



## **Biomedical Catalog**

Refrigerators +2°C to +20°C

Freezers -5°C to -25°C

ULT freezers -20°C to -86°C

## OUR PHILOSOPHY

Vestfrost Biomedical has always developed new innovative features to be ahead of the high demand for medical cooling.

### Table of contents

Reliable Solution . . . . .	5
New i-CARE series . . . . .	6
i-CARE controller . . . . .	8
<b>REFRIGERATORS</b>	
Refrigerator range . . . . .	10
Low noise appliances . . . . .	13
Flexibility in lab design. . . . .	14
Product data Refrigerators. . . . .	19
<b>FREEZERS</b>	
Freezer range . . . . .	20
No-frost Freezers . . . . .	22
Environment friendly . . . . .	23
Product data Freezers . . . . .	25
Accessories Refrigerators & Freezers	26
<b>ULT FREEZERS</b>	
ULT Freezer range . . . . .	28
Small size, big impact!. . . . .	30
ULTF-37i . . . . .	30
User Friendly. . . . .	31
Product data ULT Freezers. . . . .	32



#### Low Noise

We realize that our products are often placed in our user's immediate work environment. That's why it is important for us to contribute to a healthy work environment by keeping our products as quiet as possible, without compromising their performance.



#### Environment Friendly

Keeping power consumption low is not only about reducing our customers operational costs, it's also a matter of supporting them in reducing the environmental impact. On that note we are also proud to state that our products are 80% recyclable on average.

Additionally, Vestfrost has been using natural refrigerants for more than 15 years, which means that our products are 100% CFC and HCFC free. Consequently, they carry virtually no impact on the ozone layer or the global warming.



#### User Friendly

We understand that our products serve a role as facilitator for the end user. With that in mind we develop products from a user-perspective - they must be intuitive to use, easy to operate and effortless to clean, so that the user can concentrate on what's important for them.



### Certificates

As a supplier to the Biomedical industry, we commit ourselves to offer a thoroughly tested and approved solution. On top of our own rigorous quality requirements and assurances, our appliances are either certified or in conformance to below standards:



All our products are manufactured in accordance to CE standards



ISO 9001  
ISO 14001  
ISO 45001



All of our biomedical appliances fulfill internal ATEX Category 3 zone 2



DIN is the official German representative in the European Committee for Standardization

DIN 13277 Refrigerators for Medicine. All our Biomedical refrigerators can conform to this standard.



*"These products may be manufactured in Denmark and exported without any approval from the Danish Medicines Agency"*

### CFC-Free



*"We hereby certify that the refrigerants & Blowing agent for thermal insulation of Vestfrost Freezers & Refrigerators manufactured in Denmark are environment friendly and do not destroy the ozone layer. They are produced according to the Montreal Protocol and do not contain CFC-based components"*

## Reliable Solution

**Vestfrost Biomedical is a Danish manufacturer and a global supplier of high-quality customer driven refrigerators and freezers for professional use in the healthcare sector. We design, develop, and produce products for Hospitals, Health Clinics, Laboratories and Pharmacies worldwide.**

All our products are developed with our customers' needs and priorities in mind. It is our policy to provide the best conditions for our customers. By providing availability of spare parts for our products we ensure reliability and longer product lifetime. This enables us to achieve a high degree of service without unnecessary costs for our customers.

On the back of more than +50 years of experience with refrigerators and freezers, we have honed our skills and expanded our knowhow all to the end of manufacturing reliable products with stable temperature performances.

Acknowledging the value of short delivery time, we as a manufacturer strive to have products in stock, so that you can get the products you need, when you need them.

This means that you can expect our products to achieve high marks in these key temperature areas:

- Temperature Uniformity
- Temperature Stability
- Temperature Precision



### Made in Denmark



Having both Sales, R&D as well as production situated in Denmark, we ensure that the market requirements is understood through conception of a product to the final result, allowing us to deliver and exceed market expectations.



## New i-CARE series

### A performance and visual lift

We are proud to introduce our brand new i-CARE series of refrigerators, freezers & Ultra low temperature freezers. The new series features a lot of improvements, some technical, some practical and some just to make it easier to operate your appliance. We have in depth explanations of all of these, but the big take aways can be summarized with these 3 key point:



### Efficient performance with Adaptive Cooling Technology™

Most brands produce their cooling devices with a conventional compressor, which either runs at 100% or 0%. Not an efficient solution. At Vestfrost we have introduced Adaptive Cooling Technology™, which has significant advantage on several key areas: Lower noise, less energy consumption, faster cooldown after open door, and an overall better temperature performance. This means that your content is stored in reliable & safe conditions – always.

### Complexity made simple



With the introduction of a new controller in our i-CARE series, we have made it much easier to access the information you need. The 5-inch touch screen display is simple to navigate with intuitive icons and the ability to customize settings to fit your specific needs. Don't have the time or need for customizing? No problem! When you power up your cabinet the first time, you will be guided through an installation process where you can choose profile settings for medicine stored chilled or at room temperature. Through the installation process you will select language, device name, service code, and recommendations for use & installation – A simple way to make sure that you are properly set to use the appliance.

### Info center

Information and documentation are key when storing sensible biomedical content, be it medicine, DNA, RNA or other biological samples. We are aware of this need and have developed a controller which gives you easy access to a multitude of data like live graphs, temperature readings from different spots inside the cabinet, event list and much more - By monitoring and making the data readily available to you, we make sure that you always have the information you need about your inventory.

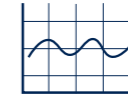




# i-CARE Controller

Vestfrost biomedical appliances are fitted with a 5-inch touchscreen controller. The i-CARE controller is an info center which gives you easy access to storage data, maintenance schedule, settings and much more.

With intuitive icons, logical menus, and snap response it has never been easier to operate your biomedical appliance.



## Datalogging & live graph

- Integrated datalogging for documentation
- Extract reports via USB
- Live graph for quick overview



## Identification & password protection

- Name device
- Set password for restricted parameters



## Customizeability

- Change alarm parameters like:
  - Set-point
  - High/low alarm differential
  - Alarm delay on open door & High/low alarm
  - Pre-alarm (visual alert)
  - Alarm snooze duration
- Change temperature shown on home page
  - Actual temperature
  - Set point
  - Actual temperature & set point
- Choose to display temperature of main or reference probe
- Lighting control
- ... And much more!



## Visual & acoustic alarms

- High/low temperature
- Open door
- Probe failure
- Power failure



## Easy to use

- Intuitive icons and menus
- English, French, and German language
- 5-inch touchscreen
- Event list for quick overview of actions
- Factory reset for a clean start
- Build in maintenance schedule
- Choose predefined profiles for a fast setup
- "Clean screen" mode, to avoid unwanted action when cleaning the screen



# Refrigerator range

Incorrect temperatures may damage your contents stored, that is a fact. ...and cooling solutions from Vestfrost avoids this, that is a fact too.

Our refrigerators are equipped to fit your daily need for a reliable storage of your sensitive healthcare & life science applications.

