



## AMULFED DAIRY

( A Unit of Gujarat Co-operative Milk Marketing Limited )  
Plot No. 35, Near Indira Bridge, Ahmedabad-Gandhinagar Highway  
Village - Bhat, Dist - Gandhinagar - 382428  
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We invite bids from eligible bidders for the following works: "**Modification in Air Conditioning System for process control room and laboratory on turnkey basis.**" as per the scope of supply mentioned in the Inquiry".

Bid Reference	AFD: PUR: ENQ: 2020:368
Bid Start	Starts from 17.12.2020
Submission	Up to 02.00 pm of 30.12.2020
Completion period	2 months

### Eligibility Criteria

- 1.1 The Bidder/Supplier shall have turnover, in each of the last three years (2016-17, 2017-18 and 2018-19), at least equal to Rs. 50 Lac and must have executed, in the last five years at least a contract of similar nature and of value not less Rs. 25 Lac.

Technical Specification : As per the Annexure-I

### Submission of Bid :

Bidders fulfilling above eligibility criteria eligible for submission of bids in their name only.

- 1.1 The bid shall be submitted through mail/hardcopy before above due date is acceptable.  
1.2 The price Break up sheet should be entitled with reference of "Price Break Up for, "**Modification in Air Conditioning System for process control room and laboratory on turnkey basis**".

### Rights Reserved by AmulFed Dairy (A unit of GCMMF Ltd).

AmulFed Dairy (A unit of GCMMLtd), at its sole discretion and without assigning any reason thereof, reserves the right to accept and / or reject the whole or part of any or all the bids received.

### Validity :

The offer should be valid for 3 Months from the date of Bid opening.

Contact details: For any techno-commercial query you may contact Palak Shah (7359001666), or (E-mail-palak.shah@amul.coop ) of Purchase department.

**We will go for reverse auction for the same only with technically qualified bidders.**

## TECHNICAL SPECIFICATIONS

### Name of Work

Modification in Air Conditioning System for process control room and laboratory on turnkey basis.

### Scope of Work

Scope of work consists of supply & installation of Ceiling Suspended High Static Ductable type VRF IDU, 4 way cassette type VRF IDU and VRF outdoor units. It includes integration of new VRF IDU and ODU with existing units, removal and recharging of refrigerant, necessary modification in existing MCC, cabling, ducting and refrigerant piping.

Broad specifications of required air conditioning system are as under:

SR.	DESCRIPTION	DATA
1	Type of cooling system	Duct able VRF IDUs with DX cooling coil and VRF outdoor
2	IDU	<ol style="list-style-type: none"> <li>1. Ceiling mounted, High static VRF type with R 410 A refrigerant, copper coil, aluminum fins, sheet steel drain pan duly insulated and with proper drain arrangement. Air inlet should have synthetic washable type filters.  Total Nos. of IDUs shall be 3 x 8.3 TR.</li> <li>2. Ceiling mounted 4 way cassette type IDU with R 410 A refrigerant, copper coil, aluminum fins, insulated drain pipe with drain pump and other standard arrangement.  Total Nos. of cassette units shall be 1.2 TR x 1 No. and 0.8 TR x 1 No.</li> </ol>
3	ODU	18 HP VRF based Outdoor unit with combination of inverter driven and a fixed speed hermetically sealed scroll compressor. It should be air cooled with copper coils and aluminum fins.
4	Instruments & Controls	Temperature control system for temperature regulation with VRF based automatic operation. Existing system has 2 Nos 18 HP Daikin make outdoor units connected with Cassette type indoor units. New IDUs to be integrated with proposed 1 No. 18 HP additional ODU and existing 2 Nos. 18 HP ODUs.
5	Air Distribution	Through existing GI ducts. Ducting of new IDUs to be connected with existing ducts through a common air plenum and existing 2 branches. Ducts shall be factory fabricated as per

		"SMACNA" Standards, Rectangular/Square shape with RTV sealing at joints. Duct gauge should be as per prevailing IS codes/SMACNA standards. Necessary supports shall be Hot Dipped Galvanized angle frames and GI hanging rods. All nut-bolts shall be zinc coated.
6	Duct and Copper piping insulation	Insulation shall be closed cell Elastomeric Nitrile Rubber, Class "O". Outdoor piping insulation should be protected with UV treated cloth. Dian piping shall be insulated with 6 mm Nitrile rubber and to be protected with UV treated cloth. Insulation thickness shall be 19 mm for ducts and 13 mm for copper piping. Acoustic insulation to be considered, if required.
7	Air Control dampers	18 SWG GI louver dampers at the outlet of each IDU. Dampers shall be motorized and interlocked with operation of IDU.
8	In Line Fans	2 Nos., to be installed in each existing branch. Capacity should be 4500 CFM at 15 mm static pressure.
9	Electrical Work	SITC of required switch gear in spare feeder of existing LT panel for operation of IDUs and ODUs. Necessary control cabling as per requirement.

