



# The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

BU/MDO/RIDFXXIX/2903

Dated: 21.03.2025

The Bhagirathi Cooperative Milk Producers' Union Limited invites Tender/ Reverse Auction for procurement installation and commissioning of 400 AMCUs in two phases as per specification terms and conditions mentioned hereunder:

**Pre-Bid Meeting & Demonstration with all equipment to be supplied is mandatory on the date fixed by NCDFI.**

<b>Scope of Work</b>	Procurement installation and commissioning of 400 AMCUs in two phases along with 5 years of Comprehensive maintenance.
<b>Estimated Cost of Work</b>	700 lakhs.
<b>EMD to be submitted</b>	14 lakhs only.
<b>Statutory &amp; Non Statutory Documents which is required to be uploaded in NCDFI e-Market platform</b>	<ol style="list-style-type: none"><li>1. Company Profile which consists of Registration Certificate of Company. MOA &amp; AOA must be furnished. Declaration that the Company is operational for 5 years.</li><li>2. GSTIN (GST Registration Certificate)</li><li>3. PAN CARD</li><li>4. Company must have valid PF Registration &amp; ESI Registration certificate for past 5 years.</li><li>5. Minimum Turnover of 25 crore in last 3 years. Audited Balance Sheet of 3 years (2021-22), (2022-23), (2023-24). Companies with decreasing turnover shall not be considered.</li><li>6. Income Tax Return of 3 years (2021-22), (2022-23), (2023-24).</li><li>7. Minimum 5 years of work experience in supply, installation, testing and commissioning of at least 1600 AMCUs in at least 10 Milk Unions/Milk Federations. Work Order and Completion Certificates as proof of Experience must be uploaded.</li><li>8. Duly filled Annexure-I.</li><li>9. Declaration that the company is neither blacklisted by NDDB, any Milk Union or Milk Federation.</li><li>10. Details of Manufacturing Unit, Service Unit with Staff strength designation, qualification and experience must be uploaded.</li><li>11. The bidder must be manufacturer of Milk Analyzer, Stirrers, Electronic Weighing Scales. Document in support of the same must be uploaded. Bidder must upload a valid license for repairing weighing scales.</li><li>12. Bidder must provide performance verification report for milk analyzer regarding its accuracy obtained from National Dairy Development Board.</li></ol>



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	<p>13. Bidder must provide letters of authorization from principal companies like HP/DELL/LENOVO for supply and service of computers for 5 years as per terms and conditions of the tender.</p> <p>14. Bidder must provide letters of authorization letters from principal company EPSON for supply and service of printers for 5 years as per terms and conditions of the tender.</p> <p>15. Bidder should furnish a list of make and model of components to be supplied against this tender along with Compliance Statement as per Annexure-II</p> <p>16. Bidder should have unified Service Ticket Management System for managing the Service. Declaration in support of this claim must be uploaded.</p> <p>17. Duly Filled Annexure-IV (Price of Consumables)</p>
<b>VALIDITY OF BID</b>	5 years
<b>RATE TO BE QUOTED BY THE BIDDER</b>	AS PER ANNEXURE-III
<i>List of documents are to be submitted to NCDFI for Technical Bid. Financial bid of Technically qualified bidders shall only be accepted for evaluation.</i>	

### Detailed Specifications of Requirement:

#### 1. Functional Requirements:

- a) The Unit should be suitable for instant weighting of milk and measuring FAT & SNF content. The Unit should calculate the price payable to the milk producer on the basis of the quantity and quality of milk collected with the help of the NDDDB developed AMCS application or any other application as deemed fit by the milk union.
- b) The Unit should print the amount calculated for the supply of milk thereof with member identification details. The Unit shall also be used for maintaining the individual milk producers' quantity and quality wise milk collection data and total milk collection data quantity and quality wise of the DCS/ Collection Centre together with the details of milk business transactions of the dairy co-operative society. The payment of milk bill in the farmer's account from the Milk Union in any frequency as desired by the Milk Union must be done using the Integrated Software NDDDB developed AMCS.
- c) The Unit should be able to measure milk component contents vis. fat from 0.5 % to 12 % & SNF from 6 % to 12 % and able to weigh milk up to 200 kg per batch at a time. This should process 80 (minimum) samples of milk per hour.

#### 2. Design & Other Requirements:

The AMCU specifications detailed in the Tender Notice are the minimum required specifications. The vendor must provide all the components/ tools required for meeting operational & functional requirements.



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The AMCU should be user-friendly, allowing easy operation by individuals who are not skilled in handling electronic equipment. It must include clear instructions and support for multiple languages to cater to the diverse user base in village environments. Additionally, the system should have a robust power backup solution to ensure uninterrupted operations even during power outages or fluctuations. The AMCU should incorporate a reliable data storage and transfer mechanism, ensuring that all milk collection and payment records are securely maintained and easily accessible for auditing and reporting purposes. Furthermore, the design should prioritize durability and resistance to environmental factors, guaranteeing long-term functionality and minimal downtime.

Bidders can offer better & higher version specs if available with them which could be considered, but without any extra weightage.

### 3. Operating Environment:

All the components of the AMCU should be rugged and must operate in dusty, hot and humid village environment where power outage and supply fluctuations are frequent. The operators mostly shall not be skilled persons and not conversant in using electronic equipment:

- Power supply: 160 to 260  $\pm$  10 % V (AC); 50 Hz  $\pm$  3 % / 12 V (DC)
- Ambient Temperature: 5 °C – 50 °C
- Relative Humidity: 50% to 95%

### 4. Operational provisions:

**Installation and Commissioning:** All the components of the AMCU should be assembled, configured, erected, commissioned and demonstrated for the purpose of smooth milk collection by the supplier to the satisfaction of the user. The bidder must demonstrate 2 shift's collection to the DCS. The bidder should install and provide all the inputs.

**Warranty:** All the components included in the AMCU shall be warranted for 5 years comprehensive warranty, which shall commence from date of successful installation. Supplier has to ensure the installation of proper earthing before commencement of actual operation of AMCU. Any issue which requires repair or maintenance that leads to non-functioning of AMCUs must be resolved within 24 hours from the time call booking time. In case supplier is unable to resolve the issue then the supplier has to ensure availability of standby equipment for resumption of operation till repair and maintenance of the equipment.