Professional solutions for professionals.

## Standard features on our Refrigerators

- Contact for remote alarm
- Automatic defrost
- Dynamic air distribution
- Evaporator cover
- Porthole
- LED light
- Lock
- Perforated aluminum shelves included
- Filterless construction
- Door reversibility
- High/low alarm
- Open door alarm
- System failure alarm
- Probe failure alarm
- Power failure alarm

## REFRIGERATOR RANGE

### Features

- Adaptive Cooling Technology™
- Small footprint to optimize floor space
- Filterless construction minimizes maintenance
- Wide temperature range

### A RELIABLE SOLUTION

**+20°C**  
**+2°C**

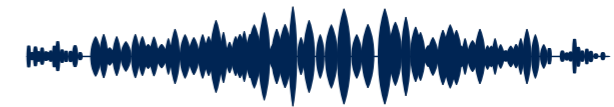
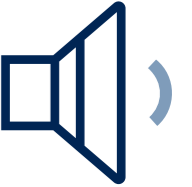


LOW NOISE



ENVIRONMENT FRIENDLY

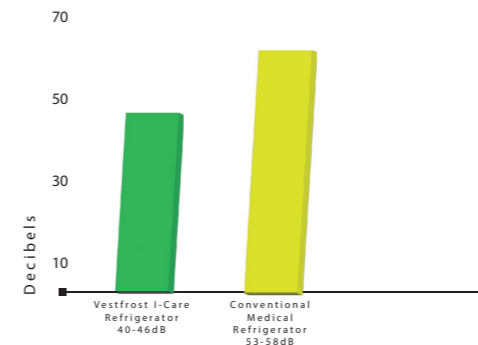
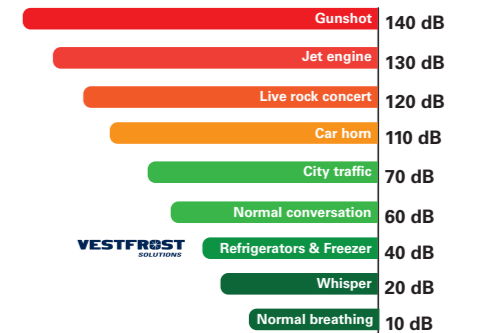




## Low noise Appliances

Vestfrost appliances are located all over the world at various HealthCare and Life Science workplaces, from Hospitals and pharmacies to the local practitioner and laboratories. These can be busy environments where experts need to be able to concentrate and focus to be at their best. Operating under these circumstances we consider it vital to develop products that emit the lowest possible noise without compromising the performance.

A healthy work environment is critical not only for the well-being of the staff, but also affects the output of their work.



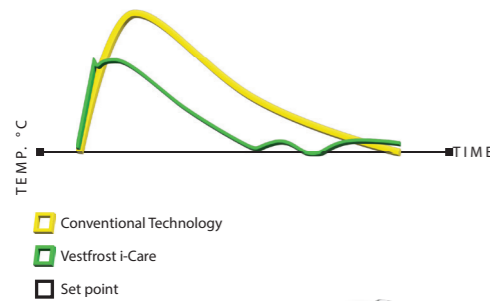
### How we succeed

Achieving a low noise emittance from the products is a process of making several goals meet. For instance, the performance and reliability of the biomedical cabinet cannot be compromised and being committed to a green environment we also factor in the energy consumption. To succeed we look at the following elements in a Biomedical cabinet:

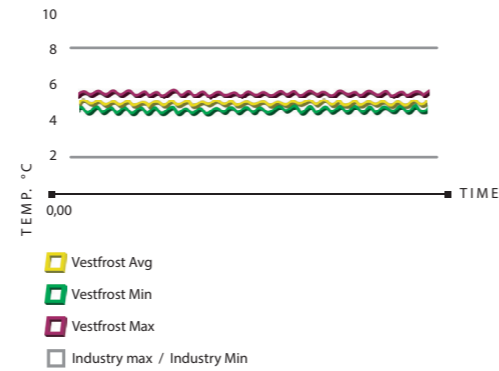
- **Compressor**
- **Refrigerant**
- **Ventilators**
- **The composition of the cabinet**

Sourcing the right components and constructing the cabinet with all these elements in mind, has made us an expert in developing low noise appliances, with the same excellent reliability.

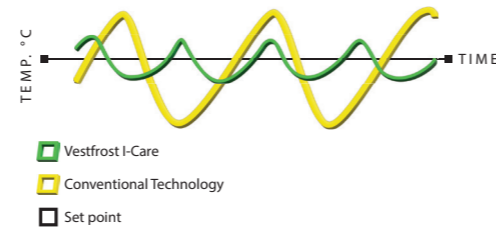
Pull down graph



Uniformity graph



Stability graph



### Performance is vital

There have been made many innovative features in the field of Biomedical refrigerators, but at its core, temperature performance is the most important parameter.

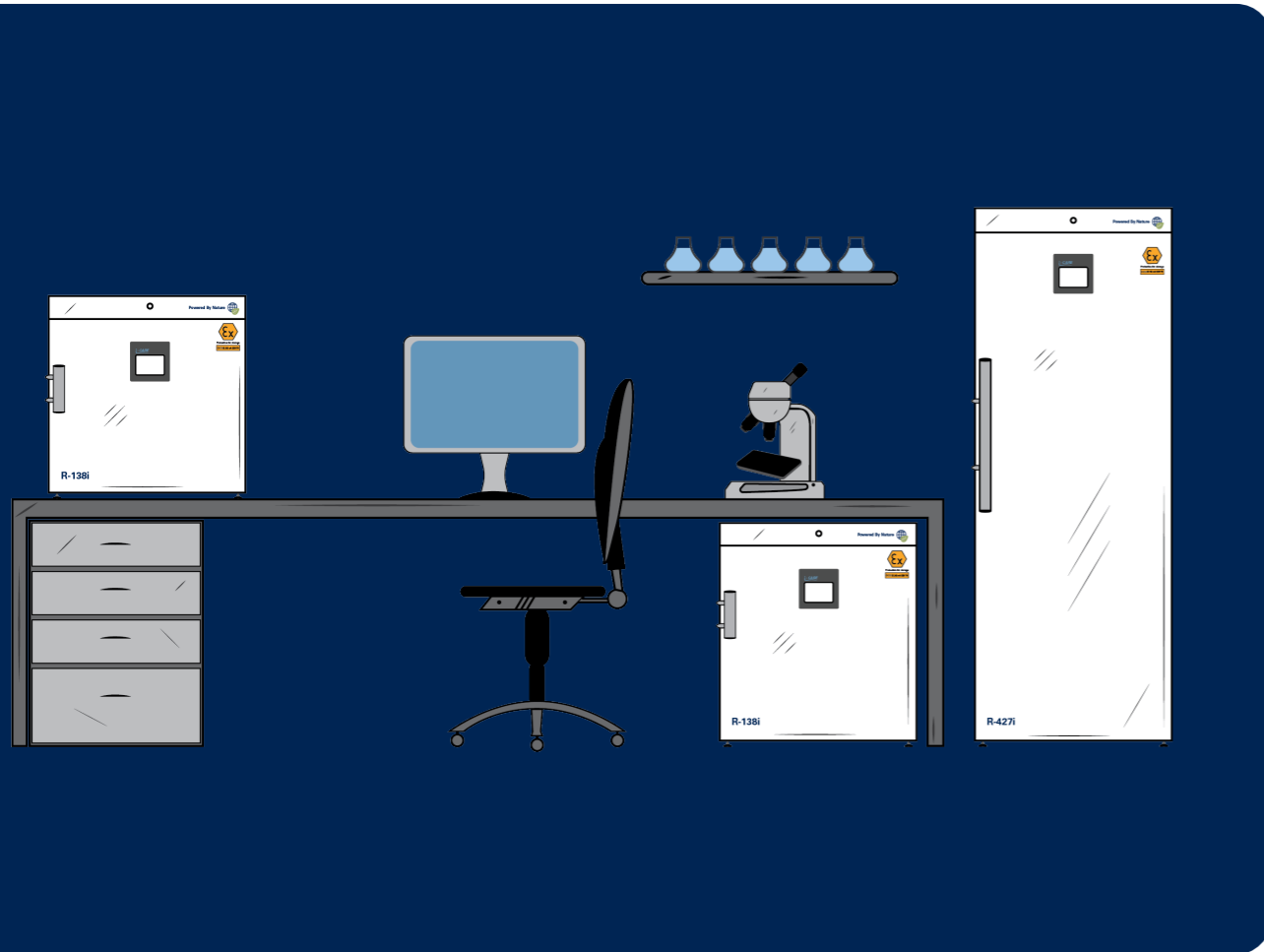
Unfortunately, this point is often forgotten when evaluating different offerings. Our i-CARE series offers industry leading performance when it comes to temperature pull down, stability and uniformity. This is vital to you as it:

