°LAUDA

-80.0

DEEP-FREEZERS
Ultra high-quality, ultra safe, ultra reliable.

°FAHRENHEIT. °CELSIUS. °LAUDA.

LAUDA deep-freezers

LAUDA Versafreeze – for safe, long-term storage
Vaccines, organic substances and valuable samples that need to be stored at low temperatures are irreplaceable. Only the highest-quality deep-freezers guarantee long-term stability and availability in these challenging conditions.

Based on decades of experience and technical development, LAUDA has optimized its Versafreeze deep-freezers for the extreme conditions of ultra deep-freeze storage and set new standards. LAUDA Versafreeze deep-freezers are developed and manufactured by LAUDA-GFL. The company has been a member of the LAUDA Group since December 31, 2018, and is known throughout the world as a premium manufacturer of reliable laboratory technology.
The use of the ›GFL Technology‹ quality mark means that LAUDA is continuing the tradition of the GFL brand, which has been renowned for its quality and reliability in laboratories and pharmaceutics worldwide for more than 50 years.

High-quality components
Whether vacuum panels from va-Q-tec, compressors from Embraco or controllers from Störk – LAUDA Versafreeze is built with quality and reliability in mind.

Excellent temperature distribution
LAUDA Versafreeze offers outstanding temperature homogeneity and consistency and guarantees the secure storage of sensitive products throughout the entire freezer space.

Secure storage
LAUDA Versafreeze provides the greatest possible security for your samples, even in a power cut, thanks to long warm-up times. The integrated accumulator maintains the actual temperature display and alarm functions for a period of up to 35 hours.

Sustainable refrigeration technology
LAUDA Versafreeze comes with the advantage of efficient and sustainable refrigeration technology. As the world's first manufacturer of deep-freezers to use natural refrigerants, LAUDA-GFL has been setting standards in the storage of sensitive pharmaceutical products since 2008.

Excellent insulation properties
LAUDA Versafreeze represents high-performance insulation technology. Vacuum panels, impermeable polyurethane foam insulation and thermal film enable efficient energy consumption, high temperature stability, short pull-down times and maximum warm-up times.

State-of-the-art controls – IOT-ready
The modern, capacitive touch display offers intuitive navigation with various configuration options, a data logger, password-protected user access and secure monitoring via the LAUDA Cloud.

LAUDA Versafreeze deep-freezers
Applications and product features

Secure and reliable:
The interior of LAUDA Versafreeze deep-freezers is completely made of stainless steel. The freezers protect valuable samples from unauthorized access and temperature manipulation. High quality and reliability reduce the risk of costly damage due to spoiled samples and minimize the need to keep spare capacities for the rapid transfer of stored goods.

Typical fields of application:
- Secure storage of organic substances, vaccines or reference strains of microorganisms
- Cold storage of enzymes and test kits in laboratories and hospitals
- Storage in pharmaceutical and chemical facilities
- Storage in pharmaceutical logistics centers

High-performance operating unit with password-protected user management

LAUDA Versafreeze deep-freezers for the secure storage of valuable samples and substances

Tailor-made solutions:
LAUDA Versafreeze deep-freezers are the result of more than 50 years of market experience, based on uncompromising quality and reliability. The appliances can be optimized for any application, thanks to a comprehensive range of options and accessories, be it CO_2 or LN_2 safety cooling, water cooling, storage systems or special fittings.

Sustainable and energy-efficient:
LAUDA Versafreeze deep-freezers are optimized for maximum energy efficiency and minimum thermal load. The multi-layered insulation in the door, machinery room or inner compartments protects against loss of coldness and minimizes the energy consumption of continuous operation and the discharge of waste heat into the room air conditioning.

