BLOOD BANK REFRIGERATOR

TEMP CONTROL SPECIALIST

MEDICAL GRADE

4℃

Safe | Stable | Eco | CFC-free | Alarms

ISO 9001 ISO 13485 CE

www.vetequipments.com

BLOOD BANK REFRIGERATOR

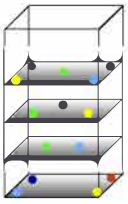
4°C

- Whole Blood
- Red Cell Concentrates
- Thawed Plasma

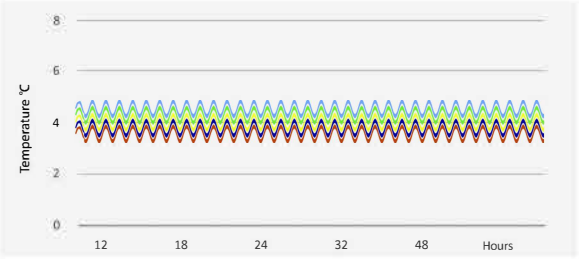
TEMPERATURE CONTROL TECHNOLOGY

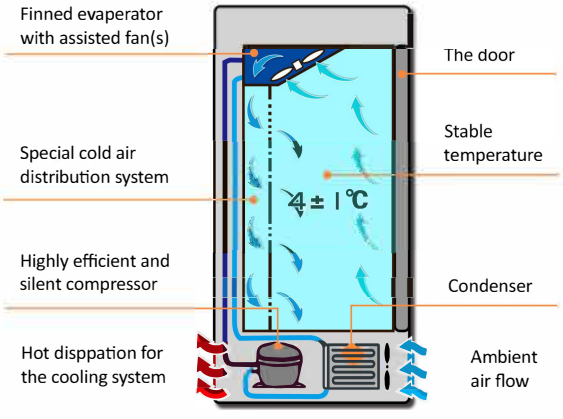
» Ultimate uniformity

The chamber maintain temperatures within +/-1°C throughout the entire compartment, ensuring confidence that items are stored at the correct temperature regardless of their placement in the chamber.



Uniformity testing probe locations





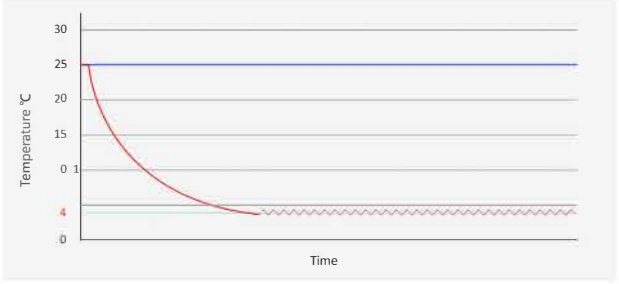
Air circulation
(Side profile view)

» Optimized fluctuation

Maintain superior temperature stability @ 4±1°C, avoiding rapid and significant changes in temperature. This ensures that samples, medications, vaccines, and blood therapies are consistently stored in their optimal environment, without compromise.

» Fast recovery

Faster temperature recovery even after prolonged door openings. The forced-air circulation system maintains consistent temperatures, ensuring that contents are stored at the right temperature even when the unit is opened multiple times per hour.



» Advanced air circulation

The forced-air circulation system maintains uniform chamber temperatures and provide fast temperature recovery after door openings. The units do not require a defrost cycle to maintain a constant temperature, ensuring that items are always stored at the desired temperature without interruption.

BLOOD BANK REFRIGERATOR

Safe storage

to safeguard patient samples and ensure medications remain effcacious.

Presice temp control

to ensure stable and accurate temperatures in the chamber

User-friendly

to bring convenience and easy maintenance to users

Eco-friendly

to reduce operating costs, privide a quiet working environment and support sustainability initiatives

GUIDE TO MODELS

Find out the model you need quickly

MBC-4V368

- **M**edical **B**lood **C**abinet
- **V**ertical type
- Temperature **4**℃
- **368** Liters

ECO-FRIENDLY & USER-FRIENDLY

Thermal printer

All the units are equipped with built-in thermo printers to record and print real-time temperature data, which facilitates users to monitor the status of the machines and maximize the safety of blood.