### **Office, Store and Security**

AFD shall not provide any office space or store. Bidder has to make his own arrangement with INSTA CABIN (Containerized Office and Store) near to proposed location, if required. No Shanties will be allowed to be built-up in Dairy premises. Bidder has to provide own security round the clock for safety of your materials.

### **Protection of Environment**

Bidder shall store the material at site and carry out the work in such a manner that environment and green belt is not endangered. All construction/fabrication debris shall be shifted from site as soon as possible at the place and in the manner directed by the Engineer in Charge from AFD.

### **Safety**

Special importance shall be given to Safety of persons engaged at site during the execution of work. The contractor shall abide by all rules and regulations in force to ensure workplace safety, including obtaining the labour license, taking site safety permission etc.

Labor license must be taken if numbers of person working at site exceeds 9 as per factory act.

System design shall also be done in such a manner so as to ensure safety of personnel operating and maintaining the equipment.

### **Turnkey responsibilities**

The scope of work covers supply, unloading, project management, erection, testing, commissioning and putting into successful operation of all equipment and achieving the intended performance of complete system.

Bidder should also consider activities like transit insurance, unloading, storage at site, workmen insurance, assembly, erection, regular inspection, pre-commissioning checks, obtaining statutory clearance, furnishing skilled/unskilled labors during work as well as commissioning etc. under the scope of work.

## **Tools and Tackles**

All special tools and tackles like chain pulley block, Cranes etc. required for erection of equipment shall be included in the scope of supplier.

## **Warranty Period**

All the equipment and systems shall be warranted for intended performance for a period of 24 months from the date of supply.

## **Time Frame**

Successful bidder shall visit the site within a week of receipt of PO and finalize the drawings. Material shall be supplied within 4 weeks and the entire work shall be completed within maximum time frame of 6 weeks from the date of approval of drawings.

AFD reserves the right to consider the offer either in whole or in parts.

## **Detailed Specifications**

Detailed specifications of major items are as under:

### **SYSTEM**

The system shall be multi-split system with invertors driven scroll compressor for application with **R410A** GREEN refrigerant and shall be composed of 4-way cassette type indoor units / ceiling suspended High static duct able type indoor units / 2-way cassette type indoor units type indoor unit / floor type indoor unit and an outdoor unit with a distributed refrigeration cycle, electrical components and enclosing cabinets. Both indoor units and outdoor unit shall be properly assembled, internally piped and wired, thoroughly tested and charged with refrigerant at factory and shall be topped up at site after erection. Additional charge of refrigerant should be supported by engineering calculation. Each refrigeration cycle shall be equipped with scroll compressor, a solenoid valve, a heat exchanger, an accumulator, and a 4-way valve and flare connection parts.

### **VARIABLE REFRIGERANT FLOW TYPE OUT DOOR UNIT**

The compressor(s) shall be hermetically sealed Inverter scroll and designed for continuous operation even at high ambient temperatures of Ahmedabad. All condensing unit should have a combination of fixed speed and invertors driven scroll compressor. All invertors driven scroll compressor should have protection for electronic circuits and elimination of electromagnetic sound, which may interfere with the control function of the machine. The unit shall have safety device such as high-pressure switch, fan motor safety thermostat, invertors overload protector, fusible plugs and fuses for trouble free operation of the unit. The condenser shall be air cooled, made of Cu. tubes with extended aluminum fins. The condenser coil shall be multi-pass, cross-finned tube type, equipped with highly efficient aluminum fins, mechanically bonded to oxygen free copper tubes. The coil shall be cleaned, dehydrated and tested or leakage at the factory. The Cabinets shall be fabricated out of heavy gauge steel, properly formed for close fit and structural rigidity. All access panels shall be so constructed as to be quickly and easily removable. All outside surface shall be finished with powder coating for protection against humid weather. The condenser fans shall be step-less driven and designed to achieve low condensing temperatures & operate continuously and silently. One out-door unit should be capable to be connected up-to 16 nos. various indoor unit.

