



medical
systems

SAVING LIVES
THROUGH RELIABLE
AND INNOVATIVE
TECHNOLOGY

Blood Management Solutions





Blood Management Solutions

For a reliable cold chain within the scope of safety of blood transfusion specifications.

Saving lives through reliable and innovative technology

UNDERSTANDING THE NEEDS OF MEDICAL PROFESSIONALS REQUIRES A CONSTANT DIALOGUE.

The medical challenges our partners and clients face on the ground can be overwhelming. By continuously engaging with them and gathering insights through dialogue and exchange, we are able to understand their evolving needs. As a key global player in the sector of medical technology, B Medical Systems is committed in delivering highly specialized and cutting-edge devices that always exceed expectations.

DESIGNING RELIABLE MEDICAL DEVICES IS AT THE HEART OF OUR INNOVATION PROCESS.

We feel deeply connected to the international community of healthcare professionals and use optimized industrial processes to offer reliable products and services that help develop a relationship of trust. By managing the design, manufacturing, distribution and after-sales elements, we adopt a lifecycle approach and can ensure the Total Cost of Ownership of our products is as low as possible.

PUTTING PEOPLE FIRST STARTS WITHIN OUR ORGANIZATION.

We take a customer-oriented approach in everything we do, and are guided by our values and high standards. Our team of highly skilled professionals share our desire to excel and stay ahead of the game in the field of technological innovation. As an organization, our core aim is to save lives through reliable and innovative technology.

SAFE GLOBAL BLOOD MANAGEMENT: FROM COLLECTION TO TRANSFUSION, TRANSPORTATION, PROCESSING AND STORAGE.

B Medical Systems is a renowned expert in blood safety and management. Our reliable blood cold chain strictly observes international standards and World Health Organization recommended specifications. We keep blood safe through temperature-controlled transportation, processing and storage solutions. Additionally B Medical Systems offers innovative solutions for blood and derivatives treatment. These include an improved Contact Shock Freezer that delivers optimized performance with its innovative system (patent pending) – it enables faster and more homogenous freezing that saves time and money – and an exclusive integrated Incubator and Platelet Agitator with autonomous motioned trays, each with their own door, which ensures better stability and preservation of product quality, and consequently production gains.



SUMMARY

- 04-05** **B Medical Systems Safety Standards**
For technical reliability
and environmental friendliness
- 06** **European Medical Device Directive 93/42/EEC**
For increased reliability to comply with European
essential requirements
- 07** **Blood Traceability**
RFID technology for a complete traceability
and identification of RBCC
- 08-20** **Blood Management Chain**
A selected range of products for an uninterrupted
and precise temperature controlled blood cold chain
- 21-23** **°B Connected, DCU & Electronics**
For optimum control and protection
of your preparations

A complete line for a reliable blood management chain

Blood Management Solutions

Platelet Agitators

PA RANGE



	PA 31	PA 41	PA 51	PA 61	PA 71	PA 81	PA 91	PA 101	PA 111	PA 121	PA 131	PA 141
Storage capacity (500ml bags)	30	40	50	60	70	80	90	100	110	120	130	140

Blood Bank Refrigerators

B RANGE



	B 51	B 131	B 291	B 381	BF 261	B 401	B 501	B 701	B 901
Gross / Net volume (l)	52 / 45	121 / 106	297 / 269	362 / 329	R / 121 / 106 F / 121 / 106	451 / 384	598 / 510	747 / 636	895 / 763
Storage capacity (blood bags)	24 (450ml) / 31 (350ml)	51 (450ml) / 79 (350ml)	159 (450ml) / 235 (350ml)	213 (450ml) / 313 (350ml)	115 (450ml) / 183 (350ml)	255 (450ml) / 345 (350ml)	340 (450ml) / 460 (350ml)	425 (450ml) / 575 (350ml)	510 (450ml) / 690 (350ml)

Blood Bank Chest Refrigerators

MRB/MB RANGE



	MRB 3000 G (AC)	MRB 3000 SDD (Solar DC)
	141	
	90 (450ml) / 150 (270ml)	

Plasma Storage Freezers

F RANGE



	F 131	F 291	F 381	F 401	F 501	F 701	F 901
Gross / Net volume (l)	121 / 106	297 / 269	362 / 329	451 / 384	598 / 510	747 / 636	895 / 763
Storage capacity (plasma bags)	104 (350ml)	252 (350ml)	332 (350ml)	345 (350ml)	460 (350ml)	575 (350ml)	690 (350ml)

Contact Shock Freezers

CSF RANGE



	CSF 61	CSF 101
Freezing capacity (plasma bags)	20 (1000ml) / 60 (350ml)	32 (1000ml) / 96 (350ml)

Ultra Low Freezers

U RANGE



	U 401	U 501	U 701	U 901
Gross / Net volume (l)	451 / 434	598 / 577	747 / 720	895 / 863
Storage capacity (plasma bags)	345 (350ml)	460 (350ml)	575 (350ml)	690 (350ml)

Transport Systems

MT RANGE



	MT 2	MT 4	MT 8	MT 12	MT 25	MT 100
Gross volume (l)	2.2	8	20	24	44	90
Storage capacity (bags)	1 (450ml) / 2 (270ml)	4 (450ml) / 6 (270ml)	8 (450ml) / 14 (270ml)	15 (450ml) / 25 (270ml)	25 (450ml) / 40 (270ml)	48 (450ml)
Cooling system	Passive	Passive	Passive	Passive	Passive	Active (Compressor)

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Safety Standards

B Medical Systems

The **Safety Standards developed by B Medical Systems** define certain significant technical features of a product. These ensure the safe storage of the preparations as well as setting the highest standards of safety for the user.

