

**UTTARAKHAND CO-OPERATIVE DAIRY FEDERATION LTD,  
MANGAL PARAO,HALDWANI(NAINITAL)  
Ph. No. 05946-255358. E-mail Id- ucdfltd@gmail.com**

**Tender Document for :Machinery works-**

| S. N.    | Name of work   | Tentative cost (Rs.) | EMD (Rs.)  | Tender fee (Rs.) | Tender Rate validity | Work period |
|----------|--|----------------------|------------|------------------|----------------------|-------------|
| <b>A</b> | <b>Cattle Feed Plant Rudrapur</b>  |                      |            |                  |                      |             |
| 1        | S.I.T& C of Slat conveyor  | 11.00 Lakh           | 33000.00   | 1770.00          | 75 days              | 90 days     |
| 2        | S.I.T& C of Batch Chain conveyor   | 18.00Lakhs           | 54,000.00  | 1770.00          | 75 days              | 90 days     |
| 3        | S.I.T& C of intake Chain conveyor  | 7.00 Laks            | 21,000.00  | 1180.00          | 75 days              | 90 days     |
| 4        | S.I.T& C of Distribution conveyor  | 20.00Lakhs           | 60000.00   | 1770.00          | 75 days              | 90 days     |
| 5        | S.I.T. & C of Grinding Hooper Batch Mixture Hammer Mill and Paddle Conveyor  | 72.00 Lakh           | 1,44000.00 | 4720.00          | 75 days              | 90 days     |
| 6        | S.I.T. & C of Pallet Mill with Twin Rotor Conditioner and Feeder   | 30.00 Lakh           | 60000.00   | 2360.00          | 75 days              | 90 days     |
| 7        | S.I.T. & C of High speed Molasses Mixture  | 11.00Lakh            | 33000.00   | 1770.00          | 75 days              | 90 days     |
| <b>B</b> | <b>U. S. Nagar Milk Union Khatima</b>  |                      |            |                  |                      |             |
| 1        | S.I.T. & C of Ghee storage tank-5MT  | 7.00Lakhs            | 21000.00   | 1180.00          | 75 days              | 90 days     |
| 2        | S.I.T. & C of Ghee Pet Jar Filling & Sealing Machine, cap- 1000 jar/hr   | 10.00Lakh            | 30000.00   | 1180.00          | 75 days              | 90 days     |
| 3        | S.I.T. & C Ghee carton Filling & Sealing Machine, cap- 2000 caton/hr (Sika pack)   | 21.00 Lakhs          | 63000.00   | 2360.00          | 75 days              | 90 days     |
| 4        | S.I.T. & C ofMilk Homogenizer, cap- 2 KLPH   | 7.00 Lakhs           | 21000.00   | 1180.00          | 75 days              | 90 days     |
| 5        | S.I.T. & C of Chhachhchiller, cap- 5 KLPH  | 2.50 Lakhs           | 7500.00    | 590.00           | 75 days              | 90 days     |
| 6        | S.I.T. & C Rotary Dahi cup filling & sealing machine, cap-2400 cup/hr  | 16.00 Lakh           | 48000.00   | 1770.00          | 75 days              | 90 days     |
| 7        | S.I.T. & C Automatic VaccumPaneer packaging machine  | 4.00Lakhs            | 12000.00   | 590.00           | 75 days              | 90 days     |
| <b>C</b> | <b>Almora Milk Union Almora</b>  |                      |            |                  |                      |             |
| 1        | S.I.T.& C of Multi purpose milk pasteurization unit, cap- 1500 LPH,  | 18.00Lakh            | 54000.00   | 1770.00          | 75 days              | 90 days     |
| 2        | S.I.T. & C of Freon based Instant Milk cooling unit, cap 10 KLPD Including IBT   | 15.00Lakh            | 45000.00   | 1770.00          | 75 days              | 90 days     |
| 3        | S.I.T. & C of Milk chiller S.S.-304 Insulated Milk storage tank,Platform type Electronic milk weighing machine, balance tank, milk pump, milk strainer, Can Scrubber, Hot water generator, Roller conveyor, Can tipping bar, Offline cream separator, off line sour milk separator,Milk pipe lines & fittings etc. | 20.00 Lakhs          | 60000.00   | 2360.00          | 75 days              | 90 days     |
| 4        | S.I.T. & C of D.G. set, cap-30KVA,3P Electric panel, electric cables & trays etc   | 12.00 Lakhs          | 36000.00   | 1770.00          | 75 days              | 90 days     |
| <b>D</b> | <b>Champawat Milk Union</b>  |                      |            |                  |                      |             |
| 1        | S.I.T. & C of Milk Silo(Milk tank)   | 10.00Lakh            | 30000.00   | 1180.00          | 75 days              | 90 days     |



**Uttarakhand Co-operative Dairy Federation Ltd., Haldwani**  
**E-Tender Notice No.: 14(1-19) /UCDF/2025-26, Date-21.08.2025**

Following E-tenders are invited by the undersigned, from experienced, reputed and financially sound Manufacturers/Firms/Authorized Dealers for the following works so as to reach this office on or before 5.09.2025 up to 5.00 PM, which will be opened on 06.09.2025 at 11.00 AM.

| S.N  | Name of work  |
|--|---|
| 1.   | S.I.T& C of Slat conveyor, Batch Chain conveyor, in take Chain conveyor, Distribution conveyor, Grinding Hooper, Batch Mixture, Hammer Mill and Paddle Conveyor, Pallet Mill with Twin Rotor Conditioner and Feeder, High speed Molasses Mixture at CFP Rudrapur  |
| 2  | S.I.T& C of Ghee storage tank, Ghee Pet Jar Filling & Sealing Machine, Ghee carton Filling & Sealing Machine, Milk Homogenizer, Dahi cup filling & sealing machine, Chhachhchiller, Vacuum Paneer packaging machine, Multi purpose milk pasteurization unit, Freon based Instant Milk cooling unit, various milk chilling centerequipments, D.G. set, panel & cables, Milk tank at Almora/Khatima/Champawat Dairy |
| <b>On line tender</b> -E-Tender documents may be seen and downloaded/uploaded from E-tender portal <a href="http://www.uktenders.gov.in">http://www.uktenders.gov.in</a><br><div style="text-align: right;"><b>Managing Director</b></div> |   |

| <b>E-Tender Downloading and Uploading Schedule</b>   |  |  |
|--|--|--|
| <b>E-Tender Publishing and bid uploading portal</b><br><b><u><a href="http://www.uktenders.gov.in">http://www.uktenders.gov.in</a></u></b> |  |  |
| 1  | <b>Tender Notice no.</b>   | E-Tender Notice No.: 14(1-19) /UCDF/2025-26,<br>Date-21.08.2025  |
| 2  | <b>Date of Tender Publishing on tender E-portal</b>                                | 23.08.2025, 4.00 PM  |
| 3  | <b>Date of tender document download start from E-portal</b>                        | 23.08.2025, 5.00 PM  |
| 4  | <b>Last Date &amp; Time for download of Tender Bids</b>                            | 05.09.2025 up to 4.00 PM   |
| 5  | <b>Last Date &amp; Time for upload of Tender Bids</b>                              | 05.09.2025 up to 5.00 PM   |
| 6  | <b>Last Date &amp; Time for offline receipt of Tender fee &amp; EMD</b>            | 05.09.2025 up to 5.00 PM   |
| 7  | <b>Time &amp; Date of Opening of Tender- (a)Technical Bids</b>                     | 06.09.2025 from 11.00 AM   |
| 8  | <b>Time &amp; Date of Opening of Tender- (a)Financial Bids</b>                     | Will be notified after opening of technical bids.  |
| 9  | <b>Place of offline receipt of Tender fee &amp; EMD and Opening of Tender Bids</b> | <b>OFFICE OF THE MANAGING DIRECTOR</b><br><b>UTTARAKHAND CO-OPERATIVE DAIRY</b><br><b>FEDERATION Ltd., MangalParao, Haldwani, Nainital</b> |

**Bank Details for Online submission of Tender Fees & EMD through  
RTGS/NEFT:**

|                               |   |
|-------------------------------|---|
| <b>Name of account holder</b> | <b>Uttaranchal Co operative Dairy Federation Ltd.</b> |
| <b>Name of Bank</b>           | <b>Axis Bank</b>                                      |
| <b>Branch</b>                 | <b>TalliHaldwani (UT)</b>                             |
| <b>Account Number</b>         | <b>584010100013749</b>                                |
| <b>Type</b>                   | <b>Saving bank</b>                                    |
| <b>IFSC code</b>              | <b>UTIB0000584</b>                                    |

### **Norms, availability and submission of E-tender:**

- 1- **Tender document fees** – As per mentioned above according to individual work (including GST @ 18%)
- 2- Tender is available online on website <http://www.uktenders.gov.in> and can be downloaded or uploaded from the given website. Bidders can register, free of cost, on the tender website. For the same bidder should have DSC (Digital Signature Certificate) issued by any recognized organization. If any bidder has not no DSC, he may obtain the same from any recognized organization. Without having a valid DSC bidder will not be able to download or upload tender. The bidder will have to upload scan copy of required documents with the technical bid.
- 3- **EMD** - All tender bids should be accompanied by earnest money deposit, as mentioned above, either through NEFT/RTGS or in the form of a Demand Draft drawn on any Nationalized/scheduled Bank in India, Bankers Cheque issued by any Nationalized/scheduled in India in favor of Uttarakhand Cooperative Dairy Federation Ltd, payable at Haldwani. The validity of EMD should be 45 days from the last date of validity of the tender, but the period may be extended as per requirements. All bidders may note that EMD submitted in the form of a cheque will not be considered. EMD may also be deposited in the form of cash with the account section of the UCDF and cash receipt should be uploaded with the tender technical bid.
- 4- Any tender bid which is not accompanied with the Tender fee and Earnest Money Deposit will be summarily rejected and no exemption shall be granted to any of the bidders in this regard.
- 5- The detail information regarding the E-tender may be obtained from the tender website <http://www.uktenders.gov.in>.
- 6- UCDF will not be responsible for any problems faced by the bidder due to any technical fault occurred in the website while downloading or uploading the tender. For the same no time relaxation will be allowed to the bidder.
- 7- Except original EMD and Tender Fee, other hard copy document will not be considered in technical bid opening process. Only online uploaded documents will be considered during technical bid opening process.
- 8- The bidder will have to mention unit rates of each item in numerals as well as in words.
- 9- The rates quoted, by the bidder, should be FOR site inclusive of all prevailing taxes and duties.
- 10- Conditional tenders will not be accepted.
- 11- Undersigned reserves the right to reject any or all tenders without assigning any reason.

**Managing Director,  
UCDF Haldwani**

# **Chapter- 1: General directions for Bidders**

## **Documents Required in Technical bid-**

**In Technical Bid, bidders must upload scan copy of following documents at the time of bid submission on the E-Procurement portal for successful completion of technical bid and become eligible for financial bid of tender.**

**The required documents shall be uploaded and arranged in the same order as mentioned below with the checklist being on the top of documents.**

- 1- Registration Certificates of firm/manufacturer, In case of dealers/distributor Authorization letter from the original equipment manufacturer. Consortium of firms may also participate. In this case such letter/agreement should be uploaded.
- 2- GST registration document.
- 3- PAN Card.
- 4- Earnest Money deposit -DD/Deposit Receipt.
- 5- Tender document fee deposit -DD/deposit Receipt
- 6- **Work Experience:** (Scanned Self attested Copy of Purchase orders & its satisfactory completion certificates). **Work/Purchase orders & satisfactory completion certificates** –The bidder, along with the manufacturer, should have executed the mentioned work or works of same nature, minimum 3 (three) in quantity, otherwise as specified item wise. For the proof of the same, bidder should upload purchase orders and its satisfactory performance/completion report issued in past 5(five) year, from the date of tender publishing, by the government/semi government/PSU/Autonomous bodies/co-operative dairies. In case of failure to upload these documents, bidder's technical bid will be considered as rejected.
- 7- **Annual turnover:** CA certificate with year wise declaration, for last 3 Year Annual turnover report, which should not be less than Rs. 100.00 Lakhs Annually since last 3 years. Balance sheet of previous 3 years may also be uploaded. **Please don't upload ITR, it will not be considered.**
- 8- Tender Acceptance Letter (Annexure-A) should be filled, signed and stamped/certified properly.
- 9- An affidavit regarding Non-blacklisting or otherwise as per ANNEXURE 'B' duly attested by the oath commissioner is required to be attached in support thereof.

### **NOTE: (Causes of rejection in the tender)**

1. Please do not upload other than the above documents. In case of failure to downloading of the above document due to heavy document upload, this could be the cause of rejection.
2. Shortfall of any mandatory document form the above list could be **Causes of rejection tender bid.**
3. Please carry all the originals of the uploaded document with you for verifying during Technical bid opening/Evaluation process in front of Tender Committee, if tender committee wants to verify it. No hard copies of other documents, except EMD & Tender fees, will be accepted in any case.

### **Financial Bid:**

1. In Financial Bid, Bidder should quote rates, for all items on BOQ Excel File as per format, and submit online. Quoted rates on BOQ file for each items should be inclusive of Base Unit Rate and all prevailing taxes and duties with FOR site. Offline quoted rates will not be considered for financial bid opening.

## **Chapter- 2: Terms & conditions of the agreement**

**UTTARAKHAND CO-OPERATIVE DAIRY FEDERATION Ltd.,**

**MangalParao, Haldwani, Nainital**

### **(A) GENERAL TERMS & CONDITIONS**

| <b>S.N.</b> | <b>Description</b>   |
|-------------|--|
| <b>1.0</b>  | The bidder should be a manufacture of quoted equipment. In case the bidder is not a manufacturer, he must be an authorized dealer for the quoted equipment and it will be necessary to upload a copy of valid authorization letter, issued by the original equipment manufacturer/fabricator, with the Technical Bid. Consortium of firms may also participate. In this case such letter/agreement should be uploaded.   |
| <b>2.0</b>  | <p><b><u>ELIGIBILITY CRITERIA</u></b> :-For the purpose of this particulars contract bidder shall have to meet the following eligibility criteria as minimum. In case of failure to upload these documents tender may be rejected. These document are-</p> <p><b>1. Registration:</b> The bidder should be in such business (as required for the tendered work) at the time of bid opening in the same name and style.</p> <p><b>(a)</b> The Firm should have registered as a manufacturer or dealer at the time of bid opening in the same name and style. In case firm is a manufacturer upload the registration document &amp; in case Dealer, upload dealership document. Consortium of firms may also participate. In this case such letter/agreement should be uploaded.</p> <p><b>2- Work Experience:</b> The Bidder, along with the manufacturer, should be experience enough to complete the work. For the proof of the same bidder should upload scanned copy of the purchase order executed in the last 5(three) years in same name and style. The firm should have executed minimum 3 (three) in quantity, otherwise as specified item wise, of tendered jobs for Supply, Installation, Testing &amp; Commissioning of the quoted equipment successfully preferably in the government/semi government/PSU/Autonomous bodies/co-operative dairies since last 5(five) years. The firm should upload copy of purchase orders issued by the purchasers and their respective completion/performance certificates along with the Technical Bid or as mentioned in the conditions for the particular item.</p> <p><b>(3) Turn Over:</b> The annual turnover of the firm should not be less than Rs. 100.00 Lakhs annually since last 3 years.</p> <p><b>(4)</b> The bidder should not be <b>Black listed</b> by any Federation/organization/institution/government or semi government departments of states or GOI. Please submit Affidavit mentioning the same on Rs. 100.00 stamp paper.</p> <p><b>(5)</b> The Firm should have their regional office or service center in North India Region for quick after sales services.</p> |
| <b>2.2</b>  | <p>The bidder should be registered under office of competent authority or under statutory bodies at the time of bid opening in the same name and style. In order to support this the bidder has to upload:-</p> <p>Copy of the Registration Certificate issued by the Registration of firm in case of firms of proprietary nature. <b>or</b></p> <p>Copy of partnership deed in case of partnership firms. <b>or</b></p> <p>Copy of article of association in case of Pvt. Ltd. Companies. <b>or</b></p> <p>Copy of registration certificate for firms registered with NSIC/Central or State Govt. Department / Local bodies for similar work. <b>or</b></p> <p>If the firm is a dealer of the equipment, please submit authorized Dealership letter for the current period. Consortium of firms may also participate. In this case such</p>   |

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|             | letter/agreement should be uploaded.  |
| <b>2.3</b>  | Bidder's firm should be registered with GST. To support this bidder has to upload scanned copy of GST Registration Certificate duly renewed by the competent authority.   |
| <b>2.4</b>  | The bidder will post a supervisor at work site who is well qualified, trained and having sufficient experience on the job. The supervisor will be assisted by a team of skilled and semi skilled technicians. The team along with the supervisor must remain and work continuously on the site and report for the work on site within a week of the receipt of materials at site or the information regarding readiness of site by the DUSS, otherwise Federation will be at liberty to cancel the order, and assign the work to any other party at the cost and risk of the bidder.                            |
| <b>2.6</b>  | The bidder may be allowed to work round the clock in the interest of work on written request.   |
| <b>3.0</b>  | The material must be dispatched within the given time after the receipt of work order in minimum number of lots.  |
| <b>4.0</b>  | The bidder will be responsible for timely payment of wages to his workmen latest by 7 <sup>th</sup> of the following month. In case there is any delay, Federation would be at liberty to make payment of wages to these workmen on behalf of the bidder which will be adjusted from his bills. However this will be in no way reduce the responsibility of bidder for payment of wages as per the labor laws in the state to which the contractor will be solely responsible.  |
| <b>5.0</b>  | The bidder will submit fortnightly progress report in the prescribed Performa. The measurement of work done would be jointly recorded by his supervisor and Federation site engineer and would be sent it along with the progress report.   |
| <b>6.0</b>  | The bidder shall give all necessary personal superintendence during the execution of the work as long as Federation engineer may consider it necessary. Any directions, explanations, instructions or notice given by the Engineer-in- charge to the supervisor of the contractor shall be treated as there have been given to the bidder himself.  |
| <b>7.0</b>  | The Site engineer/Engineer in charge of the federation, with the approval of the Managing Director, UCDF shall have power to make any alternations or addition to, or substitutions in the original specification and the contractor shall be bound carry out the work in accordance to the instructions which may be given to him in writing signed by the Site engineer/Engineer in charge.   |
| <b>8.0</b>  | If the bidder or its employee shall break, deface or injure or destroy any part of a machine/building on which they are working or if any damage shall happen to the machine/building while the work is in progress, from any cause whatsoever, the bidder shall make the same good at his own expenses or in default, the Site engineer/Engineer in charge of the Federation, may get the same repaired at the cost of the bidder and deduct the expenses inured from his pending bills.   |
| <b>9.0</b>  | The bidder shall be liable to the provisions of any acts, regulations may therein relating to the workman and the acts.   |
| <b>10.0</b> | The bidder shall be responsible for all injury to persons or things and for all damages to structural parts, of properties which may arises from the operations or neglect or him self or any of his sub-contractors employees. The bidder shall indemnify the federation and held them harmless in respect of all and any expenses arising from any such injury or damage to persons or property as foresaid and also in respect of any claim made in respect of injury or damage under any Acts of Government, or otherwise and also in repeat of award of compensation of damage consequent upon such claim. |
| <b>11.0</b> | The bidder shall indemnify the management whether under the workman's compensation Act, or any other statute in force during the currency of the contract or any common law in respect of any employee of the contractor or any sub-contractor.   |
| <b>12.0</b> | The bidder may authorize in writing any employee of the bidder to exercise all or any of the powers vested in him under this contract with intimation to the management in writing.   |

