



**Gujarat Cooperative Milk Marketing Federation Ltd, Anand  
Amulfed Dairy (Previously known as AmulFed Dairy)**

Plot No. 35, Nr. Indira Bridge,  
Ahmedabad-Gandhinagar Highway  
Village: Bhat, Dist: Gandhinagar  
Gujarat, India-382428

Request for Bid (RFB) for “**Purchase Inquiry for supply, unloading, erection, testing and commissioning of FAV (Air Washer) system with required ducting for cooling arrangement of Tetra Pak lines Distribution Area at AmulFED Dairy(Buy back Basis) “ as per given scope of work.**

AFD: PUR: ENQ: 2021:611



## 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  
Phone : +91-79-3969055/56 Fax : +91-79-3969059

We invite sealed bids from eligible bidders for the following works: **“Purchase Inquiry for supply, unloading, erection, testing and commissioning of FAV (Air Washer) system with required ducting for cooling arrangement of Tetra Pak lines Distribution Area at AmulFed Dairy(Buy back Basis)”** as per the scope of supply mentioned in the Inquiry.

Bid Reference	AFD: PUR: ENQ: 2021: 611
Bid Start	Starts from 07.08.2021
Submission	Up to 02.00 pm of 23.08.2021
Completion period	10 Weeks

### Eligibility Criteria

- 1) Bidder should be having minimum 10 numbers of successful installations of similar nature (FAU Units) working in India.
- 2) The Bidder/Supplier shall have turnover, in each of the last three years, at least Rs. 1 Cr and must have executed, in the last five years at least a contract of similar nature and of value not less Rs. 10Lac

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 hardcopy before above due date is acceptable.

1.2 The Price Break up sheet (in separate sealed Envelope) and technical document shall be submitted at the office address mentioned below.

1.3 The price Break up sheet should be entitled with reference of **“Price Break Up for, Purchase Inquiry for supply, unloading, erection, testing and commissioning of FAV (Air Washer) system with required ducting for cooling arrangement of Tetra Pak lines Distribution Area at AmulFed Dairy(Buy back Basis)”**.

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

AmulFed Dairy (A unit of GCMMF Ltd), 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 6 Months from the date of Bid opening.

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

## Annexure -1

### Technical Specifications for FAV System:

#### Scope of Work:

Scope of work covers replacement of existing FAV Units of DE Area with New FAV Units under buy back basis including supply, unloading, erection, testing and commissioning of FAV (Air Washer) system with required ducting for cooling arrangement of Tetra Pak lines Distribution Area at AmulFed Dairy, Gandhinagar. All arrangements for lifting tools & tackles for unloading and installation shall be in the scope of supplier.

#### Technical Specifications:

FAV system is to be supplied for APS plant designated area of plant as below:

1. Distribution Equipment Area (DE Area)

Broad technical specifications of work are as

#### System Requirements and Ducting Technical Specifications:

Sr. No.	Particulars	DE Area
1	Capacity of FAV Unit	32,000 – 40,000 CFM (existing units have 32000 CFM capacity at 65 mm static pressure and ducting is already laid. Bidder to assess possible increase in capacity and quote accordingly.)
2	No. Of FAV (Air Washer)Units	2
3	Minimum Terminal velocity at grills (Feet Per Minute)	1800
4	Supply Air Temperature in peak summer °C at grills	28
5	Type of ducting	Factory fabricated ducts as per "SMACNA" Standards Rectangular /Square with RTV sealing at joints
6	MOC of ducting	GI with SS nut-bolts
7	Thickness of ducting	Outdoor 20 G, Indoor 22 G
8	Ducting insulation	13 mm Nitrile Rubber with Aluminum Foil faced.
9	Requirement of insulation	All ducts indoor and outdoor should be insulated.
10	Ducting supports	Hot Dip Galvanized angle frames with SS nut-bolts and GI hanging rods
11	Air Control Dampers	Aluminum at required locations, to be decided by supplier for uniform air distribution

<b>Sr. No.</b>	<b>Particulars</b>	<b>DE Area</b>
12	Supply Air Grills (Diffusers)	Aluminum Powder Coated, VCD Type with 15° coverage on either side. Condition of existing air grills to be assessed by bidder and replace wherever necessary.
13	Electrical System	<p>Scope of work also includes SITC of indoor electrical panel comprising necessary switch gears for fans and water pumps of both units. If normal plug type fan is provided, panel should in house the VFD. If EC fan is provided, VFD will be with fan. Panel should be designed considering ambient temperature of 45 Deg.</p> <p>C. Suitable panel cooling arrangement should be provided. Panel should have SFU unit at incomer.</p> <p>Incoming power supply to panel shall be provided by AFD. Outgoing power for fans, pumps and control cabling will be in the scope of bidder. Approximate distance between panel and FAV units is 30 meters. Multifunction meter to be provided in panel to measure all major electrical parameters including kWh.</p> <p>Remote push buttons for start/stop and emergency to be provided at FAV units and in Electrical Panel for ON/OFF of units.</p>