Natural Refrigerants

Sustainable U.S. EPA, SNAP, and EU F-Gas compliant natural refrigerants and foaming agents support sustainability initiatives. The cooling system uses **R290** which are are environmentally friendly, having no impact on ozone depletion and a very low Global Warming Potential (GWP) grade.

High-efficiency cooling system

Operating at a low noise level while still providing efficient cooling, our advanced cooling technology offers lower energy consumption and better user experiences.

MBC-4V1008

680 bags

MBC-4V1008

FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.

3-fan-assisted evaperator

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time.

Acrylic inner door design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals, enabling real-time monitoring of the temperature inside the unit. The chart recorder is an optional accessory that can serve as an additional temperature monitoring device.

Thermal printer

» Electrically heated glass doors

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass doors, which quickly evaporate any moisture.

CONSTRUCTION

Fan-assited evaporator
Highly efficient finned evaporator with high airflow fans

Heated glass
Prevent fogging and condensation

LED illumination
Smart lighting on and off for convenient access

Sliding drawers
SUS 304 perforated mesh sliding drawers

Quick release filter
Magnetic cover, easy cleaning and washing filter

Universal casters
Wheels with brake for easy movement and stable fixation

D06 Controller

Printer
Built-in thermo printer to record and print the real-time temperatures.

Inner door design
Providing better insulations

Access ports
Dia.25mm ports for additional monitoring device

Sealing gaskets
Long-lasting magnetic sealing gasket locks in cold air

Built-in locks
Ensures the security of your preservations

Chart recorder
Optional temperature monitoring device

» D06 Controller

- A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- The precision of display and control is 0.1°C.
- Factory pre-set to 4°C for blood bank refrigerators.
- Alarms : High/low temperature, power failure, sensor error and door ajar.
- Extensions : Remote alarm interface.

» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior,anti-corrosive, and easy to clean.

Stainless steel perforated sliding drawers

» Quick release filter

The condenser filter screen mask is designed with a magnetic suction, making it more convenient to maintain and clean the filter screen.

Quick release filter

» Lockable cabinets

The unit standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.

MBC-4V368

360 bags

MBC-4V368

FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.

Fan-assisted evaporator and LED lighting

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time.

Quick release filter design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals. And An internal USB data logger for recording and exporting temperature & alarm data through a built-in USB interface.

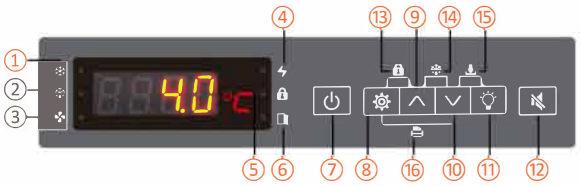
Thermal printer and USB interface

» Electrically heated glass door

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.

» Z06 Controller

- A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- The precision of display and control is 0.1℃.
- Factory pre-set to 4°C for blood bank refrigerators.
- Alarms : High/low temperature, power failure, sensor error, door ajar, ambient temperature, backup battery failure, condenser fault and ambient temperature
- Internal USB data logger : Temperature recording data can be exported to PDF or Excel format via built-in USB interface.
- Extensions : Remote alarm interface, RS485.

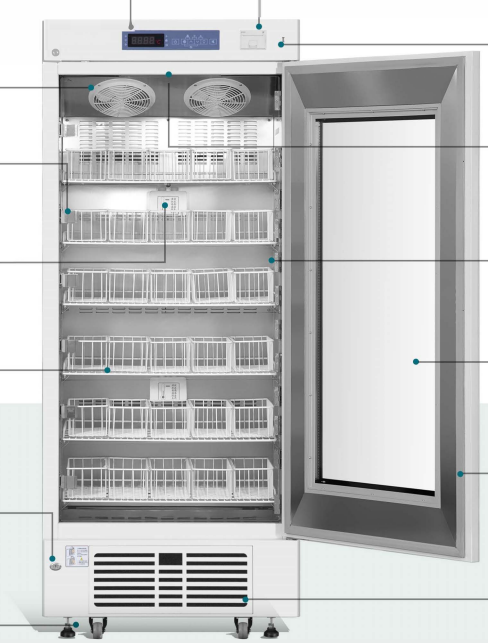


① Cooling status indicator
② Defrost indicator
③ Fan status indicator
④ Power indicator
⑤ Keyboard lock indicator
⑥ Door open indicator
⑦ Power switch
⑧ Setting
⑨ Up
⑩ Down
⑪ Lighting
⑫ Mute
⑬ Keyboard lock (Combination)
⑭ Defrost (Combination)
⑮ Download (Combination)
⑯ Print (Combination)

» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior, anti-corrosive, and easy to clean.