PRECISION LINE	PREMIUM LINE	PA RANGE	CSF RANGE	
●	●	●	●	B Medical Systems Electronics
●				B Medical Systems digital display
	●			B Medical Systems 4,3" digital color display with capacitive buttons
	○	●	●	B Medical Systems 7" full touchscreen display
●				Safety door lock (with 2 keys) and key-operated power switch ON/OFF (with 2 keys)
●	●	●	●	Power indicator light and digital temperature indicator (display: 0.1 digits)
●	●	●		Controlled fan cooling system for constant temperature and even temperature distribution across the entire refrigerating chamber <i>[not applicable for F/U ranges]</i>
●	●			Automatic switch-off of the evaporator fans when the door opens <i>[not applicable for F/U ranges]</i>
●	●	●	●	Self-contained alarm system with integrated battery takes over the alarm function and temperature value measurements in case of system failure for at least 48 hours
		●		Built-in rechargeable battery backup provides continuous movements and air circulation, in case of system failure
●	●	●	●	Acoustic and visual alarm signal in case of temperature alarm and system failure
●	●	●	●	The alarm history function on the electronic stores all the relevant values during a temperature alarm, such as: min., max. and average temperature <i>[+ alarm duration for Premium Line models]</i>
●	●	●	●	Remote transmission alarm signal (via potential-free contact) in case of temperature alarm (change-over contact)
●	●			Safety thermostat prevents dropping of the temperature below +2°C <i>[for B range]</i>
●	●	●		Door opening alarm (visual / acoustic)
●	●			Designed and tested for climatic class SN (ambient temperature range +10°C to +32°C)
		●	●	Designed and tested for climatic class N (ambient temperature range +16°C to +32°C)
	●			Designed and tested for climatic class SN / T (ambient temperature range +10°C to +43°C) <i>[for B range]</i>
	●		●	Interior made from stainless steel <i>[evaporator plates and drip channel made from stainless steel for CSF range]</i>
●	●	●	●	Internal LED lighting <i>[not applicable for F/U ranges]</i>
●	●	●	●	Additional remote transmission alarm signal (via potential-free contact) in case of system failure (change-over contact)
	●	●	●	Smooth castors for optimum flexibility of movement
	○		○	External water cooling <i>[not applicable for B range]</i>
	○	●	●	Ambient temperature sensor
○	●	●	●	*B Connected - Universal software for the monitoring of refrigeration devices, including the acquisition, recording and visualization of temperature data
○				DCU (Data Communication Unit) - Hardware module monitoring all operating conditions and passing them through to a central database – via local network (in combination with *B Connected)
	●	●	●	Ethernet interface for the visualization of all operating and control functions (hardware and software settings) via *B Connected monitoring software on a peripheral device (computer)

NEW

Innovation for more reliability

"In conformity with national and international guidelines, regulations for Medical Devices offering reliability, efficiency and safety at an optimal price."

PRECISION LINE | MODELS B 51-131-291-381, BF 261 & F 131-291-381

PREMIUM LINE | MODELS B/F/U 401-501-701-901

Integrated multi-function monitoring electronics

Integrated B Medical Systems multi-function electronics; with easy access in the door level; offers alarms, central alarm system, set point security, battery backup, full display and many other control features ; compatible with °B Connected monitored solution for data monitoring and recording.

Lifetime warranty corrosion-free cabinet

- One piece material cabinet with a lifetime warranty for zero corrosion, highest quality polypropylene for better insulation and no sharp edges to provide easier maintenance and cleaning
- Smart ergonomics - Easier and safer handling because of heavier components placed at the bottom

Exclusive integrated electronics handle bar (Patent pending)

All functionalities are easily accessible:

- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at optimal level in the door handle with full commands and connections, or optional full 7" touchscreen with pre-installed connection allowing exclusive °B Connected monitoring functionalities
- Open/close - Heavy duty door lock mechanism

High quality materials

New high quality coating, certified medical devices quality and antibacterial, high quality steel for better longevity and easy hygiene control.

Versatile modularity

Excellent storage capacity and modularity - Large choice of shelves and drawers offering modularity for every need.

Userfriendly and longer lifetime

OUR STANDARDS OF COMPLIANCE – DEPENDING ON THE PRODUCT

DIN 58371

ADR RID (2008/68/CE)

ÖNORM K 2030



DIN 58375

IMDG (2002/84/CE)

ICAO-TI / IATA-DGR

CE 0123

GMP

REINRAUMKLASSIFIZIERUNG
CLASSIFICATION DES SALLES BLANCHES
CLEAN ROOM CLASSIFICATION

EXCER
CERTIFIED
ISO 14001



SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

European Medical Device Directive 93/42/EEC

B Medical Systems S.à r.l. successfully passed the certification audit according to the harmonized European Quality Management System Standard for Medical Devices EN ISO 13485 and the European Medical Device Directive 93/42/EEC.

All medical devices manufactured by B Medical Systems S.à r.l. will be labeled with the CE-Label (CE 0123). The product in question concerns blood product cooling devices / blood bank refrigerators. A blood storage refrigerator and a blood storage freezer are devices intended for medical purposes that are used to preserve blood and blood products by storing them at cold or freezing temperatures.

