

A photograph of two large, cylindrical industrial storage tanks. The tanks are filled with a liquid, and a thick layer of green biological material is visible on the surface of the liquid in each tank. The tanks are set against a light, hazy background.

Controlled biostorage  
The BioLine Range

**GRAM**  
Biostorage you can depend on



Biostorage you can depend on

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## The BioLine advantage

The BioLine range features high performance and demanding specifications – including monitoring and control systems. We have designed, fine-tuned and optimised all the features in BioLine biostorage cabinets to ensure:

- Maximum reliability
- Stringent control
- Optimised air flows
- A responsible environmental profile
- Easy customisation
- Rapid support from trained staff

This all means, you can rely on every product in our BioLine range to meet and exceed any current performance requirements right across the board.



## The BioLine range

There are six entirely separate product series in the BioLine range of controlled biostorage solutions. Together, these cover everything from high-specification biostorage designed for “mission-critical” work to general-purpose refrigeration and freezer units.

## Scandinavian design and manufacture

Gram Commercial develops, manufactures and markets the complete BioLine range for customers in Europe, the Middle East and Asia, operating from our administration and manufacturing facilities in Denmark.



BioLine units comply with the EN/IEC 60079-15 standard\*, which covers electrical apparatus for use in Category 3, Zone 2 locations where explosive gas atmospheres may be present.

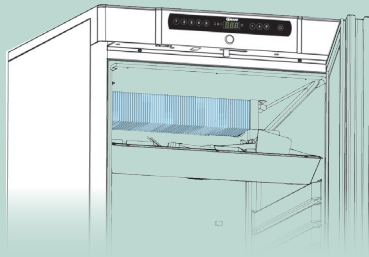
BioLine products have been assessed to ATEX requirements by



\* Not applicable to BioUltra

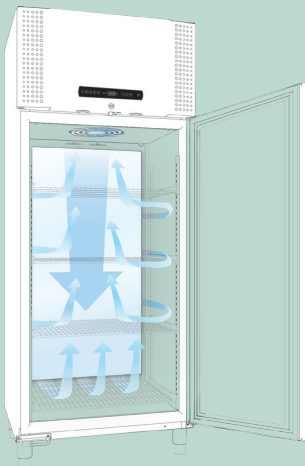
## More than the sum of the parts

A wide range of new forward thinking, and technical innovations combine to make Gram BioLine biostorage systems the best-performing solutions currently available.



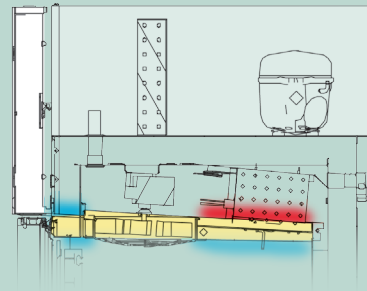
### No cold walls

The refrigeration system based on a finned tube evaporator is the backbone of the complete range of BioLine products, and provides exceptional benefits compared to other systems.



### Optimised air flow

The unique BioLine air distribution system makes sure that the temperature is consistent everywhere in the cabinet and that the time taken to return to the programmed temperature after a door has been opened, is very short.



- Insulation
- Heated surface during defrost period
- Safe cold surface during defrost period

### Temperature management

Freezers (BioPlus, BioMidi and BioBlood) are equipped with a defrost shield which ensures that only a minimum of heat is released into the storage compartment when the system is defrosting, keeping temperature peaks to an absolute minimum.

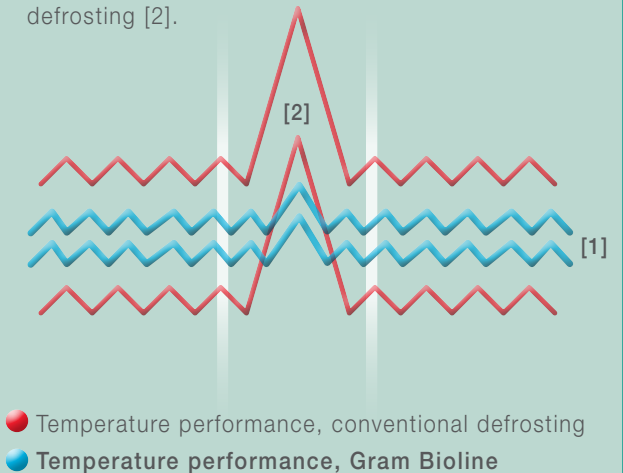
### ... and controlled defrosting

All BioLine refrigerated units feature the "Smart defrost" automatic defrost function. Unlike conventional defrosting systems where the user has no control of the defrost cycle, this intelligent automatic system

makes sure an absolute minimum of time and energy is used during each individual defrost cycle. The defrost water is automatically re-evaporated after each defrost cycle.

