



केन्द्रीय रेशम प्रौद्योगिक अनुसंधान संस्थान
केन्द्रीय रेशम बोर्ड

(वस्त्र मंत्रालय- भारत सरकार)

बी.टी.एम. लेआउट मडिवाला बेंगलूरु- 560068

CENTRAL SILK TECHNOLOGICAL RESEARCH INSTITUTE
CENTRAL SILK BOARD

(Ministry of Textiles - Govt. of India)

B.T.M. Layout, Madivala, Bengaluru-560068



Phone: 080-26685238, 26282190, Fax: 080-26680435, Email: cstriban.csb@nic.in, web: www.cstri.res.in

No.CSB/CSTRI/35(42)/2024-Stores/VSRD | 1284

Date : 12.07.2024

To

Sir,

Sub: Inviting Quotations for procurement of Machineries - Reg.

With reference to the subject cited above, I am to inform that this Institute invites quotation for supply of **Machineries** as mentioned below:-

#	NAME OF THE EQUIPMENT	Specification	QTY	DESTINATION
1.	Tasar Wet Reeling Machine	Detailed Specification as enclosed	1 No.	The Director, CSTRI, Central Silk Board, BTM Layout, Madiwala, Bengaluru – 560 068
2.	Unnathi Reeling Machine		1 No.	
3.	Sonalika Muga Weft Reeling Machine		1 No.	
4.	MPSM Machine		1 No.	

TERMS & CONDITION :

1. The quotation in **two bid (Technical Bid & Financial Bid)** system should be sent by Registered/Speed Post only to the destination as mentioned above. The last date for upload the bid is **05.08.2024 upto 1.00 P.M.** and the bid will be opened on **05.08.2024 at 2.30 P.M.**
2. The quotations should be sent in two parts i.e, Technical Bid and Financial Bid separately in sealed cover duly superscribed and both these covers put in bigger cover which should be sealed and superscribed.

In the Technical Bid Cover/Envelope:

A. For the Existing empanelled manufacturers under Silk Samagra 2:

- a. An undertaking that the above equipments to be supplied shall match with the specifications as attached.

- b. The bidder should submit the duly filled **Bid Securing Declaration** form alongwith the quotation (as per the format enclosed) in lieu of EMD.
- B. For the New Bidders:
- a. An undertaking that the above equipments to be supplied shall match with the specifications as attached.
 - b. The Agency should provide a proof of said equipment supplied to various parties for the last 3 years.
 - c. The bidder should submit the duly filled Bid Securing Declaration form alongwith the quotation (as per the format enclosed) in lieu of EMD.
3. The successful L1 bidder shall give a demo of the above stated machineries to the scientific community from CSTRI, **if insisted**. On the basis of the inspection report, the purchase order will be issued.
 - 3a. The rates quoted should be valid for 180 days. The equipment should be supplied within **60 days** from the date of purchase order.
 4. The equipment should be supplied to **"The Director, CSTRI, Central Silk Board, BTM Layout, Madiwala, Bengaluru – 560 068"**.
 5. In the financial bid cover/envelope, the bidder has to furnish the basic rate, excise duty (if any), GST (if any), Freight Charges including Insurance (if any), Packing & forwarding charges (if any) Erection & Commissioning charges(if any) any other taxes/duties/levies (if any).
 6. The Supplier shall provide Warranty/Guarantee valid for a minimum period of 12 months from the date of installation of the equipment / machineries. Any defects noticed in the equipment /machineries which is unintentional shall be set right by the supplier at free of cost for good performance of the equipments.
 7. The equipment should be supplied strictly in conformity of the above specifications, failing which, the equipment has to be taken back at your own cost.
 8. For delay & non supply of the item within the stipulated time, liquidated damages @ 0.5% per week will be deducted from the bill subject to a maximum of 10% of the total cost of the equipment..
 9. The performance security equivalent to 3% of the total contract value in the form of Bank Guarantee issued by any Nationalized Bank which shall be valid till three months after the expiry of the Warranty period should be furnished to this Institute within 10 days from the date of receipt of purchase order.
 10. No advance payment will be made. The payment will be released only after delivery of the equipment in good condition as per our specification, Erection and commissioning.
 11. **The bidders should submit the Bank Details i.e. Bank A/c.No., Bank Name, Branch, IFSC code. Mobile No. eMail ID Etc. along with quotation.**
 12. The applicable GST-TDS will be deducted as per the prevailing rules.
 13. The total item wise (04 items) evaluation will be considered in this particular tender.

