



medical
systems

SAVING LIVES
THROUGH RELIABLE
AND INNOVATIVE
TECHNOLOGY

Medical Refrigeration





Medical Refrigeration

Special purpose refrigerators and deep freezers, storage and transport systems for Laboratory, Medicine, Research, Biotechnology and Life Sciences.

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 to 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.

STATE-OF-THE-ART TECHNOLOGY FOR THE EXACTING NEEDS OF THE MEDICAL WORLD.

B Medical Systems provides solutions for the safe and risk-free storage, transport and handling of products and temperature-sensitive preparations in appropriate conditions. Our state-of-the-art technology covers the entire spectrum of the specific, exacting demands of the market – across hospitals, laboratories, pharmacies, research centres, universities and industry.



SUMMARY

- 04-05** **B Medical Systems Safety Standards**
For technical reliability and environmental friendliness
- 06-14** **Medical Refrigerators, Freezers and Transport Systems**
For any cooling need in laboratories, research, biotechnology
- 15** **°B Connected & DCU Software**
For optimum control and protection of your preparations

A complete line for any solution

Medical Refrigeration

Laboratory Refrigerators

L RANGE (DIN 58345)



Gross / Net volume (l)

L 55

52 / 45

L 130

121 / 106

L 290

297 / 269

L 380

362 / 329

LF 260

R | 121 / 106 F | 121 / 106

Refrigerator & Freezer combined

L 600

600 / 490

L 1300

1300 / 1175

Pharmacy Refrigerators

P RANGE (DIN 58345)



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Refrigerator & Freezer combined

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Laboratory Freezers

F RANGE (DIN 58375)



Gross / Net volume (l)

F 130

121 / 106

F 290

297 / 269

F 380

362 / 329

F 400

451 / 384

F 500

598 / 510

F 700

747 / 636

F 900

895 / 763

F 600

600 / 490

Ultra Low Freezers

U RANGE



Gross / Net volume (l)

U 400

451 / 434

U 500

598 / 577

U 700

747 / 720

U 900

895 / 863

Transport Systems

MT RANGE (ADR / RID / IMDG / ICAO-TI / IATA-DGR)



Gross volume (l)

MT 2

2.2

Cooling system

Passive

MT 4

8

Passive

MT 8

20

Passive

MT 12

24

Passive

MT 25

44

Passive

MT 100

90

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	
●	●	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 when front door opens <i>[not applicable for U range]</i>
●	●	Self-contained alarm system with integrated battery takes over the alarm function and temperature value measurements in case of power failure for at least 48 hours
●	●	Acoustic and visual alarm signal in case of temperature alarm and power failure
●	●	The alarm history function on the electronic stores all the relevant values during a temperature alarm, such as: min., max. and average temperature & also the duration of the alarm
●	●	Remote transmission alarm signal (via potential-free contact) in case of temperature alarm (change-over contact)
	●	Control via self-diagnostic system
●		Safety thermostat prevents dropping of the cold storage product's temperature below +2°C
●	●	Door opening alarm (visual / acoustic)
●	●	Designed and tested for climatic class SN (ambient temperature range +10°C to +32°C)
	●	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)
	●	Interior made from stainless steel
●		Internal LED lighting
●	●	Additional remote transmission alarm signal (via potential-free contact) in case of power failure (change-over contact)
	●	Smooth castors for optimum flexibility of movement
	○	External water cooling
	●	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

NEW

Innovation for more reliability

PRECISION LINE | MODELS L/P/F 55-130-290-380 & LF/PF 260

PREMIUM LINE | MODELS F/U 400-500-700-900

1 Integrated multi-function electronics

Integrated B Medical Systems multi-function electronics, at easy access level, in the door handle; compatible with a °B Connected monitored solution.

2 Lifetime warranty corrosion-free cabinet

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

1 Exclusive innovative handle bar (patent pending)

All functionalities at easy reach:

- Open/close - Heavy duty door lock mechanism
- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at eye 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

2 High quality materials

High quality new coating, certified antibacterial, on high quality steel for a better longevity and easy hygiene control.

Userfriendly and longer lifetime

OUR STANDARDS OF COMPLIANCE – DEPENDING ON THE PRODUCT



SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Laboratory Refrigerators

B Medical Systems | L Range

Refrigerators for the storage of laboratory preparations being subject to cold chain and temperature sensitivity > **according to DIN 58345**

1 Integrated multi-function electronics

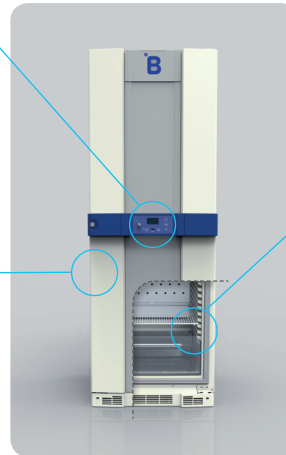
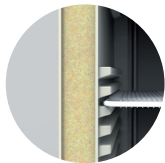
Integrated B Medical Systems multi-function electronics, at easy access level, in the door handle; compatible with a °B Connected monitored solution.

