

Technical Proposal:
The Technical proposal should contain scanned copies of the following in two covers (folders).
Technical Cover containing the following documents:

(i) **NOTICE INVITING TENDER** (NIT) (Downloaded from the e-Tender)
(ii) Scanned Copy of Duly Filled up Bid Form" (Ref. Section-VII)
(iii) Others Important Documents (OID) as per E-procurement portal.
(iv) Non-Disclosure agreement (NDA) form should be filled and signed as per Section XI
(v) Technical Deviation Statement Form (TDSF) should be filled and signed as per Section XII

Non-statutory Cover containing the following documents:

(i) Pan Card, ITR Acknowledgement for the Assessment year 2018-19, GST Registration Certificate with last Acknowledgement.
(ii) Registration Certificate under Company Act / Trade License as the case may be.
(iii) Manufacture authorization form (MAF) if required as per Section X
(iv) Credential for completion of at least one similar nature of work.

**THE ABOVE STATED NON -STATUTORY /TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER**

Click the check boxes beside the necessary documents in the My Document list and then click the tab “Submit Other Important Documents (OID)” to send the selected documents to Non-Statutory folder.
Next Click the tab “Click to Encrypt and Upload” and then click the “Technical” Folder to upload the Technical Documents.

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<td>Audited Profit and Loss Account and Balance Sheet Details for last one Year</td>
<td>1. Latest IT Receipt for Assessment year 2018-19, 2. Audited Balance Sheet &amp; Profit &amp; Loss A/c. for the last year just preceding the current Financial Year</td>
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Tender Evaluation Committee (TEC)

Scientists of CSTRI will be the members of Evaluation Committee for selection of technically qualified contractors.

Opening of Technical Proposal:
Technical proposals will be opened by the Technical Evaluation Committee electronically from the website using their Digital Signature Certificate (DSC)

Cover (folder) for Statutory Documents will be opened first and if found in order, cover (folder) for Non-Statutory Documents will be opened.

Decrypted (transformed into readable formats) documents of the non-statutory cover will be downloaded & handed over to the Tender Evaluation Committee.
Pursuant to scrutiny & decision of the Tender Evaluation Committee the summary list of eligible tenderers will be uploaded in the web portals.

During evaluation the committee may seek clarification / information of any of the documents already submitted & if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

Financial Proposal

Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor.
Duly filled and signed Price Schedule as per Section VIII
Bidding Terms Deviation Statement Form (BTDSF) as per Section XIII

5. Penalty for suppression / distortion of facts:
If any tenderer fails to produce the original hard copies of the documents (especially Satisfactory Performance Certificates from previous purchaser and Audited Balance Sheets), or any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies, it may be treated as submission of false documents by the tenderer and action may be referred to the appropriate authority for prosecution as per relevant IT Act.

6. Rejection of Bid:
The Director, CSTRI, Bangalore reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders. Director, CSTRI, Bangalore does not have any obligations to inform affective Bidder or Bidders the cause of such action.
Only those bids which are technically qualified whose financial bids alone will be opened. The date and time of opening the financial bids will be separately intimated to those who technically qualify.

7. **Clarification of Bids**

7.1 To assist in the examination, evaluation and comparison of bids the Competent Authority may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

8. **Preliminary Examination**

The Purchase Committee will examine the bids to determine whether they are complete responsive, whether any computational errors have been made, whether the documents have been properly signed, and whether the bids are generally in order. **Bids from agents without proper authorization from the manufacturer, shall be treated as non-responsive.**

Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total prices shall be corrected. If the Bidder does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount, in words will prevail.

Prior to the detailed evaluation, the CSTRI will determine the substantial responsiveness of each bid to the Bidding Documents. For this purpose, a **substantially responsive bid is one which conforms to all the terms and conditions of the Bidding Documents without material deviations**, The determination of the CSTRI of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

A bid determined as not substantially responsive will be rejected by the Competent Authority and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

The CSTRI, may waive any minor errors or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any other Bidder.

9. **Post-qualification**

The CSTRI will determine to its satisfaction whether the Bidders who have submitted the lowest Bid have the capacity to perform the Contract fully and satisfactorily during period.
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, in which event the CSTRI will proceed to the next lowest evaluated responsive bid to make a similar determination of that Bidder’s capabilities to perform satisfactorily.

10. **Evaluation and Comparison of Bids**

   The Purchase Committee of CSTRI will evaluate and compare the bids previously determined to be substantially responsive.

   The Competent Authority will determine to its satisfaction whether the lowest evaluated responsive bid is competitive and is at least on par with the prevailing market price before accepting such an offer. **If not, the Competent Authority reserves the right to negotiate the price with the Bidder who has offered the lowest evaluated responsive bid.**

11. **CSTRI's right to accept any bid and to reject any or all bids**

   The CSTRI 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 that affected Bidder or Bidders of the grounds for the action of the Competent Authority.