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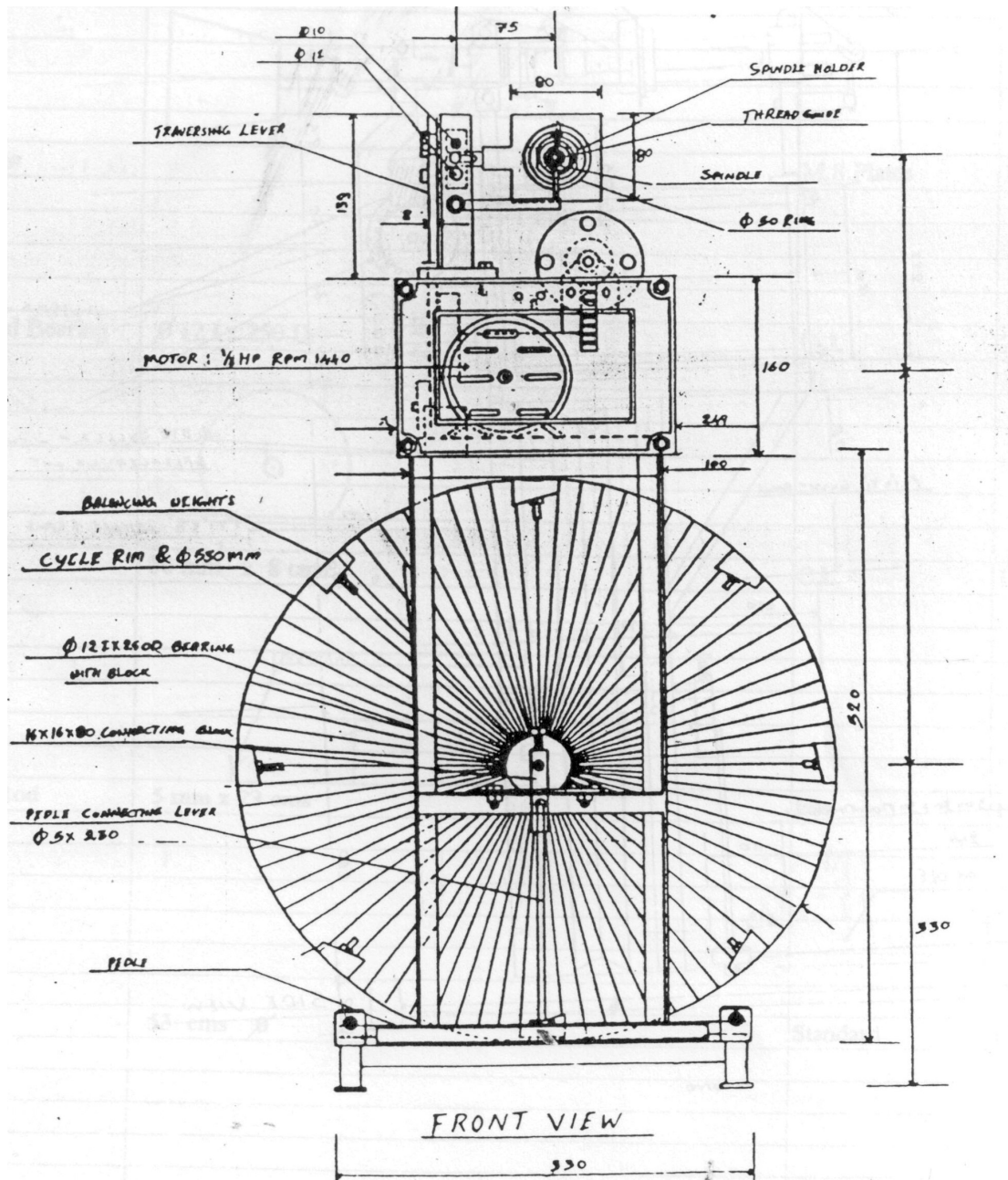
14. This enquiry letter is being uploaded in CSTRI (www.cstri.res.in)/CSB(www.csb.gov.in)/e-publish websites for reference purpose. The bidders should submit the documents through Registered/Speed Post only.
15. The Director, CSTRI, Bangalore reserves the right to accept any quotations or reject all the quotations without assigning any reason. The decision of the Director is final and no correspondence will be entertained from any party in this regard.

