



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

BU/MDO/RIDFXXIX/1235

Date: 04.11.2025

Reverse Auction for Procurement, Installation and Commissioning of 1 no(s) 15 KL vertically insulated milk silo with foundation and accessories.

The Bhagirathi Cooperative Milk Producers' Union Limited Invites Tender/ Reverse Auction for Procurement, Installation and Commissioning of 15KL vertically insulated milk silo with foundation and accessories as per specification terms and conditions mentioned hereunder in two bid system:

Scope of Work	Supply, Installation and Commissioning of 1 no(s) 15 KL vertically insulated milk silo with foundation and accessories.
Bid Inviting Authority	The Managing Director of The Bhagirathi Cooperative Milk Producers' Union Limited
Estimated Cost of Work	18,00,000/-
EMD	36,000/-
Technical Bid Documents to be furnished by bidder	1. Declaration in the letterhead of that the firm/agency/company is Original Equipment Manufacturer of Milk Silos. 2. Company Documents like MOA, AOA/Partnership/Proprietorship deed, Trade License/Certificate of Enlistment. 3. Company declaration of a minimum of 3 years of work experience in supply, installation and commissioning of at least 10 no(s) 15 KL or above Milk Silos, Storage tanks, BMCs etc to any Milk Union or Federation. (Work Orders or Completion Certificates in support of same must be provided) 4. Minimum Turnover of Rs 1 crore. Audited Balance Sheet of previous three consecutive financial years (21-22, 22-23 and 23-24). Companies with decreasing turnover shall not be considered. 5. Income Tax Return of previous three consecutive financial years (21-22, 22-23 and 23-24). 6. PAN CARD and GSTIN (GST Registration Certificate) 7. Details of Manufacturing Unit, Service Unit with Staff strength designation, qualification and experience must be uploaded. 8. AFFIDAVIT as per ANNEXURE-I 9. The Company which are blacklisted by our organization, any organization or by NDDB are not eligible to bid otherwise, bid will not be accepted and EMD may be forfeited. Even an order issued to such a bidder may get cancelled. 10. The technical team of BCMPUL may inspect the required infrastructure available with the bidder before finalization of the tender.



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

Terms and Condition:

1. 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.
2. 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.
3. **Bid Validity:** The Rate once is quoted in this tender should be valid for a period of 365 days from the date of Financial Bid Evaluation. Bidders are therefore required to assess their rates before quoting them.
4. **Rejection of bid:** Milk Union may reject the bid from any party with unsatisfactory performance with the Milk Union or any other Milk Union in the past.
5. **Price:** Price consists of the cost of the equipment, dispatch, transit insurance, (necessary cost of civil construction for the 15 KL vertical insulated storage tank) along with installation and commissioning of the unit along with trial run and satisfactory operational training of the entire unit with two years of comprehensive warranty along with all taxes and levies. All components and consumables required in testing and commissioning must be taken into account by the bidder before quoting the rates.
6. **Training:** The supplier shall provide operational and safety training to at least 2 personnel of the milk union at the time of commissioning of the unit without any extra cost.
7. **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:** 80% payment shall be released after receipt of the material in good condition. Transit Insurance shall be the responsibility of the supplier. Goods unless received by the Milk Union shall be the responsibility of the supplier and no claim in this regard shall be entertained. EMD shall also be released after delivery of materials and after receipt of an intimation in writing from the supplier.
 - b) **Second Phase:** 10% payment shall be released after 1 month of successful installation and commissioning of the entire Unit certified by the Concerned Official and approved by the Competent Authority.
 - c) **Third Phase:** 10% payment shall be released after 1 month of submission of equivalent amount bank guarantee valid for a period of 2 years. This shall serve as Performance Guarantee. In case the supplier 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 operations of the Milk Union, 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.
8. **Warranty:** Warranty period shall be twenty-four months from the date of Commissioning of the installed unit from the principal company. Requisite document / warranty papers should be furnished by the Supplier after installation and commissioning of the machines. Machines not accompanied by warranty papers after commissioning will be rejected.



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

9. If the silo is not operational as a result of manufacturing defect or as a result of poor workmanship the machine has to be replaced by the supplier.
10. **Delivery:** Supply, installation & commissioning of the ordered item with all accessories must be completed within 30 to 45 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. It is obligatory for the bidder to note that failure to maintain delivery & i/c schedule of ordered item will hold the supplier responsible & action will be taken strictly as per tender rules laid down herein without any prejudice or any short of plea will not be considered except any incident occurred "by act of god" or non-readiness of site by any means may be considered only.
11. **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 or any Chilling Plant of Bhagirathi in Murshidabad district.
12. **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.
 - a. Liquidated damages of 0.5% per week subject to a maximum of 10% of the total cost of materials shall be charged if goods are not delivered in time or there is a delay in service during the Warranty period, and the amount will be deducted from the Security Deposit or Performance Guarantee or bill of the supplier.
 - b. 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.
13. **Rate Quoted:** The rate quoted by the bidder shall be inclusive of all taxes GST and other charges/taxes if any for the delivery of the goods in the office of The Bhagirathi Cooperative Milk Producers' Union Ltd.
14. Mode of transportation for the supply of the goods to our site will be arranged by the bidder.
15. Materials dispatched from the bidder until or unless reaches the Place of Delivery 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.
16. **Loading and Unloading:** Unloading material at site shall be arranged by the Milk Union. The supplier is required to inform well in advance before dispatch of material.
17. **Civil works:** Civil work for foundation shall be in the scope of the supplier.
18. **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 to the latest Indian Standards.
19. **Registration of Goods:** If required under the Applicable Law, goods supplied under the Agreement shall be registered for use in India.
20. **Packing:** The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their destination, as indicated in the Purchase Order.



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

21. **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: 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.
22. **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.
23. **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.
24. **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.
25. **Applicable Law:** The Agreement shall be interpreted in accordance with the laws of Union of India.
26. **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.
27. The undersigned reserves the right to accept or reject any tenders and to cancel the entire tender process at any point of time without assigning any reason whatsoever.

Sd/-

**Managing Director
The Bhagirathi Cooperative
Milk Producers' Union Limited**



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

Technical Specification of 15 KL Vertically Insulated Milk Storage Silo with accessories

Functional Requirements:

The milk silo would be used to store chilled thick milk at 3 to 4°C temperature.

Design Requirements and Capacity:

15000 Liters. The volume of the silo should be such that after filling it unto this rated capacity the level would be at least 100 mm below the line where cylindrical shell joins the conical top (i.e.) The gross capacity should be at least 10% higher than the rated capacity as above to avoid agitational or accidental spillage of milk.

Constructional Features:

Double walled, insulated and welded construction of sanitary design.

Slope: The bottom of the silo should have 1:15 slope towards inlet cum outlet for free and complete drainage of liquid.

Metal contact:

The only metal to metal contact between the inner and the outer shells should be at the places where fittings for the tank are provided. At the places where mild steel stiffeners are provided insulated padding should be fixed between the inner stainless-steel shell and stiffeners.

Finish: All welding joints should be polished smoothly. All stainless-steel surfaces are to be polished to 150 grits.

Joint Curvature:

The radii of all welded and permanent attachment joints should be at least 6 mm. Where the conical top and flat bottom join the cylindrical shell, the radii should not be less than 25 mm.

Installation:

It should be suitable for outside installation. The accessories mounted on top should be weather-proof.

Scope of Supply:

Inner cylindrical body. The inner shell, conical top and flat bottom should be fabricated from 3.0 mm, 3 mm and 3 mm thick SS plates respectively confirming to AISI SS 304 – 1 No.

Outer Cylindrical Body:

The outer shell, conical top and flat bottom should be fabricated from 2 mm, 2 mm and 4 mm thick stainless-steel plates respectively conforming to AISI – SS 304 – 1 No. Stiffeners between inner and outer shells and supporting structure for bottom of mild steel to be provided.

Insulation:

The entire inner shell (including the alcove portion) conical top and flat bottom should be insulated with rigid Polyurethane Foam case-in-situ. The insulation will be homogenous on the entire surface of the inner shell, and the average insulation thickness shall be 80mm. The insulation material shall be applied in cast-in-situ method, and the material will have average density 32-36Kg/cu.cm and coefficient of thermal conductivity of 0.017w/mK. The stiffener rings also shall be insulated with suitable thermal plugs so that no metal-to-metal contact exists between the inner and outer shell. The insulation should with stand high temperature of 98°C during in place of cleaning. It should not permit more than 1°C rise in temperature in 24 hours when temperature gradient is 35° C. and milk temperature is 4°C.



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

Accessories:

63.5 mm dia. cup type inlet cum outlet with two-way stainless steel; (AISI -SS304) flanged butterfly valve ending with compete stainless steel union - 1 No.

Air Vent:

Stainless steel (AISI -SS304) 450 mm dia. air vent to prevent formation of partial vacuum during CIP and pressure during filling - 1 No. Stainless Steel (AISI -SS304) cleats should be provided near the air vent for fixing and hanging rope ladder - 1 No.

Man Way:

Oval shaped stainless steel (AISI -SS304) man way of dimensions approximately 550 x 405mm and provided with leak proof hinged insulated stainless steel (AISI -SS304) door with tightening and locking device. The manway door should open inward but at the same time, it can be taken out when necessary. The gasket should be of silicon rubber of food grade quality -1 No.

Sight Glass:

Stainless Steel (AISI -SS304) sight glass assembly should be provided with toughened glass. It should be provided in such a way that one can easily read from the lowest level upto the highest-level marks- 1 No.

Sand Blasted Level Marks:

It should be calibrated at 500 L Intervals and provided on the inner shell at opposite side of the sight glass.

Light Glass:

Stainless Steel (AISI -SS304) light glass assembly should be provided with toughened glass and stainless-steel lamp shade for mounting 24V and 100Watt bulb. The lamp holder should be made of brass - 1 No.

Agitator with Moter Starter:

It should be paddle type in Stainless steel (AISI -SS304) construction complete with geared motor of adequate capacity and should be able to uniformly mix milk in the tank within 10 minutes. The agitator shaft should consist of metal rod with high resistance to shearing and tangential force, gear coupling should be made of industrial grade / standard material. GEAR MOTOR should be provided with SS cover - 1 No.

Level Indicator/Transmitter:

Digital level indicator and transmitter flange type in stainless steel (AISI -SS304) food grade having accuracy of 0.25% should be installed. The preferred make is Yokogawa, Endre- Hausser, Siemens. 1 No.

Spray Ball:

Removable stainless steel (AISI -SS304) cleaning device located at the apex of the conical top to provide flooding of liquid over the complete interior surface during CIP. It should have stainless steel union at the outer end connection - 1 No.

Sampling Cock:

It should be provided on the inlet cum outlet and should be stainless steel (AISI -SS304) construction of sanitary design - 1 No.

Thermowell:

300 mm long stainless steel (AISI -SS304) inclined pocket suitable for mounting stem type dial thermometer should be suitably located in the alcove. It should have 21 mm BSP male threads (Digital thermometer is within the scope of supply).



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

Drain Hole:

The outer shell should be provided with one or more drain holes at the lowest point. Any aperture in the shell should be designed so as to prevent ingress of moisture. Lifting Lugs: Stainless steel (AISI -SS304) lifting lugs 16 mm should be provided at top. - 6 Nos.

Anchor Points:

Anchor points, pipes and sockets should be provided on the top of the tank so that safety railings and platform could be welded to them after installation - 1 set.

Ladder:

Suitable stainless-steel ladder fabricated in AISI SS 304 with necessary supports should be provided along with the body of the tanks.

Railing:

Circular railing made out of 38 mm dia. SS 304 pipe with 150 mm wide x 2mm thick SS kick plate to be provided all along the periphery of the tank. The railing shall be complete with suitable numbers of vertical posts of 900mm height. The railing pipes shall be supplied loose and assembled at site.

Painting:

All the mild steel stiffeners used in the construction of the silo should be painted with two coats of epoxy primer after thorough de-rusting.

Level probe socket:

Provision for high level and low-level probe sockets should be provided. A Stainless-steel panel to accommodate the Digital temperature indicator and digital level indicator with wiring should be fitted in front of the tank at visible height.

Erection and commissioning

- Unpacking, unloading and positioning of the silo in the specified place.
- Erection and commissioning of 15,000 Lts. Milk Silo on the concrete base.
- Mounting the agitator on the top of the silo.
- Supply and providing of safety ring guard on the top of the silo fabricated with 20 mm S.S pipes for a height of 1 meter and clad with the S. S pipes on the top peripheral.
- Supply and providing of foot guard with 6mm S.S sheet for a height of 150mm on the top peripheral along with the safety ring guard.
- Supply and providing 24 V lighting arrangements to the silo for the sight glass including materials and wiring like cable, 230 V/ 24 V transformer, Isolator, earthing and bulb.

Civil Foundation (Design & Execution)

- **Design:** RCC circular/annular foundation suitable for 15 KL vertical silo, considering soil SBC (bidder to verify at site; if not available, assume $\geq 150 \text{ kN/m}^2$ and confirm).
- **Foundation to include:** Isolated/pad footing or ring beam as per load, **M30 RCC**, Fe500 steel, anti-corrosion anchor bolt sleeves, and **cast-in M.S. base ring/plates** as required.
- **Anchor Bolts:** High-strength galvanized anchor bolts, template setting, grouting with non-shrink grout, torque proof.
- **Top Level & Plinth:** Finished top level to ensure proper **1:15 internal bottom slope** drainage to outlet; peripheral concrete apron with slope away from silo; PCC below RCC as required.



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

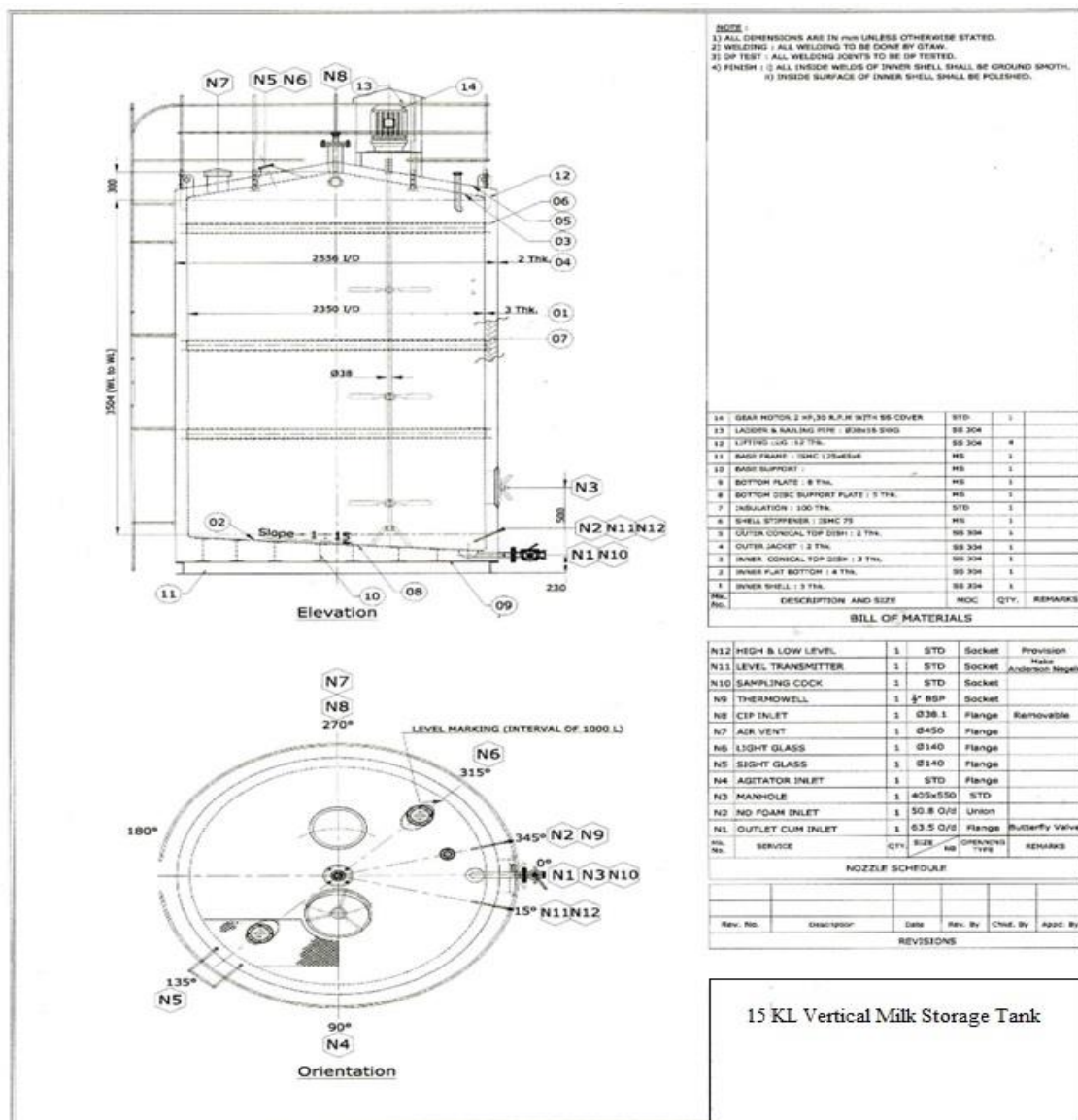
- **Earthing & Lightning:** Supply & installation of chemical earthing (2 Nos.) and lightning protection per IS:2309; bonding to silo shell where required.
- **Foundation Drawing & Calculations:** To be submitted for approval before execution; as-built to be handed over.

