

Scientific and Healthcare 2024

Next-level cooling solutions

LIEBHERR

Refrigeration and freezing



For more information about our technical specifications, go to: home.liebherr.com/scientifichealthcare



Scientific and Healthcare 2024
home.liebherr.com

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Comprehensive solutions for refrigeration and freezing with maximum safety

Reliable refrigeration of temperature-sensitive substances poses enormous challenges for the research and healthcare sectors. To help you overcome every one of them, Liebherr offers high-quality refrigerators and freezers combined with innovative monitoring solutions and a comprehensive range of services.

And, in terms of sustainability, we can boast more than 65 years of expertise and a passion for professional refrigeration and freezing – with unsurpassed energy efficiency, natural refrigerant and extremely long-lasting appliances.

The quality that characterises Liebherr pays off in many ways. On the following pages you can find out how research and healthcare can benefit from our complete solutions.

Product Overview

Product Overview

REFRIGERATORS

- HIGH PERFORMANCE
- GENERAL PURPOSE
- UNDERCOUNTER
- FLAMMABLE MATERIAL STORAGE



LRT50G2HC
MediLine



LRT50W2HC
MediLine



LRT30W1HC
MediLine



LRT21G1HC
MediLine



SRFvh 5511
Perfection



SRFvh 5501
Perfection



LRB05G1HC
MediLine



LRB05W1HC
MediLine



SRFfg 5501
Performance



SRFfg 3501
Performance



LRBFS06W1HC
MediLine

FREEZERS

- HIGH PERFORMANCE
- GENERAL PURPOSE
- ULTRA LOW -86°C
- FLAMMABLE MATERIAL STORAGE



LFT50W2HC
MediLine



LFT30W1HC
MediLine



LFB19WIHC
MediLine



SUFsg 7001
MediLine



SUFsg 5001
MediLine



LFBFS05W1HC
MediLine



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If the masculine form is used in the wording, it is solely for the sake of readability and without any intention to discriminate. It is meant here as a gender-neutral term and refers to all gender identities.



Earthmoving



Material handling



Specialist civil engineering



Mining



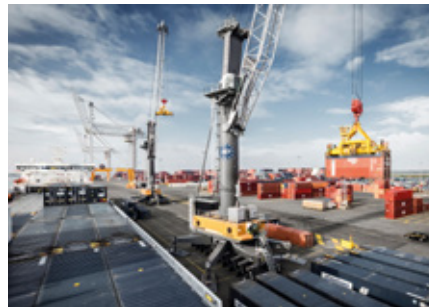
Mobile and crawler cranes



Tower Cranes



Concrete technology



Maritime cranes



Aerospace and transportation systems



Gear technology and automation systems



Components



Hotels



Refrigerators and freezers

A tradition of reliability admired the world over.

For more than 70 years Liebherr has offered high-quality products for pioneering industries. With our customers and partners all over the world, we constantly reach new heights.

One big family

The Liebherr Group was established in 1949 by Hans Liebherr. With a history spanning more than 70 years, the family-run company is characterised by stability and reliability. Liebherr is one of the biggest manufacturers of construction equipment and is also successful in many other industries. The Group has a decentralised organisation with around 50,000 employees worldwide and is divided into independently operating business units.

The Group now encompasses 13 product segments – earthmoving machinery, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels – and comprises more than 140 companies across all continents. The holding company of the Group is Liebherr-International AG in Bulle (Switzerland), all of whose shareholders are members of the Liebherr family.



Cutting edge combined with experience: Appliances

The Appliances division was established at the Ochsenhausen site in 1954 and for many years it has played an important part in the development of the Group. For more than 65 years, Liebherr has been a premium manufacturer of innovative refrigerators and freezers for domestic and commercial use. With an annual production of more than 2.2 million appliances, Liebherr is one of Europe's leading suppliers of cooling and freezing appliances. The five production sites in Ochsenhausen (Germany), Lienz (Austria), Radinovo (Bulgaria), Kluang (Malaysia) and Aurangabad (India) form a manufacturing network for refrigerators and freezers that meets all the most up-to-date standards.

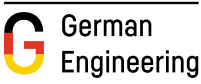
Liebherr is active all over the world. With a dense network of sales subsidiaries and offices in Bulgaria, Germany, the UK, Austria, Canada, Malaysia, Russia, Switzerland, Singapore, South Africa and the USA, the refrigeration and freezing specialists ensure that customers receive expert advice and that service and maintenance work is provided professionally on site.

Quality is in our DNA.

Our work is driven by the high demands of our customers worldwide. For more than 65 years, we have been offering high-quality appliances for private and commercial use that meet these high demands, proving their durability and repaying the investment in them.

Specialists in refrigeration and freezing

With outstanding quality, pioneering technologies as well as aesthetic yet user-friendly design, Liebherr sets new standards again and again. How do we do it? By specialising in what we do: developing and manufacturing outstanding refrigerators and freezers, especially for professional use. Research, laboratories and medicine are just some of the areas for whose special requirements our appliances are explicitly designed – with a clear mission: to make your demanding day-to-day work easier with maximum precision and safety.



Cleverly built for maximum safety

Sensitive samples, research materials and preparations allow no room for error with refrigeration. Reliability is crucial. And that's exactly what Liebherr stands for. Liebherr professional appliances have been specifically developed for the challenging requirements of the research, laboratory and medical sectors. With clever design details, high-quality materials and innovative technologies, they provide maximum safety and ease of use.



Tested down to the finest detail – and beyond.

From conception through to development and production to marketing, at Liebherr we do everything we can to offer top-quality, innovative products. We test all the mechanical, electronic and refrigeration components for reliable operation, from the development stage onwards. Before we approve a door hinge, for example, it must undergo at least 100,000 opening cycles. You can count on this: your Liebherr appliance will be the professional partner at your side – 24 hours a day, 365 days a year.

The Liebherr factor:

Professional refrigerators and freezers

- Specially developed for research, laboratories and medicine
- Safe storage of sensitive substances
- Top quality thanks to elaborate testing procedures

Complete responsibility

Responsible use of our resources is our objective and further continuous improvement throughout the product lifecycle is the long-term aim.

This is why we continually develop more environmentally friendly methods for manufacturing more sustainable products – with the familiar Liebherr quality. As well as high energy efficiency, we put a special focus on durability and ensuring that spare parts are available for at least ten years.



Economic success through environmentally aware product design.

The high product quality and energy efficiency of our appliances help you to be economically competitive:

- Low energy consumption
- The savings potential of every component is fully utilised
- Appliance doors close automatically to minimise loss of cold air

Conscientiously developed

We take every aspect of sustainability into account when designing our products. Our product responsibility begins during the development of the appliances and continues with the careful organisation of our production and supply chains. This means the correct choice of materials with regard to recycling as well as minimising the use of energy during production are important factors. During the use phase our almost maintenance-free appliances are characterised by very low energy consumption and low operating costs.

Naturally refrigerated

We were the first to convert our complete range of refrigerators to CFC-free refrigerants and blowing agents. We now only use the natural refrigerants R600, R290 and R170. These are specially designed for highly efficient compressors and also result in lower energy consumption and electricity costs.

Responsibly manufactured

We also make sure we use resources responsibly when manufacturing our appliances. Advanced processes are used to recycle the energy released during production for heating buildings. We also purify the water after the manufacturing process to make sure that it is free of pollutants.



Europe-wide certification

All our European production sites are certified according to the international standards for quality management (ISO 9001), environmental management (ISO 14001) and energy management (ISO 50001).

EcoVadis Gold

We handle the issue of Corporate Responsibility holistically and at all stages of the product life cycle. Our efforts have been awarded gold for 2022 by EcoVadis, the world's leading Corporate Social Responsibility ratings agency. We are proud to be among the top 3% of companies assessed by EcoVadis.



The Liebherr factor:

Environmentally conscious development and production:

- Appliances with very low energy consumption
- Natural refrigerant
- Resource-saving manufacturing processes
- European sites are fully certified
- Gold medal from EcoVadis

Choose refrigeration and freezing from the professionals

Whether in the biotechnology, pharmaceutical research, or in healthcare, the highly demanding work relies on refrigeration that meets the highest standards. With specially developed professional appliances, Liebherr offers solutions for the stringent requirements of the medical and scientific sectors – and good arguments for choosing our systems expertise.

Five good reasons for our outstanding performance.

Discover all the details of SmartMonitoring starting on page 92 and find out how the digital system maximises safety and lightens your workload. Availability varies by country, please contact your Liebherr Account Manager for details.



Reliable temperature stability

Liebherr professional appliances are characterised by outstanding temperature stability. Sensitive vaccines, preparations, samples and medicines are cooled to precise, constant temperatures – even when there are extreme climatic conditions. In addition, SmartMonitoring controls temperature stability and sends alerts in the event of deviations.