Yours faithfully,


[डॉ. एस. पेरियासामी / Dr. S. PERIYASAMY]

निदेशक / DIRECTOR


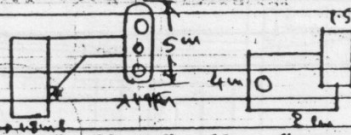

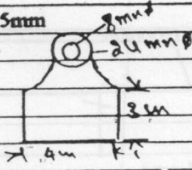
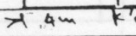

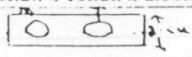
MOTORISED / PEDAL OPERATED SPINNING MACHINE:
MACHINE DRAWINGS: FRONT VIEW



MOTORISED / PEDAL OPERATED SPINNING MACHINE:

Machine parts & specifications

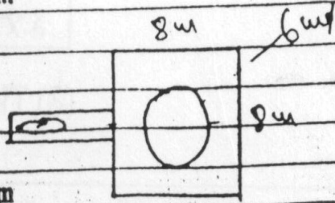
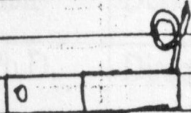
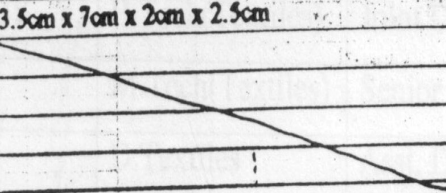
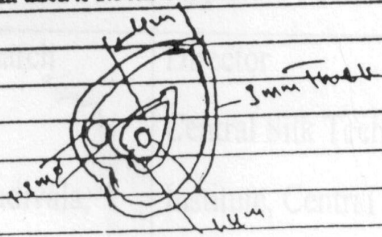
Spinning Machine:

SL NO	Name of the parts	Specifications	Type of material	Quantity
1	Main frame	250 cm x 162cm x 1cm, width 3cm	Cast iron/M.s	2 nos
2	MOTOR	Dia 100x120, 110/220 volts, 60HZ, 78W, 0.8/0.11 Amp.		1no
3	Traversing lever	20cm x 4cm x 5.5cm 	Cast iron/M.s	1 no
4	Traversing lever holder Bracket		Cast iron /m.s	1 no
5	Motor stop pully	31mm dia x 22mm dia x 11mm dia	Aluminium	1no
6	Worm, wheel	dia 9.5cm thickness 7mm	Aluminium	1no
7	Single worm	Single worm pitch 0.78mm	Iron	1no
8	Spur gear	31 Teeth, dia 7cm 	Metal	1 no
9	Worm wheel gear bracket	8mm dia x 24mm dia x 30mm x 45mm 	Cast iron /m.s	1 no
10	Traversing rod	10mm dia, length 34.5cm	M.S.Rod	1 no
11	Traversing support rod	12mm dia, length 18cm 	M.S.Rod	1 no
12	Spur gear bracket	4.5cm x 2.4cm x 4cm 	Cast iron /m.s	1 no
13	Traversing rod bracket	55mm x 11mm dia x 12mm dia	Cast iron /m.s	1 no
14	Traversing rod bracket	10mm x 18mm x 2.5cm 	Cast iron /m.s	1 no
15	Frame supporting rod	10mm dia, length 275mm	M S Rod	3 nos