### **CONTROLS AND INTERLOCKING**

All electrical control devices should be enclosed in the indoor and outdoor units. The compressor should be protected against breakdown by a quick response over current relay, a high-pressure switch, a wraparound type oil heater and a discharge gas thermostat. In addition to the compressor protection devices, the indoor / outdoor fan motor should be protected by an internal thermostat. The indoor fan motor shall be directly supplied with the power source from the control circuit. The functions of these control devices shall compose an electrical sequence of manual starting and stopping, automatic continuous operation whenever the room thermostat requires, and the protection devices allow the operation. The remote control switch should be designed to provide simple operation such as On/Off, temperature and fan speed only without trouble shooting functions. The remote control should be BMS compatible for centralized monitoring. All units/remote

control shall have COM port for required interface with BMS. The required software with open protocol to transfer readings on the BMS shall be in your scope.

#### **Ceiling mounted Cassette type unit (Multi flow type)**

Units shall be ceiling mounted type. The unit shall include pre-filter, fan section & DX coil section. The housing of the unit shall be powder coated galvanized steel. The body shall be light in weight & shall be able to suspend from four corners. The fan shall be aerodynamically designed diffuser turbo fan type.

Unit shall have an external attractive panel for supply and return air. Unit shall have four way supply air grilles on sides & return grille in center.

Each unit shall have high lift drain pump, fresh air intake provision (if specified) low gas detection system and very low operating sound.

Both the indoor units should have same decorative panel size for harmonious aesthetic point of view. It should have provision of connecting branch ducts.

#### **HI STATIC DUCTABLE TYPE INDOOR UNIT**

The Unit shall be suitable for ceiling mounted type. The units shall include pre-filter, fan section and DX coil section. The housing of units shall be light weight powder coated galvanized steel. The unit shall have high static fan for duct able arrangement. The filters shall be washable synthetic media type arranged for convenient cleaning and replacement. The drain pan shall be fabricated out of heavy sheet steel, insulated with 1/4" expanded polyethylene sheet. The casing shall be of heavy gauge G.I., duly powder coated for weather protection.

#### **INSATALLTION:**

The units shall be mounted on ribbed rubber pads for vibration isolation. The contractor shall supply the required charge of refrigerant, lubricant and other consumables, for commissioning and testing of the equipment.

All the equipment shall be thoroughly tested and checked for leaks. All safety controls shall be suitably set and a record of all setting shall be furnished to the project supervisor.

#### **TESTING:**

Unit capacity in tons Refrigeration, shall be computed from the temperature readings and air-flow measurements. Flow measurements shall be preferably by a hot-wire anemometer or a velocity meter. Computed results shall conform to the specified capacities and the power consumption shall conform to the figures furnished by the manufacturer.

Outdoor unit shall be mounted on MS angle frame structure. The MS angle frame structure shall be painted with epoxy paint. The shade of the paint shall be approved by the architect / consultant.

#### **ELECTIRICAL POWER & CONTROL WIRING**

Suitable modification to be done in existing LT panel for SITC of additional switchgears required for new ODU and IDUs.

Further distribution including power cabling (1100 V Gr.), control cabling (650 V Gr.) and earthling of Cu. shall be carried out by the contractor. Power cabling will be of COPPER whereas the control cabling will be of shielded copper cable.

#### **REFRIGERATION PIPING & INSULATION**

Refrigeration piping between indoor and outdoor units will be carried out with good quality soft / hard copper piping. The complete piping work shall be insulated with Nitrile foam of minimum 13 MM thick or as per OEM standards. .All exposed to atmosphere pipe insulation to be covered with UV protected cloth.

The piping shall be laid in on frame support /tray & sold be clamped properly.

## **DRAIN PIPING**

Condensate from the evaporator unit shall be drained through properly installed drain piping designed to prevent any accumulation of condensate in the drain pan. Drain piping shall be made of 1.1/4" dia rigid PVC pipe of 6 Kg/Sq cm. pressure rating with water tight threaded connections, leading from the IDUs to a suitable drain point. Complete drain piping shall be made leak proof and water tight by means of precise installation and the use of leak proof sealant/adhesives. Drain piping duly insulated with 6 mm thick nitrile rubber.

## **DAMPERS-**

All dampers shall be of 18 S.W.G. G.I. louver dampers of robust construction and tight fitting. The design, method of handling and control, shall be suitable for the location and service required. Dampers shall be provided with suitable links, levers and quadrants as required for their proper operation, control or setting in any desired position. Dampers and their operating devices shall be made robust, easily operable and accessible through suitable access door. Every damper shall have indication device clearly showing the damper position at all times. All the bushing will be of brass only.

A fire damper shall be provided between each air IDU and the rest area. The fire dampers shall be conforming to UL-655 and other applicable fire codes. The dampers shall be operated through either fusible link or solenoid valve.

