TENDER DOCUMENT

FOR

SUPPLY, ERECTION, TESTING COMMISSIONING & TRAIL-RUN

FOR AUTOMATED ASSEMBLY LINE FOR RETORT STERILISATION

AT

BHUBANESWAR DAIRY, CHANDRASEKHARPUR

THE ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD.

D-2, SAHID NAGAR, BHUBANESWAR -751007

Website: www.omfed.com, Mail Id:Omfed@yahoo.com

JANUARY- 2016

Cost Rs. - 4000/- +5% vat

THE ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD,
D-2, SAHEED NAGAR, BHUBANESWAR, ORISSA.

TELEPHONES :(0674)-2546121, 2544576, 2540417, 546030, 2540273 GRAM: OMFED
FAX: 0674-2506974 EMAIL: omfed @ yahoo.com / jbmomfed@gmail.com
web site: www.omfed.com

TENDER FOR:

SUPPLY, ERECTION, TESTING COMMISSIONING & TRAIL-RUN INCLUDING STATUTORY APPROVALS FOR AUTOMATED ASSEMBLY LINE FOR RETORT STERILISATION MILK AT BHUBANESWAR DAIRY, CHANDRASEKHARPUR

LOCATION OF DAIRY SITE	**: - Bhubaneswar, Chandrasekharpur Dist – Khurda, Odisha.**
TENDER REFERENCE	**: - PROJ/50B/RETORT./2016**
DATE OF UPLOADING OF BIDDING DOCUMENT	**: 21.01.2016 (FROM 1000Hrs TO 1400Hrs)**
LAST DATE FOR DOWNLOADING OF BIDDING DOCUMENT	**: - 22.02.2016 UPTO 1300 Hrs**
LAST DATE AND TIME FOR RECEIPT OF BIDS	**: -23.02.2016 UPTO 1400 Hrs**
DATE AND TIME OF OPENING OF BIDS	**: -23.02.2016 AT 1500 Hrs**
PLACE OF OPENING OF BIDS	**: -** OFFICE OF THE ORISSA STATE CO-OP.MILK PRODUCERS FED. LTD. D-2, SAHEEDNAGAR, BHUBANESWAR, ODISHA.
ADDRESS FOR COMMUNICATION	**: -** THE ORISSA STATE CO- OP. MILK PRODUCERS' FEDERATION. LTD. D-2, SAHEEDNAGAR, BHUBANESWAR-751007 ODISHA, INDIA.

FOR OMFED BIDDER

TABLE OF CONTENTS

SECTION	SUBJECT	PAGE
I	TENDER NOTICE	3
II	INSTRUCTIONS TO BIDDERS	4
III	SPECIFICATION OF EQUIPMENTS	10
IV	SCHEDULE OF QUANTITIES	37
V	FORM OF BID	45
VI	QUALIFICATION APPLICATION	48
VII	FORM OF AGREEMENT	54
VIII	ACCEPTABLE FORMS OF BANK GUARANTEE	56
IX(1)	MANUFACTURERS' AUTHORISATION FORM	62
IX(2)	MANUFACTURERS' AUTHORISATION FORM	63
X	TECHNICAL DEVIATION STATEMENT FORM	64
XI	POINTS BIDDERS SHOULD BEAR IN MIND	65

FOR OMFED BIDDER

SECTION - I

www.omfed.com	**The Odisha State Cooperative Milk Producers' Federation Ltd.** **D-2, Sahid Nagar, Bhubaneswar-751 007.** **Ph No- (0674) 2546030/2540273/2540417, Fax No (0674)2540974,** **Email-ID-omfed@yahoo.com / jbmomfed@gmail.com**

TENDER NOTICE

OMFED invites sealed techno - commercial offers in separate envelope from experienced manufacturers / authorized suppliers for Supply, Erection, Testing Commissioning, & Trial-Run including Statutory Approvals For Automated Sterilized Milk Line with retort on turnkey execution basis.

Tender document can be down loaded from website www.omfed.com against payment of **Rs.4000/- + 5%VAT (or Rs.4200/-)** in shape of Demand Draft drawn in favour of OMFED drawn on any Nationalized bank payable at Bhubaneswar. The tender document should be duly filled & submitted on due date along with the cost of tender paper. Bids with 1% EMD of the quoted value shall be received up to 1400 hours on **23.02.2016** & shall be opened on the same day at 1500 Hrs. at Omfed Corporate Office, D/2, Saheed Nagar, Bhubaneswar – 751007 in presence of interested bidders. Bids without requisite EMD shall not be considered.

A Pre- bid Meeting shall be conducted on **11.02.2016**, at Corporate Office, Bhubaneswar prior to the tender opening.

The **corrigendum/amendment** to this notice if required shall be published only in the OMFED web site and will not be published again in newspaper.

OMFED reserves the right to accept or reject any or all the tenders or part thereof without assigning any reason.

General Manager (P&D)

FOR OMFED BIDDER

SECTION II

INSTRUCTION TO BIDDERS -:

1.0 GENERAL INFORMATION

1.1 SCOPE OF WORK:-

Supply, Erection, Testing Commissioning, & Trial-Run including Statutory Approvals For Automated Sterilized Milk Line with retort on turnkey execution.

.

1.2 LOCATIONS AND AREA

(A)	Nearest Railway Station	:	BHUBANESWAR
(B)	Nearest Airport	:	BHUBANESWAR
(C)	Nearest Major Town	:	BHAWANIPATNA
(D)	Access Roads	:	PUCCA

1.3 Period of Completion

The period of completion of work, including supply testing, commissioning, trial run for 30 days, and handing over, shall be **Four (04) months for** Automated Sterilized Milk Line with retort from the date of notification of award, which shall include the non-working periods during monsoon and festivals, and the period of commencement.

1.4 IMPORTANT NOTE

i) Period of completion of work is very important for this project. The work has to be carried out strictly as per the work programmer.

ii) The bidders are not allowed to stipulate their own terms and conditions beyond the tender document. In Such a case, the offer shall not be considered.

2.0 Eligibility and Qualification requirements:-

The bidder should be in business as a manufacturer/dealer of similar type equipment for a minimum period of three years at the time of bid opening in the same name and style.

b) The bidder shall have supplied AQUACLAVE (Retort Steriliser) to any cooperative dairy during last three financial year.

c) The bidder's annual financial turnover in the same name and style during any one of the last three years shall not be less than 5 crore .

2.1 The bidders can submit the bid as a joint venture

3.0 Price basis:

3.1 For supply:

The quoted prices for the equipments shall be on FOR destination basis, inclusive of all taxes, including service taxes, & duties, packing & forwarding charges, transportation, insurance and other incidental charges, loading & unloading charges etc. as applicable. The bidder shall, however, provide a break-up of the prices quoted. “C” forms shall be issued by OMFED, wherever applicable.

Bidders are required to give break up of unit rates & quantities of each & all items to be supplied for the purpose of the contract.

3.2 For erection/installation, testing, commissioning, trial run & handing over:

Bidders shall submit separate rates for complete installation, testing and commissioning, including satisfactory performance trial run for 30 days.

Prices quoted should be on FOR destination basis, inclusive of all taxes & duties, packing & forwarding charges, transportation, insurance and other incidental charges, loading & unloading charges etc. as applicable. The bidder shall be responsible for supply of all sundries / power / fuel as may be required for erection, testing, commissioning & performance trial run for 30 days, including oil and lubricants. However, electrical charges during the 30 days period of performance trial run shall be borne by OMFED.

The bidder shall have to create their own storage space for all the equipments & materials and provide watch & ward for it. Insurance of equipments & materials during storage, shifting, installation & testing shall be contractor's responsibility.

4.0 Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Orissa State Cooperative Milk Producers' Federation Limited, hereinafter referred to as "THE OMFED", will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

B. THE BIDDING DOCUMENTS

5.0 CONTENT OF BIDDING DOCUMENTS

5.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents. In addition to the tender notice, the bidding documents include:

(a) Instruction to bidders;
(b) General Conditions of Contract;
(c) Special Conditions of contract (for Erection works);
(d) Special Conditions of contract (for Mechanical installation);
(e) Special conditions of contract (for Electrical installation);
(f) Technical Specifications and schedule of quantities;
(g) Form of Agreement;
(h) Bid Form;
(i) Schedule of Supp. Information;
(j) Standard Forms of Bank Guarantees;

5.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the bidder's risk and may result in the rejection of its bid.

6.0 Clarification of Bidding Documents

A prospective bidder requiring any clarification of the bidding documents may notify the OMFED in writing or by email at the OMFED'S mailing address indicated in this document. The OMFED will respond in writing to any request for clarification of the bidding Documents which it receives not later than 15 days prior to the deadline for the submission of bids prescribed by the OMFED. Written copies of the OMFED'S response (including an explanation of the query but without

identifying the source of inquiry) will be sent to all prospective Bidders which have received the bidding Documents, and will be attached to the Bidding Documents sold subsequently.

7.0 Amendment of Bidding Documents

7.1 At any time prior to the deadline for submission of bids, the OMFED may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by amendment.

7.2 The amendment will be notified in official website of OMFED only, for all prospective bidders, who have received the bidding documents and will be binding on them. The amendment will be attached to the bidding documents sold subsequently.

7.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the OMFED may, at its discretion, extend the deadline for the submission of bids.

8.0 PREPARATION OF BIDS

8.1 AUTHENTICATED DOCUMENTS TO BE SUBMITTED IN THE TECHNICAL BID:

- Audited profit & loss account statement for the year (2012-2013,13 - 14 & 14 – 15).
- Proof of sales turn over for last three consecutive years.
- Copy of IT return for the financial year (2012-2013, 13 - 14 & 14 – 15).
- Central excise registration number / Service Tax Registration Number..
- TIN / CST No / PAN No.
- Credentials in support of supply/ installation of similar type of equipments during last 5 years.
- Credential in support of supply / installation of AQUACLAVE (Retort superheated water shower Sterilizer) made to cooperative dairies.
- Cost of tender paper in shape of Demand draft only.

8.2 AUTHENTICATED DOCUMENTS TO BE SUBMITTED IN THE COMMERICIAL BID:

- The original bidding document should be signed & sealed in each page by the bidder as a token of having read, understood & accepted the contents, therein.
- Duly filled in commercial bid format
- The rate shall include freight, packing, forwarding, insurance all taxes including service taxes & duties and royalties.
- Demand draft towards EMD@1% of the quoted value.
- Documentary evidence established in accordance with 8.1 & 8.2 is accepted.

8.3 TERMS OF PAYMENT

- 30% Advance against submission of 33% Bank Guarantee.
- 60% payment after safe arrival of materials at site or 90% if not availed 30% advance.
- Balance 10% payment after commissioning & handing over.
- PSD@10% of the bill value shall be retained & the same shall be released after one year of installation/ commissioning or against submission of equivalent amount of B.G before the due date, subject to satisfactory performance.
- All payments are subject to deduction of statutory dues as applicable.

8.4 DELIVERY PERIOD:

- 03 months from the date of receipt of order.

8.5 VALIDITY OF OFFER:

- 12 months from the date of notification.

8.5 TERM & CONDITIONS:

- The bidders are advised to visit site prior to quoting the price to accesses erection material.
- It is mandatory on the part of the bidder to quote for all the items incase deviation the tender shall not be considered.
- The quantity of equipments as mentioned in this document is likely to vary depending upon availability of funds and requirement. If required any item may be deleted.
- The bidder is not at a liberty to stipulate any terms / condition of their own beyond the tender terms / conditions.
- The offered rates should be inclusive of Freight (FOR Bhubaneswar), taxes, duties, royalties, packing, forwarding, transit insurance etc.
- All the statutory approval is within the scope of the bidder.
- P& I drawing/equipment drawing/electrical drawing etc needs to be approval of project division, OMFED prior to the dispatch of equipments.
- Pre-delivery inspection shall be made on site/bidder shop floor by the Authorized person prior to dispatch of equipments.
- The bidder has to furnish the technical specification of packing material & source of procurement.
- It is mandatory on the part of the bidder to supply the following packing material during commissioning/trial run as per the design to be specified by OMFED.
- Retrotable PP/HDPE Bottle (500ml), foil seal and Screw cap-50000Nos.
- Retrotable PP/HDPE Bottle-(200ml), foil seal and Screw cap-50000Nos.
- Web sealing materials polymer/cardboard (made for cargo packing) for 100000 pieces of bottle.
- **This is being a composite tender, part offer shall be rejected.**
- **The composite offered rates shall be taken in to consideration only for the purpose of evaluation while finalizing the tender.**

8.6 PENALTY FOR DELAY

- In case of delayed completion beyond the stipulated time frame penalty @0.5% of the order value shall be imposed per week.