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|-------------|---|
| <b>13.0</b> | The equipment repaired/supplied by the contractor should be guaranteed by him for satisfactory performance for a period of 12 month from the date of repairs/supplies. You will undertake to repair/replace the defective parts-free of charge in case of defects/faulty operation during the guarantee period.   |
| <b>14.0</b> | Bidder will submit the design and complete construction details with drawing or all equipments, etc, before undertaking their fabrication. Provision of future expansion would be kept in all electrical switch boards, control panels etc, you will also submit the layout of electrical cables, piping etc, to be laid in the plant.  |
| <b>15.0</b> | In the event of awarding sub- contract to any of the parties by the bidder for the manufacture/supply/erection of any part/spares/components that will be used in the order equipment, the contractor must furnish details about his sub-contractor their experience, specialization etc. The sub contract can be awarded by the contractor only after obtaining written approval by federation. In the event of sub-contract also, the prime fascia responsibility rests on the contractor regarding quality, quantity, guarantee and warranty of the materials supplied work done by the sub-contractor.  |
| <b>16.0</b> | The federation may at any time, by notice in writing, summarily terminate the contract without compensation to the contractor is adjudged insolvent, in case of company is wound up voluntarily by the order of court or a receiver or the contractor commits any breach of contract herein specifically provided for.  |
| <b>17.0</b> | <b>Force majeure clause:</b> The terms and conditions mutually agreed upon shall be subject to force majeure clause as noted as: “Neither the bidder nor the federation shall be considered in default in performance of its obligations hereunder, if such performance is prevented or delayed because of war, hostilities, revolution, civil commotion, strike, earthquake, epidemic, accident fire, wind, flood or because of any law, order proclamation, regulation or ordinance of any government or of any act. Of God or any other causes whether of similar or dissimilar nature, beyond the reasonable control of the party affected, should one or both the parties be prevented from fulfilling his, their contractual obligations by state of force Majeure lasting continuously for a period of six months the two parties should consult each other regarding the future implementation of contract. |
| <b>18.0</b> | All the Government orders, issued from time to time by the Uttarakhand Government, will be binding on both the parties, ie. Bidder and federation.  |

**Manager Director**  
**UCDF Ltd, Haldwani**



**UTARAKHAND CO-OPERATIVE DAIRY FEDERATION Ltd.,  
MangalParao, Haldwani, Nainital**

**(B) SPECIAL TERMS AND CONDITIONS**

| <b>S.N.</b> | <b>Description</b>   |
|-------------|--|
| <b>1.0</b>  | <b>Work Experience:</b> The bidder, along with the manufacturer, should have executed the mentioned work or works of same nature, minimum 3 (three) in quantity, otherwise as specified item wise. For the proof of the same, bidder should upload purchase orders and its satisfactory performance/completion report issued in past 5(five) year, from the date of tender publishing, by the government/semi government/PSU/Autonomous bodies/co-operative dairies. Please upload purchase order and their work completion/performance certificate.   |
| <b>2.0</b>  | For any work partly done, payment shall be made at proportionately reduced rate as per assessment of the engineer in-charge.   |
| <b>3.0</b>  | <b>Price Escalation:</b> The prices are fixed and any price escalation in rate what - so-ever, shall not be demanded by you, except Govt. levies, which shall be permissible against furnishing of documentary proof for the same by you. The bidder should take into account all fluctuations of the market as no claim shall be entertained on this ground during the acceptance of the tender and the currency of the contract.   |
| <b>4.0</b>  | <b>Basis of rate:</b> The tendered rate shall be deemed for the complete item of work in all respects and shall include all tools and plants, packing and forwarding, insurance, freight, carriage of materials to site, stacking and removal charges of any rejected materials, GST/ all prevailing taxes in force from time to time, i.e. the rates should be FOR site inclusive of all.   |
| <b>5.0</b>  | <b>Liquidated damages:</b> The work must be completely finished to the entire satisfaction of the Site Engineer/Engineer-In-Charge UCDF, or his representative, within mentioned time from the date of receipt of order failing for which penalty will be imposed at the rate of 0.5% per week subject to a maximum of 10% of the total cost of work or part of it (in case there are independent works). The date of commencement of work shall be such on which the date the purchase order is given to the bidder or it is mentioned in the work order specifically. If there is any delay due to not availability of site by the DUSS to the bidder, the bidder will not be responsible for such period of time. The availability of work site/ arrangements by the DUSS required if any (necessary for completion of work but not in the scope of contractor) will be provided by the DUSS on time as per bidder's request. |
| <b>6.0</b>  | <b>Arbitration:</b> All disputes or differences, in respect of which the decision is not final and conclusive, shall on the initiative of either party be referred to the arbitration order of prevailing cooperative society Act to the Director Dairy Vikas Uttarakhand/Registrar Dairy Co-operative Societies Uttarakhand.  |
| <b>7.0</b>  | The original copy of EMD & Tender Fee, if not deposited online, are to be addressed to " Uttarakhand Cooperative Dairy Federation Ltd, MangalParao, Haldwani (Nainital)" and should be submitted in sealed cover with the name of the tender notice and name of the work on the cover. The sealed cover should also bear the name and full address of the bidder. UCDF will not accept any excuse for non-receipt of EMD & Tender Fee, in time, due to loss or delay in postal services.   |
| <b>8.0</b>  | All the tenders should be Uploaded in two bid system i.e. Technical Bid and Financial Bid on tender portal.  |
| <b>9.0</b>  | Incomplete, irrelevant or conditional tenders are liable to be rejected. Tenders not submitted on proper forms i.e. BOQ form, will not be considered.  |
| <b>10.0</b> | <b>Agreement:</b> The successful bidder shall be required to enter into an agreement with the  |

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|             | <p>Uttarakhand Cooperative Dairy Federation Ltd, MangalParao, Haldwani (Nainital), on non-judicial stamp paper of Rs. 100.00 Value, for execution of the work for which the tender has been accepted.</p> <p>In case of Partnership firms, the Agreement must be signed by the partners or by the person holding power of attorney on behalf of the firm. In the later case an attested copy of the power of attorney must be submitted to the UCDF. The partnership firms should enclose photocopy of the partnership deed and an attested copy of power of attorney for signing.</p>  |
| <b>11.0</b> | <p><b>Earnest Money Deposit:</b> All bidders should deposit earnest money with the tender as per following details if not specified in tender notice.:</p> <p>(a) For cost of work up to Rs. 25.00 Lakh @ 3%</p> <p>(b) For cost of work above Rs. 25.00 Lakhs @ 2% (minimum 75000.00)</p> <p>All tender bids should be accompanied by earnest money deposit either through NEFT/RTGS or in the form of a Demand Draft drawn on any Nationalized Indian Bank/Scheduled Bank/reputed private Indian bank or any first class Foreign bank operating in India, Term Deposit Receipt/ Fixed Deposit Receipt, Bankers Cheque issued by any Nationalized Indian Bank/Scheduled Bank/reputed private Indian bank or any first class Foreign bank operating in India in favor of Uttarakhand Cooperative Dairy Federation Ltd, MangalParao, Haldwani (Nainital) payable at Haldwani with the tender form. In general, the validity of EMD should be 90 days from the last date of validity of the tender, but the period may be extended as per requirements. All bidders may note that EMD submitted in the form of a cheque will not be considered. EMD may also be deposited in the form of cash with the account section of the UCDF and cash receipt should be attached with the tender. Any tender bid which is not accompanied with the Earnest Money Deposit will be summarily rejected and no exemption shall be granted to any of the bidders in this regard.</p> <p>EMD of unsuccessful bidders would be returned within 120 clear days from the date of opening of the tender bids. However, no interest shall be paid on EMD for the period during which it lies with the UCDF. EMD of successful bidder will be kept as Work Completion Security for a period as mentioned in the Uttarakhand Procurement Rules 2017.</p> |
| <b>12.0</b> | <p><b>Rebate of Tender Fee &amp; EMD:</b> The rebate or exemption of tender fee or EMD will be provided to the firms registered with Micro, Small &amp; Medium Industries/Start-ups as per provisions of the Uttarakhand government order no: 1542/VII-3-19/143-industries/2003, dated- 20.08.2019 or any amendment issued by the Government of Uttarakhand only. Please attach a copy of the rule (issued by the government of Uttarakhand) under which such exemption is claimed as documentary proof.</p>  |
| <b>13.0</b> | <p><b>Preference in Purchase Policy:</b> Preference in Purchase will be given to the bidders registered with Micro, Small &amp; Medium Industries/Start-ups, Department of Industries Uttarakhand as per Uttarakhand government order no: 1542/VII-3-19/143-industries/2003, dated- 20.08.2019.</p>   |
| <b>14.0</b> | <p><b>16. Performance Security:</b> (i) To ensure due performance of the contract, successful bidder shall be required to deposit and keep to be deposited with the UCDF a sum equivalent to 10% of total contract value as Performance Security. The performance security may be furnished in the form of account payee Demand Draft/ FDR/TDR/Bank Guarantee in an acceptable form safeguarding the organization's interest in all respects.</p> <p>(ii) Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the bidder, including guaranty obligations in the guaranty period, which is 1 (one) year from the date of successful trial &amp; commissioning of the equipment.</p> <p>(iii) EMD/Bid security should be refunded to the successful bidder on receipt of performance security.</p>   |

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|             | <b>(IV) Performance Guaranty Period/Defect Liability Period:</b> This period will be 1 (one) year from the date of successful trial and commissioning of the equipment/plant. The bidder should be responsible for removal of any defects free of cost in this period. After this period, the bidder will be responsible for removal of defect on payment basis ie. After sales services will be provided by the bidder well in time. Or as mentioned in the special conditions for particular item.   |
| <b>15.0</b> | <b>Work Security Deposit:</b> The successful bidder shall be required to deposit and keep to be deposited with the UCDF a sum equivalent to 5% of total contract value as work security deposit within 15 days from the date of signing of the contract. The EMD deposited by the bidder will be adjusted in the security deposit. This security deposit shall be released to the contractor after supply of the Material as per specifications in good condition and its verification at the work site. However no interest shall be paid to the contractor on the security deposit. In case of any delay occurred, or in the event of cancelation of contract due to non-compliance with any terms & conditions of this contract by the contractor, the work security deposit is liable to be forfeited by UCDF. |
| <b>16.0</b> | All work shall be executed strictly in accordance with the General Specifications of the equipments.   |
| <b>17.0</b> | The Uttarakhand Cooperative Dairy Federation Ltd, MangalParao, Haldwani shall not be responsible for supply of any material.   |
| <b>18.0</b> | When the tender is accepted, the contractor shall have to notify the names of two of his authorized representatives, of whom will have to be always available at the site of the work.   |
| <b>19.0</b> | For steam and water installations, the contractor will have to employ C.I.B.'s licensed persons if he is not a licensed repairer himself.  |
| <b>20.0</b> | Any claim during the periods of contract for extra items etc. will be submitted in writing within a week of such claim having arisen failing which the claim may not be entertained.   |
| <b>21.0</b> | All materials brought for use of the work shall have to get approved by the engineer in charge before actual use.  |
| <b>22.0</b> | Samples of all items of work to be executed will have to be got approved by the engineer in charge, before execution.  |
| <b>23.0</b> | The site will be cleared by the contractor of all surplus or waste material, dirt, debris etc. on completion of the work for which no extra payment will be made.  |
| <b>24.0</b> | The contractor will have to make his arrangements for tools and equipments for all works.  |
| <b>25.0</b> | The total value of the tender should be mentioned in the tender offer appended hereto which has to be submitted along with the tender.   |
| <b>26.0</b> | An attested copy of the latest trade tax registration, service tax registration should be enclosed with the tender.  |
| <b>27.0</b> | Charges for erection and commissioning should be indicated clearly & separately, if applicable.  |
| <b>28.0</b> | <b>Validity of Tender:</b> The bidders are requested to keep their offer open for 75 (seventy five) days from the date of opening of the tenders. If any bidder withdraws his tender before the expiry of the said period, the UCDF may allow withdrawal but in such case the EMD deposit by the bidder may be forfeited. If the federation does not allow the withdrawal and accept the tender and the bidder fails to perform his part of the contract, the EMD deposited by the bidder shall be liable to be forfeited besides other consequences of breach of contract.  |
| <b>29.0</b> | The tenders should be accompanied by the technical details and drawings of the materials, if applicable.   |

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| <b>30.0</b> | If subsequent to the submission of the tender offer, the bidder alters or modifies contents of his tender, which are not acceptable to the UCDF, the tender shall be deemed to have been withdrawal by the bidder.   |
| <b>31.0</b> | <p><b>Payment for supply, installation, testing and commissioning contract:</b></p> <p>(i) 30% advance on acceptance of the order on signing of the agreement, against submission of the Advance Bank Guarantee as per terms of the contract/ purchase order issued by any nationalized Indian bank/scheduled bank/reputed private Indian bank or first class foreign bank operating in India for 36% value of the contract/purchase order value (30% advance payment and 20% interest on the advance amount ), valid for a period of 3 months from the date of receiving the advance payment.</p> <p>(ii) 50% payment of the contract/purchase order value after safe receipt of the good at site and material verification at site.</p> <p>(iii) 10% payment of the contract/purchase order value on completion of the erection of the items.</p> <p>(iv) 10% balance payment on trial and commissioning of the plant against Performance Bank Guarantee (termed as Performance security) of 10% of the contract/purchase order value, valid for a period of 12 months (Performance Guarantee Period) from the date of successful commissioning of the plant, issued by any nationalized Indian bank/Scheduled Bank/reputed private Indian bank or first class foreign bank operating in India or Account payee Demand draft /FDR/TDR in favor of UCDF LTD MangalparawHaldwani as per clause III(iv) otherwise final 10% payment will be held against PBG and will be released after defect liability period.</p> <p>* If the site clearance is not given by the expiry date delivery-erection schedule as per the contract/ purchase order, balance 25% payment may be made against a Bank Guarantee of an equivalent amount issued by any nationalized Indian bank or first class foreign bank operating in India valid for a period of 12 months.</p> <p><b>II- For erection/service/overhaul component only:</b></p> <p>(i) 30% advance on acceptance of the order on signing of the agreement, against submission of the Advance Bank Guarantee as per terms of the contract/ purchase order issued by any nationalized Indian bank/ Scheduled Bank/reputed private Indian bank or first class foreign bank operating in India for 12% value of the contract/purchase order value (10% advance payment and 20% interest on the advance amount ), valid for a period of 3 months from the date of receiving the advance payment.</p> <p>(ii) 55% payment of the erection/service/overhaul of the equipment on group basis.</p> <p>(iii) 15% balance payment on trial and commissioning of the plant.</p> <p><b>III- For Supply Items only:</b></p> <p>(i) 90% payment of the cost of the material will be paid to the party after safe receipt of the materials in store at site and material verification.</p> <p>(ii) 10% balance payment shall be made to the firm against submitting the performance security/ security deposit which may be in the form of Performance Bank Guarantee of 10% of the contract/purchase order value, valid for a period of 12 months from the date of supply of the material , issued by any nationalized Indian bank or first class foreign bank operating in India.</p> |
| <b>32.0</b> | Any statutory approval from the local government authority's viz. Chief Boiler Inspector, Electrical Inspector, Factory Inspector etc, shall be obtained by the contractor. The bidder shall have to attach with the tender certificates from competent authorities of having similar works done, during previous years.   |
| <b>33.0</b> | Federation has the right to reject any or all the tenders without assigning any reason.  |
| <b>34.0</b> | The bidders are advised to see the site of work before tendering.  |
|             | <b>Mode of payment:-</b> Payment for the work executed, in part or full, shall be made through Multi city cheques/RTGS/ DD by UCDF Ltd/DUSS for which bank charges will be borne by you. The bills should be issued in the name of "concerning DUSS Ltd",  |

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|             | inA/C of U C D F, Ltd, Haldwani or as per instruction given in the Purchase Order.   |
| <b>35.0</b> | <b>General Membership:</b> The successful bidder will have to deposit Rs. 100.00 as membership with the UCDF. This will be one time general membership fee. If any bidder has already deposited this amount once, he need not to deposit the money in future.  |
| <b>36.0</b> | <b>Tender Fees:</b> The bidder will have to deposit the tender fees as mentioned in NIT.   |
| <b>37.0</b> | <b>Technical Specification:</b> The technical specification of individual machine/equipment will be given in the NIT. Any other special conditions/eligibility criteria may also be mentioned in the Technical Specification for the particular machine/equipment. The successful bidder will have to follow the specifications. |
| <b>38.0</b> | Any Government order, issued by the Uttarakhand Government, from time to time, will be binding to both parties and similarly tender conditions will be amended.  |

