



THIRUVANANTHAPURAM REGIONAL CO-OPERATIVE MILKPRODUCERS' UNION LTD.
KSHEERA BHAVAN, PATTOM, THIRUVANANTHAPURAM -695 004
Phone Nos. 2558850, 2446845 Fax: 2449567, E-mail ID - trcmpuproj@gmail.com

NOTICE INVITING TENDER

The Managing Director, Thiruvananthapuram Regional Co-operative Milk Producers Union Ltd (TRCMPU Ltd) invites online bids from reputed Manufacturers / Authorized dealers/Fabricators for High Speed Milk Filling Machine at Kollam Dairy

1.	Tender Notice No. & Date	686/TRU/PC/2023 Dated 06.04.2023
2.	Item of Work	High Speed Milk Filling Machine at Kollam Dairy
3.	Specification	Attached
4.	Estimated Amount	Rs 19 Lakhs (Approx.)
5.	Bid Submission Fee	Rs.1000/-
6.	Earnest Money Deposit	Rs.19,000/- (Rupees Nineteen Thousand only)
7.	Date and Time of Publication of e- tender.	10.04.2023, 5.00 PM
9.	Date of Submission of e-tender	10.04.2023, 6 .00 PM to 20.04.2023, 11AM
10.	Date and time of opening of e-tender	21.04.2023, 12 PM
11	Pre-bid Meeting Date & Place	22.04.2023, 11 PM,Ksheerabhavan, Pattom, TVM
12.	Place of Opening	TRCMPU Ltd., Ksheera Bhavan, Pattom Thiruvananthapuram-695004.
13.	Bid Validity	60 Days
14.	Warranty	12 months warranty from the date of commissioning.
15.	Completion Period	Within 30 days from the date of Confirmed order.

MANAGING DIRECTOR

Terms & Conditions for e-Procurement

This tender is an e-Tender and is being published online for work / supplying of equipment as mentioned in the Invitation to bid. The tender is invited in two cover system from the registered and eligible manufacturers / suppliers through e-procurement portal of Government of Kerala (<http://www.etenders.kerala.gov.in>). Prospective bidders willing to participate in this tender shall necessarily register themselves with above mentioned e-procurement portal.

The tender timeline is available in the critical date section of this tender published in www.etenders.kerala.gov.in.

A) Online Bidders registration process:

Bidders should have a Class II or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on www.cca.gov.in. Once, the DSC is obtained, bidders have to register on www.etenders.kerala.gov.in website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost.

Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471-2577088/188/388 or 0484-2336006, 2332262 or 0497-2764788, 2764188 or 0483-273294 or through e-mail: etendershelp@kerala.gov.in or helptender@gmail.com for assistance in this regard.

B) Online Tender Process:

The tender process shall consist of the following stages:

- i) **Downloading of tender document:** Tender document will be available for free download on www.etenders.kerala.gov.in from the date & time of publication of e-tender, till the last date & time for online submission of e-tender. However, tender document fees shall be payable at the time of bid submission as stipulated in this tender document. Downloading of tender documents will not be possible after the date specified above.
- ii) **Pre-bid meeting:** Refer page 3 of the tender document
- iii) **Publishing of Corrigendum:** All corrigendums shall be published on www.etenders.kerala.gov.in and shall not be available elsewhere.
- iv) **Bid submission:** Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document to www.etenders.kerala.gov.in. No manual submission of bid is allowed and manual bids shall not be accepted under any circumstances.
- iv) **Opening of Technical bid and bidder short-listing:** Technical bids will be opened, evaluated and shortlisted as per the eligibility and technical qualification. All documents in support of technical qualification shall be submitted online as well as offline within the due date and time. Failure to submit the documents will attract disqualification. Bids shortlisted by this process will be taken up for opening the financial bid.
- v) **Opening of financial bids:** Bids of the qualified bidders shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in the critical date section

C) Documents comprising bid:

i) **First Stage (Pre qualification or Technical cover based on 1 cover or 2 cover tender system):** Pre-Qualification or Technical proposal shall contain the scanned copies of the following documents which every bidder has to upload.

