



The Bhagirathi Co-operative Milk Producers' Union Limited
(A Govt. of West Bengal Project)

NOTICE INVITING REVERSE AUCTION

BU/DAIRY/PM/1781

Date:05.02.2026

Reverse Auction for Supply, Erection, Installation and Commissioning of the following:

1. 1 no(s) of 10 KLPH Tri-Purpose Centrifuge Cream Separator along with pipelines and fittings along with One year onsite comprehensive warranty and service support.
2. 1 no(s) 30 KL vertically insulated milk silo with foundation and accessories.

Scope of Work

1. Supply, Erection, Installation and Commissioning of 1 no(s) of 10 KLPH Tri-Purpose Centrifuge Cream Separator:

- Supply of 10 KLPH Tri-Purpose Centrifuge Cream Separator.
- Installation and commissioning with integration to existing pasteuriser line.
- Provision of necessary SS piping and fittings with bypass arrangement.
- Successful trial run and performance testing.
- Training of operators on operation and maintenance.
- Supply of essential tools, manuals, and recommended spare parts list.

2. Supply, Erection, Installation and Commissioning 30 KL vertically insulated milk silo with foundation and accessories

- Supply the equipment as per specification.
- Construction of the Civil Foundation
- Installation and commissioning with integration to pipeline
- Successful trial run and performance testing.
- Training of operators on operation and maintenance.
- Supply of essential tools, manuals, and recommended spare parts list.

Quantity: 01 No(s)

Tentative Delivery/ Supply Schedule: Within 60 Days of the placement of the Purchase Order/Award of Contract.

Estimated Cost: Rs. 75,00,000/-

EMD: 1,50,000/-

Technical Specification: Annexure-A

Bid validity: 365 days



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Documents to be furnished by bidder for Technical Bidding

1. The bidder must have a minimum of 3 years' experience in the supply, installation, and commissioning of dairy equipments in Milk Unions, Federations. Credentials (Completion Certificate/Work Order) in support of the same must be uploaded/submitted.
2. Company Documents like MOA & AOA, Partnership Deed or Proprietor Deed and enlistment certificate.
3. GST Registration Certificate and PAN card.
4. Average Annual turnover of Rs 2 crore in the last 3 years (2022-2023), (2023-2024) and (2024-2025). Audited Balance Sheet in support of the same must be uploaded.
5. Make and Model offered.
6. Manufacturing and service infrastructure details.
7. Declaration (Annexure-B) to be furnished on Letter Head.

General Terms & Conditions

1. Price to be quoted shall consist of costs of Equipment along with 1 year of onsite comprehensive maintenance, inclusive of all taxes and levies, transit insurance, freight, packing, loading, unloading and any other incidental charges. Kindly note that all cost should be taken into consideration while quoting the rates.
2. Inspection of materials may be undertaken at the supplier's premises whenever necessary by the Tendering Authority/ any officer authorized by the undersigned.
3. Bidders should have local arrangements for prompt after sales service of the installed unit as and when required within warranty period free of cost. The service must be attended within 24 hours from the receipt of the information.
4. Supply, installation & commissioning of the ordered item with all accessories must be completed within 60 days from the date of order. Trial – run of the whole unit will be done in presence of Milk Union's authorized personnel. Trial run report shall be submitted duly signed by the authorized personnel. Training of Operation & Maintenance to the operator will have to be imparted free of cost at the time of Commissioning & Trial run.
5. **Place of Delivery, Installation and Commissioning:** The office of The Bhagirathi Cooperative Milk Producers' Union Ltd. Feeder Dairy, Panchantala, Berhampore, Murshidabad, Pin-742101, West Bengal.
6. **Payment:** Tax Invoice against all supplies is/are to be sent in TRIPLICATE and should invariably be submitted along with supply documents (Packing list, Challan, e-waybill etc).
 - I. 80% payment shall be released in NEFT/RTGS in the Bank Account of the supplier on receipt of acknowledged copy of challan/Invoice etc. of the whole unit in good condition at the specified site duly certified by the Sectional Head.



