

Biomedical



REFRIGERATORS & FREEZERS FOR BIOMEDICAL NEEDS

SOLUTIONS FOR DEMANDING NEEDS

RELIABLE . USER-FRIENDLY . ECO-FRIENDLY



Medical Certifications are key to success

Our Premium line will be certified according to the highest EU standards

Vestfrost Solutions' Biomedical line is constantly being improved. New products are being added and existing units enhanced.

Although Vestfrost Solutions is renowned for high quality we have decided to have our biomedical line certified with the highest medical standards.

Inside the catalogue you will easily find notifications about these standards and the units included in the initial certification. Please do not hesitate to contact your sales rep for full information on certified products. Certified units available from Q1 2015.



International
Organization for
Standardization



DIN 58345
DIN 58371
DIN 58375



Medical Device
Directive 93/42/EEC

Reliable Biomedical Solutions

Vestfrost Biomedical Solutions is reliable and user-friendly refrigeration and freezing equipment specifically designed for hospitals, health clinics, blood banks, universities, laboratories and pharmacies.

Serving global needs and requirements

From the small health clinic in the village with no electricity to the high-tech hospital in the metropolitan; Vestfrost Biomedical Solutions serve global needs and requirements of the entire health sector. Our product line consists of intelligent solutions covering temperatures from +20°C to -86°C.



Reliable and accurate storage

Accurate and reliable storage is vital to secure efficacy of vaccines and medicine. Benefitting from more than 50 years experience, we have gained vast expertise to develop Biomedical refrigerators and freezers with uncompromised focus on safe operation and reliable temperatures.



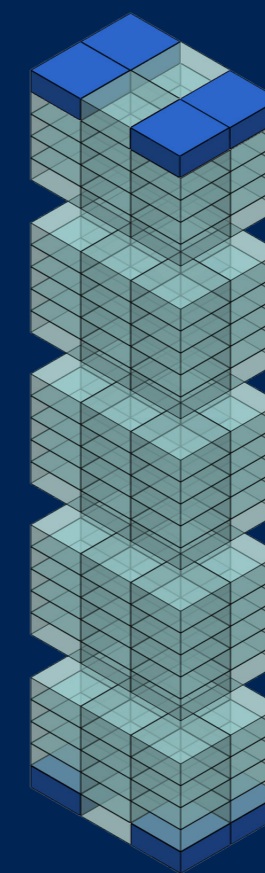
Trademark features benefitting users and environment

Our energy saving Biomedical refrigerators and freezers are designed to be long-term investments that include Vestfrost Solutions' renowned quality, functional design, ease of operation and maintenance. These features are beneficial to the environment and the people using our products.

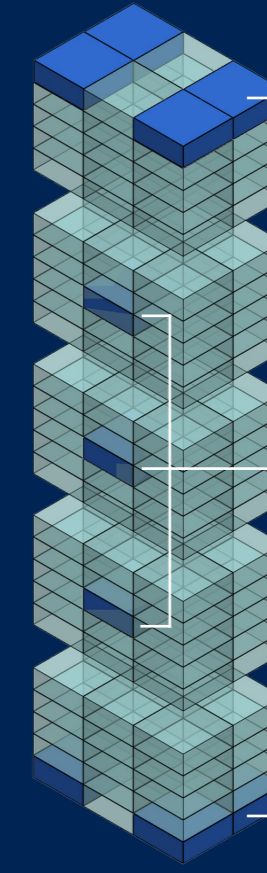


TESTED TO THE HIGHEST STANDARDS
SAFETY . PERFORMANCE . CONFORMITY

PHARMA



FRONT



REAR

Top packages 2 front, 2 back

Centre packages placed on each shelf measuring inside temperature distribution

Bottom packages 2 front, 2 back

11-point performance test



Every single unit produced in our factory is thoroughly performance tested to reach the desired temperature.

The performance test provides a full diagram of the cooling distribution inside the unit thus a very precise knowledge of the unit's accuracy and stability.