## Safer biostorage

The sum of all these technical innovations result in supreme temperature stability inside the cabinet [1], with greatly reduced temperature peaks during defrosting [2].



# BioUltra



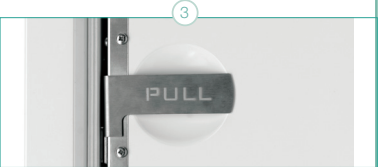
The BioUltra UL570 is an ultra-low-temperature freezer that operates safely at -86°C. By utilising high-capacity components, cascade refrigeration system, latest generation

vacuum insulated panel technology and insulated inner doors, the BioUltra cabinets are able to maintain safe and stable interior conditions when operating at -86°C. The BioUltra UL570 holds up to 382 2"/50 mm boxes, 192 3"/75 mm boxes or 192 4"/100 mm boxes.

- High capacity cascade refrigeration system
- Vacuum insulated panels
- Insulated inner doors
- Multi-tier gasket system
- Levelling multifunctional castors
- Easy-access service hatch
- Voltage-free contact
- Acoustic and visual door alarm
- E-sensor
- Acoustic and visual temperature alarms
- Alarm recording
- Access port

BioUltra freezers		* Min./Max. height
Model	UL -60°C/-90°C	W x D x H*
UL570	•	856 x 948 x 1986/1996

- 1 The Gram MPC 4.6 control unit lets you adjust several different parameters individually. This makes it easy to adjust the cabinet's operating profile to your specific requirements or changing needs.
- 2 Each UL570 is delivered with five adjustable stainless steel perforated shelves, for full utilisation of the storage space.
- 3 Two separate insulated inner doors facilitate safe operation and high flexibility. The inner doors can be removed for easy cleaning.







II 3G Ex nA nC nL IIB T2

TÜV 08 ATEX 354663



The BioPlus range is designed for the storage of the most delicate biomaterials, in situations where even tiny fluctuations in conditions inside the storage cabinet

can have a serious effect on the contents. BioPlus cabinets also enable you to reduce internal relative humidity, thus cutting down on any likelihood of undesirable contaminants getting near delicate biomaterials.

- Access port
- Self-closing door with key lock
- Voltage-free contact
- Acoustic and visual door alarm
- E-sensor
- Acoustic and visual temperature alarms
- Alarm recording
- Foot pedal
- Material combinations:  
L: Exterior/interior: white/stainless  
C: Exterior/interior: stainless/stainless


**BioPlus** \* Min. height without base/max. height with highest base

Model	ER -2°/+15°C	RF -25°/-5°C	EF -35°/-5°C	W x D x H*	Volume Litres / Cubic feet
500	•	•		600 x 806 x 2025/2275	Gross: 500 /17.7 Net: 365 /12.9
600 D	•	•		695 x 876 x 1875/2125	Gross: 600 /21.2 Net: 432 /15.3
600 W	•	•	•	815 x 756 x 1875/2125	
660 D	•	•		695 x 876 x 2025/2275	Gross: 660 /23.3 Net: 484 /17.0
660 W	•	•	•	815 x 756 x 2025/2275	
930	•	•		780 x 1045 x 2025/2275	Gross: 930 Net: 702
1270	•	•		1390 x 876 x 1875/2125	Gross: 1270 /44.8 Net: 864 /30.6
1400	•	•		1390 x 876 x 2025/2275	Gross: 1400 /49.4 Net: 968 /34.0

- 1 The Gram MPC 4.6 lets you adjust several different parameters individually, so that you can adjust the cabinet's operating profile to specific requirements or changing needs.
- 2 Glass door (optional on all refrigerators) makes it easy to carry out rapid, at-a-glance checks of the contents of the cabinet.
- 3 The interior is made of stainless steel that is extremely durable, ready to withstand many years of use. Access port located in the back of the cabinet.