Insulation (from right to left):
Interior with stainless steel walls, tightly meshed evaporator, thermal film, vacuum panels, impermeable foam, appliance front

LAUDA Versafreeze – the right equipment for any application

Powerful insulation technology with high-quality materials

Technical data

| Device type	Usable volume L	Temperature range	Cooling time to −80 °C / −40 °C h (without load)	Warm-up time −80 °C / −40 °C to 0 °C h (without load)	Interior dimensions (W x D x H) mm	External dimensions (W x D x H) mm	Power supply	Electrical connection	Part number
Chest freezers									
VF 20040 C	205	−40 ... 0 °C	3	6	790×520×500	960×790×1130	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003335
VF 55040 C	556	−40 ... 0 °C	4	10	1180×620×760	1671×910×1056	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003336
VF 75040 C	754	−40 ... 0 °C	5	10	1600×620×760	2102×910 x 1056	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003337
VF 20085 C	205	−86 ... −50 °C	3	11	790×520×500	960×790×1130	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003338
VF 55085 C	556	−86 ... −50 °C	4	19	1180×620×760	1671×910×1056	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003339
VF 75085 C	754	−86 ... −50 °C	5	19	1600×620×760	2102×910×1056	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003340
Upright freezers									
VF 15040	129	−40 ... 0 °C	5	12	480×480×560	904×776×865/837*	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003341
VF 60040	583	−40 ... 0 °C	6	17	738×600×1320	980×1029×1965	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003342
VF 70040	731	−40 ... 0 °C	7	13	738×750×1320	980×1179×1965	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003343
VF 15085	129	−86 ... −50 °C	5	18	480×480×560	904×776×865/837*	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003344
VF 60085	583	−86 ... −50 °C	6	27	738×600×1320	980×1029×1965	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003345
VF 70085	731	−86 ... −50 °C	7	25	738×750×1320	980×1179×1965	230 V; 50 Hz	CEE7/7 angled, (EU, Schuko)	L003346

Other voltage and plug variants available.
* Height after removing the cover plate

COOLING CURVE*
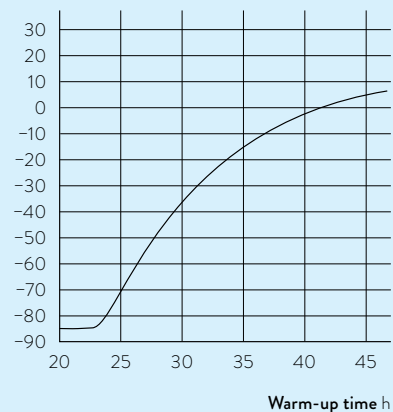At 15–25°C ambient temperature (without load)
Temperature °C

VF 55085 C

Time h
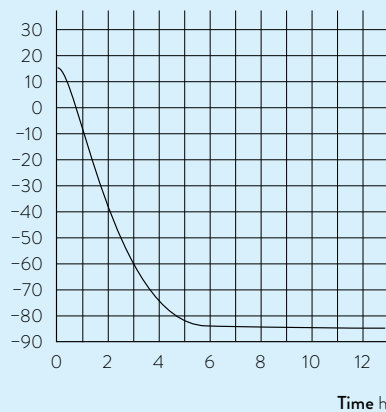
WARM-UP CURVE*
At 15–25°C ambient temperature (without load)
Temperature °C

VF 55085 C

Warm-up time h

*The cooling and warm-up curves serve as an example and refer to the device type VF 55085 C.