Our medical device products will be all blood banks refrigerators from our range B, as well as all plasma freezers from our ranges F and U, all platelet agitators from our range PA and all contact shock freezers from our range CSF.

WHY THE EN ISO 13485 CERTIFICATION?

This EN Standard was published in 2003 and represents the requirements for a comprehensive management system for the design and manufacture of Medical Devices.

This certificate demonstrates that an organization is able to provide Medical Devices and related services, meeting customer and regulatory requirements applicable to medical devices and related services. The primary objective is to facilitate harmonized Medical Device regulatory requirements for quality management systems.

The positive assessment to this certificate allows the CE Mark and the permission to sell the Medical Device in the European Union.

THE REAL IMPORTANCE OF THE DIRECTIVE 93/42/EEC

The Medical Device Directive, Council Directive 93/42/EEC of June 1993, is a “new approach” Directive in order for a manufacturer to legally place a medical device on the European market. The consolidated directive is mandatory since March 2010 and establishes essential requirements and standards for the manufacture, design and packaging of medical devices.

The Medical Device calls for all manufacturers who distribute in the European Economic Area to comply with essential requirements that benefits the safety of those in the EEA. The devices must be designed and manufactured in such a way that as they are used by users, they will no way compromise the health of patients.



OUR MEDICAL DEVICE RANGES:

- Platelet Agitators | PA range
- Blood Bank Refrigerators | B range
- Plasma Storage Freezers | F range
- Ultra Low Freezers | U range
- Contact Shock Freezers | CSF range

Blood Traceability

Global Haemovigilance at a glance

The
2BHRFID
Solution



COMPLETE TRANSPARENCY FROM DONOR TO RECIPIENT

In order to meet the specific management and traceability needs of the blood transfusion process, B Medical Systems has developed the 2BH-RFID solution allowing optimized tracking of blood bag information via Radio-Frequency Identification (RFID) technology. As part of the identification process during the preparation stage, an RFID chip is fixed on to each blood bag. When an order comes in from a healthcare establishment, the distribution operator selects the bags and encodes each bag's RFID chip with its destination. The blood donation number and product code registered to the chip are read automatically, which allows the central information system to be interrogated and to record specific data on each blood bag, the deadline for its return to the blood establishment, destination and patient information.

OUR 2BH-RFID SOLUTION OFFERS THE FOLLOWING KEY BENEFITS:

- **Reliable identification and traceability of blood bags.** The blood donation number, product code and all-important patient information are automatically recorded in the RFID chip's memory.
- **Patient safety.** Digital management of the transfusion chain eliminates retranscription errors and guarantees delivery of the right product to the right patient.
- **Savings on a rare resource.** Complete information on a blood bag's identity and temperature allows better use of a rare resource. Remaining unused blood bags no longer need to be thrown away, as the chips accurately indicate their status.
- **Optimal operational efficiency.** By providing information on remote stocks and real-time visibility in the supply chain, our solution supports streamlined distribution and a reduction in costs.

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY



Platelet Agitators

B Medical Systems | PA Range

12 models • Set temperature +22°C • Climate class N



Exclusive individual motion system

Each tray has its individual motion system and access through its own door. This exclusive individual start and stop system allows work on a specific tray without affecting the motion of the others and ensures a better temperature stability of the unit. Each tray has its own LED lighting.



Best storage capacity

For the same footprint, our platelet agitators offer the best storage capacity per square meter. A wide range of storage capacities are available: 3 to 14 trays per unit.

Motion adaptable to your needs

The platelet motion is adaptable according to the needs of the user. Three motion types are available: linear, elliptic or circular.



Autonomous integrated incubator

Our unique two-in-one incubated platelet agitators offer movement, cooling or heating in ONE global module within an optimized footprint.

Built-in rechargeable battery backup

In case of system failure, the built-in rechargeable battery backup provides continuous movements up to 1 hour for 14 trays and air circulation.

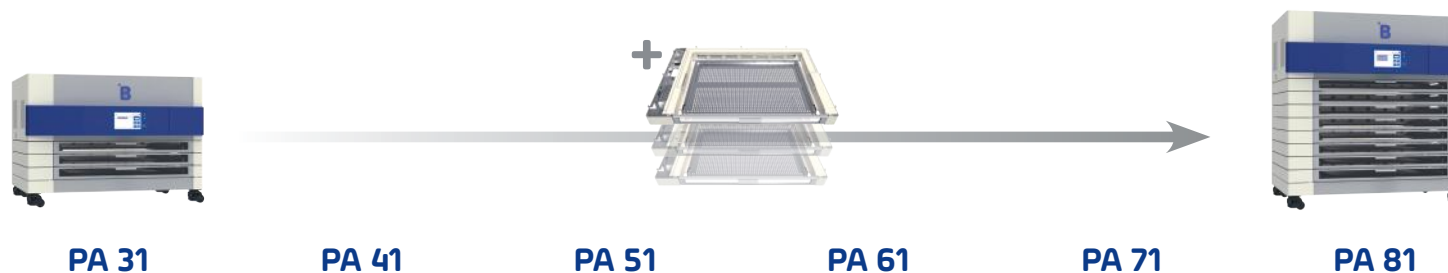
Easy maintenance and cleaning

All parts of our platelet agitators are easily removable to make cleaning and maintenance simple (doors and trays are easily removable; each individual motion system is replaceable within 5 minutes).