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- II. 10% payment will be released after successful Installation, Commissioning, Testing, Trial run and Training of the whole unit duly certified by the official of Union.
 - III. Balance 10% will be released after 1 year. This shall serve as Performance Guarantee. The supplier may also submit equivalent amount of Bank Guarantee valid from the date of final run to a period not less than 365 days. In case the performance of the Unit does not adhere to the desired performance the Performance Guarantee shall be forfeited.
7. **Penal Measure:** Time being the essence of the contract failure to supply the materials within due time or delay in installation and commissioning of the materials shall invite penalty.
 - I. Liquidated damages of 0.5% per day subject to a maximum of 10% of the total cost of materials shall be charged if goods are not delivered in time and the amount will be deducted from the Security Deposit and bills submitted by the supplier.
 - II. For violation of any terms and conditions of the contract the Bhagirathi Milk Union reserves the right to cancel the contract without assigning any reason thereof. On termination of Contract the Security Deposit will be forfeited and the resultant loss shall be recovered from the company. The subsequent company will be blacklisted for 3 years.
8. Mode of transportation for the supply of the goods to our site will be arranged by the bidder.
9. Materials dispatched from the bidder until they reach the Milk Union is the sole responsibility of the bidder. The Milk Union will not be responsible for any damage in transit, loading or unloading and no claim in this regard will be entertained.
10. **Loading and Unloading** and Transit insurance of the goods will be the responsibility of the bidder and no claim regarding this will be entertained.
11. **Documentation:** Supplier to submit the following documents at the time of delivery:
 1. Commercial/E-Invoice.
 2. E-Way bill
 3. Packing List
 4. Equipment Brochure comprising of Technical Specifications
 5. Operating Manual
 6. Cleaning & Maintenance Manual
 7. Warranty Card.
 8. Acceptance Copy of Purchase Order/Award of Contract.
12. **Maintenance of Equipment:**
 - I. **Preventive maintenance:** should be done by the supplier's Service Engineer in each quarter. Preventive maintenance must comprise of cleaning of hardware, peripherals, voltage check and other requisites required to maintain health of the equipment. Service personnel of supplier must be present to ensure that the machine achieves satisfactory results as stipulated by In Charge Quality Control.



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- II. **Corrective maintenance:** Corrective maintenance must be done on call within 24 hours when the system is down and not in operation. The supplier must keep all spares in custody for speedy remedy. Equipment down must be brought into operation within 48 hours.
 - III. Cost involving preventive and corrective maintenance for 1 year should be taken into consideration while quoting the rates.
 - IV. Supplier must provide user friendly manual for machine maintenance and SOPs for preparation of all required consumables.
13. **Warranty:** All the spares and components listed above must be warranted by the supplier for a period of 1 year from the date of installation. If any component is found to be non-functional due to any manufacturing defect or because of poor workmanship the component must be immediately replaced with a new component by the supplier within 24 hours. In case the replacement is likely to take a longer period then the supplier must arrange for a substitute within 24 hours.
14. **Warranty Extension:** The warranty of equipment would be extended if equipment remains down during the warranty period, for more than period mentioned below:
- I. If equipment has been down for more than 10 days in a year, warranty would be extended by one Month.
 - II. If equipment has been down for more than 30 days due to malfunctioning of the any part supplied by bidder or want of spares/ consumable, warranty would be extended by one Year.
 - III. If equipment has been down for more than one year due to malfunctioning of any part supplied by bidder or want of spares/ consumable, warranty would be extended by 1Year.
15. **Standards:** The Goods supplied under this Agreement shall conform to the standards mentioned in the Technical Specifications and when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin.
16. **Registration of Goods:** If required under the Applicable Law, goods supplied under the Agreement shall be registered for use in India.
17. **Patent Rights:** The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.
18. **Packing:** The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Purchase Order.
19. **Termination for Default:** The Purchaser, without prejudice to any other remedy for breach of the Agreement, by written notice of default sent to the Supplier, may terminate this Agreement in whole or in part:



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- I. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Purchase Order, or within any extension thereof granted by the Purchaser; or
 - II. If the Goods do not meet the Technical Specifications or registration requirement (if any) stated in the Agreement; or
 - III. If the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, in competing for or in executing the Agreement; or
 - IV. If the Supplier fails to perform any other obligation(s) under the Agreement.
20. **Termination for Insolvency:** The Purchaser may at any time terminate the Agreement by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent.
21. **Termination for Convenience:** The Purchaser, by written notice sent to the Supplier, may terminate the Agreement or the Purchase Order, 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 the Supplier under the Agreement or Purchase Order is terminated, and the date upon which such termination becomes effective. The Goods that are already supplied before the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the terms and prices described in the Agreement and the Purchaser order.
22. **Dispute Resolution** Any dispute arising out of the Agreement, which cannot be amicably settled between the parties, shall be referred to adjudication/arbitration in accordance with the Arbitration and Conciliation Act of 1996 of India. The venue of adjudication/arbitration shall be Kolkata. The language of arbitration shall be English.
23. **Applicable Law:** The Agreement shall be interpreted in accordance with the laws of Union of India.
24. **Force Majeure:** If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or Act of God (hereinafter referred to as events) neither party shall have any claim for damages against other in respect of such non-performance or delay in performance.
25. The undersigned reserves the right to accept or reject any tenders and to cancel the entire tender process without assigning any reason whatsoever.