Dedicated to the highest level of performance and testing

We have decided to focus our business on what we do best – providing high quality refrigeration and freezing solutions. That is all we do. And that is how it has always been, ever since A/S Vestfrost was founded in 1963. This devotion obliges us to deliver excellent performance. Always.

All biomedical units are strictly tested in our on-site test facilities before leaving the warehouse to ensure they meet the promised temperature and is correctly calibrated. In essence a specific pull-down curve and performance report is available for 2 years for every single unit.

The test chambers in our advanced laboratory allow our engineers to test in 43°C ambient temp. and up to 90% humidity with as much as 32 measuring points. This has given us advanced knowledge about the cooling performance in almost any condition and environment.



Testing to your standards

Through experience we have learned that customers rarely have the same expectations – not least when it comes to cooling performance and standards.

At our high-tech test facilities we can test according to your local or national standards.



Premium -86°C Ultra Low Temp. Freezer

Exclusive new model with added features

The VTS series offers a rare combination of streamlined and space-saving design with large capacity and advanced technology.

The ultra low temperature cabinet is designed for long term storage of sensitive articles such as research samples, chemicals, and viruses where contents must remain changeless. Among many useful features, the VTS freezer is equipped with an ergonomic full-door handle for better grip and energy saving LED lighting for clear viewing of stored contents.

Innovative interface & control panel

The large display and Dixell NG+ controller provides an easy view of the current cabinet temperature. View temperature history with the illustrative graph chart, which can be generated on the screen. Temperature data can be downloaded with the USB data logging system. In case of power failure, the battery back-up system will notify about temperature fluctuations up to 48 hours.



VTS 258



USB data collection point

Data of temperature history can be downloaded via the built-in USB port. This serves as an added safety feature when the freezer is left unattended for longer periods. Equally, it is useful for reporting statistics that validate correct storage temperature over longer periods. An integrated lock is placed below the USB port.



LED lights

The VTS-series are all equipped with LED light to ensure optimal conditions for the user whilst the front door is opened. LED lights are significantly brighter than traditional incandescent light bulbs and use considerably less energy.



Internal doors and shelves

When the freezer is opened, the two internal doors assist in upholding stable cabinet temperature. The 5 adjustable shelves behind the internal doors offer improved storage flexibility. Inner doors are secured with a door lock and compartments are designed for optimal storage of racks. Interior materials in the VTS-series are 100% stainless steel.

	VTS 258
Capacity (gross), litres	253
Height/width/depth, mm	2055/600/643
Temperature range (20°C AMB)	-60°C to -86°C
Refrigerant	Nature R
Power consumption (20°C AMB) per 24 hrs, kWh	9,0
Certifications	CB, CE, EMC
No. of inner doors / compartments	2 / 5

Premium -60°C Low Temp. Freezer

Designed for storage of ingredients and chemicals

The user-friendly VTS low temperature freezers create perfect conditions to maintain temperatures as low as -60°C. With its high temperature precision, the VTS series is a good match for laboratories, hospitals and research institutes. It may also be used for storage of ingredients.

Eco-friendly solution with low running costs

VTS 256-60°C low temperature freezers are designed with Vestfrost Solutions' own natural refrigerant mix: Nature R. Additionally, the freezers are constructed with recyclable materials and feature efficient cyclopentane insulation; all-in-all forming one of the market's more sustainable solutions with low power consumption.



VTS 256



Castors

The tall and streamlined design makes the freezer fit easily into any room and setup. Mobility is, in addition, enhanced by the castors, which make positioning and re-positioning effortless (included on VTS 258/256/254).

Premium -45°C Low Temp. Freezer

Designed for demanding use

The reliable VTS 254 is specially designed for demanding use at laboratories, hospitals and research institutes for plasma freezing. These VTS low temperature freezers create perfect conditions to maintain temperatures down to -45°C.

Plasma freezer with practical benefits

The state-of-the-art design and significant 80mm insulation thickness gives a rare combination of low energy consumption and long lifetime. Among several features, the VTS 254-45°C freezers have acoustic and visual alarm, top LED-lights and battery backup for temperature display and logging in case of power failure.