**Manager Director**

**UCDF Ltd, Haldwani**

### Chapter- 3: Details of Materials/ Services required

| S. N.    | Name of work   | Tentative cost (Rs.) | Qty | Unit | Location  |
|----------|--|----------------------|-----|------|---|
| <b>A</b> | <b>Cattle Feed Plant Rudrapur</b>  |                      |     |      |   |
| <b>1</b> | S.I.T& C of Slat conveyor  | 11.00 Lakh           | 1   | No.  | <b>Cattle Feed Plant, Kichha pass road, Rudrapur district- Udham Singh Nagar Uttarakhand</b>                          |
| <b>2</b> | S.I.T& C of Batch Chain conveyor   | 18.00 Lakhs          | 1   | No.  |   |
| <b>3</b> | S.I.T& C of in take Chain conveyor   | 7.00 Laks            | 1   | No.  |   |
| <b>4</b> | S.I.T& C of Distribution conveyor  | 20.00 Lakhs          | 1   | No.  |   |
| <b>5</b> | S.I.T. & C of Grinding Hooper Batch Mixture Hammer Mill and Paddle Conveyor  | 72.00 Lakh           | 1   | No.  |   |
| <b>6</b> | S.I.T. & C of Pallet Mill with Twin Rotor Conditioner and Feeder   | 30.00 Lakh           | 1   | No.  |   |
| <b>7</b> | S.I.T. & C of High Molasses Mixture  | 11.00 Lakh           | 1   | No.  |   |
| <b>B</b> | <b>U. S. Nagar Milk Union Khatima</b>  |                      |     |      |   |
| <b>1</b> | S.I.T. & C Ghee storage tank, cap- 5000 kg   | 7.00 Lakhs           | 1   | No.  | <b>Udham Singh Nagar Milk Union Kanjabag Road Khatima district- Udham Singh Nagar Uttarakhand</b>                     |
| <b>2</b> | S.I.T. & C Ghee Pet Jar Filling & Sealing Machine, cap- 1000 jar/hr  | 10.00 Lakh           | 1   | No.  |   |
| <b>3</b> | S.I.T. & C Ghee carton Filling & Sealing Machine, cap- 2000 carton/hr (Sika pack)  | 21.00 Lakhs          | 1   | No.  |   |
| <b>4</b> | S.I.T. & C Milk Homogenizer, cap- 2 KLPH   | 7.00 Lakhs           | 1   | No.  |   |
| <b>5</b> | S.I.T. & C Chhachhchiller, cap- 5 KLPH   | 2.50 Lakhs           | 1   | No.  |   |
| <b>6</b> | S.I.T. & C Rotary Dahi cup filling & sealing machine, cap-2400 cup/hr  | 16.00 Lakh           | 1   | No.  |   |
| <b>7</b> | S.I.T. & C Automatic Vacuum Paneer packaging machine   | 4.00 Lakhs           | 2   | No.  |   |
| <b>C</b> | <b>Almora Milk Union Almora</b>  |                      |     |      |   |
| <b>1</b> | S.I.T.& C of Multi purpose milk pasteurization unit, cap- 1500 LPH, Temperature cycle- 4 deg. C to 92±2 degC to 40 deg C (or 75degC), with 20 minutes holding for production of Dahi and paneer.   | 18.00 Lakh           | 1   | No.  | <b>Almora Milk Union Patal Devi, district- Almora Uttarak hand</b>  |
| <b>2</b> | S.I.T. & C of Freon based Instant Milk cooling unit, cap 10 KLPH Including IBT   | 15.00 Lakh           | 1   | No.  | <b>Chaukhutiya Milk Chilling Center, Bhgoti (Unit of Almora Milk Union Patal Devi, district- Almora Uttarak hand)</b> |
| <b>3</b> | S.I.T. & C of Milk chiller Cap-3 KLPH , S.S. 304 Insulated Milk storage tank, cap- 3 KL- 2Nos, Platform type Electronic milk weighing machine( platform size- 1000 mm x 1000 mm, 4 load cells , Made of S.S.-304), balance tank/ dump tank (cap-200 L), , milk pump ( cap-5 KLPH- 2 Nos and 3KLPH-2 Nos) , on line milk strainer, Can Scrubber, S.S. electric Hot water generator/bath ( cap-1000 L), S.S.-304 Roller conveyor ( rollers fitted with bearings), Can tipping bar, Offline cream separator (cap- 500 LPH-1 No), off line sour milk separator (cap- 500 LPH-1 No), Milk pipe lines & fittings(bends, tea, unions etc) including S.S. supports ( dia- 38.5 mm-100 m), 2-way butterfly valves valve ( dia- 38.5 mm-3 nos), 3-way butterfly valves valve ( dia- 38.5 mm-3 nos) etc | 20.00 Lakhs          | 1   | Job  |   |
| <b>4</b> | S.I.T. & C of D.G. set, cap-30 KVA, Electric panel, electric cables & trays etc  | 12.00 Lakhs          | 1   | Job  | ChaukhutiyaMC CBhgoti   |
| <b>D</b> | <b>Champawat Milk Union</b>  |                      |     |      |   |
|          | S.I.T. & C of Milk Silo(Milk tank)   | 10.00 Lakh           | 1   | No.  | Champawat Milk Union Joopatwa   |

Chapter-4:

**TECHNICAL**  
**SPECIFICATIONS**

**AND**

**SCOPE OF WORK**

## **ITEM M No : A-1**

**Name of Work:-** S I T & C of Slat Conveyor with suitable drive unit

**Place of Supply:-** Cattle Feed Factory Kitcha Bye Pass Road Rudrapur

### **1.0 FUNCTIONAL REQUIREMENTS.**

To transfer filled bags from production block to godown.

### **2.0 DESIGN REQUIREMENTS.**

2.1 Length of conveyor - 16.6 Mtr

Width of Slat. - 600mm.

Maximum weight of each bag. - 100 kgs.

Conveyor to rise from floor level to 900 mm at discharge end.

Horizontal speed of conveyor.-6mtrs/min.

2.2 The conveyor will be run by 3 HP, 19 rpm horizontal foot mounted geared motor.

#### **2.3 Material of Construction:**

Slats:- Seasoned teak wood , varnished or M.S. Galvanized Plates. Conveyor body, stands, railing and chain links - Mild Steel. Wheels made up of malleable cast steel.

2.4 General arrangement to be as per attached drawing. Minor variation in dimension are permitted.

3.0 Slats each of size 510 x 85 x 35 mm, on pitch of 120mm all over the length.

3.1 .M.S. Slats of 510mm long of suitable thickness and width at 125mm pitch.

3.2 Required length of special type of fabricated chains on two sides, on which slats are fitted by bolts.

3.3 Malleable cast steel wheels fitted on chain.

3.4 Guide rail for wheels, made from M.S. angles and flats.

3.5 Main body having 3mm thick side plates with cross bracing of MS flats throughout the length of conveyor below the top slats. Stiffener rods across th width should be provided in thee return passage.

3.6 Sprocket wheels (2 nos at each end) for moving chains, fitted on shafts and ball bearings. At feed end, screw type chain tightening device to be provided.

3.7 Pipe supporting stands for conveyor with MS level adjusting brackets at the top (2nos per set) - 11 sets.

3.8 MS Pipe (40mm dia) railing of adjustable design for bags on on side of conveyor. The railing height should be approximately 800mm and it should be provided with intermediate vertical railing supports - 6nos.

3.9 MS Channel 100 x 50 mm frame at discharge and of supporting conveyor and for mounting driving geared motor.

3.10 Bolts, nuts, washers required for assembly, for grouting stands on floor, fo fixing motor, guard and supporting frame at discharge end.

3.11 Driving parts of geared motor including:

Driven sprocket - 25 teeth.

Driving sprocket- 14 teeth.

Chain- 3/4" Simplex Min 2.8M

Chain guard - Min 2mm thick. MS

3.12 Painting - Synthetic enamel.



## **ITEM M No A-2**

Name of Work:- S I T & C of Batch Chain Conveyor with suitable drive unit

Place of Supply:- Cattle Feed Factory Kitcha Bye Pass Road Rudrapur

### **1.0 FUNCTIONAL REQUIREMENTS.**

The conveyor is used for conveyor different powder or granular materials. (from Dump Hopper Below Batch Weigher to Elevator)

### **2.0 DESIGN FEATURES.**

2.1 Capacity :-20 Tons/Hr. with Bulk Density of ingredients approx 600 Kg./Cum.

2.2 Length :- 9 mtrs

2.3 Chain Type :Radler Drag., single trough type, bolted construction with dust proof design with suitable tensioning device.

2.4 Material of Construction :- Mild Steel.

2.5 Drive Required :-Conveyor will run by horizontal foot mounted gear box and suitable electric motor through sprocket and chain. 9HP, 80:1 ratio.GB. CG Make PBGL .

2.6 General Arrangement :-As per standard NDDDB setup with Intake Hoppers fitted with magnet grill (2500-3000 Gauss) and Aspiration units.

2.7 Speed of Conveyor. :- Max. 0.4 M/Sec.

### **3.0 SCOPE OF SUPPLY:**

3.1 BODY :- CHAIN:- Main body consisting of top plate (min. 3mm thick) , side plate (min. 4mm thick), bottom plate (min. 6mm thick). Side walls bolted together with trough bottom and cover. Trough of bolted construction. Partition plate to be used as per required.

3.2 CHAIN :-Radler Drag Type, 125mm pitch (complete of hardened alloy steel). Chain shall be guided at bottom and top by rail. Cleaning strip is provided after every 20 links.

3.3 SUBSIDIARY PARTS.:- Hardened (EN-8) sprockets with mounting shaft, self aligning bearings with pedestal and dust seals at both the ends.

3.4 DRIVE UNITS. :-Driving Gear Box and motor with drive parts for chain drive of conveyor including base frame for gear box and motor and guard. Connected by sprocket and chain. (Drive sprocket(pilot bore) and chain will be provided while it has be fitted at site as buyer will provide drive unit.

3.5FASTENERS :- All the fasteners, washers , connectors.

3.6 Painting :- Remarks :- Inside :- Outside :- Black Synthetic Enamel

Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot.

### **ITEM M No A-3**

**Name of Work:-** S I T & C of In Take Chain Conveyor for Raw Material with suitable drive unit  
**Place of Supply:-** Cattle Feed Factory Kitcha Bye Pass Road Rudrapur

#### **1.0 FUNCTIONAL REQUIREMENTS.**

The conveyor is used for conveying different powder or granular materials.

#### **2.0 DESIGN FEATURES.**

2.1 Capacity :- Length :- 20 Tons/Hr. with Bulk Density of ingredients approx 600 Kg./Cum.

2.2 Length :- 25 mtrs

2.3 Chain Type : Radler Drag., single trough type, bolted construction with dust proof design with suitable tensioning device.

2.4 Material of Construction :- Mild Steel.

2.5 Drive Required :- Conveyor will run by horizontal foot mounted gear box and suitable electric motor through sprocket and chain. 15HP, 80:1 ratio.GB. CG Make PBEGGL .

2.6 General Arrangement :- As per standard NDDDB setup with Intake hooper fitted with magnet grill (2500-3000 Guas) and Aspiration units.

2.7 Speed of Conveyor. :- Max. 0.4 M/Sec.

#### **3.0 SCOPE OF SUPPLY:**

3.1 BODY :- Main body consisting of top plate (min. 3mm thick) , side plate (min. 4mm thick), bottom plate (min. 6mm thick). Side walls bolted together with trough bottom and cover. Trough of bolted construction. Partition plate to be used as per required.

3.2 Chain :- Radler Drag Type, 125mm pitch (complete of hardened alloy steel). Chain shall be guided at bottom and top by rail.

3.3 SUBSIDIARY PARTS.:- Hardened (EN-8) sprockets with mounting shaft, self aligning bearings with pedestal and dust seals at both the ends.

3.4 DRIVE UNITS. :- Driving Gear Box and motor with drive parts for chain drive of conveyor including base frame for gear box and motor and guard. Connected by sprocket and chain. (Drive sprocket(pilot bore) and chain will be provided while it has to be fitted at site as buyer will provide drive unit.

3.5 FASTENERS :- All the fasteners, washers , connectors.

Painting :- Inside :- Black

Outside :- Synthetic Enamel

Remark Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot.

## **ITEM M No. A- 4**

**Name of Work:-** S I T & C of Distribution Chain Conveyor with suitable drive unit

**Place of Supply:-** Cattle Feed Factory Kitcha Bye Pass Road Rudrapur

### **2.0 FUNCTIONAL REQUIREMENTS.**

The conveyor is used for conveyor different powder or granular materials. (from Dump Hopper Below Batch Weigher to Elevator)

### **2.0 DESIGN FEATURES.**

2.1 Capacity :- Length :- 20 Tons/Hr. with Bulk Density of ingredients approx 600 Kg./Cum.

2.2 Length :- 13.1 mtrs

2.3 Chain Type : Radler Drag., single trough type, bolted construction with dust proof design with suitable tensioning device.

2.4 Material of Construction :- Mild Steel.

2.5 Drive Required :-Conveyor will run by horizontal foot mounted gear box and suitable electric motor through sprocket and chain. 5HP, 80:1 ratio.GB. CG Make PBEGGL .

2.6 General Arrangement :-As per standard setup with Discharge pneumatic and chain gates(for maintenance) as per provide material to Bins

2.7 Speed of Conveyor. :- Max. 0.4 M/Sec.

### **3.0 SCOPE OF SUPPLY:**

3.1 BODY :- Main body consisting of top plate (min. 3mm thick) , side plate (min. 4mm thick), bottom plate (min. 6mm thick). Side walls bolted together with trough bottom and cover. Trough of bolted construction. Partition plate to be used as per required.

3.2 Chain :-Radler Drag Type, 125mm pitch (complete of hardened alloy steel). Chain shall be guided at bottom and top by rail.

3.3 SUBSIDIARY PARTS.:- Hardened (EN-8) sprockets with mounting shaft, self aligning bearings with pedestal and dust seals at both the ends.

3.4 DRIVE UNITS. :-Driving Gear Box and motor with drive parts for chain drive of conveyor including base frame for gear box and motor and guard. Connected by sprocket and chain. (Drive sprocket(pilot bore) and chain will be provided while it has be fitted at site as buyer will provide drive unit.

3.5 FASTENERS :- All the fasteners, washers , connectors.

Painting :- :- Inside :- Black

Outside :- Synthetic Enamel

Remark Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot.

## **ITEM M No A- 5**

**Name of Work:-** S I T & C of Grinding Section -1 Grinding Hopper Cap 1000Kg Feeder Grinder with magnet and AC frequency controller Hammer Mill, full circle with its table Rotar dynamically statically balanced with 99 beaters 3.7 mtr paddle Conveyoretc with suitable drive unit

2 Mixing Section- Hooper above batch mixture 1 MT Pneumatic flap for hooper, Batch Mixer- 1 MT (Planetary GB) with bottom full length opening pneumatically operated hooper below batch mixture 105 MT paddle conveyor 3.75 Mtr Long

Qty -1 No

Place of Supply:- Cattle Feed Factory Kitcha Bye Pass Road Rudrapur

### **1.0 FUNCTIONAL REQUIREMENTS.**

To fill material prior to grinding, grains ,etc , necessary to give continuous feeding to hammer mill.

### **2.0 DESIGN FEATURES.**

2.1 Capacity :- To hold 1MT of raw material @ 600Cum (density) with Bulk Density of ingredients approx 600 Kg./Cum.

2.2 GA Requirements :- Its should be made of design to accommodate in existing setup and have design to ensure free flow of material .With a provision of fitting low level and high level sensors

2.3 Rotary Feeder :- To feed material to hammer mill made with rotor and rare earth magnet (8000 guass) fitted in its body fitted with drive unit and variable speed drive.

2.4 Material of Construction :- Mild Steel.

2.5 Drive Required :-2 HP, 96 rpm CG PBEG L or equivalent Motor ,GB drive unit direct coupled.

2.6 General Arrangement :-As per standard setup with manual gate for maintenance feasibility

2.7 Speed of Conveyor. :- Max. 0.4 M/Sec.

### **3.0 SCOPE OF SUPPLY:**

3.1 BODY :- Main body consisting of top plate (min. 3mm thick) , Bolted design

3.2 FASTENERS :- All the fasteners, washers , connectors.

Painting :- Inside :- Black

Outside :- Synthetic Enamel

Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot.

### **1.1 FUNCTIONAL FEATURES.**

The Batch Mixer is required to prepare a homogeneous mixture of different powdered feed ingredient.

### **2.0 DESIGN FEATURES**

2.1 Capacity:- 1 MT with average bulk density of powder 600Kg/Cu. M.

Time per Batch:- 4 to 5 Minutes (minimum for even mixing). CV<5

Type:- Horizontal.

2.2 The Batch of 1000 Kgs (600-800Kg/CuM Bulk density of material) is dumped in the mixer from a Above Hopper fitted with a pneumatically operated flap just above it. The mixer to be provided with full length outlet slide gate pneumatically operated. Compressed air should be provided at the mixture through 13mm NB pipe at 9Kg/Cm Sq pressure.

2.3 Material of Construction:- Mild Steel.

2.4 Mixer would run by 15 HP, 96 rpm horizontal foot mounted PLANETARY geared motor through chain.

2.5 General arrangement of mixer to be as per drawing. Minor Variation in dimension are permitted.

### **3.0 SCOPE OF SUPPLY.**

3.1 Main Body from minimum 6mm thk steel plates with curved bottom, Side Plates 10mm Thickness. Top Cover with minimum 3mm thk Steel plates of bolted construction. Bottom frame to be provided with 10mm thk flange.

3.2 Double Spiral Ribbon (10 and 6mm thk) mounted on solid shaft, supported on self aligned ball bearings (Single Rotor).

3.3 Full length pneumatically operated flap at bottom for discharge.

3.4 Mechanism of pneumatic operation of slide gate with air cylinder (100mm dia, 80mm stroke) and solenoid valve.

3.5 Supporting bracket for driving geared motor made of minimum 20mm thk plate.

3.6 Drive parts for chain drive to mixer including following:

- Driving Sprocket.,DrivenSprocket.,Simplex Chain ,Chain Guard of min. 16swg plate.

3.7 Bolts, nuts, washers and packing for all internal connections, for fixing batch mixer Above Hopper, for fixing geared motor and guard ,etc.

3.8 Painting :Primer: PS Grey.

- Inside: Black.

- Outside:Synthetic Enamel.

Remarks :- Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot. Drive motor and Gear box units and additional A C Drive variablespeed units

## 1.0 FUNCTIONAL REQUIREMENTS.

The mill is used for grinding different feed ingredients like grains and cakes.

## 2.0 DESIGN REQUIREMENTS.

2.1 CAPACITY- 5-7MT/Hr(with drive unit 75/100HP, 2800 rpm) . with 4mm dia sieve and grindable material of bulk density 600 Kg/Cu. M. Size of material to be ground - 50mm (max) and 2mm (min)

2.2 The mill has material inlet with a magnet(Rare Earth-8000GuassStrenght) fitted on rotary feeder . The material flow should be governedby variable drive attached with rotary feeder at the inlet.Grinding in the mill should take place in single pass without preliminary crushing, by beating action of beaters mounted on horizontal rotor against sieve until material is ufficiently fine to pass through the sieve.

2.3 The sieve should have arrangement for quick removal/changing.

2.4 The mill is to be run by 75HP/100HP, 2800rpm TEFC motor, direct coupled motor.

2.5 General arrangement and dimension to be as per dwg. Minor variation is permitted while actual supply of the equipment.

## 3.0 SCOPE OF SUPPLY.

3.1 The inlet having flanged bottom, fitted on grinding mill top suitable for receiving the aterial from rotary feeder.

3.2 Main grinding mill body from 6/10mm thk mild steel fabrication with floor mounting base frame with suitable vibration dampers (PolyBond B Type). Suitable door (swing open/remove ) for replacement/inspection of sieve, rotor, beaters..

3.3 Statically and dynamically balanced rotor made from EN-8 sheet suitable for mounting beaters. The rotor to rest on self aligned, high speed ball bearings in pedestal. One set of Flat Type beaters of hardened steel (99Nos.) and one set of distance fitted in the Hammer mill.