## **TESTING**

The entire air distribution system shall be balanced to supply the air quantities as required in various zones and rooms to maintain the specified room conditions. The final shall be recorded and submitted to the Consultant for approval before acceptance and taking over of the entire system by the Employer.

## **PAINTING**

Angle iron flanges, stiffeners, hangers and supports shall be painted with 2 coats of antirust primer and those remaining uncovered structures shall be further painted with 2 coats of synthetic enamel paints of black color.

## **INSULATION FOR G.I. DUCTING**

### **(A) THERMAL INSULATION**

The supply air duct shall be insulated with 19 mm thick Close Cell NITRILE insulation of density 48 Kg./Cu. M. Method of applying insulation-

- 1) Clean the duct surface to be insulated.
- 2) Apply a thin layer on duct
- 3) Apply a thin coat of good quality adhesive / rubber solution to stick the insulation.

Fix the insulation of specified thickness over the surface of the duct tightly and seal all the joints using BOPP tape.

### **(B) ACOUSTIC INSULATION-**

First 3 meter length of supply air duct shall be acoustically insulated with 10 mm thick Open cell Nitrile Insulation of density 48 Kg./Cu.M. from the inside of the duct.

- 1) Clean the duct surface to be insulated.
- 2) Apply a thin layer on duct
- 3) Apply a thin coat of good quality adhesive / rubber solution to stick the insulation.

Fix the insulation of specified thickness over the surface of the duct tightly and seal all the joints using BOPP tape.

### **(B) FALSE CEILING INSULATION**

The false ceiling shall be insulated with 50 mm thick fiberglass slab of 24 Kg./Cu.M. Density. The fiberglass slab shall be wrapped in polyethylene bags.

### **(C) UNDERDECK INSULATION**

The exposed roof shall be insulated with 50 mm thick "TF" quality expanded polystyrene of density 16 Kg./Cu. M. with 85/20 grade hot bitumen and GI screw washer & GI diagonal wires.

### **INLINE FAN UNIT**

DIDW centrifugal type fan for along with drive package and base frame and of should be of following specifications.

**Casing:** All welded construction with all sizes. All sides' plates are braced for rigidity and strength with heavy steel angle. On higher pressure type fans, class 2 and class 3, extra heavy gauge side plates and reinforcing angles provide the rigidity required for trouble free operation.

**Bearings & Bearing Supports:** Self aligning, antifriction ball bearings stand on fans. Special applications will have special consideration. Sleeve bearings can be used for sizes from 17/16" and larger, for extremely quiet installations. Bearing supports should be designed for adequate stiffness to prevent vibration and with minimum obstruction to air flow. Fabricated steel plate independent bearing pedestals are to be furnished on class 3 arrangement fans.

**Shafts:** Supplied from ground and polished steel, held to close tolerances, with diameters selected for speeds well in excess of the maximum rated speed of each fan size.

**Outlet & Inlet Connections:** Slip joints should be supplied as standard for class 1 fans and for class 2 and 3 fans have flanged outlet as standard with optional flanged inlets.

**BOQ:**

Indicative BOQ for the complete system is as under:

<b>BILL OF QUANTITY</b>					
<b>Sr. No.</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
<b>1</b>	Supply, Installation, Testing & Commissioning of Floor Mounted AC Outdoor Unit with Variable refrigerant flow system with required indoor units, refrigerant piping, refnet connection, individual controller, The quote for the work should include necessary, lifting charges for mounting for condensing units with rubber pads, integration with existing system, pumping down of existing refrigerant and additional charge of 410A refrigerant, mounting of indoor units and other accessories. The outdoor unit shall be factory assembled, weather proof casing, constructed from heavy gauge mild steel panels and coated with baked enamel finish. The unit should be completely factory wired, tested with all necessary controls. The outdoor unit should be allowed for side by side installation. Heat exchanger, condenser fan etc., capable to operate at 3 Phase, 415 +/- 10 % Volts, 50hz power supply.				
<b>1.1</b>	<b>Supply of Variable Refrigerant System with all Accessories</b>				
<b>1.1.1</b>	<b>VRF/ VRV Outdoor Unit</b>				
A	18 HP capacity- .	1	Nos.		
<b>1.1.2</b>	<b>Indoor Units</b>				
<b>A</b>	<b>Ceiling Suspended HIGH STATIC DUCTABLE Type VRF IDU</b>				
1	8.3 TR	3	Nos.		
2	6.6 TR	0	Nos.		
B	Ceiling mounted cassette type unit				
1	1.2 TR	1	Nos.		
2	0.8 TR	1	Nos.		
<b>1.1.3</b>	<b>Remote Controllers</b>				
A	Corded Remote Controllers	5	Nos.		
B	Cordless Remote Controllers	R.O	Nos.		
<b>1.1.4</b>	<b>All refrigerant joint with insulation</b>	01	SET		
<b>1.3</b>	<b>Supply, Installation, Testing &amp; Commissioning of the following components for VRF system</b>				
1.3.1	All refrigerant copper piping for Variable Refrigerant system having 18G thickness along with insulation and supports, between indoor & outdoor units duly insulated as per specifications. All piping inside the room, inside the vertical shaft & over the terrace shall be properly supported on perforated trays with hanger & exposed piping shall be properly covered with UV treated cloth & should be in closed tray with properly supported.	1	Lot		
1.3.2	M. S. structure for installing VRF / DX outdoor units duly painted / galvanized	1	Nos.		