- A. Copies of original documents defining the constitution or legal status, place of registration and

principal place of business of the company or firm or partnership or if a joint venture, of each party there to constituting the bidder.

B. Copies of Sales tax & service tax registration certificate.

C. Details of experience and past performance of the bidder (or of each party to a joint venture) on works of similar nature, and details of current work in hand and other contractual commitments shall be submitted. Customer's full address, contact persons, contact telephone number and e-mail ID are to be furnished.

D. The bidder should be in same business as Supplier / manufacturer for which the bid is invited for a minimum period of five years at the time of bid opening. If an authorized dealer participates in the bid they should produce documentary evidence for establishing that their principal supplier should be in the same business for a minimum period of 5 years. Copy of authorized dealership certificate issued by the principal supplier or manufacturer should also be uploaded along with bid document.

E. The bidder's annual financial turnover during any one of the last two years shall not be less than twice the estimated cost as specified in the Invitation to Bid.

F. The bidder shall have completed at least 3 number of similar installations for which this invitation to bid is issued during the last 10 years.

G. The bidder shall furnish a copy of the Income tax Returns for the previous year in original or certified true copies.

The department doesn't take any responsibility for any technical snag or failure that has taken place during document upload.

ii) **The Second Stage** (*Financial Cover or as per tender cover system*):

The Bidder shall complete the Price bid as per format given for download along with this tender.

Note: - The blank price bid should be downloaded and saved on bidder's computer without changing file-name otherwise price bid will not get uploaded. The bidder should fill in the details in the same file and upload the same back to the website.

Fixed price: Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable/variable price quotation will be treated as non-responsive and rejected.

D) Tender Document Fees and Earnest Money Deposit (EMD)

The Bidder shall pay a tender document fee and Earnest Money Deposit or Bid Security as given in the Tender Inviting Notice. The Bid security is required to protect the purchaser against risk of Bidder's conduct, which would warrant the forfeiture of security.

Online Payment modes: The tender document fees and EMD can be paid in the following manner through e-Payment facility provided by the e-Procurement system:

State Bank of India Multi Option Payment System (SBI MOPS Gateway): Bidder are required to avail Internet banking facility in any of the below banks for making tender remittances in e-Procurement system.

A) Internet Banking Options (Retail)

1	Allahabad Bank	29	Janata Sahakari Bank
2	Axis Bank	30	Karnataka Bank
3	Andhra Bank	31	Karur Vysya Bank
4	Bandan Bank	32	Kodak Mahindra Bank
5	Bank of Bahrain and Kuwait	33	Lakshmi Vilas Bank
6	Bank of Baroda	34	Mehasana urban Co-op Bank
7	Bank of India	35	NKGSB Co-operative Bank
8	Bank of Maharashtra	36	Oriental Bank of Commerce
9	Bassein Catholic Co-operative	37	Punjab and Maharashtra Co-operative Bank
10	BNP Paribas	38	Punjab National Bank
11	Canara Bank	39	Punjab and Sind Bank
12	Catholic Syrian Bank	40	RBL Bank
13	Central Bank of India	41	Saraswat Cooperative Bank
14	City Union Bank	42	Shamrao Vithal Cooperative Bank
15	Corporation Bank	43	South Indian Bank
16	Cosmos Bank	44	Standard Chartered Bank
17	DCB Bank	45	State Bank of India
18	Dena Bank	46	Syndicate Bank
19	Deutsche Bank	47	Tamilnadu Mercantile Bank
20	Dhanalaxmi Bank	48	Tamilnadu Cooperative Bank
21	Federal Bank	49	The Kalyan Janatha Sahakari Bank
22	HDFC Bank	50	TJSB Bank(erstwhile Thane Janata Sahakari Bank)
23	ICICI Bank	51	UCO Bank
24	IDBI Bank	52	Union Bank of India
25	Indian Bank	53	Vijaya Bank
26	Indian Overseas Bank	54	YES Bank
27	Indus Ind Bank	55	United Bank of India
28	Jammu & Kashmir Bank		

B)