- Reduces risk exposure to your inventory
- Safeguards patients from compromised medicine
- Reduces pharmaceutical waste
- Gives you relief in knowing that Vestfrost refrigerators are developed specifically to the Biomedical industry

You can find temperature mappings of all our products in the datasheets available via our website.



# Flexibility in Lab design



### SPECIFICATIONS R-90i

Temperature range	+2 to +20
Outer dimensions, H x W x D, mm	672 x 595 x 642
Inner dimensions, H x W x D, mm	481 x 475 x 495
Volume, gross / net L	90 / 76
Number of shelves	1 + Half shelf
Standard mobility	4 x Adjustable Feet



### SPECIFICATIONS R-138i

Temperature range	+2 to +20
Outer dimensions, H x W x D, mm	825 x 595 x 642
Inner dimensions, H x W x D, mm	676 x 475 x 495
Volume, gross / net L	138 / 117
Number of shelves	2 + Half shelf
Standard mobility	4 x Adjustable Feet



A German Study showed an average value of **20.000€** in Medicine being stored in refrigerators at pharmacies  
- What's your risk?



### Small footprint

Limited floor space is an issue many customers have. Therefore we have specialized in making biomedical appliances with small footprints.

We offer a **Stacking Kit** so that you can combine different temperature ranges on the same footprint or mixing freezers & refrigerators.

*Available for undercounters and tabletops*



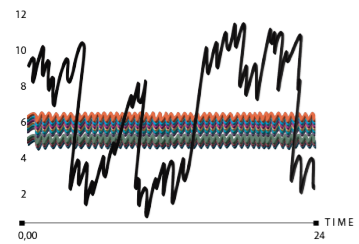
### Avoid the risk

Many types of medicine are susceptible to damage if not maintained in ideal temperature conditions throughout their life cycle. This poses a considerable risk both to the patients receiving the potentially damaged or ineffective medicine, and to the pharmacists, in having to discard their expensive inventory.

A refrigerators temperature performance is therefore essential and yet often overlooked, due to lack of information or the complexity associated with understanding it. Avoid the risk and seek guidance from an expert distributor.

**Excellent uniformity**

**Safe storage, anywhere.**



Back in middle Center in middle Front in middle Average  
 Back in bottom Center in bottom Front in bottom  
 Back in top Center in top Front in top

Illustration of a 9-point test on a Vestfrost cabinet with a set point of 5°C

With an excellent uniformity, you can place your content anywhere inside the cabinet, and still rest assured that you content is stored safely and reliably.