12. **Contacting the Competent Authority**

   No Bidder shall contact the Competent Authority/Purchase Committee on any matter relating to his bid, from the time of the bid opening to the time the contract is awarded.

   Any effort by a Bidder to influence the Competent Authority/Purchase Committee in the bid evaluation, bid comparison or awarding the contract, decisions may result in the rejection of the Bidder's bid.

13. **Award Criteria**

   The CSTRI will propose the lowest price or indicative price which is substantively responsive for award of contract. No representations from the suppliers are entertained against the decisions taken by the competent authority under this contract. The purchase order will be placed to the manufacturer / supplier by **CSTRI, Bangalore**.

14. **Purchaser’s Right to vary quantities at time of Award:**

   22.1 The Purchaser reserves the right at the time of award of contract to increase or decrease [by up to 50%] the quantity of goods and services specified in the Schedule of Requirements without any change in price or other terms and conditions.
15. **Notification of selection and award of tender:**

Prior to the expiration of the period of bid validity, the Competent authority will notify the Bidders in writing by registered letter or by fax, the accepted price for the machines. In case of unforeseen delay in notification, the Bid validity period will be extended, which shall be acceptable to the Bidder(s). The actual supply order at the price selected / negotiated will be placed to the successful bidder by The Director for supply of machinery / equipment.

16. **Patenting Rights**

The Institute has developed some of the technologies. The machineries developed by this Institute will be used for propagation of technology in the different spinning clusters across North Eastern states of the country. It is to be noted that the specifications of technologies of machineries developed are the sole properties of CSTRI, CSB, Bengaluru only.

17. **Non-disclosure agreement**

The successful bidders shall execute Non-disclosure Agreement in the prescribed format at **Section XII** within 10 days from the date of receipt of supply order.

18. **Signing of Contract:**

At the same time all the successful bidders require to sign the Rate Contract Agreement with the accepted terms and conditions as per the Contract Form provided in the Bidding Documents, incorporating all agreements between the parties. Within 10 days of receipt of the Contract form, the successful Bidder shall sign and date the contract and return to the Director, CSTRI, Bangalore. *(Ref. Section X)*

19. **Performance Security:**

Within ten days after the receipt of purchase order from the selected beneficiary, the Rate Contract Holder shall furnish Performance Security for an amount equal to 5% of the total value of the purchase order in the form of Account Payee Demand Draft, Fixed Deposit receipt from a Commercial Bank or Bank Guarantee from a commercial Bank. The performance Security should be valid for a period of 60 days beyond the date of completion of all contractual obligations of the Rate Contract Holder including warranty obligations as per supply order of the beneficiary.

Failure of the successful Bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest evaluated bidder or call for new bids.
**20 Mode of Payment**: The supply order shall be placed by The Director CSTRI to the manufacturer/ supplier. This Institute will take responsibility of releasing payment only after successful erection, commission and satisfactory working of the equipment/machinery. The supplier has to stand by all terms and conditions including delivery schedule.

**21. Delivery schedule**: The successful bidder should supply the ordered all the equipments/machineries within the delivery schedule as indicated in the Schedule of requirement at *Section XV* from the date of supply order.

**22. Free Maintenance Service for Equipments & Machineries during warranty period**:  
The item Rate holders should provide free maintenance service at the places where Equipments & Machineries were installed / erected at his own cost during the period of warranty(One year from the date of installation) and no any additional amount will be entertained in this regard.

**23. Advance Payment**:  
25% advance along with the order against bank guarantee issued by any nationalized Bank. Balance payment shall be made once the erection and commissioning of the machine is completed and certificate is received from CSTRI for satisfactory running of the machine.

**24. Providing of Serial No, Manufacturing Year and address of the supplier etc.**: The supplier should provide Serial No. of Equipments / Machineries indicating the Name of the Machine, Month & Year of manufacture, Complete Addresses with Phone No. of manufactures etc; on the top of the machine clearly for identification purpose.

**25. Delivery Points**:  
The Rate Contract Holders should supply the ordered machineries/Equipments within the stipulated time limit to the address indicated in the supply orders.

**26. e-Payment**
The details for e-payment may be provided as follows:

Name and address of the Manufacturer : ……………………………
Bank Name: ………………………………………………………
Branch Name: ……………………………………………………
City: ……………………………………………………………
State Name: ………………………………………………………
IFSC: ……………………………………………………………
Account No.: …………………………………………………
Type of A/C: …………………………………………………
Mobile No………………….eMail……………………………….
### SECTION –VI

**GENERAL CONDITIONS OF CONTRACT (GCC)**

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GENERAL CONDITION OF CONTRACT

1. In this Contract, the following terms shall be interpreted as indicated

   a. “The Contract means the agreement entered into between the Purchaser and Supplier, as recorded in the contract Form signed by the parties, including all attachments and thereto and all documents incorporated by reference therein.

   b. “The Contract Price” means the price payable to the Supplier under the contract for the full and proper performance of its contractual obligations

   c. “The Goods” means all of the equipments, machinery, and/or other materials which the Supplier is required to supply to the Purchaser under the contract;

   d. “Services” means services ancillary to the supply of the Goods, and or repair, operation and maintenance of the specified equipment’s/installations, transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other such obligations of the Supplier covered under the contract;

   e. “The Purchaser” means the Organization purchasing the Goods; shall mean and include The Director, CSTRI, Central Silk Board, Bangalore; &

   f. “The Supplier/Contractor” means the individual or firm supplying the Goods and services under this contract

Application :

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the contract.