Standard safety functions

Liebherr stands for maximum protection of valuable products. Numerous safety functions ensure that the quality of temperature-sensitive substances is constantly assured – as is the quality of your work. If you want maximum certainty, you can use our cloud-based SmartMonitoring solution, with instant notifications for additional peace of mind.



Innovative alarm systems

Research and medicine allow no room for inaccuracy – and that includes storage temperatures. Liebherr professional appliances are equipped with various alarm systems that immediately warn of any deviations and help you to realistically assess critical situations. In addition to the integrated alarm systems, SmartMonitoring also alerts you by text message, email or phone.



Sustainability and economy

Our refrigerators and freezers only use natural refrigerants and are characterised by high efficiency as well as very low energy and operating costs. The outstanding TCO (total cost of ownership) is also down to the long service life, easy care and, not least, the fact that the appliances need hardly any maintenance.



Compliance with standards and directives

Liebherr refrigerators and freezers comply with all the various standards, norms and directives on storage quality, hygiene and safety. In addition, SmartMonitoring documents all the relevant temperature data and automatically generates reports.





Safety as standard

When handling highly sensitive substances, safety has top priority. Whether the risk is unauthorised access or loss of quality – Liebherr protects valuable contents with numerous safety functions.

SmartLock: the door that thinks

To prevent products from accidentally entering circulation after an interruption in the cold chain, SmartLock automatically locks the door in the event of an alarm. Only authorised people can unlock it again.

Self locking door: with safety hinges

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.

Locking systems: individual and secure

Liebherr appliances can be electronically locked and unlocked using an individual PIN code and digital remote control by as many users as you like – without them having to share a key.

+2 °C SafetyDevice: protection from freezing

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.




The Liebherr factor:

Integrated safety functions to protect sensitive substances:


- Self-closing door at an opening angle of less than 90°
- Automatic locking in the event of an alarm
- Electronic/mechanical locking systems
- Protection from freezing in the event of malfunctions

Checks are good, but alarms are better

Professional refrigerators and freezers guarantee maximum storage safety through constant temperature monitoring, immediate alarms for uncontrolled fluctuations and recording of critical situations.


 **LightAlarm:**
know at a glance when action is needed

If there is an uncontrolled temperature rise, if a door has been left open or there are any other problems, the interior light of the appliance starts flashing. In the case of glass-door appliances, this quickly reveals where action is needed. With solid-door appliances, the flashing interior warns you to close the door immediately to preserve the storage quality.

 **Alarm relay:**
don't miss any deviations

In the event of an alarm, the responsible control centre is informed immediately, usually through connections to the building control system. You can define in advance which alarms are to be forwarded, as well as set how long forwarding remains active and whether a reminder should be sent after the alarm is acknowledged. This allows you to react immediately in critical situations.



 **Alarm history:**
quality check made easy

In order to be able to evaluate the quality of the stored substances, a clear history of anomalies that have occurred is necessary. The alarm history logs important data such as the date, duration and maximum temperature of the last ten, and can be accessed and reviewed from anywhere.

 **Integrated data logger:**
can be traced back for years

To ensure full traceability, the integrated data logger records the temperature profile, alarm history and service information for up to five years. The stored data can be read directly from the appliance via a USB interface.

Maximum performance at a minimal cost.

Rising costs increase the requirements that professional refrigerators and freezers must meet. Liebherr scores highly here on every level with sustainably economical appliances.



Ultra-efficient:
good for people and the environment

Rising electricity prices increase the requirements for efficiency in refrigerators and freezers. From the compressor to the seal, to the lighting and electronics, Liebherr fully utilises the savings potential of each component. The result is impressive – especially in terms of total cost of ownership.

Outstanding service life:
satisfaction guaranteed

Liebherr appliances are designed for a long service life. Extremely robustly manufactured, they withstand the demands of daily use. This is quality that pays off – for many years to come.

Almost maintenance free:
saves costs, time and aggravation

Liebherr's professional freestanding appliances operate without filters or other components and parts that require regular replacement. They only need to be regularly cleaned and calibrated according to your individual needs.

The Liebherr factor:

Very low energy and total operating costs:

- Energy-efficient
- Extremely long service life
- Almost maintenance-free

Meeting the highest expectations. And the applicable standards and directives.

Hardly any sector has more stringent requirements for the storage of substances than those of research, laboratories and medicine. Liebherr professional appliances are specially developed to meet these extremely strict requirements for aspects such as hygiene and occupational safety.



DIN 13277 compliance

Laboratory and pharmaceutical refrigerators from Liebherr meet all the necessary property and performance criteria to fully comply with DIN 13277.

IEC 61010-2-011 compliance

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always kept safe.

ATEX compliance

Liebherr laboratory appliances conform to EN/IEC 60079-0 / EN-IEC 60079-7 and comply with EU Directive 2014/34/EU ("ATEX Directive"). With an interior classified according to <Ex> II 3 G Ex ec IIC T6 (declared as Zone 22), they are suitable for flammable substances in closed containers that could form explosive atmospheres.

Cleanroom compatibility

A label indicates the cleanroom class in which Liebherr refrigerators and freezers may be operated in accordance with DIN EN ISO 14644 or EU GMP. As a result, no additional risk assessment by the customer for cleanroom suitability is necessary. This saves time and money.

Antimicrobial handle

A benefit for users but a bane for germs, the easy-turn handle mechanism makes opening the door effortless. It also contains special antimicrobial substances that remove the need for regular and time-consuming disinfection. This means the appliance is extremely safe even if many people have access to it.

Recommended cleaning products and disinfectants

Liebherr appliances are designed for a long service life. To maintain them, the manual or separate instructions contain recommendations for cleaning products and disinfectants that have been tested by Liebherr for safe use. This way you can be sure that you are not accidentally harming your appliance when you are trying to take care of it.

Easy-to-clean interior

The inner liner is made of polystyrene: a fully recyclable, robust, and odourless plastic. Manufactured seamlessly from one piece, it has no hidden dirt traps and the large, rounded corners can be cleaned quickly and easily. It's the perfect combination of sustainability and hygiene.



The Liebherr factor:

Designed to meet the strictest standards, norms and directives:

- Suitable for storing sensitive substances in accordance with **DIN 13277**
- Safe operation in accordance with **IEC 61010-2-011**
- ATEX compliant for storing explosive and highly flammable substances
- Cleanroom compatible
- Hygienic and easy-to-clean design

Endlessly reliable. Take our word for it.

In research, laboratories and medicine, there are ever more jobs to do, and less time to do them in. Liebherr takes some of them off you. Let us lighten your daily workload – with many different services to ensure reliable refrigeration from the professionals.

Delivery right to your door

Liebherr offers you various delivery options. We can deliver your new appliance to the kerbside or take it right in to the place of use and unpack it there. We'll not only take back the packaging for disposal, but also your old appliance if you want.

Installation: it couldn't be quicker

With our installation service, your new appliance is ready in no time to provide you with reliable refrigeration or freezing. Liebherr will not only commission the appliance for you, but also install the digital monitoring solution or other accessories. The availability varies in different countries.

Qualification: let the professionals help

Be on the safe side and save time as well: Liebherr will take care of the time-consuming installation qualification (IQ) and operational qualification (OQ), including the documentation and training. If you want, we can send you the documentation and you can carry out the qualification yourself.

Maintenance: doing it right

Liebherr appliances for research, laboratory and medicine require an impressively low amount of maintenance.



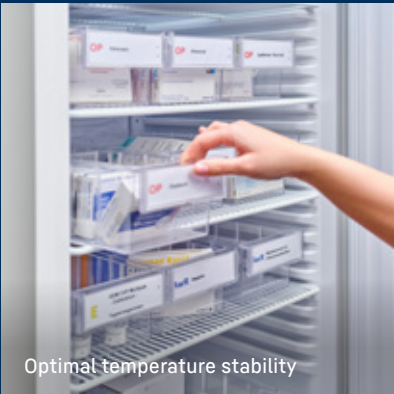
Two unique series

Whether it's a large research facility or a small laboratory, a doctor's surgery, a nursing home or a pharmacy – our range includes models for every requirement. But however different the appliances are, they all have one thing in common: their first-rate quality.

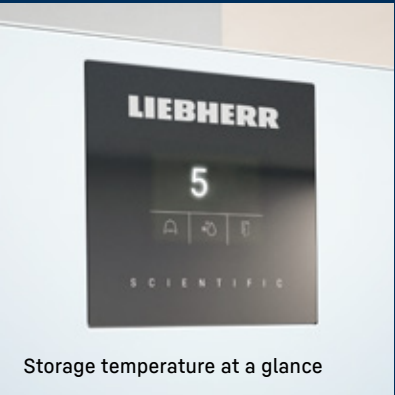
Performance Perfection

Performance series

All the appliances in the Performance series comply with the safety standard IEC 61010-2-011. In addition, some appliances meet other standards such as the ATEX directive.