**SPECIFICATIONS**

**R-427i**

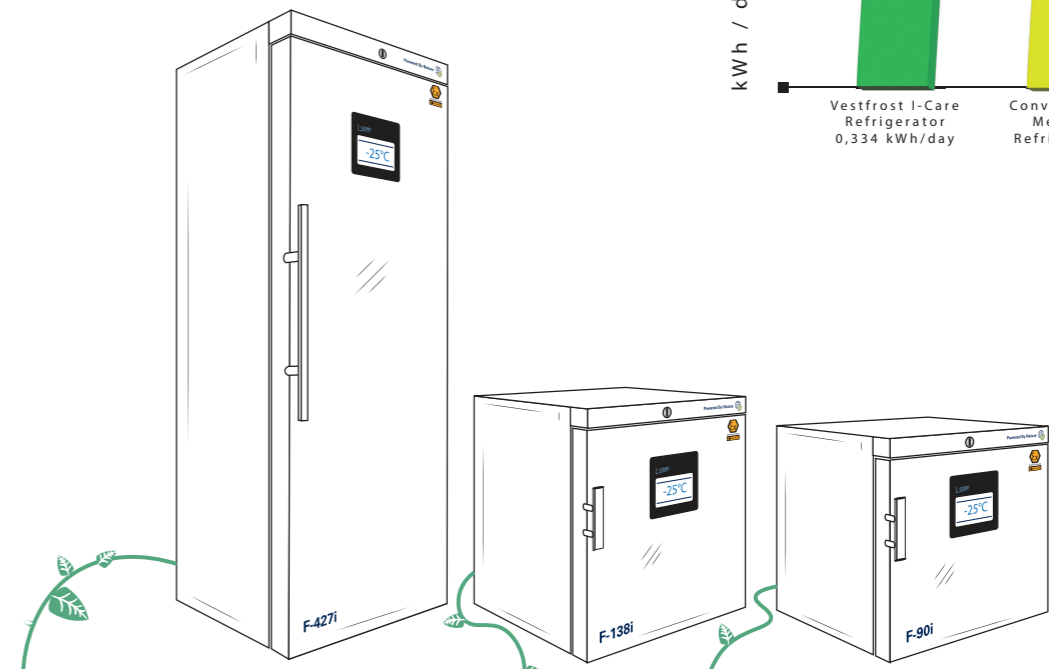
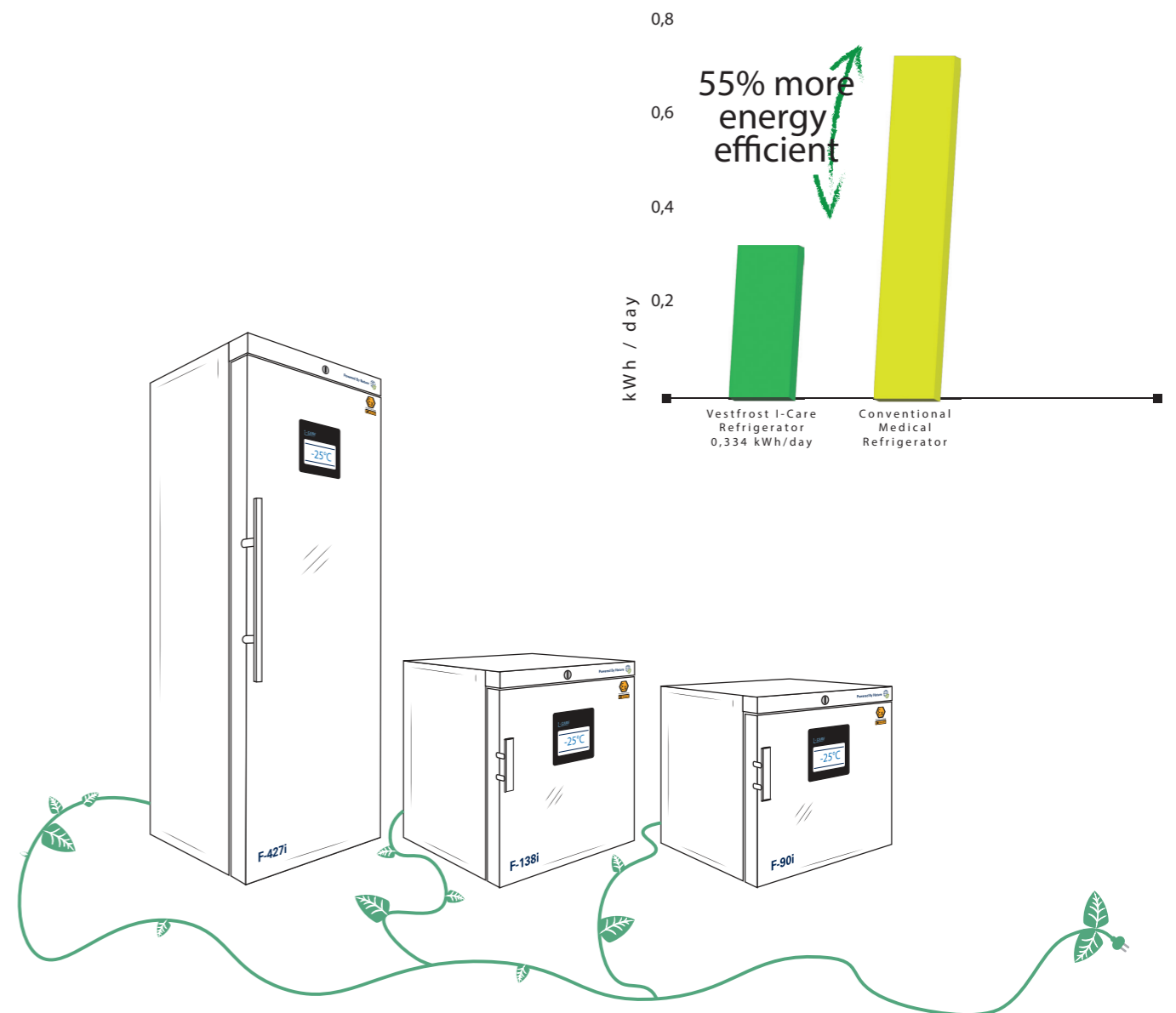
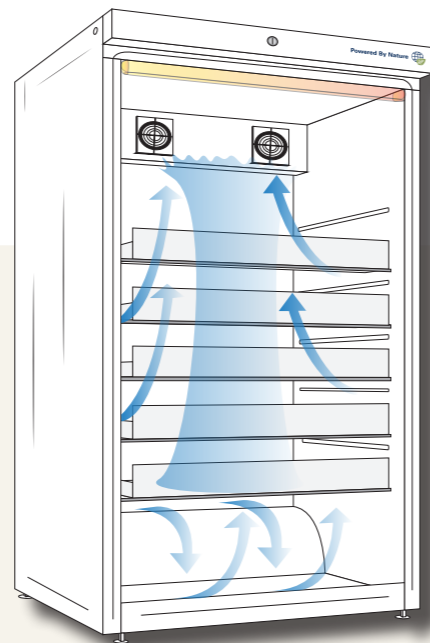
Temperature range	+2 to +20
Outer dimensions, H x W x D, mm	2002 x 595 x 642
Inner dimensions, H x W x D, mm	1827 x 475 x 495
Volume, gross / net L	427 / 361
Number of shelves	5 + Half shelf
Standard mobility	4 x Adjustable Feet



**Temperature uniformity**

A contributing factor to the safe storage of medicine, is the addition of fans. By generating airflow in the cabinet, they improve temperature uniformity & stability by eliminating "hot and cold spots" which you would see in domestic refrigerators & refrigerators with no or inadequate airflow.

These hot and cold spots often entail that areas of your storage space would not be suited for medicine, as the temperature conditions can affect both the quality and effectiveness of the medicine.



**Low energy consumption**

With energy prices in EU upwards of 0,16 € pr. kWh, it is relevant to look at the energy consumption of the storage appliance you intend to buy. Many appliances are substantially more costly in operation due to their excessive consumption. A difference of 1,00 kWh/24 in energy consumption would cost you ~58.- € annually, and thus 580.- € in the life span of an average Biomedical refrigerator or freezer.





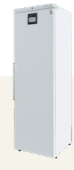


# Product data

## Refrigerators



Data



Construction	R-90i	R-138i	R-427i
Outer Dimensions, HxWxD	672x595x642	825x595x642	2002x595x642
Inner Dimensions, HxWxD	481x475x495	676x475x495	1827x475x495
Weight Gross/Net, kg	50 / 40	56 / 45	88 / 74
Material Inner Cabinet	ABS	ABS	ABS
Material Outer Cabinet	Painted Steel	Painted Steel	Painted Steel
Insulation Thickness, mm	50	50	50
Insulation Type	Polyurethane with Cyclopentane	Polyurethane with Cyclopentane	Polyurethane with Cyclopentane
Air Distribution	Dynamic	Dynamic	Dynamic
Mobility	Standard: Adjustable Feet Option: Castors	Standard: Adjustable Feet Option: Castors	Standard: Adjustable Feet Option: Castors
Refrigerant, Type / gram	R600a / 39	R600a / 47	R600a / 60
Variable Speed Compressor	Yes - Adaptive Cooling Technology	Yes - Adaptive Cooling Technology	Yes - Adaptive Cooling Technology
Number of Probes	4	4	4
Storage			
Volume, Gross/net, L	90 / 76	138 / 117	427 / 361
Shelves, Full/half	1 / 1	2 / 1	5 / 1
Shelf material	Perforated Alu	Perforated Alu	Perforated Alu
Max Loading pr. Shelf, kg	20	20	20
Performance & Operation			
Temperature Range, C°	+2 to +20	+2 to +20	+2 to +20
Voltage, V	220	220	220
Frequency, Hz	50 / 60	50 / 60	50 / 60
Max Ambient, °C	35	35	35
Max Humidity, °C	75	75	75
Noise, dB	46	44	40
Energy Consumption, kWh / 24h	0,2	0,3	0,4
Instant Power Consumption	PD 0,065 / Stable 0,025	PD 0,080 / Stable 0,025	PD 0,075 / Stable 0,025
Heat Rejection	40	46	61
K-Value	0,58	0,59	0,44
Defrost	Automatic	Automatic	Automatic