1	Bank of Baroda	19	Karur Vysya Bank
2	Bank of India	20	Kodak Bank
3	Bank of Maharashtra	21	Lakshmi Vilas Bank
4	BNP Paribas	22	Oriental Bank of Commerce
5	Canara Bank	23	Punjab and Maharashtra Coop Bank
6	Catholic Syrian Bank	24	Punjab and Sind Bank
7	City Union Bank	25	Punjab National Bank
8	Corporation Bank	26	RBL Bank
9	Cosmos Bank	27	Shamrao Vithal Cooperative Bank
10	Deutsche Bank	28	South Indian Bank
11	Development Credit Bank	29	State Bank of India
12	Dhanalaxmi Bank	30	Syndicate Bank
13	Federal Bank	31	UCO Bank
14	HDFC Bank	32	Union Bank of India
15	ICICI Bank	33	UPPCL
16	Indian Overseas Bank	34	Vijaya Bank
17	Janata Sahakari Bank	35	Axis Bank
18	Jammu & Kashmir Bank		

During the online bid submission process, bidder shall select SBI MOPS option and submit the page, to view the terms and condition page. On furtherer submitting the same, the e- Procurement system will redirect the bidder to MOPS Gateway, where two options, mainly **SBI and other banks*** will be shown. Here, bidder may proceed as per below.

(a) SBI Account holders shall click **SBI** option to with its Net banking facility, where bidder can enter their internet banking credentials and transfer the tender fee and EMD amount.

(b) Other bank account holders may click **other banks** option to view the bank selection page. Here bidder can select from any of the 54 banks to proceed with its net banking facility, for remitting the tender payments.

*Transaction charges for other banks vide SBI Letter No. LHO/TVM/ AC/2016- 17/47- 1% of transaction value subject a minimum of Rs.50/- and maximum of Rs.150/-

Any transaction charges levied while using any of the above modes of online payment has to be borne by the bidder. The supplier/ contractor's bid will be evaluated only if payment status against bidder is showing "Success" during bid opening.

E) SUBMISSION PROCESS:

For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and financial bid online on www.etenders.kerala.gov.in along with online payment of tender document fees and EMD.

For page-by-page instructions on bid submission process, please visit www.etenders.kerala.gov.in and click "Bidders Manual Kit" link on the home page.

It is necessary to click on "Freeze bid" link/icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/opening during bid opening process.

SPECIAL TERMS & CONDITIONS

1. **Eligibility and qualification requirements:**
 - 1.1 To be eligible for the award of contract, bidder shall provide satisfactory evidence to the Thiruvananthapuram Regional Co-op Milk producers Union Ltd regarding their eligibility, capacity and adequacy of resources to carry out the contract effectively. To this end all bids submitted shall include the following information.
 - a. Copies of original documents defining the constitution or legal status, place of registration and principal place of business of the company or firm or partnership or if a joint venture, of each party there to constituting the bidder.
 - b. Copies of Sales tax & service tax registration certificate.
 - c. Details of experience and past performance of the bidder on works of similar nature, and details of current work in hand and other contractual commitments shall be submitted. Customer's full address, contact persons, contact telephone number and e-mail ID are to be furnished.
 - 1.2 **For the purpose of this particular contract, bidder should meet the following qualifying criteria as minimum:**
 1. The bidder should be in same business as Supplier / manufacturer/Service providers for which the bid is invited for a minimum period of 5 years at the time of bid opening. If an authorized dealer participates in the bid they should produce documentary evidence for establishing that their principal supplier should be in the same business for a minimum period of 5 years. Copy of authorized dealership certificate issued by the principal supplier or manufacturer should also be uploaded along with bid document.
 2. The bidder shall have completed at least 10 installations of exact same nature to the type specified in the schedule of requirements to any Cooperative Dairy sectors in satisfactory operation for atleast 2 years on the date of tender opening.
 3. The bidder shall furnish a copy of the Income tax Returns for the previous year in original or certified true copies.
 4. The bidder shall furnish at least 10 Numbers of performance certificates from different customers for this exact machine.
 5. The Bidder should setup service arrangement in Kerala / South India to attend the units within 24 hours in case of failure / breakdown of the machine
2. **Tender Fee & Earnest Money Deposit**
 - a) The Tender fee and EMD as given in the invitation to bid shall be accepted through online NEFT transaction through the site www.etenders.kerala.gov.in.
 - b) The EMD of the successful bidder shall be released after the signing of the agreement and submission of performance security.
 - c) EMD of the unsuccessful tenderer shall be released after the award of the contract and execution of agreement by the successful tenderer.
 - d) No interest shall be paid for the EMD for the period for which it lies in deposit.
- i. **Agreement:** - The successful bidder has to execute a contract agreement on a Kerala stamp paper worth Rs.200/- within 15 days of receipt of order.