VTS 254



Lock

An integrated lock in the solid handle prevents unauthorized access to the low temperature freezer when it is left unattended.

VTS 256

Capacity (gross), litres	253
Height/width/depth, mm	2055/600/643
Temperature range (20°C AMB)	-30°C to -60°C
Refrigerant	Nature R
Power consumption (20°C AMB) per 24 hrs, kWh	6,5
No. of inner doors / compartments	2 / 5
Certifications	CB, CE, EMC

VTS 254

Capacity (gross), litres	253
Height/width/depth, mm	2055/600/643
Temperature range (20°C AMB)	-10°C to -45°C
Refrigerant	Nature R
Power consumption (20°C AMB) per 24 hrs, kWh	4,1
No. of inner doors / compartments	0 / 5
Certifications	CB, CE, EMC & DIN 58375*

*Medical certifications valid medio 2015

Single-compressor -86°C Ultra Low Temp. Freezer

Designed for demanding storage requirements

The VT ultra low temperature chest freezers are specifically designed for long term storage of sensitive items such as research samples, chemicals, and viruses where contents must remain changeless at temperatures as low as -86°C.

Performance is enhanced with natural refrigerants and unique single-compressor system as opposed to typical market standards of cascade systems. The ultra low temperature freezers are specifically targeted hospitals, research institutes and laboratories with demanding storage requirements.

Temperature stability and precision

Powerful cyclopentane insulation ensures optimal temperature stability and precision. The actual temperature is viewed on the digital XR30CX controller with display, which is pre-programmed from factory. Parameters can be reset with hot key.



Suitable for rack systems

The VT freezer is suitable for rack systems and provides room for multiple racks. Standard racks are fit for purpose allowing end users to maximize the use of the unit. Dimensions and other information is available from our website and biomedical team.



Lock

An integrated lock in the solid handle prevents unauthorized access to the low temperature freezer when it is left unattended.



VT 408



Castors

The VT freezer is equipped with castors and can easily be repositioned as required (included on VT 208/308/408).

	VT 78	VT 208	VT 308	VT 408
Capacity (gross), litres	74/71	198/189	296/284	383/368
Height/width/depth, mm	895/600/645	885/920/695	885/1260/695	885/1560/695
Temperature range (20°C AMB)	-60°C to -86°C	-60°C to -86°C	-60°C to -86°C	-60°C to -86°C
Power consumption (20°C AMB) per 24 hrs, kWh	5.10	6.00	7.40	8.10
Refrigerant	Nature R	Nature R	Nature R	Nature R
No. of inner lids	1	2	3	4

-60°C Low Temp. Freezer

Designed to endure

The user-friendly VT low temperature freezers create perfect conditions to maintain temperatures as low as -60°C. With its high temperature precision, the VT series is a good match for laboratories, hospitals and research institutes. It may also be used for storage of ingredients.

Eco-friendly solution with low running costs

VT-60°C low temperature freezers are designed with Vestfrost Solutions' own natural refrigerant mix: Nature R. Additionally, the chest freezers are constructed with recyclable materials and feature efficient cyclopentane insulation; all-in-all forming one of the market's more sustainable solutions with low power consumption.



VT 307



Display

Temperature is controlled with the digital XR30CX controller with display. The controller is pre-programmed from factory. Parameters can be reset with hot key.

-45°C Low Temp. Freezer

Designed for demanding use

Easy to use and easy to clean; the reliable VT series is specially designed for demanding use at laboratories, hospitals and research institutes. These VT low temperature freezers create perfect conditions to maintain temperatures as low as -45°C.

Chest series with practical benefits

Product lifetime is prolonged thanks to the VT low temperature freezer's solid and sturdy design. Unit cost compared to storage volume is nearly impossible to match by other alternatives, which makes the chest freezers a sound economic investment. Among several features, the VT-45°C freezers have acoustic and visual alarm, and optional battery backup for temperature display.