Optimal temperature stability



Storage temperature at a glance



LED interior light



Antimicrobial handle with opening mechanism



LightAlarm and SmartLock

Perfection series

The appliances in the Perfection series not only comply with the IEC 61010-2-011 safety standard but also DIN 13277, which specifies requirements for laboratory and medical applications.



ULT freezers – maximum safety and efficiency at ultra-low temperatures

Liebherr ultra-low temperature freezers set new standards in the temperature range from $-40\text{ }^{\circ}\text{C}$ to $-86\text{ }^{\circ}\text{C}$. Not only do they offer unprecedented quality and reliability for storing highly sensitive substances, but also outstanding energy efficiency and ease of use that you will notice every day. Robust, economical and extremely safe, the series of appliances from the experts in freezing for laboratories and research facilities have an impressive number of functions and features.

For optimal protection of your valuable samples, chemicals and research materials. And for the satisfaction of being able to concentrate fully on your work.

The advantages at a glance

Stainless steel workmanship

The interior, shelves and inner doors are made of rust-proof stainless steel and are therefore easy to clean. This enables optimum hygiene.

Shelves

Three stainless steel shelves in the interior, that can be freely adjusted in 24 mm increments, offer flexibility for space-saving storage, tailored to your requirements. You can add more shelves if required.



Data recording

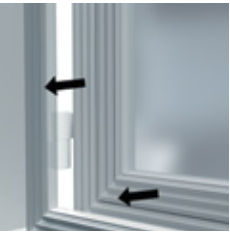
There are two feedthroughs (28 mm) on the top and bottom left for installing separate sensors for external monitoring or data recording systems in the interior.

Unloading ramp

No forklift required: the unloading ramp integrated in the packaging helps you easily position the appliance.

Detachable inner door

The detachable inner doors made of rust-proof stainless steel prevent loss of cold air when opening and are also easy to clean.

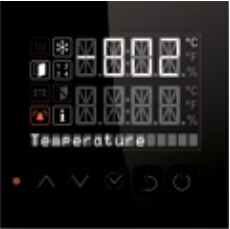


Door seals

The innovative door seal design, consisting of two all-round seals, makes the door completely airtight when closed. This also helps reduce energy consumption. The seals can be replaced separately and without tools.

Intuitive electronics

The intuitive electronics with integrated real-time clock allow the temperature to be set with an accuracy of one tenth of a degree. The control and display panel is resistant to dirt and easy to clean. Flexible parameter adaptations, such as offset and alarm value settings, allow the appliances to be quickly and easily adapted and qualified for your applications and requirements.



Monitoring system

The 3-stage monitoring system, consisting of integrated alarm notifications for temperature, door or mains electrical faults, upgradable features such as CO₂ emergency refrigeration and online monitoring, ensures optimum protection during storage. In the event of a power failure, integrated 12-volt batteries immediately supply the electronics with power. Notifications are provided in critical situations.

Insulation

The combination of CFC-free polyurethane foam and vacuum-insulated panels ensures the best possible insulation to prevent rapid temperature increases.

Pressure compensation valve

When the door is opened and closed, the air exchange creates a vacuum which makes it difficult to open the door again immediately afterwards. The heated pressure compensation valve quickly equalises the vacuum and the door can be easily opened again after just a few seconds.

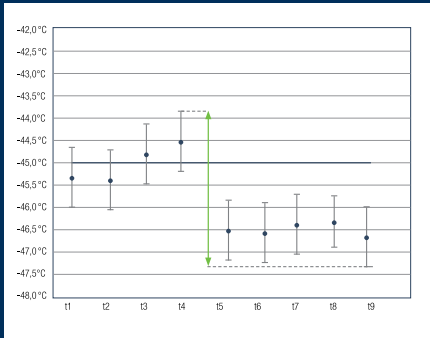


SUFsg 5001 MediLine

Mechanical lock

The mechanical lock protects the stored products from unwanted access. The door is opened with an ergonomic and unbreakable aluminium lever handle.

Quality right down to the smallest detail



Minimal temperature fluctuations

In order to maintain the quality of the stored samples, it is important to minimise temperature fluctuations. Liebherr ultra-low temperature freezers are characterised by extremely low fluctuations, both within the appliance and over time.



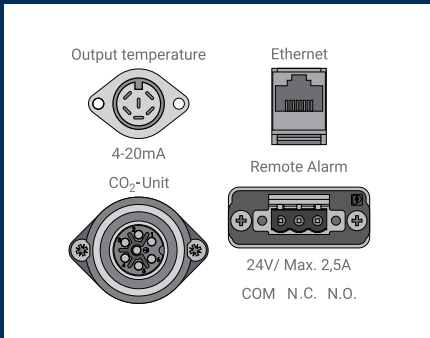
Low energy consumption

Ultra-low temperature freezers are among the appliances with the highest energy consumption in research facilities. Liebherr ultra-low temperature freezers are some of the most economical models on the market worldwide. In combination with highly insulating vacuum panels, the efficient cooling system allows economical operation, optimum energy savings and therefore low operating costs.



Low heat generation

The efficient cascade cooling system with HC refrigerants generates significantly less heat than previous technologies. This saves costs in the thermal design of the room's air conditioning system. If heat dissipation via the room air conditioning is not possible, water cooling is available as an option.



Connection to documentation and monitoring systems

All the appliances have a volt-free alarm output and an Ethernet interface for remote monitoring. In addition, the temperature and alarm records can be read via the integrated USB interface. Optionally, a 4-20 mA output allows the temperature value to be integrated into existing data recording systems.



IQ, OQ, training

From installation qualification (IQ) to operational qualification (OQ) to training, we offer you comprehensive expert help with installation and commissioning. We carry out the various checks for you or set specific parameters for you on request. In addition, we train your staff on site in using the equipment and answer your questions. In our document folder you will also find all the important information about the devices.



Installation service for accessories

Our qualified installation service assists you with professional installation and connection of accessories such as the analogue temperature sensor or CO₂ emergency refrigeration.



SUFsg 7001
MediLine



Total gross/net capacity l (cu.ft.)	728/700 (25.7/24.7)
Exterior dimensions in mm (w / d / h)	1110/985/1966
in inches (w / d / h)	43 11/16" / 38 3/4" / 77 3/8"
Interior dimensions in mm (w / d / h)	890/590/1300
in inches (w / d / h)	35 1/16" / 23 1/4" / 51 3/16"
Energy consumption in 365 days *	0.36 kWh
Ambient temperature range in °C (°F)	+16°C to +32°C (61°F to 90°F)
Heat output/system	1188 kJ/h/air cooling
Refrigerant	R290/R170
Sound rating ¹	47 dB(A)
Connection rating	11.7 A/1.4 kW
Frequency/voltage	60 Hz/120V~
Temperature range in °C (°F)	-40°C to -86°C (-40°F to -123°F)
External cabinet finish	Steel / white
Door/lid material	Steel
Internal liner material	Stainless steel
Type of control	Electronic control
Temperature display	External Digital
Interface	LAN (Ethernet)
Volt-free alarm contact	yes
Data logger	Integrated, USB interface
Power failure alarm	Immediate with power cut for 72 h
Cooling system	static
Refrigeration +22°C to -80°C	450 min
Warming -80°C to -60°C / to 0°C	250 min / 2220 min
Number / Max. number of shelves	4 / 14
Shelf material	stainless steel
Shelf load weight in kg (lbs)	51 kg / 110 kg
Number of racks per drawer	6
Max. number of cryo boxes 50 mm / 75 mm	528 / 336
Castors	castors with brake at the front, fixed castors at the rear
Replaceable door seal	yes
Sensor performance	3 x Ø 28 mm
Lock	yes
Door hinges	right, not reversible
Gross/net weight in kg (lbs)	361 kg (796)
Further voltage range	230V/50Hz
Accessories	-
Glass shelf	-



SUFsg 5001
MediLine



Total gross/net capacity l (cu.ft.)	491/477 (17.3/16.8)
Exterior dimensions in mm (w / d / h)	921/985/1966
in inches (w / d / h)	36 1/4" / 38 3/4" / 77 3/8"
Interior dimensions in mm (w / d / h)	586/605/1300
in inches (w / d / h)	23 1/16" / 23 13/16" / 51 3/16"
Energy consumption in 365 days *	0.46 kWh
Ambient temperature range in °C (°F)	+16°C to +32°C (61°F to 90°F)
Heat output/system	1188 kJ/h/air cooling
Refrigerant	R290/R170
Sound rating ¹	47 dB(A)
Connection rating	11.7 A/1.4 kW
Frequency/voltage	60 Hz/120V~
Temperature range in °C (°F)	-40°C to -86°C (-40°F to -123°F)
External cabinet finish	Steel/white
Door/lid material	Steel
Internal liner material	Stainless steel
Type of control	Electronic control
Temperature display	External Digital
Interface	LAN (Ethernet)
Volt-free alarm contact	yes
Data logger	Integrated, USB interface
Power failure alarm	Immediate with power cut for 72 h
Cooling system	Static
Refrigeration +22°C to -80°C	360 min
Warming -80°C to -60°C / to 0°C	230 min/2160 min
Number / Max. number of shelves	4/13
Shelf material	stainless steel
Shelf load weight in kg (lbs)	50 (110.2) kg
Number of racks per drawer	4
Max. number of cryo boxes 50 mm / 75 mm	352 / 224
Castors	castors with brake at the front, fixed castors at the rear
Replaceable door seal	yes
Sensor performance	2 x Ø 28 mm
Lock	yes
Door hinges	right, not reversible
Gross/net weight in kg (lbs)	308 kg (679)
Further voltage range	230V/50Hz
Accessories	-
Glass shelf	-

Ultra-low temperature freezers

Racks for cryoboxes

Convenient and temperature-resistant storage systems for well-organised sample storage. Available as aluminium or stainless steel side-access racks for 5x4 or 6x4 50 mm boxes and as stainless steel front-access drawer racks for 5x4 or 6x4 50 mm boxes.