MOTORISED / PEDAL OPERATED SPINNING MACHINE:

Machine parts & specifications

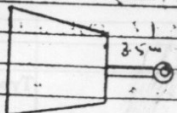
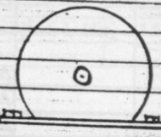
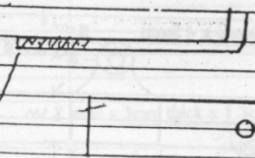
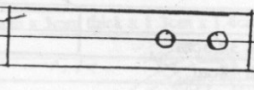
Spinning Machine (Continued):

16	Frame supporting rod	Length 24.5cm, width 2cm	M.S. plate	1 no
17	Ring holder	7 cm x 5 mm dia	M.S. Rod	1 no
				
18	Thread guide holder	7mm dia x 8 cm x 16.5 cm	M.S. Rod	1 no
				
19	Thread guide holder Bracket	3.5cm x 7cm x 2cm x 2.5cm	Cast iron / m.s	1 no
				
20	Motor holder	240mm x 7.2cm	m.s. sheet	1 no
21	Cam	4cm x 3mm thick x 1.3cm x 1.4cm	M.S	1 no
				
22	Spindle with Bolster	Tapered spindle for 5" lift, 15 cm length, let off dia 1.59 cm top dia 4mm Whorve steel dia 2.39 cm, bolster dia 2.39 cm, Length 15.5cm bearing bolster	Steel	1 no
23	Ring	Flange no 1, 4.2 cm dia	Steel	1 no

MOTORISED / PEDAL OPERATED SPINNING MACHINE:
Machine parts & specifications

ADDITIONAL PEDAL MECHANISM:

This pedal mechanism is for manual operation provided in addition to the spinning mechanism.

Pedal	30 x 24 x 21 cms.	M.S. Angle	1 no.
			
Pedal frame		M.S. Plates	1 no.
Bearing and Bearing Bracket	∅ 12 I x 250 D.	C.I.	2 Nos.
			
Pedal link	80 mm x 8 cms	C.I.	1 no.
			
Pedal link Rod	5 mm x 23 cms	Iron	1 no.
			
Wheele Rim	53 cms ∅	Standard	1 no.

Accessories & Servicing Features:

Set of standard spares Travellers 1000 nos. , PU belt 10 meter, thread guide 10 nos., bobbins 10nos, tools and consumables are to be provided. Apart from ensuring one year warranty on machineries performance, it is mandatory to extend one year free service (which includes repair, break down & replacement of worn parts).

The CSTR I motor-cum-pedal operated spinning machine is a table model made of cast iron frame (similar to a standard sewing machine frame) of dimensions of 64x35x64 cms and is portable. It consists of a horizontal spindle driven by a step pulley mounted on the motor shaft through polyurethane belts or from the grooved big wheel through nylon thread when pedal operated. The spindle speed can be varied from 850 to 2800 rpm by pedal and 2000 to 2900 rpm by motor. The machine is run by a 1/8 H.P. single phase motor as well as pedal. A ring is fitted around the axis of the spindle, which is moved to and fro by means of a cam and lever arrangement permitting uniform buildup of the bobbin. Twist is imparted to drawn fleece due to the rotation of the traveler on the ring. Uniform drawing of the waste by hand produces uniform spun yarn with uniform twist. A skilled spinner can produce the desired count by drawing of waste suitably. CSTR I spinning

machine is capable of spinning 200-250 grams of 15^s to 25^s Nm count per 8 hours. This equipment is suitable for spinning of all kinds of mulberry and non-mulberry silk waste.

The Pedal is made up of M.S. plate with a dimension of 34 x 24 x 41 cm one side of which is welded on a MS rod of 0.9 cms diameter and serves as the fulcrum. The other side of the plate is linked to a crank through a connecting rod to rotate the wheel.