VT 546



Robust handle

The VT-series are fitted with an ergonomic and robust handle in aluminum finish that ensures a firm grip even when wearing gloves.

	VT 75	VT 147	VT 307	VT 407	VT 547
Capacity (gross), litres	74/71	140/133	296/284	383/368	495/476
Height/width/depth, mm	895/600/645	885/720/695	885/1260/695	885/1560/695	890/1660/758
Temperature range (25°C AMB)	-30°C to -60°C	-30°C to -60°C	-30°C to -60°C	-30°C to -60°C	-30°C to -60°C
Power consumption (25°C AMB) per 24 hrs, kWh	4.00	4.20	7.20	9.20	7.20
Refrigerant	Nature R	Nature R	Nature R	Nature R	Nature R
No. of baskets	1	1	3	4	3

	VT 146	VT 306	VT 406	VT 546
Capacity (gross), liters	140/133	296/284	383/368	495/476
Height/width/depth, mm.	885/720/695	885/1260/695	885/1560/695	890/1660/758
Temperature range (25°C AMB)	-10°C to -45°C	-10°C to -45°C	-10°C to -45°C	-10°C to -45°C
Power consumption (25°C AMB) per 24 hrs, kWh	3.50	5.30	5.80	6.50
Refrigerant	R404a	R404a	R404a	R404a
No. of baskets	1	1	1	3

Premium Blood Bank Refrigerator

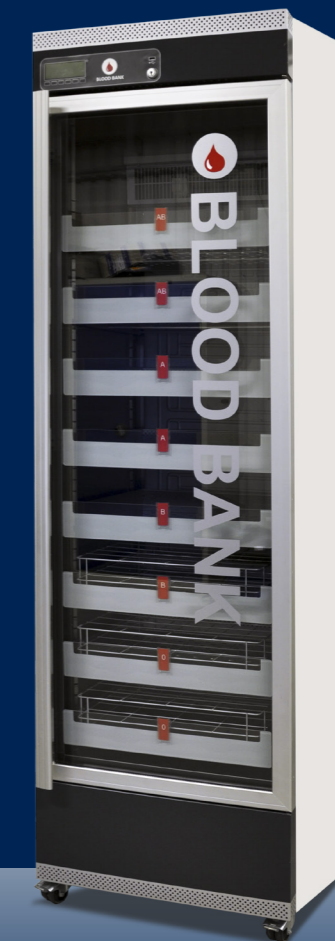
Exclusive new model with added features

BBR 290 Blood Bank Refrigerator offers and state-of-the-art technology specifically designed for the storage of blood bags in +4°C.

The specially designed Blood Bank BBR 290 is made for reliable and precise storage of blood bags. BBR 290, which stores up to 160 blood bags, is an exclusive stainless steel cabinet designed for blood banks and hospitals where quality and reliability matters. Among many useful features BBR 290 is equipped with an ergonomic full-door handle for better grip and energy saving LED lighting for clear viewing of stored blood bags.

Large control panel

The large display and Dixell NG+ controller provides an easy view of the current cabinet temperature. View temperature history with the illustrative graph chart, which can be generated on the screen. Temperature data can be downloaded with the USB data logging system. In case of power failure, the battery back-up system will notify about temperature fluctuations up to 48 hours.



BBR 290



USB data collection point

Data of temperature history can be downloaded via the built-in USB port. This serves as an added safety feature when the refrigerator is left unattended for longer periods. Equally, it is useful for reporting statistics that validate correct storage temperature over longer periods. An integrated lock is placed below the USB port.



Air Distribution & Temperature Control

The BBR 290 is fitted with an advanced air distribution system securing a constant +4°C internal temperature and correct storage of blood bags according to 93/42/EEC Medical Device Directive & DIN 58371.



Adjustable drawers for blood bags

The extractable drawers inside the cabinet include partitions for rational storage of blood bags, which can be positioned lying or standing. BBR 290 is fitted with 10 extractable drawers as standard.