1.2 Standards :

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and if no applicable standard is mentioned, to the authoritative standard appropriate to the Good’s and such standards shall be the latest issued by the concerned institutions.

2. Performance Security :-

Within 10 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance Security equivalent to 5% of the total Contract value, in the form of Bank Guarantee. The bank guarantee issued by any Nationalized or Foreign bank located in India shall be accepted by the Purchaser and shall be valid till three months after the expiry of the warranty period; The Bank Guarantee towards the performance security shall be drawn in favour of “Director, Central Silk Technological Research Institute”, payable at Bangalore.

The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier’s failure to complete his obligations under the Contract;
The Bid Security will be discharged within 15 days, after receipt of the Performance Security.

Failure of the successful Bidder to furnish Performance Security within the prescribed time shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event, the Purchaser may make the award to the next lowest evaluated bidder or call for new bids;

The Performance security will be discharged by the Purchaser and returned to the Supplier after three months of completion of the supply obligations, including any warranty obligations under the contract.

3. Inspection and Tests :-

The Purchaser or his authorized representatives shall have the right to inspect and/or to test the Goods/services to confirm their conformity to the Contract.

The inspections and tests may be conducted at goods’ final destination and/or service points specifically indicated.

Should any inspected or tested goods/services fail to conform to the specifications, the purchaser may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specification requirements or services free of cost to the purchaser.

The purchasers’ right to inspect, test, where necessary reject the goods after the goods arrival at site shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the purchaser or its representative prior to the good’s shipment.

Nothing stated about shall in any way release the supplier from any warranty or other obligations under this contract.

4. Packing, Forwarding & Delivery of Goods / Documents at the Destinations:-

The Supplier shall provide packing of the Goods in such a way as to prevent their damage or deterioration during transit to their final destination. The details of destinations are indicated in the Schedule of requirement.

The Supplier shall ensure that the goods supplied under the contract are fully insured against loss or damage during transit upto the final destination.

Transportation of the Goods upto the final destination. The charges as applicable will be paid on actuals to pay basis transported through standard freight / carriers.

Upon delivery of the goods, the Supplier shall notify the Purchaser with full details of dispatch including contract number, description of the goods supplied supported with copy of Supplier’s Invoice, Delivery Note, Railway / Transport Way-bill, Insurance certificate etc.

5. Spares:

5.1 See spare parts list for a particular machine enclosed with specification.
6. **Warranty:**

The Supplier warrants that the Goods supplied under the 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 the conditions obtaining in the country of final destination.

This warranty shall remain valid for **12 months** after the Goods, or any portion thereof as the case may be, have been delivered and commissioned to 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 costs 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.

All replacement and repairs that the Purchaser shall call upon the Supplier to deliver or perform under this warranty shall be delivered and performed by the Supplier within 1 (one) month promptly and satisfactorily. In cases where such replacement, repair, execution and/or installation takes place during the warranty period the provision of this warranty clause shall apply to that portion to replace or renew until the expiry of 12 (twelve) months from the date of such replacement, repair, execution and/or installation. This extended period shall herein after be referred to “**Extended Warranty Period**”.

If, any defect is not remedied satisfactorily within the above mentioned 1 (one) month, the Purchaser may proceed to do the work at Supplier’s risk and cost and also without prejudices to any other rights of the Supplier under this contract.

7. **Acceptance Certificate:**

On successful completion of supply and after the Purchaser is satisfied with the quality/working of the equipments, the acceptance certificate signed by both the supplier and the representative of the Purchaser shall be issued.

The date on which such certificate is signed shall be deemed to be the date of successful supply/installation of the system.

8. **Payment:**

The Supplier’s request for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and services performed, and other documents, submitted and upon fulfilment of other obligations stipulated in the Contract.
Payment shall be made as detailed below:

- 25% advance along with the order against bank guarantee issued by any nationalized Bank.
- Balance payment shall be made once the erection and commissioning of the machine is completed and certificate is received from CSTRI for satisfactory running of the machine.

9. **Maintenance Service** :-
9.1 Free maintenance service shall be provided by the supplier during the period of warranty.

10. **Prices**
Prices charged by the supplier for the goods delivered and service performed under the contract shall not vary from the prices quoted by the supplier in its bid.

11. **Change Order**
Purchaser may at any time by a written Order given the supplier make changes within the general scope of the contract in any one or more of the following:

   (a) drawings, designs, or specifications where goods to be furnished under the contract or to be specifically manufactured for the purchaser

   (b) the method of shipment or packing

   (c) the place of deliveries

   (d) the services to be supplied by the supplier.