CONSTRUCTION



Z06 Controller

Fan-assited evaporator
Highly efficient finned evaporator with high airflow fans

Acrylic inner door
Providing better insulations

Glycerine box
Precise temperature control and minimal fluctuations

Wire basket
Removable PVC coated wire baskets

Built-in locks
Ensures the security of your preservations

Universal casters
Brake & leveling feet for easy movement and stable fixation

Printer
Built-in thermo printer to record and print the real-time temperatures.

USB interface
For downloading temperature datas

LED illumination
Smart lighting on and off for convenient access

Access port
Dia.25mm ports for additional monitoring device

Heated glass
Prevent fogging and condensation

Sealing gaskets
Long-lasting magnetic sealing gasket locks in cold air

Quick release filter
Magnetic cover, easy cleaning and washing filter

MBC-4V658

430 bags

MBC-4V658

FEATURES

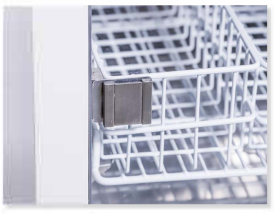
» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.

Fan-assisted evaporator and LED lighting

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time .



Acrylic inner door design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals. And An internal USB data logger for recording and exporting temperature & alarm data through a built-in USB interface.

Thermal printer

» Electrically heated glass door

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.

MBC-4V658

» D06 Controller

- A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- The precision of display and control is 0.1℃.
- Factory pre-set to 4°C for blood bank refrigerators Temperature range adjustable between 2-14 degrees.
- Alarms : High/low temperature, power failure, sensor error and door ajar.
- Extensions : Remote alarm interface.

» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior, anti-corrosive, and easy to clean.

PVC coated wire baskets

» Lockable cabinets

The unit standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.

» Temperature chart recorder

The optional chart recorder provides an easy-to-read graph of data vs time. It is a reliable, accurate, and stable instrument, for on-the-spot written documentation of inner temperature.

Chart recorder

MBC-4V208

156 bags

MBC-4V208

FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.

Fan-assisted evaporator and LED lighting

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time.

Acrylic inner door design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals. And An internal USB data logger for recording and exporting temperature & alarm data through a built-in USB interface.

Thermal printer

» Electrically heated glass door

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.

Coated wire baskets

MBC-4V108

78 bags

MBC-4V108

» D06 Controller

- A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- The precision of display and control is 0.1°C.
- Factory pre-set to 4°C for blood bank refrigerators.
- Alarms : High/low temperature, power failure, sensor error and door ajar.
- Extensions : Remote alarm interface.

» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior,anti-corrosive, and easy to clean.

» Glycerine box inside

Glycerine boxes are used to simulate the actual temperature of the blood. The temperature sensor detects the temperature of the glycerin, so that the controller drives the cooling system to ensure optimal temperature stability of the chamber.

Glycerine box with sensor inside

» Lockable cabinets

The unit standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.