**Service & Maintenance: 5 years which includes 3 years of comprehensive onsite warranty and 2 years of comprehensive onsite maintenance.** A Field Technician per 80 AMCU must be provided for routine check-up, preventive and corrective maintenance such that the system is available by next milk collection shift.

Servicing must be carried out at the DCS. The Technician must carry tools tackles and sufficient gadget to render the Service at the DCS level. The Service shall be deemed to be complete when the DCS Secretary or Chairman or Tester or any other personnel in his absence verifies the job and signs the Service/Maintenance report to his full satisfaction. Burnt & broken items which is caused due to negligence of DCS shall not be covered under AMC.



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**Training:** Comprehensive hands on training must be provided at the society level to all 400 DCSs' staff where the AMCU is to be installed. Training must be imparted to the officials of the Milk Union, BMCs and Chilling Plants. Training includes introducing the trainees with the system, environment, operation and handling of the equipment, safety features and practices. The dos and don'ts are to be explained properly.

**Operational & Cleaning SOPs (including leaflet on troubleshooting):** Supplier must provide laminated wall chart indication important steps involved in operation & cleaning of the Milk Analyzer for displaying in DCS.

**Earthing:** The proper earthing as per local Electricity Board Regulations is to be done.

**Pre-Installation Test:** All components must be tested in the Milk Union before actual deployment and installation by the Milk Unions' personnel and Suppliers' Service Engineer.

**Installation and Commissioning:** All the components of the AMCU should be assembled, configured, commissioned and demonstrated for the purpose of smooth milk collection by the supplier to the satisfaction of the User. The supplier must install, commission, demonstrate & impart training to the end users of the Dairy Cooperative Society and Milk Union with full satisfaction.

### GENERAL TERMS & CONDITIONS

1. During evaluation the Milk Union may summon any bidder and seek clarification/information regarding bids within the stipulated time frame. In case the bidders fail to clarify any query during the stipulated time frame the bid shall be liable for rejection.
2. **The Milk Union may reject any bid from any party with unsatisfactory performance with the Milk Union or any other Milk Union in the past.**
3. Inspection of materials may be undertaken at the supplier's premises whenever necessary by the Tendering Authority/ any officer authorized by the undersigned.
4. Bidders are required to go through the Tender Documents understand the requirement the location of the installation and commissioning and then quote their rate. Rate once quoted by the bidder shall be deemed to be quoted by the bidder after understanding the requirements of the Milk Union. Rates once quoted are final and no alteration in rate shall be allowed.
5. The Bidders must have local arrangement (within the District of the Milk Union) for 'prompt after sale 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. The Milk Union can provide room for service arrangements.
6. Milk union shall approve the technicians to be deployed in the DCS level. The deployed technicians should be conversant with AMCU system and must possess requisite knowledge of the following:



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- a. Knowledge of repair and maintenance of household electrical circuits.
  - b. OS installation & Activation.
  - c. Backup, Recovery, Hardware & Software Trouble shooting & testing peripherals.
7. Deployed technicians should be given proper authorization and requisite Identity cards. Personnel deployed without I-cards and authorization shall not be entertained.
  8. It shall be 365 days operations hence technicians should manage leaves accordingly.
  9. Hardware & Software support of the entire operations has to be given by the supplier. Milk union shall provide necessary training to the supplier's technicians.
  10. It is the discretion of the milk union to operate in either NDDDB developed AMCS application or any other application as deemed fit by the milk union. If the milk union shifts operation through a different software, IT support has to be given by the supplier. Milk union shall provide requisite training to the technicians for the same.
  11. 5% of Backup AMCU set must be given to the milk union which shall serve as standby and this shall be kept at the custody of Service Engineer/Technician of the supplier.
  12. Milk union shall allot separate room/warehouse for storing supplier's standby devices. Failure to keep 5% of Backup AMCUs shall lead to non-release of performance guarantees.
  13. Supplier must maintain requisite spare which is to be kept in the custody of technicians deployed. The Milk Union may verify the spares available with the supplier's technicians. If any site is down for more than 24 hours due to requirement of spare parts not available to the technician of the supplier then a liquidated damage of Rs. 500/- per day shall be levied upon the supplier and this shall be deducted either from bills or Performance Guarantee.
  14. It is to be noted that if any spare is changed by the supplier's technician it should be replaced with new original spare of approved make as installed in other AMCUs. The new spare shall be verified by the personnel of the Milk Union and then it shall be fitted into the machine. Changed spare must be warranted till the tenure of the Contract.
  15. Any call must be addressed within 24 hours when a call requires change of spares it must be addressed to actual condition within 24 hours. In case any call is likely to get resolved after 48 hours, standby equipment has to be provided to the DCS. Failure to which liquidated damage of Rs. 500/- per day shall be imposed and deducted from the performance guarantee.
  16. Any technician/personnel deputed found involved into monetary transaction with DCS or found to be involved into any unfair means or unethical adopting/ theft/ gambling/ intoxication/misbehavior which is contrary to industry standards shall be straight away rejected and shall not be allowed in the DCSs, BMCs and chilling stations of milk union. The supplier must immediately abstain such element. Repetitions of such activities shall lead to forfeiture of performance guarantee and the supplier shall be blacklisted by the milk union.



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17. **Site Inspection & Demonstration:** It is obligatory for the bidder to perform site inspection and provide demonstration of the Units to be at his own expense. Non-demonstration of one complete unit of AMCU shall be treated as disqualification of the bidder (s). In any case submission of the tender without demonstration of the unit shall straight way reject the bid(s) of the bidder(s). Mere participation in the tender without undergoing any site inspection and demonstration shall lead to disqualification of the Tender. During demonstration the demonstrated unit shall only be supplied. Supply not conforming specifications shall not be accepted and failure to supply materials as per specifications shall lead to rejection of Tender and forfeiture of EMD.
18. **Price:** Price of 400 AMCU Set including all taxes and levies with 3 years of Comprehensive warranty and 2 years of comprehensive maintenance shall be quoted by the party. Price must include cost of supply deployment and installation of equipment with deployment of 5 no(s) of support engineers for 5 years who shall be liable to provide the service. All risks and cost including backup machinery to provide uninterrupted service must be taken into consideration by the supplier.
19. **Bid Validity:** The rate once quoted in this Tender shall remain valid for a period of 5 years from the date of Financial Bid Evaluation. Bidders are therefore required to assess their rates before quoting them.
20. **Warranty:** All the spares and components of the AMCU listed above must be warranted by the supplier for a period of 5 years 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 48 hours.

**Warranty Extension:** The warranty of equipment would be extended if equipment remains down during the warranty period, for more than period mentioned below: -

- If equipment has been down for more than 10 days in a year, warranty would be extended by one Month,
  - 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.
  - If equipment has been down for more than one year due to malfunctioning of the any part supplied by bidder or want of spares/ consumable, warranty would be extended by 5 (Five) Years.
21. **Payment:** Payment shall be released in 3 phases in NEFT/RTGS to the Bank Account of the supplier after submission of 3 copies of invoice along with documents mentioned in Documentation clause which are as follows:
    - a. **First Phase:** 70% payment shall be released after receipt of the materials (all the components) as per the technical specification in good condition certified by the Concerned Official and approved by the Competent Authority. EMD shall also be released after receipt of an intimation in writing from the supplier.



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- b. **Second Phase:** 20% payment shall be released after 2 months of successful installation, commissioning and trial run of all the units supplied. All the required training to be imparted to the DCS personnel and official of the Milk Union for release of this payment. 2 months shall count from the very first day when the entire installation commissioning and trial run with necessary training has been imparted.
- c. **Third Phase:** Remaining 10% payment shall be released within 60 days after receipt of equivalent amount of Performance Bank Guarantee valid for 5 years. The 5 years shall count from the days of last successful installation date. In case the party fails to provide maintenance and support as per the requirement of the Milk Union or is found to act in a way which jeopardizes the Milk procurement, the Performance Bank Guarantee shall be forfeited after giving a Notice to the supplier in writing and the supplier shall be debarred from participating into any tender in future. Performance Bank Guarantee shall be released within 60 days of successful execution of the Contract.
22. **EMD & Security Deposit:** EMD shall not carry interest. EMD of the successful bidders shall be converted into Security Deposit and shall be released along with the first phase of payment.
23. **Insurance:** - The supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. If the equipment's is not commissioned and handed over to The Bhagirathi Co- Operative Milk Producers Union Ltd. within specified period, the insurance will have to be extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to The Bhagirathi Co-operative Milk Producers' Union Ltd.
24. **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 installed or commissioned 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.
27. **Loading and Unloading** of goods is the responsibility of the supplier. If the Milk Union makes its own arrangement for the unloading of the materials the respective cost of the same shall be deducted from the bidder.
28. **Documentation:** Complete documentation like principal warranty papers, operation manuals, document of technical specifications and guarantee cards have to be furnished by the supplier. Failure to submit any of the above document in hard copies at the time of supply of the materials shall lead to non-acceptance of the material.



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29. **Inspection of AMCU Units:** The Milk Union shall make a detailed inspection of all components of the AMCU Unit prior to the acceptance of the material. The Milk Union can also conduct joint inspection or engage a third party for inspection of the components. Consumables provided like cleaning solution must contain date of manufacture and expiry along with test report which mentions the pH level of the solution. Consumables not accompanied by manufacture or expiry date or without any test report shall not be accepted.
30. **Delivery, Installation and Commissioning:** The materials must be delivered in the Office of The Bhagirathi Cooperative Milk Producers' Union Ltd. Feeder Dairy, Panchantala, Berhampore, Murshidabad, Pin-742101, West Bengal in 2 phases as detailed below:

Phase	Quantity to be delivered in no(s)	Pre-Installation Inspection by Milk Union (in days)	Installation & Commissioning	Expected Completion Date
Phase-I	200	Within 60 days of complete delivery	180-210 days after pre installation inspection	November 2025
Phase-II	200	Within 60 days of complete delivery	180-210 days after pre installation inspection	July 2026

The installation and commissioning of the Unit shall be across the DCSs of Murshidabad District. Delivery installation and commissioning must be complete as per above schedule. If a system remains down for more than time specified in Warranty clause the warranty tenure shall be extended and subsequently the performance guarantee shall be extended. The dispatch of machines must be as per the above table as the milk union shall have to arrange floor space for safe keeping of materials till installation.

31. **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.
32. **Registration of Goods:** If required under the Applicable Law, Goods supplied under the Agreement shall be registered for use in India.
33. **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.
34. **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.
35. **Incidental Services:** Following incidental services are required, the price of which will be quoted by the Suppliers in the BOQ sheet in the **Annual Maintenance Contract** cell in the Financial Bid.





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- a) Annual Maintenance for the supplied Goods, for a period of 4 years. This service shall not relieve the supplier of any warranty obligations under this agreement.
  - b) Training of the Purchaser's personnel, at the Purchaser's site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.
  - c) AMC includes onsite comprehensive maintenance which both preventive and corrective maintenance. Preventive maintenance should be carried twice in a year in 6 month's interval which shall include earthing and voltage checks, battery cleaning, water refilling in batteries, cleaning of computers, analyzers, weighing scales, printers, RDUs and trouble shooting them to keep the system in good condition. Corrective maintenance includes replacement of defective components with new ones, free of cost. Burnt components and items damaged due to sheer negligence in handling by the DCS personnel or by the official of the Milk Union shall not come under this clause. Minimum two preventive visit per year and visit as and when the equipment is under breakdown within 24 hours shall be required. Both preventive and corrective maintenance logs shall be submitted by the supplier's technicians to the Milk Union which shall be cross verified. Failure to provide preventive maintenance in 6 months shall lead to penalty of Rs. 2000/- per unit on half yearly basis.
  - d) **Burnt and broken components/spears:** During installation the supplier's technician must check voltage, earthing and probability of electrical surges in the DCS. In case any burning or breakdown issues, which may occur due to voltage, earthing or electrical surges for which DCS is not liable shall be in the scope of the supplier. The unit must be restored by changing burnt or broken spares with original ones by the supplier and no cost for the same shall be payable to the supplier. For damage of components due to the sheer negligence of DCS shall be changed by the supplier with original ones at the cost of the milk union but the components must be changed within the prescribed timeline. The supplier shall provide this service keeping liaison with the principal supplier and the milk union shall not interfere in this context. It shall be the duty of the supplier to get the job done in due time.
  - e) If vinyl tubes inside the analyzer are dislocated during the warranty period due to the use of chemicals it should be replaced by the supplier without any extra cost.
35. **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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- a) 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
  - b) If the Goods do not meet the Technical Specifications or registration requirement (if any) stated in the Agreement; or
  - c) If the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, in competing for or in executing the Agreement; or
  - d) If the Supplier fails to perform any other obligation(s) under the Agreement.
36. **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.
37. **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.
38. **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.
39. **Applicable Law:** The Agreement shall be interpreted in accordance with the laws of Union of India.
40. **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.
41. 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 Milk Union



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## SPECIFICATION OF COMPONENTS OF AMCUs

### 1. MILK ANALYZER

Type	<p><b>Ultrasonic principle-based milk analyzer for testing fat, SNF, Protein, lactose, density &amp; added water etc.</b></p> <p>Functional Requirement: To test &amp; display fat, SNF &amp; added water of sample milk, protein and lactose.</p> <p>Measuring parameters:</p> <p>1. <b>Fat:</b> 0.5% to 12%, with accuracy + / - 0.1%, with Resolution: 0.01% and Repeatability: + / - 0.05%.</p> <p>2. <b>SNF:</b> 6 % to 12 % , with accuracy + / - 0.2%, with Resolution : 0.01% and Repeatability: + / - 0.05%.</p> <p>3. <b>Added water in Milk:</b> 0% to 60% with Resolution: 1% and accuracy 0.5%.</p> <p>4. <b>Protein:</b> 2% to 6% with accuracy +/-0.2%</p> <p>5. <b>Lactose:</b> 0% to 5% with accuracy +/-0.2%</p> <ul style="list-style-type: none"><li>• Measuring cycle – 40 Sec per sample</li><li>• Average testing speed – 80 samples / hr. (minimum).</li></ul> <p>Milk sample Temperature: 10°C – 45°C</p>
Operational abilities	Mode selection for type of milk -(1) Cow, Buffalo, Mixed / Single Curve with Cleaning, Calibration, System error list etc.
MoC for enclosure	AISI 304, 0.75 mm thick minimum. Minimum 180 grit finishing and no sharp edges.
Cleaning Procedure	Automatic & Manual
Power	12 Volt DC/220 Volt AC
Interface	RS 232
Method	Ultrasonic
Display	LCD with Digital Display
Automatic Intake	Required
Separate function for calibration and correction	Required
Loose Accessories	<ul style="list-style-type: none"><li>• Holding bottom tray for spillage- 1 No.</li><li>• RS 232 Serial Cable – 1 No.</li><li>• A C Power cable with plug top – 1 No.</li><li>• Measuring Mugs- 2 No(s)</li><li>• Daily cleaning solution – No. of Bottle 3 (Quantity minimum 200 ml or equivalent) (Should bear Date of manufacturing, Date of Expiry).</li><li>• Weekly cleaning solution – No. of Bottle 2 ( Quantity minimum 200 ml or equivalent) (Should bear Date of manufacturing, Date of Expire) or</li><li>• Monthly cleaning solution – No. of Bottle 1 ( Quantity minimum 200 ml or equivalent) (Should bear Date of manufacturing, Date of Expire)</li></ul>
Memory	Cleaning, Correction & Calibration records with time Stamp. OTP based calibration feature must be given free of cost.



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Mobile Application	Bluetooth enabled mobile application
Manual	Operating Manual each in English & Bengali
Certificate	Milk Analyzer must be CE/ISO certified.
Secured calibration	Milk-Analyzer should be Bluetooth enabled device and secured calibration is possible through mobile. Only authorized person can operate through secured mobile app, hence error free calibration without any manual intervention. All the historical data of calibration is stored on the cloud.
Preventive maintenance	The system should be capable of recording cleaning data and error log, which is stored on the cloud accessible and downloadable free of cost for 5 years. This data may provide actionable alerts for preventive maintenance.

### 2. ULTRASONIC MILK SAMPLE STIRRER

Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.
Type	Table top, Ultrasonic Stirrer
Stirrer for Ultrasonic Stirrer	SS Ball type
Ultrasonic Frequency	20-25 KHz (Variable)
Timer	1-99 Sec Selectable
Environment	Suitable for dusty / humid village environment, operating temperature – 5°C to 50°C
Connecting Cables	Minimum 1.5 m Power cable with plug top.
Complete ready to use	Item complete in all respect with required electric / electronic parts, ready for use at site.
MoC for body	AISI 304, 1.2 mm thick minimum Minimum 180 grit finishing and no sharp edges.
Operating Voltage	230 Volts+/-10, AC, 50Hz and 12 Volts DC

### 3. UPS

UPS Make	<b>EXIDE</b>
Functional Requirement	To give regulated AC power to AMCU from mains or attached battery
Type	Line interactive type
Capacity	1500 VA minimum
Back up time (Full Load)	3- hrs. minimum ( in one shift)
Output Wave Form	Sine Wave/ Quasi Sine wave
Voltage at input	160-280 V (± 10%)
D C Voltage Bus	24 V
Voltage at output (With Mains as well as with Battery) with in-built AVR	220V + / - 10%
Full protection	Inbuilt protection –Under / Over voltage, Short circuit, Overload Cut off, Low Battery Cut-off, Spikes cut-off
Warning (LED + Sound)	Low Battery & Overloads
Input/ Output Frequency	50Hz + / - 3 Hz, No Correction
Battery switch over	Battery switch over in 3 -10 millisecond



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Battery Charging	<ul style="list-style-type: none"><li>• Preferably to take place even at 130 &amp; 300 V with SMPS charger.</li><li>• Boost charging at minimum 7A.</li><li>• Battery overcharge protection.</li></ul>
Battery No and Type	2 No 100 AH Tubular, Acid filled, low maintenance battery with level in indicator ( Battery should be Maintenance free)
Charging Indicator	Battery charging indicator plus low battery / fault indicator to be provided
Battery Steel Rack	Required
Leads between UPS & Battery	Flexible, Cu conductor PVC, Minimum 1.5 m with lugs at both ends.
Warranty of Battery	5 years. In case of any manufacturing defect or poor workmanship which leads to regular malfunctioning the material shall be immediately replaced by the bidder.
Steel rack for UPS	Required to place UPS above floor
No load loss at 24 Volt when UPS is ON	Minimum

#### 4. REMOTE DISPLAY UNIT

Functional Requirement	To display pourer members milk collected & milk testing and other selected parameters in English and Bengali (Local Language).
Type	Wall mounted type
Display Parameters – 8 No.	<ul style="list-style-type: none"><li>i) Member's code-3 to 16 digits,</li><li>ii) Cattle Type – 1 character,</li><li>iii) Milk Weight – 5 digits,</li><li>iv) Fat % - 4 digits,</li><li>v) SNF % - 4 digits,</li><li>vi) Rate in Rs- 5 digits,</li><li>vii) Amount in Rs- 6 digits generally to meet the need of the users.</li></ul>
Interface	RS- 232 / USB Host
Display Type	7 Bright segments, Red LED, 25 mm, 33 No., 11 in each row with 3 rows ( or suitable to meet the requirement)
Labels for display	Screen printed
Environment	Dusty, Humid, preferably housing to be with IP 55 or equivalent protection, rust proof powder coated metallic.
Connection Cables	Minimum 5 m Power cable with plug top with connector at both ends, Minimum 5 m Data cable with connector at both ends.

#### 5. COMPUTER

Hardware & Software	Models of PC offered should be of Enterprise / Business Class Desktop PC (OEM). Home / SMB Class Desktop PC shall not be accepted.
Make	<b>HP/LENOVO/DELL</b> (Computers other than these makes shall not be accepted)
Processor	12th Generation Intel Core i5 or higher.
Form Factor	Tower Model
Chipset	Intel Chipset Supporting the above processor
Memory	8 GB DDR4 SDRAM
Internal Storage	500 GB SSD (Solid State Drive NVME/M.2)
Graphics	Integrated Intel HD Graphics supporting 1600 x 1200 resolutions



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Audio	Integrated high definition audio
Network	10/100/1000 Mbps Gigabit Ethernet. Device must support USB Tethering from Smartphones or USB dongles.
Wireless	Realtek RTL8821CE-M 802.11a/b/g/n/ac (1x1) Wi-Fi® and Bluetooth® 4.2 wireless card.
Display Monitor	18.5" wide screen LCD/ LED Backlit TFT Colour HD Monitor with 1366 x 768 native Resolutions.
Input Devices	USB standard Keyboard and USB Optical 2 button Scroll Mouse with Mouse Pad
Ports & Connectors	3 Serial Port, 1 Parallel Port, 1 VGA Port, 1 HDMI Port, 1 Microphone / Headphone jack, 1 RJ45 Port.
USB Ports	6 USB 2.0 Ports ( Min. two on front and two on rear side)
PCI Slots	Minimum 2 free PCI Slots.
Compatibility	Windows 11/ Windows 10/ Windows 8 / Windows 7 / Vista / 2008 / 2012, Linux Compliant.
Operating System	Licensed Windows 10 professional 64 bit Preloaded.
Warrantee obligation	1. Problem resolved within 24 hours of attending the call. 2. Within 48 hours in case any part is be replaced.
Scope of work	Installation and configuration
Application Software	It is the discretion of the milk union to operate in either NDDDB developed AMCS application or any other application as deemed fit by the milk union.

### 6. DOT MATRIX PRINTER

Make	<b>EPSON</b>
Print Method	• Impact Dot Matrix external printer
Pins in head	• 24 pins
Print Direction	• Bi-direction parallel interface UBC 2.0 (Full speed)
Print speed	• 300 cps high speed draft, LQ and other features
Printable column	• 80 ( 10 cpi)
Paper Handling	• Pull tractor unit
Paper Path	• Manual insertion –front or rear in – top out; Push Tractor- front or rear in – top out, Pull tractor – front or rear or bottom in and top out.
MTBF (hours at 25% duty cycle)	• 10000 POH (25% Duty)
Copy Capability	• Original + 3 copies
Cartridge	• Ribbon cartridge black, with 2.5 million characters
Compatible OS with drivers	• MS Windows 11/ 10/ 8 / 7 /Vista / XP (32 bit /64 bit), Windows Server 2003 /2008/ 2012 (32 bit /64 bit), Mac OS X v 10.3.9, 10.4, 10.5, 10.6, UNIX, LINUX.
Accessories	• Roll stand

### 7. ELECTRONIC WEIGHING SCALE

Functional Requirement	To Electronically weigh & digital display of milk quantity in liter/kg in a container
Capacity	200 liter/kg.
Least Count	20 ml/gram.
Weight Accuracy	20 ml/gm as per Standards of W & M Rules 1987 medium accuracy Class III



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Certification & Stamping	Duly certified and stamped by W&M Dept. and confirming to IS :9281 (pt 1&2)1979, IS:9281 : 1981and IS:9281(Pt. 4) 1983 as amended up-to date
Display Resolution	1 / 10,000,( accuracy class III)
Load Cell	Single, IP 67, grade SS of certified and approved make
Over load & shock load protection	300% to take impact of loading, with audio (beep) visual indication
Platform Size	600mm x 600mm
Platform MoC	AISI SS 304, 1.6mm thick, 150 grit top plate
Platform under frame material / Design	Cold rolled mild steel box of adequate size. Hot dip galvanized after fabrication. All screw / bolts/ nuts to be of SS
Indication in display EWS unit	Quantity- 7 Segment RED LED, 6 digits, minimum 13mm height, display for mode of operation – zero, tare, kg / litre, by default KG
Display Unit mounting	<ul style="list-style-type: none"> <li>• Pole mounted type with sturdy base and SS 304, 38 mm dia. Pipe – 1.2 m high.</li> <li>• SS 304 Body IP 55, Tactile switch keys with feedback response, auto calibration &amp; auto span with drift correction.</li> <li>• RS 232 serial port with protocol to meet requirement of IBM compatible.</li> </ul>
Calibration protection & Sealing Arrangement	<ul style="list-style-type: none"> <li>• Special arrangement to house PCB &amp; sealing arrangement.</li> <li>• Pass word protection at user end.</li> <li>• Password change facility.</li> </ul>
Load cell Cable	Load cell cable form platform to display unit with reinforced heavy duty PVC conduit
Battery for working on power failure	In built, 6 V capacity minimum for 12 hrs.
Power Supply	As given above with minimum 1 m power cable with plug top AC/DC
Model Approval	Manufacturer to have model approval certificate of regulatory authority / Govt. of India (Weight & Measure Unit)
Stamping at site	Supplier to arrange stamping of each scale at site from local Weights & Measure Inspector before installation. Supplier should include the cost of stamping in the unit rate of AMCU for 5 years. Stamping of each weighing scale for each year will be in the scope of the Supplier.

### 8. EARTHING - ELECTRODE GEL TYPE

Technology	Earth Electrode (Gel type) maintenance free earthing. Mineral Filling Compound (MFC), Surrounded to earth electrode creates low resistance zone so that output is constant for longer life.
Pipe Material	Galvanized Pipe as per IS : 1239
Class of Pipe	Class – B
Diameter (Outer Dia.)	48 mm
Length	2 Meter
Wall Thickness	2.5 mm
Primary Electrode	Mild Steel Strip
Mild Steel Strip	2.12 m long, 32 mm wide and 6 mm thick
MS Strip Hot dip Galvanized thickness	110 micron
Gel Filled	Highly non- corrosive compound
Earth wire to connect Electrode with Power supply.	Copper 10 m long & 8 mm diameter suitable for interconnection
Filling compound	Adequate



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Civil works	Closed pit/chamber to secure the earthing. Earthing: Bidder should install and provide all inputs / material for proper earthing as per IS Code / Local Electricity Board Regulation. The scope of work includes excavation for earth pit, construction of chamber, filling with necessary materials (filling compound) and complete with cover. Supplier will test and demonstrate the resistance as per local EB requirement and furnish record as required.
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**N.B:**

- RS-232 cable connecting Analyzer to CPU, Weighing Scale to CPU must be industry grade with 1.5 m length.
- All power cords should be BIS and ISI marked. IS 1293:2019 (PLUG), IS 694 (CORD), IEC 60320 (CONNECTOR). Length 2.5 meters. Color: Black.

Sd/-  
**Managing Director**  
**The Bhagirathi Milk Union**





# The Bhagirathi Co-operative Milk Producers' Union Limited

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## Annexure – I

### AFFIDAVIT

**(To be furnished in a Hundred Rupees Non-Judicial Stamp Paper duly Certified by Notary Public)**

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 NDDDB 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. I/We agreed to execute a formal Agreement embodying the terms & conditions of the Tender.

**Dated Signature of Applicant with Seal:**

To be signed by the officer authorized by the Firm/Company to sign on behalf, the Firm/Company with company's seal)

**Note:** In case of sole proprietary concern, affidavit should be signed only by the sole proprietor.

(Title of the Officer)

(Title of the firm/Company)

(Date)

The above named deponent has understood the contents well and solemnly and sincerely declared and affirmed by the deponent in my presence at.....and signed before me on this day of

..... (Seal).

**(Signature of the Notary Public)**



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## ANNEXURE-II

### SPECIFICATION OF COMPONENTS OF AMCUs

#### 1. MILK ANALYZER

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Type	<p><b>Ultrasonic principle-based milk analyzer for testing fat, SNF, Protein, lactose, density &amp; added water etc.</b></p> <p>Functional Requirement: To test &amp; display fat, SNF &amp; added water of sample milk, protein and lactose.</p> <p>Measuring parameters:</p> <p>1. <b>Fat:</b> 0.5% to 12%, with accuracy + / - 0.1%, with Resolution: 0.01% and Repeatability: + / - 0.05%.</p> <p>2. <b>SNF:</b> 6 % to 12 % , with accuracy + / - 0.2%, with Resolution : 0.01% and Repeatability: + / - 0.05%.</p> <p>3. <b>Added water in Milk:</b> 0% to 60% with Resolution: 1% and accuracy 0.5%.</p> <p>4. <b>Protein:</b> 2% to 6% with accuracy +/-0.2%</p> <p>5. <b>Lactose:</b> 0% to 5% with accuracy +/- 0.2%</p> <ul style="list-style-type: none"><li>• Measuring cycle – 40 Sec per sample</li><li>• Average testing speed – 80 samples / hr. (minimum).</li></ul> <p>Milk sample Temperature: 10<sup>0</sup>C – 45<sup>0</sup>C</p>		
Operational abilities	Mode selection for type of milk -(1) Cow, Buffalo, Mixed / Single Curve with Cleaning, Calibration, System error list etc.		
MoC for enclosure	AISI 304, 0.75 mm thick minimum. Minimum 180 grit finishing and no sharp edges.		
Cleaning Procedure	Automatic & Manual		
Power	12 Volt DC/220 Volt AC		
Interface	RS 232		
Method	Ultrasonic		



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Display	LCD with Digital Display		
Automatic Intake	Required		
Separate function for calibration and correction	Required		
Loose Accessories	<ul style="list-style-type: none"><li>• Holding bottom tray for spillage- 1 No.</li><li>• RS 232 Serial Cable – 1 No.</li><li>• A C Power cable with plug top – 1 No.</li><li>• Measuring Mugs- 2 No(s)</li><li>• Daily cleaning solution – No. of Bottle 3 (Quantity minimum 200 ml or equivalent) (Should bear Date of manufacturing, Date of Expire).</li><li>• Weekly cleaning solution – No. of Bottle 2 ( Quantity minimum 200 ml or equivalent) (Should bear Date of manufacturing, Date of Expire) or</li><li>• Monthly cleaning solution – No. of Bottle 1 ( Quantity minimum 200 ml or equivalent) (Should bear Date of manufacturing, Date of Expire)</li></ul>		
Memory	Cleaning, Correction & Calibration records with time Stamp. OTP based calibration feature must be given free of cost.		
Mobile Application	Bluetooth enabled mobile application		
Manual	Operating Manual each in English & Bengali		
Certificate	Milk Analyzer must be CE/ISO certified.		
Secured calibration	Milk-Analyzer should be Bluetooth enabled device and secured calibration is possible through mobile. Only authorized person can operate through secured mobile app, hence error free calibration without any manual intervention. All the historical data of calibration is stored on the cloud.		
Preventive maintenance	The system should be capable of recording cleaning data and error log, which is stored on the cloud accessible and downloadable free of cost for 5 years. This data may provide actionable alerts for preventive maintenance.		