Maximum Loading SUFsg 5001: 8x Rack 5x4 + 8x Rack 6x4 = 352 boxes x 81 pcs. 2mL samples.

Maximum Loading SUFsg 7001: 12x Rack 5x4 + 12x Rack 6x4.



Aluminium side-access rack 5x4	7790003
Aluminium side-access rack 6x4	7790014
Aluminium side-access rack 5x4 + cryoboxes	7790015
Aluminium side-access rack 6x4 + cryoboxes	7790025
Stainless steel side-access rack 5x4 + cryoboxes	7790029
Stainless steel side-access rack 6x4 + cryoboxes	7790030

Stainless steel side-access rack 5x4	7790027
Stainless steel side-access rack 6x4	7790028
Stainless steel front-access rack 5x4 + drawers	7790031
Stainless steel front-access rack 6x4 + drawers	7790032
Stainless steel front-access rack 5x4 + cryoboxes + drawers	7790033
Stainless steel front-access rack 6x4 + cryoboxes + drawers	7790036



Cryoboxes

The set contains 36 durable and temperature-resistant cryoboxes made from water-repellent cardboard, with fixed 9x9 grid, for safe storage and transport of valuable samples.



CO₂ backup system

The CO₂ backup system ensures that the cooling of the stored samples continues at reduced temperatures for up to 72 hours in the event of a power failure. The CO₂ bottle is not part of the accessory.



Stainless steel storage shelves

Additional robust stainless steel shelves for flexible and individual partitioning of the interior at 24 mm increments.



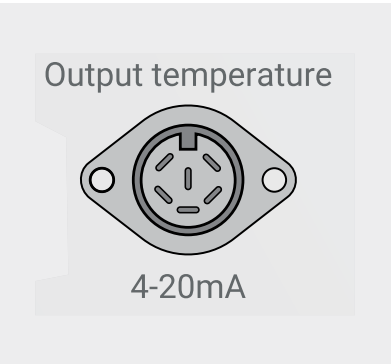
Foamed inner doors

The foamed inner doors provide the best possible insulation and temperature stability, ensuring efficient cooling and low power consumption.



Cover for mains switch incl. key lock

Protection against unintended disconnection or manipulation of the mains switch.



4-20mA analogue output

The 4-20mA interface displays the interior temperature as a current value, which for example can be imported into an independent system for recording or checking the internal temperature.



Research and laboratory appliances – for maximum precision and safety

Hardly any sector has more stringent requirements for refrigerators and freezers than those of laboratories and research. Liebherr meets them with a specifically developed range and a new generation of appliances.

Sensitive substances are reliably stored at precise temperatures and additionally protected by integrated alarm systems. Maximum efficiency ensures low consumption, while durable materials and maintenance-free components guarantee minimal operating costs. The comprehensive range is user-friendly and easy to connect in a network.

Discover typical Liebherr quality that will pay off for years and lighten your daily workload.

The advantages at a glance

Integrated data memory

The minimum and maximum values can be stored for up to 41 days, and the last three power failures and temperature alarms can be recorded and retrieved.

Emergency battery

If there is a power failure, the electronics are immediately powered by an integrated 12 V battery. This means the integrated memory can carry on logging the interior temperatures without interruption for another 72 hours.



External temperature sensor

The laboratory appliances have a feedthrough (7.0 mm diameter) in the ceiling of the appliance for fitting a temperature sensor in the interior.

Stainless steel workmanship

The smooth interior made of chrome-nickel steel is easy to clean and ensures optimal hygiene.

Space-saving

To save space and increase the interior capacity, functional components such as fans and evaporators are located outside the refrigerator compartment.

The LKPv 1420, LKPv 1423 and LGPv 1420 models can be taken apart and reassembled for easier transport. This must always be done by a trained technician. Contact Liebherr Sales for more information.

Pressure compensation valve

When the door of a refrigerator or freezer is opened and closed, the exchange of air creates a vacuum that makes it difficult to open the door again immediately afterwards. The pressure compensation valve quickly equalises the vacuum so that the door can be easily opened again.

Integrated alarm systems

If the door is open for longer than one minute, a visual and audible alarm is generated. The temperature and power failure alarm indicates that the temperature is too high or too low, and also warns in the event of power failures.

Dynamic cooling system

The dynamic cooling system with double ventilation combined with optimal airflow ensures maximum temperature stability in the interior.



90° door arrester

For convenient use, the practical door remains open at 90° and is self-closing at less than 60°.

Castors

The LKPv and LGPv ranges come with castors as standard to allow versatile use according to the available space, as well as easy cleaning, even under the appliances.



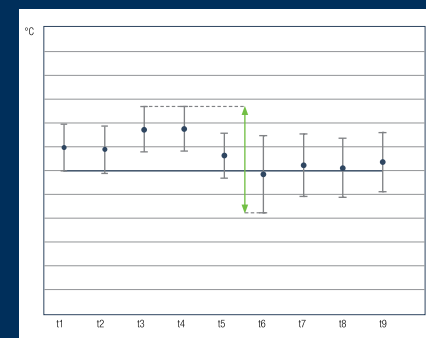
LRT21G1HC



Split-door appliances

Quick access, minimal loss of cold air, longer-lasting product quality. Split-door appliances are ideal for use in the pharmaceutical industry or laboratories when the door has to be frequently opened. Frequently used samples and preparations can be kept in the upper section for quick access, while there is plenty of room below for items and raw materials that are required less often. Thanks to the split doors with their self-closing mechanism, only a little cold air escapes on opening, and this helps maintain a stable temperature and preserve the quality of the stored items for the long term.

Quality right down to the smallest detail



Maximum temperature stability

The dynamic cooling system with double ventilation ensures maximum temperature stability in the interior. Very short defrost cycles allow the interior temperature to be kept almost constant during the defrost phases. All the laboratory appliances are designed for temperature stability and consistency according to EN 60068-3.

Advantage of hot gas defrosting

Reduces the time when the temperature is increased

30 min

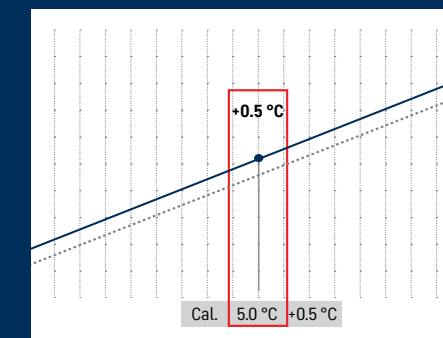
Electric defrosting

10 min

Hot gas defrosting

Energy-efficient hot gas defrosting

Timed and on-demand hot gas defrosting allows very short defrosting times. To additionally improve temperature stability during defrosting, the internal temperature is slightly lowered shortly beforehand to create a reserve of cold air.



Accurate 1-point calibration

The laboratory appliances with electronic controls have a 1-point calibration function for extremely accurate temperature control. This allows compensation between the set temperature and the actual interior temperature. The correction value can be adjusted in increments of 0.1 K.



Integrated electronics

The intuitive controller with integrated real-time clock allows the temperature to be set to 1/10°C accuracy. The keypad is resistant to dirt and easy to clean – to meet the most stringent hygiene requirements of the laboratory.



Easily accessible refrigeration components

The refrigeration components are easily accessible, located in the upper part of the machinery compartment to significantly increase the capacity of the interior. The front can be easily lifted up to facilitate cleaning or servicing. When opened by more than 45 ° it can be completely detached.