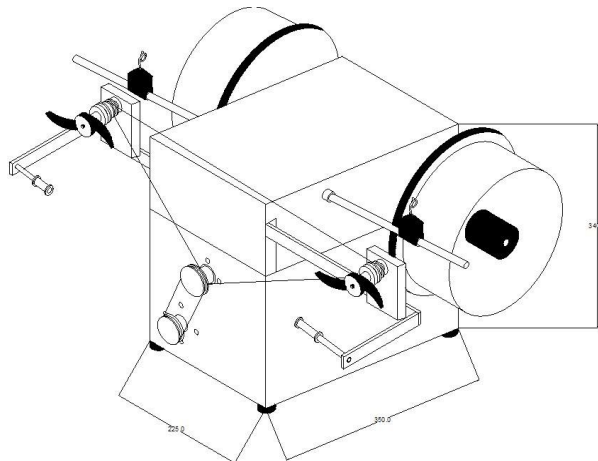
The main wheel is of 53 cm diameter and is mounted on ball bearings. The wheel has been counter balanced with 6 nos. balancing weights help in arresting rotation of the wheel when the spinner stops pedaling. The balance weights are mounted on the inside of the main wheel by means of screw.

The main wheel provides motion to the spindle and the traverse pulley through nylon thread.

The ring is mounted vertically on the bracket and is connected to traverse rod by means of adjustable screw. When bobbin fills up with yarn the ring should be moved by loosening the adjustable screw so that the removal of the bobbin is possible. The traverse rod gets to and fro motion through traverse lever, cam, worm wheel and worm. There is a pigtail thread guide placed on the spindle axis to facilitate in the feeding of yarn on to the bobbin.

NOTE: The machine may be motorized, pedal operated and motor-cum-pedal operated version.

Technical Specifications of Sonalika Muga reeling machine

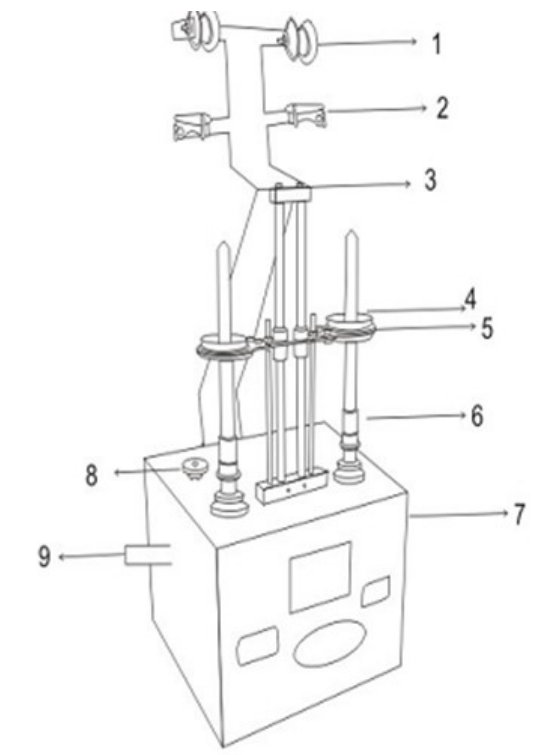


Machine	Sonalika – Muga Weft yarn reeling machine
No. Of Ends	Two ends
Sheet Frame	MS 16 Gauge CRC Sheet with Powder coating. Leveling studs for leveling of machine.
Reel	0.68 Meter circumference Made of Nylon-66 of Dia 220 mm and length 100 mm each Reel Shaft of MS 12mm Dia Pillow block bearings for Shaft support Aluminum Driven Pulley with 3 steps
Traverse	Integrated Bevel gear mechanism for traverse Traverse Ratio of 16:25 to be maintained Pigtail type or Ceramic thread guides fixed in vertical position Rocker bar mechanism for Traverse movement
Twisting	Twisting pulley with integrated Jetteboute made in Nylon-66.