	BBR 290
Capacity (gross), litres	356
Storage capacity, no. of blood bags	160
Height/width/depth, mm	2055/600/643
Temperature range	+4°C
Refrigerant	R600a
Certifications	CB, CE & EMC MDD 93/42/EEC*, DIN 58371*

*Medical certifications valid primo 2015.

Premium Pharmacy Refrigerator

Exclusive new model with added features

AKG 427E offers a rare combination of streamlined and space-saving design with large capacity and state-of-the-art technology.

With reliable temperatures in the needed range from +2°C to +8°C the exclusive AKG 427E is developed for safe storage of medicine in pharmacies, laboratories and hospitals. Among many useful features, AKG 427E is equipped with an ergonomic full-door handle for better grip and energy saving LED lighting for clear viewing of stored contents.

Large control panel

The large display and Dixell NG+ controller provides an easy view of the current cabinet temperature. View temperature history with the illustrative graph chart, which can be generated on the screen. Temperature data can be downloaded with the USB data logging system. In case of power failure, the included battery back-up system will notify about temperature fluctuations up to 48 hours.



AKG 427E



USB data collection point

Data of temperature history can be downloaded via the built-in USB port. This serves as an added safety feature when the refrigerator is left unattended for longer periods. Equally, it is useful for reporting statistics that validate correct storage temperature over longer periods. An integrated lock is placed below the USB port.



Castors

The tall and streamlined design makes the refrigerator fit easily into any room and setup. Mobility is, in addition, enhanced by the castors, which makes positioning and re-positioning effortless.



Adjustable drawers

The extractable drawers inside the cabinet include partitions for rational storage of medicine. AKG 427E is fitted with 7 extractable drawers as standard. Further drawers are optional.

	AKG 427E
Capacity (gross), litres	356
No. of extractable drawers	7
Height/width/depth, mm	2055/600/643
Temperature range	+2°C to +8°C
Refrigerant	R600a
Certifications	CB, CE & EMC MDD 93/42/EEC* & DIN 58345*

*Medical certifications valid primo 2015

Reliable Pharmacy Refrigerators

Stable operation – easy to use

The AKG series of reliable pharmacy refrigerators is developed for safe storage of medicine in pharmacies, laboratories and hospitals.

The temperature can be set from +2°C to +8°C - using position 1 (+2°C), 2 (+5°C) or 3 (+8°C) - and is maintained at all times with the integrated total electronic temperature control.

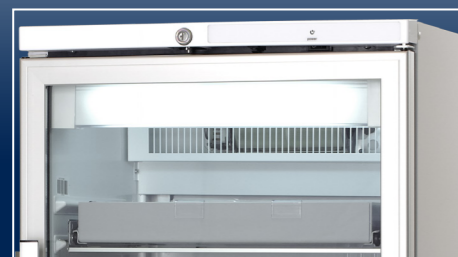
Electronic temperature display

The external control panel features a digital display showing current cabinet temperature. In case the cabinet door is left opened for longer periods – eventually causing unwanted temperature changes – a visual and acoustic alarm will appear. The built-in dry contact enables connection to an external alarm.



AKG 317

AKG 377



Top LED light

An integrated top light with energy-efficient LED lighting facilitates good visibility of stored contents and ensures optimal working conditions for the end user.



Adjustable shelves

As a standard, the AKG 317 & 377 pharmacy refrigerator is equipped with functional wire shelves. The glass door is reversible to suit any arrangement. Extractable drawers are available as optional.



Extractable drawers

The optional extractable drawers are adjustable for height and removable, if needed. Partitions are included to secure organized storage of medicine. Extractable drawers are delivered separately and available for both AKG 317 & AKG 377.

	AKG 317	AKG 377
Capacity (gross), litres	306	377
Height/width/depth, mm	1560/600/595	1860/600/595
Temperature range	+2°C to +8°C	+2°C to +8°C
Power consumption (stable running, 20°C AMB) per 24 hrs, kWh	1.99	3.52
Refrigerant	R600a	R600a
No. of wire shelves	4	5
Certifications	CB, CE & EMC	CB, CE & EMC

Premium Safe Chill Refrigerator

Exclusive new model with added features

SC 290 offers a rare combination of streamlined and space-saving design with large capacity and state-of-the-art technology.