3.4 One set of 4mm sieve of steel fitted in the side with suitable clamping arrangement. One set of 5mm sieve to be supplied loose with machine.

3.5 Arrangement for fixing safety limit switch and its bracket, to be fitted at the door.

3.6 Bolts, nuts, washers and packing for internal connections, for fixing drive motor, guard and vibration dampers.

- Painting :Primer:PS Grey –

- Inside: Black

- Outside: Synthetic Enamel.

Remarks :- Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot. Drive motor and Gear box units and additional A C Drive variable speed units in Supplier scope, drive units,these will be included from scope of supply.

## **ITEM M No A-6**

Name of work- S.I.T& C of PellatMill With Twin Rotor Conditioner And Feeder (Super Senior Std TC Model

Place of Supply- Cattle Feed Factory Rudrapur

Qty- 1 No

### **1.0 FUNCTIONAL REQUIREMENTS.**

The Pellet mill is required to pelletize the molasses mixed feed after steam cooking of the feed in the feeder conditioner.

### **2.0 DESIGN REQUIREMENTS.**

2.1 CAPACITY:- 5-7 MT/Hr. with 4-8 mm dia. pellet with bulk density of feed 600 Kg./Cu.M. (Actual density depends on the composition of feed ingredients.) (The Capacity of the machine depends on the usage of HP and the type of raw materials used.) (Dies upto 2.5 mm Dia can also be used for poultry , but capacity may decrease due to reduction in perforation diameter)

2.2 Pellets to be produced by squeezing the steam cooked mash feed between the rotating die and the pressing rolls.

2.3 MATERIAL OF CONSTRUCTION:- The parts of feeder conditioner and down spout of pellet mill and pellet mill door, coming in contact with steam to be made of Stainless Steel 304 grade. Pelletizing Die, Press Rolls, etc of suitable hardened alloy steel. Other wearable parts to be of Mild Steel Construction. The Feeder conditioners shaft is of heavy duty pipe with halves fitted construction of S.S. construction.

2.4 The discharge rate of feeder would be controlled by varying speed of feeder conditioner.

2.5 The feed is entered into the feeder through gravity from the hopper above pellet mill. In the Conditioners the Molasses mixed feed is given steam in the feed where it is completely mixed and cooked. (More nos. of conditioners are used to increase the cooking time of the feed as per requirement of the feed standards, and to maintain the holding time AC Frequency variable drives can be maintained at each conditioners which is optional)

2.6 Dry steam will be required near the mill through 50 mm NB Flanged connection at 1 to 1.5Kg./cm sq. pressure.

2.7 The main pellet mill and feeder conditioner to be run through "V" Belts by horizontal TEFC induction motor of 180HP and feeder drive 3HP, 144 rpm while Twin Rotor Conditioners to be run by 15HP, 960 rpm geared motor (CG , PB EGL)

2.8 For easy opening of the Roller Holder Main Shaft there is a Main Pulley lifting device.

2.9 Quick opening main door with a limit switch.

2.10 Improved grippers for holding roller assembly.

### **3.0 SCOPE OF SUPPLY.**

3.1 Screw/Paddle type feeder conditioner, approximately of Stainless Steel 304 construction (with hollow shaft.) with arrangement of single drive at feeding end. Feeder conditioner to be complete with self aligning end bearings, special doors to facilitate cleaning, flanged inlet for feed, high intensity permanent magnet near outlet, flanged inlet for steam arrangement for steam injection. It is provided with digital type thermometer to show temperature of feed entering the mill.

3.2 Pellet Mill comprising of heavy sheet steel body and complete with following:-

3.21 One no. die of 4mm dia holes (Special alloy steel hardened ) inside dia. 520 mm , 185mm total width. and 2 nos. press rolls (Special alloy steel hardened ) dia. 250 mm fitted with the mill complete with die holder assembly, press roll assembly and other accessories.

3.22 Front and rear scrappers.

3.23 Safety limit switch and shear pin arrangement to stop the mill in case of excessive loading/choking.

3.24 Adjustable pellet cutting knives -1 set (2nos.)

3.25 Pelleting chamber cover on heavy duty hinges to make die and rolls readily accessible.

3.26 Safety flap valve (manual) in the inlet to prevent the mill from becoming choked.

3.27 Suitable maintenance and inspection provisions.

3.3 Common steel base for mill and main motor supported on minimum 8 nos, vibration dampers similar to Cushy foot mounting (Poly Bond B Type) . It shall have motor frame for adjusting "V" Belts tension. The mill is provided with counter-shaft pulley arrangement.

3.4 Drive parts including driving and driven pulleys, "V" belts, guard etc, main drive and for feeder conditioners' drive.

3.5 Bolts, nuts, washers, packing for internal connection, connections at top and bottom, for fixing base frame to steel structure.

3.6 Accessories include, Die ,Roll Assembly Lifting Device(Foldable design), Jack for easy pushing of T Shaft.(in order to avoid hammering while removal)

3.7 Painting Outside - Synthetic enamel. - Inside - Black / White

Minor Variations may be there so as to fit its parameter and to give best suitability , on the actual usage spot. Drive motor and Gear box units and additional A C Drive variable speed units in Buyers scope, if order placed without drive units, hence these will be excluded from our scope of supply.

## **ITEM M No. A-7**

**Name of Work:**S.I.T& C of Single Rotor High Speed Molasses Mixture

Place of Supply- Cattle Feed Factory Rudrapur

Qty-1

### **1.0 FUNCTIONAL REQUIREMENTS.**

To Mix the Molasses evenly

### **2.0 SCOPE OF SUPPLY**

2.1 It consist of :

2.1.1 Body with Bearing Housing Molasses sprayer bearing

2.1.2 Rotor assembly

2.1.3 Motor

2.1.4 Coupling Unit

2.1.5 MS structure with bed including dampers

2.2 Body with Bearing Housing

2.2.1 Body Material: SS 304 Grade, fabricated by 6/8mm thick sheet

2.2.2 Specifications: Molasses mixer body consist of SS body, side plate 6mm SS, outlet and inlet chutes SS, Molasses sprayer jet SS 304, Bearing 2313K, Adopter H 2313, Make- SKF Bearing housing suitable for 2313K bearing size and also provision for pillow block fixing bed.

2.2.3 Rotor Assembly: (including beaters) Dynamically and statically balanced rotor at 1500 rpm

2.2.4 Shaft material: EN8 Beater: Knife beater – EN8 with hardening and Flat beater – Nickel hard chrome, harness – 40 HRC

2.2.5 Motor: 25HP, 1440 rpm, foot mounted make – BBL/ABB/Siemens

2.2.6 Coupling Unit: F 80 size Tyre coupling system.

2.3 MS Structure with bed

2.3.1 High speed molasses mixer with its MS bed having motor and mixer resting single frame. MS angle stand for the bed. (Only bed and structure)



## **ITEM M No. B- 1**

**Name of Work-**S. I. T. &C of Ghee/ Butter Oil Storage Tank

**Location-** Udham Singh Nagar DUSS Ltd Kanjabagh Road Khatima .

**Quantity:** 1.0 No

### **Ghee/ Butter Oil Storage Tank**

**CAPACITY:** 5000 L

#### **1.0 FUNCTIONAL REQUIREMENTS**

Ghee or butter oil would be stored in this tank at a temperature of 60-65 DEC. CENT.

#### **2.0 DESIGN REQUIREMENTS**

2.1 **Capacity:** 5000L with at least 100 mm allowance in depth.

2.2 **Constructional features:** The tank should be of double walled, jacketed and sanitary design.

2.3 **Finish:** All stainless steel welding joints are to be polished to 150 grits.

2.4 **Joint Curvatures:** All inside corners should have minimum radii of 25 mm.

#### **3.0 SCOPE OF SUPPLY**

3.1 **Jacket:** The shell and bottom portion of the tank should be jacketed for heating and cooling arrangement.

3.2 **Inner shell:** The Inner shell and inner conical bottom should be made from 2mm thick stainless steel plate conforming to AISI 430. - 1 no.

3.3: **Outer shell:** The outer shell and flat bottom should be made from 2 mm thick stainless steel plate conforming to AISI 430. - 1 no.

#### **3.4 Accessories**

3.5.1 **Legs:** Mild steel legs with stainless steel (AISI 430) pipe cladding with stainless steel ball feet provided at the bottom of the tank. The stainless steel ball feet should have provision for height adjustment of 50 mm.

3.5.2 **Covers:** Half open able three piece covers on top made from 2 mm thick stainless steel conforming to AISI 304. Centre portion should be fixed type from 4 mm thick stainless steel sheet conforming to AISI 304.

3.5.3 **Sprinkler pipe :** Sprinkler pipe of 25 mm dia made from stainless steel ( AISI) for sprinkling hot or chilled water on the outer surface of inner shell. The Sprinkler pipe should be removable end completes with 4 nos. unions. The Sprinkler pipe should end outside in a header with two separate connections for hot and chilled water.

3.5.4 **Jacket Drain:** Stainless steel (AISI 304) drain of 30 mm dia at the bottom of the jacket.

3.5.5 **U- Bend:** Stainless steel (AISI 304) U- Bend of dia at the bottom of the jacket. -1 no.

3.5.6 **Over flow:** Stainless steel (AISI 304) U- Bend of dia at the bottom of the jacket. -1 no.

3.5.7 **Steam Ejector :** Steam ejector/steam sparger Spurger removable type at the bottom of the jacket. The connection end outside in a flange and counter flange etc. should be stainless steel (AISI 304).

3.5.8 **Bottom outlet:** 51 mm diameter vertical outlet with stainless steel (AISI 304). Straight through plug type flanged valve ending the complete stainless steel union . this outlet should be a clear height of 650mm. of can under it.

3.5.9 **No foam inlet :** Removable type stainless steel inlet (AISI-304) no foam inlet of 38 mm dia at top. The inlet should end in a complete stainless steel union outside. - 1.0 No.

#### **4.0 Tests:**

The following tests should be conducted by the manufacturer at their work-

4.1 Dye penetration test for the welding joints.

4.2 Water fill up test of inner shell for water tightness.

4.3 Water fill up test jacket for water tightness.

## **ITEM M No. B- 2**

**Name of Work-**S. I. T. &C of Semi AutomaticGhee PET Jar Filling & Sealing Machine

**Location-** Udham Singh Nagar DUSS LtdKanjabagh Road Khatima .

Quantity: 1.0 No.

**Functional Requirements:** The Machine will be used to fill molten Ghee in Pet Jars (with capacity ranging 200 ml, 500 ml and 1000 ml for same neck dia of bottles), placing and sealing of Aluminium/Poly Lid and finally manually capping it.

**Design Requirements:-**

| S.N. | Design Parameters  | Quantity/<br>Requirement |
|------|--|--------------------------|
| 1    | PLC Based Rotary/Linear Type Semi AutomaticGhee PET Jar Filling & lid Sealing Machine  | 1.0 No.                  |
| 2    | Jar Conveyor-1.50 Mtr long with drive unit, all supports and parts (excluding belt) should be made of SS-304 grade stainless steel.  | 1.0 No.                  |
| 3    | CAPACITY- 300 jar/hr, Liquid Volume- 200 ml ,500 ml and 1000 ml, for same neck dia bottles.  | Required                 |
| 4    | SALIENT FEATURES: The Jar filling machine should be provided with the following features -   | Required                 |
| 5    | No Jar - no filling,<br>Very low liquid level - no filling,  | Required                 |
| 6    | No Jar – no lid placement,   | Required                 |
| 7    | No Jar - no lid sealing,   | Required                 |
| 8    | Low air pressure - no mechanical movement,   | Required                 |
| 9    | Possible to operate the machine without filling,   | Required                 |
| 10   | Possible to operate only Rotary/Linear table,  | Required                 |
| 11   | Filled PET Jar counter,  | Required                 |
| 12   | Prevention of gear box and drive motor in case turn table gets struck due to malfunctioning of heater and printing arm. The rotary table movement should stop due to the torque coupling provided with the gearbox.  | Required                 |
| 13   | Good quality Pneumatic contact type Printing station & Device for printing the batch no, manufacturing date, price on the top of the lid/ bottom. Suitable printing system should be provided.                       | Required                 |
| 14   | Jar filling station with S.S.-304 Grade buffer tank (minimum cap- 25 liter) having mechanical float valve and over flow pipe.  | Required                 |
| 15   | It Should be suitable to fill jar having same neck diaapprox 90 mm . sample bottle will be provided to you for determination of neck dia.  | Required                 |
| 16   | The machine should have Lid placing station, Jar lid sealing station, printing station, cup pushing and lifting station, straight S.S.-304 made conveyor with S.S.-304 working table for supporting the filled Jars. | Required                 |
| 17   | Suitable to increase the jar volume from 200 ml to 1000 ml. The neck/lid size of the jar will be same.   | Required                 |
| 18   | All contact parts of the machine, supports, including cup holding dies, should be of SS-304.   | Required                 |
| 19   | All the electrical parts should be of L&T or Equivalent Standard Makes.  | Required                 |
| 20   | Cup filling system while filling it to avoid any spillage of Ghee.   | Required                 |
| 21   | Control panel to operate the filling mounted under the filling station. Capping will be done manually.   | Required                 |
| 22   | Control panel- Control panel in SS 304 construction complete with timers, relays and indicating lamps to perform the job filling and capping function.   | Required                 |

**Note- Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 5 such machines in cooperative/ govt .dairies in last 3 years. No dealers or traders are allowed.**

### **ITEM M No. B- 3**

**Name of Work:- S.I.T&C of Automatic Lined Carton (Ceka Pack) Ghee filling and sealing Machine**

**Place of supply: Udham Singh Nagar DUSS ltd. Kanjabag Road Khatima, District- U.S.Nagar**

**Quantity: 1.0 Nos.**

**Design Requirements**

**Machine Specifications:**

All the parts in contact with product should be made of AISI-304 Grade Stainless steel.

Product to be packed - Ghee (Butter Oil)

Quantity to be packed Liquid-200ml to 1000 ml

| Carton Dimension (mm) | GHEE  |        |       |
|-----------------------|-------|--------|-------|
|                       | 1 Ltr | 500 ml | 200ml |
| Tentative Length      | 102   | 86     | 72    |
| Tentative Width       | 70    | 61     | 42    |
| Tentative Height      | 168   | 142    | 85    |

#### **Salient Features**

|                         |  |
|-------------------------|--|
| Filling System          | Volumetric/Gravimetric Electronic weigher  |
| Liner Material          | Liner material is specifically selected from a wide range of laminates depending on the produce. |
| Output                  | up to 12 cartons per minute  |
| Size Change             | All carton dimensions can be changed within given range  |
| Temperature Controller  | PID Temperature controller to control precisely $\pm 1$ Degree temperature of the sealing jaw    |
| Options                 | central lubrication  |
| Electrical Supply       | standard 440/220 volts 3- phase 50 hz  |
| Power Consumption       | 6 KW (Approx) depending upon equipment   |
| Floor Space mm          | 2000x3000(without pressure conveyor)   |
| Carton Discharge Height | 1050mm   |

#### **Salient Features**

- \*The machine should be designed filling machine to handle liquids.
- \*The machine offered should be with 14 stations and all operations are driven mechanically.
- \*An easily accessible magazine should hold approximately 150 cartons ensuring 12 minutes of running time. The magazine be ergonomically designed to reduce fatigue for the operator.
- \*Easy and quick change over of the carton size with same cross section pre-set exchange part.
- \*Centralized lubrication and a main drive with safety clutch.
- \*Specially designed liquid filler with hot filling capacity of up to 100 deg C
- \*Fill accuracy  $\pm 1\%$  for 1 liter/gram.
- \*Cost efficient filling of 720 cartons per hour.
- \*A number of safety switches supervise faulty operation and prevent break down.
- \*In built safety features like no carton - no fill
- \*Designed to ensure hygienic filling and easy access for cleaning and servicing.
- \*Operational Attachment- Central lubrication, Dust Extractor, Gas Flushing
- Inject/Embossed coding

#### **NOTE-**

**Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 5 such machines in cooperative/ govt .dairies in last 3 years.**  
**No dealers or traders are allowed.**

#### **ITEM M No. B- 4**

**Name of Work: Supply, Installation and Commissioning of Milk Homogenizer**

**Place of Supply-** Udham Singh Nagar DUSS Ltd Kanjabagh Road Khatima

**Quantity :** 1Nos., **Capacity:** 2000 Liters/ hour

**Functional Requirements:**

It will be used for Homogenization of Chachh or Milk.

**Design Requirements:**

**Finish:** All welding joints are to be ground smooth. All stainless steel surfaces are to be polished to 150 grits.

**Technical Details :** The technical details are as follows-

- (1) It should be manufactured as per NDDDB standards.
- (2) Pumping liquid : Milk or Chhachh (Butter milk)
- (3) Capacity : 2000 Liters/hour
- (4) Pressure : 200 kg/ sq. cm
- (5) End connection : 38 mm SMS connection
- (6) High Pump Type : Triplex Plunger Model –TP40 or equivalent
- (7) Plunger Diameter : 20 mm
- (8) Speed : 250 RPM
- (9) Valve Type : Ball Type
- (10) Motor make : Bharat Bijlee/ Crompton or equivalent
- (11) Rating : minimum 20 HP, 960 RPM
- (12) Speed Reduction : V belt pulley drive
- (13) Homogenizing Valve : Two stage manual
- (14) Material of valve component : Special wear resistant material
- (15) Mounting : Floor Standing Design with S.S. -304 (2 mm sheet) cladding externally
- (16) Pressure Gauge : 0-400 kg/sq. cm Glycerine filled homogenizer type
- (17) All the parts, outer cover and parts coming in contact with milk should be made of Stainless Steel – 304 grade or higher grade Stainless steel material.

**NOTE-**

**Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 3 such machines in cooperative/ govt .dairies in last 3 years.**

**No dealers or traders are allowed.**

## **ITEM M No. B- 5**

**Name of Work: Supply, Installation, Testing & Commissioning of ChachChiller**

**Location-**Udham Sigh Nagar DUSS LtdKanjabagh Road Khatima

**Capacity** - 5000 Lit.per Hour.

**Functional Requirement:**

### **1.1 General Description:-**

The single section plate heat exchanger would be used for cooling Chachhwith chilled water.

The scope of the supply includes necessary plates, sealing gaskets and supporting frame for plate pack and four numbers of thermometers.

### **1.2 Operating Parameters:-**

The process material, a mixture of Chach.

Chachfeed temperature : 19\* C

Chachdischarge temperature : 4\* C

Chilled water feed temperature : 1.5\* C

Chilled water flow rate : 3 times Chachhflow rate

Capacity : 5000 Lit/Hr

### **2.0 Design Requirements:**

#### **2.1 Plates:-**

The plate pack should be fabricated out of Stainless Steel confirming to AISI 316 or equivalent grade, 0.5 to 0.6 mm thick, and should form a sanitary assembly and be suitable for effective in place cleaning operation . All milk contact surfaces shall be equivalent to not less than 150 grit finish properly applied. All Chachhcontact and exterior surfaces shall be accessible or readily removable for cleaning and inspection .The S.S. plate should be of make TETRA PACK/GEA/SAUNDEX.

