

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

## PURCHASE ENQUIRY

**Enquiry No** : **AFD/PUR/PKS/ENQ/High Speed/1, April 08, 2017**

**Sub** : Purchase Inquiry for supply and installation of three High speed Milk Pouch packing machine on buyback (As is Where basis) offer basis.

**Qty** : 3 Nos

**Due Date** : **20/04/2017.**

### **Terms and Conditions of Bid:**

- The offer should reach, AmulFed Dairy (A Unit Of Gujarat Co - Operative Milk Marketing Federation Limited.) Plot No. - 35, Near Indira Bridge, Ahmedabad - Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar. Pin No.382 428.
- The offer should be sent in sealed cover super scribing on the top left hand corner offer for inquiry No. AFD/PUR/PKS/ENQ/HighSpeedI/1 dtd. 08/04/17. Offer received after due date for whatsoever reason may be rejected.
- Offer should be valid for acceptance, for 60 days from due date for submission of offer.
- **The price should be quoted on F.O.R basis inclusive of packing and forwarding, freight etc. However it should be clearly mentioned in the quotation.**
- F O R Destination is -AmulFed Dairy (A Unit Of Gujarat Co - Operative Milk Marketing Federation Limited.) Plot No. 35, Near Indira Bridge, Ahmedabad - Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar. Pin Code: 382 428.
- **Price should be inclusive of all the taxes, excise duties etc., or it should be mentioned separately in your offer clearly. It should cover a warranty of at least one-year against manufacturing defect.**
- Realistic earliest delivery period should be indicated.
- It is not binding on us to accept lowest offer.
- Right to reject any or all the offers without assigning any reason is reserved by us.
- Offer which are incomplete or not meeting the conditions or only for part items, are liable for rejections.
- No queries regarding the status of the offer will be entertained at any time.
- The final supplier will be the combined decision of our technical team and management and no reason of final selection will be conveyed to any bidder.
- Payment terms with 30 days credit shall be preferred.

**Encl:** Annexure I.

**Amul SAGAR**

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: [www.amul.com](http://www.amul.com)

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

## Annexure-I

### TECHNICAL SPECIFICATION OF HIGH SPEED PACKING M/C

PRODUCT	Milk or any other free flowing liquid
FEEDING SYSTEM	Gravity Filler
DOSAGE	Upto 1000 ml.
ACCURACY	Weight: $\pm 2$ ml for 500 ml, $\pm 3$ ml for 1000 ml. Sample Size – continuous 200Pouch per head Conditions- Buffer tank level 12kl to 15 kl / 4 machines in working condition
SPEED	5000 pouches / hour / head. 10,000 pouches / hour / machine
PACKING MATERIAL	Virgin Film: Any Impulse sealing material like co-ex LDPE 1) Film Width - 323 mm + 2mm 2) Thickness : 45 micron 3) Minimum weight of film roll 20 Kgs having dia – 300 mm.Core dia 76 mm 4) Provision of utilize 85 to100 KG film roll, machine design in such way that jumbo film roll adjust inside machine-MOC-SS-304
TYPE OF SEAL	Vertical –Overlap Horizontal – Seal & Cut Impulse Type.
SUPPLIES TO THE MACHINE	Utilities For The Machine 1)Electrical Supply A) Main Panel Should be Single and on -RHS B)We will Consider power Consumption at the time Of Technical Comparison) 2) Cooling Water Consumption – As Minimum Pressure-2 kg/cm <sup>2</sup>

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: www.amul.com

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

Temperature: 8°C to 15°C

3) Utility for Actuation of Injection System: Electromagnetic coil actuation system the movement of the same is regulated by electromechanically device with HMI display Or Pneumatically Controlled

## DESCRIPTION OF THE MACHINE BODY

The components, which form, fill seal the pouches/sachets are enclosed in a stainless steel cabinet. All major items are of stainless steel or treated With Aluminum protected by a powder coating. All parts in contact With the product are of AISI-304 stainless steel with smooth finish.

As we have Space Constrain, So We required machine With Following Mentioned Dimensions

**1930MM\*810MM , Height-2300 with Ball Feet**

## SPOOL BEARER ASSEMBLY

The Roll of heat sealable films is mounted in a compartment at the rear bottom of the machine. They are supported on the idler rollers in sliding drawers with bottom opening machine cabinet doors, which enables to charge the rolls quickly. The Film layers passes in each head via different idler rollers, film loosening takes place through positive film unwinding AC drive mechanism and moves in front of the ultra violet sterilization tube before it is engaged in the forming device. The specially designed former converts this layer in to a tube.

## VERTICAL SEAL

The film is overlapped and sealed into a tube on each head by impulse heated elements known as vertical electrodes. The sealing jaws are water-cooled and are mechanically operated by link mechanism through the drive shaft. The formed film tube surrounds the injection or filling tube through which the products to be filled flows in the film tube.

