MEI Medical Private Limited
Takshila Public School, A-220, Street No. 5, Kabir Nagar, New Delhi, Delhi - 110094, India

Email: meimedicalpvtltd@gmail.com
Mobile: 97174 71217
Website: www.medicalequipmentindia.com
GST: 07AAPCM4320H1ZG

Technical Specification Bulk Milk Cooler 1000 Liters. (Open Type SCR)

Milk Cooling Tank Bulk Cooler 1000 Ltrs Direct Expansion Cooling Tank (Open Tank Semi Cylindrical Rectangular Shape) capacity 1000 Liters has large opening lids for easy access and rounded internal corners, to facilitate thorough cleaning. Tank insulation is provided by factory injected polyurethane foam of 50 mm. The integral condensing unit is Hermetic Type with R22 refrigerant. Condensing unit Stand is made of Galvanized Anti Rust Steel. It occupies little space.

MEI Medical Private Limited
Takshila Public School, A-220, Street No. 5, Kabir Nagar, New Delhi, Delhi - 110094, India

Email: meimedicalpvtltd@gmail.com
Mobile: 97174 71217
Website: www.medicalequipmentindia.com
GST: 07AAPCM4320H1ZG

Having Features of :-

- Low Running Cost
- High Standard of Milk Hygiene
- Reduced Electricity Consumption
- Agitator On/ Off
- Cooling On/ Off
- Digital Temperature Display
- 35 deg C to 4 deg C within 3 hours for 1st milking & 10 deg C to 4 deg C within 1.5 hours for the 2nd milking
- Condensing Unit Hermetic, 220v Single Phase/ 415V 3 Phase, 50 Hz supply

Two Milking Tank Design All SS 304

FUNCTION

The Bulk Cooling Units will be used to cool raw milk at the village level milk collection center from the ambient temperature to 4 deg. Cent. Within the specified time as laid down by us ISO 5708 Class 2A-II Standards.

Two Milking Design System has been configured such that volume of each milking is as under

Milking in the morning – 50%
Milking in the Evening - 50%

Design Parameters

Ambient temperature to be considered for design shall be 38 Deg. C and safe operating temperature shall be 43 Deg. C

Maximum cooling time

First Milking : 3 hr. from 35 Deg. C to 4 Deg. C.
Second Milking: 1.5 Hr. From 10 Deg. C to 4 Deg. C
As per ISO Standard

MEI Medical Private Limited
Takshila Public School, A-220, Street No. 5, Kabir Nagar, New Delhi, Delhi - 110094, India

Email: meimedicalpvtltd@gmail.com
Mobile: 97174 71217
Website: www.medicalequipmentindia.com
GST: 07AAPCM4320H1ZG

a) MILK COOLING TANK

Open design with spring assisted hinged lid is provided for easy access for cleaning and visual inspection. The tank will be Semi Cylindrical Shape with a condensing unit underneath with a double stainless steel shell of AISI 304 in special ground finish 150 grit. The bottom of the tank is designed with a dimple evaporator. It is to be made from AISI 304 Stainless Steel using laser welding technology. The thickness of the inner shell be 2 mm and outer shell shall be 1.5 mm

Insulation

The tank is insulated with CFC Free injected polyurethane foam min 40 kg/m^3 without any imperfection or Hygroscopicity with a thickness of 50mm

Efficiency of the insulation:

Milk at 4 Deg. C. shall not exceed 1 deg. C in 4 hours when the rated volume is allowed to stand as per ISO 5708 Class 2A-II at 50 Deg. Ambient.

The tank is complete with the following accessories:

Agitator – Extra low speed agitator with stainless steel shaft SS sleeved up to the drive, which is geared motor will be provided for optimum sealing between agitator and tank.

Outlet – 1 No. Tank outlet fitted with 1 No. Butterfly valve

b) Refrigeration system

Mounted on a skid consisting of the following:

Hermetically sealed compressor complete with drive motor.

Condenser – Air Cooled, screen protected compact condenser unit comprising of finned condenser coils in several rows. Condenser fans of reputed manufacture are fitted for the duty. One set of evaporating coils welded to the inside tank and pressed into a channeling plate of adequate size.

Refrigerant & Oil- the unit is supplied complete with a first charge of environmentally friendly refrigerant and lubrication oil.