#### **FAV (Air Washer) Unit Technical Specifications:**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Specifications</b>
1	Fan Type	Plug type Fan with external VFD/EC fan with integral VFD.
	Fan Support Arrangement	All mounting support should be SS 304
2	Fan Make	Kruger/Nicotra/Novenco/Rosenberg
3	Fan Static Pressure	65 mm WC
4	Fan Motor Make	Siemens/CGL/ABB/Bharat Bijlee with IE3 rating/PM motor
5	Unit Framing	Extruded Aluminum

6	Type of Unit	<p>Unit must be blow through type, i.e. cooling section should be after the fan section.</p> <p>Access doors should be provided for ease of maintenance at required sections.</p> <p>Double skinned with 25 mm thick 40 Kg density PUF injected panel, 0.8 mm GI powder coated sheets on outer</p>
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		side and SS 304 0.8mm thick on inner walls. Floor panel shall be SS 304 1 mm thick. All fittings should be SS.
7	Water Tank	SS 304 18 gauge with bottom support. Heavy duty float Prayag make should be installed to withstand water supply pressure of 3.5 kg/cm <sup>2</sup> without any trouble.
8	Water Pump	Centrifugal type, Kirloskar/Equivalent make. Water pump must be 3 Phase.
9	Pre-filters	10 Microns, washable type, with SS nut-bolts and framing of filter should be SS 304 and maximum terminal velocity of 500 FPM. Separate inlet section with louvers shall be provided before filter section to prevent direct dusting of filters. Structure Frame for Filters should be SS 304.
10	Cell Pad	Munters make with 300 mm thickness split in two cell pads. Cell pad support should be SS 304.
11	Saturation efficiency	Minimum 90%
12	Drift Eliminator	4 Pass PVC Eliminator

**Notes:**

- Water inlet to FAV system shall be provided by AFD. All other piping including strainer, float valve, pump etc shall be in scope of bidder.
- Civil work shall be done by AmulFed Dairy. However, anchoring work for support fixing shall be done by supplier.
- Bidder should quote the unit rates for supply and installation of ducts, FAV (Air Washer) units, dampers and Grills. Final payment shall be made based on joint measurement sheets.
- Bidder should provide buy back price of old FAV Units and duct separately.

- Rates should include cost of nuts, bolts, gaskets and other such miscellaneous items, including fabrication and fixing of supports.
- All electrical and piping work shall be carried out on Lot basis. Bidder must visit the site and assess the volume of work involved.
- Before submission of offer, bidder must visit the site and understand the exact system requirements as well as site conditions.

### **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.

Labour 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 equipments.

### **Turnkey responsibilities**

The scope of work covers supply, unloading, project management, erection, testing, commissioning and putting into successful operation of all equipments 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 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 hand over.

### Time Frame:

Successful bidder shall visit the site within a week of receipt of PO and finalize the drawings. Material shall be supplied within 6 weeks and the entire work shall be completed within maximum time frame of 10 weeks from the date of approval of drawings.

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

### Approved Make List

Sr. No.	Item	Approved Make
1	Air Washer Unit	ZECO/NUTECH/EDGETECH/Citizen
2	Supply Air Fans	Kruger/Nicotra/Rosenberg/Novenco/Equivalent Equivalent fan make for EC fans of renowned brand may be considered.
3	GI Sheets	Tata/Zindal/SAIL/Nippon
4	FACTORY-FABRICATED DUCTING	ETA-ALPHADUCT / TECHNO FABRI DUCT / ZECO/Rolastar
5	GRILLES / DIFFUSERS / VOLUME CONTROL DAMPER / LOUVERS	MAPRO / CARYAIRE / COSMOS / SYSTEM AIR
6	NITRILE RUBBER	ARMAFLEX/ AEROFLEX/ EQUIV.
7	FASTENERS	FISCHER / HILTI / CANNON
8	GI THREADED RODS	HI TECH / ROLASTAR
9	AIR FILTERS	AAF / ANFILCO / SPECTRUM / THRERMADYNE/FREUDENBERG
10	ELECTRIC MOTORS	Siemens/CGL/ABB/Bharat Bijlee with IE3 rating/PM motor
11	STARTERS/SWITCHES/ CONTACTORS	ABB / BCH / GE / L&T / SIEMENS
12	POWER CABLES	RR KABEL/AEI/POLYCAB/HAVELLS
13	CONTROL CABLES	FINOLEX / GLOSTER / HAVELLS / RR KABEL/AEI/POLYCAB

**Payment term for the Inquiry:**

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 Tanks. 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:

**1. 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.

**2. 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.