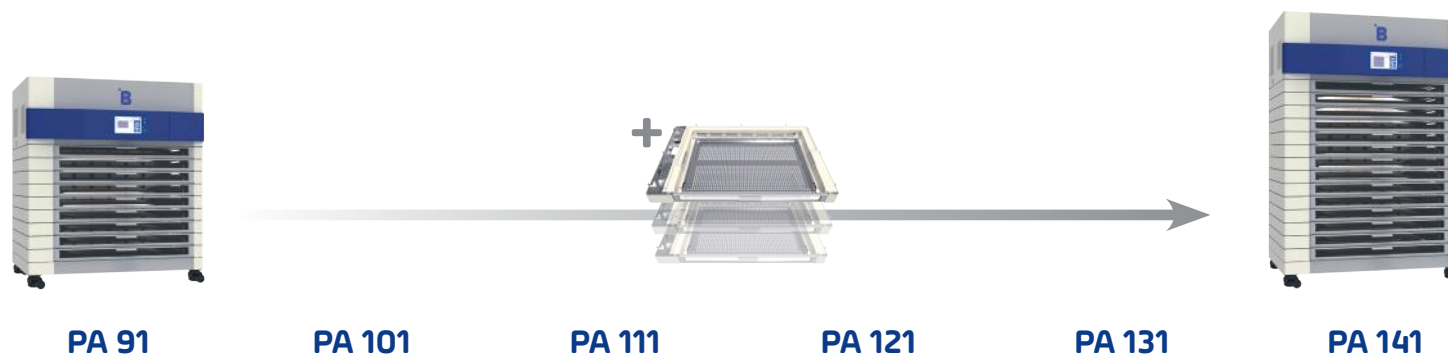
New exclusive integrated incubator and platelet agitator for a better product safety. PA models offers modularity from 3 trays for a capacity of 30 bags (500 ml) to 14 trays for a capacity of 140 bags (500 ml), capacity is adjustable to your needs from 3 to 14 trays.



Platelet Agitators



<i>Number of individual trays (standard)</i>	3	4	5	6	7	8
<i>Storage capacity (500ml bags)</i>	30	40	50	60	70	80
<i>External dimensions H x W x D (mm)</i>	760 x 1035 x 725	830 x 1035 x 725	900 x 1035 x 725	970 x 1035 x 725	1040 x 1035 x 725	1110 x 1035 x 725



<i>Number of individual trays (standard)</i>	9	10	11	12	13	14
<i>Storage capacity (500ml bags)</i>	90	100	110	120	130	140
<i>External dimensions H x W x D (mm)</i>	1180 x 1035 x 725	1250 x 1035 x 725	1320 x 1035 x 725	1390 x 1035 x 725	1460 x 1035 x 725	1530 x 1035 x 725



Blood Bank Refrigerators

B Medical Systems | B Range

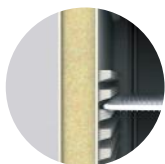
Blood bank refrigerators for the safe storage of blood and blood components at temperatures ranging from +2°C to +6°C with multiple controls, warning and data recording safety features developed as a result of over 35 years of expertise in refrigeration technology.

9 models • Volume 52 > 895 L • Set temperature +4°C • Climate class SN I SN/T • According to DIN 58371 | ÖNORM K 2030



Integrated multi-function monitoring electronics

Integrated B Medical Systems multi-function electronics; with easy access in the door level; offers alarms, central alarm system, set point security, battery backup, full display and many other control features; compatible with °B Connected monitored solution for data monitoring and recording.



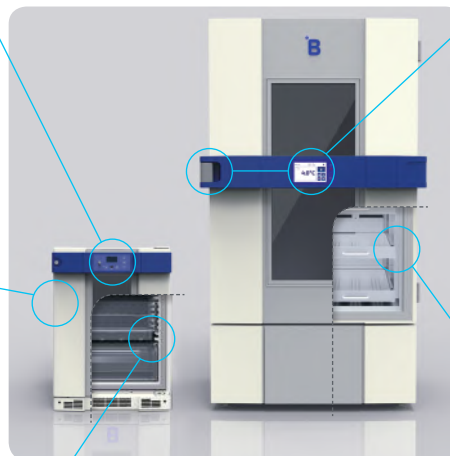
Lifetime warranty corrosion-free cabinet

- One piece material cabinet with a lifetime warranty for zero corrosion, highest quality polypropylene for better insulation and no sharp edges to provide easier maintenance and cleaning
- Smart ergonomics - Easier and safer handling because of heavier components placed at the bottom



High storage capacity

High storage per square meter in terms of net volume, with a very versatile inner volume utility due to multiple user friendly rails allowing modularity.



Exclusive integrated electronics handle bar *(Patent pending)*

All functionalities are easily accessible:

- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at optimal level in the door handle with full commands and connections, or optional full 7" touchscreen with pre-installed connection allowing exclusive °B Connected monitoring functionalities
- Open/close - Heavy duty door lock mechanism



High quality materials

New high quality coating, certified medical devices quality and antibacterial, high quality steel for better longevity and easy hygiene control.