FOR OMFED BIDDER

8.7 SCOPE OF THE BIDDER

- Chilled water supply, return line with insulation from IBT header within 15 meter radius.
- Compressed Air line from the main header.
- Raw/Soft water line for the main header.
- Steam line with valve, fitting traps insulation to be drawn from the main header line.
- Motor control centre having provision for all the equipment – power driven motor supplied by the bidder.
- Drawing of outgoing electrical cable to the equipment / earth pit etc.
- Cable trench and statutory inspection.
- All civil / structural work like machine foundation, MS support grouting etc.
- Drawing of LT cable of inline capacity from the main LT panel to the motor control centre from existing LT panel within a radius of 50 meter.
- To train OMFED's personnel at the suppliers workshop / plant and/or onsite in assembly line shop floor during trial commissioning, breakdown & repair maintenance and up to 30days of commercial production from the date of handing over of the plant.
- All tools & tackles, Special tools and manuals shall be supplied with machineries.
- List of critical spare /fast moving spares and consumables and its source for each of the machineries shall be submitted before handing over the project.

FOR OMFED BIDDER

9.0 Bid form

The Bidder shall complete the bid Form and the schedule of quantities furnished in the Bidding Documents, indicating for the goods to be supplied, a brief description of the goods, quantity and prices.

10.0 Bid Prices

10.1 The bidder shall indicate in the schedule of quantities, provided in this document, the unit prices and total Bid prices of the goods it proposes to supply under the Contract, on FOR destination basis, inclusive of all taxes & duties, packing & forwarding charges, transportation, insurance and other incidental charges, loading & unloading charges etc. as applicable.

being done by them. On completion of works necessary electrical testing as per IER should be carried out and test report should be submitted to site engineer for forwarding to Chief Electrical Inspector.

11.0 Mechanical:-

11.1 Painting:

All factories fabricated and site fabricated MS surfaces should be provided two coats of anti-corrosive primer followed by at least 2 coats synthetic enamel paint. However the inside surfaces of chilled water tank shall be given one coat of zinc rich paint. All supports fabricated at site should also be painted with 2 coats of anti-corrosive primer & 2 coats of synthetic enamel paint. Pipelines should be painted as per colour code of ISI 2379-1963 amended till date.

8.0 Testing & Commissioning Of System

The contractor shall operate, maintain and give satisfactory trial run of the plant for a period of continuous 30 days at the rated output. All rectifications of damages, defects and routine trouble shooting should be carried out by the Contractor, during this period. The Contractor shall incorporate/execute necessary minor modifications for maximizing operational efficiency. The Contractor shall demonstrate proper working of all mechanical and electrical controls, safeties and protective devices in a presence of OMFED's engineer and the same should be duly recorded. The work shall be deemed to be completed only after satisfactory performance of the entire plant for 30 continuous days at the rated output, & after handing over the same subsequently.

FOR OMFED BIDDER

SECTION – III
(SPECIFICATION OF EQUIPMENTS)

1. TANKER UNLOADING HOSE PIPE :

This pipe shall be made of food grade flexible rubber material of size - 51mm of standard length to unloading/loading of raw /pasteurized milk. The material must comply with food quality requirement be capable of withstanding a water sterilization temperature of 100°C and a 2% caustic solution at 70°C.

2. SS DISC STRAINER:

This shall be fitted in line with the unloading /loading SS milk piping with both ends SS MS union made of SS 304/SS 416 material and shall be used for filtering of foreign material available with the milk.

3. TANKER UNLOADING MILK PUMP:

FUNCTIONAL REQUIREMENTS -:

Capacity: 2,000 LPH at head of 25 MWC.

DESIGN REQUIREMENTS -:

General description: The Pumps shall be used for transfer of milk/CIP/Product with hygienic sealing arrangements. The pump should have 3 nos. SS shrouded leg supports, two of which shall be of adjustable type. The motor section of the pump should be SS shrouded. The casing should be easily dismantable. The SS shroud should have a provision for air circulation and entry of electrical cable along with junction box (terminable box). The stainless used for manufacture of pump should be corrosion resistance AISI 304 for the parts coming in contact with product parts should be of AISI 304 or equivalent. All SS parts should be smooth having finish of 150 grits.

The pumps should be provided with a union of SMS type on both inlet & outlet. A drain hole is to be provided in the seal housing.

Electrical design data: The pumps should be coupled to the motor of 3.5 HP and should be suitable for continuous operation at 400/440 volts, 3 Phase, 50 Hz AC supply with class 'E' insulation.

One 'C' spanner and instruction manual is included in the scope of supply.

4. MILK CHILLER:

FUNCTIONAL REQUIREMENTS -:

General description: The single section plate heat exchanger would be used for cooling whole milk with chilled water. The scope of supply includes necessary plates, sealing gaskets and supporting frame for plate pack.

Operating parameters: All stainless steel plate heat exchanger type milk chiller capacity 1,000 LPH of milk chilling for 35°C to 4°C by means of 3,000 LPH of chilled water at 1.5°c. (1:3)

DESIGN REQUIREMENTS:-

The chiller frame shall be in MS construction with SS 304 cladding and shall have SS tie rods, milk and chilled water inlet / outlet thermometer, SS ball feet. The inlet & outlet connection shall end with SMS unions. The heat exchanger plates shall be SS 304 construction with nitrile rubber packing.

Plates:- The plate pack should be fabricated from stainless steel conforming to AISI 304 or equivalent grade and should form a sanitary assembly and be suitable for effective in place cleaning operation.

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

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

Gaskets

Sealing gaskets must ensure complete sealing and prevent any cross leakage between product and service liquids.

The material must comply with food quality requirement be capable of withstanding a water sterilization temperature of 100°C and a 2% caustic solution at 70°C.

Supporting frame

The support frame for the plate pack should be of a free standing design made of MS with SS cladding complete with a manually operated tightening device an adjustable SS ball feet.

Pressure drop shall not be more than:Milk - 1.2 kg / cm²,

Chilled water – 1.2kg / cm²

Supply shall include required no. of thermometers, a set of tools and a set of spares meant for – 2 - years normal operation. Please inform no.of plates, heat transfer area, thickness of the plates considered and total length of the chiller.

5. S.S. INSULATED BALANCE TANK WITH AGITATOR

Capacity-1000 LTR

- 1000 Ltr. Cap. S.S. Insulated Tank
- Cylindrical double walled having maximum height of **700 mm** from bottom of outer shell.
- Inner & outer shell should be of 2 MM thick AISI-304 material.
- Insulation Material-100 MM thick thermocool in two layers in between inner & out shell.
- No foam inlet, over flow arrangement in top site.
- Outlet with SS two Way plug valve of 51 MM
- SS Cover in three parts, central part should be fixed & should have spray ball arrangements for CIP connection in the middle fixed cover.
- Rest of two covers should be removable.
- Legs- SS clad legs with SS ball feet for height adjustment of 50 MM- 4 Nos.
- Vertical gear drive type agitator motor of suitable capacity shall be fitted in top of the tank with suitable greasing cap and standard fittings.
- Agitator shaft with ss blades shall be provided with proper flange fittings.

6. S.S. MILK TRANSFER PUMP

FUNCTIONAL REQUIREMENTS -:

General description: The pumps will be used for transfer of milk having maximum 16% Milk total solid. These pumps should be of sanitary design.

Capacity: 2000 LPH against 10 meter Head.

DESIGN REQUIREMENTS -:

The SS milk centrifugal pump should be provided with flanged standard TEFC motor with hygienic sealing arrangements. The pump should have SS ball feet supports of threaded adjustable type. The motor section of the pump should be SS shrouded. The casing should be easily dismantable. The SS shroud should have a provision for air circulation and entry of the electrical cable. The stainless steel used for manufacture of pump should

be corrosion resistance AISI 316. An electrical junction box should be provided on the motor casing.

Motor Capacity: to be designed by the bidder.

RPM: to be designed by the bidder

All pumps should be provided with unions of SMS standard on both inlet and outlet. The pumps should be complete with mechanical seal having sealing sleeve of rulon. The seal housing should have a drain hole.

Electrical Design Data: The electrical prime mover should be suitable for operation on 400/440 volts, 3 phase, 50 Hz AC supply with class 'E' insulation.

Finish: All parts coming in contact wit milk should be of AISI 316. The SS parts should be smooth having a finish of 150 grits.

Each pump should be supplied with a 'C' spanner, instruction manual and one set of essential spares for three years normal insulation.

7. MILK PASTEURISER.-01NO. **(Make – IDMC/Any reputed brand)**

CAPACITY - 500 LPH (SKID MOUNTED)

TEMPERATURE: Programme 5-45-65-80-4 ° C.

REGENERATION - 90%

HOLDING TIME - 20 secs in Tubes.

SCOPE OF SUPPLY:

PLATE HEAT EXCHANGER: PHE should be SS 316 tubes with gasket of NBR food grade material which would be consist of fix plate and four intermediate plates. The frame of the PHE should be cladded in SS304 and should be provided with SS ball feet.

FLOAT BALANCE TANK: - 100 ltrs capacity fabricated from 2 mm thick AISI 304 stainless steel sheet with cover, float, outlet and adjustable stainless steel ball feet.

AUTOMATIC FLOW CONTROLLER :(stainless steel) to maintain the required flow rate irrespective of the pressure loss.

S. S DUPLEX FILTER with suitable pore size to continuously filter the product. The design should be such so as to facilitate quick dismantling of the filter element complete with changeover valves at inlet and outlet and air purging and arrangement.

STAINLESS STEEL MILK PUMP (1000LPH) to match with the pasteurizer capacity. The TEFC drive motor should be fitted with SS shroud with louvers for air cooling and suitable arrangement for cabling.

Stainless steel hot water set consisting of mixing chamber auto steam flow regulating valve, pressure relief valve, overflow discharge, hot water circulating pump (Cap-3, 000 LPH) with all inter connecting SS pipes & fittings. The hot water pump should be fitted with SS shroud with louvers for air cooling & suitable cabling arrangement.

Automatic control panel shall consist the following :

The panel should be of floor mounted design dust, weather and vermin proof fabricated from 2 mm thick SS sheets of AISI SS 304 mtl. It should be lockable type.

1. One no two pen temp. recorder with serving element for recording hot and chilled milk temperature. The recorder will be of circular/ chart type having a range 0 degree, -120 ° C with a straight drive suitable for operation on single phase 230 V, 50 C/s AC supply.
2. One no digital temp. indicator mounted on the panel to indicate the hot milk temp. Continuously. This shall be sensed through a PT -100 sensor. PI indicating controller,

EPT, Steam flow regulating valve, PT-100 sensor senses the hot milk temp. and gives a signal to PID controller which in turn actuates EPC to give the required air signal to steam flow regulating valve. Thus the flow of steam into the hot water tank is controlled in proportion to hot milk temp. so that the pasteurization or hot milk temp. is maintained at the present value (Temp. accuracy + 0.5 º C)

3. Pasteurizer shall also be provided with an AUTO FLOW DIVERSION VALVE. This valve is actuated whenever the pasteurization temp goes below the present value, thereby enabling milk to divert back to FBT. There shall be an audiovisual alarm provided for this purpose.

4. An air filter cum pressure regulator shall be provided to control and supply air to instruments at the present value along with a pressure gauge to indicate the pressure.

5. The control panel should also have a minic diagram showing the flow of milk & service media at various stages of the pasteurizer.

6 Set of push buttons, rotary switch indicating lamps should be provided on the panel and prewired to indicate automatic diversion/ forward portions of FDV as the situations may be.

ON and OFF push button with indicating lamps with suitable inscriptions shall be provided for the following pumps:

Hot water Pump - 1 No.

Chilled water pump - 1 No.

One no. main alternator with key and indication lamp for On - Off.

7. **Heat Exchange**

Plates - The plates shall be made from SS confirming to AISI 304 and of sanitary design. This should be readily removable for cleaning & inspection.

Gaskets:

The sealing gasket shall ensure complete sealing & prevent cross leakage between product and service liquid. The gasket materials shall be prod. grade Nitrile rubber and withstand the pasteurization temperature & CIP cleaning solutions.

Holding sections:

It shall be designed to hold the product for minimum specified holding time at the pasteurization temperature.

Supporting Frame:

The supporting frame for the plate pack shall be of a self-supporting design made from SS (AISI 304) with necessary tightening arrangement. The frame shall have adjustable ball feet.

Inlets / Outlets:

The inlet and outlets in each sections of the heat exchanger for products and services shall be provided with complete SS (AISI -304) unions. Stainless for thermometers on all the inlets and outlets of products and steel (AISI -304) products services complete with a SS guard of at least 200mm length for mounting glass thermometers five nos. glass thermometers shall be provided to measure inlet outlet or milk, pasteurized milk outlet inlet and outlet or heating and cooling media.

The heat exchanger shall have inlet & outlet connections for connecting milk clarifier at 65 ° C and homogenizer at 65º C. Hence there shall be total 5 sections with necessary dividing plates.

Safety Device.

A safety device shall be provided in the hot water side of heating sections to avoid damage to the heat exchanger caused by excessive pressure. It shall be of sanitary design.

8. One set of suitable size inter-connecting SS pipes and fittings to connect the FDV, Feed Pump, Heat Exchanger duplex filter, FDV to FBT forward diverted line etc. with necessary SS pipe supports & SS clamps.

9. a) Two sets of manual along with relevant drawings including control diagram.
b) A set of standard tools shall be supplied with the equipment.