   (e) if any such change, causes an increase or decrease in the cost of, or the time required for, the supplier's performance or any part of the work under the contract whether changed or not changed by the order, an equitable adjustment shall be made in the contract price or delivery schedule or both, and the contract shall accordingly be amended. Any claims by the supplier for adjustment under this clause must be asserted within 30 days from the date of supplier's receipt of the purchaser's change order.

12. **Contract Amendments**
Subject to the above clause, no variation in/or modification of the terms of the contract shall be made except by written amendment signed by the parties.

13. **Assignment**
The Supplier shall not assign, in own or in part, its obligation to perform under the contract, except with the purchaser's prior written consent.

14. **Sub-Contract**
The supplier shall notify the purchaser in writing of all sub-contracts awarded under the contract, if not already specified in his bid. Such notification in his original bid or later shall not relieve the supplier from any liability or obligations under the contract.

15. **Delays in the Supplier's Performance**
Delivery of the Goods and/or performance of Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the schedule of requirements.
An unexcused delay by the Supplier in the performance of its delivery/service obligations shall render the Supplier liable to any or all the following sanction; forfeiture of its performance security, imposition of liquidated damages and/or termination of the Contract for default.

If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter the conditions, impeding timely delivery of the goods and performance of service, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s) as soon as practicable after receipt of supplier’s notice, purchaser shall evaluate the situation and may at its discretion extend the supplier’s time and performance, in which case, the extension shall be ratified by the parties by amendment of the contract.

16. Liquidated Damages:-
16.1 Subject to Force majeure, if the Supplier fails to deliver any or all of the Goods or 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 (exclusive of GST), as liquidated damages, a sum equivalent to 0.5% of the delivered price of the delayed Goods or unperformed Services for each week of delay until actual delivery or performance, up to a maximum deduction of 10% of the delayed Goods or Services from the contract price (exclusive of GST). Once the maximum is reached, the Purchaser may consider termination of the Contract.

17. Termination for default:-
The Purchaser may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, terminate the Contract in whole or in part

(a) If the Supplier fails to deliver any or all the Goods/services within the time period(s) specified in the Contract, or any extension thereof granted by the Purchaser.

(b) If the Supplier fails to perform any other obligations(s) under the Contract.

In the event the Purchaser terminates the Contract in whole or in part, pursuant to above, the Purchaser may procure, such terms and in such manner as it deems appropriate, Goods/services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods/services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

18. Force Majeure
Notwithstanding the provisions of “Delays in the Supplier’s performance, Liquidated damages, Termination for Default”, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this clause, “Force Majeure” means an event beyond the control of the Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser either in its sovereign or Contractual capacity, or revolutions, Acts of
God, i.e., earthquake, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform his obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

19. **Termination for Insolvency:**

   19.1 The Purchaser may at any time terminate the contract by giving written notice to the supplier, without compensation to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

20. **Termination for Convenience:**

   The Purchaser, may by written notice sent to the Supplier, terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of work under the contract is terminated, the date upon which such termination becomes effective.

   The Goods that are complete and ready for shipment within 20 days after the Supplier's receipt of notice of termination shall be purchased by the Purchaser at the contract terms and prices. For the remaining Goods, the Purchaser may elect:

   (a) To have any portion completed and delivered at the Contract terms and prices, and/or

   (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

21. **Resolution of Disputes:**

   The Purchaser and the Supplier shall make every effort to resolve all the disputes amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

   If even after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution, the same can be referred to a common arbitrator acceptable to both the parties.

22. **Notices:**

   Any notice given by one party to the other pursuant to the Contract shall be sent in writing or by telegram or fax and confirmed in writing to the address specified for that purpose.
A notice shall be effective when delivered or on the notice’s effective date, whichever is later.

For the purpose of all notices, the following shall be the address of the Purchaser and Supplier:-

**Purchaser**: The Director, Central Silk Technological Research Institute, Central Silk Board. BTM Layout, Madiwala, Bangalore – 560 068.

**Supplier**: (To be filled-in at the time of Contract signature)

23. **Applicable Law**:
23.1 The Contract shall be interpreted in accordance with the Indian Law.