Sd/-

Managing Director
The Bhagirathi Cooperative
Milk Producers' Union Limited



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Annexure-A

TECHNICAL SPECIFICATIONS

1. 10 KLPH TRI-PURPOSE CENTRIFUGE CREAM SEPARATOR

1.0 FUNCTIONAL REQUIREMENTS

It would be used as separator, clarifier and standardizer for milk at the incoming temperature of approximately **45–50°C**.

2.0 DESIGN REQUIREMENTS

2.1 CAPACITY

- Separation – **10,000 LPH**
- Standardisation and clarification – **15,000 Lts./Hr.**
- Only clarification – **Minimum 1.50 times** the capacity mentioned above.

2.1.3 FINISH

All welding joints are to be ground smoothly. All stainless-steel surfaces should have finish as per dairy standard.

2.1.4 % OF FAT IN SKIM MILK

In case of fat separation by the centrifuge, the percentage of fat in skim milk should be **trace**.

3.0 SCOPE OF SUPPLY

3.1 THE CENTRIFUGE

The bowl, bowl hood, discs, distributors and other milk contact parts shall be made of stainless steel conforming to A/L standards.

The lock nut shall be of carbon steel, deep tinned.

The frame of the separator shall be of cast iron clad with **AISI 304 SS**.

The motor shall have an SS cover.

The drive unit shall be mounted in the frame underneath the bowl.

The bowl sprinkler shall be driven by a worm and worm wheel mechanism connected to the motor shaft.

Motor: **3 Phase, 415 ±10%, 50 Hz AC**. Rating of above IP-68 with Class-F insulation.

3.2 ACCESSORIES

- **Lubrication system:** Splash lubrication
- **Controls:** Manual standardizing device
- **Flow meter:** For cream only – 2 Nos.
- **RPM measurement:** Pulse-type revolution counter – 1 No.
- **Brake:** Manual brake for quick slow-down of drum – 1 No.
- **Gasket:** Food-grade rubber, non-toxic, fat resistant, non-absorbent, smooth surface
- **Other accessories:** Manual regulating valve for skim milk outlet and manual standardizing device – 1 Set
- **SS panel:** Remote control panel with push buttons and indication lamps – 1 No.



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- **Tools:** Essential special tools – 1 Set
- **Manual:** Operating manual to be provided
- **Spares:** List of recommended spares to be furnished separately at no cost

4.0 MAKE

Make of Tri Purpose Cream Separator-TETRAPAK / GEA / APV/ALFA LAVAL

INSTALLATION AND COMMISSIONING OF CREAM SEPARATOR

1. Supplier shall erect the cream separator with by-pass arrangement and connect it to the existing pasteuriser with necessary SS pipes and fittings. In case of welding joints inner argon welding should be provided.
 - Approx. SS pipe length:
 - Milk line: 38 mm – 10 m
 - Cream line: 25 mm – 5 m
2. Supplier shall commission the cream separator and conduct a satisfactory **7-day continuous trial run** at rated output and efficiency.
3. All rectification of damages, defects, and routine troubleshooting shall be carried out by the supplier.
4. During trial run, supplier shall carry out necessary minor modifications, if required, to maximise efficiency at his own cost.
5. Supplier shall demonstrate proper functioning of all mechanical and electrical controls, safeties, and protective devices in the presence of Federation/Union engineers, duly recorded.
6. Any defects arising during trial or guarantee period shall be attended within **2–3 days**, free of cost.
7. Power supply up to cream separator MCC panel is purchaser's scope. Any item not specifically mentioned shall be supplier's responsibility.
8. **Contract Amendment Clause:** Any modification must be mutually agreed in writing.
9. **Documentation Submission**
 - GA drawing
 - Foundation drawing
 - Electrical drawings
 - Operation & maintenance manuals
 - Spare parts catalogue
10. **Safety & Compliance**
 - Dairy safety standards
 - Electrical safety standards
 - Food-grade material compliance
 - Guarding and operator safety



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2. 30 KL VERTICALLY INSULATED MILK STORAGE SILO

1. GENERAL

The silo shall be designed, manufactured, supplied, installed and commissioned for storage of chilled raw/pasteurized milk at 4°C. The construction shall comply with **IS 4938:2009 for vertical insulated stainless steel milk storage tanks**, along with sanitary dairy engineering practices.