# BioMidi

 II 3G Ex nA nC nL IIB T6  
 II 3G Ex nA nC nL IIB T3  
 TÜV 08 ATEX 354664

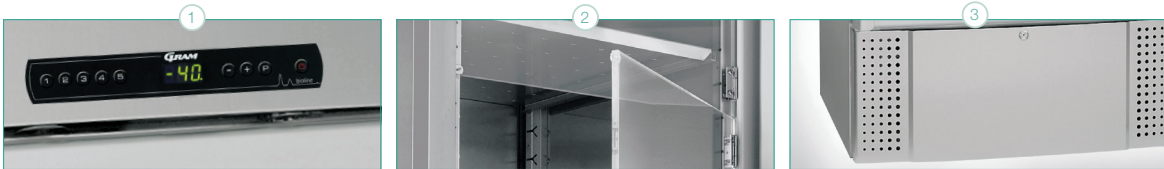


The BioMidi cabinet is designed to meet the majority of biomaterial refrigeration and freezer requirements, with very few limitations. The specifications include the major features from our top-of-the-range BioPlus model, making it the ideal choice when the ability to maintain stable temperatures is decisive in a purchasing decision. The functional design ensures easy, ergonomically correct access to the storage space.

- Access port
- Self-closing door with key lock
- Voltage-free contact
- Acoustic and visual door alarm
- E-sensor
- Acoustic and visual temperature alarms
- Alarm recording
- Material combinations :
  - L: Exterior/interior: white/alu and stainless
  - R: Exterior/interior: alu and stainless/alu and stainless
  - C: Exterior/interior: stainless/stainless

BioMidi			* Min. height without base/max. height with highest base		
Model	RR +2°/+15°C	RF -25°/-5°C	EF -40°/-5°C	W x D x H*	Volume Litres / Cubic feet
425	•	•	•	600 x 731 x 1979/2000	Gross: 425 /15.0 Net: 303 /10.7
625	•	•		815 x 731 x 1979/2000	Gross: 625 /22.1 Net: 451 /15.9

- 1 The user interface consists of large, easy to use buttons and an easy-to-read LED display. This helps make sure that adjusting cabinet settings is always a rapid and straightforward procedure.
- 2 Draught shield that minimizes cold loss when the outer door is opened, is standard on the EF425 and optional extras to the other BioMidi variants.
- 3 Mounting the compressor in the base of the cabinet puts the interior space at an ideal working height, ensuring users better ergonomic positions and comfortable working heights.



# BioCompact II



II 3G Ex nA nC nL IIB T6  
II 3G Ex nA nC nL IIB T4

TÜV 09 ATEX 367068  
TÜV 10 ATEX 381563



*This is a compact refrigerator or freezer cabinet for a wide range of biostorage purposes where the prime focus is dependability. The BioCompact II provides you with significantly better performance than any other cabinets in this segment for storing ordinary biomaterial under stable conditions. The small footprint of this design also makes it the perfect biostorage unit for use in confined spaces.*

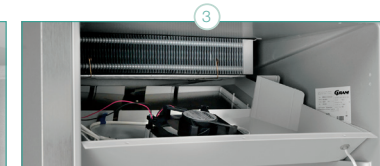
- Access port
- Door lock
- Voltage-free contact
- Acoustic and visual door alarm
- E-sensor
- Acoustic and visual temperature alarms
- Alarm recording
- Glass door with integrated LED lighting
- Material combinations:  
L: Exterior/interior: white/ABS  
C: Exterior/interior: stainless/ABS

## BioCompact II

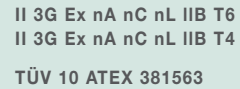
\* Min. height without base/max. height with highest base

Model	RR: +2°/+15°C	RF: -25°/-5°C	RR/RF: +2°/+15°C -25°/-5°C	RF/RF: -25°/-5°C -25°/-5°C	RR/RR: +2°/+15°C +2°/+15°C	W x D x H*	Volume Litres / Cubic feet
210	•	•				595 x 640 x 801/1001	Gross: 125 /4.4 Net: 104 /3.7
210/210			•	•	•	595 x 640 x 1602/1802	Gross: 250 /8.8 Net: 208 /7.4
310	•	•				595 x 640 x 1190/1390	Gross: 218 /7.8 Net: 189 /6.7
410	•	•				595 x 640 x 1776/1976	Gross: 346 /12.3 Net: 312 /11.1
610	•	•				695 x 868 x 1875/2075	Gross: 583 /20.6 Net: 419 /16.7

- ① Gram MPC 4.6 control unit with temperature and door alarms and voltage-free contact.
- ② Extra sensor for providing a temperature reference within the storage is standard on all BioCompact II variants.
- ③ The refrigeration system based on a finned tube evaporator provides even better temperature stability and results in a storage place with no cold walls that can damage any delicate items stored in the cabinet.