**2.2** The gasket supports and contact faces should ensure complete sealing and rigid support for the gaskets.

**2.3** The design should include support arrangement to prevent the plates from deflecting under high pressure differential.

**2.4** All the four inlets and outlets(two each) of the product and chilled water should be provided with (one to each) suitable range of thermometers/temperature indicators.

#### **2.5 Gaskets:-**

The sealing gaskets must ensure complete sealing and prevent any cross leakage between product and service liquids .Transfer surface gaskets shall be continuous and of a removable sanitary type, or rubber like material continuously bonded to the transfer surface so as to be smooth and readily cleanable .Gaskets should be of glue less "SNAP-IN/LOC IN" glue less type made out of good quality neoprene rubber .The material must comply with food quality requirement and be capable of withstanding a water sterilization temperature of 100 degC and a 2% caustic solution at 70\*C. Gasket material shall be non-toxic, relatively fat resistant and shall have smooth surface.

#### **2.6 Supporting Frame:**

The supporting frame for the plate pack should be of a free standing design made of M.S., with S.S. cladding, complete with a manually operated tightening device and adjustable S.S. ball fee .The frame should be suitable to take care plate pack of capacity 5000 lit/hr

#### **2.7 Pressure drop:**

The allowable pressure drop in the plate pack, including losses, at the design flow rate, should not exceed 1.0 kg/cm for product and service liquids.

**2.8** All the fittings should be as per SMS standard.

**2.9 Thermometers:** The chiller should be provided with arrangements to fit thermometers (4 numbers) to measure inlet and outlet temperatures of milk and chilled water. The offer should include the supply and fitting of thermometers of standard make .

**Note-Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 3 such machines/pasteurizers in cooperative/ govt .dairies in last 3 years. No dealers or traders are allowed.**

## **ITEM M No. B- 6**

**Name of work- S. I. T. &C of Double Track Automatic Dahi Cup Filling & Sealing Machine (Rotary Type)**

**Location-** Udham Singh Nagar DUSS Ltd Kanjabagh Road Khatima

**Capacity – 2400 Cups/hr**

**Requirements:-**

**I- (A) PLC Based Rotary Type Automatic Cup Filling & Sealing Machine (Double Track)** - 1.0 No.

**(B) Cup Conveyor-** 1.84 Meter long - 1.0 No.

**CAPACITY-** 2400 cups/hr, Liquid Volume- 200 ml and 400 ml .

### **SALIENT FEATURES:**

The cup filling machine should be provided with the following features -

- 1.(a) No cup - no filling,
- (b) Very low liquid level - no filling,
2. No cup - no lid placement,
3. No cup - no lid sealing,
4. Low air pressure - no mechanical movement,
5. Possible to operate the machine without filling,
6. Possible to operate only Rotary table,
7. Filled cup counter,
8. Prevention of gear box and drive motor in case turn table gets struck due to malfunctioning of heater and printing arm. The rotary table movement should stop due to the torque coupling provided with the gearbox.
9. Good quality Printing station & Device for printing the batch no, manufacturing date, price on the top of the lid/ bottom. Suitable printing system should be provided.
10. Cup filling station with S.S.-304 Grade buffer tank (cap- 100 liter) having mechanical float valve and over flow pipe.
11. Should be suitable to fill cups having dia. of 75 mm to 95 mm .
12. The machine should have Lid placing station, cup lid sealing station ( two nos.), printing station, cup pushing and lifting station, straight S.S.-304 made conveyor with S.S.-304 working table for supporting the filled cups.
13. Suitable to increase the cup volume from 200 ml to 400 ml by changing the dies in the turn table. The two types of dyes should be provided.
14. All contact parts of the machine, supports, including cup holding dies, should be of SS-304.
15. All the electrical parts should be of L&T or Equivalent Standard Makes.
16. Cup filling system while filling it to avoid any spillage of milk.
17. The Rotatory machine should be of double track, each track design with capacity 1200 cups/hr.

### **NOTE-**

**Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 5 such machines in cooperative/ govt .dairies in last 3 years.**

**No dealers or traders are allowed.**

### **ITEM M No. B- 7**

**Name of work- S. I. T. &C of VaccumPaneerPackaging Machine**

**Location-** Udham Singh Nagar DUSS Ltd Kanjabagh Road Khatima

**Capacity** – Double compartment

**Quantity- 2 Nos**

**Functional Requirements:**

It will be used to vacuum pack the Paneer in small sizes to keep it fresh, intact and presentable when it reaches to the consumer. The sealing should be heat sealing, minimum 5 mm wide.

**Design Requirements-**

The sealing compartment should be made of SS-304 grade Stainless Steel sheet.

It should be equipped with double chambers to enable vacuuming and sealing of two packets at a time.

It should be equipped with transparent lid for observation.

It should be equipped with high capacity vacuum pump with provision for measurement and control of vacuum.

The machine should also be equipped with following features-  
Inert gas flushing arrangements.

Parallel Sealing.

Bioactive Sealing.

Double Seal Bars.

Each Chamber Size -450mm x 450mm x 100mm (Approx.)

Seal Length - 5mm x 400mm

Distance between the seal bars- 350mm

Vacuum Pump capacity- 30 Cum/hr

Electric motor- 1.0 HP

**NOTE-**

**The machine should be of reputed make. Reputed manufacturers of the Vaccum packing machine or Dairy equipment manufacturers with consent of original Vaccum packing machine manufacturer are allowed for bidding and they should have supplied/ installed at least 5 such machines in cooperative/ govt .dairies in last 3 years.**

## **ITEM M No. C- 1**

**Name of Work:** Supply, Installation, Testing & Commissioning of Multi Purpose Skid mounted Paneer Cum Curd Milk Pasteurization Module of

**Place of work:** Almora DUSS Patal Devi Almora

**Quantity :** 1 No.

### **Functional Requirements:**

It will be used for heating of milk from 4 deg C to  $92\pm 2$  deg C, holding the heated milk up to 12 minutes, then discharging the milk at 75 DegC (for paneer making) or 42 Deg C ( for dahi Making) as required.

Capacity: 1500 LPH (PID controller based).

### **Design Basis:**

|                             |  |
|-----------------------------|--|
| Type                        | : Plate Heat Exchanger                       |
| Capacity                    | : 1500 LPH                                   |
| Product                     | : Raw/Reconstituted Milk                     |
| Product Consistency         | : 4% Fat & 9% SNF Max.                       |
| MOC of Plates and Thickness | : <b>SS 316 and 0.6 mm thick</b>             |
| Temperature Program         | : 4 –92 holding for 15 minutes – 75/42 deg C |

|  |                                     |
|--|-------------------------------------|
| Sections                               | : Heating, Cooling and Separate HWG |
| Holding Time                           | : 15 minutes (Spiral Tubular type)  |
| Raw Milk Inlet Temperature             | : 4 deg C                           |
| Pasteurization Temperature             | : $92\pm 2$ deg C                   |
| Pasteurized Product Outlet Temperature | : 75/42 deg C                       |

### **Utilities to be provided :**

Dry saturated steam @ 3 bar (g)

Process quality water

Instrument quality compressed air @ 6 bar (g)

### **Technical specifications and scope of supply**

#### **1.0 Plate Heat Exchanger – Make : Alfa Laval / IDMC/ Tetrapak / Gea/SAUNDOX**

**Plates:** The plates shall be made from stainless steel (SS 316) 0.6mm thick in sanitary design. All the product contact and exterior surfaces shall be easily accessible or readily removable for cleaning and inspection.

**Gaskets:** The sealing gaskets must ensure complete sealing and prevent any cross-leakage between product and service liquids. Gaskets shall be of sanitary type and shall continuously bond to the heat transfer surface. The gasket material shall be of food grade, non-toxic, fat resistant, non-absorbent and shall have smooth surface. The material shall withstand a water sterilization temperature of 100 deg C, 1% hot acid solution at 70 deg C and 2% lye solution at 85 deg C. Gaskets' MOC shall be NBR/EPDM.

**Supporting Frame:** The supporting frame for the plate pack shall be of a self-supporting design made of stainless steel (AISI 304) clad mild steel with a manually operated stainless steel (AISI 304) tightening device. The tightening device shall be able to exert uniform pressure on all the parts of heat transfer plates to prevent any leakages from pasteurizer. The frame and tightening device shall prevent the plates from deflecting under pressure differential of minimum 4 kg/sq.cm. The supporting frame should be such that it should accommodate extra plates expandable up to 2000 LPH in future as per requirements.

### **Accessories**

**Inlets/Outlet:** The inlets and outlets in each section of the heat exchanger for products as well as services shall be provided with complete stainless steel (AISI 304) unions.



**Thermo-wells:** SS (AISI 304) pockets for thermometer on required ports for Product and service inlet and outlet connections. Suitable nos. of pockets is included. 6 numbers RTD are to be include in scope of supply.

**Ball Feet:** Pasteurizer plate pack shall be provided with SS304 ball feet for height adjustments up to 50 mm- 04 Nos.

**2.0 Holding:** It shall be designed for continuous holding of the product for the specified holding time of 12 minutes in SS304 tubes. The holding coil is considered in spiral tubes housed in SS 304 enclosure duly supported and dumped with insulation.

**3.0 Float Balance Tank:** The float balance tank of 100 litres capacity shall be fabricated from 2 mm thick SS sheet conforming to AISI 304. The tank shall be provided with cover, sanitary type SS (AISI 304) float valve with the product inlet, cup type outlet, no-foam return product inlet, inlet for water, over flow and suitable support legs. The float valve shall be designed for the rated flow rate and shall withstand an inlet pressure of 3 kg/sq.cm. The Balance tank shall be half openable type and shall be provided with stationary spray ball.

**4.0 Feed Pump & Booster Pump :** The SS 316 Feed and Booster Pump shall be standard and shall have sanitary SS shroud with louvers for air cooling. Its capacity shall be adequate to facilitate efficient CIP. The pump shall be provided with flanged motor with hygienic mechanical seal arrangement. The motor shall be 3 phase, 415 V (+/-10%), 50Hz (+/-5%), TEFC, squirrel cage with class "F" insulation with IP 55 protection. The pump and drive shall be integrated together. The drive motor shall be fitted with SS 304 arrangement for cable connection. \_\_\_\_3 Nos. (2 working + 1 standby)

Make: Alfa Laval / IDMC/ Fristam

**5.0 Flow Controller (Mechanical Type):** Flow Controller for Product: Stainless steel manual flow control device to be supply to maintain the required flow rate. The flow controller shall be of a sanitary design. Make : Alfa Laval / IDMC/ Swastik

**6.0 Duplex strainer:** One no. SS 304 duplex strainer (pipe-in-pipe type) to be include in standard design. It shall have a facility for manual change over using butterfly valve. Make : IDMC / Swastik / Inoxpa

**7.0 Tubular Heat Exchanger based Heating Device:** Final stage of heating shall be done with steam heated water. The hot water generation system shall be THE based and shall have an expansion chamber and other safety devices to take care of the volume of expansion and increased pressure ensuring the complete operational safety. It will be designed as per duty parameters required for pasteurization. The system shall be supplied with steam control valve with bypass assembly, expansion chamber, safety valve, water make up valve and a suitable steam trap with bypass assembly. THE Make :AlfaLaval/ IDMC/ Tetrapak / Gea /HRS

**Safety Device:** A safety device shall be provided in the hot water side of heating section to avoid damage to the heat exchanger caused by excessive pressure.

**Hot water Pump:** One number of Hot water pump will be supplied which will be used for hot water circulation for heating of milk up to 90 deg C. It shall be vertical multistage type. Make: Grundfos/Wilo. - 2 Nos. (1working +1 standby)

Two PID temperature control arrangement with control valve to be include for control of pasteurization temperature together with steam regulating and milk outlet temperature together with cooling water regulating and control valve is included. Make: Samson/Forbes Marshall

## **8.0 Instrumentation and control panel:**

### **Pasteurized Hot Milk Loop (92±2 deg C):**

Automatic controls shall be provided to ensure pasteurization temperature of product. If the required temperature of product is not reached, the flow of product shall be automatically diverted to the float balance tank with an audible alarm.

### **Pasteurized Milk Outlet Loop (75 / 42 deg C):**

Automatic controls shall be provided to ensure outlet temperature of product. If the required temperature of product is not reached, the flow of product shall be automatically diverted to the float balance tank with an audible alarm.

Two Pneumatic Flow Diversion Valve with SS316 wetted parts and EPDM seat with Control cap to be include in scope of supply. Make: Alfa Laval / IDMC / Tetrapak / Gea

The instrumentation and control panel shall be made in standard execution built to dust and vermin proof design. The control panel shall be leg supported and house the following components all pre-wired to terminal strip:

- 8.1** PID Controller for temperature of pasteurized product with display of set temperature and actual Product temperature: The controller has a facility to automatically tune to the requirement of set temperature. Make : Honeywell / Yokogawa
- 8.2** Paperless/Chartless (6 Channel) Recorder with digital display of temperatures of pasteurized product. It has microprocessor based with functional key facility for zero and span calibration.
- 8.3** Audio alarm with hooter and acknowledge and reset push button
- 8.4** Auto: manual selector switch and forced forward flow provision
- 8.5** I/P Convertor for steam control valve operation and electrically operated solenoid valve for air supply to flow diversion valve
- 8.6** Air pressure regulator cum moisture separator with isolating valve to ensure proper air supply to I/P Convertor and solenoid valves
- 8.7** Incoming on/off switch for control supply.
- 8.8** Suitable RTD's – 6 no's and Pressure gauges will be provided.

One set of 'ON' and 'OFF' push buttons with indicating lamps and suitable inscriptions shall be provided for operation of motors of various modules.

**9.0 Constant Pressure Modulating Valve:** Constant Pressure Modulating valve shall be supplied to maintain back pressure in the system. Make: Alfa Laval/IDMC/GEA/Swastik

**10.0SS 304Pipes and Fittings:** All inter connecting pipes with necessary fittings for product as well as service shall be supplied on the skid.

**11.0** The module shall be mounted on SS 304 Skid. However, the pasteurizer plate pack and holding coil shall each be floor mounted with SS 304 ball feet.

**12.0** Essential special tools shall be supplied with the plant.

### **NOTE-**

**Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 3 such machines or milk pasteurizers (of cap-5KLPH or above) in cooperative/ govt .dairies in last 3 years. No dealers or traders are allowed.**

## **ITEM M No. C- 2**

**Name of Work : S.I.T.&C. of Instant Milk Chilling Unit (Freon based Instant Milk Chilling Unit) at Chaukhutiya milk chilling center village-Bhagoti district Almora**

**Place of Supply: Chaukhutiya milk chilling center village-Bhagoti district Almora**

**Quantity: 1 (one) No.**

### **Technical specifications for process chiller/ IBT of 5TR capacity ( 5 TR X 2 UNITS )**

The system will be used to cool milk, collected from DCS, at approx. 38<sup>0</sup> Celsius to 4<sup>0</sup> Celsius. The required refrigeration unit should be suitable to chill 6000L milk/day. The IBT should be of 12,000 Ltr., double compartment, M.S. Ice Building Tank (IBT) based on following design and criteria:-

#### **1. Design Parameters of IMCU.**

- A. Capacity : Minimum 5TR.x 2
- B. Chilled water supply temperature : 1.5° C.
- C. Returns water temperature : 8 ° C.
- D. Chilled Water Storage capacity of IBT : 12,000.00 Liters.
- E. CFC free PUF Insulation (40Kg Density) : 80 mm (minimum)
- F. Sufficient amount of ice to be formed on IBT coils in emergency use.
- G. Material of construction of IBT : M.S. Sheet (6mm thickness.) with proper M.S. supports
- Skid mounted package unit with scroll Type compressor from Kirlosker Copeland, MANEROPE, Denfoss or equivalent reputed make having a nominal capacity of minimum 5 TR along with in built MS chilled water tank with agitator for water circulation.

The above system should be with required number of scroll type compressor with the latest in technology with the following features.

- energy efficient – saves at least 10% power, compare to conventional reciprocating compressor.
- Excellent low voltage starting characteristic.
- Maximum volumetric efficiency-nearly 100%
- Lower sound label.
- More reliable two moving components only, instead of seventeen, as in case of conventional reciprocating compressors.
- Excellent debris handling capacity, with no chance of gas leakage.
- More durable - longer life.

#### **Technical specifications.**

- 1. System : Industrial Process Chiller
- 2. Return Inlet water temperature : 8° C.
- 3. Outlet water temperature : 1.5° C.
- 4. Refrigeration load : 10 TR.
- 5. Refrigerant : Freon R-407C
- 6. Compressor make & type : Kirlosker Copeland, Man Europe, Denfoss  
Scroll type or equivalent reputed make
- 7. Control : Fully automatic
- 8. Chiller type : Copper coil in tank,
- 9. Thickness of copper coil : Should not be less than 16 gauge.

### **Refrigeration system -**

To care of load as follows:-

To chill 6,000 Ltrs. Milk per day from 38degC to 4degC by chilled water of 1.5° C, sufficient ice to be built in the system.

a. Ice bank system consisting 02 Nos. independent compartments (each of water holding capacity not less than 6,000 liters) with necessary partitions and support and insulated with 80mm thick PUF or more (suitable to take care of heat transfer) on all sides and bottom and finished with steel sheets and spray painted with anti-corrosive paint to give fine finish. The plate thickness will be 6mm and 8mm respectively and 1.6mm for covering of insulation. Out of two compartments one will act as a stand by but the provision will be that both compartments may be used simultaneously if required.

- b.** Evaporator coil of sufficient area fabricated from copper pipes and fittings. Please mention full details i.e. dia, length etc. in the offer in Technical bid.
- c.** Suitable motor drive water agitator, motor suitable for operation on 400/440 V, 3/50 cycles A.C. supply. - 02 Nos.
- d.** Chilled water circulating pump of sufficient capacity (minimum 9,000 LPH) with motor suitable for 400 V/3ph/50Hz, A.C. supply. The pump will be of such a capacity that it will take care of the increased load even when the plate heat exchanger capacity is increased to 25% per hours at latter date. - 02 Nos.
- e.** 02 Nos. (5 TR x 2 Nos.) condensing units and compressors are to be supplied out of these one will be in running condition and one will act as stand by but provision will be kept so that all 2 units may run simultaneously if required. Each unit will consist hermetically sealed compressor with accessories and air cooled condenser suitable for Freon of suitable capacity to take care of cooling load specified in the tender. One set of automatic controls for efficient operation of the unit. The complete unit should be of specified Make - 02 Nos.
- f.** Suitable M.S. chilled water circulating lines (From IBT to milk Chiller and return from chiller to IBT), valves & fittings, the lines must be properly insulated to Check the heat loss due to high ambient temperature. Necessary pipes and fittings, including pipe insulation, for chilled water circulation will also be provided.- - 1 Lot.
- g.** One set of electrical equipment for the milk chilling unit complete with all accessories controls panel, cables etc. The control panel would be with starting gear and will also be duly wired and suitable for milk tank agitator, hot water set and can scrubber each one no.
- h.** Compressor drive Motor suitable for operation on 400V/3ph, 50 Hz, AC supply (Make GEC/Crompton/Simens/Kirloskar/Bharat Bijali or equivalent reputed make). -2.0 Nos
- i.** One set of Automatic controls for efficient operation of the unit including main Electrical Panel suitable for Whole System.