24. **Taxes and Duties**:
   The Supplier shall be entirely responsible for all taxes, duties, GST, license fees, etc, incurred until delivery of the Contracted goods/service to the Purchaser.
SECTION – VII

QUALIFICATION CRITERIA

a) The bidder must be an original equipment Manufacturer or Authorized dealer/agent of the original equipment manufacturer. The bidder should have indicate its capacity of production of machineries per year

b) The bidder should have capacity to provide satisfactory after sales service. Details of after sales services available at the location of supply, installation and commissioning may be provided along with documentary proof in support of such claims.

c) The bidder shall give proof of financial capacity and shall submit audited statement of accounts of previous 3 years in support of claim.

d) The bidder shall submit details of purchase orders, date of supply executed successfully in previous 3 years. The bidder should submit certificate of satisfactory performance of equipment supplied from any Central Govt./State Govt. organization or any PSU or quasi Govt. Organization to study the efficiency.

e) The Bidder should commit that the unit price quoted is valid for a period of 180 DAYS from the date of entering into contract.

f) 2% of the quoted value as a Bid Security should be submitted by Demand Draft drawn in favour of Director, CSTRI, payable at Bangalore. (Along with the Technical Bid in a separate envelop) The Bids received without Bid Security will be rejected. If the firm has registered with MSME, it is exempted from submission of EMD subject to production of valid certificate.

g) The Bidder should submit No deviation certificate on Technical specifications/commercial terms and conditions.

h) The Bidder should agree to give warranty as per standard terms, it should be defined.

i) The bidder should able to supply & Install the machines within 120 days on receipt of purchase order. In case of delay In supply of machines 0.5% penalty per week maximum of 10% will be imposed for the period of delay.
SECTION – VIII

BID FORM

CAPACITY AND PRICE SCHEDULES

CONTRACT NO.:CSB/CSTRI/ DATE-----------

To:

The Director,
Central Silk Technological Research Institute,
Central Silk Board,
B.T.M Layout, Madivala,
Bangalore - 560 068
Sir,

Having examined the Bidding Documents including Addenda Nos. CONTRACT NO.: CSB/CSTRI/4(56)/2018-STORES, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply the machineries to the destinations indicated in the schedule of requirements in conformity with the said Bidding Documents for the sum of (Total Bid Amount in Words and Figures) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this bid.

We undertake, if our bid is accepted, to commence delivery within (Number) days and to complete delivery of all the items specified in the Contract within (Number) days calculated from the date of receipt of your Notification of Award/Letter of Credit.

If our bid is accepted, we will obtain the guarantee of a bank for a sum of ________ of the Contract Price for the due performance of the Contract.

We agree to abide by this bid for a period of______ days from the date fixed for bid opening under Clause 15 of the Instructions to Bidders and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us. We certify that we have the following capacities per annum in our firm .

1. 
2. 

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this_________ day of________________________2020

Signature (In the Capacity of )

Duly Authorized to sign the bid for and on behalf of
## SECTION –IX

**Price Schedule for the items to be supplied under Rate Contract**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description</th>
<th>Qty</th>
<th>Price for Each unit</th>
<th>TOTAL PRICE of (a+b+c+d)</th>
<th>GST (5+6)</th>
<th>GRAND TOTAL (5+6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ex-factory /Ex-warehouse/Ex-showroom of f the shelf

Packing & Forwarding Insurance Errection & Commissioning

<table>
<thead>
<tr>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
</tr>
</thead>
</table>

**Note:**

1) In case of discrepancy, total bid price would be considered in Rupees & words.

2) In addition to the above, all bidders must also provide in the bid the item wise cost breakup with reference to items as given in the technical specification, with sufficient details.

Place:
Date:

Signature of the bidder
Business address

**Separate price schedule should be submitted for each item under Rate Contract**
SECTION – X

CONTRACT FORM

NAME OF THE BIDDERS __________________________

This Agreement made on this __________ day of ______________________
2020. Between the (Name and address of the Purchaser) of (hereinafter called
“the Purchaser”) of the one part and (Name and address of Supplier) of (hereinafter
called “the Supplier”) of the other part:

WHEREAS the Purchaser is desirous that certain Goods and ancillary Services
should be provided by the Supplier, viz, (Brief Description of Goods and Services) and has
accepted a bid submitted by the Supplier for the supply of those Goods and Services in
the sum of (Contract Price in Words and Figures) (hereinafter called “the Contract
Price”)

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same
meanings as are respectively assigned to them in the Conditions of Contract
referred to.

2. The following documents shall be deemed to form and be read and
construed as a part of this Agreement, viz. : (a) the bid Form and the Price Schedule submitted by the Bidder ; (b) the schedule of Requirements ; (c) the technical specifications ; (d) the General Conditions of the Contract ; (e) the Purchaser’s Notification of Award

3. In consideration of the payments to be made by the Purchaser to the
Supplier as hereinafter mentioned, the Supplier hereby covenants with the
Purchaser to provide the Goods and Services and to remedy defects therein in
conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration
of the provisions of the Goods and Services and the remedying of defects
therein, the Contract Price or such other sum as may become payable under the
provisions of the Contract at the times and in the manner prescribed by the
Contract.

5. Brief particulars of the Goods and Services which shall be provided by
the supplier are as under:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Brief Description of Goods/Services</th>
<th>Quantity to be supplied</th>
<th>Unit Price</th>
<th>Delivery Terms (CIF/CFR/FOB/FCA/ETC.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Value:

Delivery Schedule:

IN WITNESS whereof the parties hereto have made this Agreement to be
executed in accordance with their respective laws the day, month and year first above
written.