- ii. **Delivery ,work site and billing address:-**
The Senior Manager,
Kollam Dairy, TRCMPU Ltd,
Thevally PO, Kollam-9
GST - 32AAAAT9795J4ZU

Terms of payment :

Payment shall be released by **Kollam Dairy** as detailed below

- 30% advance on acceptance of the order, signing the agreement and against a bank guarantee issued from any Nationalised Bank for an equal amount valid till completion of supply.
- 30% payment against safe receipt of the goods at site
- 20% payment on completion of erection of the items on group basis
- 10% payment on completion of testing and commissioning.
- 10% of the total value will be released on satisfactory completion of guarantee period of twelve months from the date of commissioning in all respect at the dairy. However the said amount will be paid against a Bank guarantee valid for twelve months from the date of commissioning.

3. The Tender should be submitted as follows

Online Cover I

1. Details of Tender fee and EMD details.
2. Documents to prove the qualifying criteria as mentioned in clause 1 above.
 - Scanned copy of GST registration certificates.
 - Scanned copy Income Tax returns filed for last two years.
 - Copy of audited P&L statement and Balance Sheet for the past two years.
 - Details of previous executed orders along with address of clients, contact person, contact no, e-mail ID etc.
 - Details of contracts on hand and other contractual commitments.

Online Cover - II

Price bid in the prescribed form available as BOQ in the website www.etenders.kerala.gov.in

3. Note to Bidders:

- i) Bidders are advised to note the Tender Id and Tender No. & Date for reference.
- ii) All uploaded documents should contain the signature and the office seal of the bidder/authorized persons.
- iii) The Managing Director, TRCMPU Ltd., is empowered to reject any or all the bids without assigning any reason.
- iv) The TRCMPU does not blind itself to accept the lowest offer and reserve the right to accept any offer without assigning any reason. The bidders shall not have any claim in this regard.
- v) Hard copies of the documents mentioned under cover 1 and copy of this tender document duly signed on all pages to be submitted within a day or two from the date of opening. Non submission of hard copies by the bidder shall lead to rejection of their offer.

TECHNICAL SPECIFICATION

First the equipment shall be AFFS type double head medium high speed (5000 PPH) and used to pack milk/curd/butter milk/ sambharam in pouches (200 ml to 1000 ml at Kollam Dairy.

Sl. No.	Parameter	Specification
01.	Product to be packed	Chilled Milk/ Butter Milk/ Curd etc free flowing liquids
02.	Type of Machine	Fully automatic double head mechanical high speed
03.	Speed/Output (Machine can run on film thickness from 45 microns to 100 microns)	Up to 100 pouches/ min/ head for 200/ 250/ 500 ml-(12000 pouches per hour per two heads) Up to 55 pouches/ min/ head for 1000 ml (6600pouches per hour per two heads) Up to 84 pouches/ min/ head for 150 ml & below -(10000 pouches per hour per two heads) SPEED IS SETTABLE ON SCREEN FROM 30 TO 125/HEAD
04.	Packing range	150 ml to 1000 ml
05.	Accuracy in Volume	+ - 1% up to 250 ml + - 0.4% for 500 ml + - 0.3% for 1000 ml
06.	Leakage % due to machine Less than	0.01 % up to 250 ml 0.03 % for 500 ml 0.06 % for 1000 ml
07.	Accuracy in length	+ - 1 mm for all lengths
08.	Packing Material	LLDP/LLDPE
09.	Film Thickness	For optimum speed outputs good quality film of nearabout 45 to 50 microns for up to 500 ml & 55 microns for 1000 ml Machine can run on film thickness up to 100 microns but speed will reduce with respect to increase inthickness of film
10.	Film Roll Width	324 mm (+2/-0 mm) Core Dia minimum 75 mm
11.	Pouch Width	150mm (+-1 mm)
12.	Film Roll Weight and loading	Up to 80 kg max, Reel Dia 350 mm max, and Loading machine rear side Bottam Lt&Rt.
13.	Type of seal	Centre seal pillow pouch - Vertical Overlap withhorizontal round rod cut seal
14.	Material of Construction	ALL SS Machine All product contact parts strictly in SS 304 Machine chasis and door in good quality S.S.