LRT50G2HC
MediLine



LRT50W2HC
MediLine



Total gross/net capacity l (cu.ft.)	1398/1357 (49.4/47.9)
Exterior dimensions in mm (w / d / h)	1430/830/2160
in inches (w / d / h)	56 5/16""/32 11/16""/85 1/16"
Interior dimensions in mm (w / d / h)	1236/650/1500
in inches (w / d / h)	48 11/16"/25 5/8"/59 1/16"
Energy consumption in 365 days ¹	1577 kWh
Ambient temperature in °C (°F)	16°C to 43°C (61°F to 109°F)
Refrigerant	R290
Sound rating **	62 dB(A)
Connection rating	5.0 A
Frequency/voltage	60 Hz/115V~
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	-2°C to 16°C (28°F to 61°F)
External cabinet finish	steel/white
Door/lid material	glass door
Internal liner material	stainless steel
Type of control	electronic control
Temperature display	external digital
Alarm	visual and audible
Alarm forwarding	yes
Interior light	LED ceiling light
Adjustable shelves	8
Shelf material	clear-coated wire shelves
Shelf load weight in kg (lbs)	60 (132.3)
Usable shelf area in mm (inches)	1236/640 (48 11/16"/25 1/4")
Casters	casters with brake at the front, casters at the rear

Handle	full-length integrated handle
Lock	recessed
Self-closing door	yes
Door hinges	left/right hand hinged, not reversible
Insulation in mm (inches)	83 - 60 (3 5/16" - 2 3/8")
Gross/net weight in kg (lbs)	270/226 (595.2/498.2)

Accessories	
Shelf, plastic-coated	7113327
U-shaped trayslide, right	9001761
U-shaped trayslide, left	9001757
Foot pedal opener	9590639
Side-by-Side kit	9901947

1365/1325 (48.2/46.8)
1430/830/2160
56 5/16"/32 11/16"/85 1/16"
1236/650/1500
48 11/16"/25 5/8"/59 1/16"
1333 kWh
10°C to 40°C (50°F to 104°F)
R290
62 dB(A)
5.0 A
60 Hz/115V~
forced-air
automatic
-2°C to 16°C (28°F to 61°F)
steel/white
steel
stainless steel
electronic control
external digital
visual and audible
yes
LED ceiling light
8
clear-coated wire shelves
60 (132.3)
1236/640 (48 11/16"/25 1/4")
casters with brake at the front, casters at the rear

full-length integrated handle
recessed
yes
left/right hand hinged, not reversible
83 - 60 (3 5/16" - 2 3/8")
259/212 (571/467.4)

7113327
9001761
9001757
9590639
9901947



LRT30W1HC
MediLine



LRT21G1HC
MediLine



Total gross/net capacity l (cu.ft.)	856/831 (30.2/29.3)
Exterior dimensions in mm (w / d / h)	790/980/2160
in inches (w / d / h)	31 1/8"/38 5/8"/85 1/16""
Interior dimensions in mm (w / d / h)	623/805/1500
in inches (w / d / h)	24 9/16""/31 3/4""/59 1/16""
Energy consumption in 365 days ¹	909 kWh
Ambient temperature in °C (°F)	10°C to 40°C (50°F to 104°F)
Refrigerant	R290
Sound rating **	62 dB(A)
Connection rating	5.0 A
Frequency/voltage	60 Hz/115V~
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	-2°C to 16°C (28°F to 61°F)
External cabinet finish	steel/white
Door/lid material	steel
Internal liner material	stainless steel
Type of control	electronic control
Temperature display	external digital
Alarm	visual and audible
Alarm forwarding	yes
Interior light	LED ceiling light
Adjustable shelves	4
Shelf material	clear-coated wire shelves
Shelf load weight in kg (lbs)	60 (132.3)
Usable shelf area in mm (inches)	623/789 (24 9/16"/31 1/8")
Casters	casters with brake at the front, fixed casters at the rear

Handle	full-length integrated handle
Lock	recessed
Self-closing door	yes
Door hinges	right, reversible on site
Insulation in mm (inches)	83 - 60 (3 5/16" - 2 3/8")
Gross/net weight in kg (lbs)	183/159 (403.4/350.5)

Accessories	
Shelf, plastic-coated	7113325
U-shaped trayslide, right	9005089
U-shaped trayslide, left	9005077
Foot pedal opener	9590659
Side-by-Side kit	9901947

856/831 (30.2/29.3)
790/980/2160
31 1/8"/38 5/8"/85 1/16""
623/805/1500
24 9/16""/31 3/4""/59 1/16""
909 kWh
10°C to 40°C (50°F to 104°F)
R290
62 dB(A)
5.0 A
60 Hz/115V~
forced-air
automatic
-2°C to 16°C (28°F to 61°F)
steel/white
steel
stainless steel
electronic control
external digital
visual and audible
yes
LED ceiling light
4
clear-coated wire shelves
60 (132.3)
623/789 (24 9/16"/31 1/8")
casters with brake at the front, fixed casters at the rear

full-length integrated handle
recessed
yes
right, reversible on site
83 - 60 (3 5/16" - 2 3/8")
183/159 (403.4/350.5)

7113325
9005089
9005077
9590659
9901947

622/604 (22.0/21.3)
700/830/2160
27 9/16"/32 11/16"/85 1/16"
532/650/1500
21"/25 5/8"/59 1/16"
939 kWh
10°C to 40°C (50°F to 104°F)
R290
62 dB(A)
4.0 A
60 Hz/115V~
forced-air
automatic
-2°C to 16°C (28°F to 61°F)
steel/white
glass door
stainless steel
electronic control
external digital
visual and audible
yes
LED ceiling light
5
clear-coated wire shelves
60 (132.3)
532/640 (21"/25 1/4")
casters with brake at the front, fixed casters at the rear

full-length integrated handle
recessed
yes
right, reversible on site
83 - 60 (3 5/16" - 2 3/8")
165/140 (363.8/308.6)

7113327
9001761
9001757
9590659
9901947

¹ Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.

² Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
³ Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.



LFT50W2HC
MediLine



Total gross/net capacity l. l (cu.ft.)	1365/1325 (48.2/46.8)
Exterior dimensions in mm (w / d / h)	1430/830/2160
in inches (w / d / h)	56 5/16"/32 11/16"/85 1/16"
Interior dimensions in mm (w / d / h)	1236/650/1500
in inches (w / d / h)	48 11/16"/25 5/8"/59 1/16"
Energy consumption in 365 days ¹	3136 kWh
Ambient temperature in °C (°F)	16°C to 43°C (61°F to 109°F)
Refrigerant	R290
Sound rating **	65 dB(A)
Connection rating	10.0 A
Frequency/voltage	60 Hz/115V~
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	-10°C to -26°C (14°F to -15°F)
External cabinet finish	steel/white
Door/lid material	steel
Internal liner material	stainless steel
Type of control	electronic control
Temperature display	external digital
Alarm	visual and audible
Alarm forwarding	yes
Interior light	LED ceiling light
Adjustable shelves	8
Shelf material	clear-coated wire shelves
Shelf load weight in kg (lbs)	60 (132.3)
Usable shelf area in mm (inches)	1236/640 (48 11/16"/25 1/4")
Casters	casters with brake at the front, casters at the rear
	full-length integrated handle
Handle	recessed
Lock	yes
Self-closing door	left/right hand hinged, not reversible
Door hinges	83 – 60 (3 5/16" – 2 3/8")
Insulation in mm (inches)	264/217 (582/478.4)
Gross/net weight in kg (lbs)	
Accessories	7113327
Shelf, plastic-coated	9001761
U-shaped trayslide, right	9001757
U-shaped trayslide, left	9590639
Foot pedal opener	9901947
Side-by-Side kit	-
Glass shelf	



LFT30W1HC
MediLine



Total gross/net capacity l (cu.ft.)	856/831 (30.2/29.3)
Exterior dimensions in mm (w / d / h)	790/980/2160
in inches (w / d / h)	31 1/8"/38 5/8"/85 1/16"
Interior dimensions in mm (w / d / h)	623/805/1500
in inches (w / d / h)	24 9/16"/31 3/4"/59 1/16"
Energy consumption in 365 days ¹	1606 kWh
Ambient temperature in °C (°F)	16°C to 43°C (61°F to 109°F)
Refrigerant	R290
Sound rating **	66 dB(A)
Connection rating	10.0 A
Frequency/voltage	60 Hz/115V~
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	-10°C to -26°C (14°F to -15°F)
External cabinet finish	steel/white
Door/lid material	steel
Internal liner material	stainless steel
Type of control	electronic control
Temperature display	external digital
Alarm	visual and audible
Alarm forwarding	yes
Interior light	LED ceiling light
Adjustable shelves	4
Shelf material	clear-coated wire shelves
Shelf load weight in kg (lbs)	60 (132.3)
Usable shelf area in mm (inches)	623/789 (24 9/16"/31 1/8")
Casters	casters with brake at the front, fixed casters at the rear
	full-length integrated handle
Handle	recessed
Lock	yes
Self-closing door	right, reversible on site
Door hinges	83 – 60 (3 5/16" – 2 3/8")
Insulation in mm (inches)	183/154 (403.4/339.5)
Gross/net weight in kg (lbs)	
Accessories	7113325
Shelf, plastic-coated	9005089
U-shaped trayslide, right	9005077
U-shaped trayslide, left	9590659
Foot pedal opener	9901947
Side-by-Side kit	-
Glass shelf	

¹ Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.
² The temperature range is valid at a maximum ambient temperature of +30°C

³ Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
⁴ Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.