LAUDA Versafreeze
Options

LAUDA Versafreeze deep-freezers are characterized by outstanding versatility and tailor-made accessories. If required, the deep-freezers can be factory-equipped with additional options to increase safety and performance.
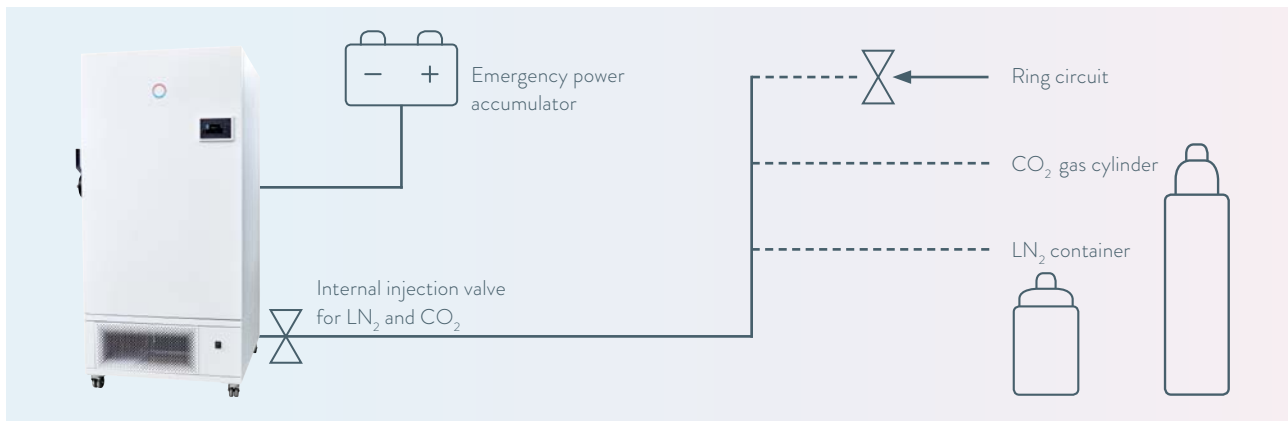We will be happy to advise you on the available equipment options.

Option: CO_2 or LN_2 safety cooling

A power failure or device defect can result in thawing of valuable material samples and vaccines.
Safety cooling protects against uncontrolled rises in temperature, by keeping the temperature in the freezer space constant at a freely definable value (0 to −70 °C) using a controlled supply of LN_2 or CO_2.
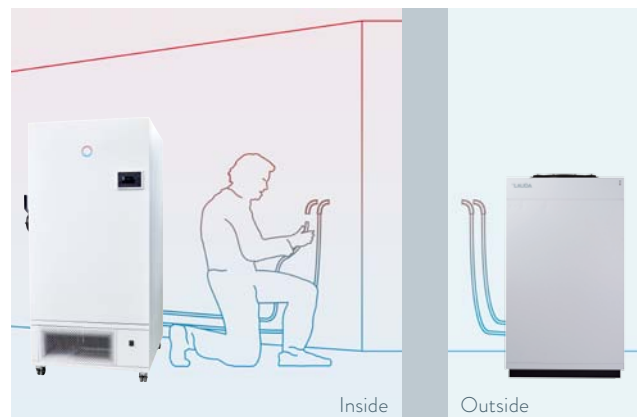
LAUDA Versafreeze deep-freezers are optionally available with safety cooling systems for the refrigerants CO_2 or LN_2. LN_2 is used if the stored materials cannot be allowed to come into contact with CO_2. LAUDA Versafreeze safety cooling systems feature an integrated accumulator, which supplies the safety cooling system and alarm module with power.

Emergency power accumulator

Ring circuit

CO_2 gas cylinder

LN_2 container

Internal injection valve for LN_2 and CO_2

CO_2 or LN_2 connection diagram: Installation of a freezer in a central ring circuit or decentralized installation directly on an emergency gas supply

Option: Water cooling

For operation on central water cooling and heat exchange systems, LAUDA also supplies deep-freezers in a water-cooled version. Instead of an air-cooled condenser, a heat exchanger is installed. It significantly reduces the heat emitted by the appliance into the ambient air, while expanding the permissible ambient temperature range. The water supply is controlled via the deep-freezer.


Inside   Outside

Connection of Versafreeze to a central cooling water supply (e.g. via the LAUDA Ultracool process circulation chiller)

Option: Set of drawers for upright freezers

Instead of compartments with doors, the freezer space of the deep-freezers can be equipped with a set of drawers. These drawers are made of stainless steel and feature front panels made of 10-mm-thick polystyrene insulating plates. Ball bearings and guide rails guarantee effortless, tilt-proof opening and closing.