The specially designed Safe Chill refrigerator SC 290 is made for reliable and precise storage in optimal conditions. SC 290, which has a stainless steel cabinet, is an exclusive unit designed for laboratories and hospitals where quality, reliability and performance matters. Among many useful features the SC 290 is equipped with an ergonomic full-door handle for better grip and energy saving LED lighting for clear viewing of stored blood bags.

Advanced control panel

The display and Dixell NG+ controller features 8 different languages and provides an easy view of the current cabinet temperature. View temperature history with the illustrative on-screen graph chart. Temperature data can be downloaded with the USB data logging system. In case of power failure, the battery back-up system will notify about temperature fluctuations up to 48 hours.



SC 290



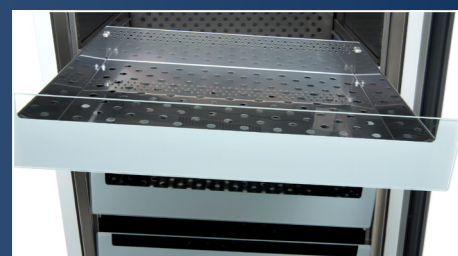
USB data collection point

Data of temperature history can be downloaded via the built-in USB port. This serves as an added safety feature when the refrigerator is left unattended for longer periods. Equally, it is useful for reporting statistics that validate correct storage temperature over longer periods. An integrated lock is placed below the USB port.



Castors

The tall and streamlined design makes the blood bank refrigerator fit easily into any room and setup. Mobility is, in addition, enhanced by the castors, which makes positioning and re-positioning effortless.



Extractable drawers

The extractable stainless steel drawers inside the cabinet include partitions for rational storage of medicine and other medicaments, which can be positioned lying or standing.

	SC 290
Capacity (gross), litres	356
No. of extractable drawers	10
Height/width/depth, mm	2055/600/643
Temperature range	+2°C to +6°C
Refrigerant	R600a
Certifications	CB, CE & EMC MDD 93/42/EEC*

*Medical certifications valid primo 2015

Premium Biomedical Undercounter

Exclusive new undercounter units with large internal volume and significant features to meet the highest demands

The undercounter series offer the recognized Vestfrost Biomedical design; a unique combination of streamlined and space-saving units with large capacity and state-of-the-art technology.

Undercounter cabinets AKG 157 & VTS 098 features a space saving top panel with the new biomedical display and controller integrated. Both units are designed for optimal storage of contents and feature battery back-up system and LED lighting.

VTS 098: Designed for racks, build for Current Use

A truly unique solution for storage of samples in Current Use, for Medical Trials, or simply as a result of the need for lesser space. The VTS 098 is a groundbreaking ULT -86°C unit specifically built to fulfill the needs of end users. Internal dimensions are optimized for the maximum amount of samples to be stored inside in standard sized racks.



AKG 157



VTS 098



Tailored and flexible storage system

The AKG 157 undercounter unit features a state-of-the-art storage system including 2 extractable biomedical drawers and bottom wire shelf.

Drawers are built in stainless steel with a suitable glass front for good visual of the stored medicaments. The unit can also be delivered as a wired shelf solution only.



Streamlined control panel

The new streamlined biomedical control panel offers a specially designed interface with multiple features including USB data port. The control panel in dark polycarbonate finish features intuitive buttons touch buttons and is very easy to clean.