The new generation of appliances for laboratories and research – safety redefined

Constant temperatures are essential when storing sensitive substances. This especially applies to work in laboratories, where even the slightest deviations can jeopardise the quality of research results. This is why Liebherr has developed new refrigerators and freezers specifically for this sector, combining maximum refrigeration performance with optimum temperature stability. Innovative safety features with monitoring and alarm functions offer all-round protection from all kinds of incident and malfunction.

The next generation of appliances also set new standards in terms of energy efficiency and total cost of ownership. On the next few pages we present the latest results of research and development by the refrigeration specialists at Liebherr and show how they can benefit safety in your laboratory.

Refrigerators and freezers for laboratories and research



MediLine
with mechanical controls



MediLine
with electronic controls



Performance series



Perfection series

	<div>MediLine</div> <div>ATEX LRBF</div>
Temperature stability	Refrigerators +/-5 K deviation from setpoint
Storage safety	
	Mechanical lock
Interfaces	
Conectivity	
Features	Rotary control with digital thermometer
	Ergonomic slimline handle
Energy consumption	
Compliance	Safety according to IEC 60335-2-89 ATEX directive

Research and laboratory

MediLine	Performance series	Perfection series
General laboratory use/ATEX LRB/ LFBF	General laboratory use/ATEX SRFfg/SFFfg	General laboratory use SRFvh/SFFvh
Refrigerators +/-3 K deviation from setpoint	Refrigerators +/-3 K deviation from setpoint	Refrigerators +/-2 K deviation from setpoint
Freezers +/-5 K deviation from setpoint	Freezers +/-5 K deviation from setpoint	Freezers +/-4 K deviation from setpoint
	Freezers with SmartFrost	Freezers with NoFrost
Calibration option	Calibration option	Calibration option
Visual and audible alarms	Visual and audible alarms	Visual and audible alarms
Alarm relay	Alarm relay	Alarm relay
Alarm test function	Alarm test function	Alarm test function
+2 °C SafetyDevice function	+2 °C SafetyDevice function	+2 °C SafetyDevice function
	Alarm immediately upon power failure	Alarm with battery backup (12 h) immediately upon power failure
Alarm history with real-time clock and 6 events		Alarm history with real-time clock and 10 events
		Integrated data logger
NTC product sensor (optional for LCv/LCexv/LGUex)		PT1000 product sensor (optional for SFFvh models)
Min./max. temperature log	Min./max. temperature log	Min./max. temperature log
Self-closing door at < 90°	Self-closing door at < 90°	Self-closing door at < 90°
Custom alarm settings possible	Custom alarm settings possible	Custom alarm settings possible
Mechanical lock	Mechanical lock	Mechanical lock
RS485 interface	Optional LAN/WiFi	Integrated LAN/WiFi
Modbus RTU communication protocol	Local API (optional via SmartModule)	Local API
		USB interface for reading the data logger
	SmartModule can be retrofitted	SmartModule integrated
LED 7-segment display with buttons	Monochrome display, touch buttons	2.4" touch & swipe colour display
	Individually adjustable maintenance timer	Individually adjustable maintenance timer
Castors/adjustable feet as accessories, 75 cm-wide appliances with castors as standard	Castors/adjustable feet as accessories	Castors/adjustable feet as accessories, 75 cm-wide appliances with castors as standard
Evaporator cover (stops items freezing to inner liner), optional	Evaporator cover (stops items freezing to inner liner), only for glass door models, optional for insulated door models	Evaporator cover (stops items freezing to inner liner), standard for all models
Sensor feedthrough	Sensor feedthrough	Sensor feedthrough
Refrigerators: glass door models with ceiling lighting	Refrigerators: glass door models with ceiling lighting	Refrigerators: Insulated and glass door models with vertical lighting
Freezers: no lighting	Freezers: no lighting	Freezers: LED lighting in the front housing
Ergonomic slimline handle with opening mechanism	Antimicrobial handle with opening mechanism	Antimicrobial handle with opening mechanism
	Super-efficient	Ultra-efficient
Safety according to IEC 60335-2-89	Safety according to IEC 61010-2-011	Safety according to IEC 61010-2-011
ATEX directive (LKUexv, LCexv, LGUex)	ATEX directive (SRFfg/SFFfg)	Fulfils DIN 13277

The advantages at a glance

Min./max. temperature log

The min./max. temperature log stores the minimum and maximum interior temperatures and shows on the display whether the storage temperatures were within the tolerance limits.

+2 °C SafetyDevice

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.

Power failure alarm

If a malfunction occurs, an integrated battery provides a visual and audible alarm and takes over the power supply. As soon as the power is restored, the time of failure and the maximum temperature reached are displayed.

LightAlarm

In the event of an uncontrolled temperature rise or other problems, the interior light of the appliance starts flashing. This visually shows when action is needed.

Feedthrough for external sensors

An integrated opening allows a separate sensor to be connected for additional temperature monitoring without having to drill holes or break the door seal.

Integrated data logger

The integrated logger records the temperature profile, alarm history and service information for up to five years. The data can be read out directly from the appliance via the USB interface.



SRFvh 5511

The equipment details shown depend on the model; the description for the respective model applies.



Mechanical lock

Liebherr professional appliances are equipped with a mechanical lock and two keys. This ensures that unauthorised persons cannot access your valuable and sensitive stored goods.



Replaceable door seal

Save time and money: the insertable Liebherr door seals are easy to change. If a seal is damaged, you can replace it yourself without any tools. Contact Liebherr Customer Service to purchase replacements.



Self-closing door < 90°

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.

Quality right down to the smallest detail



Antimicrobial handle with opening mechanism
The smooth-turning handle contains special antimicrobial substances that make it particularly hygienic. Regular and time-consuming disinfection is not necessary.



Grid shelf with pull-out stop
Corrosion-free grid shelves made of coated steel guarantee a secure hold, constant air circulation and good temperature stability. A pull-out stop prevents them from accidentally sliding out.



Ultra-efficient
Rising electricity prices are increasing the demands on the efficiency of refrigerators and freezers. From the compressor to the seal, to the lighting and electronics, Liebherr fully utilises the savings potential of every component. The result is impressive – especially in terms of total operating costs.



±3 °C temperature stability
Temperature fluctuations must be minimal to ensure that the quality of sensitive substances is preserved. Liebherr Laboratory refrigerators have an impressive maximum deviation of just ±3 °C from the set temperature. This not only maintains the storage climate, but also the value of your stored goods.



DIN 13277 compliance
Laboratory and pharmacy refrigerators from Liebherr meet all the necessary equipment and performance criteria to fully comply with DIN 13277. DIN 13277 defines the requirements and test specifications for refrigerators and freezers used in laboratories and for storing medicinal products.



IEC 61010-2-011 standard
Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.

Vertical LED lighting
Vertical LED lighting provides optimal illumination of the interior over the entire height of the appliance. Thanks to the perfect overview on all levels, the required substance is immediately at hand, the door can be quickly closed again, and the interior temperature remains stable. This saves you time looking for things – and above all energy costs.

The equipment details shown depend on the model; the description for the respective model applies.



SRFvh 5511
Perfection



SRFvh 5501
Perfection



Gross / net capacity l. (cu.ft.)	588 / 440 litre (20.8/19.3)
Exterior dimensions in mm (w / d / h) in inches (w/d/h)	747 / 769 / 1793 29 7/16" 30 5/16" 70 5/8"
Interior dimensions in mm (w / d / h) in inches (w/d/h)	606 / 536 / 1460 23 7/8 21 1/8 57 1/2
Energy consumption in 365 days ¹	360 kWh
Ambient temperature range in °C (°F)	+10 °C to +35 °C (+50°F to +95°F)
Heat output	475 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / Connection rating	60 Hz / 115-127 V~ / 2.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range in °C (°F)	*+3 °C to +16 °C (+38°F to +60°F)
Gradient ² / max. fluctuation ³	3.3 °C / 2.0 °C
External cabinet finish	steel / white
Door material	glass
Internal liner material	commercial grade moulded polystyrol
Type of control	2.4" touch & swipe colour display
Power failure alarm	immediately upon power failure for at least 12 hrs
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartModule
Connectivity solution	Integrated, removable
Interface	WiFi/LAN
Data logger	integrated, USB interface
Interior light	Vertical LED light strip recessed in left wall with separate switch
Adjustable shelves / Shelf material	5 / wire shelves plastic-coated
Usable shelf area in mm (w / d)	606 / 536
Shelf loading / device	60 kg / 300 kg
Castors	castors with brake at the front, fixed castors at the rear
Handle	Antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
DIN 13277	yes
Type of lock / Door hinges	mechanical / right, reversible on site
Gross / net weight (lbs.)	111 (244.7) / 98 (216)
Accessories	
Shelf, plastic-coated	7113310
Base grid	7113314
Glass shelf	9291929
Scanner rail	7435210
Castors Ø 80 mm	9086926
Adjustable feet, 90 - 120 mm / 150 - 180 mm	9080022 / 9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set	on request

Quality right down to the smallest detail



LED front lighting

The LED front lighting provides optimal illumination of the drawers even in dark environments. Thanks to the perfect overview, the desired substance is immediately at hand, the door can be quickly closed again, and the interior temperature remains stable. For low consumption and lower energy costs.