Set of drawers for 129 L cabinet: 3 drawers
Set of drawers for 583 L cabinet: 5 drawers
Set of drawers for 731 L cabinet: 5 drawers
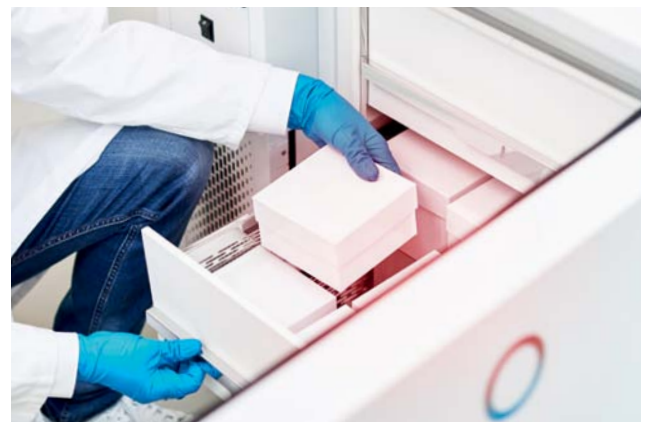
LAUDA Variofreeze upright freezers can be fitted with up to five drawers, as required

Option: Factory certificate

The factory certificate documents the spatial and temporal temperature stability of the specific LAUDA Versafreeze deep-freezer in detail. All the required measuring data is measured at the factory using a calibrated measuring device, and archived long-term.
This appliance-specific certificate can be used by customers to verify the quality of the deep-freezer and storage conditions if they have to comply with the special approval guidelines of the American FDA.

Part number: A000146
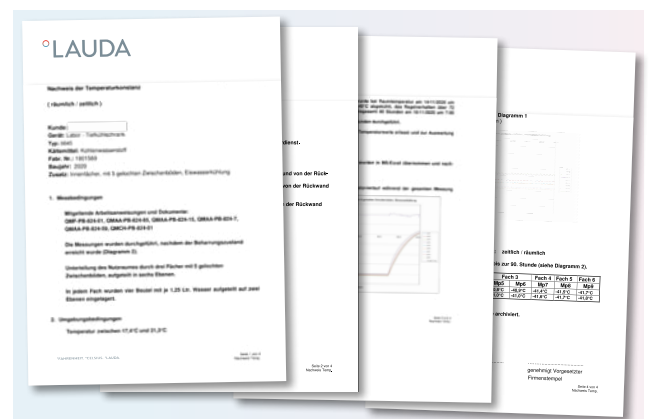
Detailed presentation of measured values and temperature curves on the factory certificate

LAUDA Versafreeze
Accessories

Accessory: LAUDA storage system

Optimal utilization of the usable volume can be achieved using racks for boxes, microtiter plates and DeepWell plates. The racks, made of stainless steel, are weight-saving and ergonomic. They ensure secure and well-organized storage of all sample materials.

The capacities of the sample storage boxes are variable and can be adapted to different requirements. Three box heights and four grid dividers ensure optimal adaptation to different storage vessels. The boxes are made of cardboard with a hydrophobic coating.