1.3.3	All control & communication cables with necessary instruments for communicating indoor unit to outdoor unit & Central Control Monitors laid in Clamped PVC pipe.	1	Lot		
1.3.4	Testing & Commissioning charges along with topping-up of refrigerant	1	Lot		
2.0	PVC drain Piping with 6 mm Insulation with 32 mm Dia	36	Rmt.		
2.1	PVC drain Piping with 6 mm Insulation with 25 mm Dia	30	Rmt.		
3.0	Fire Retardant Canvass connections	2	Nos.		
<b>4.0</b>	<b>GI Sheet Metal Duct Work</b>				
4.1	SITC ducts as per 'SMACNA' Standards specifications - Supply, Fabrication, installation and testing of Rectangular sheet metal duct in accordance with the approved shop drawings and as required by the specification.				
A	20 Gauge	600	Sq.Ft		
B	22 Gauge	150	Sq.Ft		
4.2	GI Duct Damper	15	Sq.Ft		
4.3	Fire Damper with Fusible link.	15	Sq.Ft		
<b>5</b>	<b>Insulation work</b>				
5.1	Supply & Installation of Thermal insulation of Rectangular duct with flexible closed cell Nitrile Rubber with the performance class 'O' category.				
A	Thermal Insulation 19 mm THK Close cell Nitrile Rubber	750	Sq.Ft		
5.2	Acoustic Insulation work with Open cell Nitrile Sheet 10 mm THK	750	Sq.Ft		
<b>6</b>	<b>MV Switchgear &amp; Power Panels</b>				
6.1	SITC of additional switch gear in Spare Feeder of exiting L.T. Panel board, for operation of New Outdoor and indoor units				
A	Upgrading of PANEL	1	Lot.		
<b>7</b>	<b>Power Cabling</b>				
	SITC OF XLPE armored cable of 1100V grade of Copper Conductor of suitable sizes with cable trays, supports, end terminations etc. from Electrical Panel to Outdoor Units	1	Lot		
	<b>SUB TOTAL FOR ABOVE WORK</b>				
<b>8</b>	<b>Supply, Installation, Testing and Commissioning of Ceiling Mounded Inline fan of 4500 CFM @ 15 mm Sp capacity for with suitable ducting and installation arrangement</b>	2	Set		
	<b>GRAND TOTAL</b>				