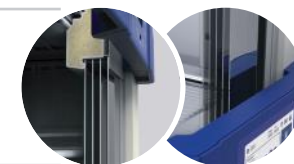


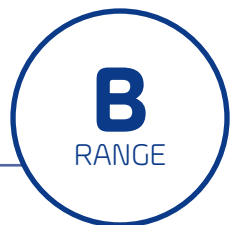
Versatile modularity

Excellent storage capacity and modularity - Large choice of shelves and drawers offering modularity for every need.

Highest insulation value (organic glass door)

4-layer (Precision Line) and 5-layer (Premium Line) PMMA organic glass offering highest insulation, combined with reduced weight reducing efforts to close door and constraints on hinges, offering better longevity.





Blood Bank Refrigerators



B 51



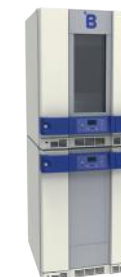
B 131



B 291



B 381



BF 261

Refrigerator & Freezer combined

<i>Gross / Net volume (l)</i>	52 / 45	121 / 106	297 / 269	362 / 329	R 121 / 106	F 121 / 106
<i>Storage capacity (blood bags)</i>	24 (450ml) / 31 (350ml)	51 (450ml) / 79 (350ml)	159 (450ml) / 235 (350ml)	213 (450ml) / 313 (350ml)	115 (450ml) / 183 (350ml)	
<i>External dimensions H x W x D (mm)</i>	670 x 495 x 575	830 x 595 x 695	1670 x 595 x 695	1980 x 595 x 695	1660 x 595 x 695	



B 401



B 501



B 701



B 901

<i>Gross / Net volume (l)</i>	451 / 384	598 / 510	747 / 636	895 / 763
<i>Storage capacity (blood bags)</i>	255 (450ml) / 345 (350ml)	340 (450ml) / 460 (350ml)	425 (450ml) / 575 (350ml)	510 (450ml) / 690 (350ml)
<i>External dimensions H x W x D (mm)</i>	1988 x 697 x 1035	1988 x 850 x 1035	1988 x 982 x 1035	1988 x 1140 x 1035



Plasma Storage Freezers

B Medical Systems | F Range

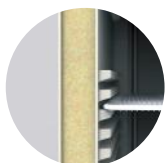
Plasma Storage Freezers for the low-temperature storage of temperature-sensitive preparations such as plasma and other blood products under optimum conditions developed as a result of over 35 years of expertise in refrigeration technology.

7 models • Volume 121 > 895 L • Set temperature -41°C / -32°C • Climate class SN • According to DIN 58375



Integrated multi-function monitoring electronics

Integrated B Medical Systems multi-function electronics; with easy access in the door level; offers alarms, central alarm system, set point security, battery backup, full display and many other control features; compatible with °B Connected monitored solution for data monitoring and recording.



Lifetime warranty corrosion-free cabinet

- One piece material cabinet with a lifetime warranty for zero corrosion, highest quality polypropylene for better insulation and no sharp edges to provide easier maintenance and cleaning
- Smart ergonomics - Easier and safer handling because of heavier components placed at the bottom



High storage capacity

High storage per square meter in terms of net volume, with a very versatile inner volume utility due to multiple user friendly rails allowing modularity.



Exclusive integrated electronics handle bar *(Patent pending)*

All functionalities are easily accessible:

- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at optimal level in the door handle with full commands and connections, or optional full 7" touchscreen with pre-installed connection allowing exclusive °B Connected monitoring functionalities
- Open/close - Heavy duty door lock mechanism



High quality materials

New high quality coating, certified medical devices quality and antibacterial, high quality steel for better longevity and easy hygiene control.



Versatile modularity

Excellent storage capacity and modularity - Large choice of shelves and drawers offering modularity for every need.

Special features for easy deicing and defrosting

- New evaporator offering better performance than market average, resulting in lesser ice formation with automatic defrost
- Insulated inner doors for significantly lower loss of cooling when open

Subject to change without prior notice. Some of the accessories shown in the pictures are optional. The figures are approximate, and may vary based on the number of bags that are actually stored and the different bag manufacturers' specifications available on the market, the actual bag sizes as well as the individual user's practice of loading.



Plasma Storage Freezers



F 131



F 291



F 381

<i>Gross / Net volume (l)</i>	121 / 106	297 / 269	362 / 329
<i>Storage capacity (plasma bags)</i>	104 (350ml)	252 (350ml)	332 (350ml)
<i>External dimensions H x W x D (mm)</i>	830 x 595 x 695	1670 x 595 x 695	1980 x 595 x 695



F 401



F 501



F 701



F 901

<i>Gross / Net volume (l)</i>	451 / 384	598 / 510	747 / 636	895 / 763
<i>Storage capacity (plasma bags)</i>	345 (350ml)	460 (350ml)	575 (350ml)	690 (350ml)
<i>External dimensions H x W x D (mm)</i>	1988 x 697 x 1035	1988 x 850 x 1035	1988 x 982 x 1035	1988 x 1140 x 1035



Ultra Low Freezers

B Medical Systems | U Range

4 models • Volume 451 > 895 L • Set temperature -82°C • Climate class SN • According to DIN 58375



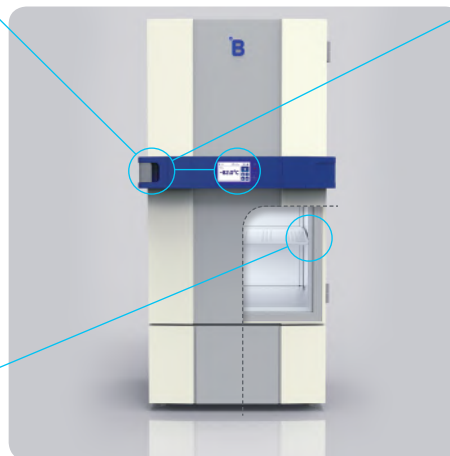
Exclusive integrated electronics handle bar (Patent pending)

All functionalities are easily accessible:

- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at optimal level in the door handle with full commands and connections, or optional full 7" touchscreen with pre-installed connection allowing exclusive °B Connected monitoring functionalities
- Open/close - Heavy duty door lock mechanism

High quality materials

New high quality coating, certified medical devices quality and antibacterial, high quality steel for better longevity and easy hygiene control.



