



AMULFED DAIRY

A UNIT OF GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION LIMITED
PURCHASE INQUIRY

Inquiry No : **AFD: PUR: ENQ: 2022: , Dated: July 25, 2022**
Description : **Purchase Inquiry for Dart Impact, UTM, COF, MFI, Hot Tack**
Qty : **1 No of each Equipment.**

Last Date for vendor registration in our Purchase Portal: 05.08.2022 before 4:00 PM

Last date for submission of Technical bid: 05.08.2022 before 4:00 PM

Last date for submission of Commercial bid: 10.08.2022 before 4:00 PM

Dear Sir,

You are requested to give your most competitive rates for supply of Dart Impact, UTM, COF, MFI, Hot Tack at Packaging Film Plant, Gandhinagar, as per the annexure attached herewith:

Procedure to participate in above inquiry:

- 1) All the interested bidders have to participate in the inquiry through our purchase portal by registering your firm as a new vendor (if your firm already have registration in our PP, than you have to login to your account and request AFD to send RFO).
- 2) Interested bidders have to registered your firm in our Purchase portal .
 - a. Website for our portal is as >>>: <http://afdpurchase.amul.in/>
 - b. Click Here for Circular from AFD : [Click Here](#) for circular
- 3) Click Below links for Guidelines :
 1. [Guide for VRF - Other than MANUFACTURERS](#)
 2. [Guide for VRF - MANUFACTURERS](#)
- 4) Offer through mail/hardcopy are not accepted and stand for rejection, your competitive bids should be submitted through our online portal only.
- 5) Detail technical specification is as below for your reference.
- 6) Interested bidders have to submit their technical specification/detail first, after technical evaluation/approval based on the below requirement, bidders will invited for submission of commercial bid.
- 7) For any query please contact Mr. Palak Shah (Mobile-7359001666, E-Mail-palak.shah@amul.coop)

Encl: Annexure-I-Technical Specification

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



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Specification of Dart Impact

1. Mounting : Floor Standing
2. International Standards Complied with : ASTM D 1709 Method A
3. Dart Head Diameters Method A: 38.10 mm, Method B: 50.80 mm
4. Weights Supplied ASTM 1709 Method A : 1 g up to a total of 1460g (in dart weight) 1x1g, 2x2g, 1x5g, 1x10g, 1x15g, 1x20g, 1x40g, 2x50g, 2x100g, 1x200g, 2x550g
Method B : 2x15g, 8x45g, 8x90g up to 1210g (Including Dart Weight)
5. Dart Weights Method A: 1x20g, 1x60g, Method B : 1x20g, 1x60g, 1x100g
6. Dart Drop Heights Method A : 660 mm Single Height, Method B : 660 mm & 1525mm Dual Height Option
7. Dual Height Option
8. Electrical Supply : 230V, 50 Hz
9. Interface for PC USB

Specification of MFI

Standard	ASTM D 1238 Method A & B
Temperature	120 deg C to 400 deg C
Temperature resolution	0.1 deg C
Temperature Accuracy	0.2 deg C
Cutoff time	1 – 999 sec settable at interval of 1 sec
Cutter	Motorized Rotating Cutter
Piston Material	Corrosion resistant
Die material	Tungsten Carbide
Barrel Material	Corrosion Resistant
Piston Travel Measurement system	Digital Range 50 mm Resolution 0.01 mm
Wight Lifting system	Motorized
Display	2 line LCD Backlit Display
Calculation	MFR, MVR, MELT DENSITY
Weight	Complete Weight Bank for performing test up to 21.6 Kg

Software

- Fully WINDOWS 7 and above compatible
- Facility to make Test Setup
- Facility to Perform Test using the Test Setup
- Facility to perform Batch Test
- Results as desired can be Displayed on screen in tabular form
- Statistics for the batch showing Mean, SD, COV, Min and Max is possible
- Report generation facility
- Line Graph or Bar graph selection for display and report.

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- Data can be stored
- Review of Existing tests.
- Auto Fit Graph Axis

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Specification of Hot Tack Tester HOTTAK Testing as per ASTM F 1921 Method A & B.

Instrument must have following features and facilities:

1. TOUCH SCREEN Operated.
2. Minimum Operator influence on test operation as described by ASTM Method. Capable of performing test fully automated except sample fixing by operator.
3. Pneumatic Sample Grips operated by Foot Switch.
4. Facility to perform Hot tack test with
 - Variable Upper Die & Lower Die Temperature
 - Variable Seal Pressure
 - Variable Dwell Time
 - Variable Delay Time (for Method B)
5. Digital Sealing Pressure setting facility through digital entry of Sealing Pressure.
6. Digital Sealing Pressure control (without manual valves or regulators).
7. Pneumatic actuator based Sealing mechanism
8. Individual and Precise Die Temperature Control with PID based Temperature Controllers for both dies.
9. Surface Temperature Compensation facility to take care of possible difference between sensor temperature and surface temperature.
10. Pneumatically actuator based Insertion mechanism
11. Motorized High Speed Peeling Drive system for accurate and precise Peeling rate control.
12. Seal & Peel Graphs must be displayed together for better understanding.