### Shared Abilities

Features	
Lock	Yes
LED Light	Yes
Battery Backup for Controller, 48h	Yes
Safety Thermostat	Yes
Porthole	Yes - Ø 20mm
Dry Contact	Yes
Reference bottle	Yes
Door	Standard: Solid Option: Glass
Door Features	Automatic: Closure < 90° Hold > 90°
Door Reversibility	Yes

Controller & Alarms	
Controller	i-Care, Touch screen
Controller language	EN, DE, FR
USB Connection	Yes
Logging	Data, Alarms & Events
Temperature Graph	Yes
High/Low Temp. Alarm	Yes
Open Door Alarm	Yes
Probe Failure Alarm	Yes
Power Failure Alarm	Yes



# Freezer range

Reliability is key for laboratory freezers, that is a fact.  
...and Vestfrost laboratory freezers are reliable, that is a fact too.

Our freezers are packed with features guaranteeing safe and reliable storage of your life science applications.

Professional solutions for professionals

## Standard features on our Freezers

- Contact for remote alarm
- No-Frost system
- Backup Battery
- Porthole
- LED Light
- Lock
- Perforated Aluminum Shelves included
- Filterless construction
- Door reversibilit
- High/low alarm
- Open door alarm
- Power failure alarm
- System failure alarm
- Probe failure alarm

## Freezer Range

### Features

- Adaptive Cooling Technology™
- Small footprint to optimize floor space
- Filterless construction minimizes maintenance
- No-Frost system to eliminate ice propagation

A RELIABLE SOLUTION

**-5°C**  
**-25°C**



LOW NOISE



ENVIRONMENT FRIENDLY



# No-frost Freezers

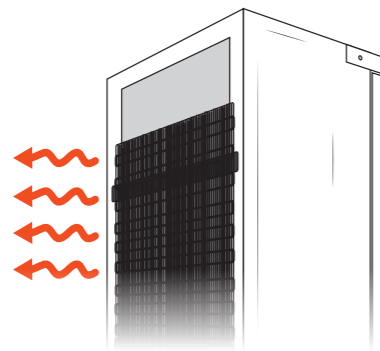
## Save time, and forget traditional manual defrosting.

Our new line of Biomedical Freezers is introduced with a "No-frost" system, which prevents ice from forming inside the cabinet, and on your samples. Choosing a freezer with No-Frost will save you time and hassle by eliminating the need for manually defrosting the freezer.

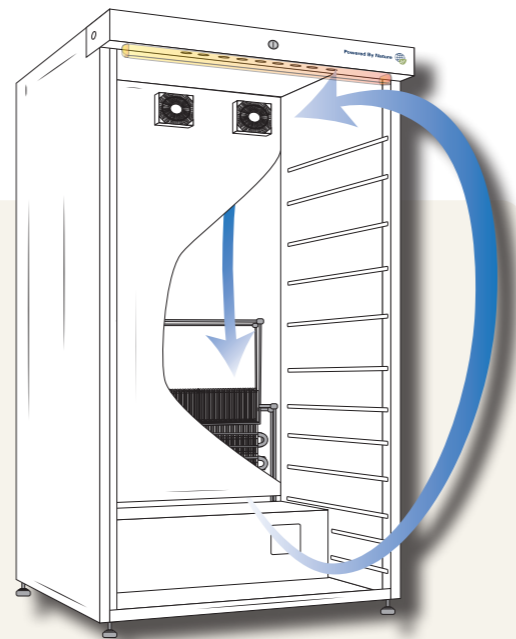


SPECIFICATIONS	F-90i
Temperature range	-5 to -25
Outer dimensions, H x W x D, mm	672 x 595 x 642
Inner dimensions, H x W x D, mm	481 x 475 x 495
Volume, gross / net L	90 / 76
Number of shelves	1 + Half shelf
Standard mobility	4 x Adjustable Feet

Condensator



Evaporator



### How it works

#### The No-Frost system

With the No-Frost system, ventilators pull the air behind the backplate and through the evaporator which absorbs the heat, and conducts it through to the condenser, which emits the heat away from the cabinet.

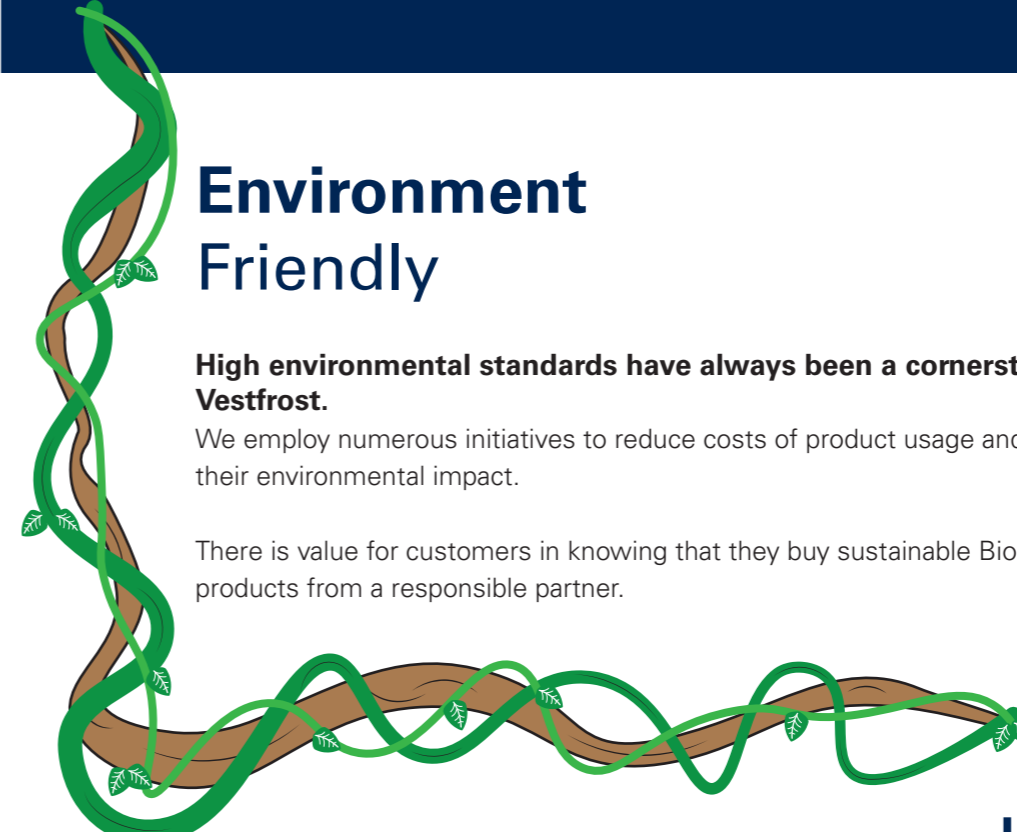
The cooled air is then redistributed to the cabinet through the bottom of the backplate, and the circulation will ensure uniformity in the temperature. The process eliminates propagation of ice and keeps your content in ideal temperature conditions.