**APPROVED MAKE LIST**

<b>SR. NO.</b>	<b>DESCRIPTION</b>	<b>MANUFACTURERS</b>
1	VARIABLE REFRIGERANT SYSTEM	DAIKIN
2	TUBE AXIAL FANS	KRUGER / NICOTRA / MAICO / SYSTEM AIR
3	G.I / AL / SS SHEETS	TATA / JINDAL / SAIL / NIPPON
4	FACTORY FABRICATED DUCTING	ETA-ALPHADUCT / ROLASTAR / TECHNO FABRI DUCT / ZECO
5	GRILLES / DIFFUSERS / VOLUME CONTROL DAMPER / LOUVERS	MAPRO / CARYAIRE / COSMOS / SYSTEM AIR
6	MOTORISED SMOKE & FIRE DAMPER	SYSTEM AIR / GREENHECK / RUSKIN TITUS
7	CLOSED CELL ELASTOMERIC NITRILE RUBBER ALONG WITH ADHESIVE	ARMACELL / VIDOFLEX / ARMAFLEX
8	PROTECTIVE COATING OVER CLOSED CELL	ARMACELL / VIDOFLEX / ARMAFLEX
9	ACOUSTIC INSULATION	ARMACELL / VIDOFLEX / ARMAFLEX
10	FASTENERS	FISCHER / HILTI / CANNON
11	SELF ADHESIVE GASKET	BEARDSELL / PRIMA COOL
12	GI THREADED RODS	HI TECH / ROLASTAR
13	VIBRATION ISOLATOR PADS	DUNLOP / RESISTOFLEX / EQ.
14	AIR FILTERS	AAF / ANFILCO / SPECTRUM / THRERMADYNE/ FREUDENBERG
15	COPPER PIPES & FITTINGS	FLOWFLEX - RAJCO / MANDEV / VIEGA - MAX FLOW
16	PVC DRAIN PIPE	SUPREME / ASTRAL / DUTRON
17	AIR CONDITIONING CONTROLS	BELIMO / CARRIER / DANFOSS / HONEYWELL / JOHNSON CONTROLS / SIEMENS / TRANE
18	STARTERS / SWITCHES / CONTACTORS	ABB / BCH / GE / L&T / SIEMENS
19	CONTROL CABLES	AVOCAB / FINOLEX / GLOSTER / HAVELLS / RR KABEL / UNIVERSAL
20	SINGLE PHASE PREVENTER	ABB / GE / L&T / MINILEC / SIEMENS
21	THERMAL RELAY	ABB / GE / L&T / SIEMENS
22	RELAYS / PUSH BUTTONS	BCH / L& T / SIEMENS / TECHNIC
23	TIMER / LIMIT SWITCH	ABB / BCH / GE / L&T / SIEMENS
24	PAINT	ASIAN / BERGER / ICI / NEROLAC

**Annexure-IV**

<b>Price Schedule Form</b>		
<b>Summary Sheet</b>		
<b>SN</b>	<b>Summary Heads</b>	<b>Amount</b>
1	2	3
1	Total Ex-factory, Packed	
2	Transportation	
3	Insurance	
4	GST/Custom Duty	
5	Total Supply Price delivered at Site (1+2+3+4)	
6	Total Installation & Commissioning with GST	
7	Total Bid Price (5+6)	

Note:

1	Bid must be submitted strictly as per this pro forma (items break-up sheet shall be submitted in hard copy in sealed envelope at office address mentioned in IFB with marking of "DO Not Open Before").
2	Amount against Sr. No 1 to 3 & 7 must be the total worked out in items break-up sheet.
3	Please quote charges for transportation (Sr. no 4) and insurance (Sr. no 5) as a percent of ex-factory, packed (Sr. No 1).
4	List of Spares with unit prices, valid for one year, must be submitted.
5	All the bidders have to submit price considering Full custom duty. In all the cases all the responsibility till commissioning of the plant will remain of Bidder/Supplier.

**Signature of Authorized Signatory of Bidder/Supplier**

### **Payment term for the tender:**

Payment for supply, installation and commissioning contracts must be strictly as below:

- 1) 20% advance of total contract value (Supply + Erection & Commissioning) on submission of following:
  - (i) Acceptance of the order i.e.
    - a. Submission of the Duplicate copy of the order duly signed by the authorised signatory putting stamp of the Organisation.
    - b. Against a bank guarantee for equivalent amount valid for 60 days beyond the stipulated delivery (as per schedule of delivery/supply)/ completion period.
- 2) Payment against Supply and erection of equipments/material:
  - a. 65% progressive payment of supply value against safe receipt of goods at site.
  - b. 65 % payable on erection value on progression of erection within 30 days.
- 3) 15% balance payment within 30 days of satisfactory commissioning of the plant. On submission of:
  1. The Performance Security shall be in the amount of 15% of the Contract price up to sixty days after the date of completion of performance obligations including warranty obligations.

**Notes:** a) Payment shall be made on complete supply of an item/group of items specified in the contract. No payment specified in the contract. No payment shall be made if supply of an item/group of items is incomplete.

b) For all the payments to be made against bank guarantees, The Bank Guarantees should be obtained from Nationalized Bank or ICICI Bank, HDFC Bank, IDBI Bank, Kotak Mahindra Bank or acceptable Bank by AFD.

### **Liquidated Damages**

Bidder/Supplier fails to deliver any or all of the Goods or perform the Services within the time period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages as under:

#### **a. For the Supply Component:**

A sum equivalent to 0.5% of the delivered price of the delayed goods (As per the price break up furnished by the supplier and accepted by the Purchaser, which the supplier fails to supply within the time period specified in the contract for each week of delay.

#### **b. For the Erection and Commissioning Component:**

A sum equivalent to 0.5% of the un – executed portion of each week of delay or part thereof beyond the time specified in the contract for the successful completion of the plant.