10. ERECTION & COMMISSIONING:

SCOPE OF SUPPLY:

Unpacking of the equipment shifting of the equipment to the desired place. Positioning of the equipment in its place. Inter-connection of the equipment with SS & service pipelines. The erection of the above shall be carried out by you which would also include the followings:

a) Steam diaphragm valve.
b) Pipeline connection to inlet of Hot water mixing battery after steam diaphragm.
c) Inter-connecting SS piping between FBT, pump, Duplex filter FDV & pasteurizer.
d) Hot water piping between hot water set and pasteurizer and back.
e) Airline from control panel, FDV, Diaphragm valves.
f) Control cables from panel board to pasteurize PT -100.
g) Flow diversion valve etc. pipeline from FDV to FBT.

After installation of equipment, the pasteurizer set shall be put on trial run for a period of 3 days to see the performance, capacity measurement etc.

Drawings:

You shall send us 03 sets of general arrangement & fabrication drawings of all items, plotage diagram of the pasteurizer showing the pass & flow arrangement of milk & service media, drawing for inter connecting pipes and fittings with pipe supports, electric / pneumatic control diagram etc. within 15 days of receipt of the purchase order for our approval. We shall send you the approved drawings within seven days of receipt provided the drawings are in order.

Guarantee:

The equipment shall be guaranteed for a period of twelve months from the date of commissioning of 18 months from the date of supply.

8. MILK HOMOGENIZER. (Make – IDMC/Any reputed brand)

CAPACITY – (5,00 LPH) SKID MOUNTED

500 LPH capacity Homogeniser at 200 kg./cm² shall be suitable for breaking & dispensing milk fat globules having 4.5% fat & 8.5% SNF to less than 2-3 microns and shall work at more than 90% efficiency.

Capacity – 5000 LPH

Max. working pressure – 200 Kg./Cm², Two stage design with first stage 2500 PSI and second stage 500 PSI.

Electric Power - The motor should be designed accordingly,
No. of Plungers – 3,
Material of plunger – S.S.316 chrome plated.
Homogenizing Head – Two stage hydraulic actuated with stellite valve & valve seat. Impo, stellite mall rich.
Homogenized valves – Stattlite – 20 materials.

CRANK CASE:

i) Rugged in construction and easily openable.
ii) Open type split crank case body for easy checking and maintenance.

HOMOGENISING HEAD

Homogenising Head shall be two stage, removable type, hydraulically operated with in-built Relief Valve for excess pressure.

Homogenising Valve and valve seats for both 1st and 2nd stage are of Satellite Grade – 20 materials. They are wear and abrasion resistant and of interchangeable and replaceable type.

PLUNGERS

Plungers are made out of Hardened Special Alloy steel in order to ensure good life for plunger packing.

PLUNGERS PACKING

Plunger packing with sealing lip to prevent leakage and easily replaceable.
Cooling is to be done preferably by chilled Water.
The plunger seal are of Food Grade quality, able to withstand 90º temperature.

LUBRICATION:

i) Forced feed lubrication through gear pump mounted on the shaft.
ii) Low & high pressure cut off switches for lubrication system.
iii) Oil level safety switches.

COOLING:

i) Crank case oil cooling through tube type oil cooler to ensure that the temp. of oil does not rise above 55°C.
ii) Gear Box cooling through water jacketed in-built in gear box casing.

POWER TRANSMISSION:

The primary transmission of power in Homogeniser shall be through 'V' belt and pulleys. The device with all the pulleys and 'v' belt etc. shall be on the main frame inside the shroud only. Both the pulleys (i.e. Motor as well as Homogeniser) shall be provided with Luck bush arrangement. The secondary power transmission shall be through a shaft mounted gear box located within the S.S shroud.

FINISH:

All welding joints grounded smoothly. All S.S. surfaces would be polished 150 grit.

JOINT CURVATURE:

There will not be any sharp corner edges on milk contact surfaces.Also there would not be any thread in contact with the product.

SUITABILITY:

The Homogenizer would be suitable for use on reconstituted skimmed milk mixed with fat in the form on molten butter oil at a temp. of 50 to 60°C. The fat content of the mix would not exceed 12%.

CLEANING:

The Homogenizer should be suitable for CIP cleaning line in line with the pasteurizer.

PAINTING:

The body of the homogenizer to be painted with coat of epoxy primer followed by two coats of epoxy paint after thorough de-rusting.

TOOLS:

1 set of essential tools for commissioning and maintenance of the Machine should be supplied alongwith the Machine.

MOTOR CONTROL CENTRE

Motor control centre made from CRCA sheet powder coated shall be supplied wit STATER suitable as per the rated capacity given in the technical specification and DOL STATER for the Hydraulic pump shall be provided.The panel shall be dust and vermin proof.

N.B:

All milk contact surfaces to be made of S.S. confirming to AISI 316. The complete unit would be provided with removable S.S. enclosures to give sanitary out look.

ACCESSORIES:

- The inlet/outlet for product will be made up of 63.5 mm size with SMS connection.
- Pressure gauge of imported flat disphagram type, glycerin filled, sanitary design as per 3A standard – 1 No.
- Instruction Mannual – 03 No.
- Electrical Control pannel with starters & on off switches should be supplied. The pannel would be out of M.S. Powder coated.

SPARES TO BE SUPPLIED ALONG WITH THE MACHINE:

SLNO	DESCRIPTION	QUANTITY (No.)
01.	Gasket(C.C.C)	01
02.	Oil Seal	03
03.	Cooling pipe with Ferule	01
04.	V Ring packing	06
05.	Sealing Ring	03
06.	Suction Spring	03
07.	Discharge spring	03
08.	Sealing Ring	06
09.	O Ring	03
10.	O Ring	03
11.	O Ring	01
12.	Sealing ring	01
13.	Sealing Ring	02
14.	Sealing Ring	02
15.	O Ring	02
16	Packing Cap.	02

Note: You shall send your Engineer for installation and commissioning of the homogenizer at site free of cost. . The efficiency of the homogenizer shall be shown to us for consecutive runs for more than 90% homogenizing efficiency.

09. BOTTLE CLEANING TANK- 01NO.

FUNCTIONAL REQUIREMENTS-

The vat shall be used for cleaning of bottles at 70°C

1. DESIGN REQUIREMENTS

- 500 Ltr. Cap. S.S. Insulated Tank
- Cylindrical double walled having maximum height of **700 mm** from bottom of outer shell.
- Inner & outer shell should be of 2 MM thick AISI-304 material.
- Insulation Material-100 MM thick thermocool in two layers in between inner & out shell.
- No foam inlet, over flow arrangement in top site.
- Outlet with SS two Way plug valve of 51 MM
- SS Cover in three parts, central part should be fixed & should have spray ball arrangements for CIP connection in the middle fixed cover.
- Rest of two covers should be removable.
- Legs- SS clad legs with SS ball feet for height adjustment of 50 MM- 4 Nos.

10. 6- HEAD AUTOMATIC AIR JET CLEANING MACHINE

Description:

The Automatic Air Jet Bottle Washing Machine should be compact unit totally made of S.S.structure with height adjustment legs, are provided to adjust the machine height. and highly efficient machine with elegant look. This multifunctional multi featured machine meets the GMP requirements of washing for glass and plastic bottles. The machine operates on the linear principle with "INVERTER" mechanism and requires manual loading. Bottles.

Technical Specifications:

Out put / Hour - **2600** per hour
Direction of Machine - Left to Right
Power Consumption :
Main Motor 1.0 HP / 415 Volts / 50 Hz
Blower Motor. 0.75 HP / 415 Volts / 50 Hz
Working height 850 to 900 mm
Consumption of Air 6 Kg/cm2
Machine Dimension 2175 mm (L) x 780 mm (W) x 1550 mm (H)
Case Dimensions 2500 mm (L) x 1000 mm (W) x 1750 mm (H)
Input Specifications:
Round Shape 20 to 40mm and Height 100mm to 200mm.

Salient Features:

Separator is used to maintain timing between two containers.
SS Pressure Gauge.
Stationary SS nozzles.
Positive air pressure and vacuum cleaning.
Separate control for air pressure
High efficient blower to clean container properly
Manual loading of container
Easy operating system
Utility Requirement:
Electrical supply 3 Phase + Neutral + Earthing
Electrical load 1.29KW
Air Pressure: Minimum 6 bar pressure 5 CFM

11. SS TURN TABLE:

FUNCTIONAL REQUIREMENTS:-

The turn table shall hold & guide the empty bottle to Filling Machine Conveyor.

Design:-

1) Diameter of Turn table platform: - Dia. 30”
2) Turn Table Height :- 850mm (Adjustable)
3) Turn table material :- S.S.304
4) Motor: - ½ hp Motor with gear box.(Siemens, Hindustan, Bharat Bijlee).

12. AUTOMATIC BOTTLE FILLING MACHINE.

Bottle filling machine shall be design for filling Liquid in PP / HDPE Bottles/Glass bottles.

Design:-

1. The filling machine will be operated automatic type with preferably 6 head diving nozzle type to avoid foaming during filling process.
2. All the working parts of the machine coming in contact with the product are S.S.316 (filling cylinder & nozzle).
3. Conveyor had inlet & outlet ends of the machine variable speed to synchronize with the filling the filling machine speed. The conveyor tailing width adjustable.
4. Casing of the machine of S.S.304
5. Filling accuracy for various volumes within range of +-0.5% on volume
6. Filling head height will be adjustable.
7. Filling Range: 200ml / 500ml
8. Anti Dripping Filling Head.
9. SPEED **2600** BOTTLES PER HOUR.
10. FILLING MACHINE ENCLOSED WITH POLY CARBONATE SHEET 10MM THICKNESS.

13. AUTOMATIC SINGLE HEAD SCREW CAPPING MACHINE

DESCRIPTION:

Automatic Screw Capping Machine should be versatile, self-supported on stainless steel leg with height adjustable adjustment system. The machine should be precision built on sturdy welded steel frame completely enclosed in stainless steel sheet and doors should be provided to facilitate the servicing of machine.

OPERATION:

The feed bottle moving on conveyor belt will be feed into an in-feed star wheel, bringing the bottle below the sealing head in the subsequent indexing part, mean while the rotating bottle will pick up a cap from the cap star wheel which is being received from delivery chute of cap filling bowl, where the body and the neck of the container are positioned below the rotating head, where the sealing head will perform perfect operation of sealing, rotating head should be designed to seal container according to pre-set-torque.

TECHNICAL SPECIFICATION:

_ Direction of Movement - Left to Right.
_ No. of Sealing Head - 1 No.
_ Cap Feeding Bowl
_ Height of Conveyor - 800 mm to 910 mm.
_ Speed 40-50 Caps per minute.
_ capping machine enclosed with poly carbonate sheet 10mm thickness.

SALIENT FEATURES :

_ Adjustable height of conveyor belt.
_ All contact parts are made out of stainless steel.
_ Torque adjustable.
_ Low noise level.
_ Cap pickup support.

14. INDUCTION SEALING MACHINE

The Induction sealing machine shall be used to seal the bottles effectively at required product line speed.

Technical Specifications:

• Power output: 1KW Mains.
• 230V/Single phase / 50 Hz. And Standby Power 0.3KW
• Maximum Line Current: 8 Amps.
• Cap size: 38mm or equivalent

15. S.S. WORKING TABLE

FUNCTIONAL REQUIREMENT

1.1 SS working table shall be used in the plant for filling of the flavoured milk and fresh milk on it and for various packaging activities.

2. **DESIGN REQUIREMENTS**

2.1 Dimensions : The table size shall be 1500 L X 1000 W. The working height of the table shall be as per standard requirement to suit the operation system.

2.2 Finish : All welding joints are to be ground smooth. All stainless steel outer surfaces are to be polished to 150 grit finish.

1.1 Joint Curvatures. All corners should have minimum radi of 25 mm.

1.0 SCOPE OF SUPPLY

3.1 Table Top : The Table top shall be made from minimum 1.6 mm thick stainless steel sheet conforming to AISI 304 duly supported on MS square pipe support. The top surface shall be flat without any bulging or deformation.

3.2 Stand: The stand should be made from MS square tube of minimum size 32 X 32 mm. Two coats of approved shade paint are to be applied.

3.3 Accessories

3.3.1 Leg Rest : All the four side of the table shall be provided with square pipe leg rest.

3.3.2 Rubber Plug: All the four legs shall be provided with rubber plug to avoid scratching on the floor while shifting.

4.0-MANUFACTURING CODE: The table shall be manufactured following good engineering manufacturing practices.

INSPECTION & TESTING : OMFED reserve the right to inspect the equipment during various stages of fabrication.

DRAWING : Bidder shall submit a GA drawing of the equipment along with the offer giving details of the material of construction. However, successful bidder has to submit detailed manufacturing drawings for approval from OMFED, prior to start fabrication.

16. SHRINK TUNNEL FOR BOTTLE SLEEVE SHRINKAGE MACHINE.

A machine equipped with conveyer tunnel, geared motor, temperature controller and sealer. One side product loading other side shrink wrapped product collection.