One Set – Refrigeration system controls a field mounted consisting of a solenoid valve, L.P/H.P. cutout and sensor for digital temperature indicators.

c) Control Panel

Refrigeration control panel with milk tank control panel shall be fabricated of 1.2 mm thick mild steel sheet in dust and vermin proof design will have temperature Display & control, switch gears etc. The control panel is given in mounted execution and is pre-wired to terminal connections.

d) Manual

A detailed standard manual in English language complete with all required details and circuit diagrams, line diagrams of the system will be provided.

One Set – Refrigeration system controls a field mounted consisting of a solenoid valve, L.P/H.P. cutout and sensor for digital temperature indicators.

MEI Medical Private Limited
Takshila Public School, A-220, Street No. 5, Kabir Nagar, New Delhi, Delhi - 110094, India

Email: meimedicalpvtltd@gmail.com
Mobile: 97174 71217
Website: www.medicalequipmentindia.com
GST: 07AAPCM4320H1ZG

DATA SHEET

A	**Bulk Milk Cooling Tank**	**1000 Liters**
1(a)	Rated Capacity in Liters.	1000
1 (b)	Gross Capacity in Liters.	1100
2 (a)	Make	MEI
3	The material used for construction	AISI 304
4	Shape and Orientation	Open Type Horizontal/Rectangular/Semi Cylindrical
5 (a)	The thickness of inner shells	2.0 mm
5 (b)	The thickness of outer shells	1.6 mm
6 (a)	Number of Agitator	One
6 (b)	RPM of the agitator (s) (Approx.)	23-25 RPM
7	CIP facility	Manual with Long Handle Brush
8 (a)	Type of insulation	By injection in situ of High-Density 40 kg/ cu.m, CFC free PUF without any imperfection and hygroscopicity,
8(b)	Thickness of insulation	50 mm in walls & 90mm above the evaporator
8 ©	Efficiency of insulation	(0.019 Watt/MK) 50°C ambient the rate of rise of mean temp. of Milk Initially at 4°C shall not Exceed 1°C in 4 hour when rated volume is allowed to stand - still as per requirement of ISO 5708 2A(II)
9	Facility to Measure Milk Volume	SS Calibrated Dipstick with value chart
B	**Refrigeration Unit**	
1	Type	Direct Expansion Open Type
2 (a)	Type of Compressor	Hermetically Sealed Reciprocating
2 (b)	Make of Compressor	EMERSON COPELAND/ DANFOSS/EQUIVALENT
2 ©	Model of Compressor	CR-30/Equivalent
2 (d)	Size (Nominal KW) of compressor	1-Phase: 2.48 Kw / 3-phase: 2.35 Kw

MEI Medical Private Limited
Takshila Public School, A-220, Street No. 5, Kabir Nagar, New Delhi, Delhi - 110094, India

Email: meimedicalpvtltd@gmail.com
Mobile: 97174 71217
Website: www.medicalequipmentindia.com
GST: 07AAPCM4320H1ZG

3	Condenser	Air Cooled, Finned Tube Type
3 (a)	Make of Condenser	CSPL
4 (a)	No. of Compressor	One
4 (b)	Min Cooling Capacity of Compressor at 4.4 Deg C Evaporation and 43 deg C Condensing temperature, K-Cal/Hr	5729 x1 for 1-phase / 5446 x 1 for 3-phase
5	No. of Fans	Two
7	Receiver Size & Capacity	Suitable
8 (a)	Thermostatic Expansion Valve	DANFOSS TEX-2T WITH EQUALIZER
8 b)	Thermostatic Expansion Valve Make	DANFOSS / ALCO
8 c)	Thermostatic Expansion Valve Size	DANFOSS TEX-2 WITH EQUALIZER
9	Type of Refrigerant	Freon-R 22 / Eco friendly
C	**Design Parameters**	
1	Ambient temperature considered for design	43 Deg C
2	Maximum Cooling Time considered for all and second milking	For All Milking 3.0 Hours & for Second Milking 1.5 Hours
3	Temperature range considered for ALL & SECOND Milking	All Milking - 35° C - 4° C Second Milking 10°C to 4°C
D	**Electricals**	
	Power Supply	**Single Phase/Three Phase**
1	Connected Load	Watts
2	Compressor	2486 Watt 1-phase / 2353 Watt 3-phase
3	Condenser Fan	180/0.4 Amps
4	Agitator	70 W/ 220 watts 0.2 AMP