PURCHASE ENQUIRY

Inquiry No : MDG/ PUR/ PKS/ ENQ/ BT, Dated: April 17, 2014

Description : Purchase Inquiry for Supply, Installation and commissioning and testing of fully automatic Butter Thermoforming, filling and sealing machine for our Butter plant.

Qty : 1 Line

Due Date : 1st May, 2014

Estimated Cost : Approx. 300 Lac

Eligibility Criteria : The Bidder/ Supplier shall have turnover, in each of the last three years, at least equal to the estimated cost of the job and must have executed, in the last five years at least a contract of similar nature and of value not less than 75% of the estimated cost of the job.

Technical Specification : As per the Annexure-I

Submission of Bid :

The bidder who has downloaded the bidding document from the site, and fulfilling above eligibility criteria eligible for submission of bids in their name only.

1.1 The bid shall be submitted through hardcopy/ mail/ telefax before above due date is acceptable.

1.2 The Price Break up sheet (in separate sealed Envelope, if send through hardcopy) 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 , Supply, Installation and commissioning, testing of fully automatic butter thermoforming, filling and sealing machine for our butter plant.

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Mother Dairy (A unit of GCMMFLtd), 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 tender opening.

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

Fully Automatic Cup Form, Fill and Seal Machine

Product: Butter

Product Specification:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture %</td>
<td>15.8 ±0.2</td>
</tr>
<tr>
<td>Fat % (Min)</td>
<td>80</td>
</tr>
<tr>
<td>Salt %</td>
<td>2.5 ± 0.2</td>
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<tr>
<td>Curd %</td>
<td>0.7 ± 0.1</td>
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</tbody>
</table>

Required Pack Size: 8-15 g

Minimum Output Capacity: 28000-32000 Packs/Hr (min 280 Kg/hr)

Packing Material: HIPS (High Impact polystyrene)/PS/HIPS-EVOH-PE/PVC/PET/Barrier Material, in Roll form for cups.

Sealing Material: Pre-Printed Lacquered Aluminium Foil in roll form

Product Matrix: 10*5 matrix, will be confirm at the time of ordering

Automation: Should fully automatic including cartooning without Palletizing.

Size of the machine: As per the suppliers design

Spares: 2 years spares should included in the quote

Warranty: Minimum for 24 months from Commissioning
The form fill machine should be having following module with feature:

**Machine Standard:**

Forming, sealing and cutting Stations: Should driven by servo motors

**Machine comprises of minimum following sections:**

1) **Plastic Web Storing Station:**
   - Housing and feeding of the rolls of material to be thermoformed.
   - Purpose of this section is to facilitate replacement of rolls that becoming exhausted.
   - Min, two shafts with their hubs, holding the plastic web should facilitate the quick replacement of the ending plastic web, permit the quick replacement of the ending plastic web while the machine is running.
   - A photocell system should provide to check the quantity of the material on the rolls which will give auto alarm in case of the lack of the material.

2) **Plastic Film Heating section:**
   - The sections perform the heating of plastic film which has to be thermoformed.
   - Sterile air blowing system to be provided to avoid overheating of plastic film.
   - Stations synchronized with film advancement
   - Sealing and cutting stations mounted on sliding guides provided with double adjustment system: manual by selectors and automatic by PLC.

3) **Forming Station:**
   - Should have facility to form difference volume cups (e.g. 10 g or 15 gm) with small change over.
   - Coding system should be located at the bottom of the forming moulds, this system should allow to engrave in the bottom part of the containers during forming data like: Production Date, Best -before dates, logo etc.
   - Cooling system should be provided for mould.
   - Plastic film heating station: contact-type heating system with Teflon-coated plates.
   - Lower and upper plate temperature controlled independently.

4) **Special Filling and Dosing System:**
   - **TECHNICAL CHARACTERISTICS:**
     - Construction: all the parts in contact with the product: stainless steel AISI 316
     - Filling capacity: 5 – 50 ml
     - Filling accuracy: ±1% for homogenous products - min error 1 g
     - Filling volume adjustment: through the machine control panel
5) Storing, Housing and Feeding Station: As per the supplier's machine design
   - Should have UV lamp for leading film decontamination.

6) Contact Sealing Section:
   - Sealing tool should be made from Bronze and anti-corrosion aluminum.
   - Unwinding devices for plastic and lid films: equipped with double roll-bearing and alarms for roll exhaustion.

7) Trimming Section: should be trimmed with sharp edge
   - It allows a regular ejection of sealed containers effected on a discharging belt conveyor.

8) Take of Station: should be consisting of a belt conveyor including a stainless steel frame and a guide to ensure the correct positioning of the finished containers coming out of the trimming station, as per the machine design.

9) Protections:
   a. All motion parts should have protection in transparent polycarbonate, which are easily inspected by opening of the system.

10) Automation and control system by PLC SIEMENS S7.


   2) Remote assistance: Supplier’s engineers interface, through VPN over Internet, with the PLC

   3) Operating Panel: for the control, diagnosis and configuration in real time.

   4) Safety and control devices of the machine. Overview:
      - machine working parameters (temperature, pressures, etc);
      - alarm signals in case of breakage or anomalies;
      - safety guards for accident prevention;
      - interlocks to prevent erroneous operations;
      - “No cup-No fill” and “No cup-No cut” safety devices.
11) **Clean system:**
   Should be provided for the lid sterilization though UV or other means, as per the machine design.

12) **Primary packing machine:**
   - Product Configuration: 10*5 cups per Layer.
   - Number of Layer: 2 Layer in each duplex carton
   - Total number of cups in each carton: 100 Nos (Approx. 1 kg)
   - Type of Carton: Printed flat duplex carton: as per the attached drawing

   Machine should form a carton automatically, collateral 2 layers of the cut cups of 8 to 15 gm, placed into the carton and dispatch on the conveyor after strapping.

   MDG’s Scope: Each carton of 100 pcs will manually put into the CBX with product matrix of 5 Duplex carton*2 raw (Approx. 10 Kg).

13) **Lubrication unit:** PLC controlled centralized greasing system for the machine moving parts.
    Lubrication frequency and quantity should set through the control panel.
    Manual oil lubrication system of the cutting tool should be provided.
Butter Blister pack:

Approx. Size: 52*42*12 mm (L*b*h)

Specification for the Carton of 100 pcs:

Line Diagram of CBX for 1 Kg Blister Pack

ID in mm: 255X205X75
Ply: 3 Ply. E Flute
Paper Combination: As given in specification
Top Ply: White Duplex
Separator: 2 No., 242X200, 3 Ply, All 100 GSM B Grade,
Printing: 4 colour offset printing.