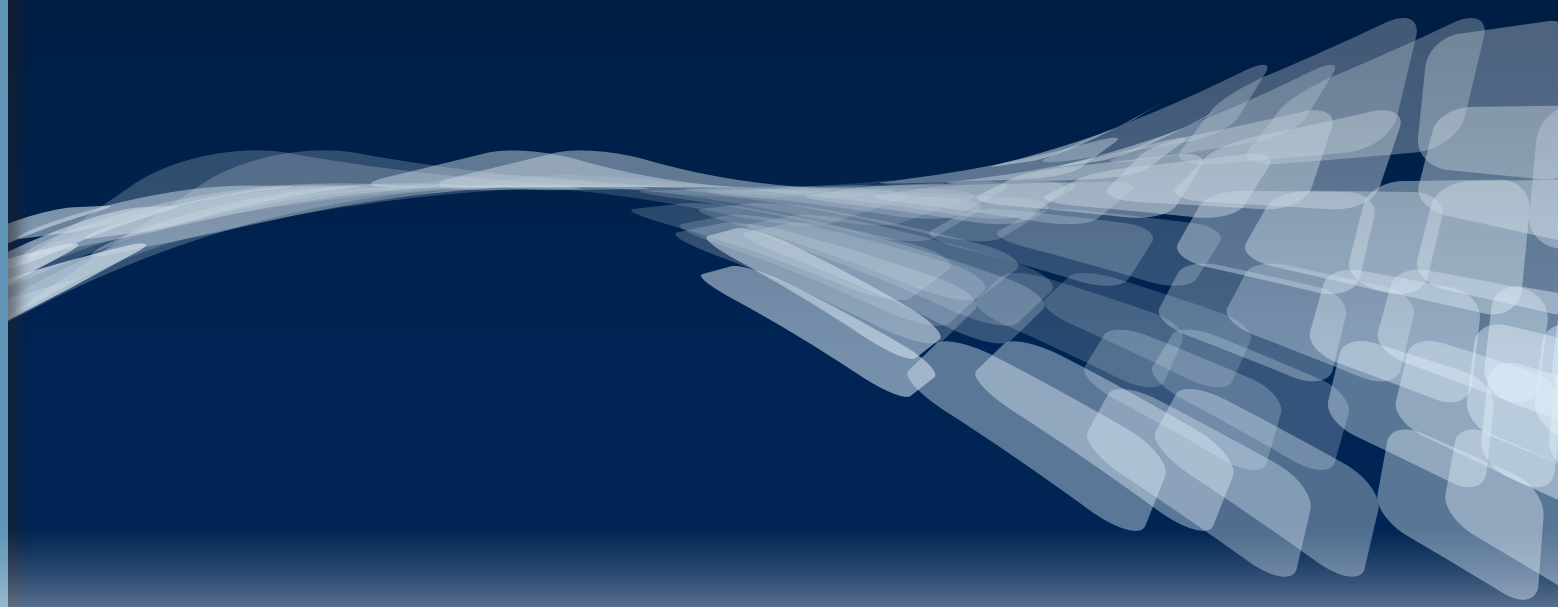


USB data collection point

Data of temperature history can be downloaded via the built-in USB port using the included USB-stick.

The data download serves as an added safety feature when the freezer is left unattended for longer periods. Equally, it is useful for reporting statistics that validate correct storage temperature over a period of time.

	AKG 157	VTS 098
Capacity (gross), litres	126	93
Height/width/depth, mm	830/600/643	830/600/643
Temperature range (20°C AMB)	+2°C to +8°C	-60°C to -86°C
Refrigerant	R600a	Nature R
Certifications	CB, CE & EMC MDD 93/42/EEC* & DIN 58345*	CB, CE, EMC
No. of compartments	3	1



Biomedical

Solutions for Demanding Biomedical Needs

Vestfrost Solutions Biomedical refrigerators and freezers are designed and produced for global demanding requirements of the health sector, where temperatures must be reliable and precise at all times.

The continuously expanding product line is based on extensive research and thoroughly tested technology; all products honoring the highest requirements in terms of safety, quality and usability.



Cool Experts for half a Century

A/S Vestfrost has developed and produced refrigerators and freezers since 1963. Today, product development, production and sales are focusing on solutions that meet specific business needs. Product

line and sales are targeting 3 diverse market segments: Biomedical, Food & Wine, and Merchandising. For more information about us, please visit our website: www.vestfrostsolutions.com

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