15.	Injection/Filling System (Insulated Tank with level sensors)	Continuous filling with non-insulated independent float balance tank at top of machine, filling adjustment manual motorized
16.	Inline CIP	Ready with Inline CIP Connection
17.	Horizontal Sealing No Element No Teflon Tape)	Continuous with PID Control (Double acting Assembly)
18.	Vertical Sealing (No Element No Teflon Tape)	Continuous with PID Control
19.	Movement /Operation	Mechanical By Levers, Gearbox & motors Jaw Movement: Servo Motors Film Pulling: Servo Motors
20.	Gearbox	Main Gearbox: Planetary Type
21.	Print Mark Scanner	Multispan make
22.	Pouch Counter/ Alarm	Provided on HMI Screen
23.	Film Carrier Assembly	Separate cabinet for film rolls along with enhanced Motorized film unwinding assembly
24.	Film Path Rollers	S.S. Film Path Rollers
25.	End Of Film Roll	Interlock of machine operation close to parking mode through fault display on HMI
26.	PLC System (Separate PLC to each head)	Machine is operated by PLC system
27.	HMI	HMI 7" multicolor touch screen HMI for settings of speed, pouch length, quantity along with counter and fault indications.
28.	Control Switches & On Screen Control	Separate remote-control switches for each head for particular function with clear & bold graphic sticker. Machine can also be controlled by touch screen buttons
29.	U.V. Tube (UV Tube with Hour Meter and Life Remainder Alarm)	UV tube is fitted to each head separately with auto off at production off to enhance life of U.V. tube
30.	VMR System	Voltage monitoring system inbuilt.
31.	Electrical cabinet	Separate electrical cabinet space at the back side of machine with clear illumination. Electrical components like MCB, PLC, Drives, Power Supplies and all wiring connections with proper ventilation are incorporated in this cabinet. All wires with proper ferrule numbers
32.	Electrical Power Meter	3 phase electrical power meter to measure electrical power consumption of machine

33.	On Screen Production Report	Specially developed software will display on screen report of real production time and quantity of pouches packed volume wise.
34.	TTO Printer Connectivity	Machine has inbuilt connectivity to external TTO or other printers. Interface card provided
35.	Electrical Power Input	Three Phase 400 V AC
36.	Total Electric Power Consumption per 10000 pouches	Total average 1.5 Electrical Power KWH Unit consumption per 10000 pouches

FEATURES

- All machine including chasis, assemblies in it are constructed in stainless steel to ensure hygiene and long rust-free life
- Machine operation - Total electromechanical machine. Link & lever mechanism for vertical & horizontal sealing mechanisms to ensure positive drive. No chains are used in machine
- Jaw movement through servo directly coupled to horizontal and vertical sealing. Jaw jog button is available for manual movement checking in slow motion
- All function of the machine like jaw holding timings, pouch length etc controlled by PLC. Machine operations are electrically controlled with touch screen HMI
- Machine construction is almost free of lubricating oil/grease to avoid any spillage therefore use of self-lubricating bearings & bushes
- Sealing temperatures of each sealer are controlled by independent PID to maintain it at ± 1 degree Celsius. All PID controllers are in communication with PLC so that if any drop at any sealer is noted, particular head will immediately stop giving audio visual alarm. Thus, each and every pouch will be sealed at only correct temperature which leads to zero leakage due to temperature
- Individual head operation possible - the entire machine head can run independently with different dosage of the liquid
- Machine is capable of up to 30 kg of film roll with very easy roll loading procedure. Roll can be directly loaded on rubberized roller, no need to insert any rod in spool so no wastage of time for film roll loading

- Nip rollers for film pulling are controlled by servo drive and motors
- End of film indication - audio-visual alarm gets operated when the film roll gets exhausted.
- Sterilizing mechanism for pouch filling is provided in the machine by way of providing UV tubes. Make of the tube is Philips Holland. UV tube has auto ON/OFF switch which lights up UV tube only at film pulling to save UV tube life.
- Unwinding of the film is motorized by AC Gear motor. Positive unwinding confirms steady and stretched film path for TTO printing
- Machine is ready to interface with any make TTO printer
- One touch preset program to run different pouch sizes to each head
- Machine top in SS maintaining hygiene and will have point of drain arrangement with proper piping
- Separate cabinet with LED illuminated light and spare power point at the backside of machine is provided for the mounting of electrical and electronic components with proper ventilating fans, thereby avoiding any moisture and external contaminations
- Panel is fitted with voltage monitoring system which will monitor all voltage at all time and immediately stop the machine in case of any under or over voltage or any phase failure
- All the wires are with proper ferrule numbers & all electrical components, MCBs, Fuse in the panel have their bold stickers of function. All PLC input output wiring details, Fuse Details with numbers are on HMI screen
- Machine is fitted with RCCB switch at the inlet power point to ensure safety so that total machine is electrical shock proof to avoid any accident in case of any human error or any electrical component failure
- Also, electrical control circuit is 24 V DC to ensure additional safety
- Onscreen reports of last 7 days for both the heads on HMI screen: Report has covered quantity wise production total per day per head, usage hours per head and also total production quantity wise per head
- Machine is fitted power meter to check power usage
- All Milk contact parts should be SS AISI 316 and all the milk contact Surfaces are to be polished to 150 grits. Material quality certificate for all milk contact surfaces must be provided.
- **Float Balance tank:** Stainless steel float balance tanks of required Capacity (minimum 50 litre capacity) to be provided at the top of pouch filling machine.

The gaskets shall be Food grade and of sanitary design. Tank shall be S S 304 make of capacity at least 50 litres, common for both filling heads. FBT shall be insulated with 40 mm thick, 38-40 kg/ cu.m, puf. It shall be sanitary design and shall be fabricated out of 2.5 mm thick SS304. The top cover shall not be insulated. It shall be provided up on the top SS sheet of adequately thick and supported the machine, clamped in a way so that no sweating of water to the machine parts mounted below.

- Bag length control by AC Geared motor system can be provided
- The Vertical and Horizontal Drive shall be cam operated type
- Independent head operation for filling different products and maintenance should be possible by shut off of either head of machine.
- Suitable facility for maintaining track of film
- Film guard device to stop the machine when the film gets exhausted.
- Liquid level controller
- Facility to insert a closed circuit in place cleaning system for the machine
- Provision to mount date coding machine
- Electrical / electronic system for the respective heads should be housed in cabinet
- Condensate should not form inside the machine enclosure, especially top plate (below balance tank)
- Independent head operation with flexibility for packing different quantities simultaneously
- Specially designed positive unwinding mechanism for smooth bag pulling operation. Film roll shall be up to 100 kg
- SS Pouch collection Tray & stand.
- Standard Tools – 1 set
- Provision for mounting Date & batch Coding machine shall be made.
- 3 sets of operation and maintenance manuals

Supplier to submit complete set of Drawings and technical specification along with tender. Any deviation from tender specification must be clearly mentioned and uploaded in documents.

Supplier to mention the list of spare parts to be kept at our custody. The cost of spareparts along with expected running life of each sparepart must be metioned and uploaded along with tender

The supplier must supply the sachet collection tray (complete Stainless Steel) along with the filling machine free of cost. Drawing of the sachet tray to be submitted for approval prior to supply


Managing Director