## INJECTION SYSTEM

The filling system is as follows:

- A constant level tank is mounted on top of the machine
- A filling tube leading down from the tank and inside tube of film
- A liquid injection electromagnetic coil is mounted on top of the injection tube

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: [www.amul.com](http://www.amul.com)

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

- A gate at the lower end of the injection tube opens when injection switch is turned ON. This allows the liquid to be packed in the surrounding formed film tube. The gate opens by electromagnetic coil actuation system of the piston in the injection cylinder assembly when injection switch is made ON.

## Balance Tank

The Balance Tank assembly is as follows:

- A constant level tank is mounted on top of the machine
- Non Condensing Material
- Separate for each head
- Provide CIP return and Air Vent on Balance Tank Cover

## HORIZONTAL SEALING AND CUTTING

The sealed tube then arrives at the bag making point. Here when the horizontal presses close on the film tube, the horizontal assembly mounted on one of the presses seals and cuts the horizontal portion of the film tube. The flow of the liquid in the film tube is continuous and adjustable by electro mechanical drive system with HMI display.

## COOLING

Both horizontal and vertical electrode holders are water-cooled.

## DRIVE

The drive of each head is through a SERVO MOTOR coupled with horizontal sealing assembly, vertical sealing assembly and film pulling assemblies.

Make of Servo Motor, Servo Drive & HMI Should Be standard As Below, Delta / Mitsubishi / Siemens

The Home position of the cycle of operation is communicated to PLC through proximity switches aligned with the drive mechanism.

## ELECTRICAL CONTROL PANEL

HMI of machine should be fitted in the Centre of Machine With Acrylic Cover. Electrical Switches are mounted on this panel. The electric control panels are located on RIGHT sides of the of the machine. Fine Adjustment Sealing Potentiometer Should be Inside Panel on Sealing Graduator

## ACCESSORIES WITH THE MACHINE.

1. Photocell Registration Unit. – Should control and Set thro' PLC and HMI

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: [www.amul.com](http://www.amul.com)

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

## Features required in high speed Machine

- Machine body should be SS 304 construction. As well as all contact parts are of SS 304. And base of machine should be clad by SS sheet.
- Machine Operations should be electronically controlled with PLC. Provide Emergency switches on Front & rear side of Machine for both the heads
- Machine should have integral settable Batch Counter to produce SET number of bags per batch and should synchronize with the automation of our existing automation.
- Provision of Digital Setting Control for all Setting Timings.
- Provision to run machine on Different volume size with fix define set Parameters(Different Recipe for different Pack size)
- To provide one Tag In HMI for Factory RESET Settings. By Operating that tag we can set all parameters – Default factory Parameters
- Provision of separate control for sealing voltage & timer for handling different film.
- Provision of Jaw close switch.
- Provision of Adjustable cooling time.
- Provision of Bank of UV tube for Sterilization of film controlled thro PLC( 2 Nos/Head). Use Electronic choke for UV tube- Philips Make
- Provision of SS Nozzle for CIP system
- Provision of Door glass will be toughened type and auto closed(By Spring)
- Provision of fine volume control at appropriate height.
- Provision of Steel Scraper on the rear side of the machine on film path
- SS legs with rubber buffer for height adjustment.
- No Milk No fill safety device with indication and alarm.
- Front and back door safety interlocks with spring return facility on door (front and rear)
- In case of breakage or short circuit of electrode, particular head will stop with alarm and fault indication on PLC.
- Vertical jaw Position of **"A"** head should remain same as **"B"** head.
- Clamping Plate Mounting Support Should be SS-304 for NIP Roller.
- Main jaw cooling water connection should be available on the top of the machine. Separate Solenoid valve (Brass Body-24V DC-Burkert Make) control should require for jaw cooling water control, it should start and stop as and when machine start and stop.
- Jaw cooling water should circulate thro' SS pipe line having a diameter of 8mm. It should be fitted on the front side of machine.( no water line - backside of machine)
- First sealing Circuit operation should require thro' PLC

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: [www.amul.com](http://www.amul.com)

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

- Machine should have a Single Electrical Panel for Both Heads == On RHS
- Machine should operate with the bypass mode of HMI
- The machine head can run independently with different dosage of the liquid.
- End of film System: Should Operate thro' Sensor (SENSOR, GTB6-P1212, 1052444, SICK,PNP NO) & Gives Audiovisual alarm when the film roll gets exhausted.
- LED light provision on back side of machine (2 Nos).
  