# Environment Friendly

High environmental standards have always been a cornerstone at Vestfrost.

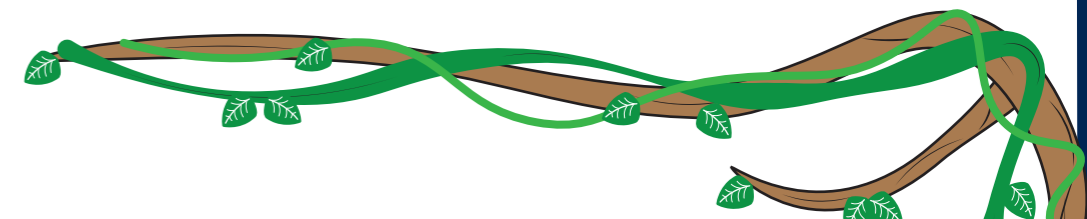
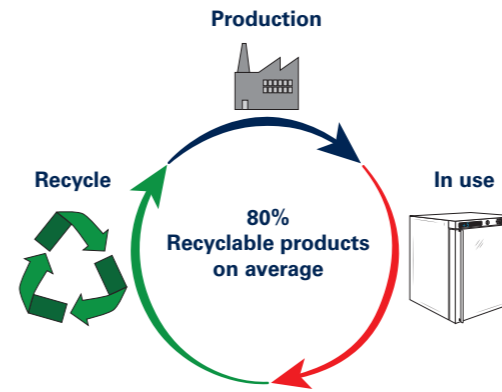
We employ numerous initiatives to reduce costs of product usage and minimize their environmental impact.

There is value for customers in knowing that they buy sustainable Biomedical products from a responsible partner.



## Low energy consumption

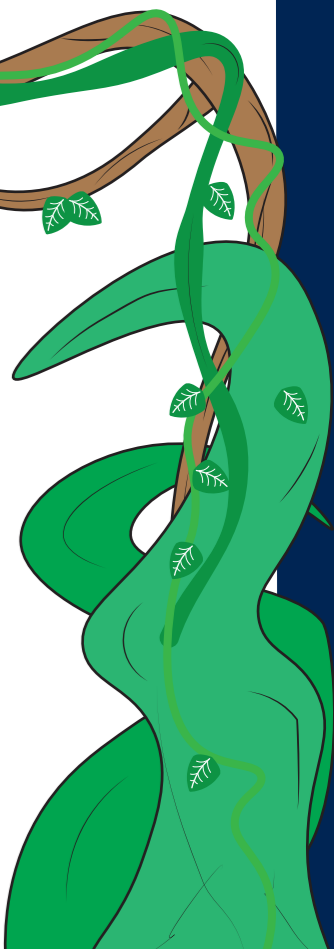
By a commitment to producing products with a low energy consumption, we can offer customers an option which is both reliable and environmentally friendly.



# C<sub>2</sub>

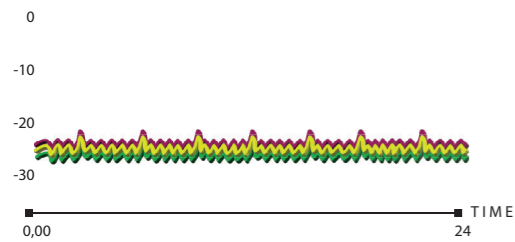
## Only Green refrigerants

For more than 20 years Vestfrost have only been using green refrigerants. Commonly defined as organic compound hydrocarbon, these are pure refrigerants free of gas and with no Ozone Depletion Potential (ODP) and the lowest Global Warming Potential (GWP).



**Safe defrosting**

**With No-Frost system, your defrosting is safe**



Even during the defrost cycles your samples will only increase marginally in temperature, and nowhere near the critical value of -15°C even during heavy usage. This shows that our No-Frost system can save you valuable time while still maintaining a high level of sample integrity.



**Filterless construction**

Tired of cleaning and changing your appliances' filters? Our biomedical products are filterless - Buy Vestfrost & spend your time on the things that matters.



SPECIFICATIONS		F-427i
Temperature range		-5 to -25
Outer dimensions, H x W x D, mm		2002 x 595 x 642
Inner dimensions, H x W x D, mm		1827 x 475 x 495
Volume, gross / net L		427 / 361
Number of shelves		5 + Half shelf
Standard mobility		4 x Adjustable Feet



SPECIFICATIONS		F-138i
Temperature range		-5 to -25
Outer dimensions, H x W x D, mm		825 x 595 x 642
Inner dimensions, H x W x D, mm		676 x 475 x 495
Volume, gross / net L		138 / 117
Number of shelves		2 + Half shelf
Standard mobility		4 x Adjustable Feet

**Product data**  
**Freezers**



Data



Construction	F-90i	F-138i	F-427i
Outer Dimensions, HxWxD	672x595x642	825x595x642	2002x595x642
Inner Dimensions, HxWxD	481x475x495	676x475x495	1827x475x495
Weight Gross/Net, kg	54 / 43	60 / 49	99 / 88
Material Inner Cabinet	ABS	ABS	ABS
Material Outer Cabinet	Painted Steel	Painted Steel	Painted Steel
Insulation Thickness, mm	50	50	50
Insulation Type	Polyurethane with Cyclopentane	Polyurethane with Cyclopentane	Polyurethane with Cyclopentane
Air Distribution	Dynamic	Dynamic	Dynamic
Mobility	Standard: Adjustable Feet Option: Castors	Standard: Adjustable Feet Option: Castors	Standard: Adjustable Feet Option: Castors
Refrigerant, Type / gram	R600a / 38	R600a / 43	R290 / 85
Variable Speed Compressor	Yes - Adaptive Cooling Technology	Yes - Adaptive Cooling Technology	Yes - Adaptive Cooling Technology
Number of Probes	2	2	2
Storage			
Volume, Gross/net, L	90 / 76	138 / 117	427 / 361
Shelves, Full/half	1 / 1	2 / 1	5 / 1
Shelf material	Perforated Alu	Perforated Alu	Perforated Alu
Max Loading pr. Shelf, kg	20	20	20
Performance & Operation			
Temperature Range, C°	-5 to -25	-5 to -25	-5 to -25
Voltage, V	220	220	220
Frequency, Hz	50 / 60	50 / 60	50 / 60
Max Ambient, °C	35	35	35
Max Humidity, °C	65	65	65
Noise, dB	40	45	46
Energy Consumption, kWh / 24h	1,1	1,4	3,7
Instant Power Consumption	PD 0,120 / Stable 0,046	PD 0,120 / Stable 0,052	PD 0,220 / Stable 0,150
Heat Rejection	110	120	260
K-Value	0,59	0,59	0,44
Defrost	Automatic	Automatic	Automatic