**Scope of supply for Refrigeration unit:**

| S.N.     | Particulars  | Qty.     |
|----------|--|----------|
| <b>1</b> | <b>Refrigeration unit</b>  |          |
| 1.1      | Process chiller/compressor, Make- Kirlosker Copeland, MANEUROPE, Denfoss or equivalent reputed make. (5 TR x 2 Nos.)   | 2 (Two)  |
| 1.2      | Condenser, Make- Kirlosker Copeland, MANEUROPE, Denfoss or equivalent reputed make. (5 TR x 2 Nos.)  | 2(Two)   |
| 1.3      | M.S. Base frame  | 2(Two)   |
| 1.4      | Expansion valve, make Alco/Sporlan/Danfoss or equivalent reputed make  | 2(Two)   |
| 1.5      | LP/HP, make Alco/Sporlan/Danfoss or equivalent reputed make  | 2(Two)   |
| 1.6      | Filter/Drier, make Alco/Sporlan/Danfoss or equivalent reputed make   | 2(Two)   |
| 1.7      | Control Panel  | 2(Two)   |
| 1.8      | The system should be consisting of L&T make contactor, Rotary Switch, Minilnk make Single phase Preventer, Subzero make temperature indicator cum controller etc, make of items may vary but it should be of reputed make. | 1 Lot    |
| 1.9      | IBT, 12,000 Ltr. Capacity, 80 mm thick PUF insulated, double compartment, made of 6 mm thick M.S. Plate for walls and 8 mm thick M.S. plate for bottom with suitable agitator and insulated top cover.                     | 1 No.    |
| 1.10     | Suitable M.S. chilled water circulating lines (From IBT to milk Chiller and return from chiller to IBT), valves & fittings, the lines must be properly insulated minimize the heat loss due to high ambient temperature.   | 1.0 Lot  |
| 1.11     | Chilled water pump, suitable to discharge 5,000 LPH, make GEC/ Crompton/ Simenon/Kirloskar/greaves/Bharat Bijali or equivalent reputed make  | 2.0 Nos. |
| 1.12     | Electrical panel, made of CRCA sheet. 1.5 mm thick, duly painted, complete in all respect to meet the mentioned requirements.  | 1.0 No.  |

**Note- Only reputed manufacturers of the machine are allowed for bidding and they should have supplied/ installed at least 3 such machines in cooperative/ govt .dairies in last 3 years.**

## ITEM M No. C- 3

**Name of work-** S.I.T.&C. of Various milk chilling equipmentsat Chaukhutiya milk chilling center village-Bhagoti district Almora(Unit of Almora Milk Union, Pataldevi, Almora)

**Place of Supply:** Chaukhutiya milk chilling center village-Bhagoti district Almora

**Quantity:** 1 (one) Job.

### Supply, Installation, Testing & Commissioning of Milk Chiller

**Capacity** - 3000 Lit.per Hour.

#### **Functional Requirement:**

##### **1.1 General Description:-**

The single section plate heat exchanger would be used for cooling milk with chilled water. The scope of the supply includes necessary plates, sealing gaskets and supporting frame for plate pack and four numbers of thermometers.

##### **1.2 Operating Parameters:-**

The process material, a mixture of Chach.

|                                |                          |
|--------------------------------|--------------------------|
| Milk feed temperature          | : 19* C                  |
| Milk discharge temperature     | : 4* C                   |
| Chilled water feed temperature | : 1.5* C                 |
| Chilled water flow rate        | : 3 times Milk flow rate |
| Capacity                       | : 3000 Lit/Hr            |

#### **2.0 Design Requirements:**

##### **2.1 Plates:-**

The plate pack should be fabricated out of Stainless Steel confirming to AISI 316 or equivalent grade, 0.5 to 0.6 mm thick, and should form a sanitary assembly and be suitable for effective in place cleaning operation . All milk contact surfaces shall be equivalent to not less than 150 grit finish properly applied. All milk contact and exterior surfaces shall be accessible or readily removable for cleaning and inspection .The S.S. plate should be of make TETRA PACK/GEA/SAUNDEX.

**2.2** The gasket supports and contact faces should ensure complete sealing and rigid support for the gaskets.

**2.3** The design should include support arrangement to prevent the plates from deflecting under high pressure differential.

**2.4** All the four inlets and outlets(two each) of the product and chilled water should be provided with (one to each) suitable range of thermometers/temperature indicators.

##### **2.5 Gaskets:-**

The sealing gaskets must ensure complete sealing and prevent any cross leakage between product and service liquids .Transfer surface gaskets shall be continuous and of a removable sanitary type, or rubber like material continuously bonded to the transfer surface so as to be smooth and readily cleanable .Gaskets should be of glue less "SNAP-IN/LOC IN" glue less type made out of good quality neoprene rubber .The material must comply with food quality requirement and be capable of withstanding a water sterilization temperature of 100 degC and a 2% caustic solution at 70\*C. Gasket material shall be non-toxic, relatively fat resistant and shall have smooth surface.

##### **2.6 Supporting Frame:**

The supporting frame for the plate pack should be of a free standing design made of M.S., with S.S. cladding, complete with a manually operated tightening device and adjustable S.S. ball fee .The frame should be suitable to take care plate pack of capacity 3000 LPH, expandable up to 5000 LPH in future as per requirements.

##### **2.7 Pressure drop:**

The allowable pressure drop in the plate pack, including losses, at the design flow rate, should not exceed 1.0 kg/cm for product and service liquids.

**2.8** All the fittings should be as per SMS standard.

**2.9 Thermometers:** The milk chiller should be provided with arrangements to fit thermometers (4 numbers) to measure inlet and outlet temperatures of milk and chilled water. The offer should include the supply and fitting of thermometers of standard make .

### **Supply of S.S. Vertical Milk Storage Tank**

**Quantity:** 2 Nos.

**Capacity:** 3000 Liters

#### **1.0 FUNCTIONAL REQUIREMENTS**

The milk storage tank would be used to store chilled milk at 4 degree centigrade temperature.

#### **2.0 DESIGN REQUIREMENTS**

##### **2.1 CAPACITY - 3000 Liter**

The volume of the tank should be such that after filling it up to the rated capacity, the level of milk would be at least 50 mm below the bottom end of sight/light glass.

##### **2.2 Constructional Features:**

Double walled, insulated and welded construction of sanitary design.

##### **2.3 Slope:** 1:50 towards the outlet at the bottom of the tank.

**2.4 Metal Contact:** The only metal to metal contact between the inner and the outer shells shall be at the places where fittings for the tank are provided. At the places where mild steel stiffeners are provided insulated padding made of 5mm thick Asbestos sheet should be fixed between the inner stainless steel shell and stiffeners.

**2.5 Finish:** All welding joints are to be ground smooth. All stainless steel surfaces are to be polished to 150 grits.

**2.6 Joints Curvatures:** The radii of all welded and permanent attachment joints should be at least 6 mm. Where the conical ends joins the cylindrical shell the radii should not be less than 25 mm.

#### **3.0 SCOPE OF SUPPLY**

##### **3.1 Inner Cylindrical Body:**

The inner shell and conical ends should be fabricated from 2 mm thick stainless steel sheet conforming to AISI 304.

##### **3.2 Outer Cylindrical Body:**

The outer shell and conical ends should be fabricated from 2 mm thick stainless steel sheet conforming to AISI 304.

##### **3.3 Insulation:**

The entire inner stainless steel shell and the conical ends should be insulated in three layers as follows:

First Layer: 25 mm thick resin bonded crow 150 fiber glass compressed to 10 mm applied readily with chicken wire netting.

Second layer: 50 mm thick expanded polystyrene compressed to 45 mm applied longitudinally with bitumen.

Third Layer: 50 mm thick expanded polystyrene compressed to 45 mm applied readily with bitumen.

#### **3.4 Accessories**

**3.4.1 Inlet-cum-Outlet:** 38.1 mm dia cup type inlet cum outlet with two way plug type stainless steel (AISI 304) flanged valve ending in complete stainless steel union. It should be provided at a height of 350 mm from the finished floor level. - 1no.

**3.4.2 Air Vent:** Stainless steel (AISI 304) 150 mm dia air vent to prevent formation of partial vacuum during CIP and pressure during filling. - 1 no.

**3.4.3 Man Key:** Oval shaped stainless steel (AISI 304) man way of dimensions approximately 550 X 405 mm at the front end and provided with leak proof hinged insulated stainless steel (AISI 304) door with tightening and locking device. The man way door with open inward but at the same time it can be taken cut also when necessary. The gasket should be of neoprene or nitrile rubber of food quality. - 1 no.

**3.4.4 Sight Glass:**Stainless steel (AISI 304) sight glass assembly should be provided with toughened glass. It should be provided in such a way that one can easily read from the zero level up to the rated capacity level mark.

**3.4.5 Sand Blasted Level Marks:**It should be calibrated at 500 L intervals and provided on the inner rear end of the tank opposite to the sight glass.

**3.4.6 Light Glass:**Stainless steel (AISI 304) 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.

**3.4.7 Platform:**A small platform of stainless steel (AISI 430) with two steps on the front end of the tank and two nos. of stainless steel handle 300 mm below sight glass to enable view through the sight glass. The platform should be located at around 1400 mm below the sight glass for the convenience of operator.

**3.4.8 Agitator:**It should be in stainless steel (AISI 304) construction complete with geared motor of adequate capacity and should be able to uniformly agitate and mix milk in the tank within 10 minutes. The agitator shaft should be a AISI-304 rod.

Make of motor- Kirlosker/Crompton Greaves/ Bharat Bijali or approved by the UCDF. Make of Gear box- Radicon/ Alcon - 1 no.

**3.4.9 Spray Balls:**Removable stainless steel (AISI 304) cleaning device located on top to provide flooding of liquid over the complete interior surfaces during CIP. The spray balls should have stainless steel unions at the top end connections. - 2 nos.

**3.4.10 Sampling Cock:**This should be provided on the inlet cum outlet and should be in stainless steel (AISI 304) construction with sanitary design.-1 no.

**3.4.11 Thermo well:**300 mm long stainless steel (AISI 304) inclined pocket suitable for mounting stem type dial thermometer. It should have 21 mm BSP male threads .**The tank should be fitted with thermometer of approved make.**

**3.4.12 Legs:** Conical mild steel legs with stainless steel (AISI 304) sheet cladding and stainless steel ball feet provided at the bottom of the tank. The stainless steel ball feet should have provision for height adjustment of 50 mm. - 3 nos.

**3.4.13 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.

**3.4.14 Ladder:** Stainless steel (AISI304) ladder for access to the geared motor assembly of agitator. -1 no

**3.4.15 Lifting Lugs:** Stainless steel (AISI 430) lifting lugs should be provided at top.- 2 nos.

**3.5 Painting:**All the mild steel stiffeners used in the construction of the milk storage tank should be painted with two coats of epoxy primer after thorough de-rusting.

#### **4.0 Tests:**

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

4.1 Dye penetration test for welding joints.

4.2 Water fill-up test of inner vessel for water-tightness.

4.3 When man way is closed and cover tightened without gasket then the gap between the man way neck and cover should not exceed 0.5 mm.

**Notes:** General arrangement of this equipment should be as per the drawing attached by the tenderer.

ii. Detail General Arrangement drawing of the equipment should be submitted by the tendrer with the offer to UCDF office. After placement of order, this drawing shall be issued to supplier and equipment should be supplied based on this drawing. No further approval of suppliers drawing shall be given by UCDF.

iii. Makes of brought out items should be given by the Tenderer as per following details:

| Item         | 1 <sup>st</sup> Preference. | 2 <sup>nd</sup> Preference |
|--------------|-----------------------------|----------------------------|
| Geared Motor | -----                       |                            |

**Plate from Type Electronic Weighing Machine- 1 no.**

|    |  |   |
|----|--|---|
| 1  | Functional Requirement                       | To Electronically weigh & digital display of milk quantity in liter in a container  |
| 2  | Capacity                                     | 200kg   |
| 3  | Least Count                                  | 20gm  |
| 4  | Weight Accuracy                              | 20 gm as per Standards of W&M Rules 1987 medium accuracy Class III  |
| 5  | Certification & Stamping                     | Duly certified and stamped by W & M Dept. and confirming to IS:9281 (pt1&2)1979, IS:9281:1981 and IS:9281(Pt.4)1983 as amended up-to-date   |
| 6  | Display Resolution                           | 1/10,000,(accuracy class III)   |
| 7  | Load Cell                                    | 4 load cells, IP67, grade SS of certified and approved make   |
| 8  | Overload & shock load protection             | 300% to take impact of loading, with audio (beep) visual indication   |
| 9  | Platform Size                                | 1000mm x 1000mm   |
| 10 | Platform MoC                                 | AISI SS- 304, 1.6mm thick, 150 grit top plate polished  |
| 11 | Platform under frame material / Design       | Cold rolled mild steel box of adequate size. Hot dip galvanized after fabrication All screw/bolts /nuts to be made of SS  |
| 12 | 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  |
| 13 | Display Unit mounting                        | <ul style="list-style-type: none"> <li>• Pole mounted type with sturdy base and SS304, 38 mm dia. Pipe-1.2m high</li> <li>• SS304 Body IP55, Tactile switch keys with feedback response, auto calibration &amp; auto span with drift correction,</li> <li>• RS232 serial port with protocol to meet requirement of IBM compatible.</li> </ul> |
| 14 | Calibration protection & Sealing Arrangement | Special arrangement to house PCB & sealing arrangement. Password protection at user end.  |
| 15 | Load cell Cable                              | Load cell cable from platform to display unit with reinforced heavy duty PVC conduit  |
| 16 | Battery for working on power failure         | Inbuilt, 6V capacity minimum for 12 hrs.  |
| 17 | Power Supply                                 | As given above with minimum 1m power cable with plug top AC/DC  |
| 18 | Model Approval Certificate                   | Manufacturer to have model approval certificate of any regulatory authority/Govt of India (Weight & Measure Unit)   |
| 19 | Stamping at site                             | Supplier to arrange stamping of each scale at site from local Weights & Measure Inspector before installation.  |



## **Balance Tank/Dump Tank- 1 No.**

### **FUNCTIONAL REQUIREMENTS**

The Balance tank would be used to pour milk from societies after weighing it on Platform EWS.

### **2.0 DESIGN REQUIREMENTS**

#### **2.1 CAPACITY - 500 Liter**

The volume of the tank should be such that after filling it up to the rated capacity, the level of milk would be at least 50 mm below the bottom.

#### **2.2 Constructional Features:**

Single walled, un insulated and welded construction of sanitary design.

#### **2.3 Slope:** 1:50 towards the outlet at the bottom of the tank.

#### **2.4 Stiffeners-**Suitable stiffeners should be provided to insure proper strength

#### **2.5 Finish:**All welding joints are to be ground smooth. All stainless steel surfaces are to be polished to 150 grits.

#### **2.6 Joints Curvatures:**The radii of all welded and permanent attachment joints should be at least 6 mm. Where the conical ends joins the cylindrical shell the radii should not be less than 25 mm.

### **3.0 SCOPE OF SUPPLY**

#### **3.1 Body:**The shell and conical ends should be fabricated from 2 mm thick stainless steel sheet conforming to AISI 304.

#### **3.2.** The tank should be provided with top cover, milk outlet cup type and adjustable stainless steel ball feet, outlet 38 mm dia .

#### **3.3** The out let should be fitted with 38.1 mm dia S.S-304 grade 2-way butterfly valve.

## **Milk Pump**

### **Stainless Steel Centrifugal Milk Pump**

#### **1.0 Functional Requirements**

The pump would be used for transfer of milk.

#### **2.0 Design Requirements**

#### **2.1 Capacity:** 3 KLPH- 2 Nos, 5 KLPH-1 No.with 22 MWC head

#### **2.2 General Design:**

The pump should be of sanitary design

#### **2.3 Finish:**

All stainless steel surfaces are to be polished to 150 grits,

#### **3.0 Scope of Supply**

#### **3.1 The pump:**

It should be made from stainless steel conforming to AISI 316.

#### **3.2 The Drive:**

The pump should be provided with flanged motor with hygienic sealing arrangement. The motor should have class 'E' insulation. The pump and drive should be integrated together. For 5000 Litre capacity the motor should be of 2 HP and for 10000 Liter capacity the motor should be 3.5 HP.

**The make of motor - Kriloskar/Siemens/Crompton/NGEF.**

#### **3.3 Accessories**

#### **3.3.1 Inlet/Outlet:**

Stainless steel 38.1 mm dia. (AISI 316) inlet and outlet should end in stainless steel complete union.

#### **3.3.2 Motor Shroud:**

The motor part of the pump should be stainless steel shrouded. The shroud should be easily dismantable. It should have provisions for air circulation and entry of electric cable.

### 3.3.3 Legs:

The pump with drive should be supported on legs with stainless steel ball feet. The ball feet should have provision for height adjustment of 50 mm.

#### **On Line Milk Strainer-1 No.**

The strainer will be fitted with flow line and it should be In-Line S.S. Strainer, made of AISI 304, with gasket made of Nitril /Neoprene rubber, suitable to working temperature up to 90\*/120\*C. Inlet at bottom, outlet from the side branch, provided with Flange type device to hold the cover against milk pressure - Dia-38.1 mm

#### **Can Scrubber-2 Nos.**

The can scrubber will be suitable for scrubbing standard milk cans of 20/40 Liters Capacity. The scrubber will have a stainless steel AISI 304 trough. The driving mechanism will have 1 HP, 1440-rpm electric motor suitable for operation on 3 phases, 400/440 volts 50 Hz AC supply. The motor will be coupled to reduction gearbox assembly with driving chain sprocket etc. The scrubber will have 2 nos. jumbo rotating brushes one no. side brush fitted on left side and one no. side brush fitted on right side and one no. loose brush for cleaning the bottom and lids. It will have overflow connection and proper sealing arrangements. The scrubber tank and covers etc. should be fabricated from 2 mm thick AISI 304 stainless steel sheet. The top edge of the tank should be bent out wards smoothly. All inside corner should have minimum radii of 25 mm. All the welding joints are to be ground smoothly. The slope of the base should be 1:5 towards the outlet. A suitable side valve arrangements should be provided at the outlet. Legs should be made of AISI 304 with S.S.-304 ball feet provided at the bottom of the tank. The S.S.-304 ball feet should have provision for height adjustment of 50 mm. Suitable water inlet and out let arrangements should be provided.