Technical specification:-

_ Complete srink Tunnel manufactured by S.S 304
_ Tunnel size :- 300mm x 300mm.
_ Temperature 240c.
_ Conveyor size :- 280(w) x 800(h) x 1200(L)
_ Product :- Pet Bottles/Cups/Glass Bottles.
_ Electrical Operated / Steam Operated.
_ Blower :-2 Nos.
_ VFD :- 1 Nos.
_ Temperature Controller.
_ Speed : 5 Meter per minute.

17. AQUACLAVE (RETORT)

The AQUACLAVE (Retort) indigenously manufactured shall be used for sterilisation of following milk product/ fruit juice in PP/HDP/laminated pouch/metal container at a minimum temp. of 120ºc.After sterilisation the product shelf life should not be less than 90(ninety) days in sealed condition under ambient temperature.

NAME OF THE PRODUCT	TYPE OF PACKING MATERIAL
Whole Milk having minimum 16% TS	PP / HDP
Rasgolla / Gulapjammun	Tin container
Paneer /Chennapoda	Laminated pouch / LLDP
Fruit Juice	HDP container

CHAMBER CAPACITY

Sr. No.	Chamber Size x mm Long	Quantity	Bottles Capacity / Charge	Nos. of Carriages/ Trollies	Length of Carriage
1	To be indicated by the bidder	1 full set	2600	2	To be indicated by the bidder

CHAMBER DESIGN

The AQUACLAVE chamber shall be fabricated from SS 304 with full argon welding. The chamber shall be externally re-enforced to withstand pressure and vacuum by steel reinforcements welded on the chamber plate.

WORKING CONDITIONS AND TEST PRESSURES OF CHAMBER

Working Pressure : 3.0 Kg/Sq.Cm
Hydro test Pressure : 4.5 Kg/Sq.Cm

APPROXIMATE CYCLE TIME [DESIGN CRITERIA]
Heat Up : 30
Hold : 20
Cooling : 30

Additionally suitable loading and unloading time must be considered.

DOOR : The units shall be provided with single Tongue& Groove rotary door.

The door shall have swing type opening arrangement. The door to be fabricated from SS 304 with mild steel re-enforcement. The door is to be insulated with mineral wool / resin bonded glass wool insulation.

The door sealing is affected with the help of a silicone door gasket. The gasket is pressurized by compressed air and retracted by vacuum.

A compound gauge with door status indication is provided.

The following door safety feature is provided for maximum operator safety:

Process-lock to prevent opening of the door during the process.

Process will not start unless the door is locked and sealed.

INSULATION
The AQUACLAVE chamber shall be insulated with 50 mm thick mineral wool, which is held in place by an outer cover of stainless steel. The surface temperature of the machine will be NMT ambient + 25^0C

FLOOR MOUNTING
The AQUACLAVE is mounted on a saddle support manufactured of mild steel suitable for floor mounting. No foundation is required.

WATER RECIRCULATION SYSTEM
The re-circulation system is used for heating, cooling and showering the process water on the load to be Steam Cooked / Pasteurized / Sterilized. The circulating loop comprises of the Heat Exchanger, Circulating Pump and Water Shower Manifold.

HEAT EXCHANGER
The AQUACLAVE is provided with shell and tube type heat exchanger for heating and cooling the process water. The sealing gaskets are of food grade materials. AII contact parts of heat exchanger are S.S 304.

WORKING CONDITIONS AND TEST PRESSURES OF HEAT EXCHANGER

SHELL	TUBE	
WORKING PRESSURE	3.0 KG/CM2	6 KG/CM2
HYDROTEST PRESSURE	4.5 KG/CM2	9 KG/CM2

The secondary side of the heat exchanger has a piping manifold for the heating steam and cooling water. There is also a safety valve for over pressure safety.

CIRCULATING PUMP
For the circulation of the process water a high flow centrifugal pump is provided. The pump is driven by a 3 phase, TEFC electric motor. The pump has a shaft seal which is self cooled and can withstand up to 125 deg C.

WATER SPRINKLING MANIFOLD
At the top of the chamber and along the depth a SS 304 spray manifold is provided. The system ensures a dense and uniform shower over the entire load.

PIPING PACKAGE
All process piping shall be fabricated from SS 304 with argon welding and all non-contact piping is fabricated from stainless steel.

All connections and fittings used are threaded/flanged type.

VALVE PACKAGE
The process valves in contact with the chamber are with PTFE seals and are pneumatically actuated.

The process valves are actuated by instrument air controlled via solenoid valves.

HANDLING ACCESSORIES
Railing

The AQUCLAVE chamber to be provided with SS 304 railing with circular cross-section. The rails can be easily removed for cleaning the chamber.

The minimum number of carriages shall be 2. However, if space permits, the number of carriages can be increased to 3. The number of trolleys shall be 2.

Loading Carriage

Loading carriage is made from Stainless Steel welded to form a supporting structure to hold trays on which the containers are loaded. Shelves are provided for loading which are fabricated from Stainless Steel with adequate holes drilled for circulation of the process water.

Each carriage is provided with four concave shaped wheels with sealed bearings impregnable to the steam.

Floor Trolley

The Floor Trolley is fabricated from Stainless Steel square, tubular sections and is provided with adjustable railing for the Loading Carriage. The trolley is fitted with two fixed and two swivelling type polyurethane castor wheels with brakes.

PROCESS MANAGEMENT SYSTEM

The AQUACLAVE is to be designed to perform production programs to meet the latest regulatory requirements of US FDA, UKMHRA, etc.

PROGRAMMABLE LOGIC CONTROLLER

The control system to be provided with a universal Mitsubishi PLC and user-friendly HMI as a front end user interface. This should have the following salient features:

- 3 level password protection for process security.
- RS 232 port for data communication.
- In-built Real Time Clock with date and time function.
- Battery back-up for automatic restart in case of power failure.
- EEPROM for secure software storage.
- F_0 calculator for automatic computation of process lethality.

SAFETIES AND ALARMS

The process management system to be provided with a series of safety and alarm features:

- High temperature and pressure.
- Pasteurization / Sterilization timer stop in case of temperature drop.
- Pasteurization / Sterilization timer reset in case of further temperature drop.
- Water level low
- Circulation pump trips
- If accidental vacuum is created

PROCESS RECORDING – PRINTER
80-column dot matrix data printer for recording – date, time, process parameters, process status, alarms F0 value etc.

TEMPERATURE SENSORS
Three RTD Pt100 sensors to be provided; one in the heat exchanger, one in the sump and one in the chamber.

PRESSURE SENSORS
A pressure transmitter is connected to the chamber. This generates a 4-20mA output in a range of –1.0 to 3.0 Bar. The system has a pressure lease count of 0.002 bar.

ELECTRICAL SWITCH GEAR
The control cabinet shall be provided with a main isolator for the three-phase supply and a separate switch for the control supply. All cabling shall be flexible, PVC cabling routed via PVC channels mounted in the panel. All cabling for temperature and pressure signals shall be shielded for minimum electro-magnetic interference. Necessary relays, contactors, MCB's, etc. are also mounted in the control panel. The panel shall confirm to the Kerala State Electrical Inspectorate Standards.
The facia of the control panel to be provided with indication LED's and switches for operation. The service and maintenance area to be provided with a lighting fixture and plug & socket.

FINAL INSPECTION
Completely ready machine shall be offered for final inspection, hydro test reports of prior in house testing shall be submitted.

DOCUMENTATION
The equipment to be accompanied with the following: -
 Operational Instruction & Service Manual.

18. WEB SEALING MACHINE WITH SHRINK TUNNEL TO PACK 24 BOTTLES OF FLAVOURED MILK BOTTLES.

A machine equipped with conveyer tunnel, geared motor, temperature controller and L sealer.

One side product loading on box in a matrix form and other side shrink wrapped product collection.
Panels: Heavy duty SS410
Circulation fan: should be provided
Supply required: 415V AC/ 3 phase / 50Hz
Speed of conveyer: Variable AC drive provided

19. CONTINUOUS INKJET PRINTER

Four line non-contact inkjet printer that can be installed on any production line for printing batch no, date of packing/ expiry date, MRP Rs., logo (or graphics), bar codes, time or shift, serial no., etc on glass, aluminium, plastic or paper surfaces in bottles, tins, labels, cartoons, cups, caps, foils, pouches, films etc. The machine should be ideal for on-line high speed coding on packing materials / containers, moving on conveyers or plastic films etc. The messages to be printed are to be input either through a GUI display using QWERTY keyboard on the machine itself or through remote PC to be interfaced using standard LAN/USB interface. The messages shall be up to four lines with a combination of small, medium, large characters including graphics from 1MM to 17mm height.

The inkjet system should consist of simple disposable pre-mix ink catridge using fast drying and indelible solvent based inks (for porus and non-porus surfaces) which is push fitted in the printing head.

The machine should be capable of printing the desired message in any direction, i.e. with the printing head pointing downwards / upwards / parallel or vertical to horizon / slanting at an angle to horizon etc.

Desirable features

- The machine should operate without compressed air
- LAN and USB connection capabilities with advanced software for inputs as well as performance monitoring
- Wide range of bar codes including 2D matrix
- Large volume message storage capabilities (bidder to mention the size)
- Should be capable to operate in high temperature, high humidity climatic conditions with at least 1P55 protection and stainless steel (SS304) body / cabinet
- Automatic start and stop with no product no print capability
- Automatic print quality control and ink management system.

20. AIR COMPRESSOR:

FUNCTIONAL REQUIREMENTS -:

Filtered and dry compressed air shall be used for pneumatic control system of milk pasteurizer, curd pasteurizer, cup filling and sealing machine, CIP etc.

Capacity: 175 PSI at a maximum working pressure of 12kg/cm^2.

DESIGN REQUIREMENTS & SCOPE OF SUPPLY -:

Maximum working pressure - 12kg/cm^2
Discharge – 175 PSI
2 stage 3 cylinder
3 stage safety valve
7.5 HP / 415 V / 3phase TEFC Squirrel cage Induction motor
Automatic star-delta starter
Inter cooler
2 stage after cooler
Auto cut / start press switch
Pressure gauge shut -off valve, extended drain valve
Double side belt guard for safety (IP-55)
Solenoid valve activated delivery unloader

- The Air Compressor should be mounted over 220 ltr air receiver on ready to start mode
- The Air Compressor should be provided with air drier, filter, FRL unit, drain valve, 3 phase AC induction motor, star – delta starter of inline capacity.

TECHNICAL SPECIFICATION FOR BOILER
OIL FIRED BOILER (400 KG/HR)

1.	DESIGN	:	3 PASS,COIL TYPE (NON - IBR)
2.	MODEL	:	TO BE FILLED BY BIDDER
3.	Steam generation capacity	:	400 KG/HR. FROM 100 ºC FWT
4.	Maximum working Pressure	:	10.5 KG/CM²
5.	Fuel	:	HSD/FO
6.	Dryness fraction	:	80%
7.	Thermal efficiency on NCV	:	88% ± 2%
8.	Burner	:	On – Off type, pressure jet atomizing
9.	Overall Dimension (L x B x H)	:	TO BE SPECIFIED BY BIDDER
10.	Electrical Load	:	A.C, 3 – PHASE,4 WIRE , 415 V ± 6%, 50HZ±3 , KW
11.	Over Head OIL Storage Tank	:	300 Ltrs capacity
12.	Steam quality/ dryness fraction	:	80%
13.	Start up time	:	3 to 5 minutes

SCOPE OF SUPPLY

Boiler mountings and fitting

All mountings and fittings should be provided to facilitate safe, efficient and convenient operation and including:

- Main stop valve with counter flange.
- GM Non-return valve with counter flange.
- Extra valve for auxiliary steam lines.
- One safety valves with 5 m pipe each to lead steam outside boiler room.
- Pressure parts fabricated out of high temperature resistance boiler quality tubes as per BS-3059
- Feed check and shut down valves with counter flanges.
- Blow down valve with counter flanges and blow down piping for economizer and boiler.
- Down firing pressure jet burner comprises of Blower and oil pump with motor, oil filter, Pressure gauge, Burner with Solenoid Valve, Nozzle, Ignition Electrode, Ignition Transformer, Photocell, SS Needle Valve Etc.
- Water level pressure Gauges - 2 sets.
- Pressure gauges
- Set of jointing/rings.
- Suitable thickness insulation to ensure safe working temp.
- Aluminium sheet metal covering for the insulation.
- Inducted/forced draft fan should be provided for supplying intake air to the boiler. if required.
- Fuel gas safty devices should be provided on top of Boiler shell.
- Dust proof prefabricated control panel comprises of : Contractors, over load relays, control fuses, MCB, Sequence controller, anm switches, Hooter, indicating lamps, Push bottom switch, Etc.
- Shell and tube type Economizer.
- Oil Storage Tank

❖ **Feed Water Pump**

Two electrically driven feed water pumps (one standby) to match with the boiler operation. Each should be fitted with a suction strainer, suction insolating valves, non-return valves and pressure gauge.