The silo shall be suitable for **outdoor installation** and continuous dairy operation with CIP cleaning.

Equipment Supply

Supply of complete milk silo including:

- Inner SS 304 tank
- Outer SS cladding
- Insulation system
- Inlet cum outlet assembly
- Butterfly valves & SMS unions
- Manhole assembly
- Air vent with hood & mesh
- Sight glass & light glass assembly
- Level calibration markings
- Side-mounted agitator with geared motor
- Level indicator & transmitter
- CIP spray ball/turbine
- Sampling cock
- Thermowell with temperature sensor & indicator
- Ladder & top platform with railing
- Lifting lugs
- Level probe sockets
- Drain provisions
- Electrical connections for agitator & instruments
- Name plate

Installation Scope

- Positioning of silo on foundation
- Alignment & leveling
- Fixing of anchor bolts
- Installation of agitator
- Mounting accessories
- Interconnection of fittings
- Testing & commissioning

Documentation Supply



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Supplier shall provide:

- GA drawing
- Foundation drawing
- Piping & instrument layout
- Electrical load details
- Operation & maintenance manual
- Test certificates
- Warranty documents

2. CAPACITY

- Rated Capacity: **30,000 Litres (30 KL)**
- Gross Capacity: Minimum **5–10% higher** than rated capacity.
- Product level at rated capacity shall remain **minimum 100 mm below conical top junction**, as per IS standard.

3. CONSTRUCTIONAL REQUIREMENTS

- Vertical cylindrical double-walled insulated construction.
- Fully welded sanitary design.
- Suitable for outdoor installation.
- All milk contact surfaces shall be stainless steel.

4. MATERIAL OF CONSTRUCTION

Component	Material
Inner shell, bottom & top	SS 304 (AISI 304)
Outer shell	SS 304
Product contact fittings	SS 304
Non-product structural parts	Mild steel with epoxy coating
Gaskets	Food-grade neoprene/nitrile

Material shall comply with **IS 6911 stainless steel requirements** as referenced in IS 4938.

5. DESIGN FEATURES

5.1 Shape

- Vertical cylindrical body.
- Conical top (~15° slope).
- Bottom sloped **1:15 toward outlet** for full drainage.

5.2 Metal Contact

No metal-to-metal contact between inner and outer shells except at fittings. Insulated padding to be provided where stiffeners exist.

5.3 Joint Radii

- Minimum weld joint radius: **6 mm**



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- Shell-to-bottom/top curvature radius: **minimum 25 mm**

6. THICKNESS REQUIREMENTS

Part	Thickness
Inner cylindrical shell	3 mm
Inner bottom	3 mm
Inner conical top	3 mm
Outer cylindrical shell	2 mm
Outer top	2–3 mm
Outer bottom support	3–4 mm

7. INSULATION

Three-layer insulation:

1. **15 mm Polyurethane Foam** (Density: 30–35 kg/m³)
 2. **50 mm Expanded Polystyrene**
 3. **50 mm Expanded Polystyrene**
- Joints staggered and sealed with bitumen/CPRX compound.
 - Aluminium foil vapor barrier to prevent moisture ingress.
 - Insulation performance: Temperature rise not exceeding **1°C in 24 hours** at ambient 35°C.

8. SUPPORT & STRUCTURE

- Silo supported on RCC foundation or plinth provided by purchaser.
- Mild steel structural supports coated with epoxy paint.
- Anchor bolts and mounting pads provided.

9. ACCESSORIES & FITTINGS

The silo shall include:

9.1 Inlet Cum Outlet

- 63.5 mm SS outlet pipe
- Butterfly valve with SMS union
- Flush sanitary design

9.2 Manhole

- Oval manway approx. **550 × 405 mm**
- Insulated inward opening door
- Food-grade gasket

9.3 Air Vent Assembly

- SS air vent with insect mesh and weather hood
- Condensate drain arrangement

9.4 Sight Glass



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- 140 mm toughened glass assembly
- Full internal visibility

9.5 Level Calibration

- Sand-blasted markings at **500 L intervals**

9.6 Light Glass

- 24 V lamp with SS housing

9.7 Mechanical Agitator

- Side mounted agitator
- SS 304 impeller & shaft
- Geared motor, IP55 TEFC
- Uniform mixing within 10 minutes
- Mechanical seal to prevent leakage

9.8 Level Indicator & Transmitter

- SS sanitary type
- DP transmitter (E&H/Emerson/Yokogawa equivalent)
- Digital display panel

9.9 CIP Spray Device

- SS spray ball or rotary turbine
- Complete internal cleaning coverage

9.10 Sampling Cock

Sanitary SS sampling valve.