The total amount so deducted as per above, shall not exceed **5%** of the Contract value. Once the maximum is reached, the Purchaser may consider termination of the Contract.

**QUALIFICATION APPLICATION**  
**Qualification Application Form**

You must submit this form (Table 2 and 3), duly filled in, along with the supporting as per following checklist given in Table 1:

<b>Table 1 Checklist for Supportings</b>	
<b>Supportings Required</b>	<b>Please (√)</b>
Latest Balance sheet filed with (Name of Authority) on (Date)	
Latest Profit & Loss Statement <b>from</b> (date) <b>to</b> (date) filed with (Name of Authority) on (date).	
Audited copies <sup>1</sup> of annual accounts and P & L account of <b>past 3 years</b>	
Certificate of Financial Soundness from Bankers of Bidder /Suppliers	
Income Tax Clearance Certificate (Latest)	
Sales Tax Clearance Certificate (Latest)	
Details of Income Tax Registration	
Details of Sales Tax Registration	
Organization Chart	
Annual Report of last three years	

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<sup>1</sup> Indigenous Bidder/Suppliers must attach copy of accounts audited under section **44 AB of Income Tax Act**. In case the accounts need not be audited, a Chartered Accountant or Manager of a Nationalized Bank should attest the information in this statement.

<b>Table 2 Financial Soundness</b>		
<b>General Information</b>		
<b>Name</b>		
<b>Address</b>		
<b>Phones</b>		
<b>Mobile</b>		
<b>Fax</b>		
<b>E-mail</b>		
<b>Contact Personnel with designation</b>		
<b>Financial Information</b>		
<b>S N</b>	<b>Description</b>	<b>Value (Rs)</b>
1	<b>Cash</b> Ba In Bank	
	In Hand	
	Total	
2	<b>Fixed Assets</b> Gross	
	Net	
3	<b>Current Assets</b> Inventories	
	Others	
	Total	
4	<b>Current liabilities</b> Bank Cash Credit	
	Sundry creditors	
	Others	
	Provisions	
	Contingent Liabilities (including claims not acknowledged, please specify)	
	Total	

5	Capital	Share capital	
		Free reserves	
		Other reserves (please specify)	
6	Term loans from financial institutions and banks		
7	Working capital		
8	Net worth		
9	Debtors and advances considered good	More than 6 months	
		Less than 6 months	

<b>Significant Financial Ratios</b>			
<b>SN</b>	<b>Ratio</b>	<b>Definition</b>	<b>Value</b>
1	Current	Current Assets to Current Liabilities	
2	Acid Test	(Cash + temporary investment held in lieu of cash + current receivable) / current liabilities	
3	Solvency	Total Liability to Net Worth	
<b>Net Profit before Tax</b>			
<b>SN</b>	<b>Period</b>		<b>Value</b>
1	Current period		
2	During the last Financial Year		
3	During the year before last Financial Year		
<b>Financial Arrangements</b>			
<b>SN</b>	<b>Resources</b>		<b>Amount</b>
1	Own		
2	Bank Credits		
3	Others (Specify)		



<b>Sales</b>			
<b>SN</b>	<b>Category of Customers</b>	<b>Value of orders to be executed/ anticipated Sales</b>	
		<b>Current</b>	<b>Next Financial Year</b>
1	Government Department		
2	Commercial		
3	Others		
	Total		
<b>Annual Turnover</b>			
<b>SN</b>	<b>Financial Year (Please begin with current year)</b>		<b>Turnover</b>
1			
2			
3			
4			
5			
6			

**Table 3  
Technical Competency**

<b>Classifications</b>		
<b>SN</b>	<b>Category</b>	<b>Please (√)</b>
1	Manufacturer	
2	Clearing & Forwarding Agent	
3	Stockist	
4	Wholesale Dealer	
5	Authorized Reseller	
6	Authorized Service Agent	
7	Retailer	
8	Trader	
9	Others (please specify)	
<b>Details on Plant</b>		
<b>SN</b>	<b>Plant</b>	<b>Details</b>
1	Location	
2	Description	
3	Type	
4	Size of building	
5	Is property on lease or free hold?	
6	If on lease, indicate date of expiry of lease in each case.	
7	Others (please specify)	