**Shared Abilities**

Features	
Lock	Yes
LED Light	Yes
Battery Backup for Controller, 48h	Yes
No-Frost System™	Yes
Perimeter Heater	Hot gas
Porthole	Yes - Ø 20mm
Dry Contact	Yes
Reference bottle	No
Door	Standard: Solid Option: Glass
Door Features	Automatic: Closure < 90° Hold > 90°
Door Reversibility	Yes

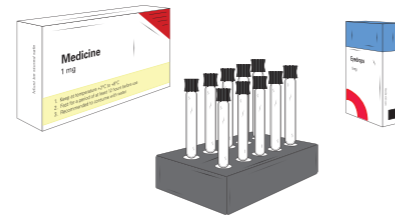
Controller & Alarms	
Controller	i-Care, Touch screen
Controller language	EN, DE, FR
USB Connection	Yes
Logging	Data, Alarms & Events
Temperature Graph	Yes
High/Low Temp. Alarm	Yes
Open Door Alarm	Yes
Probe Failure Alarm	Yes
Power Failure Alarm	Yes



# Accessories Refrigerators & Freezers

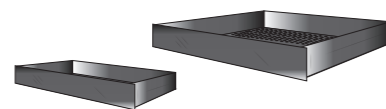
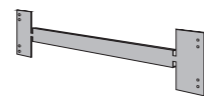
## Flexibility to choose what you need

With a multitude of storage solutions, you can choose the optionals that makes sense for your daily needs. Regardless of which option you choose, they are all designed for optimal airflow inside the cabinet - ensuring an excellent temperature performance.



## Stacking your appliances

Optimize your floor space! Stack your undercounter or tabletop appliances to have several temperature ranges on the same limited floor space. A great solution in a crowded laboratory.



## Ergonomics

When storing and retrieving inventory, your body can be put in uncomfortable positions. An effective solution to this, is changing the bottom shelves with drawers - making it much easier to reach the entire storage surface



## Flexibility

### BioChill™ shelf

#### Features

- Perforated for excellent airflow
- Even surface, to avoid tilting products
- Made in aluminum to retain cold
- Max loading: 20kg

### Stacking kit

#### Features

- Stack table and undercounter models
- Multiple temperature ranges on the same floor space

### BioChill™ basket

#### Features

- Perforated for excellent airflow
- Made in ABS
- Max loading: 36kg

### BioChill™ drawer

#### Features

- Perforated for excellent airflow
- Made in aluminum to retain cold
- Divider kit included
- Max loading: 18kg

### Wire shelf

#### Features

- Great airflow
- Max loading: 36kg

### Glass door

#### Features

- Transparent
- Double layered glass

### Castors

#### Features

- Functional on multiple surfaces
- Brakes, for stable installation
- 4x for maximum movability

### Bottom storage

#### Features

- Small aluminum basket
- Small aluminum shelf
- Small wire shelf

# ULT Freezer range

Major investments in product development are inevitable in the life science industry, and high-value samples must be stored at ultra low temperatures.

No worries....be safe with an ULT Freezer from Vestfrost.

Professional solutions for professionals

### Standard features on our ULT Freezers

- Contact for remote alarm
- Backup Battery
- Porthole
- Lock
- Filterless construction
- High/low alarm
- Open door alarm
- Power failure alarm
- System failure alarm
- Probe failure alarm

### ULT Freezer Range

#### Features

- Adaptive Cooling Technology™\*
- Solutions for long & short-term storage
- Small footprint to optimize floor space
- Filterless construction minimizes maintenance

#### A RELIABLE SOLUTION

\*Not available on chest freezers

**-20°C**  
**-86°C**

### Uprights

37 & 92 Liters

### Chests

74, 198, 284 & 383 Liters



LOW NOISE



ENVIRONMENT FRIENDLY



USER FRIENDLY



## Small size, big impact!

### An alternative to large biobanks

When buying a ultra low temperature freezer, the purchase decision is often heavily influenced by the ration between the initial purchase price and the volume that the cabinet offers, assuming the quality and features are equal.

While this approach holds some merit, it does not account for the more nuanced picture which is the acquisition and daily usage of an ULT freezer.

For an example, did you know that the cooling performance is better when the cabinet is fully loaded? The same can be said about the energy usage - so you should ask yourself "how much cooling capacity do we really need?"

Choosing a smaller alternative also enables the option for more localized storage, right next to your workstation. This would save you time storing & retrieving samples that you work with daily.

## ULTF-37i



SPECIFICATIONS	ULTF-37i
Temperature range	-20 to -86
Outer dimensions, H x W x D, mm	631 x 630 x 675
Inner dimensions, H x W x D, mm	443 x 439 x 271
Volume, gross / net L	37 / 37
Capacity for 2" boxes	33
Standard mobility	4 x Adjustable Feet



### Reliable & flexible

Modern day laboratories need a multitude of equipment for their daily work. As such, lack of space is a common issue amongst them. With this challenge in mind, we have developed our latest ULT freezer, the ULTF-37 tabletop. With its small footprint the ULTF-37 combines flexibility with reliability.



Heavy duty hinges



Double panels

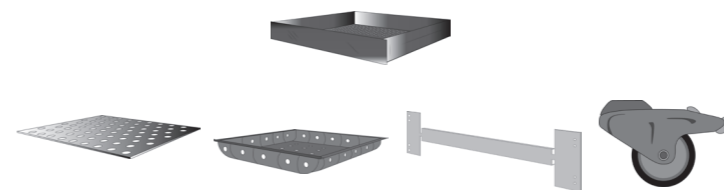


Tight closure

## User Friendly

### Increased efficiency

With user friendliness in mind when we develop and construct biomedical appliances, we ensure that the user can be more efficient. By making every touchpoint of the appliance as easy and intuitive as possible, we aim to eliminate any hassle or time consuming interactions with our products.

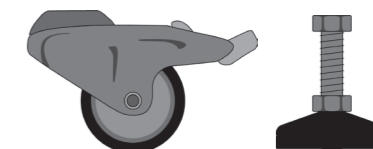


### Flexibility through accessories

We have many optionals available so that you can get exactly the features that suits your storage requirements. From Stacking-kit to casters and a multitude of shelves & drawers.

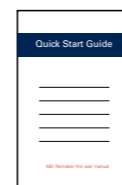
### Built-in datalogging

Vestfrost biomedical products all come with an integrated datalogger in the controller. The datalogger will log temperature as well as any alarm events. With a log capacity of 35.000 it will store data for up to 3 years.