- ❖ One number steam operated water injector.
- ❖ High and low water level controls and alarms.
- ❖ All controls, motors, starters, fuse, isolators should be mounted in a dust-proof control panel with selectors, indicators and manual controls on the outside. All electricals and control devices should be prewired to this panel which terminates with one main incoming isolator.
- ❖ Technical details of the boiler should be furnished in the enclosed proforma.
- ❖ Three sets of operation and maintenance manuals.
- ❖ One water flow meter of suitable size to be installed in the common suction header of the boiler feed pumps, for checking the rate & cumulative flow of water through the header.

❖ **Flue Gas Ducting and Chimney**

The chimney for the boilers shall be of ground mounted but guy ropes supported type, made out of mild steel sheets of suitable thickness, with stiffeners, helical stakes for safety of the chimney etc. as may be required. Chimney bottom up to 2 M height should be suitably insulated and finally cladded with 3 mm thick mild steel sheet. One opening with suitable cover should be provided near the bottom for removing the soot deposits manually. The Chimney shall be installed outside the boiler room. The chimney shall be suitable painted after installation.

The mild steel cladding should be of butt welded construction and all welds should be ground smooth. The chimney should conform to IS 6533-1971. Minimum chimney height should be 15 m. or as per the requirements of the local Air Pollution Control Authorities.

The chimney shall be complete with chimney hood, monkey ladder, safety cage for ladder starting from 5 metres up to top. Painter's pulley, 5 pronged lightning Arrestor (Copper with GI earth conductor of 25 X 6 mm section including earthing as per specifications, etc. complete duly painted. Necessary foundation bolts required for the chimney shall also be supplied. Details of foundation is to be provided by contractor for necessary civil works.

The Chimney height and specifications should meet the requirements of Air Pollution Control authorities. Smoke sampling platform, with power plug point with cable etc. should be provided if required by the Air Pollution Control authorities.

The contractor shall arrange for inspection & approval of the Pollution Control Authorities and all costs for such inspection & approval shall be included in the contract cost.

Flue gas ducting made of suitable gauge MS sheet shall be provided for connection from Boilers exhaust outlet to the chimney.

❖ **Pressure Reducing Station :**

The pressure reducing station shall comprise of strainer with blow down cock, moisture separator with steam trap, sight glass & moisture drainage pipeline, pressure reducing valve, isolating valves at both ends, safety valve, pressure gauges (upstream & down stream), pressure control stop valve and by-pass pipeline with valves etc. complete as required and generally as per the drawing provided in this document. A suitable MS structural platform & access ladder shall be provided & installed in boiler room for maintenance of the PRS in future.

❖ **Feed Water Tanks** :

One 2000 litres MS water tank of rectangular / cylindrical shape made from 3.15 mm M.S. sheet shall be supplied & installed by the contractor, complete with all accessories like water inlet pipe & outlet pipe with valves of suitable size, over flow pipeline of suitable size & length to carry the after to nearest drainage point or outside the boiler room, water level indicator drain pipe with valve etc.

❖ **Spare Parts :**

List of essential spare parts for normal operation for a period of 2 years should be given alongwith the offer. Description of spare parts, unit prices should be mentioned in the offer.

❖ **Battery Limits**

Battery limits for this job shall be as under:

a) **Fuel:** Diesel shall be provided by OMFED.

b) **Safety Lines**: Pipe lines from safety valves upto outside of the boiler house shall be supplied and installed by the supplier.

c) **Condensate drain lines**: Pipeline from steam traps for drainage of Condensate upto nearest drain point or outside boiler room is to be supplied & installed by contractor.

d) **Water:** Scope of work contractor starts from outlet valve on existing soft water tank located over the existing boiler room and shall include all necessary piping to feed water tank, to boiler feed pumps and to boiler.

e) **Steam Pipelines :** The scope includes supply installation, testing & commissioning of H.P/LP steam pipelines & valves with all necessary fittings & supporting materials upto the existing LP steam line near the existing boiler room including inter connection of new LP line to the existing 40 mm dia LP. The LP steam line & water line shall be taken overhead across the road to the existing boiler room through suitable MS structural floor supports depending upon the site conditions.

f) **Blow Down & Drain**: Supply and laying of drain pipelines from blow down valves upto blow down pit is in the scope of the contractor. The contractor shall provide necessary drawings for civil construction of trench & blow down pits.

g) **Electricity**: Wall mounted MCC is included in the scope of work supply, laying & connection at both ends of 4 core X 10 sqmm PVC insulated Al. armoured cable of suitable length as power supply cable from PCC to the boiler MCC is included in scope of work.

Interconnection of MCC to various equipment and instruments including supply and laying of power cables, conduits, cable trays, earthing etc. is in the scope of the contractor. One earth pit for the lightening arrestor shall be supplied and installed by the contractor. The MCC shall be double earthed as per the requirement of Electrical Inspectorate.

h) **Insulation: Supply** and application of insulation of boiler, refractory materials, and brick work is completely in the scope of the contractor. The HP&LP steam pipe lines including non-return valves shall also be insulated with 50 mm thick glass wool or equivalent insulation material by the contractor. This will be cladded with 24 SWG alluminium sheet.

i) **Tools, tackles & instruments**: All tools, tackles, consumables (except coal) and manpower required for work shall be arranged by the contractor at his own cost. Necessary instruments for conducting tests to measure specified parameters and to establish capacity & efficiency of the boiler shall also be brought by the contractor at his cost. All the equipments & instruments required conducting tests to measure all required parameters for inspection & approvals by statutory authorities shall be brought by the contractor at his own cost.

1 **Alternative Offers.**

In addition to the specifications mentioned above, the supplier may also offer any other improved version of boiler and optional accessories, if any, for improving the boiler efficiency. Complete technical and commercial details of such offers shall also have to be furnished. The cost differential for such offers should also be clearly mentioned in the offer.

2 **Standards & statutory regulations**: The boiler should comply with the latest Indian Boiler Regulations (IBR), International Standards Organization (ISO), Air pollution control regulations, and other statutory requirements and as per the specification given above.

The electrical equipment, installation should comply with the latest Indian Electricity Regulations and local regulations.

The boiler and its components should be approved by the appropriate authorities of state of its origin. Also if the concerned authorities of the statewhere it is installed suggest any improvement/modification the same should be carried out by the supplier without any extra charge.

3 <u>Boilers & its mountings HP steam piping work to be got approved by the boiler inspectorate where it is installed</u>.

Technical details of the boiler should be furnished in the following format:

Type:

Steam generating capacity 300 Kg/hr at pressure 10.5 Kg/sqcm when feed water temperature available at temperature 35 degree Celsius, using coal of NCV 11840 Kcal / Kg.

Boiler Pressure: Design _____ Operating _____

Overall dimensions of boiler: L X B X H m. _____

Weight of boiler: Dry _____ Flooded _____ (t)

Mechanical Details:

i) Tubes: Plain/Stay Heating surface area: m SQ _____

ii) Shell: Thickness _____ Size _____ Material of Construction: _____.

Design Code: _____

Water content: when full _____ cum

At working level: _____ cum .

Steam space _____cum.

Feed water arrangement:

Pump : Nos.----------/ Type ----------/

Make of Motor----------/

Pump Capacity, head, HP----------/

❖ **<u>Valves in feed water piping :</u>**

Suction side : Size---------- Make----------

Discharge side : Size ---------- Make----------

Pressure gauge : Size ----------Make----------

❖ **Firing arrangement** :

Type of furnace ----------/Volume----------/Type of grate ----------Area ----------/.

Grate loading kg./hr. m SQ----------type of bricks----------

Arrangement for Ash removal----------

Recommended size of coal for firing----------

Excess Air----------

Coal steam ratio----------

❖ **FD/ID fan**

Qty.----------/Type----------/Capacity----------MCU/Min./HP of Motor----------/Head----------of WC

Flue gas opening dia on boiler----------

Chimney

Size & Height----------

Plate thickness----------

Supporting arrangement----------

❖ **Flue gas ducting considered**

i) For new boiler:

Size----------length----------thickness----------

❖ Automatic water level controls

Type----------High/Low----------Make----------

Alarm/Signal----------

❖ **Boiler Mountings**

Sl.No.	Description	Type	Quantity	Size
1.	Steam stop valve			
2.	Non return valve			
2.	Safety Valve			
3.	Feed check valve			
4.	Blow down valve			
5.	Aux steam stop valve			
6.	Air vent valve			
7.	Water level gauge			
8.	Pressure gauge			

❖ **Service Requirements:**

i) Water----------ltr./hr.
ii) Coal----------Kg./hr
iii) Electrical Load :
Feed pump----------HP/ID Fan----------HP/FE Fan
----------HP/Miscellaneous----------HP
Total load----------.

❖ **Flue gas temperature/stack temperature** :

❖ **Provision of ladder/platform :**

❖ **Whether conforming to IBR: Yes/No.**

❖ **Any other special features.**

❖ **Details of Boiler Required:**

a) **CAPACITY:** Continuous water evaporation rate of 400 Kg./Hour at Pressure 10.5 (WP) Kg./Sq.CM when feed water temp. is available at 35 degree Celsius.

b) **QUANTITY** 2 NOS.

c) **CHIMNEY:** Height of Chimney 15 m.for diesel fired boiler min. from finished floor level or as per statutory regulation for Air Pollution Control.

d) **TYPE OF CHIMNEY** : Ground mounted but guy rope supported, outside Boiler house.

e) **LENGTH OF FLUE GAS DUCTING:** Unit rate may be given for ducting to adjust the amount for increase/decrease in quantity.

Note: i) The supplier should provide the following instruments at their cost for establishing capacity and efficiency of the boilers during trial runs :
i) Water meter
ii) CO_2 analyzer
iii) Steam Flow meter
These instruments can be taken back by the supplier after successful trials.
2) Contractor has t ensure that the data provided above shall be sufficient for the scope of work covered by the contract. Acceptance of the above data by Purchaser does not release the bidder of his responsibility to provide satisfactory performance of the entire plant, on a turn-key basis.

- **Scope of work**
- **Mechanical Installation** :
- Loading, insurance, transportation of boiler and Acessories from manufacturer's premises and unloading at site & shifting to the new boiler room.
- The complete boiler and accessories shall be positioned, installed and interconnected which includes fans, water & steam pipings, ducting, chimney, control panel and all other items covered in the scope of supply.
- All foundation bolts shall be supplied by the contractor.
- Necessary refractory material, cement and insulation materials shall be supplied and installed, first charge of lubricants, nuts, bolts, gaskets shall be supplied and fixed by the contractor.
- Arrangement for bringing coal from coal yard to boiler room & coal transportation trolley is to be provided by the contractor.
- Arrangement for ash removal and ash transportation trolley shall be provided by the supplier.
- Supply & installation of all water pipelines & fittings from soft water tank placed over existing boiler room to feed water tank (to be supplied & erected by Contractor) to suction header of boilers fed pumps & upto the boilers fed water valves. All pipelines are t be suitably supported by MS structures.
- Concrete foundations for boilers & chimney and blowdown pipe trench & blow down pits shall be provided by bidder based on the drawings.
- **Electrical Installation :**

  Supply, installation of Electrical Control panel required for the boiler including supply, laying & connection of required size not less than at least 4 X 10 mm² PVC insulated. Al. armoured cable of suitable length as main power supply cable to boiler MCC: insulation of control panels and interconnection of all motors and controls including supply and laying of cables through cable trays/GI pipes etc. and earthing. Necessary trays, glands, earth conductors and all other items for this job shall be supplied and installed by the supplier. Trenches shall be provided by the client as per the detail to be furnished by supplier.

  Details given in Section IV Part III of the tender.

- **Testing, commissioning & performance trial run :**

  The Contractor shall operate, maintain and give satisfactory trial run of the entire steam raising plant for a period of continuous 30 days at the rated output. All rectification of damages, defects and routine trouble shooting should be carried out by the contractor, during this period. Contractor shall incorporate/execute necessary modifications for maximizing operational efficiency. The contractor shall demonstrate proper working of all mechanical and electrical controls, safeties and protective devices in the presence of owner's engineer and the same

should be duly recorded. The work shall be deemed to be completed only after satisfactory performance of the entire plant for 30 continuous days at the rated output & after handing over of the same subsequently.

Details given in Section IV part I of the tender.

❖ **Special notes**

❖ Bidders are requested to visit the project site for assessment of quantum of work before quoting. This job is a complete turnkey job and accordingly all items necessary to give the rated/designed output are included in scope of work even through it is not specified in the details.

❖ The work shall be done in a running dairy plant. Hence, the shutdowns for dismantling/installation of equipments & pipelines & pipe interconnections are to be arranged with the Dairy Authorities in such a way that the production of the dairy does not get affected. The contractor shall prepare programmes for shut-down/hooking up/change over from existing to new system, in consultation with the Dairy authorities & submit the same for approval of Project authority at least 30 days in advance. Bidders would note that no extra payment shall be made on this ground.

❖ The contractor's drawings showing installation details, pipe sizing, location of PRS, feed water tank, valves, structural supports & platforms, power cable routes & conduits etc. are required to e approved by OMFED, before commencement of work at site.

❖ **Approved Makes :**

SCHEDULE - I

Make of Bought Out Items.