2 Lifetime warranty corrosion-free cabinet

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

3 High storage capacity

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

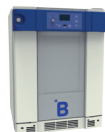


The product range **Laboratory Refrigerators** offers volumes from 52 to 1300 litres including one combined refrigerator / freezer model. L models are equipped with a solid door.

Being in conformity with the B Medical Systems Safety Standards these models ensure a reliable and safe operation.



Laboratory Refrigerators



L 55



L 130

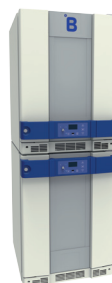


L 290



L 380

Gross / Net volume (l)	52 / 45	121 / 106	297 / 269	362 / 329
External dimensions H x W x D (mm)	660 x 515 x 495	820 x 635 x 595	1660 x 635 x 595	1980 x 635 x 595



LF 260

Refrigerator & Freezer combined



L 600



L 1300

Gross / Net volume (l)	R 121 / 106	F 121 / 106	600 / 490	1300 / 1175
External dimensions H x W x D (mm)	1630 x 635 x 595		2000 x 720 x 886	2000 x 1440 x 788

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Pharmacy Refrigerators

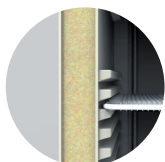
B Medical Systems | P Range (organic glass door)

Refrigerators for the storage of pharmaceutical preparations being subject to cold chain and temperature sensitivity > **according to DIN 58345**



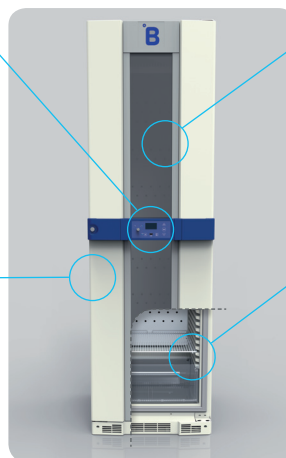
1 Integrated multi-function electronics

Integrated B Medical Systems multi-function electronics, at easy access level, in the door handle; compatible with a °B Connected monitored solution.



2 Lifetime warranty corrosion-free cabinet

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



3 Highest insulation value (organic glass door)

4-layer PMMA organic glass offering highest insulation, combined with reduced weight reducing efforts to close door and constraints on hinges, offering a better longevity.



4 High storage capacity

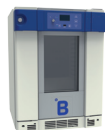
High storage per square meter in terms of net volume, with a very versatile inner volume utility due to the multiple user friendly rails allowing modularity.



The product range **Pharmacy Refrigerators** offers volumes from 52 to 1300 litres including one combined refrigerator / freezer model. P models are equipped with a PMMA organic glass door for quick check and pre-selection of the refrigerator's content. Being in conformity with the B Medical Systems Safety Standards these models ensure a reliable and safe operation.



Pharmacy Refrigerators



P 55



P 130



P 290



P 380

<i>Gross / Net volume (l)</i>	52 / 45	121 / 106	297 / 269	362 / 329
<i>External dimensions H x W x D (mm)</i>	660 x 515 x 495	820 x 635 x 595	1660 x 635 x 595	1980 x 635 x 595



PF 260

Refrigerator & Freezer combined



P 600



P 1300

<i>Gross / Net volume (l)</i>	R 121 / 106	F 121 / 106	600 / 490	1300 / 1175
<i>External dimensions H x W x D (mm)</i>	1630 x 635 x 595		2000 x 720 x 886	2000 x 1440 x 788

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Laboratory Freezers

B Medical Systems | F Range

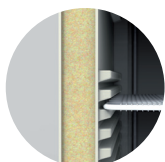
The product range **Laboratory Freezers** offers volumes from 121 to 895 litres. F models are the perfect solution for a safe storage and handling of temperature-sensitive preparations or samples in conformity with national and international norms and guidelines (DIN 58375).

Freezers for the low-temperature storage of temperature-sensitive preparations under optimum conditions > **according to DIN 58375**



1 Integrated multi-function electronics

Integrated B Medical Systems multi-function electronics, at easy access level, in the door handle; compatible with a °B Connected monitored solution.



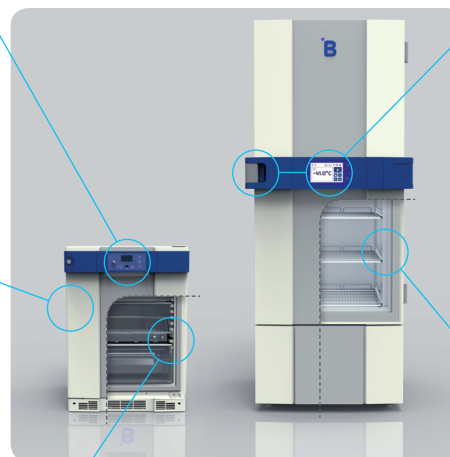
2 Lifetime warranty corrosion-free cabinet

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



3 High storage capacity

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



1 Exclusive innovative handle bar (patent pending)

All functionalities at easy reach:

- Open/close - Heavy duty door lock mechanism
- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at eye 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



2 High quality materials

High quality new coating, certified antibacterial, on high quality steel for a better longevity and easy hygiene control.