9.11 Thermowell & Temperature Display

- SS thermowell
- PT100 sensor & digital indicator

9.12 Drain Provision

Drain hole in outer shell lowest point.

9.13 Lifting Lugs

Minimum 4 SS lifting lugs.

9.14 Ladder & Platform

- SS ladder access
- Top working platform with safety railing.

9.15 Level Probe Sockets

Provision for high, medium & low level probes.

10. FINISH

- Stainless steel internal surfaces: **2B finish or polished to 150 grit**



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- All welds ground smooth.
- Mild steel structures epoxy coated.

11. TESTING & INSPECTION

Following tests shall be conducted at manufacturer works:

1. Dye Penetration Test for weld joints.
2. Water filling test for leakage.
3. Agitator trial run.
4. Manhole sealing test.

Inspection permitted during fabrication.

12. MARKING

Nameplate to indicate:

- Manufacturer name
- Capacity
- Serial number
- Month & year of manufacture
- Mark- BCMPUL-2025 RIDF-XXIX

13. STANDARDS COMPLIANCE

Equipment shall comply with:

- **IS 4938:2009 – Vertical Milk Storage Tanks**
- IS 6911 Stainless Steel standard
- Dairy sanitary equipment practices

14. Civil Foundation (Design & Execution)

- I. **Design:** RCC circular/annular ring beam foundation suitable for **30 KL vertical silo**, designed considering soil SBC (bidder to verify at site; if not available, assume ≥ 150 kN/m² and confirm).

Foundation thickness to be **~500 mm RCC slab (M30 grade)** over PCC (100–150 mm, M10/M15).

- II. **Foundation to include:**

- Ring beam footing to evenly distribute silo load.
- M30 RCC with Fe500 reinforcement steel, designed per IS 456:2000.
- Anti-corrosion anchor bolt sleeves.
- Cast-in MS base ring/plates as required for silo anchoring.

- III. **Anchor Bolts:**

- High-strength galvanized anchor bolts
- Template setting during casting
- Grouting with non-shrink grout
- Torque-proof installation



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IV. Top Level & Plinth:

- Finished top level with **1:15 internal bottom slope** for drainage to outlet.
- Peripheral RCC/PCC concrete apron with slope away from silo to prevent water ingress.
- Waterproofing/moisture protection layer below RCC as required.

V. Earthing & Lightning:

- Supply & installation of **2 Nos. chemical earthing pits** bonded to silo shell.
- Lightning protection system per IS:2309 with air terminal and down conductor.
- Equipotential bonding between silo shell and foundation reinforcement.

Sd/-

Managing Director
The Bhagirathi Cooperative
Milk Producers' Union Limited



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Annexure – B

(To be furnished on the Company's Letterhead)

1. I/We the undersigned solemnly declare that all the statements made in the documents, records etc., attached with this application are true and correct to the best of my/our knowledge.
2. I/We the undersigned do hereby certify that neither my/our firm/company has been blacklisted by any Milk Union, Milk Federation or NDDB in the past.
3. I/We the undersigned do hereby certify that we have understood the terms and conditions and shall unconditionally comply to the terms and conditions of the Tender/Reverse Tender document.
4. I/We the undersigned authorize (s) and request any bank / person / firm / corporation / Government Departments to furnish pertinent information deemed necessary and requested by The Bhagirathi Cooperative Milk Producers' Union Ltd. to verify the statement made by me/us or to assess my/our competence and general reputation.
5. I/We the undersigned, understand(s) that further qualifying information / clarifications on the statement made by me / us may be requested by The Bhagirathi Cooperative Milk Producers' Union Ltd and agree(s) to furnish such information/clarification within seven days from the date of receipt of such request from The Bhagirathi Cooperative Milk Producers' Union Ltd.
6. **We hereby declare that we shall supply cream separator of make TETRAPAK / GEA / APV/ ALFA LAVAL against the tender/ reverse auction.**
7. **We hereby declare that we shall supply install and commission the 30 KL milk silo as per technical specifications and terms and conditions of the Reverse Auction Notice.**
8. I/We agreed to abide by the terms & conditions of the Tender/Reverse Auction.

Dated Signature of Applicant with date and seal: