

The Bhagirathi Co-op. Milk Producers' Union Ltd. Feeder Dairy: P.O-Berhampore: PIN -742101: Dist.-Murshidabad

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NOTICE INVITING TENDER

BU/DAIRY/RKVY(21-22)/0386

Dated: 11.05.2023

The Bhagirathi Cooperative Milk Producers' Union Limited invites Online Tender (E-Tender) in two bid system for supply, erection, installation and commissioning of 15 KL vertically insulated milk silo and accessories.

| Sl. No. | Particulars | Date & Time |
|---------|-------------------------------------------------------------|------------------------|
| 1 | Date of uploading (Publishing) of N.I.T. Documents (Online) | 11.05.2023 at 1500 hrs |
| 2 | Documents download start date (Online) | 11.05.2023 at 1505 hrs |
| 3 | Technical Bid proposal submission start date (Online) | 11.05.2023 at 1510 hrs |
| 4 | Bid Submission end date (Online) | 18.05.2023 at 1600 hrs |
| 5 | Technical bid opening date | 20.05.2023 at 1600 hrs |
| 6 | Pre bid Meeting | Nil |
| 7 | Financial Bid Opening date | To be notified later |

The details of work are given below:

| Nature of Work | Supply, erection, installation and commissioning of 15 KL vertically | |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | insulated milk silo and accessories | |
| Scope of Work | Supply, erection, installation and commissioning of 15 KL vertically | |
| | insulated milk silo and accessories | |
| Estimated Cost of Work 15,00,000/- | | |
| Bid Inviting Authority | The Managing Director of The Bhagirathi Cooperative Milk | |
| | Producers' Union Limited | |
| Eligibility Criteria | Credentials: | |
| | Experience: Minimum 3 year experience within the last five years in supply installation and commissioning of at least 5 no(s) of 15 KL milk silo and accessories. Experience certificate of 20 lakhs (min.) from competent authority supporting the claim must be uploaded in the Technical Bid Folder. Turnover: Average Annual Turnover from this business should be minimum 1.0 crore for the last 3 financial years. Audited Balance Sheet should be produced in support of the claim and must be uploaded in the Technical Bid Folder. | |
| Statutory & Non | 1. GST Registration Certificate | |
| Statutory Documents | 2. PAN Card | |
| | 3. IT Return and Audited Balance Sheet for last 3 financial years | |
| | 4. Documents in support of Credentials. | |
| | 5. Experience Certificate as referred above. | |

| | All these documents are mandatory. Failure to upload the documents | |
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| | will result in disqualification during technical bid. No document is to be sent physically. | |
| Earnest Money Deposit | The EMD amounting to Rs. 30,000/- should be deposited online through Net Banking, NEFT/RTGS in favour of The Bhagirathi Cooperative Milk Producers' Union Limited payable at Berhampore. EMD shall not carry interest. | |
| | Tenderers will select the Tender to bid and initiate payment of pre- defined EMD for that tender by selecting from either of the following payments modes (vide Finance Department Memorandum no. 3975-F(Y) Dt. 28/07/2016) : | |
| | 1. Net banking (any of the banks listed in the ICICI Bank Payment gateway) in case of payment through ICICI Bank Payment Gateway. | |
| | 2. RTGS/NEFT in case of offline payment through bank accounts in any Bank. | |
| | Payment procedure. | |
| | a) Payment by Net Banking (any listed bank) through IClCI Bank Payment Gateway : | |
| | 1. On selection of net banking as the payment mode, the bidder will be directed to ICICI Bank Payment Gateway webpage (along with a string containing a Unique ID) where he will select the Bank through which he wants to do the transaction. | |
| | 2. Bidder will make the payment after entering his Unique ID and password of the bank to process the transaction. | |
| | 3. Bidder will receive a confirmation message regarding success/failure of the transaction. | |
| | 3. If the transaction is successful, the amount paid by the bidder will get credited in the respective Pooling account of The Bhagirathi Cooperative Milk Producers' Union Limited maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road, Kolkata for collection of EMD/Tender Fees. | |
| | 4. For transaction failure, the bidder will again try for payment by going back to the first step. | |
| | b) Payment through RTGS/NEFT: | |
| | 1. On selection of RTGS/NEFT as the payment mode, the e- Procurement portal will show a pre-filled challan having the details to process RTGS/NEFT transaction. | |

| 2. The bidder will print the challan and use the pre-filled information to make RTGS/NEFT payment using his Bank account. |
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| 3. Once payment is made, the bidder Will come back to the e- Procurement portal after expiry of a reasonable time to enable the NEFT/RTGS process to complete, in order to verify the payment made and continue the bidding process. |
| 4. If verification is successful, the fund will get credited to the respective Pooling account of The Bhagirathi Cooperative Milk Producers' Union Limited maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road for collection of EMD/Tender Fees. |
| 5. Hereafter, the bidder will go to e-Procurement portal for submission of his bid. |
| 6. But if the payment verification is unsuccessful, the amount will be returned to the bidder's account. |
| B. Refund/Settlement Process: |
| i. After opening of the bids and technical evaluation of the same by the Quotation inviting authority through electronic processing in the e-Procurement portal of the State Government, the Quotation inviting authority will declare the status of the bids as successful or unsuccessful which will be made available, along with the details of the unsuccessful bidders, to ICICI Bank by the e-Procurement portal through web services. |
| ii. On receipt of the information from the e-Procurement portal, the Bank will refund, through an automated process, the EMD of the bidders disqualified at the technical evaluation to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of bid is uploaded to the e-Procurement portal by the Tender inviting authority. |
| iii. Once the financial bid evaluation is electronically processed in the e Procurement portal, EMD of the technically qualified bidders other than that of the L1 and L2 bidders will be refunded, through an automated process, to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of financial bid is uploaded to the e-Procurement portal by the Quotation inviting authority. However, the L2 bidder should not be rejected till the LOI process is successful. |
| iv. If the L1 bidder accepts the LOI and the same is processed electronically in the e-Procurement portal, EMD of the L2 bidder |

| | will be refunded through an automated process, to his bank account from which he made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on Award of Contract (AOC) to the L1 bidder is uploaded to the e-Procurement portal by the tender inviting authority. v. As soon as the L1 bidder is awarded the contract (AOC) and the same is processed electronically in the e-Procurement portal – a) EMD of the L1 bidder for tenders of State Government offices will automatically get transferred from the pooling account to the State Government deposit head "8443-00-103-001-07" through GRIPS along with the bank particulars of the L1 bidder. b) EMD of the L1 bidder for tenders of the State PSUs/Autonomous Bodies/Local Bodies/PRIs, etc will automatically get transferred from the pooling accounts along with the bank particulars of the L1 bidder. In both the above cases, such transfer will take place within T+1 Bank Working Days where T will mean the date on which the Award of Contract (AOC) is issued. vi. The Bank will share the details of the GRN No. generated on successful entry in GRIPS with the E-Procurement portal for updation. vii. Once the EMD of the L1 bidder is transferred in the manner mentioned above, Tender fees, if any, deposited by the bidders will be transferred electronically from the pooling account to the |
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| | Government revenue receipt head "0070-60-800-013-27" through GRIPS for Government tenders and to the respective linked bank accounts for State PSU/Autonomous Body/Local Body/PRIs, etc tenders. viii. All refunds will be made mandatorily to the Bank A/c from |
| Bid Document | which the payment of EMD & Tender Fees (if any) were initiated. The bid document is available in the E-Tendering Portal of Govt. of |
| | West Bengal <u>https://wbtenders.gov.in</u> . |
| Technical Bid Evaluation | The Technical Bid will be evaluated by the Tender Committee. Bidders shall upload all the necessary documents in the Technical Folder which will be verified and evaluated by the Tender Committee. |
| Financial Bid | Rate shall be quoted in the Financial bid |
| | The bidder shall quote the rate online through Computer only in the space marked for quoting rate in the Bill of Quantities (BOQ). Only downloaded copies of the above documents, digitally signed by the bidder are to be uploaded (Excel file). |
| | The rate quoted by the tenderer shall be inclusive of all elements of taxes and duties, demands, tolls etc. The tenderer shall include income tax, GST etc as applicable, octroi if any and all other |

| | charges if applicable while quoting the rate, FOR (freight on road) delivery of the material in the place of delivery. | |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Validity of Bid | 180 days | |
| E Tender registration and bidding | ONLINE BIDDS: | |
| bidding | The bidders interested to submit the bid Online shall get registered and get a digital signature as per the procedure described below: Companies\ Agencies\ bidders who are interested in participating e tenders are requested to contact the representatives of NIC for registration, computer setting and clarification on e-tendering Online tenders can be submitted by logging in the e –Tendering portal of Govt. of West Bengal i.e. <u>https://wbtenders.gov.in</u> . | |
| | ONLINE BID SUBMISSION : The bidders are required to submit the Technical and Financial bid documents ONLINE i.e. uploading of the documents complete in all respect by following the Online Bid submission procedure. | |
| | | |
| Download of Tender | 1. Download of Tender | |
| | Tender to be downloaded only from the e-Tendering portal of Govt. of West Bengal i.e. <u>https://wbtenders.gov.in</u> .The tender will be submitted in two bid system i.e. Technical bid & Financial bid only through online. | |
| | 2. Online Bid submission procedure | |
| | i. Registration of Bidders : Agencies/Bidders who are interested in participating e-tenders will have to get enrolled & registered with the Government e-Procurement system. through logging on to <u>https://wbtenders.gov.in</u> | |
| | ii. Digital Signature certificate (DSC): Each bidders is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) having Signing and Encryption certificate for submission of tenders from the approved service provider of the National Information's Centre (NIC) on payment of requisite amount or any service provide as may be allowed by the Finance Department, Govt. of West Bengal. | |
| | iii. Tender Download: The bidders can search & download NIT & Tender Documents electronically from computer once he logs in to the e-Tendering portal <u>https://wbtenders.gov.in</u> using the Digital Signature Certificate. This is the only mode of collection of Tender Documents. | |
| | iv. Submission of Tenders : General process of submission, Tenders are to be submitted through online to the stipulated website in two folders, (one is Technical Bid & the other is Financial Bid) before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded duly digitally signed. The documents will get encrypted (transformed into non readable formats). | |

| Award of Contract | The bidder selected after evaluation of financial bid by the tender committee will be given Award of Contract, subject to fulfillment of Terms and Conditions provided in the tender. |
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| Publication of Tender | 1. E-Procurement Portal Govt. of West Bengal (<u>https://wbtenders.gov.in</u>) |
| | 2. Website of the Milk Union (<u>www.bhagirathimilk.com</u>) |
| | 3. Office Notice Board |

Terms and Conditions

- 1. The documents submitted by the bidders should be properly indexed & digitally signed.
- 2. During the scrutiny, if it comes to the notice to the tender inviting authority that the credential(s) and/or any other paper(s) has/have been of any bidder found incorrect/ manufactured/ fabricated, that bidder will not be allowed to participate in the tender process and that application will be rejected outright. The Bhagirathi Cooperative Milk Producers' Union Ltd. Reserves the right to cancel the N.I.T. at any time without showing any reason and no claim in this respect will be entertained.
- 3. During evaluation the Committee may summon of the Bidders and seek clarification/information regarding bids within the stipulated time frame, their proposals will be liable for rejection.
- 4. Inspection of materials may be undertaken at the supplier's premises whenever necessary by the Tendering Authority/ any officer authorized by the undersigned.
- 5. 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 erection installation and commissioning of the machines. Machines not accompanied by warranty papers after commissioning will be rejected.
- 6. 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 bidder.
- 7. Supply, installation & commissioning of the ordered item with all accessories must be completed within 30 (Thirty) 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 HELD 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.