Temperature Range	Ambient to 250 deg C
Temperature Accuracy	+/- 0.25 % of range
Temperature Display Resolution	0.1 deg C
Sealing Pressure Range (in pressure units for standard die)	300 PSI
Temperature Units available	°C
Sealing Pressure Accuracy	+/- 0.2 % of range
Sealing Pressure Resolution	0.1 PSI
Sealing Pressure Units available	N/mm ² , PSI, Kg/cm ² , bar
Sealing/Dwell Time Range	0.10 Sec to 99.99 sec
Sealing/Dwell Time Accuracy	0.01 s
Sealing/Dwell Time Resolution	0.01 s
Sealing/Dwell Time units available	s
Sealing Die face standard Dimension	Seal depth 5 mm X 50 mm acc. to ASTM
Sealing Die face Options of sizes available	10 mm X 50 mm
Sealing Die face standard Material (Face)	PTFE

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Sealing standard Die face type	Plain
Pull Speed Range	5 to 1200 mm/min
Pull Speed Accuracy	<1 % of range
Pull Speed Setting Resolution	1 mm/min
Max. Travel	125 mm
Delay Time - Pull	0.05 – 30 s
Seal Pressure Sensing Capacity	250 Kg
Seal Accuracy	1 % of range
Peel Force Sensor Range	10 kg
Peel Force Resolution	0.1 gm
Cool Time Range	0.05 – 60 s
Testing Modes available	Standard as per ASTM F 1921 method A & B
Insertion + Withdrawal	Pneumatic
Moving Jaw	Lower
Jaw moving method	Pneumatic + Motorised
Air flow setting	3 step for Hottack mode.

TOUCH SCREEN BASED OPERATING CONSOLE with following facilities:

- Facility to prepare Test Setups
- Graphical presentation of Seal and Peel for each test
- Display of Test Parameter Set value with Actual value for each test.
- Numerical Display of HOT TACK value.
- Cursor facility to view value of specific point on Test curve
- Operator confirmation before it is saved as valid test before transfer to result table
- Facility to create test batches for HOTTACK values with variable Temperature or variable Seal Pressure or Variable Dwell Time or Variable Delay Time.
- Facility to save and review saved tests
- Facility to display Batch results with Statistical Results like, max., min., average, and standard deviation.
- Facility to plot up to 4 different batches on same graph along with numeric tables and statistics for comparison and analysis.
- Facility to study Seal Initiation Temperature.
- Various Report Format.
- Report generation and printing.
- Data Storage Facility
- Printer connectivity

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Specification of UTM

- Maximum Capacity:50 Kg
- Maximum Speed:500 mm / min
- Minimum Speed:0.1 mm / min
- Position Control Resolution:0.01mm
- Travel:800 mm
- Load cell Accuracy:+/- 0.5% down to 1/50th of Load cell Capacity
- Data Sampling Rate: more than 1 KHz internal conversion Minimum 200 each to PC for Load & Extension.
- Interface with PC: USB
- Load cell : Self-identification facility
- Capacity: 10 Kg – S type Tensile Compression Load cell
- Capacity: 50 Kg – S type Tensile Compression Load cell
- TOUCH SCREEN based with built in facility to save data, print reports and transfer data to storage device.
- Facility to make Test Setup
- Facility to Perform Test using the Test Setup
- Facility to perform Batch Test
- Results as desired can be Displayed on screen in tabular form
- Statistics for the batch showing Mean, SD, COV, Min and Max is possible
- Report can be generated as per Customer designed template.
- Data can be stored
- Raw Data can be Exported to Excel
- Graphical presentation of individual plots for each test or overlaid graphs for the batch is possible.
- Review of Existing tests.
- Auto Fit Graph Axis
- Marker facility for event marking
- Pre Test and Post Test Parameters can be selected and available for report
- Validation Facility for regular Validation of Force with Report Generation.
- Log Facility for satisfying Audit Trails.
- Security feature with User ID and Password with possibility to assign as required, authority from all functions and features. and many user-friendly and convenient features for day to day testing
- Pneumatic Vice Grips with Rubber Coated Faces 25 (W) mm X 250 (H) mm Capacity 50 Kg Sample width 0 to 2 mm
- Require Puncture Test Fixture

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Specification of COF

- Type: Moving Sled Type.
- Test Possible: Film to Metal & Metal to Film
- Maximum Capacity :1 Kg
- Maximum Speed: 500 mm / min
- Minimum Speed:0.1 mm / min
- Position Control Resolution: 0.01mm
- Travel:300 mm
- load cell Accuracy:+/- 0.5% down to 1/50th of load cell Capacity
- Data Sampling Rate :more than 1KHz internal conversion Minimum 200 each to PC for Load & Extension
- load cell :Self-identification facility Capacity: 1 Kg
- Facility to make Test Setup
- Facility to Perform Test using the Test Setup
- Facility to perform Batch Test
- Results as desired can be Displayed on screen in tabular form
- Statistics for the batch showing Mean, SD, COV, Min and Max is possible
- Report can be generated as per Customer designed template.
- Data can be stored
- Raw Data can be Exported to Excel
- Graphical presentation of individual plots for each test or overlaid graphs for the batch is possible.
- Review of Existing tests.
- Auto Fit Graph Axis
- Marker facility for event marking
- Pre Test and Post Test Parameters can be selected and available for report
- Validation Facility for regular Validation of Force with Report Generation.
- Log Facility for satisfying Audit Trails.
- Security feature with User ID and Password with possibility to assign as required, authority from all functions and features. And many user-friendly and convenient features for day to day testing.
- Vacuum bed : For performing Film to Film Test & Vacuum Pump of suitable capacity

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