3 Special features (models F 400-500-700-900)

- New evaporator offering better performance than market average, resulting in less building of ice and automatic defrost
- Insulated inner doors for significantly lower loss of cold when opening



Laboratory Freezers



F 130



F 290



F 380



F 600

Gross / Net volume (l)	121 / 106	297 / 269	362 / 329	600 / 490
External dimensions H x W x D (mm)	820 x 635 x 595	1660 x 635 x 595	1980 x 635 x 595	2000 x 720 x 886



F 400



F 500



F 700



F 900

Gross / Net volume (l)	451 / 384	598 / 510	747 / 636	895 / 763
External dimensions H x W x D (mm)	1988 x 610 x 973	1988 x 756 x 973	1988 x 903 x 973	1988 x 1050 x 973

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

Ultra Low Freezers

B Medical Systems | U Range

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



1 Exclusive innovative handle bar (patent pending)

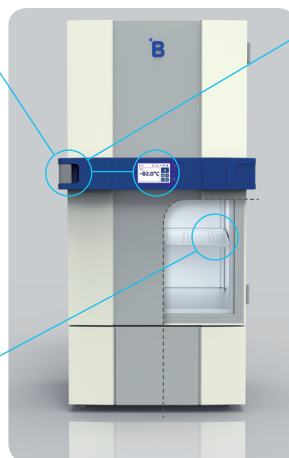
All functionalities at easy reach:

- Open/close - Heavy duty door lock mechanism
- Digital control with full functionalities - Standard multifunction digital sensitive 4.3" panel integrated at eye 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



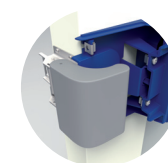
2 High quality materials

High quality new coating, certified antibacterial, on high quality steel for a better longevity and easy hygiene control.



3 Special features (U range)

- 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 cold when opening
- Full compatibility of inner modules and rails, no need to buy new racks, you can keep racks previously used in different U models



The product range **Ultra Low Freezers** offers volumes from 451 to 895 litres. 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 -41°C, temperature is adjustable from -20°C to -86°C.



Ultra Low Freezers



U 400



U 500

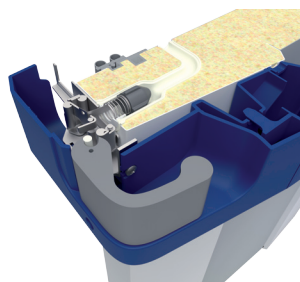


U 700



U 900

<i>Gross / Net volume (l)</i>	451 / 434	598 / 577	747 / 720	895 / 863
<i>External dimensions H x W x D (mm)</i>	1988 x 610 x 973	1988 x 756 x 973	1988 x 903 x 973	1988 x 1050 x 973



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-deep 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

Transport Systems

B Medical Systems | MT Range

Transport Systems for the safe transport of temperature-sensitive products

> according to ADR / RID / IMDG / ICAO-TI / IATA-DGR



MT 2



MT 4



MT 8



MT 12



MT 25



MT 100

Cooling system	Passive	Passive	Passive	Passive	Passive	Active (Compressor)
Gross volume (l)	2.2	8	20	24	44	90
External dimensions H x W x D (mm)	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

The product range **Transport Systems** offers volumes from 2.2 to 90 litres. 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).

Optimum control and protection

B Medical Systems | °B Connected & DCU Software

°B CONNECTED | MONITORING SOFTWARE

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



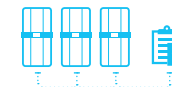
- Unique monitoring software of the full range of Blood Management Solutions and Medical Refrigeration products
- Web-based interfaces for computers and mobile devices
- Modern design for simple and intuitive use
- Graphic display of temperature curves
- Integrated event and activity history of appliances' 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

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

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 curves and configuring devices and alarms easily
- Direct connection to Ethernet and serial bus RS485
- Connection port to temperature sensor (4 ... 20 mA in)
- Digital in/out (programmable and customer-specific use)
- Recording and storing appliance relevant data
- Integrated USB port and SD-card reader allowing to export stored data
- Bluetooth interface for technical support and data export
- The DCU combined with the °B Connected software replaces the paper temperature recorder
- All data are recorded and saved in the database of °B Connected and are available for analysis at any time
- Several additional self-sufficient temperature sensors (up to 4 PT1000) may be connected

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 in combination 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



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*



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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