**Make of Motor- Kirlosker/Crompton/Bharat Bijali**

**Make if Gear Box- Radicon/ Elcon**

**Note-The can scrubber should be manufactured strictly as per NDDB Specifications. The bidder should have experience of manufacturing of the said equipment.**

#### **S.S. Electric Hot Water Generator- 1 No.**

Capacity- 1000 Ltr

**FUNCTIONAL REQUIREMENTS-** This will provide hot water to clean the milk cans.

Hot water Generator unit should be complete with Electrical heater. Hot water tank should be made of S.S.-304 grade, 2 mm thick sheet with proper S.S.-304 stiffeners and ball feet valve to adjust the height up to 50 mm.

#### **Roller conveyor ( rollers fitted with bearings)-1 No**

**FUNCTIONAL REQUIREMENTS-** This will be used to transport cans filled with milk.

**Design Requirements –**

**Length-** 3.0m

**Frame-** S.S.-304 grade stainless steel

**Legs-** S.S.-304 grade stainless steel pipe

**Ball feet-** S.S.-304 grade stainless to adjust the height up to 50 mm

**Roller-** Made of S.S.-304 pipe (dia 38.1 mm) spacing of rollers should be able to withstand can weight. The both ends of roller should be fitted with good quality ball bearings for smooth movement.

**Height-** The height should be as per Dairy standards

**Guide channel-** S.S. square pipe guide channels ( dia 38.10 mm) should be provided on both sides to protect cans during movement.

The conveyor should be strong enough to withstand the load.

#### **Can Tipping Bar-1 No.**

It would be used as can support in manual tipping of milk cans into the Balance Tank. It should be horizontal wooden teak bar supported on two S.S.-304 (75 mm dia square pipe) legs. The

legs should be grouted down to the floor. For the same proper support pipe bottom (size 250mm x 250 mm, 10 mm thick) with 4 holes in each leg should be provided for ankering of bolts.

### **Off line Milk Cream Separator- 1 No.**

#### **TECHNICAL SPECIFICATIONS**

##### **Functional Requirements:**

It would be used for separation of cream from fresh milk at incoming temperature of 25 DEG.CENT to 40 DEG.CENT.

##### **Design Requirements:**

**Capacity:** 500 LPH- Off line cream separators

**Finish:** All welding joints are to be ground smooth. All stainless steel surfaces are to be polished to 150 grits.

##### **Scope of Supply:**

**The Centrifuge:** The centrifuge should be made from stainless steel confirming to AISI 304. The centrifuge portion of the separator should be stainless steel AISI 304 shrouded. - 1.0 no.

**Drive:** The electrical drive for the centrifuge should be just underneath and integrated together. The drive portion of the separator should be mild steel shrouded-1no.

##### **Accessories:**

**Lubrication System:** Suitable lubrication system - 1.0 no.

**Oil Pressure Gauge:** For continuous measurement of lubricating oil pressure, in case of forced feed system. - 1.0 no.

**Tachometer:** For continuous measurement of RPM of disc assembly. - 1.0 no.

**Gasket:** The gasket should be of food grade rubber. It should be non toxic, fat resistant and non absorbent . It should have smooth surfaces.

**Painting:** All mild steel surfaces should be painted with a coat of epoxy primer followed by two coats of epoxy paint after thorough de-rusting.

**Tools:** Essential special tools should be supplied with the machine without charging any extra cost.

**Drive unit-** Suitable electrical drive unit should be provided to run the Separators.

The rates should be FOR Including all taxes and cartage.

Make- Reputed make of separator should be supplied.

### **Off line Sour Milk Cream Separator- 1 No.**

#### **TECHNICAL SPECIFICATIONS**

##### **Functional Requirements:**

It would be used for separation of cream from sour/curdled milk at incoming temperature of 25 DEG.CENT to 40 DEG.CENT.

##### **Design Requirements:**

**Capacity:** 500 LPH- Off line cream separators

**Finish:** All welding joints are to be ground smooth. All stainless steel surfaces are to be polished to 150 grits.

##### **Scope of Supply:**

**The Centrifuge:** The centrifuge should be made from stainless steel confirming to AISI 304. The centrifuge portion of the separator should be stainless steel AISI 304 shrouded. - 1.0 no.

**Drive:** The electrical drive for the centrifuge should be just underneath and integrated together. The drive portion of the separator should be mild steel shrouded-1no.

##### **Accessories:**

**Lubrication System:** Suitable lubrication system - 1.0 no.

**Oil Pressure Gauge:** For continuous measurement of lubricating oil pressure, in case of forced feed system. - 1.0 no.

**Tachometer:** For continuous measurement of RPM of disc assembly. - 1.0 no.

**Gasket:** The gasket should be of food grade rubber. It should be non toxic, fat resistant and non absorbent . It should have smooth surfaces.

**Painting:** All mild steel surfaces should be painted with a coat of epoxy primer followed by two coats of epoxy paint after thorough de-rusting.

**Tools:** Essential special tools should be supplied with the machine without charging any extra cost.

**Drive unit-** Suitable electrical drive unit should be provided to run the Separators.

The rates should be FOR Including all taxes and cartage.

Make- Reputed make of separator should be supplied.

### **Supply and Laying of AISI 304 S.S. Pipes, Valves & Fittings**

#### **Requirements:-**

- Stainless Steel, AISI 304 Square Pipes (dia-38.1 inch, wall thickness-1.6 mm) - 100.00 Rm.
- S.S. Butterfly valve, manual with S.S. handle, made of AISI 304, with gasket of Nitrile /Neoprene rubber suitable to working temperature up to 90\*/120\*C, and working pressure up to 5kg/sqm cm.: Dia-38.1 mm- Three way valves- 4 Nos, Two way valves- 3 Nos.
- S.S. Unions (SMS Type), made of AISI 304, consisting of liner, male part, nut and gasket. Gasket made of nitril /neoprene rubber suitable to working temperature up to 90\*/120\*C- (a) Dia. 38.1 mm - 20 Nos (approx.)
- S.S. Bends (SMS type, radius 1.0D, Wall thickness-1.6 mm) made of AISI 304, of diameter Dia. 38.1mm - 20Nos (approx.)
- S.S-304 Pipe supports- The Milk lines will run on supports grouted on walls. 20 nos of supports, total 450 mm long, made of 40 mm x 40 mm S.S-304 pipe should be provided. Fitting of supports with the help of royal plug will be in bidders scope.

**1.0** The quoted rates should be per unit basis, as the quantities mentioned above are tentative and may vary as per actual site/work requirements .The quoted rates should be F.O.R., inclusive of all taxes, loading, freight, unloading of the same.

**2.0** The finish of SS pipe should be of mirror finish, outside polished and inside pickled seam less as per dairy standard, thickness 1.6 mm Make of pipe Ratna Make/Decora or equivalent

#### **Item No.- C-4**

Name of Work- **Supply, Installation, Testing & Commissioning of CPCB IV+ 30 KVA Three Phase Silent D.G.Set**

**Place of Supply: Chaukhutiya milk chilling center village-Bhagoti district Almora**

**Quantity: 1 (one) Job.**

**Capacity – 30 KVA Three phase**

#### **Technical Specification of CPCV IV+ 30 KVA Three Phase Silent DG**

##### **Diesel Engine:-**

**"KIRLOSKAR/Cummins/Greives/Mahindra/Cooper/Ashok Leyland"** Make diesel engine liquid cooled, Having Suitable Engine BHP for 30 KVA Output. Electric start, compression ignition, 4 stroke engine designed to run continuously at 1500 RPM confirming to BS 5514 standard with an overload capacity of 10 % for one hour in every 12 hrs. operation. Diesel Engine conforms to present CPCB norms. The diesel engine will comprise of following: -

- Radiator with Fan
- Fuel pump with Governor
- Dry type air cleaner
- Exhaust Silencer
- Lub Oil filter (Spin On Type)
- Fuel Oil filter (Spin On Type)
- 12 V Electric starting system
- Battery charging alternator
- Stop solenoid
- Lub. Oil pressure gauge
- Water temp. Gauge
- Lub oil temperature gauge (Optional)
- Ammeter battery charging
- Coolant
- First Fill of Lube oil

##### **(B)ALTERNATOR:-**

30 KVA Alternator, suitable for continuous operation rated at 1500 rpm 415 V, 0.8 PF, 50Hz,3Ph, self- excited & self- regulated, Brush less, floor mounted with Bearings on endshields.The alternator conforms to IS: 4722, BS EN 60034-1& will be suitable for tropical condition.

C) BASE FRAME: - Suitable to couple above Engine & Alternator made from steel sheet metal.

D) FUEL TANK: - 8 Hrs Capacity, with Inlet & Outlet arrangement, air vent & drain plug arrangement.

E) BATTERIES: -1 Nos.12 V battery with Leads and Battery Cable.

F) CONTROL PANEL: Control Panel with Suitable Size Switchgear

G) ACCOUSTIC ENCLOUSER: - Suitable acoustic enclosure as per present CPCB norms

##### **BASE FRAME**

Heavy duty base frame of sturdy design made of M.S. channel with necessary reinforcement and pre drilled holes

#### **Specification of Acoustic Enclosure Canopy**

**The canopy should be made by the original authorized equipment manufacture and factory fitted to meet the prevailing BIS Standards.**

##### **Construction**

##### **Acoustic Enclosure:**

Acoustic enclosure, modular in construction, shall be powder coated and fabricated out of 16 SWG CRCA MS sheet. The silent canopy shall be of nut bolt type construction. Critical processes of punching is done on CNC machines to maintain dimensional accuracy of holes within 0.1 mm. Powder coating is done after seven-tank surface preparation process of sheet metal. Canopy panel and

doors shall have inside lining of FIRE-RETARDANT foam as acoustic material. Four hinged doors shall be provided to canopy, one door shall have glass window for control panel. Durable industrial locking system should be provided on doors.

**Base Frame:**

Base frame is fabricated either in ISMC channel or in sheet metal. The base frame will be primer coated and painted. The base frame is rugged in construction and designed for mounting engine and alternator close coupled, with cross members mounted on AVM. The base frame shall have provision for mounting of acoustic enclosure & control panel on it. The base frame is having provision of lifting hook for convenient lifting of complete set, i.e. along with canopy, engine and alternator.

**Performance Parameters**

The average sound level, when measured in green field condition (ISO 3744 OR 8528 PT 10) at 1-meter distance from all four sides shall be less than 75-dBA averages or as per CPCB IV+ norms.

The average stabilized hot air temperature rise within the canopy is maintained within 10° C over and above ambient temperature.

**SILENT CANOPY FEATURES**

Canopy fabricated on machines with dimensional accuracy of 1mm.

Canopy is powder coated after passing through seven tank processes.

Canopy is lined with acoustic foam, which is non-igniting /Fire Retardant (confirming to BS 4735/BIS 7888).

No grouting required on the ground, only a level surface capable of withstanding the DG weight. Designed for installation in open-air conditions.

Lockable doors provided.

Lockable fuel filling arrangement provided external to the canopy.

Residential Silencer is housed in the canopy.

Externally accessible emergency stop button.

Doors should be gasketed with high quality EDPN gaskets.

The exhaust gases shall be taken out through a suitable flexible pipe to prevent any back pressure on the engine.

**Thermal Insulation:**

The exhaust system and noise suppressor shall be provided with thermal insulation by using fire retardant/non igniting foam conforming to BIS7888/BS 4735 to prevent excess heat radiation on the engine and safe for operator.

**Noise suppressor: (Silencer)**

Absorption type Non resistance Residential Silencer insulated from inside with glass wool shall be provided to suppress exhaust noise from the engine.

**Wiring and Lighting:**

PVC copper wire concealed in flexible conduit with florescent tube light/bulb with MCB shall be provided.

**Surface Treatment-Painting:**

The enclosure surface shall be suitably treated for degreasing, de-rusting and phosphate. High quality powder coat treatment/paint shall be used.

Canopy lights: one no. DC bulb to be fitted with suitable toggle switch and wiring.

Temperature rise inside the canopy

The maximum permissible temperature rise above the ambient shall be 5°C to 7°C.

Emergency Push Stop Button

The canopy shall have provision of emergency push button, which shall be housed in a protective enclosure with a glass front.

**Performance:**

The sound level shall be less than 75 db at a distance of 1 meter. The temperature difference between ambient and air inlet at air cleaner within the enclosure will be maintained well within 5-7 deg centigrade. The measurement of noise will be as per ISO 3744/ISO 8528 (part 10) standard. This meets CPCB IV+ norms.

All other requirements that are essential to make the DG set compliant to CPCB IV+ norms for noise reduction shall form part of technical requirement

### **A) Quantities for Installation, Testing and commissioning**

1. Installation, Testing & Commissioning including shifting of DG set on existing foundation, battery charging and testing of the set including supply of diesel and mobile for twelve hours testing on full load including, fixing of panel-1 job.
2. Supply and fixing of MS exhaust pipe of Suitable dia, with 12 mm asbestos rope inside the room and the exhaust pipe should be 3 meter high outside the building.
3. Supply and burying of G.I Pipe Electrode Earthing 3000 x 50 mm with CI/Fiber chamber cover etc and complete civil work (2 for neutral and 2 for body) – 4 nos.
4. Supply and fixing of 25x5mm G.I strip to connect body and neutral- 1 job.
5. Supply and laying of suitable Aluminum armored cable with suitable lugs and gland. - 100 mtr
6. Supply and fixing of suitable rating 4 pole change over (L&T/HPL or equivalent reputed make)- 1 No
7. Electrical Inspector approval -1 job.
8. The concrete foundation/Floor will be provided by the dept. The contractor will obtain the Electrical Inspector Approval. However necessary Fee will be deposited by the dept. The first service should be free of cost. The rates of all the items should be quoted separately.
9. Silensor Critical grade silencer suitably optimized to meet stringent emission standards laid down by MoEF/CPCB
10. Bidder shall provide authorized certificate of DG Set model for CPCB IV + emission norms compliant Genset along with the bid from one of the following authorities
  - A. ARAI (Automotive Research Association of India Pune (Maharashtra))
  - B. International Centre for Automotive Technology Manesar (Haryana)
  - C. Indian Institute of Petroleum Dehradun (Uttarakhand)
11. SCR (Selective Catalytic Reduction) System is to be provided with diesel engine which is a technology that uses a urea based diesel exhaust fluid (DEF) and a catalytic converter to significantly reduce oxides of nitrogen (NOx) emissions. It is an advanced active emissions control technology system that reduces tailpipe emissions of nitrogen oxides (NOx) down to near -zero -levels in new generation diesel engines. DEF (Diesel Exhaust Fluid) is a liquid used to reduce the amount of air pollution created by diesel engine
8. Bidder shall provide authorized certificate of DG Set model for CPCB IV + emission norms compliant Genset along with the bid from one of the following authorities -1 Job

### **L T PANEL-1 No**

#### **Construction**

The panel shall be floor mounted Indoor Type. The unit shall be pressed sheet steel having sheet thickness of 2 mm for structure and plates and other load bearing members and minimum 1.6 mm for remainders with rubber gasket at all joints and opening including doors. The panel shall be supplied along with a base Channel of ISMC-75

Busbars shall be four pole supported on high quality non hygroscopic insulating material having good electrical and mechanical properties suitable for the applicable voltage and current rating service terminals for load connections shall be provided at the bottom. Earthing terminals studs on the both sides on the bottom part

Painting: The panel shall be given powder coat finish of shade 631 if IS-5 of Siemens grey after application of suitable chemical treatment on sheet surface

Wiring: The internal control circuit wiring shall be single PVC cable with copper conductor having minimum size of 1.5 sqmm and conforming to IS-694 The control wiring shall be laid in separate plastic through with covers. Not more than two connections shall be made at any one terminal all the wiring shall be accessible from the front.

General: Identification labels shall be provided for all the control devices and other components of the control panel indicating lamps shall be Digital type.

The LT Control Panel is designed to control the mains three phase and stand by DG set power supply and provide distribution to all electrical loads of the site cable entry arrangement for the both incoming cables is on the top side and all load cables at the bottom. Floor mounted panel having

separate start/stop operation for each unit with DOL/Star –Delta starter of L& T make with push button operation for following

|   |      |
|---|------|
| 1 Milk feed pump (2 HP)                       | 1 no |
| 2 Cream Sheprator (5HP)                       | 1 no |
| 3 Sour/Curd milk pump (3HP)                   | 1 no |
| 4 Milk Tank agitator (3 HP)                   | 1 no |
| 5 Electronic Milk weigher (1Amp)              | 1 no |
| 6 Main switch of 125 Amp MCCB (L&T)           | 1 no |
| 7 I M C U 43 AMP M C B                        | 1 No |
| 8 Electric Hot Water Generator 16 A M P M C B | 1 No |
| 9 Can Screbber 5HP                            | 1No  |
| 10 Roller Conveyor 5 HP                       | 1No  |
| 11 Spare                                      | 4 no |

Note Alluminiumbusbar of suitable ratings

All the MCCB should be Mechanically/Electrically interlocked with each other for single/Three Phase safe operation MCCB will be (L &T) make Ametar Voltmeter should be provided in the panel Digitally.

S.I.T.&C of Electric Cable And Cable Tray at Milk Chilling Center Chaukhutiya

Item No (A)-

Supply,Laying,Testing of Electric Cable and Connecting all the starter of the panel & the equipment of the dairy with suitable Lugs&Gland.