<b>Plant Facilities</b>			
<b>SN</b>	<b>Facilities</b>	<b>Ans</b>	<b>Remark</b>
1	Space available for manufacturing (in m2)		
2	Space available for storage (in m2)		
3	Space available for inspection (in m2)		
4	Are buildings fire resistant? (Y/N)		
5	Are premises approved by Municipal fire Department? (Y/N)		
6	Are buildings under Municipal fire protection?		
7	Are power & fuel supply adequate to meet production requirements? (Y/N)		
8	Are adequate transportation facilities available? (Y/N)		
9	Are safety measures adequate for performance of proposed contract? (Y/N)		
10	Is adequate material handling equipment available? (Y/N)		
<b>Testing Facilities</b>			
<b>SN</b>	<b>Facilities</b>	<b>Details</b>	
1	List testing equipment available		
2	Give details of tests to be carried out on items offered.		
3	Details of the testing organizations available.		
<b>Quality Control Organization</b>			
<b>SN</b>	<b>Quality Control Method</b>	<b>Response</b>	
1	Are goods offered subject to Batch Test, Random Sampling or full 100% test for		
2	Are tests carried out by factory employees or by a separate testing agency?		
3	Are independent Quality Control Organization checks made and certificates		
<b>Manufacturing Capacity</b>			
<b>SN</b>	<b>Description</b>	<b>Capacit</b>	<b>Units Manufactured</b>

	of Equipment	y	Current year	Last Year	2nd last year
1					
2					
<b>Personnel/ Organization</b>					
SN	Personnel in	Numbers in levels			
		Managerial	Supervisory	Skilled Workmen	
1	Production				
2	Marketing				
3	Installation and commissioning				
4	Service				
5	Spare parts				
6	Administrative				
<b>Service Center nearest to our site location</b>					
<b>Location</b>					
<b>Phone no</b>					
SN	Information required on			Details	
1	Number of skilled employees				
2	Number of unskilled employees				
3	Number of engineering employees				
4	Number of administrative employees				
5	List of special repair/ workshop facility available				
6	The storage space available for spare parts (in m2)				
7	Value of minimum stock of spares available at all the service centres in respective currency				
8	List of the models/ types of equipment serviced by the Centre in last 2 years				

References <sup>2</sup>						
SN	Name of Organization	Address, Telephone, Fax, Contact Person				
1						
2						
List of components usually subcontracted						
1						
2						
Workload for the current and forth coming financial year on quarterly basis						
SN	Financial Year	Quarterly Workload as % of Total Capacity				
		I	II	III	IV	
1	Current Financial Year					
2	Next Financial Year					
List of major projects of similar size and nature previously executed						
S N	Name of the client	Project	Year of award	Year of completion	Capacity/ Products	Value (Curren cy)
1						
2						
3						
4						
Type of equipment manufactured and supplied (M & S) during last 2 years						
SN	Equipment	Capacity	Qty	Projects	On Hand Order Qty	

<sup>2</sup> Names of two buyers to whom similar equipment are supplied, installed and commissioned in the past and to whom reference may be made by the AmulFed Dairy, Gandhinagar regarding the Bidder/Supplier's technical and delivery ability:

1					
2					
3					
4					
<b>Type of equipment manufactured, supplied, installed and commissioned (MSIC)</b>					
<b>SN</b>	<b>Equipment</b>	<b>Capacity</b>	<b>Qty</b>	<b>Projects</b>	<b>On Hand Order Qty</b>
1					
2					
3					
4					
<b>Schedules for furnishing technical data and certified drawings after receipt of orders</b>					
1					
2					
<b>Number of weeks required for preparing a bid proposal</b>					

**Collaborators' Authorisation Form**





## Collaborators' Authorisation Form

Reference

Dated

**General Manager**

**AmulFed Dairy, Gandhinagar**

**Plot No. 35, Near Indira Bridge**

**Ahmedabad - Gandhinagar Highway**

**Vill.: Bhat, Dist.: Gandhinagar - 382428**

**Gujarat, India**

Dear Sir,

Bid Reference: MD/EXP/PKS/2015/1

We, (Name of the Collaborator), an established and reputable supplier of Technology and goods (Name of Technology & Goods ) do hereby authorize (Name and address of **Agents**) to bid, negotiate and conclude the contract with you against Bid Reference: MD/EXP/PKS/2015/1 for the above technology & goods supplied by us.

No company or firm or individual other than (Name of your sole agent/ distributor) are authorized to bid, negotiate and conclude the contract in regard to this business against this specific Bid. (Strike out this, if not applicable)

We hereby extend our full guarantee and, warranty for the technology and goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,

(NAME)

For and on behalf of

(Name of Manufacturers)

Note:

This letter of authority should be on the Letterhead of the Collaborators' concern and should be signed by a person competent and having the power of attorney to bind the Supplier.