1.	Pressure Reducing Station	:	Spirax (JN Marshall/Mazda/ Leader
2.	MS 'C" Class pipe	:	Tata
3.	CI sluice valve with GM /Ball Valve CS working parts.	:	Kirloskar/Leader/ L&T/Audio
4.	Insulation materials glass or or mineral wool mat.	:	Mettur Beardsell/Lloyed/Spinte
5.	LT cables/Control cables	:	Tropodour/CCI/Closter/Nicco
6.	Electrical isloating switch	:	Siemens/L&T
7.	MS structural items	:	TATA/SAIL
8.	Pressure & temperature gauges	:	JN Marshall/Fiebig/H. Guru

N.B: The bidder should quote for above makes of items only. The difference in prices should be mentioned clearly, while quoting the items of makes other than the specified above.

SECTION IV (SCHEDULE OF QUANTITY)

SL NO	DESCRIPTION OF ITEMS	CAPACITY	QUANTITY IN NOS	UNIT. RATE SUPPLY (IN RS)	UNIT RATE ERECTION (IN RS)	TOTAL COST SUPPLY (IN RS)	TOTAL COST ERECTION. (IN RS)
1	TANKER UNLOADING HOSE PIPE .	LOT	01				
2	SS STRAINER (DISC TYPE WITH SS SMS UNION)	5KLPH	03				
3	TANKER UNLOADING MILK PUMPS	5KLPH	01				
4	PHE. (Chiller)	1000LPH	01				
5	SS INSULATED TANK WITH AGITATOR	1KL	04				
6	SS MILK TRANSFER PUMP.	2KLPH	**05**				
7	MILK PASTEURISER	500LPH	01				
8	MILK HOMOGINISER	500LPH	01				
9	BOTTLE CLEANING MACHINE	Standard	01				
10	FULLY AUTOMATIC AIR JET MACHINE	Standard	01				
11	SS TURN TABLE	Standard	04				
12	AUTOMATIC BOTTLE FILLING MACHINE	4-Head	02				
13	AUTOMATIC SCREW CAPPING MACHINE	SINGLE HEAD	02				
14	INDUCTION SEALING MACHINE	Standard	02				
15	SS WORKING TABLE	6”x4”x3”	02				

FOR OMFED BIDDER

SL NO	DESCRIPTION OF ITEMS	CAPACITY	QUANTITY IN NOS	UNIT. RATE SUPPLY (IN RS)	UNIT RATE ERECTION (IN RS)	TOTAL COST SUPPLY (IN RS)	TOTAL COST ERECTION. (IN RS)
16	HOT WATER SPRAY RETROT STERLISER with all accessories.	2600Bottles /Batch.	2				
17	SLEEVE SHRINK WRAPPING MACHINE	Standard	2				
18	SHRINK TUNNEL FOR CARGO PACKING	Standard	1				
19	Batch coding machine / continuous inkjet printer & offline constant speed conveyer	No	**2**				
20	MS, GI & SSPIPE LINES AND FITTINGS,PAINTINGS ETC.	LOT	1				
21	MCC PANEL	Standard	1				
22	AIR COMPRESSOR	7.5hp	2				
23**	DIESEL FIRED BOILER (Price breakup shall be furnished separately as per the format enclosed)	400 KG/HR	2				
24	COOLING TOWER WITH PUMPS	20 TR	2				
25	CABLE / CONDUIT/ CABLE TRAY AND EARTHING / MINOR CIVIL WORK	Lot	1				
26	Retortable PP/HDPE (200/500ml) container, foil seal and screw cap.	PCS..	100000				
27	Web sealing Packaging material (Shrink wrap Plastic film) for Cargo Boxing. (24Bottles).	Kg	200				
28	Testing , Commissioning & Trial run	LOT	1				
					TOTAL(A)		

(Rupees in words-_____)

Note- ** <u>The details breakup cost for boilers & accessories to be submitted in Annexure-V</u>

FOR OMFED BIDDER

**ANNEXURE-V

SCHEDULE OF QUANTITIES FOR 400 KG/HR DIESEL FIRED BOILER

Sl. No.	ITEM DESCRIPTION	QUANTITY	UNIT		UNIT RATE (Rs.)	
			SUPPLY	ERECTION	SUPPLY	ERECTION
01.	Supply, installation and commissioning of new Diesel fired Non - IBR boiler of capacity 400 Kg/hr. at a pressure of 10.54 kg/sq.cm complete with piping and cabling etc. (as per the technical specifications).	2 Job				
02.	Supply, installation and commissioning of ground mounted guy rope supported chimney out side the boiler room including required ducting as per technical specifications	2Job				
03.	Supply, installation commissioning of 60cum OBR at commercial zero ppm. water softener along with all accessories pump, motor Valve, Etc.	01 Job				
04.	Supply, installation & commissioning of PRS, as per specifications	1 job				
05.	Supply, installation & commissioning of 2000 Ltrs. MS feed water tank	1 Job				
06.	Oil storage tank	01 job				
07.	Spare parts	For 2 years				
08.	Inspection and statutory approval from Factory & Boiler Inspector	L.S				
09.	Blow down drain & steam trap	L.S				
TOTAL(1)						

FOR OMFED

BIDDER

SCHEDULE OF QUANTITIES FOR SUPPLY & INSTALLATION OF RAW WATER, SOFT WATER, STEAM PIPES & FITTINGS, PIPE INSULATION AND ELECTRICAL CABLING, EARTHING ETC.

Sl. No.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT RATE (Rs.)		TOTAL PRICE (Rs.)	
				SUPPLY	ERECTION	SUPPLY	ERECTION
A)	**Soft Water Pipes and Fittings :**						
1.	G.I. 'B' class pipe of following Dia:						
	a) 25 mm NB	**29**	**Mtr**				
2.	CI flanged gate valve / ball valve CS with counter flanges, gasket, bolts and nuts etc of following Dia						
	a) 50 mm NB	**02**	**No**				
	b) 25 mm NB	**02**	**No**				
	b) 12.5 mm NB	**01**	**No**				
Steam Pipes and fittings : .							
1.	MS 'C' class HP steam pipes with IBR certificate :						
	a) 40 mm NB	**20**	**Mtr**				
	b) 25 mm NB	**20**	**Mtr**				
2.	Steam Pressure reducing station complete with bye-pass arrangement etc. of SPIRAX (JN MARSHALL make) From 10.5 kg/Sqcm to 3.0 Kg./Sq.cm. suitable for steam flow rate of 100 kg./hr.						
		01	**No**				
3.	**MS 'C' class LP steam pipe**						
	a) 50 mm NB	**40.0**	Mtr				
	b) 40mm NB	**40.0**	**Mtr**				
	c) 25 mm NB	**18.0**	**Mtr**				
	d) 20 mm NB	**12.0**	**Mtr**				
	e)15 mm NB	**18.0**	**Mtr**				
4.	GM Steam globe valve with SS working parts, flanged end type complete with counter flanges gasket, bolts and nuts etc.						
	a) 50 mm NB	**03**	**No**				

	b) 40 mm NB	**03**	**No**				
	c) 25 mm NB	**02**	**No**				
	d) 15 mm NB	**04**					
5.	**Sprax bucket type steam trap**						
	a) 15 mm NB	**02**	**No**				
6.	**Y strainer**						
	50 mm NB	**02**	**No**				
	25 mm NB	**02**	**No**				
7.	**40 mm NB NRV**	**01**	**No**				
C)	**Insulation for steam pipe lines:**						
1.	50 mm thick glasswool insulation with chicken wiremesh and 24 gauge Al Cladding for steam pipelines of following size :						
	a) 50 mm NB	**60.0**	**Mtr**				
	b) 40 mm NB	**60.0**	**Mtr**				
	C) 25 mm NB	**12.0**	**Mtr**				
D)	For fabrication of pipe/chhanel & angle bridge across the road. MS platform for PRS and MS ladder to feed water tank loft						
1.	MS section of various sizes	**1000.00**	**Kg**				
2.	MS chequered plates of various thickness (Minimum 6mm Tk)	**500.00**	**Kg**				
Total (2)							

Note :

1) The rates of pipes include the supply of pipe fittings like tees, bends, unions, reducers, flanges & hardware like bolts, nuts, washers & gaskets etc.
2) The rate of pipes also include the supply & installation of MS pipe supports and pipe clamps etc. from wall required for supporting of the pipelines.
3) The rate of pipes is inclusive of supply and application of one coat of anti-corrosive red oxide primer, followed by two coats of synthetic enamel paint of approved make and shade.
4) The rate of MS section & chequered plates is inclusive of fabrication, grouting of the structures in ground/walls as required with PCC 1:2:4 and painting of the same with one coat primer & 2 coats of enamel paints of approved brand & shade.

FOR OMFED BIDDER

Sl.No.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT RATE (Rs.)		TOTAL PRICE (Rs.)	
				SUPPLY	ERECTION	SUPPLY	ERECTION
e)	**Electrical cabling & earthing**						
1.	PVC insulated, Aluminium armoured cable, KV of following size for energizing MCC :						
	a) 4 C X 10 Sqmm	**40**	**Mtr**				
2.	G.I. earth strip of size :						
	25 mm X6 mm	**25**	**Mtr**				
3.	Plate type earthing pit complete with machinery chamber & cast steel cover	**01**	**No**				
TOTAL (3)							

TOTAL- 1 =

TOTAL-2 =

TOTAL-3 =

TOTAL (1+2+3) =

FOR OMFED BIDDER

NOTE : INSTALLATION OF ELECTRICAL ITEMS WOULD COMPRISE OF THE FOLLOWING :

1. Supply & laying of cables from MCC to individual motors, control panels, PRS in underground trenches out side the buildings and in RCC hume pipes and cable trays inside the buildings complete with cable connection at either end is included in installation work of MCC.
2. Wherever GI pipes have not been provided, laying LT cables from MCC to various motors and control panels shall be done either in masonry cable trench or overhead GI cable trays with GI Conduit drops from cable trays to the motor junction boxes complete with cable connection at either end.
3. Industrial type drip proof plug & socket will be either floor mounted or wall mounted for each motor separately. The unit will be housed in a 2 mm thick MS sheet enclosure with front cover of 2 mm thick MS sheet. Cost shall be included in installation work of MCC.
4. The erectors shall compute the requirement of the power and control cables and earthing materials on the basis of approved drawings.
5. For cable laying outside the building, the necessary digging for trenches, providing bricks and sand and refilling of the trenches has to be carried out by the contractor as per specifications including cable route markers.
6. The necessary power cable and earthing materials are specified in the schedule of quantities. The rate of cables shall be inclusive of all other ancillary materials like cable lugs, glands and accessories in required quantities.
7. The necessary civil works for earth pits including supply of cement, sand and bricks etc. are to be carries out by the contractor.

Declaration to be filled up by the party in letter pad.

I/we declare that I/we have gone through the above mentioned condition in Technical bid and commercial bid before filling up our rate and submission of the Tender paper. I/we confirm the acceptance to all these conditions

i) Name

ii) Name of the establishment

iii)TIN/CST no.

iv) Service tax registration no.

v) Address for correspondence

vi) Telephone no.

vii) Fax no.

viii) Email id

All the information furnished by us is true to our knowledge & belief.

Signature with Seal

Section V

FORM OF BID

Bidders are required to fill up all the blank spaces in this form of Bid:

Name and address of OMFED :ORISSA STATE CO-OP. MILK PRODUCERS' FEDERATION LTD., D-2, SAHEED NAGAR, BHUBANESWAR-751007, ORISSA

Description of works : Supply, Erection, Testing Commissioning, & Guarantee Trail-Run including All Necessary Mechanical, Instrumentation & Electrical Works Etc. Complete including Statutory Approvals For Automated Assembly Line SFM with Retort

Dear Sir,

1.0 Having examined the bidding documents including conditions of contract, Specifications, schedule of quantities and drawings included in or referred to in the bidding documents including Addenda Nos._____,
Receipt of which is hereby duly acknowledged, for the execution of above mentioned works, we, the undersigned offer to supply and deliver goods and services including installation & commissioning as detailed in the price schedule, and maintain whole of the said works, in conformity with the said conditions of Contract, specifications and schedule of quantities for the sum of **Rs**_____**(Rupees** _____ **only)** or such other sum as may be ascertained in accordance with the schedule of prices attached herewith and made part of this bid and the said technical specifications, drawings and conditions.

2.0 We, undertake, if our bid is accepted to commence the works within 15 days of receipt of the notification of award, and to complete and deliver the whole of the above said works comprised in the contract within _____**days calculated from the day of the receipt of the Notification of Award.**

3.0 If our bid is accepted we will furnish a security in the form of bank guarantee (as per the format provided in this bidding document) to be jointly and severally bound us for the due performance of the Contract, in amount of 10% of the above named sum in accordance with the conditions of Contract.

4.0 We agree to abide by this bid for the period of 90 days from the date of bid opening, and it shall remain binding upon us and may be accepted at any time before the expiry of that period.

5.0 Unless and until an agreement is prepared and executed, this bid, together with your written acceptance thereof, shall constitute a bidding contract between us.

6.0 We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____20____

Signature_____

In the capacity of _____

Duly authorized to sign the bid for and on behalf of

_____
(In capital letters).

No. of days should be in confirmation to the period of completion given in clause 1.3 of section –I – Instructions to bidders.

