



Lec
MEDICAL

BLOODBANK | REFRIGERATION

Medical 
+ Refrigeration.co.Uk

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BLOODBANK RANGE

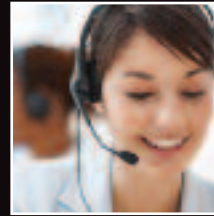
Experts in medical refrigeration for over 50 years, we provide safe and reliable refrigerated storage

■ CHOOSING LEC MEDICAL

All Lec Medical refrigeration products come with a **2 year parts and labour warranty***, so you can have total confidence and peace of mind when it comes to the bloodbanks you purchase from us.

Our **award winning UK-based service centre** is on hand to answer your questions in a friendly and efficient manner and in the unlikely event that there is a problem with one of our products, we have a team of over **180 service engineers** covering the whole of the UK who can respond quickly and are fully trained to install and maintain our units, giving you an after-care service you can rely on.





INTRODUCING OUR NEW BLOODBANK RANGE



All Lec Medical bloodbanks and reagent fridges are **manufactured in the UK**, so you can be sure that each one we make meets our rigorous quality standards and also has a lower carbon footprint than products manufactured and shipped in from abroad.



We use **energy efficient R600a refrigerant** across the majority of our bloodbank range, providing excellent cooling efficiency. This means reduced running costs for you, because our bloodbanks don't need as much power to run at the same set temperature as those using a less energy efficient refrigerant.



Our bloodbank range has been developed to be as environmentally friendly as possible and is **free of HFC, CFC, HCFC and ammonia**. The R600a refrigerant we have selected has an ultra low global warming potential (GWP) of 3, compared with the refrigerants used in many other brands, which start at a GWP of 1300. This means the refrigerant does not give off as much carbon dioxide, which is a major contributor to global warming.



All our bloodbanks are certified class IIa medical devices, as defined by **MDD93/42/EEC ANNEX VI**. We also hold ISO 13485 accreditation as a medical device supplier and our products surpass the British standards set out in **BS4376-1:1991**, and all these certifications back up the promise of quality and reliability that we make to you.



As part of our commitment to the **WEEE regulation**, we will remove and dispose of any like-for-like bloodbank responsibly when you purchase a new one, completely free of charge.



Lec Medical can provide an IQ/OQ setup service with your purchase, meaning you can have total confidence that each of your Lec Medical bloodbanks are working correctly.

Our IQ/OQ Commissioning Service covers:

- ✓ Checking site suitability and condition of cabinet before operation
- ✓ Cabinet setup and switch on
- ✓ Testing of all key functions and operations
- ✓ Training on key features such as keypad, controller functionality and chart recorder
- ✓ Any additional questions you may have about the bloodbank and its compliance and operation
- ✓ Temperature mapping for 24 hours and calibration.

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WHY OUR BLOODBANKS?

Lec Medical bloodbanks have been designed in conjunction with bloodbank centres and we are proud of the many features they provide



Peace of Mind Security Magnetic Key Fob and Digital Keypad

To ensure that only authorised personnel can gain entry to the bloodbank, we provide a number of important security elements:

- Magnetic key fob for quick and easy access, which can be added to any key set.
- A digital keypad so that authorised personnel can access the bloodbank by keying a unique 4-digit access code, which can be set by users and changed if required.

These security measures not only ensure that just selected users can open the bloodbank, but also when urgent access is required in an emergency the blood is still safe and secure. This also helps to prevent unnecessary door openings, which can result in a rise in the internal temperature.



Fully Removable, Vented Drawers

Our easy-to-use drawer system is made from stainless steel for maximum durability. The drawers have been designed with strategically placed circular vents to allow cool air to follow the correct path inside the bloodbank, keeping the blood bags at the required temperature.

Each drawer features a perspex front so the contents can be easily seen without the drawer unit having to be opened, helping to keep the temperature of the blood bags as consistent as possible.

In addition, aluminium dividers have been chosen to keep the drawers light enough for one person to lift, but still separate blood bags so different blood groups don't get mixed up.



Easy Clean Interior

We have made the everyday maintenance of the bloodbank as simple as possible using a sleek stainless steel inner with silicone sealed joints and drawers, runners and brackets, which are simple and straightforward to remove. This ensures cleaning of the bloodbank isn't time consuming, as there are no small spaces for dirt or liquids to get trapped. This enables continuation of the high hygiene standards required and in the event of a bag breakage, any spillage will be easy to remove.



Innovative Controller with LCD Display

Our controller fully meets guidelines set out by the MHRA. The large, easy to read LCD screen shows both the air and load temperatures and allows you to manage important parameters such as internal temperature, alarm times and mute time.