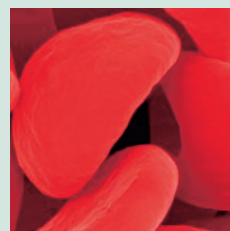






II 3G Ex nA nC nL IIB T2  
II 3G Ex nA nC nL IIB T3

TÜV 08 ATEX 354663



*The BioBlood design is a special version of our top-of-the-range BioPlus cabinet, customised to meet the special requirements associated with the controlled storage of blood, plasma and blood-related products. These advanced cabinets have been developed exclusively for blood storage in order to help ensure high, consistent quality at every stage from donor to transfusion.*

- Access port
- Self-closing door with key lock
- Voltage-free contact
- Foot pedal
- Acoustic and visual door alarms
- E-sensor
- Acoustic and visual temperature alarm
- Alarm recording
- Reference container for room temperature sensor
- Material combinations:  
L: Exterior/interior: white/stainless  
C: Exterior/interior: stainless/stainless

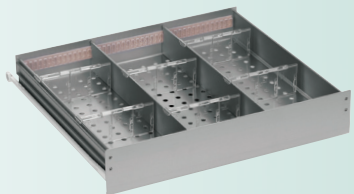
## BioBlood

\* Min. height without base/max. height with highest base

Model	BR: +2°/+6°C	BF: -25°/-5°C	PF: -35°/-5°C	PF: -40°/-5°C	W x D x H*	Volume Litres / Cubic feet
500	•	•			600 x 806 x 2025/2275	Gross: 500 /17.7 Net: 365 /12.9
600 D	•	•			695 x 876 x 1875/2125	Gross: 600 /21.2 Net: 432 /15.3
600 W	•	•	•		815 x 756 x 1875/2125	
660 D	•	•			695 x 876 x 2025/2275	Gross: 660 /23.3 Net: 484 /17.0
660 W	•	•	•		815 x 756 x 2025/2275	
930	•	•			780 x 1045 x 2025/2275	Gross: 930 Net: 702
1270	•	•			1390 x 876 x 1875/2125	Gross: 1270 /44.8 Net: 864 /30.6
1400	•	•			1390 x 876 x 2025/2275	Gross: 1400 /49.4 Net: 968 /34.0
425				•	622 x 731 x 1979/2000	Gross: 425 /15.0 Net: 303 /10.7

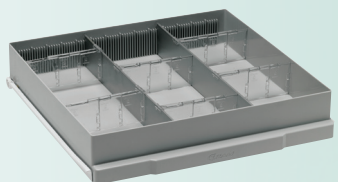
- 1 The control system for the BioBlood cabinet features specially designed software that complies with the particular requirements associated with storage of blood products.
- 2 Low-temperature protection preventing the refrigeration system from operating if the temperature falls below 2°C, ensuring safe storage of blood and blood products (optional extra).
- 3 Draught shield that minimises cold loss when the outer door is opened, is standard on the PF variants and optional extras to the other BioBlood variants.





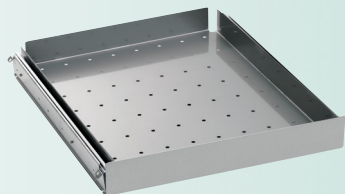
### Aluminium drawers

Specially built, multi-purpose drawers provide a high degree of flexibility for your biostorage. The drawers can be divided horizontally and vertically according to your specific needs and changing daily requirements.



### ABS drawers

The BioCompact - ABS drawer has been designed from the ground up to meet the most stringent requirements. The drawer is one-piece injection molded for maximum rigidity and seamless smooth surfaces.



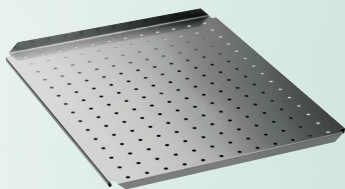
### Stainless drawers

High-quality, heavy-duty drawers made of stainless steel are well-suited for use in particularly demanding environments. These drawers are available with a traditional stainless steel front or with a front made of glass. Equipped with telescopic drawer rails.



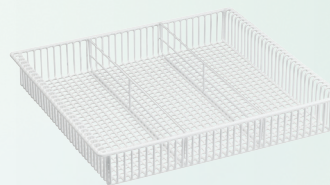
### Wire shelves

The high-quality standard wire shelves are constructed of robust stainless steel for long life. Plastic-coated wire shelves are available for general use.