TESTS:

The following tests should be conducted by the manufacturer at its works:

1. Dye penetration test for welding joints.
2. Water fill-up test of inner vessel for water TIGHTNESS.
3. When man way is closed and cover tightened without gasket then the gap at any place between the man way neck and cover should not exceed 0.5 mm.

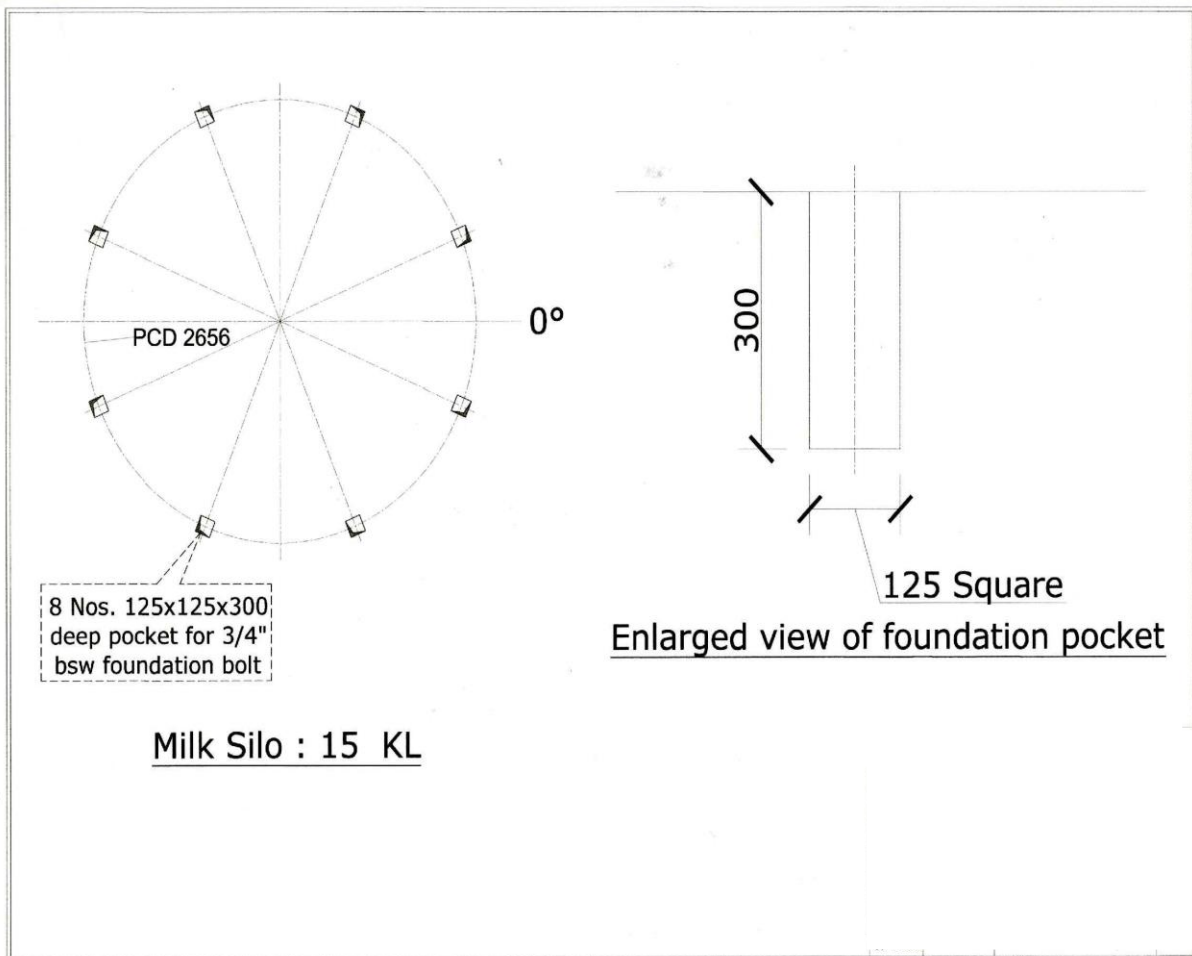
DIAGRAM OF SILO





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

DIAGRAM OF FOUNDATION



Sd/-
Managing Director
Bhagirathi Cooperative Milk
Producers Union Limited



The Bhagirathi Co-operative Milk Producers' Union Limited

(A Govt. of West Bengal Project)

Annexure – I

AFFIDAVIT

(To be furnished in a Twenty 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 abide by the terms & conditions of the Tender/Reverse Auction.

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)