



instant milk chiller



Revolutionizing Dairy Industry: Sustainable Instant Chilling Solutions for Improved Milk Quality and Rural Development

# PROMPT'S MILKOCHILL, A REVOLUTIONARY INSTANT MILK CHILLER

### AN INNOVATIVE AND COST-EFFECTIVE INSTANT MILK CHILLER THAT CHILLS MILK AT SOURCE

India leads the world in milk production, largely driven by small-scale dairy farmers. However, milk quality needs to improve, and a critical factor is the delay between milking and chilling. Milk being highly perishable, requires immediate cooling to halt bacterial growth and maintain quality.

Our energy-efficient instant milk chiller innovatively tackles this challenge, chilling milk at its source. This reduces spoilage, preserves quality, extends shelf life, and enhances farmers' and the dairy industry's income. Through a thermal storage mechanism, it reduces reliance on electricity during chilling, eliminating the need for diesel generators.

MilkoChill operates at the highest efficiency, due to its patented technology, hence minimizing energy consumption, operational cost and can run on solar power. This reduces dependence on fossil fuel-based energy and significantly cuts the dairy industry's carbon footprint, ensuring both quality and eco-consciousness.



## FEATURES OF MILKOCHILL

- ➤ Instant chilling of milk (3x faster than a Bulk Milk Cooler)
- ➤ Thermal storage enables milk chilling even during the absence of electricity
- ➤ Patented heat exchanger technology licenced from IIT-Bombay
- ➤ Low energy consumption
- ➤ Solar power integration is possible
- ➤ Data logging and remote monitoring

### BENEFITS OF MILKOCHILL

- ➤ Economical with a good ROI
- Improves MBRT (Methylene Blue Dye Reduction)of milk compared to unchilled milk
- ➤ Increased income due to higher milk quality and reduced milk spoilage
- Easy to operate: Pour raw milk at the top, get chilled milk at the bottom
- Low maintenance cost due to fewer moving parts
- ➤ Compact in size, easily fits in a 10x10 ft. room
- Diesel-generator backup is no longer required due to thermal storage

#### **KEY BENEFITS**



Improve MBRT(Methylene Blue Dye Reduction), & milk quality, in comparison to unchilled milk



Thermal storage of Milkochill eliminates need of diesel generators



Highly suitable for remote area, desert area, hilly area where only 'Milk Can' routes are possible

#### **TECHNICAL SPECIFICATIONS**

Model Number	MC500/MC500S	MC160/MC160S
Capacity	500 liters per day	160 liters per day
Power Requirements		
Input Supply	Stable 220V ( $\pm$ 5%), 50Hz, Single Phase with earthing	
Electricity Availability per session	Min. 6 hours	
Solar Integration Option	YES	YES
Chilling Parameters		
Chilling Capacity per day	500 liters (250 liters per session)	160 liters (80 liters per session)
Chilling Time per session	1 hour	
Rated Raw Milk Temperature	35°C	
Average Chilled Milk Temperature	7°C	
Thermal Storage	Yes: Allows milk chilling for one session even during absence of electricity	
Rated Thermal Bank Charging Hours per session	5 -6 hours	
Rated Compressor Power Consumption	~1kW	~0.42kw
Average Energy Usage per session	6 kWh	2.5 kWh
Condenser Type	Air Cooled	
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#### **CIP System**

➤ Semi-automatic cleaning-in-place system (part of MilkoChill system)

#### In-built Data Logger with Remote Monitoring

- $\blacktriangleright \ \mathsf{Logging} \ \mathsf{of} \ \mathsf{essential} \ \mathsf{parameters} \ \mathsf{like} \ \mathsf{energy} \ \mathsf{usage}, \ \mathsf{milk} \ \mathsf{temperatures}, \ \mathsf{CIP} \ \mathsf{status}, \ \mathsf{date-time}, \ \mathsf{etc.}$
- > All data is remotely accessible for monitoring and action.

Dimensions and Weight		
Unit Dimensions (Lxwxh)	1470mm x 822mm x 1825mm	860mm x 760mm x 1340mm
Standing Platform Dimensions (Lxwxh)	1170mm x 660mm x 260mm	NA
Cip System Dimensions (Lxwxh)	490mm x 410mm x 530mm	490mm x 410mm x 530mm
Main Unit Weight	Approx. 300 kgs	Approx. 120 kgs
Total Weight (Incl. Cip System and Standing Platform)	Approx. 350 kgs	Approx. 145 kgs
Total Weight after Water Filing	Approx. 650 kgs	Approx. 200 kgs

#### Heat Recovery Unit, HRU (Optional)

It provides hot water and improves the efficiency of the system. Only available for MC500/MC500S model.

Parameters	Description
Quantity of Hot Water Generation per session	50 liters
Avg. Temperature of Hot Water	55°C

Note: Performance data is as per lab testing under standard conditions. It is subject to change without notice due to continuous product improvements.

#### PROMPT INNOVATIONS

Prompt Innovations is an Ahmedabad-based startup by the founders of Prompt Group, an Ahmedabad based company that has been a technology solutions and services provider for the cow-to-consumer supply chain in the Indian Dairy Industry for the last three decades.

Prompt Innovations is an innovative company which focuses on developing innovative, energy efficient and environment friendly solutions for dairy industry. Incorporated in the year 2020, Prompt Innovations Private Limited is recognized as a start-up by the Department for Promotion of Industry and Internal Trade working in 'Agriculture' Industry and 'Dairy Farming' sector.

#### PARENT COMPANY: PROMPT GROUP

Prompt provides innovative solutions for an efficient dairy supply chain. From farm management and milk collection to quality analysis and preservation, we have different software and equipment to ensure that the purity of milk is maintained at every step. Most of our products and solutions are Cloud, IoT and BI-enabled that facilitates transparency as well as traceability throughout the supply chain at all levels on a real-time basis.

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.



28+ states



350+ districts



68,000+ villages



900+ team members



Legacy of over 3 decades



10 patented products



220+ serviceable locations

### **MILKOCHILL MODELS**



500 liters per day (250 liters per session)



160 liters per day (80 liters per session)

#### **Prompt Innovations Private Limited**

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