Signed, Sealed and Delivered by the said __________________________ (For the
Purchaser) in the presence of : ______ Signed, Sealed and Delivered by the said
________________________ (For the Supplier) in the presence of : ______________________

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SECTION – X1

MANUFACTURERS’ AUTHORIZATION FORM (MAF)

No. Date:

To

Dear Sir, BID NO.

We, ................................................................ who are established and reputable manufacturers of .............. having factories at ......................... and .......................... do hereby authorize M/s...............................................to bid, negotiate and conclude the contract with you against the above Bid.

We hereby extend our full guarantee and warranty as per clause 7 of the General Conditions of Contract for the Equipments/Goods and services offered against this invitation for bid by the above form.

Yours faithfully

For and on behalf of

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

NON-DISCLOSURE AGREEMENT TO BE SIGNED BY THE BIDDER (NDC)

To: .................................................................. (Name of Purchaser) ..........................................

WHEREAS .......................................................... (Name of supplier) ..........................................
Herein after called “the Supplier” has undertaken, in pursuance of Contract No. ..................................... Dated ........................................... to supply (Description of goods and services) hereinafter called “the Contract”.

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Non-disclosure Agreement for compliance by the Supplier in accordance with the contract.

AND WHEREAS we agreed to sign the Non-disclosure Agreement:

THEREFORE, WE hereby affirm that we read and understood all the terms and conditions of the Tender Document for fabrication and supply of Miniature Eri Spinning Plant. We shall fabricate the said Equipments / Machineries for Miniature Eri Spinning Plant as per your technical specifications and suggestions. We confirm that the proposed Machineries / equipments is the sole property of CSTRI, CSB, Bangalore and Patent Rights are reserved with CSTRI, CSB, Bengaluru and the said equipment will be used for propagation of technology in North Eastern States. We shall not disclose the specifications of machinery/equipment for Miniature Eri Spinning Plant to other manufacturers for their commercial exploitation.

This Agreement is valid until the ............................................. Day of ............................................. 2020

Signature and Seal of Supplier  DIRECTOR
.......................................................................................................................... CSTRI, Bangalore
..........................................................................................................................

In presence of
1. 
2. 
1. The following are the particulars of deviations from the requirements of the tendered specification.

<table>
<thead>
<tr>
<th>Clause</th>
<th>Deviation</th>
<th>Remarks (Including Justification)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

furnished in the bidding document shall prevail over those of any other document forming a part of our bid, except only to the extent of deviations furnished in this statement.

[Signature and Seal of the Manufacturer/Bidder]

Date:

Note: Where there is no deviation the statement should be returned duly signed with an endorsement indicating “No Deviations”.
SECTION XIV

BIDDING TERMS DEVIATION STATEMENT FORM (BTDSF)

1. The following are the particulars of deviations from the requirements of the tender specifications:

<table>
<thead>
<tr>
<th>Clause</th>
<th>Deviation</th>
<th>Remarks (Including Justification)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Signature and Seal of the Manufacturer/Bidder]

Date:

Note: Where there is no deviation the statement should be returned duly signed with an endorsement indicating “No Deviations”.

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### SECTION XV

**SCHEDULE OF REQUIREMENTS**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>NAME OF THE EQUIPMENT</th>
<th>QTY.</th>
<th>Delivery Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Opening cum lap forming machines</td>
<td>2 Nos.</td>
<td>120 days</td>
</tr>
<tr>
<td>2</td>
<td>Staple length cutting machine</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>3</td>
<td>Tandem Roller and Clearer card</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>4</td>
<td>Single-delivery draw frame</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>5</td>
<td>Flyer Frame</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>6</td>
<td>Ring Frame (2 nos. of 64 Spindles each, Total-128 Spindle)</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>7</td>
<td>Six drum Cone Winder</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>8</td>
<td>Doubling machine (10 Spindles)</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>9</td>
<td>Ring Twisting machine (60 Spindles)</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>10</td>
<td>Reeling machine (20 ends)</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>11</td>
<td>Steaming chamber (Twist setting chamber)</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>12</td>
<td>Eri cocoon degumming plant</td>
<td>1 No.</td>
<td>120 days</td>
</tr>
<tr>
<td>13</td>
<td>Carding sliver can</td>
<td>20 Nos.</td>
<td>120 days</td>
</tr>
<tr>
<td>14</td>
<td>Drawing sliver can</td>
<td>30 Nos.</td>
<td>120 days</td>
</tr>
<tr>
<td>15</td>
<td>Simplex Bobbins</td>
<td>100 Nos.</td>
<td>120 days</td>
</tr>
<tr>
<td>16</td>
<td>Ring Frame Tubes</td>
<td>500 Nos.</td>
<td>120 days</td>
</tr>
<tr>
<td>17</td>
<td>Twisting machine tubes</td>
<td>300 Nos.</td>
<td>120 days</td>
</tr>
<tr>
<td>18</td>
<td>Doubling machine cone</td>
<td>250 Nos.</td>
<td>120 days</td>
</tr>
</tbody>
</table>
Specifications of machinery of Miniature Eri spinning plant of 25 Kg. Capacity (30-80 Nm)