APPENDIX TO THE FORM OF BID

Condition of Contract Clause No.

Amount of Performance Security a) Bank draft b) Bank guarantee	06	10%of Contract value
Minimum amount of third party insurance		
Period for commencement, from the date Of receipt of letter of intent.		30 days
Time for completion from the date of receipt of letter of intent		6 (six) / 4 (four) months
Rate of penalty for delay	24	0.5% of the contract Value /week or part thereof.
Maximum limit of penalty	24	10%
Period of maintenance (Defect liability period)		12 months from the date of completion of work, and acceptance by Engineer-in-charge.
Time within which the payment would be made after the certificates for Receipt of Goods /completion of work is made.		30 days

Dated this _____day of_____20_____.

Signature in the capacity
Of_____, duly authorized to
Sign the bid for and on behalf of

_____
(In capital letter)

SECTION VI

QUALIFICATION APPLICATION

All the bidders who are interested in submitting this bids against this tender for the items must submit the qualification application along with the information in the following formats together with the relevant documentation.

SCHEDULE –I

FINANCIAL BISINESS AND TECHNICAL CAPABILITY

Name and address of the bidder :
Telephone No :

1. Latest balance sheet filed with _____
   On _____ (Attach a copy).

2. Latest profit and loss statement from _____to_____ filed with _____ on _____. (Attach a copy).

3. **Financial position (in the respective currency)**

A) Cash
b) Current assets
c) Current liabilities
D) Working capital
e) Net worth

4. **Total liabilities:**

a) Current ratio: Current assets to current liabilities.
b) Acid ratio test: cash temporary investment held in lieu of cash and current receivable to current liabilities.
c) Total liability to net worth.

5. **Net sales (in the respective currency)**

a) Current period
b) During the last financial year
c) During the year before last financial year

6. **Net profit before tax**

a) Current period
b) During the last financial year
c) During the year before last financial year

The profit and loss statements have been certified through
_____ By _____.

7. **Bidders Financial arrangements (check appropriate item)**

a) Own resources

b) Bank credits

c) Other specify

8. Certificate of financial soundness from bankers of bidders

9. Sales

Category	Value of current orders to Be executed in respective Currency	value of anticipated sales for next financial year in respective currency
A) Govt. Department		
B) Commercial		

10. Licensed capacity to manufacture:

Description of equip.	Size Cap.	Licensed Capacity	No. of units current year	Manufactured last year	Second last year

11. List, if any, of bidders rate contract with the following organizations.

Organization	Yes/No	If yes, date contract finalized
a. Directorate General of Supplies & Disposal, Government of India.		
b. Central Equipment Stores Purchase organization for State Governments.		

12. Describe quality control Organization, if any and give the organization chart.
a) Are goods offered subject to batch test random sampling or full 100% test for quality?

b) Are tests carried out by factory employees or by a separate testing agency?

c) Are independent quality control organization checks made and certificates issued?

13. Income tax clearance

Following documents with regard to income tax clearance should be submitted along with application.

a) Details of Income tax registration

b) Last Income tax clearance certificate.

Schedule –II

CAPABILTY STATEMENT OF PERSONNEL, EQUIPMENT, PLANT AND LAST PERFORMANCE

1. **Name and address of bidder:** **Phone:**

2. Classifications (1) Manufacturer

   Circle what is (2) authorised agent

   Applicable (3) Dealer

   (4) Others, please specify

3. Plant: a) Location

   b) Description, type & size of building

   c) Is property on lease or free hold? If on lease indicate date of expiry in each case.

4. Type of equipment manufactured and supplied during last 2 years.

Name of Equipt.	Capacity/ Size	Nos. manufactured	Projects to which supplies are Made	No. Of orders on hand

5. Types of equipments supplied during last 2 years other than those covered under 4 above.

Name of. manufacturer **Equipt.**	Capacity, supplied in **& Model.**	Name of. supplied to which **& Country of Origin**	Total Nos. on **India**	Projects **of in**	No.of **supplies**	Size **Hand are made**

6. Plant Facilities: sq. Meter Remark

a) Space available for manufacturer _____

b) Space available for storage _____

c) Space available for inspection _____
Items offered

d) Space available for storage items offered _____

e) Are buildings fire resistant? Yes/No

f) Are premises approved by municipal Fire Department?
_____

g) Are buildings under municipal fire protection? _____

h) Are power and fuel supply adequate to meet
Production requirements? _____

i) Are adequate transport facilities available? _____

j) Are safety measures adequate for performance
of proposed contract? _____

k) Are adequate material handling equipment available? _____

7. **Details of testing facilities available:**

a) List testing equipment available

b) Give details of tests, which can be carried out on items offered.

c) Details of testing organizations available

8. Personnel/Organization:

Give organization chart for following, indicating clearly the no. of employees at various levels:

1. Production
2. Marketing
3. Service
4. Spare parts
5. Administrative

9. Nearest service center to buyer:

Location _____ Phone No._____

10. Details of Organisation At Service Center

a) No. of skilled employees _____

b) No. of unskilled employees _____

c) No. of engineering employees _____

d) No. of administrative employees _____

e) List of special repair/workshop Facilities available _____

f) The storage space available for Spare parts _____Sqm

g) Value of minimum stock of shares available at all the service centers in respective currencies _____

h) List of the models/types by number of equipment serviced by the center in the last 2 years:

11. Names of two buyers to whom similar equipment are supplied in the past and to whom reference may be made by the OMFED regarding the bidder's technical and delivery ability:

1). _____
2) _____

12. List of components usually subcontracted _____

13. Schedules for furnishing technical data and certified drawings after receipt of orders. _____

14. Workload as percentage of total capacity for the current and forthcoming financial year on quarterly basis. _____

15. Number of weeks required to prepare a bid proposal _____

SECTION –VII
Form of Agreement On Non-Judicial Stamp paper of Rs.60/-

THIS AGREEMENT is made and executed on the day of _____20_____
Between the ORISSA STATE CO-OPERATIVE MILK FEDERATION LTD., a body corporate under the ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD. ACT 1987(37 of 1987) and having its registered office at Anand-388001 (herein after referred to as OMFED which expression shall, unless repugnant to the context or meaning thereof, include the successors and assignees of the OMFED) of the ONE PART and _____
_____
(Herein after referred to as the contractor which expression shall, unless repugnant to the context or meaning thereof, include the heirs, successors, assignees, executors and administrators of the contractor) of the OTHER PART.
WHEREAS the OMFED is desirous that certain works should be executed, viz
_____
And has by letter of acceptance Dated _____, accepted a bid by the contractor for the supply of such goods and services, including installation, testing, commissioning and performance trial run & guaranteeing such works, **NOW THIS AGREEMENT WITNESSTH AS FOLLOWS:**

1.0 In this agreement, words and expressions shall have the same meanings as are respectively assigned to them in the conditions of Contract herein after referred to.

2.0 The following documents shall be deemed to form and be read as construed as part of this agreement, viz

i) This Form of Agreement
ii) This Letter of Acceptance
iii) The said bid, Appendix and the price Schedule Thereof
iv) The Technical Specifications
v) The Schedule of Quantities
vi) The Drawings
vii) The Schedule of Supplementary Information
viii) Special Conditions of Contract
ix) General Conditions of Contract
x) Schedule of Materials to be issued by OMFED
xi) Form of Bank Guarantees

3.0 The aforesaid documents shall be taken as complementary and mutually explanatory of one, another, but in the case of ambiguities and discrepancies shall take precedence in the order set out above.

2.0 Contractor as OMFED to with the In the consideration of the payment to be made by the OMFED to the herein after mentioned, the Contractor hereby covenants with the execute, complete and maintain the works in conformity in all respects provisions of the Contract.

*** The bidder shall not fill up this form.**

The OMFED shall hereby covenants to pay the Contractor in consideration of the execution, completion and guaranteeing of the works the contract price at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have caused their respective Common seals to be hereunto affix the day, month and year first above written.

Signed, sealed and delivered for
And on behalf of the within
named OMFED by the hands of its
Authorised signatory.

Authorised Signatory

ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD.

In the presence of:

WITNESS:
1) Signature

Name and address

2) Signature

Name and address

Signed, sealed and delivered for
And on behalf of the within
Named Contractor, the other part.

Authorised Signatory

CONTRACTOR

In the presence of:

WITNESS:

1) Signature

Name and address

2) Signature
Name and address

SECTION-VIII
ACCEPTABLE FORM OF BANK GUARANTEE

Proforma of Bank Guarantee for Bid Security On Non-Judicial Stamp Paper of Rs.60/-

Bank Guarantee no. Date:

This deed of guarantee made this _____day of 20_____ (Two thousand and _____) by (Name and address of the Bank), hereinafter referred to as the Bank, which shall unless repugnant to the context or the meaning thereof includes its legal representatives, successors and assigns and the ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD. (hereinafter referred to as the OMFED) which expression shall be unless repugnant to the context or meaning thereof include its legal representative, successors or assigns.

Whereas the OMFED has invited bids for the supply, installation, testing, commissioning, trial run and guaranteeing of the proposed _____ _____ by the tender notice reference no._____ .

AND WHEREAS M/S _____ _____ (Name and the address of the bidders) who having submitted their bids (hereinafter referred to as the Tender) and have agreed to deposit to the OMFED an amount indicated in the tender notice as per the terms and conditions of the bidding documents. AND WHEREAS the OMFED is also willing to accept a Bank guarantee in lieu of payment by demand draft of any amount equivalent to the amount of bid security required to be deposited by the bidder to the OMFED which guarantee shall be kept valid for 120 days after the day of the opening of the bids.

In consideration of the OMFED having agreed to consider the bid proposals having submitted by the bidder without depositing the amount of bid security and against this Bank guarantee, we (name and the address of the Bank) hereby undertake and guarantee to make payment to the OMFED the amount of bid security or any part thereof not deposited by the bidder to the OMFED at any time (time being the essence of the Contract) when the OMFED asks for the same as per the terms and conditions of the bidding documents within 120 days from the date of opening of the bids.

The Bank further undertakes not to revoke this guarantee during its currency except with the previous consent of the OMFED in writing and the guarantee shall be continuous and irrevocable guarantee up to a sum of Rs.----------(Rupees----------only) provided always that any indulgence or forbearance on the part of the OMFED to the said bidder. With or without the consent of the Bank shall not prejudice or restrict remedies against the bank nor shall the same in any event be a ground of defense by the Bank against the OMFED.

In case the OMFED puts forth a demand in writing on the Bank for the payment of the amount in full or in part against this Bank Guarantee, the Bank will consider that such demand by itself is a conclusive evidence and proof that the bidder has failed in complying with the terms and conditions stipulated by the OMFED in its bidding document and payment will be made to the OMFED without raising any disputes regarding the reasons for such failures on the part of the bidder.

The Bank shall not be discharged or released from this guarantee by any arrangement between the bidder and the OMFED with or without the consent of the Bank or any alternations in the obligations of the parties or by an indulgence, forbearance shown by the OMFED to the bidder.

This guarantee shall be in addition to and without prejudice to any other securities or remedies which the OMFED may have or hereafter possess against the bidder and the OMFED shall be under no obligations to marshal in favour of the Bank any such securities or fund or assets that the OMFED at its absolute discretion may vary, exchange, renew, modify or refuse to complete or enforce or assign any security or instrument.

The Bank agrees that the amount hereby guaranteed shall be due and payable to the OMFED on OMFED's serving with a notice requiring the payment of the amount and such notice shall be served on the Bank either by actual delivery thereof to the Bank or by dispatching thereof by to the Bank by registered post at the address of the said Bank. Any notice sent to the Bank at its address by registered post shall be deemed to have been duly served on the Bank notwithstanding that the notice may not in fact have been delivered to the Bank.

In order to give full effect to the provisions of this guarantee the Bank thereby waives all rights inconsistent with the above provisions and which the Bank might otherwise as a guarantor be entitled to claim and enforce.

The guarantee shall remain in force until----------and unless the guarantee is renewed or a claim is preferred against the bank within three months from the said date all rights of the OMFED under this guarantee shall cease and the bank shall be released and discharged from all liabilities hereunder.

Notwithstanding anything contained here before, our liability under this guarantee is restricted to Rs. ---------- (Rupees---------- only) being the amount of the Bid security and it shall remain in force until----------.

Place

Signature
Seal
Code no.

Note: Bidders should ensure that the seal and code no. of signatory is put by the Bankers, before submission of the Bank guarantees.

Performa of bank guarantee for Performance security On Non-judicial Stamp Paper of Rs.60/-

Bank Guarantee No. Date:

This deed of guarantee made this _____ day of 20 _____ (Two thousand and_____) by (Name and address of the bank) hereinafter referred to as the bank, which shall unless repugnant to the context or the meaning thereof includes its legal representatives, successors and assigns and the ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD. (hereinafter referred as to the OMFED) which expression shall unless repugnant to the context or meaning thereof includes its legal representatives, successors and assigns .