Device type	Usable volume ⌐	Contents	Part number for 1 box	Quantity of racks per freezer	Part number for 1 rack	Quantity of boxes/plates per rack	Quantity of boxes/plates per freezer
Chest freezers							
VF 20040 C VF 20085 C	205	50 mm box height	A001386	15	A001393	9	135
		75 mm box height	A001387	15	A001394	6	90
		130 mm box height	A001388	15	A001395	3	45
		Test plates		25	A001399	24	600
VF 55040 C VF 55085 C	556	50 mm box height	A001386	32	A001396	13	416
		75 mm box height	A001387	32	A001397	9	288
		130 mm box height	A001388	32	A001398	5	160
		Test plates		48	A001400	37	1776
VF 75040 C VF 75085 C	754	50 mm box height	A001386	44	A001396	13	572
		75 mm box height	A001387	44	A001397	9	396
		130 mm box height	A001388	44	A001398	5	220
		Test plates		68	A001400	37	2516
Upright freezers / Racks with drawers							
VF 15040 VF 15085	129	50 mm box height	A001386	9	A001407	9	81
		75 mm box height	A001387	9	A001408	6	54
		130 mm box height	A001388	9	A001409	3	27
		Microtiter plates		6	A001416	35	210
VF 60040 VF 60085	583	50 mm box height	A001386	35	A001410	12	420
		75 mm box height	A001387	35	A001411	8	280
		130 mm box height	A001388	35	A001412	4	140
		Microtiter plates		35	A001417	42	1470
VF 70040 VF 70085	731	50 mm box height	A001386	35	A001413	15	525
		75 mm box height	A001387	35	A001414	10	350
		130 mm box height	A001388	35	A001415	5	175
		Microtiter plates		35	A001418	56	1960
Upright freezers / Racks with side loading							
VF 60040 VF 60085	583	50 mm box height	A001386	35	A001401	12	420
		75 mm box height	A001387	35	A001402	8	280
		130 mm box height	A001388	35	A001403	4	140
		DeepWell/test plates		35	A001419	18/54	630/1890
VF 70040 VF 70085	731	50 mm box height	A001386	35	A001404	15	525
		75 mm box height	A001387	35	A001405	10	350
		130 mm box height	A001388	35	A001406	5	175
		DeepWell/test plates		35	A001420	24/72	840/2520

Boxes		Part number
Cryo Box, 136 × 136 × 50 mm, cardboard	white, water repellent	A001386
Cryo Box, 136 × 136 × 75 mm, cardboard		A001387
Cryo Box, 136 × 136 × 130 mm, cardboard		A001388

Grid		Part number
Grid divider for 100 tubes Ø 12.5 mm, H 25 mm		A001389
Grid divider for 64 tubes Ø 15 mm, H 25 mm	for boxes 136 × 136 mm	A001390
Grid divider for 49 tubes Ø 17 mm, H 40 mm		A001391
Grid divider for 16 tubes Ø 31 mm, H 65 mm		A001392

Chest freezer VF 75085 C with storage system

Racks with drawers for upright freezers

LAUDA Variofreeze deep-freezers offer optimal utilization of the usable volume

Upright freezers with flexible loading options

Accessory: Data logger

The battery-operated data logger is used for external monitoring and recording of the interior temperature. The magnetically fixable data logger has a PT1000 temperature probe with a three-meter cable, which is fed into the freezer space via the device's integrated feedthrough. The data logger has an adjustable limit value monitor with an acoustic alarm, and offers a memory for up to 60,000 measured values with recording intervals from 1 sec. to 24 h (adjustable). The data logger is configured and the data is read out directly on a PC using the USB cable supplied. Optionally, the data logger can be calibrated at a customer-specific temperature, and the calibration is verified with a certificate.

Part numbers:
Data logger A001383
Calibration A000147

The data logger can be fixed to Versafreeze deep-freezers magnetically and configured or read via a USB interface

LAUDA Versafreeze
Special solutions

A specialist in every application
LAUDA Versafreeze deep-freezers have been tried and tested for decades in a wide range of applications and solve even the most difficult problems, whether as a series device or special solution.