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### 2. ULTRASONIC MILK SAMPLE STIRRER

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.		
Type	Table top, Ultrasonic Stirrer		
Stirrer for Ultrasonic Stirrer	SS Ball type		
Ultrasonic Frequency	20-25 KHz (Variable)		
Timer	1-99 Sec Selectable		
Environment	Suitable for dusty / humid village environment, operating temperature – 5 <sup>o</sup> C to 50 <sup>o</sup> C		
Connecting Cables	Minimum 1.5 m Power cable with plug top.		
Complete ready to use	Item complete in all respect with required electric / electronic parts, ready for use at site.		
MoC for body	AISI 304, 1.2 mm thick minimum Minimum 180 grit finishing and no sharp edges.		
Operating Voltage	230 Volts+/-10, AC, 50Hz and 12 Volts DC		

### 3. UPS

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
UPS Make	<b>EXIDE</b>		
Functional Requirement	To give regulated AC power to AMCU from mains or attached battery		
Type	Line interactive type		
Capacity	1500 VA minimum		
Back up time (Full Load)	3- hrs. minimum ( in one shift)		
Output Wave Form	Sine Wave/ Quasi Sine wave		
Voltage at input	160-280 V (± 10%)		
D C Voltage Bus	24 V		
Voltage at output (With Mains as	220V + / - 10%		



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well as with Battery) with in-built AVR			
Full protection	Inbuilt protection –Under / Over voltage, Short circuit, Overload Cut off, Low Battery Cut-off, Spikes cut-off		
Warning (LED + Sound)	Low Battery & Overloads		
Input/ Output Frequency	50Hz + / - 3 Hz, No Correction		
Battery switch over	Battery switch over in 3 -10 millisecond		
Battery Charging	<ul style="list-style-type: none"><li>• Preferably to take place even at 130 &amp; 300 V with SMPS charger.</li><li>• Boost charging at minimum 7A.</li><li>• Battery overcharge protection.</li></ul>		
Battery No and Type	2 No 100 AH Tubular, Acid filled, low maintenance battery with level in indicator ( Battery should be Maintenance free)		
Charging Indicator	Battery charging indicator plus low battery / fault indicator to be provided		
Battery Steel Rack	Required		
Leads between UPS & Battery	Flexible, Cu conductor PVC, Minimum 1.5 m with lugs at both ends.		
Warranty of Battery	5 years. In case of any manufacturing defect or poor workmanship which leads to regular malfunctioning the material shall be immediately replaced by the bidder.		
Steel rack for UPS	Required to place UPS above floor		
No load loss at 24 Volt when UPS is ON	Minimum		



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### 4. REMOTE DISPLAY UNIT

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Functional Requirement	To display pourer members milk collected & milk testing and other selected parameters in English and Bengali (Local Language).		
Type	Wall mounted type		
Display Parameters – 8 No.	viii) Member's code-3 to 16 digits, ix) Cattle Type – 1 character, x) Milk Weight – 5 digits, xi) Fat % - 4 digits, xii) SNF % - 4 digits, xiii) Rate in Rs- 5 digits, xiv) Amount in Rs- 6 digits generally to meet the need of the users.	xv)	xvi)
Interface	RS- 232 / USB Host		
Display Type	7 Bright segments, Red LED, 25 mm, 33 No., 11 in each row with 3 rows ( or suitable to meet the requirement)		
Labels for display	Screen printed		
Environment	Dusty, Humid, preferably housing to be with IP 55 or equivalent protection, rust proof powder coated metallic.		
Connection Cables	Minimum 5 m Power cable with plug top with connector at both ends, Minimum 5 m Data cable with connector at both ends.		

### 5. COMPUTER

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Hardware & Software	Models of PC offered should be of Enterprise / Business Class Desktop PC (OEM). Home / SMB Class Desktop PC shall not be accepted.		
Make	<b>HP/LENOVO/DELL</b> (Computers other than these makes shall not be accepted)		
Processor	12th Generation Intel Core i5 or higher.		
Form Factor	Tower Model		



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Chipset	Intel Chipset Supporting the above processor		
Memory	8 GB DDR4 SDRAM		
Internal Storage	500 GB SSD (Solid State Drive NVME/M.2)		
Graphics	Integrated Intel HD Graphics supporting 1600 x 1200 resolutions		
Audio	Integrated high definition audio		
Network	10/100/1000 Mbps Gigabit Ethernet. Device must support USB Tethering from Smartphones or USB dongles.		
Wireless	Realtek RTL8821CE-M 802.11a/b/g/n/ac (1x1) Wi-Fi® and Bluetooth® 4.2 wireless card.		
Display Monitor	18.5" wide screen LCD/ LED Backlit TFT Colour HD Monitor with 1366 x 768 native Resolutions.		
Input Devices	USB standard Keyboard and USB Optical 2 button Scroll Mouse with Mouse Pad		
Ports & Connectors	3 Serial Port, 1 Parallel Port, 1 VGA Port, 1 HDMI Port, 1 Microphone / Headphone jack, 1 RJ45 Port.		
USB Ports	6 USB 2.0 Ports ( Min. two on front and two on rear side)		
PCI Slots	Minimum 2 free PCI Slots.		
Compatibility	Windows 11/ Windows 10/ Windows 8 / Windows 7 / Vista / 2008 / 2012, Linux Compliant.		
Operating System	Licensed Windows 10 professional 64 bit Preloaded.		
Warrantee obligation	1. Problem resolved within 24 hours of attending the call. 2. Within 48 hours in case any part is be replaced.		
Scope of work	Installation and configuration		
Application Software	It is the discretion of the milk union to operate in either NDDDB developed AMCS application or any other application as deemed fit by the milk union.		