Special features

- Integrated pressure release valve in the door permitting faster opening in one move, and offering easy access for cleaning or defrost
- Insulated inner doors for significantly lower loss of cooling when open
- Full compatibility of inner modules and rails, no need to buy new racks, you can keep racks previously used in different U models



Versatile modularity

Excellent storage capacity and modularity - Large choice of shelves and drawers offering modularity for every need.

Ultra Low Freezers for the low-temperature storage of temperature-sensitive preparations under optimum conditions.

U models reflect the highest and most uncompromising requirements with state-of-the-art technology and economy.

The cooling system is optimally designed with respect to energy consumption as well as to the development of waste heat and noise. Standard factory setpoint is -82°C, temperature is adjustable from -40°C to -86°C.



Ultra Low Freezers



U 401



U 501

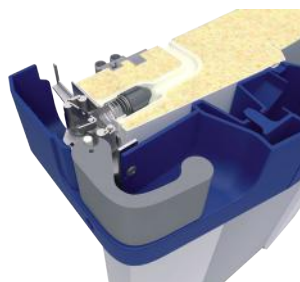


U 701



U 901

<i>Gross / Net volume (l)</i>	451 / 434	598 / 577	747 / 720	895 / 863
<i>Storage capacity (plasma bags)</i>	345 (350ml)	460 (350ml)	575 (350ml)	690 (350ml)
<i>Storage capacity (cryoboxes)</i>	300 (50 x 136 x 136 mm)	400 (50 x 136 x 136 mm)	500 (50 x 136 x 136 mm)	600 (50 x 136 x 136 mm)
<i>Storage capacity (vials 2ml)</i>	30000	40000	50000	60000
<i>External dimensions H x W x D (mm)</i>	1988 x 697 x 1035	1988 x 850 x 1035	1988 x 982 x 1035	1988 x 1140 x 1035



INTEGRATED PRESSURE RELEASE VALVE

This aluminium die cast mechanism offers a strong and ergonomic handle that allows to open the door with one hand while releasing the vacuum inside ultra low freezers. This change in the position of the vacuum release valve provides an easy access to clean it.

The mechanism can also be locked electronically through the interface via a solenoid.

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY



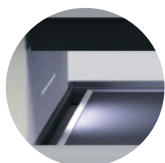
Contact Shock Freezers

B Medical Systems | CSF Range

2 models • Set temperature **-30°C** • Climate class **N**

● Fastest contact shock freezers worldwide

Our contact shock freezers provide the shortest freezing cycle on core temperature of -30°C: nearly 100 units of 250 ml within less than 60 minutes.



● State-of-the-art contact freezing technology™

Our innovative and patent pending system of inclined trays delivers the most homogeneous freezing and offers the best in repeatability and productivity, with operator independent performance for 100% performance consistency.

● Highest degree of ergonomics

Each tray has an effective and usable height, giving easier access for quicker loading and enabling easier manipulation of bags.



● Optimized pull-down of the layers

The freezing down is quicker, the clinical payback on investment is maximised and the concentration of factors 8, 9 and albumin is increased.

● Integrated multi-function electronics

Located at eye level, the electronics are easily accessible and can be connected with our fully integrated monitored solutions for a complete traceability of frozen bags.



● Maintenance-friendly design

Our contact shock freezers offer an easy cleaning and disinfection facility.

Contact Shock Freezers are designed for the fast freezing of blood plasma, biological and pharmaceutical preparations to a core temperature of -30°C. CSF models are built in compliance with directives for the preparation of blood plasma and offers multiple controls, warning and data recording safety features developed as a result of over 35 years of expertise in refrigeration technology.



Contact Shock Freezers



CSF 61



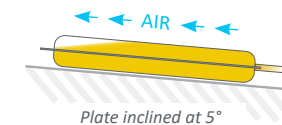
CSF 101

<i>Freezing capacity (plasma bags)</i>	20 at 1000ml (content 850ml) / 60 at 350ml (content 250ml)	32 at 1000ml (content 850ml) / 96 at 350ml (content 250ml)
<i>Freezing time to core temperature of -30°C</i>	20 units (1000ml) ± 45 min / 60 units (350ml) ± 55 min	32 units (1000ml) ± 45 min / 96 units (350ml) ± 55 min
<i>Operating temperature (preset), reached within ± 5 min (pre-cooling phase)</i>	-45°C (upper & lower level contact plates)	-45°C (upper & lower level contact plates)
<i>External dimensions H x W x D (mm)</i>	1910 x 1080 x 830	1910 x 1500 x 830