- 8. **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 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.
 - 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.
- 9. **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.
- 10. Conditional *and* incomplete tender will not be entertained. Violation of one or more clause will result in rejection of the tender
- 11. The accepting authority (The Bhagirathi Cooperative Milk Producers' Union Ltd.) reserves the right to reject any or all the tenders without assigning any reason whatsoever and will not be bound to accept either the lowest tender or any of the tenders.
- 12. The rate quoted by the bidder shall be inclusive of all taxes Excise Duty, GST and other charges/ taxes if any for the delivery of the goods in the office of The Bhagirathi Cooperative Milk Producers' Union Ltd.
- 13. EMD of the lowest bidder shall be converted to Security Deposit and will be refunded after successful execution of the contract. EMD of unsuccessful bidders shall be refunded as per E-Tender norms mentioned above. EMD shall not carry interest.
- 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 of the goods will be the responsibility of the bidder and no claim regarding this will be entertained.
- 17. Complete documentation like principal warranty papers, operation manuals, technical specifications and guarantee cards have to be furnished by the supplier.
- 18. Payment: Tax Invoice against all supplies is/are to be sent in **TRIPLICATE** and should invariably be submitted along with supply documents (Challan, e-waybill etc).
 - 50% will be released on receipt of acknowledged copy of challan/Invoice etc. of the whole unit in good condition at the specified site.

- 40% payment will be released after successful Installation, Commissioning & Trialrun of the whole unit duly certified by the official of Union.
- 10% payment will be released after 1 year. This shall serve as performance guarantee.
- 19. Taxes will be deducted as per Govt. norms.
- 20. Successful bidder have to submit an affidavit as in a Non-Judicial Stamp paper of Rs. 20/the clause stipulated in Annexure-II of the NIT.
- 21. 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

Copy forwarded to:

- 1. E Procurement Portal (<u>https://wbtenders.gov.in</u>)
- 2. Official Website (<u>www.bhagirathimilk.com</u>)

<u> Annexure – II</u>

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 nor any of its constituent partners have abandoned any work/works of similar nature and magnitude in India, in the past.
- 3. I/We the undersigned do hereby certify that any of the contracts awarded to me/us has not been terminated rescinded, due to breach of contract on my/our part in the past.
- 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

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)

TECHNICAL SPECIFICATION FOR SUPPLY, ERECTION AND COMMISSIONING OF 15 KL VERTICALLY INSULATED MILK SILO AND ACCESSORIES

FUNCTIONAL REQUIREMENTS:

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

DESIGN REQUIREMENTS

<u>CAPACITY</u>: 15000 Lts. The volume of the silo should be such that after filling it upto 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.

<u>Constructional Features</u>: Double walled, insulated and welded construction of sanitary design.

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

<u>Metal contact</u>: 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.

<u>Finish</u>: 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 90mm. 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 18 hours when temperature gradient is 35° C. and milk temperature is 4°C.

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 24 V and 100 Watt bulb. The lamp holder should be made of brass - 1 No.

Agitator: 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 be a rod. 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).

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.

TESTS:

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

Dye penetration test for welding joints.

Water fill-up test of inner vessel for water TIGHTNESS.

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.

Erection and commissioning

- 1. Unpacking, unloading and positioning of the silo in the specified place.
- 2. Erection and commissioning of 15,000 Lts. Milk Silo on the concrete base.
- 3. Mounting the agitator on the top of the silo.
- 4. 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 cladded with the S. S pipes on the top peripheral.
- 5. 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.
- 6. 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.
- 7. All loose accessories related to the Silo should be assembled and installed.
- 8. The supplier should prepare the detailed general assembly drawing of showing plan, elevation end view and cross sectional view of the equipment with complete materials. The drawing should be got approved by the TCMPF Ltd before starting fabrication.
- 9. Any other work including materials for supply, erection and commissioning of the above Milk Silo will be borne by the tenderer.