'The Heart' temperature monitoring software is stored within the controller and records the air and load temperatures constantly. It holds a full 7 day alarm history which shows if an alarm has been activated, why, and for how long, allowing you to see if anything has occurred in the bloodbank if you are away from it for long periods of time.

A **USB** stick can be plugged into the control panel and temperature information can be downloaded as often as required, then put onto a computer and converted into a graph for you to view. The software will store up to 7 days' information before it needs to be downloaded, which is in addition to the chart recorder that comes as standard with all our bloodbanks.



Internal LED Light

The position of the internal light has been selected to ensure the light and any resulting heat emitted is directed away from the blood bags. The bulb has 100,000 hour (11.5 years approx) life and also uses 80% less power than a conventional fluorescent bulb but provides the same amount of light, reducing the energy consumption of the bloodbank, and more importantly its running cost.



Self Closing Door

The doors will close themselves when they are positioned anything less than 90° open, and self lock for maximum security. For added convenience, the doors will remain open if pushed beyond 90°, which is useful for filling up, emptying, or for cleaning. Our glass door models are double glazed to help maintain the internal temperature and to keep running costs down.



Lockable Roller Castors


These are fitted to all units except our BBK48 countertop models. The castors make moving these heavy and valuable units as simple, swift and safe as possible for essential cleaning and maintenance, but are secured again quickly and easily.

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THE PRODUCTS

Each bloodbank is built to order in our UK factory and can be delivered directly to your haematology department. All of our bloodbanks are available for purchase through the Government Procurement Service.

All Lec Medical bloodbanks come with a 48 hour battery back-up for the controller, an energy efficient LED light and auto defrost as standard, as well as a chart recorder, which has an independent battery back-up. Our larger bloodbank units use a dual refrigeration system, with twin independent, hermetically sealed compressors, which work by alternately switching operation between one another following each cooling cycle to ensure consistent and long term performance and reliability of the unit.

Supplier to
 Government Procurement Service



Technical Specifications (More detailed specifications can be found on pages 10 and 11)

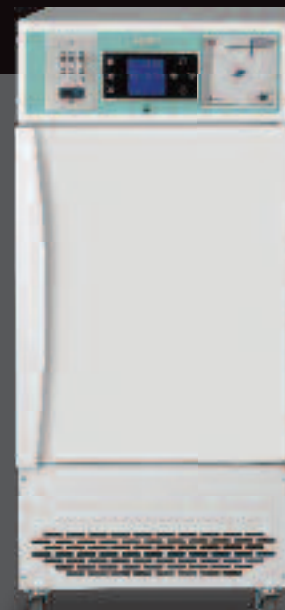
Model	Size hxwxh (mm)	Capacity (250ml Bags)	Drawers	Door Lock	Door Type	Set Temperature	MDD Certified	Lockable Roller Castors
BBK48GCT BBK48SCT	780 x 522 x 645	48	2	✓	Glass Solid	+4°C	✓	N/A
BBK48GUC BBK48SUC	830 x 520 x 645	48	2	✓	Glass Solid	+4°C	✓	✓
BBK72G BBK72S	1200 x 520 x 650	72	3	✓	Glass Solid	+4°C	✓	✓
BBK360G BBK360S	1935 x 680 x 910	360	5	✓	Glass Solid	+4°C	✓	✓

KEY SPECIFICATIONS AT A GLANCE

Lec Medical bloodbanks have a comprehensive alarm system to alert you to a number of potential issues, including:

- Door open alarm
- High/low air and load temperature alarm (audible and visual)
- Mains failure alarm
- Low battery warning for the controller in the event of mains failure
- Compressor failure warning
- Internal probe failure alarm

The high/low air and load temperature alarms can even be automatically tested by using the built-in sensor test function for additional peace of mind, which results in no damage to internal probes from manual handling during testing, and won't affect any actual temperatures recorded on 'the Heart' software and chart recorder.



Solid Door Option



Technical Specifications (More detailed specifications can be found on pages 10 and 11)

Model	Size hxwx d (mm)	Capacity (250ml Bags)	Drawers	Door Lock	Door Type	Set Temperature	MDD Certified	Lockable Roller Castors
BBK432G BBK432S	1980 x 680 x 850	432	6	✓	Glass Solid	+4°C	✓	✓
BBK864G BBK864S	1980 x 1340 x 850	864	12	✓	Glass Solid	+4°C	✓	✓

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REAGENT FRIDGES



Images shown are for illustration purposes only.