OPTIMIZED CONTACT FREEZING

- Levels operate independently, allowing simultaneous freezing and defrosting as necessary
- Inclined plates at 5° ensure full contact with plasma and minimizes effect of air trapped in bags negatively influencing repeatability of freezing cycle times, providing operator independent performance for 100% performance consistency



SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Transport Systems

B Medical Systems | MT Range

6 models • Volume 2.2 > 90 L • According to ADR | RID | IMDG | ICAO-TI | IATA-DGR



Designed for intensive use

- The special transport boxes, made from rotationally moulded polyethylene (a literally indestructible synthetic), feature an extraordinarily sturdy casing that is almost impervious to external forces, e.g. caused by bumps and falls, whose sturdiness has been proven in drop tests
- The corrosion free material offers easier and safer handling and is light weight. All transport systems can easily and thoroughly be cleaned and disinfected with conventional disinfectants. There are no inaccessible corners or areas inside the transport systems
- The clasps can be sealed or equipped with locks and are therefore protected against unauthorised access during transport



Highest insulation value

- The polyurethane foam injected into the double walls of these transport systems is free of CFC and HCFC and ensures optimum insulation and protection of quality of the transported goods, especially with longer transport times
- Due to the outer casing's self-insulation against the environment, the B Medical Systems transport systems maintain a stable temperature even at higher ambient temperatures



Transport Systems for the safe transport of temperature-sensitive products. The model range MT consists of five passive transport systems and one active transport box, working with a compressor. B Medical Systems transport systems are ideal for intensive use with many transport applications, even under difficult climatic conditions. MT models conform with the European agreement on the international transport of hazardous goods by Road (ADR), by Rail (RID), by sea (IMDG) and with the International agreement for air transport (ICAO-TI / IATA-DGR).

For all passive transport boxes eutectic cooling systems are available as an option (-32°C, +4°C, +22°C and +37°C).



Transport Systems



MT 2



MT 4



MT 8



MT 12



MT 25



MT 100

<i>Cooling system</i>	Passive	Passive	Passive	Passive	Passive	Active (Compressor)
<i>Gross volume (l)</i>	2.2	8	20	24	44	90
<i>Storage capacity (bags)</i>	1 (450ml) / 2 (270ml)	4 (450ml) / 6 (270ml)	8 (450ml) / 14 (270ml)	15 (450ml) / 25 (270ml)	25 (450ml) / 40 (270ml)	48 (450ml)
<i>External dimensions H x W x D (mm)</i>	210 x 250 x 150	299 x 362 x 283	437 x 588 x 288	499 x 550 x 475	499 x 710 x 550	1000 x 520 x 800



Blood Bank Chest Refrigerators

B Medical Systems | MRB/MB Range

Blood bank chest refrigerators for cool down and safe storage of blood. This range consists of 2 models: MRB 3000 SDD working straight from solar panels with no batteries and no regulator and MB 3000 G operates on AC power.

2 models • Volume 141 L • Set temperature +4°C

Highest insulation value

- Rotomoulded body construction: rust free and extremely robust
- 100mm PU foam insulation guarantees highest possible hold over time
- Double silicon gaskets (replaceable) and lockable clasps ensures tight sealing

Blood Bank Chest Refrigerator

- Blood bags storage capacity: 90 at 450 ml / 150 at 270 ml
 - Autonomy: 72 h at +32°C
- Hold over time: 72 h at +32°C
- Delivered with 5 wire storage baskets: facilitates the handling and storage management of the blood bags

MRB 3000 SDD



Integrated electronics

- Electronics controller with integrated digital temperature monitoring
- Temperature monitoring maintained in system failure
- High alarm and low alarm (visual and acoustic)

Plug & Play installation

- Quick connector allows for “plug and play” installation, only one way works!
- Working straight from solar panels with no batteries and no regulator (length of cable: 25 meters each generator)
- Requests only one solar generator (4 x 100W / 12V panels)

10 YEARS
UNCONDITIONAL
WARRANTY

FOR B MEDICAL SYSTEMS INSTALLED SOLAR DIRECT DRIVE

DATA
LOGGER
INCLUDED



This device is also available as AC version

MB 3000 G | Blood Bank Chest Refrigerator

- Operating voltage: 220-240 V - 50/60 Hz or 110 V - 50/60 Hz
- Designed for tropical temperatures: +5°C to +43°C
- Hold over time: 20 h at +32°C

Optimum control and protection

B Medical Systems | °B Connected & DCU

°B CONNECTED | MONITORING SOFTWARE

Universal software for the monitoring of refrigeration devices, including the acquisition, recording and visualization of temperature data.



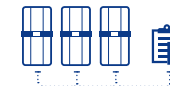
- Unique monitoring software for the full range of Blood Management Solutions and Medical Refrigeration products
- Web-based interfaces for computers and mobile devices
- Modern design for simple and intuitive use
- Graphic display of temperature curves
- Integrated event and activity history of appliances' components
- Data recording on centralized database for long-term archiving
- Easy setting of specific alarm forwarding, via email or SMS
- Generation of reports compiling crucial data and activities
- Temperature and detailed device data export for third-party software
- Important price advantage compared to a traditional circular chart recorder and its spare parts
- REST API to access raw data directly from the database in read only mode

KEY BENEFITS:

- Unique interface for the monitoring of the full range of refrigeration devices
- Centralized database providing data access to entire customer network

DCU | DATA COMMUNICATION UNIT (PRECISION LINE)

Hardware module monitoring all operating conditions and passing them through to a central database – via local network.



