



ZENITH HUMAN MILK BANK EQUIPMENTS

An ISO 9001:2015, ISO 13485:2016,
CE & GMP Certified

Website: www.sewardsystems.com

ZENITH Fully Automatic Human Milk Pasteurizer

MP 1001 :

The MP 1001 pasteurizer has been designed especially for Human Milk Banks. Pasteurisation of Donor Human Milk for premature and other infants provides the best protection for the prevention of infections. Donor Human Milk is the preferred feed when mother's own milk is not available. Pasteurization of human milk facilitates the retention of immunological factors and eliminates HIV (Aids) virus. In particular the requirements for rapid cooling defined as the milk temperature drop from 62.5°C to 25°C (°F144.5 to °F77) in less than 15 minutes, with a resultant temperature of <4°C (°F39.2) within the pasteurization cycle and validated accordingly. This is achieved prior to refrigeration of the feeds for storage.

Greater Accuracy of Pasteurization Times & Temperatures

The control of the pasteurization cycle was previously achieved by measuring the bath temperature and using this to concern the temperature of the feed in the bath. This can lead to longer cycle times to ensure the various quantities of milk have been treated. MP1001 uses a PLC to control the pasteurization cycle via the ACTUAL temperature of the milk assisted by the external probe in the control bottle. This results in very accurate cycles, both in terms of pasteurization control and cooling set points. It also is extremely efficient in dealing with load variation.

General Features:

- Program selection to give specified temperature and times which are Fully automatic operation.
- Normally between 62.5°C 63°C (145.4F) x 30 minutes for mothers' milk.
- Rapid, precise cooling of feeds to 4°C (39.2F) in approximately 35 minutes.
- Cycle will depend on the temperature of the incoming normal water supply.
- Total complete cycle Time of Zenith MP 1001 is 2h 10m.
- Programme Logic Control (PLC) to facilitate any future changes to time and temperature.
- Special Chiller provided with this pasteurizer for rapid cooling.

Ease of use via HMI Display:

- Multilingual intuitive control Touch screen.
- Automatic levels adjustment depends upon the load.
- Water level detection.
- Screen size 7" inches (colour) display.
- Automatic temperature control of the cycle and cooling.
- Self - testing and validation of the cycle.
- Storage bottles at 4°C until stop the cycle.

Machine Pasteurization cycle time:

Sr.no.	Title	Time in min
1.	Water filling and setting	15 min
2.	First level 62.5 degree (before inserting bottles)	15 min
3.	Second level 62.5 degree (when insert the product bottles)	20 min
4.	Hold time for temperature maintain	30 min
5.	Rapid cooling cycle for achieving 4 degree (62.5 to 4 degree)	50 min

Total cycle Time of Pasteurization is 2 hour 10 minutes.

Homogenization System (Process):

- Water Agitation by FINS system that allows homogeneity of the water bath.
- Bottles Agitation to ensure the milk homogenization.



Homogenisation of milk throughout the cycle

Key Features :

- PLC operating system for monitoring the machine.
- Inner & Outer jacket made up of SS Grade Material.
- Electronic key for machine operator (individual programmable key for multiple operator's)
- Fully SS grade construction inner and outer body.
- **In case of power failure, a battery backup (Inbuilt) may be provided for continuous digital display for temperature of the pasteurizer.**
- Water agitation with FINS System for milk Homogenization.
- 50 bottles use per pasteurisation cycle.
- Four trays with this pasteuriser (2trays 250ml, 2 trays 150ml) Lockable baskets for holding the bottles.
- 7" big touch screen colour display for easy operating with PLC based system.
- Password protected with multi users.
- Temp. Graph & Animation view for cycle process will be provided on machine's screen as well as in computer's screen.
- Data recovering through Pen drive and Auto storage in computer hard drive.
- Special chiller unit provided with machine for rapid cooling cycle.
- Auto cycle-controlled machine.
- Less Water Consumption. (90 ltrs/cycle complete pasteurisation)
- Less power consumption. (32Amp / 6 KW)
- Less time consumption (2h 10minute total cycle) *
- Castor wheel provided for lifting the equipment
- Specifications meets to world HMB guidelines.
- CE, ISO 9001:2015, ISO-13485:2016, US-FDA Compliance, IEC-60601-1, RoHS & GMP Certified.

Specifications for MP 1001 with Chiller Unit:

Dimensions/mm MP 1001 with chiller unit (50 Bottles)	L 1100mm x D 700mm x H 800mm (900mm with wheel)
Chamber (Tank) MP 1001 (50 Bottles)	L 705mm x D 425mm x H 290mm – 45ltrs
Overall weight MP 1001 (50 Bottles)	160kg with water 185kg
Tank Capacity MP 1001 (50 Bottles)	12.5liters (50x250 ml/150ml)
No of Bottle Baskets	2 Nos.
Electrical Power supply	230v/1Ph/50Hz
Full Load Current	32 A
Electrical Consumption	4.68 kWh
Electrical Consumption with chiller	6 kwh
Internal Control Voltage	230v/24v
Noise level in decibel	45 dB /m (Bearing system reduce the sound)
Higher Temp.	63.5°C
Lower Temp.	4°C



Save Milk Save Life...!

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