



**prompt**  
The pursuit of purity

**BMC SMARTBOX  
(BULK MILK COOLER  
MONITORING SYSTEM)**

# How do we keep it pure?

Prompt provides innovative solutions for an efficient dairy procurement supply chain. From farm management and milk collection to quality analysis and preservation, we have different equipment and software to ensure that the purity of milk is retained at every step. Our unique offering, the BMC SmartBox maintains purity of the milk during chilling and

storage through real time monitoring of parameters such as Milk Volume, Temperature, CIP Status, Agitator On/Off Status, and Power Generator On/Off Status in the BMC. Real time App assisted alerts are sent out which support timely actions to maintain purity of milk.

## Our resource in this pursuit – BMC SmartBox

### A VALUABLE LINK IN THE CHAIN OF MILK MANAGEMENT

BMC center has an important place in the milk supply chain. How the bulk of milk collected here is monitored, to retain its quality, affects the final value of milk at the production level. BMC SmartBox ensures that quality of milk is retained by real-time monitoring of bulk milk coolers and sending actionable alerts to the stakeholders of BMC centre and Dairy Plants. It uses highly advanced pressure sensor technology to measure the milk quantity in the tank to attain the highest level of accuracy and notifies the server through its GSM connectivity in case of any deviation.



Real-time monitoring and remote tracking



Measures Quantity, Temperature, Agitator - for Mixing, Compressor, CIP - cleaning in process



Multiple compressor and generator/power grid On/Off status



BMC capacities - 500/1000/3000/5000/10000 litres



Designated Mobile App for dairy plant managers and BMC operators for real time monitoring



Sends alerts via SMS, Mobile push notifications, and Email

### WHAT ARE ITS BENEFITS?

#### Makes BMC operationally efficient

Real-time alerts, tracking and monitoring makes BMC operationally efficient. It helps the dairy in controlling the operational costs associated with running the BMC with the help of BMC SmartBox.

#### Quality of Milk is retained

With continual monitoring, the desired temperature of milk in the BMC is maintained, which prevents souring and spoiling of milk, thus preserving proper milk quality. Good quality of milk serves as a good raw-material for value added products manufactured by dairy.

#### Informed decision making

BMC SmartBox is based on IoT technology with cloud connectivity, giving detailed data analytics on web application. This allows the dairy to make informed business decisions.

#### Monitors quantity of milk

Keeps the user updated about the quantity of the milk in the BMC and the quantity of milk when taken out of the tank after dispatch to the Chilling Centre. This helps in route planning and avoiding any theft of milk.

## FEATURES:

### Data Capture

- Milk Quantity
- Milk Temperature
- Power Status (Generator/Grid)
- Multiple Compressor & Agitator ON/OFF Status
- Energy Meter Interface (Optional)

The system offers web-supported SMS and Email alerts for the above data

### Data Monitoring

- Any time data access through the web application. Android Application for data and alerts
- Dashboard shows BMC Milk Status for particular BMC, Milk Summary according to milk type and different types of alerts
- Route-wise Live BMC Monitoring shows graph and records for milk quantity, temperature, agitator & compressor ON/OFF status for each BMC on the route
- Route-wise total milk quantity, Avg. Fat & SNF for each milk type

### Data Transfer

- To pen drive through the USB port
- To remote server through GSM/GPRS

### Dispatch

- Dispatch is automatically detected
- Details like actual quantity, dispatch quantity, remaining quantity, temperature, dispatch duration, agitator status before dispatch are logged and synced with the server
- The user can also enter DIP stick reading and tanker number

### Cleaning in Process (CIP)

- Hot water CIP is automatically detected
- Max. Temperature and max. quantity of hot water, CIP duration and Agitator status during dispatch is logged

### Reports

- Various reports generated in the system include Milk Data Report, Offline BMC Report, Dispatch Report, Route Wise Milk Dispatch Report, High Temperature Report, Usage Report, CIP Report, Generator Used Report, Consumption Report, Shift Collection Report, Gain Report, BMC Report

### Security

- Role-based user login in a web application

## TECHNICAL SPECIFICATIONS:

Controller	PIC32		
Display	• Seven Segment Display • LEDs for Indication of Low Battery, External Supply, Sim Network, Mains Power, Generator, Multiple Agitators On/Off and Multiple Compressors On/Off		
Storage/Media Type	Micro SD		
Capacity	4 GB (In-Built) - Expandable Up To 8 GB		
GSM Module (Optional)	GSM/GPRS Quad Band Module		
Keyboard	Six Keys For User Entry		
USB Ports	1 USB Port		
Clock	Built-In Real Time Clock for Date and Time		
Sensor Modules	<b>For Temperature</b> <ul style="list-style-type: none"><li>• Sensor: PT100</li><li>• Accuracy: <math>\pm 1^{\circ}\text{C}</math></li><li>• Range: <math>0^{\circ}\text{C}</math> To <math>70^{\circ}\text{C}</math></li></ul>	<b>For Level Measurement Base System</b> <ul style="list-style-type: none"><li>• Accuracy of Volume: <math>\pm 0.4\%</math> of BMC Capacity</li><li>• IP67 Electrical Connection</li></ul>	<b>For the Power Consumption of BMC</b> <ul style="list-style-type: none"><li>• Energy Meter (Optional)</li></ul>
Environment	• Operative Temperature: $0$ to $65^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ To $149^{\circ}\text{F}$ ) • Relative Humidity: $5\%$ to $85\%$ RH Non Condensing		
Power Supply	180 - 260 Volts, 50 Hz		
Power Consumption	15 Watts		
Battery Backup	4400mAh Li-Ion Battery which provides 5 hours battery backup		



# prompt

The pursuit of purity

Our ideas and innovations are a part of the pursuit of maintaining the sanctity of milk so that the world's most ancient health drink can be appreciated as it truly is – untouched and unadulterated.



presence across  
22+ states



presence across  
221+ districts



presence across  
50,000+ villages



650+  
team members



legacy of more than  
2 decades



2 patented  
products

## Optimise your dairy business with related category products

### AMCS

AMCS (Automatic Milk Collection System) is a comprehensive solution which digitizes and tracks the real-time information of milk collection process being followed at milk collection centres. The cloud connectivity makes it possible to access the data from any location and BI Analytics Reports enable informed decision making.



### Logistic App

Logistic App is an Android-based app which streamlines operational efficiencies of Milk Unions, by allowing route planning for trucks and digitizing transport management process in dairy supply chain. The app tracks transporters in real-time, stores images and data, and produces analytical reports.



### MilkoScreen

MilkoScreen accurately measures fat, SNF and protein based on proven FT-Infrared Technology. It also detects various adulterants such as added water, urea, sucrose, maltodextrin and ammonium sulphate present in the milk.



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