- Interface connection of B Medical Systems appliances to an existing network
- Graphical user interface displaying temperature and configuring devices and alarms easily
- Direct connection to Ethernet and serial bus RS485
- Digital in/out (programmable and customer-specific use)
- Recording and storing appliance relevant data
- Integrated USB port allowing to export stored data
- The DCU combined with the °B Connected software replaces the paper temperature recorder
- All data are recorded and save in the internal storage of the DCU and backed up in °B Connected data base if connected
- Several additional self-sufficient temperature sensors (up to 4 PT1000) may be connected
- Humidity sensor input (4-20 mA)

KEY BENEFITS:

- Central system collecting relevant temperature data of the appliances and their respective operating conditions
- A number of connection facilities allowing flexible upgrades for individual projects

°B Connected & DCU offer a highly flexible system that is adaptable to specific customer requirements

- > Complete & legally safe documentation of temperature data
- > Comprehensive applications and diagnostic possibilities

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Full functionalities at a glance

B Medical Systems | Electronics

PRECISION LINE | Multifunctional electronics with digital display and easy access, in the door handle; compatible with °B Connected monitored solution.



Key power switch 0 = OFF / I = ON

- To switch the unit on, turn the key switch to position „I“. The green power LED lights up
- After the self-check, the temperature inside the device is displayed



Digital display

During normal operation the display shows:

- Left-hand side: current time and internal temperature displayed in °C (Celsius) or °F (Fahrenheit) in increments of 0.1°
- Right-hand side: the maximum and minimum inside temperature



Acoustic and visual alarm signal

When an alarm occurs, the red alarm LED lights up and an acoustic signal sounds. The corresponding alarm message appears on the display alternately with the measured inside temperature. If several alarms occur simultaneously, the messages will be shown alternately.



Function buttons

- UP / DOWN buttons: navigation within the parameters and modification of their values
- ENTER button: use the ENTER-key to confirm the actual selection. This applies the parameter value. The change of a parameter only becomes effective when confirmed
- MUTE / BACK button: in case of an alarm, the acoustic alarm can be muted for a specified time. In Parameter-mode the same key acts a "BACK-button" to go one step back
- LIGHT button: allows to switch on or off the interior light of the device without opening the door (for B range)



USB-port

A USB port is available for data export only. Measured values of the display sensor are stored for at least 30 days (ring buffer) together with a time stamp.



The new B Medical Systems Electronics offers a wide range of adjustment and diagnostic facilities as well as additional protection / warning operations (via external alarm operations, histories and individual display signals).

PREMIUM LINE | Multi-function electronics with 4.3" digital color display and capacitive buttons, integrated at optimal level in the door handle with full commands and connections.



Power switch OFF / ON

- To switch on press the ON/OFF button for 1 second. The green LED will light up
- Switch off protected by password. The door will automatically unlock before powering down



Digital color 4,3" display

During normal operation the display shows:

- At the top: current voltage, current time, defrosting (for F range) and gasket heater (for F and U ranges)
- Left-hand side: internal temperature displayed in °C (Celsius) or °F (Fahrenheit) in increments of 0.1°
- Right-hand side: temperature of the regulation sensor. Displaying this temperature can be disabled through the settings



USB-port & SD-card-slot

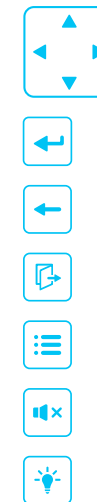
Acoustic and visual alarm signal

When an alarm occurs, the red alarm LED lights up and an acoustic signal sounds. The corresponding alarm message appears on the display together with the measured inside temperature. If several alarms occur simultaneously, the messages will be shown alternately.



Capacitive buttons

- ARROW buttons: select screen items with the arrow buttons. In parameter editing mode, the arrow buttons are used to change values
- ENTER button: activates the currently selected item
- BACK button: goes one level upwards in the menu tree structure. It also serves as "escape" button
- DOOR UNLOCK button: unlocks the door of the device
- MENU button: opens the menu screen
- ALARM MUTE button: deactivates the acoustic alarm for a predefined period of time
- LIGHT button: allows to switch on or off the interior light of the device without opening the door (for B range)



Discover the ultimate control experience with the
new B Medical Systems 7" full touchscreen display

More comfortable, more functionalities, no compromise!



Available as option

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY



Blood Management Solutions

*Safe global blood management:
from collection to transfusion,
transportation, processing and storage*



Cold Chain

*Reliable and innovative solutions
for safe vaccination around the world*



Medical Refrigeration

*State-of-the-art technology
for the exacting needs of the medical world*

Our Global Expertise



After Sales support and service

We strive to provide you with the highest standards of service; not only through our selected distributors and partners for all your maintenance and service but also our second line trouble shooting and after sales service. This Factory based group of engineers is there to help our partners and yourself to get the best solution for your cold storage needs.



SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

B Medical Systems (formerly Dometic Medical Systems) has more than 35 years' experience in the medical refrigeration sector.

The company, formerly known as Electrolux Medical Systems, was founded in 1979 when the World Health Organization approached Electrolux in Vianden, Luxembourg, to create a solution for the safe storage and transport of vaccines around the world. In 2001, Electrolux Medical Systems became part of the Dometic Group, and was renamed Dometic Medical Systems. Having established a legitimate reputation in the medical equipment industry, the company has also become a global leader in vaccine cold chain.

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