1. Opening cum lap forming machines (2 Nos.)

1st Passage machine: Spiked roller dia (Cylinder) = 24” over which 1.5x2.5” wooden ribs are bolted using bolts to make dia28” over which fillet/spikes fitted, Worker: Shaft 1” dia, Length 31”, 8” dia roller over which belt of spikes has been mounted, Feed rollers-8RPM, 5 mm pitch, 2mm spikes, 40 spines Nylon brush roller (Clearer roller): 7” dia, shaft dia 1”, Feed plate width-36”, Spike density-12/Sq. inch (Flexible)LxBxH = 5’x5’3’’x5’2’’ (Slightly flexible)

2nd Passage machine: Same dimensions except in density of spikes which will be 15/sq.in

TECHNICAL SPECIFICATIONS XVI

Specifications of machinery of Miniature Eri spinning plant of 25 Kg. Capacity (30-80 Nm)

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1st Passage machine: Spiked roller dia (Cylinder) = 24” over which 1.5x2.5” wooden ribs are bolted using bolts to make dia28” over which fillet/spikes fitted, Worker: Shaft 1” dia, Length 31”, 8” dia roller over which belt of spikes has been mounted, Feed rollers-8RPM, 5 mm pitch, 2mm spikes, 40 spines Nylon brush roller (Clearer roller): 7” dia, shaft dia 1”, Feed plate width-36”, Spike density-12/Sq. inch (Flexible)LxBxH = 5’x5’3’’x5’2’’ (Slightly flexible)

2nd Passage machine: Same dimensions except in density of spikes which will be 15/sq.in

DIMENSIONS
Length-5 Feet
Width- 5 feet 3 inches
Height-5 Feet 2 inches

PRODUCTION CAPACITY
30-35 Kg./8 Hrs.
2. Staple length cutting machine

The machine should be capable of cutting exactly Eri lap into required lengths ranging from 30-140mm. There should not be any slippage of fibres while cutting the lap and the grip of blades where cutting takes place should be firm. The length adjustments should be simpler and operator friendly and durable & accurate.

Object: To cut the Eri lap into required staple range (30-140mm)
Production capacity: 180 Kgs. / 8 Hrs.

**Dimensions:** Length: 10 Feet, Width: 5 Feet, Height: 5 Feet (Slightly flexible)

This machine has two heavy duty blades which are fixed in 180 degree angle in two arms on the shaft which rotates at a variable speed depending upon chosen staple length by means of motor. The Eri degummed lap is fed to the machine through feed roller and cut into required length. The arms rotate at 70 rpm by help of 3 phase motor.
3. Tandem Roller and Clearer card
- Width-1016mm, Cylinder- dia 1250 mm Doffer-dia680mm, Lickerin-dia 225 to 250mm, Worker and stripper 8 Pairs
- **Cylinder-400 to 600 PPSI, Doffer- 250 to 350 PPSI( Finer 2\textsuperscript{nd} cylinder)**
- Production rate: Minimum 7-10 Kg / 8-hr OR Can be on higher side also
- Output method: In HDPE Cans through coiler
- Can spec: 24" dia x 42" height with castor wheels
- Provision for feed regulation through speed of feed roller to obtain required output hank
- Provision for disengagement of feed unit from Doffer and flexibility for adjustment of feed unit
- Antistatic device in front of Doffer to dissipate static charges
- Suitable electric control panel with stop motions whenever sliver breaks, loading of material on Lickerin, Cylinder, doffer and Worker and strippers takes place.
- Enclosures for operator safety
- Feed roller and Lickerin : Inter locking wire
4. Single-delivery draw frame
- Input: Active creel for 8 slivers from 42" height cans
- Output: Single delivery
- Drafting System: Spring loaded,
- Drafting zone- Suitable to process long staple fibres ranging from 30-80mm
- Output method: In seamless HDPE Cans through coiler
- Can spec: 18" dia x 42"height with castor wheels
- Delivery speed: 60 m/min OR More
- Production rate: 60 Kg / 8-hr for one pass OR More
- Electronically configurable speeds, without change gears/ Mechanically adjustable
- IoT enabled, for remote monitoring and support
- Enclosures for operator safety
- Creel-side sliver-break auto-stop
- Tower-lamp indicator for operator signalling

5. Flyer Frame
- No. of spindles: 12
- Input: Active creel for cans of 18" dia x 42" height
- Drafting System: Spring loaded, suitable for processing staple fibres ranging from 30-80mm
- Roller dia: Front, Middle and Back -40,35,40
- Draft Range: 6 to 10 (electronically configurable/ Mechanically adjustable)
- Output method: In 12" standard bobbins
- Flyer spec: Closed type, Aluminum die-cast, 12" length x 6" dia
- Flyer speed: 750 rpm OR More
- Production rate: 20-25 Kg/8-hr
- Electronically configurable speeds, without change gears/ Mechanically adjustable
- IoT enabled, for remote monitoring and support
- Enclosures for operator safety
- Creel-side sliver-break auto-stop
- Tower-lamp indicator for operator signaling
- Clearer cleaning attachment
6. Ring Frame (2 nos. of 64 Spindles each, Total-128 Spindle)