- Idler Rollers should have single shaft with Plastic Bearing.
- Provision of S S Rod type Cable tray inside machine (back side of machine)
- Provision of Rooftop with non condensing material.
- Provide SS Fish plate on Inj. Tube top to prevent INSECT entry.
- To prevent insect stray on Machine Backside, all open space or part should cover by SS plate or By applying SILICA GEL.
- Spreader arm should fit on Injection Tube without Nut-Bolts.
- To Provide Scheinder & TeleMechanique Make Limit Switches for UV tube & Door Security (Front & Rear)
- To Provide Scheinder & TeleMechanique Make Switches In front electrical Panels.
- To Provide No Seal – No Fill System controlled thro PLC & Rigid system on Inj. Tube (If Possible Use sensor)
- To Provide Safety Guard on Front and rear Spur Gear (Nylon Gear) with On- Off Interlocking
- 100KG roll Carrier should fit on Machine Body without any GAP. All Parts should be SS in this Carrier

**Supplier has submit the offer on Buy Back basis on As is Where is Basis.**

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: [www.amul.com](http://www.amul.com)

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

<b>Technical Specification of High Speed Pouch Packing Machine-DOUBLE HEAD</b>			
<b>Sr. No</b>	<b>DESCRIPTION</b>	<b>AFD TECHNICAL SPECIFICATION</b>	<b>Supplier Should Filled Their Data In Below Mentioned Table -Point Wise</b>
1	product	MILK / BUTTER MILK / FLAVOURED MILK / CULTURED MILK	
2	Feeding System	CONT. FILLING	
3	Dosage	200/250/500/1000 ML	
4	Accuracy	+/- 2ml for 500ml, +/- 3ml for 1000ml. Sample Size – continuous 200Pouch per head Conditions- Buffer tank level 12kl to 15 kl / 4 machines in working condition	
5	Machine Dimension	1930MM*810MM , Height-2300 with Ball Feet	
6	Speed	10000 Pouches/ Hr./Machine	
7	Film thickness	Min 45 micron	
8	Film roll weight	20 to 100 KG	
9	Power Cons.	As Minimum Possible (Consider as A Cost Effective Parameter at the time of Comparison)	
10	Cooling Water	As Minimum Possible (Consider as A Cost Effective Parameter at the time of Comparison)	
11	Connector Used in Jaw Cooling Water	SS-304	

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: www.amul.com

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

12	Jaw Cooling Water Controlled Thro' Sol. Valve	Required and should available on MC Top ( Make: Burkert)	
13	Photo Mark System	Required (Make P&F-Model- DK-20)	
14	Coding System	TTO - Thermal Printer (Make : IMAJE)	
15	MACHINE OPERATION	Thro' Servo Motor and Drive Controlled By PLC and HMI	
16	PLC & HMI MAKE	DELTA/MITSHUBHISHI/SIEMENS	
17	LOCATION OF ELE. PANELS	RHS Panel (Single)	
18	No Milk No Fill System	Thro' Proximity & Controlled by PLC	
19	FIRST SEAL CIRCUIT	Required Controlled thro' HMI	
20	End Of Film System-Thro Sensor	SENSOR, GTB6-P1212, 1052444, SICK,PNP NO	
21	LED Light on Back side of Machine	Make: Philips -2 Nos (Back Side-Top & Bottom)	
22	Cable Tray-SS Rod Type	Required (all Cable Tray On Machine Back Side)	
23	UV Tube & Door Security Control	Thro Proximity switches , Make : P&F or OMRON	
24	Emergency Switches On Front & Rear Side of Machine	Make : SCHEINDER or Telemecanique	
25	Switches On Front Panel	Make : SCHEINDER or Telemecanique	
26	No Seal-No Fill thro Sensor	Use Sensor and Controlled thro PLC and HMI	
27	UV TUBE-ELECTRONIC CHOKE	Make : Philips-2Nos. / Head - Transparent	
28	Control in Electrical Panel	All Controls thro' MCB & SSR ( No FUSE)	
29	Vertical Jaw & Hori. Jaw Design	As Per Attached Photos	
30	Vertical Jaw Position	AS per B HEAD in A HEAD	

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: www.amul.com

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

31	Spreader Arm Fitting Arrangement	It Should Fit with Lock Pin instead of Nut BOLTS	
32	Float System in Balance Tank	Float Should Work and withstand High Pressure Close CIP System	
33	Clamp Pin For Nozzle Fitting	With Locking System	
34	Balance Tank	Non Condensing Material-SS-separate for each head with air and cip return on balance tank cover	
35	CIP SYSTEM	Required With Nozzles and Rod type Pin on Balance Tank	
36	Idler Rollers	Aluminum with Plastic Bearing and Single shaft (To avoid Static Charge in Rollers)	
37	Rooftop-Non Condensed	Apply acrylic sheet and Collection system of Condensing Water below balance Tank	
38	SS Plate(FISH PLATE) On Inj. Tube to prevent Insect	Required	
39	Door	1) Front Door - Require Toughened Glass -With Springs(Auto Closed) 2) Rear Door - With Springs ( Auto Closed)	
40	BASE of Machine	SS Claded	
41	Mounting Position of Servo Motor	Vertical Mounting of Servo Motor in Both Sealer & Puller Assembly	
42	Hole On Machine Main Body & Aluminum Parts	Should Fit SS HELI COIL	
43	Silica Gel On Corner To prevent Insect	Required	

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: www.amul.com

# AmulFed Dairy

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED

(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR)

Amul SAGAR

Plot No. 35, Nr. India Bridge, Ahmedabad – Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, PIN 382 428

Tel. No.: (079) 23969055 – 58, Fax No.: (079) 23969059

Website: [www.amul.com](http://www.amul.com)