±5 °C temperature stability

Sensitive substances cannot be subjected to large deviations from the set storage temperature. Liebherr freezers guarantee a temperature fluctuation of no more than ±5 °C, so that the valuable goods you store in them are optimally protected and their quality is preserved.



No Frost

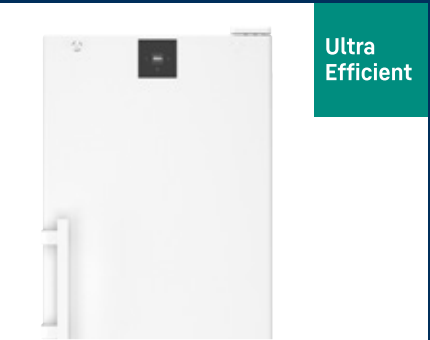
NoFrost technology

Liebherr professional laboratory appliances no longer need manual defrosting. Any moisture that occurs is bound by the fan-assisted cooling, and when necessary, defrosting phases remove any remaining moisture particles from of the interior – for convenient, safe, and ice-free storage.



DIN 13277 compliance

Laboratory and pharmacy refrigerators from Liebherr meet all the necessary equipment and performance criteria to fully comply with DIN 13277. DIN 13277 defines the requirements and test specifications for refrigerators and freezers used in laboratories and for storing medicinal products.



Ultra Efficient

Ultra-efficient

Rising electricity prices are increasing the demands on the efficiency of refrigerators and freezers. From the compressor to the seal, to the lighting and electronics, Liebherr fully utilises the savings potential of every component. The result is impressive – especially in terms of total operating costs.



IEC 61010-2-011 standard

Liebherr refrigerators and freezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.

The advantages at a glance



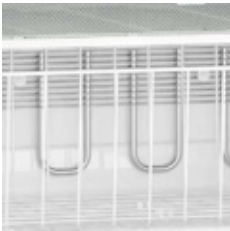
Laboratory appliances with electronic controls are equipped with a volt-free contact for alarm forwarding to an external remote warning system.



The drawers in the LFBFS05W1HC freezer can be easily removed by the handles recessed on the sides of the appliance. The drawers have a transparent front providing a clear view of the products stored inside.



The commercial-grade, molded polystyrol inner liner is exceptionally easy to clean, allowing for optimal hygiene.



Laboratory appliances with electronic controls are equipped with an access port for connecting independent temperature sensors, such as optionally available NTC temperature sensors or similar instruments.

Laboratory appliances with electronic controls include a 1-point calibration function for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature.



The precision electronic control with digital temperature display allows for accurate temperature settings from -9°C to -26°C (16°F to -15°F).



All laboratory refrigerators and freezers with spark-free interiors are tested according to UL standards, meaning they can be used for storing flammable substances in sealed containers meeting requirements for Class I, Division 2 storage of flammable substances.



The precision electronic control includes an integrated data memory which logs the maximum and minimum internal temperatures for up to 41 days.



Self-closing doors prevent the unnecessary loss of cold air and contribute to the temperature stability of the appliance. The integrated lock is very sturdy and protects samples and products against unauthorized access. To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.

Door seals are replaceable for easy and fast maintenance.



LRB05G1HC

MediLine

Gross / net capacity l. (cu.ft.)	152/143 (5.4/5.0)
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
in inches (w / d / h)	23 11/16" / 24 3/8" / 32 1/2"
Interior dimensions in mm (w / d / h)	440 / 435 / 670
in inches (w / d / h)	17 3/8" / 17 3/16" / 26 7/16"
Energy consumption in 365 days ¹	369 kWh
Ambient temperature range in °C (°F)	+10 °C to +35 °C (50°F to 95°F)
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	60Hz/ 115V/ 1.0 A
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	+3 °C to +16 °C (37°F to 61°F)
Gradient ² / max. fluctuation ³	5.1 °C / 4.9 °C
External cabinet finish	steel / white
Door material	glass door
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Interior light	LED ceiling light strip with separate switch
Adjustable shelves	3
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	440 / 420
Shelf loading kg. (lbs)	45 (99.2)
Handle	slimline handle with integrated opening mechanism
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight kg. (lbs.)	46/43 (101.4/94.8)
Accessories	
Shelf, plastic-coated	7113333
Stacking kit, white	9592697
Roller bars	959254300
Additional lock barrels (up to 10)	on request



LRB05W1HC

MediLine

Gross / net capacity l. (cu.ft.)	142/133 (5.0/4.7)
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
in inches (w / d / h)	23 11/16" / 24 3/8" / 32 1/2"
Interior dimensions in mm (w / d / h)	440 / 435 / 670
in inches (w / d / h)	17 3/8" / 17 3/16" / 26 7/16"
Energy consumption in 365 days ¹	273 kWh
Ambient temperature range in °C (°F)	+10 °C to +35 °C (50°F to 95°F)
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	60Hz/ 115V/ 1.0 A
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	+3 °C to +16 °C (37°F to 61°F)
Gradient ² / max. fluctuation ³	4.3 °C / 4.6 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Adjustable shelves	3
Shelf material	wire shelves plastic-coated
Usable shelf area in mm (w / d)	440 / 420
Shelf loading kg. (lbs)	45 (99.2)
Handle	slimline handle with integrated opening mechanism
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight kg. (lbs.)	39/37 (86/81.6)
Accessories	
Shelf, plastic-coated	7113333
Stacking kit, white	9592697
Roller bars	959254300
Additional lock barrels (up to 10)	on request



LRBFS06W1HC

MediLine

Gross / net capacity (cu.ft.)	180/165 (6.4/5.8)
Exterior dimensions in mm (w / d / h)	600 / 600 / 860
in inches (w / d / h)	23 9/16 24 1/16 33 7/8
Interior dimensions in mm (w / d / h)	513 / 441 / 702
in inches (w / d / h)	20 1/4" / 17 3/8" / 27 11/16"
Energy consumption in 365 days ¹	328 kWh
Ambient temperature range in °C (°F)	+10 °C to 27 °C (50°F to 81°F)
Refrigerant	R 600a
Sound power level	47 dB(A)
Voltage / Connection rating	60Hz/ 115V / 1.0 A
Cooling system	forced-air
Defrost	automatic
Temperature range in °C (°F)	1°C to 15°C (34° F to 59°F)
Gradient ² / max. fluctuation ³	10.2 °C / 7.4 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	Rotary control with digital thermometer
Power failure alarm	
Fault: warning signal	
Volt-free alarm contact	
Connectivity type	
Connectivity solution	
Interface	
Adjustable shelves	3
Shelf material	glass
Usable shelf area in mm (w / d)	513 / 412
Shelf loading in kg (lbs)	40 kg (88.2)
Drawers	
Number of baskets	
Compartment height in mm	
Handle	ergonomic slimline handle
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight kg. (lbs)	42/39 (92.6/86)
Accessories	
Glass shelf	9293631
Stacking kit, white	
Roller bars	
Additional lock barrels (up to 10)	



LFBFS05W1HC

MediLine

Gross / net capacity l. (cu.ft.)	140/123 (4.9/4.3)
Exterior dimensions in mm (w / d / h)	601 / 618 / 820
in inches (w / d / h)	23 11/16" / 24 3/8" / 32 3/8"
Interior dimensions in mm (w / d / h)	454 / 450 / 663
in inches (w / d / h)	17 7/8" / 17 3/4" / 26 1/8"
Energy consumption in 365 days ¹	294 kWh
Ambient temperature range in °C (°F)	+10 °C to 27 °C (50°F to 81°F)
Refrigerant	R 600a
Sound power level	45 dB(A)
Voltage / Connection rating	60Hz/ 115V / 1.0 A
Cooling system	static
Defrost	manual
Temperature range in °C (°F)	-9 °C to -26 °C (16°F to -15°F)
Gradient ² / max. fluctuation ³	6.6 °C / 3.3 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	LED 7-segment display with buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartCoolingHub
Connectivity solution	Retrofittable
Interface	RS485
Adjustable shelves	
Shelf material	evaporator plates
Usable shelf area in mm (w / d)	454 / 450
Shelf loading in kg (lbs)	24 (52.9)
Drawers	3
Number of baskets	1
Compartment height in mm	1 × 149
Handle	slimline handle with integrated opening mechanism
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight kg. (lbs)	45/42 (99.2/92.6)
Accessories	
Glass shelf	
Stacking kit, white	9592697
Roller bars	959269700
Additional lock barrels (up to 10)	959254300

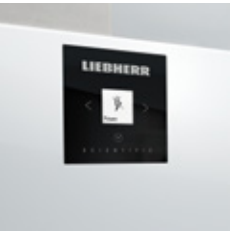
¹ Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.