Whereas the ORISSA STATE MILK CO-OPERATIVE PRODUCERS' FEDERATION LTD. has awarded a contract bearing No._____on M/s_____(Name and the address of the party) hereinafter referred to as the Contractor, for the supply installation, commissioning, completion and the guaranteeing of _____

And whereas the Contractor has agreed to submit a performance security in the form of bank guarantee to the OMFED as per the terms and conditions of the bidding documents. And the contract which will be kept valid upto_____calendar months from the date of bank guarantees (the period should be till end of period of maintenance) and whereas the bank and its duly constituted agent and officer has already read and understood the contract between the OMFED and the Contractor.

In consideration of the OMFED having agreed to award the contract on the Contractor, we _____(the bank) do hereby guarantee, undertake, promise and agree with the OMFED , its legal representatives, successors, and assigns that the within named(the name of the Contractor) their legal representatives , assignees will faithfully perform and fulfill everything within the bidding document and the contract order on their part to be performed or fulfilled, at the time (time being the essence of the contract) and in manner therein provided , do all obligations there under and we further undertake and guarantee to make the payment to the OMFED a sum of Rs_____ (Rupees_____only). Being 10% of the contract value ,in case the Contractor , their legal representatives, assignees do not faithfully perform and fulfill everything within the bidding document and the contract order on their part to be performed or fulfilled, at the time and in manner therein provided and do not willfully and promptly do all obligations there under. In case the Contractor fails to perform or fulfill the contract as per the terms and conditions agreed upon, the OMFED is entitled to demand an amount equivalent to 10% of the contract value from the Contractor and the demand made by the OMFED itself will be conclusive evidence and proof that the Contractor has failed to perform or fulfill his obligations under the contract and neither the Contractor nor the bank shall be entitled to raise any dispute regarding the reasons for the failure of performance or fulfillment on any ground whatsoever.

We, (the name of the bank), do hereby undertake to pay an amount equivalent to 10% of the contract value, being the amount due and payable under this guarantee. Without any demur, merely on a demand from OMFED stating that the amount claimed is due by way of Non-performance of the contractual obligations as aforesaid by the contractor or by the reason of the contractor's failure to perform the said contractual commitments, any such demand made on the banks shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs._____ (Rupees_____only being the amount equal to10% of the contract value.

We, the bank further agree that the performance security herein contained shall remain in full force and effect for a period of _____ calendar months from the date of the bank guarantee. (the period shall be till the end of period of maintenance) whichever is later or till the OMFED certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Contractor and accordingly discharge the guarantee , unless a demand or a claim under this guarantee is made on us in writing by the OMFED on or before _____(the date shall be 90 days after the end of the period of maintenance) we shall be discharged from all liabilities under this performance security hereafter.

We, the bank, further agree with the OMFED that the OMFED shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of bidding document and the contract or to extend the time of performance by the said Contractor from time to time and any of the power exercisable by the OMFED against the Contractor and forbear or enforce any of the terms and conditions relating to the said bidding document and the contract and we shall not be relieved from or liability by reason of any such variation ,or extension being granted to the said contractor or for any forbearance, act or omission on the part of the OMFED to the said Contractor by any such matter or thing whatsoever which under the law relating to the sureties would but for this provision have effect of so relieving us. This guarantee shall be in addition to and without prejudice to any other securities or remedies which the OMFED may have or hereafter possess in respect of the works executed or intended to be executed and the OMFED shall be under no obligation to marshal in favour of the bank any such securities or funds or asset that the OMFED may be entitled to receive or have a claim upon and the OMFED at its absolute discretion may vary, exchange, renew, modify or refuse to complete or enforce or assign any security or instrument.

The bank agrees that the amount hereby guaranteed shall be due and payable to the OMFED on serving us with a notice, requiring the payment of the amount and such notice shall be deemed to have been served on the bank either by actual delivery thereof to the bank or by dispatch thereof to the bank by registered post at the address of the bank.

Any notice sent to the bank at its address by registered post shall be deemed to have been duly served on the bank notwithstanding that the notice may not infact has been delivered to the bank.

In order to give full effects to the provisions of this guarantee the bank hereby waives all rights inconsistent with the above Rs._____(Rupees_____ Only). The guarantee shall remain in force until _____and unless the guarantee is renewed or a claim is preferred against the bank within three months from the said date (the date of expiry) all rights of the OMFED under the guarantee shall cease and the bank shall be released and discharged from all liabilities hereunder.

Place Signature

Date Seal

Code no.

Note:

The Contractor should ensure that seal and the code no. of the signatory is put by the bankers, before submission of the bank guarantees.

Proforma of Bank guarantee for advance payments
On Non judicial stamp paper of Rs 40/-

In consideration of the ORISSA STATE CO-OP. MILK PRODUCERS' FEDN. LTD. (hereinafter called "the OMFED") having regard to grant advance of Rs._____
(Rupees_____) to M/s _____
Having their office at _____
Hereinafter called "the said contractor") under the terms and conditions of the purchase Order No._____Dated_____ made between the OMFED and M/S. _____
for supply, installation, commissioning, trial-running and guaranteeing of_____

(Hereinafter called the " the order") on production of bank guarantee for Rs._____
(Rupees_____only), We (the bank) do hereby undertake to pay the OMFED an amount not exceeding Rs._____(Rupees_____ _____only) against any loss/damage caused to or suffered by the OMFED by reason of any breach by the said contractor of any of the conditions contained in the order.

We, (the bank), do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the OMFED stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the OMFED by reasons of any breach by the said contractor of any of the terms and conditions contained in the order or by reasons of the contractor's failure to perform the said order. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee and shall be restricted to an amount not exceeding Rs._____(Rupees _____ only).

We,_____(the bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said order and that it shall be continue to be enforceable till all the dues of the OMFED, under, or by virtue of the said order have been fully paid and it's claims satisfied or discharged or till OMFED certifies that the terms and conditions of the said order have been fully and properly carried by the said contractor and accordingly discharge the guarantee and unless a demand or a claim under this guarantee is made on us in writing on or before _____, we shall be discharged from all liabilities under this guarantee thereafter.

We, _____(the Bank), further agree with the OMFED that the OMFED shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary in any of the terms and conditions of the said order, to extend the time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the power exercisable by the OMFED against the said Contractor and to forbear or enforce any of the terms and conditions relating to the said order and we shall not be relieved from our liability by reason of any such variation, or extension or for any forbearance, act of omission on the part of the OMFED or any indulgence by the OMFED to the said Contractor or any such matter or thing whatsoever Which under the law relating to the sureties would but for this provision have effect of so relieving us.

We,_____ (the bank), lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OMFED in writing.

Notwithstanding anything stated herein above the liability of the bank Guarantee is restricted to Rs._____ (Rupees_____Only). The guarantee shall remain in force till the _____and unless the guarantee is renewed or a claim is preferred against

the bank within three months from the said date all rights of the OMFED under the guarantee shall cease and the bank shall cease and the bank shall be released and discharged from the liabilities hereunder.

Place Signature

Date Seal

Code no.

Note

Note: Contractor should ensure that seal and code no. of the signatory is put by the bankers, before the submission of the bank guarantees.

SECTION --IX (1)

MANUFACTURER'S AUTHORIZATION FORM

No._____ Dated_____

To
Orissa State Co-op. Milk Producers Federation. Ltd.
D-2, Saheed Nagar
Bhubaneswar-751001
ORISSA, INDIA

Dear Sir,

Sub: Tender Ref. No._____

We _____an established and reputable manufacturers of _____having factories at _____and _____do hereby authorize M/s _____ (Name and address of agents) to bid, negotiate and conclude the contract with you against Tender notice Ref. No. _____ for the above goods manufactured by us.

No company or firm or individual other than M/s _____,
located at _____are authorized to bid, negotiate and conclude the contract in regard to this business against this specific Tender Notice.

We hereby extend our full guarantee and warranty as per the General conditions of contract for the goods offered for supply against this Tender notice by the above firm.

Yours faithfully,

(NAME)
For and on behalf of M/s.
(Name of Manufacturers)

Note: This letter of authority should bee on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

SECTION-IX (2)

MANUFACTURER'S AUTHORIZATION FORM

(Please see Clause 14.3 of instructions to bidders)

No. _____ Dated _____

To
Orissa State Co-op. Milk Producers' Federation. Ltd.
D-2, Saheed Nagar
Bhubaneswar-751007
ORISSA

Dear Sir,

Sub: Tender Ref.No. _____

We _____an established and reputable manufacturers of _____having factories at _____ and _____
do hereby authorize M/s _____ (Name and address of agents) to bid, negotiate and conclude the contract with you against bid no._____ for the above goods manufactured by us.

No company or firm or individual other than M/s _____
are authorized to bid, negotiate and conclude the contract in regard to this business against this specific IFB.

We hereby extend our full guarantee and warranty as per Clause 81 of the general conditions of contract for the goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,

(NAME)
For and on behalf of M/s
(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

SECTION --X

TECHNICAL DEVIATION STATEMENT FORM

The following are the particulars of deviations from the requirements of the tender specifications.

CLAUSE	DEVIATION	REMARKS (Including justification)

Dated- Signature and seal of the Manufacturer / Bidder

Note:

(1) Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

(2) The technical specifications furnished in the bidding document shall prevail over those of any other document forming a part of our bid, except only to the extent of deviations furnished in the statement.

SECTION - XI
POINTS BIDDERS SHOULD BEAR IN MIND

I. BIDS CONTAINING DEVIATIONS FROM BIDDING DOCUMENT TERMS AND OTHER CONDITIONS MAY BE REJECTED.

II. BIDS NOT ACCOMPANIED BY BID SECURITY (EARNEST MONEY DEPOSIT) SHALL BE SUMMARILY REJECTED.

III. NON-COMPLIANCE WITH EVEN A MINOR TECHNICAL REQUIREMENT SHOULD BE SPECIFICALLY STATED BY THE BIDDERS.

IV. BIDDERS SHOULD FURNISH THEIR COMPLETE ADDRESS FOR THE PURPOSE OF FURTHER CORRESPONDENCE PERTAINING TO BIDDING DOCUMENT.

V. CORRECTIONS IN THE BID SHOULD BE NOTED OVER AND INITIALED AT THE PLACE OF CORRECTIONS.

VI. NEGLIGENCE OF THE BIDDER IN PREPARING THE BID CONFERS NO RIGHT TO WITHDRAW THE BID AFTER IT WAS OPENED.

VII. SPECIFICATIONS, CONDITIONS, SCHEDULES AND DRAWINGS OF BIDDING DOCUMENT CONSTITUTE AN INTEGRAL PART OF THE BID.

VIII. ALL THE BIDS ALONGWITH ENCLOSURES, DRAWINGS AND TECHNICAL LITERATURE SHOULD BE IN ENGLISH ONLY.

IX. BIDDING DOCUMENT SHALL BE GOVERNED AND INTERPRETED ACCORDING TO THE SYSTEM AND COMPONENTS UNDER TROPICAL CONDITIONS.

X. ALL THE BIDDERS SHOULD SUBMIT QUALIFICATION APPLICATION IN THE GIVEN FORMATS WITH REQUIRED DOCUMENTATION.

XI. BIDS SHOULD BE KEPT VALID FOR ACCEPTANCE FOR A PERIOD OF 90 DAYS FROM THE DAY BIDS ARE OPENED.

XII. THE BIDDING DOCUMENT SHALL BE GOVERNED AND INTERPRETED ACCORDING TO THE LAWS OF THE UNION OF INDIA.

XIII. ALL BIDDERS ARE URGED TO SUBMIT PROMPTLY WRITTEN REQUESTS ON MATTERS WHERE CLARIFICATIONS OR ADDITIONAL INFORMATION ARE DESIRED, NOT LATER THAN SEVEN DAYS BEFORE BIDS ARE DUE TO OPENING. NO EXTENSION IN DUE DATE OF SUBMISSION OF BIDS WILL BE ALLOWED ON THIS GROUND.

XIV. ALL THE BIDDERS SHOULD QUOTE FOR THE ITEMS AS PER THE SPECIFICATIONS AND DETAILS GIVEN IN THIS BIDDING DOCUMENT ONLY. IN CASE, ALTERNATIVE DESIGNS ETC. ARE TO BE OFFERED BY THE BIDDERS, THEY MAY DO SO BUT THIS SHOULD BE STATED SEPARATELY IN THE OFFER.ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LIMITED RESERVES ITS RIGHT TO ACCEPT OR REJECT SUCH ALTERNATIVE OFFERS, WITHOUT ASSIGNING ANY REASONS THEREOF TO THE BIDDERS.

XV. THE BIDDERS WHO QUOTE FOR SUPERVISION AND COMMISSIONING OF ANY EQUIPMENT SHOULD ALSO INDICATE THE PRICES IN THE BID SEPARATELY. THE SUPERVISION OF COMMISSIONING WOULD INCLUDE CHECKING THE INSTALLATION AND COMMISSIONING THE PLANT TO GIVE THE RATED OUTPUT.

XVI. MANAGING DIRECTOR, ORISSA STATE CO-OPERATIVE MILK PRODUCERS' FEDERATION LTD. RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS WITHOUT ANY EXPLNATION TO BIDDERS.

THE END