Details of works-

1.6 sq mm armoured Aluminum Electric Cable. 4core - 200 Rmt

2.16 sq mm armoured Aluminum Electric Cable.4core - 60 Rmt

3.10 sq mm armoured Aluminum Electric Cable.4core - 40 Rmt

Note- Make of Cable- CCI/Gloster/ICC/Nicco/Havels

Item No (B)

Pre Galvanised Ladder Cable Tray 2.5 Mtr Length with coupler plate & Nut bolts

300mm - 100 Mtr

50 mm – 50 Mtr

Earthing wire all the equipments G I 6swg 300 Mtr

#### **DETAILED TECHNICAL SPECIFICATIONS :**

- 1 - The panel will be of L.T , indoor type(IP52), Non-Compartmental, Floor mounting
- 2 - Bus bar of E91E Grade ALUMNINIUM / EC Grade COPPER suitable for 3 phase 4 wire Supply.
- 3 - Bus bars will be insulated with heat shrinkable PVC colour code sleeves. **4** - Separate support will be provided for each busbar.
- 5 - Fabrication will be of 2/1.6mm thick CRCA Sheet
- 6 - Fabricated Panel of MS will be Pre-treated By Seven tank Process with dryer & Powder Coated with Siemens Gray RAL-7035 /RAL7032 Shade PP
- 7 - Base Frame will be Pre-treated By Seven tank Process with dryer & Powder Coated with SPECIAL SUPER MATT BLACK 9002406 Shade EPP
- 8 - All Hardware will be of High tensile type
- 9 - The panel will be designed for Front Access
- 10 - The cable alley will be provided with hinged doors for easy access to cables inside the cable Alley. **11** - Doors will be provided with Quarter round knob for easy opening and closing.
- 12 -All doors and removable covers will be gasketed all around with proper gaskets
- 13 -All Control wire used will be RR/POLYCAB make 1.5sq.mm. copper wires & C.T. wire used will be 2.5sq.mm. cu. wires.
- 14 -Busbar will be provided with heat shrinkable colour code PVC sleeve.
- 15 -Each Compartment will be labelled with aluminum anodized labels as per specifications.
- 16 -All wiring will be terminated on terminal blocks with crimping type cable lugs. Ferrules shall be provided on each wire and terminal block shall be numbered for easy in connection.
- 17 -The bottom of each panel shall be covered by MS glands plates.



- 18 -All indicating lamps will be LED Type.
- 19 -Adequate Exhaust Fans & Filters will be provided. 20 - Proper Hooks will be provided for Panel Lifting.
- 21 -Base Frame will be provided for all floor mounting Panels. Proper Clamps will be given for Wall-Mounting panels

#### **TESTING :**

**The following Tests shall be carried out in presence of your representative at our site**

- 1 - Physical verification & dimensional check
- 2 - Verifications of bill of material
- 3 - Operational and functional tests
- 4 - H.V. test of 2.5 K.V. for one minute
- 5 - Insulation test using 1KV megger

#### **Make Of Materials :**

- 1 -Switchgear .. L&T/SCHNEIDER/ABB/SIEMENS/C&S/LEGRAND
- 2 -Digital Meters .. SCHNEIDER/L&T//SECURE/HPL/ELMEASURE
- 3 -Analog Meters .. RISHABH/NIPPEN./AEE
- 4 -Indications & Push Buttons .. ABB/TECKNIC/JIGO/L&T/SCHNEIDER
- 5 -Selector Switches .. SALZAR/SRUTHI
- 6 -Current Transformers .. ALFA/NEWTEK/SARAL/.ELMEX
- 7 -Power & Control Connectors .. FTC/CONNECTWELL/ ELMEX
- 8 -Wires &Cables .. Polycab/Orbit(FR)
- 9 -Aluminium Busbar .. HINDALCO/NALCO
- 10 -Copper Busbar .. LEEBO
- 11 -CRCA Sheet .. ESSAR/TATA/JINDAL,
- 12 -Powder Coating .. PANEL STRUCTURE JOTUN (7035TEXTURE)PP TYPE  
BASE FRAME- JOTUN SPECIAL SUPER MATT BLACK
- 13 -Hardware .. REPUTED

#### **Item No D-1**

**Name of work-S I T & C of AISI - 304 Insulated Vertical Milk storage Tank/Silo**

**Quantity-1 No****Destination-** Champawat DUSS Ltd JoopatwaChampawat

Capacity- 10000 Ltr

**INSULATED VERTICAL MILK STORAGE TANK/ SILO****CAPACITY -10000Ltr**

The Volume of the tank should be shown that after filling it up to the rated capacity, the level of milk would be at least 50mm below the bottom end of sight/light glass.

**1.0 FUNCTIONAL REQUIREMENTS**

The milk storage tank would be used to store chilled milk at 4 degree centigrade temperature.

**2.0 DESIGN REQUIREMENTS****2.1 Constructional Feature:**

Double walled, insulated and welded construction of sanitary design.

**2.2 Slope:**

1:50 towards the outlet at the bottom of the tank

**2.3 Metal Contact:**

The only metal to metal contact between the inner and the outer shells shall be at the places where fitting 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.

**2.4 Finish:**

All welding joints are to be ground smooth. All stainless steel surfaces are to be polished to 150 grits.

**2.5 Joints Curvatures:**

The radius of all welded and permanent attachment joints should be at least 6 mm. Where the conical ends joints the cylindrical shell the radial should not be less than 25 mm.

**3.0 SCOPE OF SUPPLY:****3.1 Inner Cylindrical Body:**

The inner shell and conical ends should be fabricated from 2 mm thick stainless steel sheet for 5000L and 10000 L but 2.5 mm thick stainless steel sheet conforming to AISI 304.

**3.2 Outer Cylindrical Body:**

The Outer shell and conical ends should be fabricated from 2 mm thick stainless steel sheet conforming to AISI 304.

**3.3 Insulation:**

The entire inner stainless steel shell and the conical ends should be insulated in three layers as follows:

First Layer: 25mm thick resin bonded crown 150 fiber glass compressed to 10mm applied readily with chicken wire netting.

Second Layer: 50mm expanded polystyrene compressed to 45mm applied longitudinally with bitumen.

Third Layer: 50mm thick expanded polystyrene compressed to 45mm applied longitudinally with bitumen.

**3.4 Accessories:****3.4.1 Inlet-cum-Outlet:**

51mm dia for 5000L and 10000L capacity and 63.5mm dia for 15000L capacity cup type inlet cum outlet with two way plug type stainless steel AISI 304 flanged valve ending in complete stainless steel union. It should be provided at a height of 350 mm from the finish floor level.

**3.4.2 Air Vent:**

Stainless steel (AISI 304) 150mm dia air vent prevent formation of partial vacuum during CIP and pressure during filling.

**3.4.3 Man Key**

Oval shaped stainless steel man way of dimensions approximately 550x405 mm at the front end and provided with leak proof hinged insulated stainless steel door with tightening and locking device. The man way door with open inward but at the same time it can be taken cut also when necessary. The gasket should be of neoprene or nitrile rubber of food quality

#### 3.4.4 Sight Glass:

stainless steel(AISI 304) Sight glass assembly should be provided with toughened glass.It should be provided in such a way that one can easily read from the zero level up to the rated capacity level mark.

#### 3.4.5 Sand Blasted Level Marks:

It should be calibrated at 500L intervals and provided on the inner rear end of the tank opposite to the sight glass.

#### 3.4.6 Light Glass:

Stainless steel(AISI 304) Sight 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.

#### 3.4.7 Platform:

A small platform of stainless steel(AISI 304) with two steps on the front end of the tank and two nos of stainless steel handle 300mm below sight glass to enable view through the sight glass.Theplatform should be located at around 1400 mm below sight glass for the convenience of operator.

#### 3.4.8 Agitator:

It should be stainless steel(AISI 304) construction complete with geared motor of adequate capacity and should be able to uniformly agitate and mix milk in the tank with in 10 minutes.The agitator shaft should be a(AISI 304) rod

#### 3.4.9 Spray Balls:

Removable stainless steel(AISI 304) cleaning device located on top to provide flooding of liquid over the complete interior surfaces during CIP.The spray balls should have stainless steel unions at the outer end connections.

#### 3.4.10 Sampling Cock:

This should be provided on the inlet cum outlet and should be in stainless steel(AISI 304) construction with sanitary design.

#### 3.4.11 Thermo Well:

300 mm long stainless steel(AISI 304)inclined pocket suitable for mounting Digital type thermometer.The tank should be fitted with Digital Type thermometer of approved make.

#### 3.4.12 Level Probe:

Providing and fixing of 1 Digital level indicator of make approved by NDDDB should be done.Make should be specified in the offer.

#### 3.4.13 Legs:

Conical Mild steel legs with stainless steel(AISI 304) sheet cladding and stainless steel ball feet provided at the bottom of the tank.The stainless steel ball feet should have provision for eight

**Eligibility Criteria:** The bidder should have installed at least 3 Vertical milk Storage Tank in Gov./semi govt./PSU/Co-op. Dairy federations in last 5 years.

**ANNEXURE”A”**

**TENDER ACCEPTANCE LETTER**  
**(To be given on Company Letter Head)**

Date:

To,

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**Sub: Acceptance of Terms & Conditions of Tender.**

Tender Reference No: \_\_\_\_\_

Name \_\_\_\_\_ of \_\_\_\_\_ Tender \_\_\_\_\_ / \_\_\_\_\_ Work: \_\_\_\_\_ -

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Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from \_\_\_\_\_ the \_\_\_\_\_ web \_\_\_\_\_ site(s) \_\_\_\_\_ namely: \_\_\_\_\_

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as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organizations too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. In case any provisions of this tender are found violated , then your department/ organization shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Name & Signature of the Bidder, with Official Seal)

**ANNEXURE 'B'**

**(Affidavit of Non blacklisted firm )**

**(AFFIDAVIT ON A NON JUDICIAL STAMP PAPER OF RS. 100/- )**

I, \_\_\_\_\_ sole proprietor/partner/authorized signatory of M/s. \_\_\_\_\_  
\_\_\_\_\_ sole proprietorship/partnership firm/public/private limited  
company having its principal place of business/ registered office at.....  
.....(Full Address) do hereby solemnly affirm and declare as under:-

- 1- That I hereby confirm and declare that my/our firm/company M/s.....  
is not blacklisted/delisted or debarred with any company of Private/Public Ltd. or Government  
Company/Semi Govt. depts. from participating in the tender as on date.
- 2- That I hereby confirm and declare that my/our firm/company M/s.....  
is /are not involved in any illegal activity and/or not charge sheeted for any criminal act of  
theft and/or any other essential commodity during last five years.
- 3- That I further undertake that in case any of the facts sworn in as mentioned above and any  
particulars mentioned in our application is found other-wise or incorrect or false at any stage,  
my/our firm/ company shall stand debarred from the present and future tenders of the  
Uttarakhand Co-operative Dairy Federation Ltd. and its associates Milk Union. Besides,  
Uttarakhand Co-operative Dairy Federation Ltd shall be entitled to take all such actions as may  
be deemed fit including termination of contract, if awarded, without any claim for any  
compensation whatsoever on account of such premature closure of the contract.
- 4- I know that to swear a false affidavit is crimes under the law and with such knowledge only I  
have swear this Affidavit. I shall be responsible for any false statement.

**(Signature of the Proprietor/ Managing Partner/Director with Seal)**

**DEPONENT**

Verified at ..... on.....that the contents of paras 1 to 4 of this affidavit are true  
and correct and no part of this is false and nothing material has been concealed or falsely stated  
therein.

**(Signature of the Proprietor/ Managing Partner/ Director with Seal)**

**DEPONENT**

**(Signature & Seal of Notary)**

**ANNEXURE 'C'**

**(Contract Agreement)**

**(ON NON JUDICIAL STAMP PAPER OF RS. 100/-)**

This agreement made the ....day of .....20... between Uttaranchal Co-operative Dairy Federation Ltd, MangalParao, Haldwani (Nainital) there in after called 'Purchaser' on the one part and M/s.....

(Hereinafter 'the Supplier') on the other part.

Whereas the purchaser is desirous that certain Goods and ancillary Services should be provided by the supplier. Viz. .... (Brief description of Goods and services) and has accepted a bid submitted by the supplier in response to the purchaser's Bidding Document Reference.....for the supply of these Goods and Services in the sum of Rs..... (Rupees.....).

(Hereinafter "the Contract Price").

Now This Agreement Witnesses as Follows:

- In this agreement and expression shall have the same meaning as in the terms and conditions and in section III & Section IV in the above referred Bidding Document.
- The following documents shall be deemed to form and be read constructed as part of this agreement. viz.
  - a. the offer and the price schedule submitted by the supplier;
  - b. the schedule of requirement/list of items and the technical specifications in Sections V and VI in the above referred Bidding Document.
  - c. The terms and conditions in section III and IV in the above referred Bidding Document.
  - d. The Purchaser's Purchase Order No.....no.....  
.....date .....
- In consideration of the payments to be made by the purchaser to the supplier as hereinafter mentioned, the supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects there in conformity in all respects with the provisions of the Purchaser's purchase order and Bidding Document.
- The purchaser hereby covenants to pay the supplier in considerations of the provisions of the Goods and Services and the remedying of defects therein, the Contract price or such other sum as may become payable under the provisions of the purchase order at the times and in the manner prescribed in the purchase Order and Bidding Document.

In Witness where of the ratios here to have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the said

.....

(For the Purchaser) in the presence of

.....

Signed, Sealed and Delivered by the

said.....

(For the Supplier) in the presence

of:.....

**ANNEXURE 'D'**

**(Form of Bank Guarantee against Advance Payment)  
(ON NON JUDICIAL STAMP PAPER OF RS. 100/-)**

**Bank Guarantee No.**

- 1- In consideration of the Uttaranchal Co-operative Dairy Federation MangalParaoHaldwani there in after called the UCDF having agreed to grant an advance of Rs.....  
.....(Rupees..... only) to M/s terms and conditions of an contract/purchase order no.....dated..... made between the UCDF and M/s .....for the supply erection/commissioning (hereinafter called the said contract/purchase order) on production of a bank guarantee for Rs..... ..( see note 2 below)  
(Rupees.....only)we.....  
..... (Hereinafter called the bank) do hereby undertake to pay the UCDF an amount not exceeding Rs.. .....  
(Rupees.....only) against any loss/damage caused to or suffered would be caused or suffered by the UCDF by reason of any breach by the said supplier(s) of any of the terms and conditions contained in the said contract/purchase order.
- 2- We,..... do hereby undertake to any the amounts due and payable under this guarantee without any demur merely on a demand from UCDF stating that the amount claimed is due by way of loss or damage caused to or would be caused to suffered by the UCDF by reason of any breach by the said supplier (s) of any of the terms and conditions contained I in the contract/purchase order, or by reason of the supplier (S) failure to perform the said contract /purchase order any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees.....only).
- 3- We,....., further agree that bthe guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contract/purchase order and that it shall continue to be enforceable till all the dues of the UCDF , under, or by virtue of the said contract/purchase order have been fully paid and its claims satisfied or discharged or till the UCDF certifies that the terms and conditions of the said contract/purchase order have been fully and properly carried by the said supplier (s) and accordingly discharge the guarantee unless a demand or claim under this guarantee made an us in writing on or before ....., we shall be discharged from all liability under this guarantee therefore.
- 4- We,.....,further agree with the UCDF that the UCDF shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said contract/purchase order to extend time of performance by the said supplier from time to time or to postpone for any time or from time to time any of the power exercisable by the UCDF, against the said supplier and to forbear or enforce any of the terms and conditions relating from our liability by reason of any such variation, or extension or for any fore bearance, act of omission an the part of the UCDF, or any indulgence by the UCDF, to said supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provisions have effect of so relieving us.
- 5- We.....lastly undertake not to revoke this guarantee during its currency except with the previous consent of the UCDF in writing.
- 6- Not withstanding anything herein above the liability of the Bank Guarantee is restricted tpRs..... (Rupees..... only). The Guarantee shall remain in force till the .....19 unless the guarantee is renowned or a claim is preferred against the bank within three months from the said date all rights of the UCDF under the guarantee shall cease and the bank shall be released and discharged from all liabilities hereunder.

Place: .....

(Signature)

Date:

CODE NO

Note: -Suppliers should ensure that seal and code no. of the signatory is put by the bankers before submission bank guarantees.The value of Bank guarantee shall be 36% of the order value.

**ANNEXURE 'F'**

**(Performance Bank Guarantee)**

**(ON NON-JUDICIAL STAMP PAPER OF RS. 100.00)**

**Bank Guarantee No.**

**Dates:**

This deed of performance guarantee made this.....day of .....200... (Two thousand .....)  
by (Name and address of the Bank) (herein referred to as the Bank) which expression shall unless  
repugnant to the context or meaning thereof includes its legal representative, successors and assigns  
and the Uttarakhand Co-operative Dairy Federation Ltd, MangalParao, Haldwani (Nainital)  
(hereinafter referred to as the federation) which expression shall unless repugnant to the context or  
meaning thereof includes its legal representatives successors and assignees.

Whereas, Federation/DUSS has awarded a contract and purchase order bearing  
No..... Dated..... On M/s.  
..... (Name and address of the party) hereinafter referred to  
as the "Supplier") for the supply/supply erection and commissioning of performance guarantee in the  
form of a Bank guarantee to the Federations in terms and conditions of the Bidding Documents and  
the Contract which will be kept sealed up to period should be till end of warranty period). And  
whereas, the bank guarantee (The constituted agent and officer has already read and understand the  
contract made between the Board and the Supplier.

In consideration of the Federation having agreed to award the contract/purchase order on the  
supplier, we..... (Name of the Bank), do hereby guarantee, undertake,  
promise and agree to with the Federations its legal representatives, successors and assignees that the  
within named (name of the supplier their legal representatives and assignees will faithfully perform  
and fulfill everything within the Bidding Document and the contract/purchase order on their part to  
be performed or fulfilled, at the time (time being the essence of the contract) and in the manner there  
in provided, do all obligations there under and we further undertake and guarantee to make payment  
to the Federations of Rs. ....( Rupees .....  
..... only) being the 10% of the contract value in case the supplier, their legal  
representatives and assignees do not faithfully perform and fulfill everything within the Bidding  
Documents and the contract/Purchase order on their part to be performed or fulfilled, at the time and  
in the manner therein provided and do not willfully and promptly do all obligations there under.

In case the supplier fails to perform or fulfill the contract/Purchase Order as per the terms and  
conditions agreed upon the Federation is entitled to demand an amount equal to 10% of the Contract  
value from the supplier and the demand made by the Federation by itself will be conclusive evidence  
and proof that the Supplier has failed to perform or fulfill his obligations and neither the Supplier nor  
the Bank will be entitled to raise any dispute regarding the reason for the failure of performance or  
fulfillment, on any ground .

We, (name of the Bank), do hereby undertake to pay an amount equal to 10 % of  
the Order value, being the amount due and payable under this guarantee without any demur, merely  
on a demand from the Federation stating that the amount claimed is due by way of non-performance  
of the contractual obligations as aforesaid by the supplier or by reason of the Supplier's failure to  
perform the said contractual commitments/Purchase order, any such demand made on the Bank shall  
be conclusive as regards the amount due any payable by the Bank under this guarantee. However, our  
liability under this guarantee shall be restricted to an amount not exceeding  
Rs..... (Rs.....only) being the  
amount equal to 10% of the total order value. We (name of the Bank), further agree that the  
performance guarantee herein contained shall remain in full force and effect for a period of  
.....calendar month from the date of Bank Guarantee ( the period should be till end of warranty  
period) and till the Federation certifies that the terms and conditions of the said contract/purchase  
order have been fully and properly carried out by the said Supplier and accordingly discharge the  
guarantee, unless a demand or claim under this discharged from all liabilities under this performance  
guarantee thereafter.