² Gradient as defined in EN 60068-3: the difference between the warmest and coldest average measurements, increased by their expanded uncertainty, throughout the duration.
³ Max. fluctuation as per EN 60068-3: greatest fluctuation value determined throughout the duration of measurements.

The advantages at a glance

+2 °C SafetyDevice

If the temperature falls below +2 °C due to a malfunction, the SafetyDevice takes control, stabilising the temperature, activating the alarm and protecting the contents from freezing.



Power failure info

The power failure info function reports when the appliance was temporarily without power and what the maximum temperature was during this time. This allows you to better assess the potential loss of quality.

Min./max. temperature log

The min./max. temperature log stores the minimum and maximum interior temperatures and shows on the display whether the storage temperatures were within the tolerance limits.

Easy-to-clean interior

The inner liner made of fully recyclable, robust and odourless polystyrene is manufactured in one piece without joints. This makes it quick and easy to clean the large, rounded corners.

Feedthrough for external sensors

An integrated opening allows a separate sensor to be connected for additional temperature monitoring without having to drill holes or break the door seal.



SRFfg 5501 Performance



Mechanical lock

Liebherr professional appliances are equipped with a mechanical lock and two keys. This ensures that unauthorised persons cannot access your valuable and sensitive stored goods.

Antimicrobial handle with opening mechanism

The smooth-turning handle contains special antimicrobial substances that make it particularly hygienic. Regular and time-consuming disinfection is not necessary.



Replaceable door seal

Save time and money: the insertable Liebherr door seals are easy to change. If a seal is damaged, you can replace it yourself without any tools. Contact Liebherr Customer Service to purchase replacements.

Self-closing door < 90°

To make loading, unloading and cleaning easier, the appliance door stays open if opened by more than 90°. If the opening angle is less than 90°, it closes automatically for safety.

Quality right down to the smallest detail

Robust glass shelves

For more convenience in the lab, the robust glass shelves of the refrigerators and freezers with spark-proof interior are easy to clean and simple to remove when the door is opened by around 90°.



Explosion protection: ATEX 95

The ATEX-95 certification confirms that the Liebherr spark-free laboratory refrigerators and freezers are suitable for storing explosive and highly flammable materials as defined by EU Directive 2014/34/EU (ATEX).



Super-efficient

Rising electricity prices are increasing the demands on the efficiency of refrigerators and freezers. From the compressor to the seal, to the lighting and electronics, Liebherr fully utilises the savings potential of every component. The result is impressive – especially in terms of total operating costs.



±3 °C temperature stability

Temperature fluctuations must be minimal to ensure that the quality of sensitive substances is preserved. Liebherr Laboratory refrigerators have an impressive maximum deviation of just ±3 °C from the set temperature. This not only maintains the storage climate, but also the value of your stored goods.



IEC 61010-2-011 standard

Liebherr refrigerators and fraeezers specially developed for storing temperature-sensitive products are CE safety-compliant. This ensures that all mechanical and electrical requirements for injury-free operation are met – and that you and your team are always safe.



SRFfg 5501

Performance



Gross / net capacity l. (cu.ft.)	558/517 (19.7/18.3)
Exterior dimensions in mm (w / d / h)	747 / 769 / 1684
in inches (w / d / h)	29 7/16" / 30 5/16" / 66 5/16"
Interior dimensions in mm (w / d / h)	600 / 537 / 1460
in inches (w / d / h)	23 9/16" / 25 3/4" / 66 5/16"
Energy consumption in 365 days ¹	399 kWh
Ambient temperature range in °C (°F)	*+10 °C to +35 °C (+50 °F to +95 °F)
Heat output	408 kJ/h
Refrigerant	R 600a
Sound power level	49 dB(A)
Voltage / Connection rating	60Hz / 115- 127V~ / 2.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range in °C (°F)	*+3°C to +16°C (+38 °F to +60 °F)
Gradient ² / max. fluctuation ³	3.7 °C / 3.0 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartModule
Connectivity solution	Retrofittable
Interface	WiFi/LAN (optional)
Adjustable shelves	5
Shelf material	glass
Usable shelf area in mm (w / d)	600 / 537
Shelf loading / device	40 kg / 300 kg
Handle	Antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight kg. (lbs)	94 (207.2) / 87 (191.8)

Accessories	
Glass shelf	9291929
Perforated metal shelf	
Scanner rail	7435210
Castors Ø 80 mm	9086926
Castors Ø 100 mm	9080023
Adjustable feet, 90 – 120 mm	9080022
Adjustable feet, 150 – 180 mm	9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set	on request



SRFfg 3501

Performance



Gross / net capacity l. (cu.ft.)	344/315 (12.1/11.1)
Exterior dimensions in mm (w / d / h)	597 / 654 / 1684
in inches (w / d / h)	23 9/16" / 25 3/4" / 66 5/16"
Interior dimensions in mm (w / d / h)	460 / 537 / 1460
in inches (w / d / h)	18 1/8" / 16 11/16" / 57 1/2"
Energy consumption in 365 days ¹	406 kWh
Ambient temperature range in °C (°F)	*+10 °C to +35 °C (+50 °F to +95 °F)
Heat output	388 kJ/h
Refrigerant	R 600a
Sound power level	48 dB(A)
Voltage / Connection rating	60Hz / 115- 127V~ / 2.0 A
Cooling system / Defrost	forced-air / automatic
Temperature range in °C (°F)	*+3°C to +16°C (+38 °F to +60 °F)
Gradient ² / max. fluctuation ³	3.6 °C / 3.1 °C
External cabinet finish	steel / white
Door material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	monochrome display, touch buttons
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Volt-free alarm contact	yes
Connectivity type	SmartModule
Connectivity solution	Retrofittable
Interface	WiFi/LAN (optional)
Adjustable shelves	4
Shelf material	glass
Usable shelf area in mm (w / d)	460 / 537
Shelf loading / device	40 kg / 180 kg
Handle	Antimicrobial handle with opening mechanism
Access ports	1 x Ø 10 mm
ATEX conformity	yes
Type of lock	mechanical
Door hinges	right, reversible on site
Gross / net weight kg. (lbs)	70 (154.3) / 65 (143.3)

Accessories	
Glass shelf	9293493
Perforated metal shelf	9029022
Scanner rail	7435208
Castors Ø 80 mm	9086926
Castors Ø 100 mm	9080023
Adjustable feet, 90 – 120 mm	9080022
Adjustable feet, 150 – 180 mm	9086924
Additional lock barrels (up to 5)	on request
Side-by-Side set	on request

¹ Measured at +25°C ambient temperature and +5°C set temperature for fridges and -20°C for freezers.



Accessories

Laboratory refrigerators and freezers with stainless steel inner liner



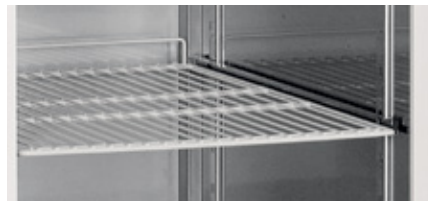
Side-by-side set

Using the side-by-side set, two appliances can be placed next to each other. The required gap between the appliances is maintained, and they are neatly connected by the cover strip. This ensures tidy installation and avoids any condensation or water between the appliances.



U-shaped trayslides

Additional U-shaped trayslides can be retrofitted as required to provide extra storage options.



Plastic-coated grid shelf

If you need more storage space or want to separate stored products and have a better overview, Liebherr appliances can be equipped with additional grid shelves. Made of metal with a polypropylene coating, they are identical to the ones that come as standard in the appliances and you benefit from the same corrosion-resistant and durable extra shelving.



Product temperature sensor

A product temperature sensor for logging product temperatures is available as a retrofit kit for the laboratory appliances with electronic controller. The logged product temperatures can either be read by the electronic controller or transferred to an external documentation system via the existing RS 485 interface.



Foot-pedal door opener

The optional foot-pedal opener is useful when you don't have a hand free.