Access port

SPECIFICATION SHEET





	Model	MBC-4V108	MBC-4V208	MBC-4V368	MBC-4V658	MBC-4V1008
Spesifications	Shelf/drawer	Shelves/2	Shelves/4	Shelves/6	Shelves/12	Drawers/12
	Cooling	Forced -air Cooling	Forced -air Cooling	Forced -air Cooling	Forced -air Cooling	Forced -air Cooling
	Defrost	Auto	Auto	Auto	Auto	Auto
	Refrigerant Type	R134a	R134a	R134a	R290	R134a
	Refrigerant Weight(g)	60	96	152	120	410
	Power consumption(kWh/24h)	2.11	2.48	4.5	5.98	7
	Noise （db)	49.6dB(A)	51.2dB(A)	51.2 dB(A)	51.2 dB(A)	53.6 dB(A)
	Ambient temperature （℃）	10~32℃	10~32℃	10~32℃	10~32℃	10~32℃
	Temperature range （℃）	4±1℃	4±1℃	4±1℃	4±1℃	4±1℃
Cooling system	Compressor brand/QTY	EMBRACO/1	EMBRACO/1	EMBRACO/1	SECOP/1	SECOP/1
	Sensor	NTC	NTC	NTC	NTC	NTC
	Temperature controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	Digital display	Digital display	Digital display	Digital display	Digital display
Power	Voltage/frequency （V/Hz)	220/50Hz	220/50Hz	220/50Hz	220/50Hz	220/50Hz
	Power （W)	168	194	355	391	415
	Current （A)	1.2	1.31	2.31	2.1	2.25
Materials	Inside material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Outside material	Spray coated steel	Spray coated steel	Spray coated steel	Spray coated steel	Spray coated steel
	Insulation	PURF	PURF	PURF	PURF	PURF
Measurement	Capacity （L/cu.ft)	108/3.81	208/7.34	368/12.98	658/23.23	1008/35.59
	Bloodbags(400ml)	78	156	360	432	684
	Bloodbags(300ml)	96	192	420	540	864
	Bloodbags(200ml)	120	240	540	684	1080
	NT./GT. （kg)	74/95	96/120	128/160	202/257	265/335
	Exterior size(W*D*H)(mm)	522X635X1050	522X635X1550	785×565×1920	1220×635×1885	1220×865×1885
	Interior size(W*D*H)(mm)	432*462*478	432*462*978	685×429×1380	1100*454*1325	1100*684*1325
	Package size(W*D*H)(mm)	720*612*1070	720*612*1570	890×650×2100	1330*735*2110	1300*960*2130
	CBM	0.4914	0.7	1.2	2.1	2.7
	20GP/40GP/40HQ	32/68/68	27/60/60	21/44/44	12/27/27	8/18/18
Alarms	High/low temperature	Y	Y	Y	Y	Y
	Power off	Y	Y	Y	Y	Y
	Temperature controller malfunction	Y	Y	Y	Y	Y
	Backup battery malfunction	Y	Y	Y	Y	Y
	Door ajar	Y	Y	Y	Y	Y
	High ambient temperature	/	/	Y	/	/
	Condenser clean	/	/	Y	/	/
	Remote alarm	Y	Y	Y	Y	Y
	Power failure backup system(alarm)	72h	72h	72h	72h	72h
Accessories	Caster	Y	Y	Y	Y	Y
	USB Port	Optional	Optional	Y	Optional	Optional
	Outer door/Type	1/Heating & Foam glass door	1/Heating & Foam glass door	1/Heating & Foam glass door	2/Heating & Foam glass door	2/Heating & Foam glass door
	Inner door	2	4	6	6	6
	Test hole	1/25MM	1/25MM	1/25MM	1/25MM	1/25MM
	Thermal Printer	Y	Y	Y	Y	Y
	Light	LED	LED	LED	LED	LED
	Temperature recorder	Optional Datalooger	Optional Datalooger	Optional Datalooger	Optional chart recorder	Optional chart recorder
	Qualifications	ISO9001,ISO13485,ISO14001，CE	ISO9001,ISO13485,ISO14001，CE	ISO9001,ISO13485,ISO14002，CE	ISO9001,ISO13485,ISO14001，CE	ISO9001,ISO13485,ISO14001，CE

OPTIONAL ACCESSORIES

110V power system

Compatibility with 110V power is achieved for the refrigerator by either modifying the compressor or utilizing an additional transformer.

Voltage stabilizer

Stabilize the input voltage of a power source to protect refrigerators from the effects of voltage fluctuations.

Data Logger (TLOG-100EC)

DLW-100EC is an independent monitoring device that records the realtime temperature and provides the necessary alarmsto protect your preservations.

4G/Wifi Data Logger (RCW-360P)

A networked device that can upload real-time temperature data to the cloud. Users can monitor and manage the data through the mobile app or web-based cloud platform.

6'' Temperature Chart Recorder

The chart recorder provides an easy-to-read graph of data vs time. It is a reliable, accurate, and stable instrument, for on-the-spot written documentation of freezer chamber temperature.

3Q qualification

Provides documentation for Installation and Operational Qualifications (IQ/OQ), as well as an outline of suggested topics for performance qualification (PQ).

Printer

Built-in Dot matrix printer could be provided to record and print the real-time temperatures.

SS exterior

For customers who need stainless steel materials, there is a special cabinet customization