- Double-sided: 32-spindles/side
- Spindle speed up to 12,000 rpm
- Gauge: 70/75 mm
- Ring dia: 42 mm OR Suitable dia to spin 40-80 Nm Counts
- Drafting system: 3-over-3, spring-loaded, Top arm apron drafting system suitable for processing staple fibres ranging from 30-80mm
- Roller dia: Front, Middle and Back -40, 35, 40 mm
- Creel with bobbin holder for 12" bobbins
- Yarn count: 30 to 80 Nm
- Draft Range: 10-40
- Typical production: 4-6 Kg/8-hr
- Electronically configurable speeds, without change gears/ Mechanically adjustable
- IoT enabled, for remote monitoring and support
- Pneumatic arrangement for yarn-break suction
- Lift 7-9 inches
- Easy setting in Z or S direction of twist with the semi-electronic drafting system drive, the number of twists in the yarn and the direction of twist (Z or S) can be very easily changed on the display panel without mechanical modifications. A machine with semi-electronic drives is the ideal solution to keep costs low.
- Yarn count to be spun 30-80 Nm.

7. Six drum Cone Winder

- Double sided: 3 drums per side
- Independent motor for each drum
- Flexible speed control of motors, up to 900m/min
- Yarn-break stop-motion for individual drums
- Individual head length-measuring feature
- Capable of accommodating all yarn clearers, yarn slicers
- Single phase operation

8.Doubling machine(10 Spindles)
- Surface speed 110-800 m/min
- Production/8Hr/Spindle = 600 to 1000 g
- Sensor for stopping the cone whenever break occurs
- Doubling capacity :To wind up to 2 ends with individual brake system

9. Ring Twisting machine(60 Spindles)
- Spindle speed - 6000-8000 Rpm
- Ring dia. - 52 mm, Lift - 9” (Suitable for 40’s to 140’s Nm Eri yarn)
- Twist range : 10 - 30TPI
- Production/8 Hr./Spindle - 125 gms
- Individual stop motion for spindle
- Mechanically adjustable twist arrangement

10. Reeling machine(20 ends)
- Production/ end/ 8 Hrs. - 600 g.
- Adjustable reel dia. ranging from 42” to 62”
- Individual reel stop motion
- Nylon brush for Cleaning to be provided

11. Steaming chamber( Twist setting chamber)
Twist setting chamber shall have 20 gauge Stainless steel drum having diameter of 19 ~ 19.5 inches and height 24 inches with counter bottom Stainless steel vessel 15 ~ 15.5 inches diameter and height 8 inches fitted with suitable SS stand with 2 KW heating coil, with SS drain out facility. Also 2 Nos. of SS mesh basket each of 18” dia and 10” height made of 10-gauge SS wire shall be provided for placing the bobbins inside the twist-setting chamber. All the materials used for manufacture of twist setting chamber shall be of Stainless steel.

12. Eri cocoon degumming plant

**Boiler**- Vertical tube steam generating system ,wood/coal fired having a steam output capacity 50 kg/hour and working pressure of 3.5 kg/cm² with a hydraulic test pressure 7 kg/cm² shall be supplied.
**Stainless steel tubs:** Tub of 2-2.5mm thickness stainless steel 316 sheet for the vats with steam heating coils of 20N.B X 2.8mm stainless steel 316 tubes & perforated false bottom of 1.5mm thickness stainless steel 316 sheet & 1 1/2 inch drain tapping (outlet) & water inlet made of stainless steel with 316 S.S. flanges. Provision at the base for direct Steam inlet with S.S. flanges

Tub Sizes: 2 Nos. tubs of 10kg capacity: 750 x 750 x 750mm (OR Smaller sizes-To be decided)

Steam pipes connections from Boiler to tubs has to be provided.

**Hydro extractor:** 5 Kg capacity

**13. Carding sliver can** 20Nos. 24" dia x 42" ht seamless HDPE can with castor wheels

**14. Drawing sliver** can 40Nos. 18" dia x 42" ht seamless HDPE can with castor wheels

**15. Simplex Bobbins** 500Nos. Bare dia 48mm, 12" lift, 340mm ht

**16. Ring frame tubes** 800 Nos. 160mm lift, 1:40 taper standard tube

**17. Twisting machine tubes 300 No.**

**18. Doubling machine cone 250 Nos.**

**Note:** 1. It is to be noted that Miniature model of Eri spinning machinery package is first of its kind being installed and hence minor fine tuning of specifications during manufacturing stage is admissible to achieve the desired results without affecting cost of machinery arrived through Tender process.

2. Higher specifications /versions without affecting cost of machinery arrived through Tender process are admissible.