Options include:
- Modified inner compartments and drawers for upright freezers
- Locking systems and reinforced shelves
- Cabinet dividers for chest freezers
- Storage systems with custom dimensions
- Installation of additional feedthroughs
- Installation of additional temperature probes
- Additional modifications

Application-oriented space utilization solutions provide increased variability and user-friendliness

LAUDA Versafreeze deep-freezers are characterized by first-class craftsmanship and high flexibility
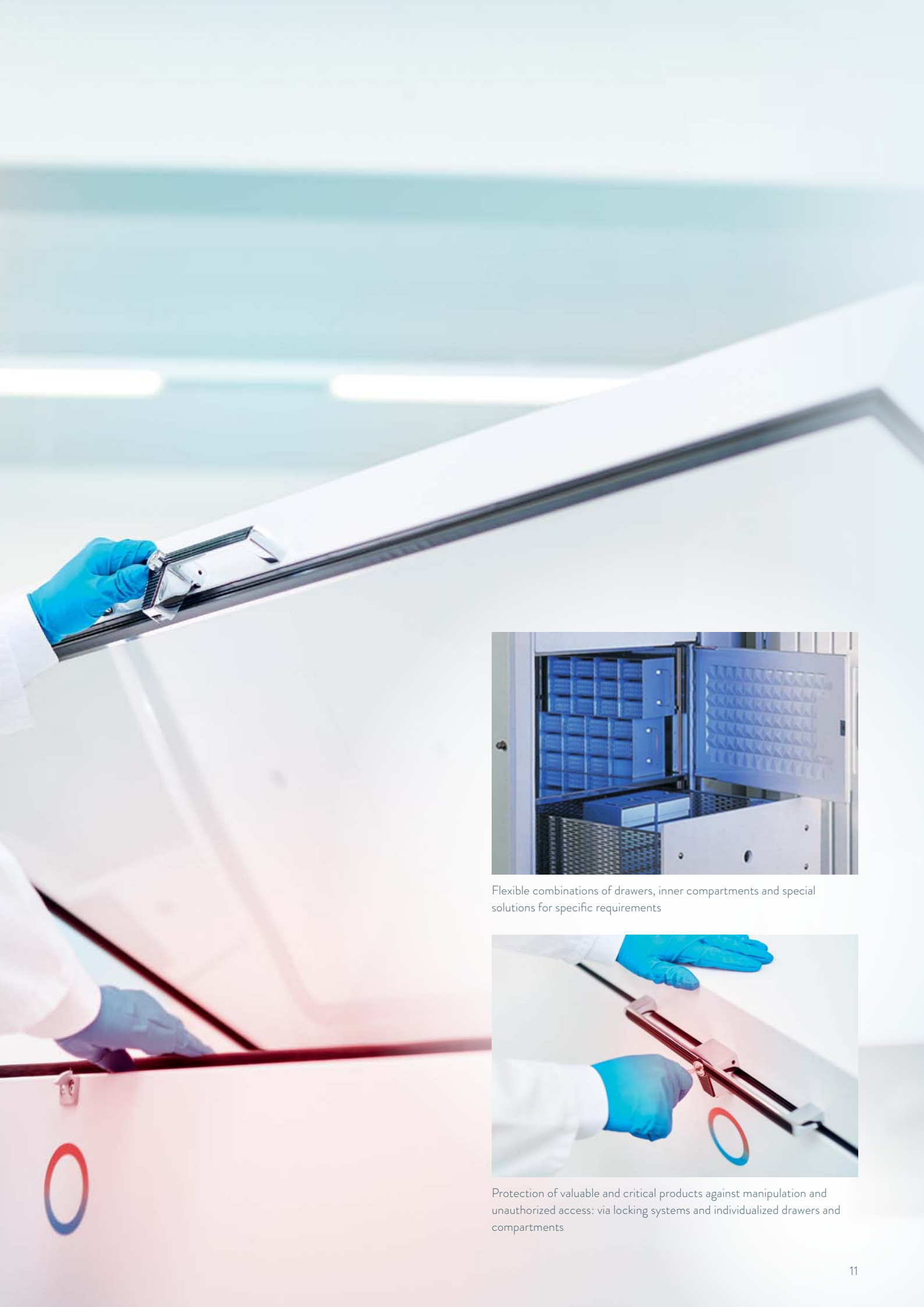
Flexible combinations of drawers, inner compartments and special solutions for specific requirements

Protection of valuable and critical products against manipulation and unauthorized access: via locking systems and individualized drawers and compartments