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### 6. DOT MATRIX PRINTER

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Make	<b>EPSON</b>		
Print Method	• Impact Dot Matrix external printer		
Pins in head	• 24 pins		
Print Direction	• Bi-direction parallel interface UBC 2.0 (Full speed)		
Print speed	• 300 cps high speed draft, LQ and other features		
Printable column	• 80 ( 10 cpi)		
Paper Handling	• Pull tractor unit		
Paper Path	• Manual insertion –front or rear in – top out; Push Tractor- front or rear in – top out, Pull tractor – front or rear or bottom in and top out.		
MTBF (hours at 25% duty cycle)	• 10000 POH (25% Duty)		
Copy Capability	• Original + 3 copies		
Cartridge	• Ribbon cartridge black, with 2.5 million characters		
Compatible OS with drivers	• MS Windows 11/ 10/ 8 / 7 /Vista / XP (32 bit /64 bit), Windows Server 2003 /2008/ 2012 (32 bit /64 bit), Mac OS X v 10.3.9, 10.4, 10.5, 10.6, UNIX, LINUX.		
Accessories	• Roll stand		

### 7. ELECTRONIC WEIGHING SCALE

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Functional Requirement	To Electronically weigh & digital display of milk quantity in liter/kg in a container		
Capacity	200 liter/kg.		
Least Count	20 ml/gram.		
Weight Accuracy	20 ml/gm as per Standards of W & M Rules 1987 medium accuracy Class III		
Certification & Stamping	Duly certified and stamped by W&M Dept. and confirming to IS :9281 (pt 1&2)1979, IS:9281 : 1981and IS:9281(Pt. 4) 1983 as amended up-to date		





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Display Resolution	1 / 10,000,( accuracy class III)		
Load Cell	Single, IP 67, grade SS of certified and approved make		
Over load & shock load protection	300% to take impact of loading, with audio (beep) visual indication		
Platform Size	600mm x 600mm		
Platform MoC	AISI SS 304, 1.6mm thick, 150 grit top plate		
Platform under frame material / Design	Cold rolled mild steel box of adequate size. Hot dip galvanized after fabrication. All screw / bolts/ nuts to be of SS		
Indication in display EWS unit	Quantity- 7 Segment RED LED, 6 digits, minimum 13mm height, display for mode of operation – zero, tare, kg / litre, by default KG		
Display Unit mounting	<ul style="list-style-type: none"><li>• Pole mounted type with sturdy base and SS 304, 38 mm dia. Pipe – 1.2 m high.</li><li>• SS 304 Body IP 55, Tactile switch keys with feedback response, auto calibration &amp; auto span with drift correction.</li><li>• RS 232 serial port with protocol to meet requirement of IBM compatible.</li></ul>		
Calibration protection & Sealing Arrangement	<ul style="list-style-type: none"><li>• Special arrangement to house PCB &amp; sealing arrangement.</li><li>• Pass word protection at user end.</li><li>• Password change facility.</li></ul>		
Load cell Cable	Load cell cable form platform to display unit with reinforced heavy duty PVC conduit		
Battery for working on power failure	In built, 6 V capacity minimum for 12 hrs.		
Power Supply	As given above with minimum 1 m power cable with plug top AC/DC		
Model Approval	Manufacturer to have model approval certificate of regulatory authority / Govt. of India (Weight & Measure Unit)		
Stamping at site	Supplier to arrange stamping of each scale at site from local Weights & Measure Inspector before installation. Supplier should include the cost of stamping in the unit rate of AMCU for		



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	5 years. Stamping of each weighing scale for each year will be in the scope of the Supplier.		
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### 8. EARTHING - ELECTRODE GEL TYPE

Parameters	Technical Specification as per Tender	Technical Specification to be provided by the bidder in this Tender	Is Compliant (Yes/No)
Technology	Earth Electrode (Gel type) maintenance free earthing. Mineral Filling Compound (MFC), Surrounded to earth electrode creates low resistance zone so that output is constant for longer life.		
Pipe Material	Galvanized Pipe as per IS : 1239		
Class of Pipe	Class – B		
Diameter (Outer Dia.)	48 mm		
Length	2 Meter		
Wall Thickness	2.5 mm		
Primary Electrode	Mild Steel Strip		
Mild Steel Strip	2.12 m long, 32 mm wide and 6 mm thick		
MS Strip Hot dip Galvanized thickness	110 micron		
Gel Filled	Highly non- corrosive compound		
Earth wire to connect Electrode with Power supply.	Copper 10 m long & 8 mm diameter suitable for interconnection		
Filling compound	Adequate		
Civil works	Closed pit/chamber to secure the earthing. Earthing: Bidder should install and provide all inputs / material for proper earthing as per IS Code / Local Electricity Board Regulation. The scope of work includes excavation for earth pit, construction of chamber, filling with necessary materials (filling compound) and complete with cover. Supplier will test and demonstrate the resistance as per		



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	local EB requirement and furnish record as required.		
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<b>Parameters</b>	<b>Technical Specification as per Tender</b>	<b>Technical Specification to be provided by the bidder in this Tender</b>	<b>Is Compliant (Yes/No)</b>
<b>Cables &amp; Accessories</b>	<ul style="list-style-type: none"><li>• RS-232 cable connecting Analyzer to CPU, Weighing Scale to CPU must be industry grade with 1.5 m length.</li><li>• All power cords should be BIS and ISI marked. IS 1293:2019 (PLUG), IS 694 (CORD), IEC 60320 (CONNECTOR). Length 2.5 meters. Color: Black.</li><li>• All accessories should be of BIS Standard</li></ul>		



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**ANNEXURE-III**

**RATE TO BE QUOTED BY THE BIDDER**

<b>SL. No.</b>	<b>Particulars</b>	<b>Price to be quoted by the bidder inclusive of all taxes and levies</b>
1	Supply Installation and Commissioning of 400 no(s) of AMCU Sets in two phases of 200 each as per terms and conditions specified in the Tender Notice	To be Quoted by the bidder

I have gone through the Reverse Auction/Tender Notice understood the terms and conditions and do hereby quote my rate in the prescribed format which shall not be subjected to escalation till the tenure of the Contract.

Signature of the Authorized Signatory

Date:

Place:

[Seal of the Company]

Sd/-  
Managing Director  
The Bhagirathi Milk Union



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### Price of Consumables required to execute the Contract

#### ANNEXURE-IV

Sl. No.	Name of Item	UOM	Basic Price	GST	Price FOR BCMPUL inclusive of all
1	Daily Cleaning Solution	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder
2	Weekly Cleaning Solution	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder
3	Monthly Cleaning Solution	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder
4	Plunging Stick	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder
5	Distilled Water for Battery Make Exide	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder
6	Any other consumable not mentioned but is essential to carry on the service	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder	To be quoted by the bidder

I have gone through the Reverse Auction/Tender Notice understood the terms and conditions and do hereby quote my rate in the prescribed format.

Signature of the Authorized Signatory

Date:

Place:

[Seal of the Company]

Sd/-

Managing Director  
The Bhagirathi Milk Union