	Ceramic eyelets fixed on pulley ends
Drive	12V / 25W DC motor with duty cycle > 70% Replaceable round PU Belts for drive transfer Sealed Worm reduction Gearbox with phosphor bronze Gear, All weather lubrication to last minimum 3 years. Aluminum Drive pulley with 3 steps.
Power Supply	AC to DC Power converter with input range of 140 to 280V PWM speed controller with 3 speeds selectable by Rotary switch
Accessories & Features	Black PVC Sheet fit behind yarn path for better visibility Slope of 5% in top surface of machine for smooth flow of drippings All belts accessible from outside without opening the machine. Set of standard spares like to reels, 5 meter PU Belt, 10 nos. thread guide, Croissure pulley 10 nos., tools and consumables to be provided. Apart from ensuring one year warranty on machineries performance it is mandatory to extend one year free service [Which includes repair, break down & replacement of worn parts]

Technical Specifications of Unnathi Solar Silk Reeling Machine





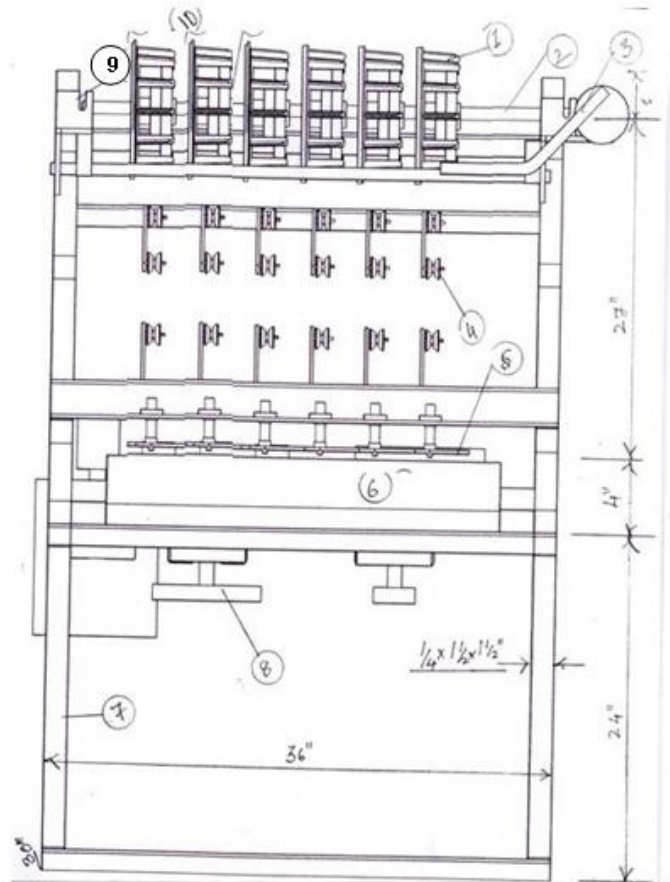
Machine Components

1. Croissure pulley
2. Thread guide
3. Thread guide holder
4. Spindle
5. Ring
6. Wharve
7. Body of machine
8. Driving pulley
9. Electric connection

Machine	Unnathi - Solar Powered Tassar Silk Reeling
No. Of Ends	Two Spindles
Sheet Frame	MS 16 Gauge CRC Sheet Powder coated Leveling studs for leveling of machine
Spindles	High Speed Spindles with SKF bearing for 10,000 rpm speed Wharve dia 18.5 mm Aluminum plug of length 200 mm and taper 1:40
Ring Rail	Black coated rings of dia 51 mm Lift of 100 mm Lifting cam with cam follower bearing

	Ring twisting to impart 4 to 6 twists per inch
Feed Roller	Feed roller of dia 4" in Stainless Steel Rubber rollers of hardness 70 – 80 deg
Drive	12V / 25W DC motor with duty cycle > 70% Replaceable round Green PU Belts for drive transfer Sealed Worm reduction Gearbox with phosphor bronze Gear, All weather lubrication to last minimum 3 years.
Solar System	Hybrid Solar and Grid Battery charging system with low battery and Over current protection and indicators. Solar PV panels of rating 30 W / machine Tubular Lead Acid battery of capacity 100 Ah / 10 machines or Sealed Lead Acid battery of 12 Ah for each machine. Distribution box with fused contactors, LED indicator of blown fuse Low Voltage protection, High current protection, Battery level indicator
Control Panel	Micro-controller based Machine Control panel featuring Motor Soft start, PWM Speed controller with 3 variable speeds selectable by Rotary switch. Foot Switch for spinning operation LED work light & Mobile charger connection
Accessories & Servicing Features	Protective guards installed to prevent gum from collecting on Moving parts. All belts accessible from outside without opening the machine Set of standard spares 4 nos. rings, 1000 nos. travelers, 5 meter PU Belt, croissure pulleys 10 nos., Tools, Bobbins 10 nos. and Consumables are to be Provided. Apart from ensuring one year warranty on machineries performance it is mandatory to extend one year free service [Which includes repair, break down & replacement of worn parts]

Technical Specification of wet reeling machine (six ends)



1. Nylon Reel
2. Tie Rod
3. Lever Wheel / Traverse Rod
4. Croissure Pulley
5. Jetteboute / Jetteboute Belt
6. Reeling Basin
7. `L 'Angle
8. Main Drive
9. Bearing Block
10. Reeling Shaft

- i. The machine is fabricated using 0.25" x 1.5" x 1.5" L-angle frame on which all driving mechanism is fitted and reeling basin is mounted.
- ii. Size of the machine will be 36" width, 60" height and 50" width.
- iii. Machine shall have one basin two basin with 6 ends/basin reeling capacity. One basin with 6 ends / basin is at the front side of the machine while second basin of same capacity is provided at the backside with common driving mechanism at the centre.
- iv. Basin is placed at 24" height from the floor level for cocoon reeling. Basin dimension is 36" width, 4" height and 12" depth.
- v. The jetteboute is placed 8" above the basin bottom level.
- vi. The distance between jetteboute bottom to centre of croissure pulley is 4".
- vii. Uniform jetteboute speed of 450 rpm is to be maintained.
- viii. The 6 no.s of reels are placed 27" height from the jetteboute bottom level on either side (front & back) of the machine. The reel position is as shown in the drawing for the front side.
- ix. The reels are made of nylon 6 material are driven by friction drive over the particle board wheel mounted on reeling shaft.
- x. Traverse thread guide is provided below the reels as per drawing.
- xi. The driving motor will be 0.5Hp, 1440 rpm, 230V, 5amps and 50 Hz, fitted with 2" cast iron pulley.
- xii. Chain drives are to be provided for driving mechanism in the machine. The PU 5mm diameter belts are used for driving the Jetteboute.
- xiii. 12 no.s of extra reels will be provided with every machine.
- xiv. The machine is painted on rustproof base with light green, smooth finished enamel paint.
- xv. Set of standard spares like croissure pulleys 20nos. thread guide 20 nos., PU belt 10 meter, croissure fully lever 50nos, tools and consumables to be provided.
- xvi. Apart from ensuring one year warranty on machineries performance it is mandatory to extend one year free service Which includes repair, break down & replacement of worn part.
- xvii. There should be provision for individual reel stop motion.

BID SECURING DECLARATION FORM

Tender No. **CSB/CSTRI/3(25)/2019-Stores**

Date:

To
The Officer I/c. & Scientist-D
CSTRI,
BANGALORE

I/We, The undersigned, declare that :

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am/We are in a breach of any obligation under the bid conditions, because I / We

- a) have withdrawn / modified/amended, impairs or derogates from the tender, my / our Bid during the period of bid validity specified in the form of Bid ; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii)fail or reuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid securing Declaration shall cease to be valid if I am / We are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii)thirty days after the expiration of the validity of my / our Bid.

Signed:
(Insert Signature of person whose name and capacity are shown)

In the capacity of
(Insert legal capacity of person signing the Bid Securing Declaration)

Name:
(Insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (Insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)