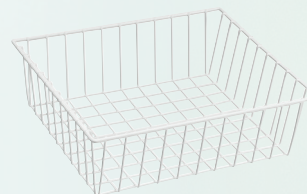
### Stainless perforated shelves

The perforated shelves provide a flat surface that helps ensure stable storage. The special design ensures exceptional strength, making them ideal for bearing heavy items. These shelves are highly resistant to a wide range of substances.



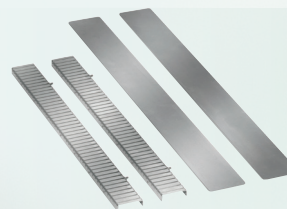
### Wire drawer

Basic small-mesh wire drawer mounted in u-shaped rails fitted into the walls of the cabinet. Ideal for storing small items. Available for 210, 310 and 410 models.



### Wire basket

Large wire basket mounted in u-shaped rails fitted into the walls of the cabinet. Ideal for storing multiple items, with easy access. Available for 210, 310 and 410 models.



### Stainless dividers

Divider system for when additional vertically compartments are needed in 30 and 40 kg stainless steel drawers.



### Glass doors

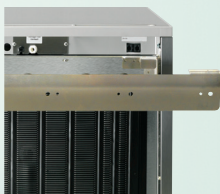
These make checking and access both quicker and easier. Fitted with an energy-saving, extra-insulated double layer of glass, the glass door is standard equipment for BioBlood cabinets, and is optional equipment for the other refrigerators in the BioLine range



### Draught shields

Set of 3 extra inner doors that minimise cold loss when the outer cabinet door is opened. Each of the 3 inner doors can be opened separately for access to the storage compartment. Optional for BioPlus, BioMidi and BioBlood, and standard equipment on EF and PF versions.





### Wall mounting

210, 310 and 410 models can also be wall-mounted, to save floor space and for easy cleaning.



### Legs

Adjustable stainless steel legs are the ideal choice for mounting a stationary refrigerator securely and safely. You can also choose to have the refrigerator prepared for mounting on a plinth. Both options are included in the BioLine product range at no extra charge.



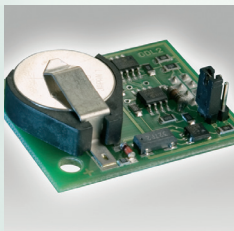
### Wheels

A cabinet with wheels provides you with a biostorage unit you can move around. For an even more manoeuvrable refrigerator, you can upgrade from the standard option of two lockable castors and two fixed wheels to the option with four lockable castors.



### Chart recorder

The temperature chart recorder is for independent measurement of cabinet temperature. Sensors are placed in separate liquid containers. The recorder is powered by a 1.5 volt battery to ensure recording even in the event of a power failure.



### Gram Monitor

Ensures you a greater sense of security about your biostorage set-up, as well as providing documentation of the internal conditions of the cabinet. It is standard equipment on BioPlus and BioBlood cabinets. This feature cannot be combined with external compressor -40°C or -86°C cabinets.



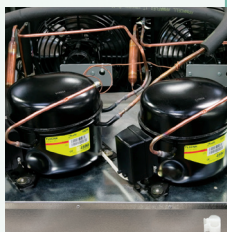
### Low-temperature protection

Low-temperature thermostat preventing the refrigerating system to operate if the temperature falls below the set minimum. This feature cannot be combined with an external compressor.



### Compressors

If the local energy supply is incompatible with the 230V, 50Hz specification that is standard on BioLine products, you can select a 230V, 60Hz compressor as an alternative.



### Dual refrigeration circuit

This additional safety feature ensures that the temperature inside the cabinet is maintained even in the unlikely event of a compressor failure. There are two independent refrigeration circuits that operate side-by-side under normal circumstances. However, each is designed to safely maintain the desired cabinet temperature on its own.



### Reference container

Container in which the properties of the biomaterial can be simulated. The E-sensor or the customer's own sensor can be placed in the reference container.



### DIN Kit

Fitted with the appropriate DIN kit, relevant cabinets will be compliant with DIN 58345, DIN 58371 or DIN 58375.



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**Gram Commercial** is one of the world's prime manufacturers of high-performance refrigeration and freezer equipment for discerning professional users. We develop, manufacture and market this technology for customers in Europe, the Middle East and Asia, operating from our administration and manufacturing facilities in Denmark. This is all backed by subsidiaries in the UK, Germany, the Netherlands, France, Sweden and Norway and distributors throughout the world.

**Dealer:**



Biostorage you can depend on