Our new range of reagent refrigeration has been designed to meet the high quality standard demanded in hospitals. They are available in a variety of sizes for individual bloodbank and haematology department needs. All units are made in the UK and also have several energy efficient features to help reduce running costs, such as R600a refrigerant and double glazed glass doors.

- ✓ The fridges are set to **operate between +2°C and +8°C** in order to provide the optimum environment for storing reagents. Every fridge has an audible and visual alarm for high and low temperatures to alert you if the temperature deviates from this range, enabling action to be taken quickly to help prevent the contents from being damaged.
- ✓ We have added a **unique anti-microbial handle** to help maintain the strict hygiene standards necessary in a medical environment today. The anti-microbial handle inhibits microbial growth and is wash resistant and durable for everyday use in busy hospitals.
- ✓ The **improved external digital controller** shows the temperature accurate to 0.1°C for greater awareness of the internal temperature. The controller also records the daily maximum and minimum temperatures, which can be simply retrieved and reset at the push of a button, reducing the need for staff monitoring, saving time and effort, and giving a more precise reading than if it were done with a thermometer.

Technical Specifications

Model	Size h x w x d (mm)	Gross Capacity (Litres)	Interior Light	Fitted Door Lock	Door Type	Pre Set Temperature	Roller Castors
PSR151	845 x 595 x 595	151	-	✓	Solid	+2°C to +8°C	✓
PGR151	845 x 595 x 595	151	✓	✓	Glass	+2°C to +8°C	✓
PSR273	1570 x 595 x 634	273	✓	✓	Solid	+2°C to +8°C	✓
PGR273	1570 x 595 x 634	273	✓	✓	Glass	+2°C to +8°C	✓



Images shown are for illustration purposes only.



All the reagent fridges shown also use our most environmentally friendly R600a refrigerant, which has a reduced running cost when compared to alternatives as it has a Global Warming Potential (GWP) (units of potential of carbon dioxide emitted over a 100 year period) of just 3 compared with R134a refrigerant, a popular alternative used by other manufacturers, which has a GWP of 1300.

Technical Specifications

Model	Size h x w x d (mm)	Gross Capacity (Litres)	Interior Light	Door Lock	Door Type	Set Temperature	Roller Castors
PSR334	1870 x 595 x 634	334	✓	✓	Solid	+2°C to +8°C	✓
PGR334	1870 x 595 x 634	334	✓	✓	Glass	+2°C to +8°C	✓
LSC263	1680 x 640 x 600	FRIDGE 159 FREEZER 104	-	✓	Solid	FRIDGE +2°C to +10°C FREEZER min -20°C	✓

Specifications shown are for a selection of our products suitable for storing reagents, we also have smaller and larger sizes, and freezers. Further details are available on our website at www.lec-medical.co.uk

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DETAILED SPECIFICATIONS



Model No	BBK48GCT	BBK48SCT	BBK48GUC	BBK48SUC	BBK72G	BBK72S
Description	Countertop	Countertop	Undercounter	Undercounter	Freestanding	Freestanding
No of blood bags (250ml fill)	48	48	48	48	72	72
Capacity (litres)	78	78	78	78	110	110
Working temperature	4°C	4°C	4°C	4°C	4°C	4°C
Load temperature (bag temp)	2°C to 6°C	2°C to 6°C	2°C to 6°C	2°C to 6°C	2°C to 6°C	2°C to 6°C
Door	Single	Single	Single	Single	Single	Single
Door type	Glass	solid	Glass	Solid	Glass	Solid
Door construction	Double glazed	Zintec steel	Double glazed	Zintec steel	Double glazed	Zintec steel
Exterior height (mm)	780	780	830	830	1200	1200
Exterior width (mm)	522	522	520	520	520	520
Exterior depth (mm)	600	600	600	600	605	605
Exterior depth inc handle	645	645	645	645	650	650
Interior height (mm)	352	352	352	352	602	602
Interior width (mm)	420	420	420	420	440	440
Interior depth (mm)	440	440	440	440	440	440
No of drawers	2	2	2	2	3	3
Lock type	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)
Digital display (LCD)	Yes	Yes	Yes	Yes	Yes	Yes
Internal light (LED)	Yes	Yes	Yes	Yes	Yes	Yes
Core temp alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Air temp alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Door open alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Mains failure alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Back up battery low alarm (visual)	Yes	Yes	Yes	Yes	Yes	Yes
Compressor failure alarm	Yes	Yes	Yes	Yes	Yes	Yes
Load, air & defrost sensor fail alarm	Yes	Yes	Yes	Yes	Yes	Yes
Controller battery back-up	Yes	Yes	Yes	Yes	Yes	Yes
USB	Yes	Yes	Yes	Yes	Yes	Yes
Chart recorder	Yes	Yes	Yes	Yes	Yes	Yes
Max ambient working temp	38°C	40°C	38°C	40°C	43°C	43°C
Min ambient working temp	10°C	10°C	10°C	10°C	10°C	10°C
Castors	No	No	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)
Adjustable feet	Yes (1)	Yes (1)	-	-	-	-
Fixed feet	Yes (3)	Yes (3)	-	-	-	-
Fan type	Tangential	Tangential	Tangential	Tangential	Tangential	Tangential
Automatic defrost	Yes	Yes	Yes	Yes	Yes	Yes
Dual refrigeration	No	No	No	No	No	No
Refrigerant	R600a	R600a	R600a	R600a	R600a	R600a
Net weight (kg)	72.5	70.5	72.5	70.5	93	90
Packed weight (kg)	79	77	79	77	100	97
Packed dimensions (hxwxwd)	940x570x640	940x570x640	940x570x640	940x570x640	1340x570x640	1340x570x640
Medical devices certification	Yes	Yes	Yes	Yes	Yes	Yes
BS4376 certification	Yes	Yes	Yes	Yes	Yes	Yes
Voltage	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz



Model No	BBK360G	BBK360S	BBK432G	BBK432S	BBK864G	BBK864S
Description	Freestanding	Freestanding	Freestanding	Freestanding	Freestanding	Freestanding
No of blood bags (250ml fill)	360	360	432	432	864	864
Capacity (litres)	350	350	439	439	960	960
Working temperature	4°C	4°C	4°C	4°C	4°C	4°C
Load temperature (bag temp)	2°C to 6°C	2°C to 6°C	2°C to 6°C	2°C to 6°C	2°C to 6°C	2°C to 6°C
Door	Single	Single	Single	Single	Double	Double
Door type	Glass	Solid	Glass	Solid	Glass	Solid
Door construction	Double glazed	Zintec steel	Double glazed	Zintec steel	Double glazed	Zintec steel
Exterior height (mm)	1935	1935	1980	1980	1980	1980
Exterior width (mm)	680	680	680	680	1340	1340
Exterior depth (mm)	865	865	850	850	850	850
Exterior depth inc handle	910	910	850	850	850	850
Interior height (mm)	1000	1000	1225	1225	1225	1225
Interior width (mm)	550	550	560	560	1225	1225
Interior depth (mm)	640	640	640	640	640	640
No of drawers	5	5	6	6	12	12
Lock type	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)	Digital (with 2 key fobs)
Digital display (LCD)	Yes	Yes	Yes	Yes	Yes	Yes
Internal light (LED)	Yes	Yes	Yes	Yes	Yes	Yes
Core temp alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Air temp alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Door open alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Mains failure alarm (audible/visual)	Yes	Yes	Yes	Yes	Yes	Yes
Back up battery low alarm (visual)	Yes	Yes	Yes	Yes	Yes	Yes
Compressor failure alarm	Yes	Yes	Yes	Yes	Yes	Yes
Load, air & defrost sensor fail alarm	Yes	Yes	Yes	Yes	Yes	Yes
Controller battery back-up	Yes	Yes	Yes	Yes	Yes	Yes
USB	Yes	Yes	Yes	Yes	Yes	Yes
Chart recorder	Yes	Yes	Yes	Yes	Yes	Yes
Max ambient working temp	43°C	43°C	Available on request	Available on request	Available on request	Available on request
Min ambient working temp	10°C	10°C	10°C	10°C	10°C	10°C
Castors	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)	Yes (4, 2 lockable at front)
Adjustable feet	-	-	-	-	-	-
Fixed feet	-	-	-	-	-	-
Fan type	Axial	Axial	Axial	Axial	Axial	Axial
Automatic defrost	Yes	Yes	Yes	Yes	Yes	Yes
Dual refrigeration	No	No	Yes	Yes	Yes	Yes
Refrigerant	R600a	R600a	R134a	R134a	R134a	R134a
Net weight (kg)	216	210	259	250	388	370
Packed weight (kg)	228	222	279	270	418	400
Packed dimensions (hwxwd)	2150x740x875	2150x740x875	Available on request	Available on request	Available on request	Available on request
Medical devices certification	Yes	Yes	Yes	Yes	Yes	Yes
BS4376 certification	Yes	Yes	Yes	Yes	Yes	Yes
Voltage	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz	220v-240v 50Hz/60Hz