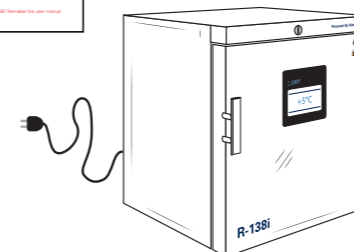


### Mobility and stability

Our appliances are equipped with adjustable feet so that you can level out any unevenness at the installation location. Further you can add castors with brakes, to increase mobility so the appliance can easily be moved during cleaning or relocation.



### Plug & play installation



Our Biomedical appliances are easy and fast to install. There is a quick start guide on the side of the cabinet, as well as an installation wizard when you power on the appliance.

Get started in less than 5 minutes.



### Wide applications

With our ETR-system™ (Extended temperature Range) a wide temperature range we make sure that our biomedical refrigerators and freezers can serve many purposes, depending on the specific needs of the user. Insulin should be kept in chilled temperature, while other types of medicine is ideal in room temperature for instance.

- Refrigerators +2°C to +20°C
- Freezers -5° to -25°C
- ULT -20°C to -86°C



# Product data

## ULT Freezers



Data



Construction		ULTF-37i
Outer Dimensions, HxWxD		631x630x675
Inner Dimensions, HxWxD		433x439x271
Weight Gross/Net, kg		70 / 59
Material Inner Cabinet		Stainless Steel
Material Outer Cabinet		Painted Steel
Insulation Thickness, mm		80
Insulation Type		Polyurethane with Cyclopentane
Air Distribution		N/A
Mobility		Standard: Adjustable Feet Option: Castors
Refrigerant, Type / gram		Nature R2 / 96
Variable Speed Compressor		Yes - Adaptive Cooling Technology
Internal Air Distribution		Static
Number of Probes		2
Storage		
Volume, Gross/net, L		37 / 37
Shelf		1 / 1
Cryobox "2 capacity		33
2 ml vials capacity		3.300
Inner lids		No
Performance & Operation		
Temperature Range, C°		-20 to -86
Voltage, V		110 / 220
Frequency, Hz		50 / 60
Max Ambient, °C		43
Max Humidity, °C		65
Noise, dB		46
Energy Consumption, kWh / 24h		3,2
Instant Power Consumption		PD 0,550 / Stable 0,030
Heat Rejection		306
K-Value		0,19
Defrost		Manual



Construction		ULTF-C74i	ULTF-C198i	ULTF-C296i	ULTF-C383i
Outer Dimensions, HxWxD		921x550x550	831x920x608	831x1260x608	831x1560x608
Inner Dimensions, HxWxD		450x390x390	624x760x440	624x1100x440	624x1400x440
Weight Gross/Net, kg		73 / 50	80 / 63	100 / 78	112 / 86
Material Inner Cabinet		Painted Steel	Painted Steel	Painted Steel	Painted Steel
Material Outer Cabinet		Painted Steel	Painted Steel	Painted Steel	Painted Steel
Insulation Thickness, mm		80	80	80	80
Insulation Type		Polyurethane with Cyclopentane	Polyurethane with Cyclopentane	Polyurethane with Cyclopentane	Polyurethane with Cyclopentane
Air Distribution		N/A	N/A	N/A	N/A
Mobility		Standard: 4xCasters with brakes	Standard: 4xCasters with brakes	Standard: 4xCasters with brakes	Standard: 4xCasters with brakes
Refrigerant, Type / gram		Nature R2 / 121	Nature R2 / 90	Nature R2 / 143	Nature R2 / 161
Variable Speed Compressor		No	No	No	No
Internal Air Distribution		Static	Static	Static	Static
Number of Probes		1	1	1	1
Storage					
Volume, Gross/net, L		74 / 71	198 / 189	296 / 284	383 / 368
Shelf		N/A	N/A	N/A	N/A
Cryobox "2 capacity		40	117	216	282
2 ml vials capacity		4.000	11.700	21.600	28.200
Inner lids		Yes	Yes	Yes	Yes
Performance & Operation					
Temperature Range, C°		-20 to -86	-20 to -86	-20 to -86	-20 to -86
Voltage, V		220	220	220	220
Frequency, Hz		50	50	50	50
Max Ambient, °C		30	25	25	25
Max Humidity, °C		65	65	65	65
Noise, dB		54	55	55	55
Energy Consumption, kWh / 24h		5,3	5,9	9,8	9,9
Instant Power Consumption		PD 0,540 / Stable 0,340	PD 0,370 / Stable 0,300	PD 0,710 / Stable 0,520	PD 0,810 / Stable 0,532
Heat Rejection		370	375	642	670
K-Value		0,19	0,2	0,2	0,2
Defrost		Manual	Manual	Manual	Manual

### Shared Abilities

Features	
Lock	Yes
LED Light	Yes
Battery Backup for Controller, 48h	Yes
VIP (Vacuum Insulated Panel)	Yes
Perimeter Heater	Electric
Porthole	Yes - Ø 20mm
Dry Contact	Yes
Vacuum Valve	Yes
Door	Solid
Door Reversibility	No

Controller & Alarms	
Controller	i-Care, Touch screen
Controller language	EN, DE, FR
USB Connection	Yes
Logging	Data, Alarms & Events
Temperature Graph	Yes
High/Low Temp. Alarm	Yes
Open Door Alarm	Yes
Probe Failure Alarm	Yes
Power Failure Alarm	Yes

Features	
Lock	Yes
LED Light	No
Battery Backup for Controller, 48h	Yes
VIP (Vacuum Insulated Panel)	No
Perimeter Heater	No
Porthole	Yes - Ø 12,5mm
Dry Contact	Yes
Vacuum Valve	No
Door	Solid
Door Reversibility	N/A

Controller & Alarms	
Controller	i-Care, Touch screen
Controller language	EN, DE, FR
USB Connection	Yes
Logging	Data, Alarms & Events
Temperature Graph	Yes
High/Low Temp. Alarm	Yes
Open Door Alarm	No
Probe Failure Alarm	Yes
Power Failure Alarm	Yes





## Reliability

**Through 50 years of experience with refrigeration & freezer and having always worked with continuous improvements, we have accumulated the skills and the knowledge to create quality products with great reliability.**

This reliability is a result of extensive testing of performance in different and difficult conditions and converting the knowledge into incremental improvements and innovations.

This also holds true for our procedures, which allow us to thoroughly test new products in our laboratory before they are introduced to the market, and subsequently each produced unit will undergo a 24-hour test to make sure they perform as expected.

But the smaller things matter as well, and that is why our hinges are tested to open and close, up to 400.000 times.

We make sure that due diligence is done to the product throughout our value chain, so that you can rest easy knowing that your inventory is stored safely in our products.



24h test being performed before shipment



Picture of the assembly line

## Tested to the highest standards

Test facilities and laboratories ensure high standards in deliveries.

24h standard test of each unit.

Serial number tracking.

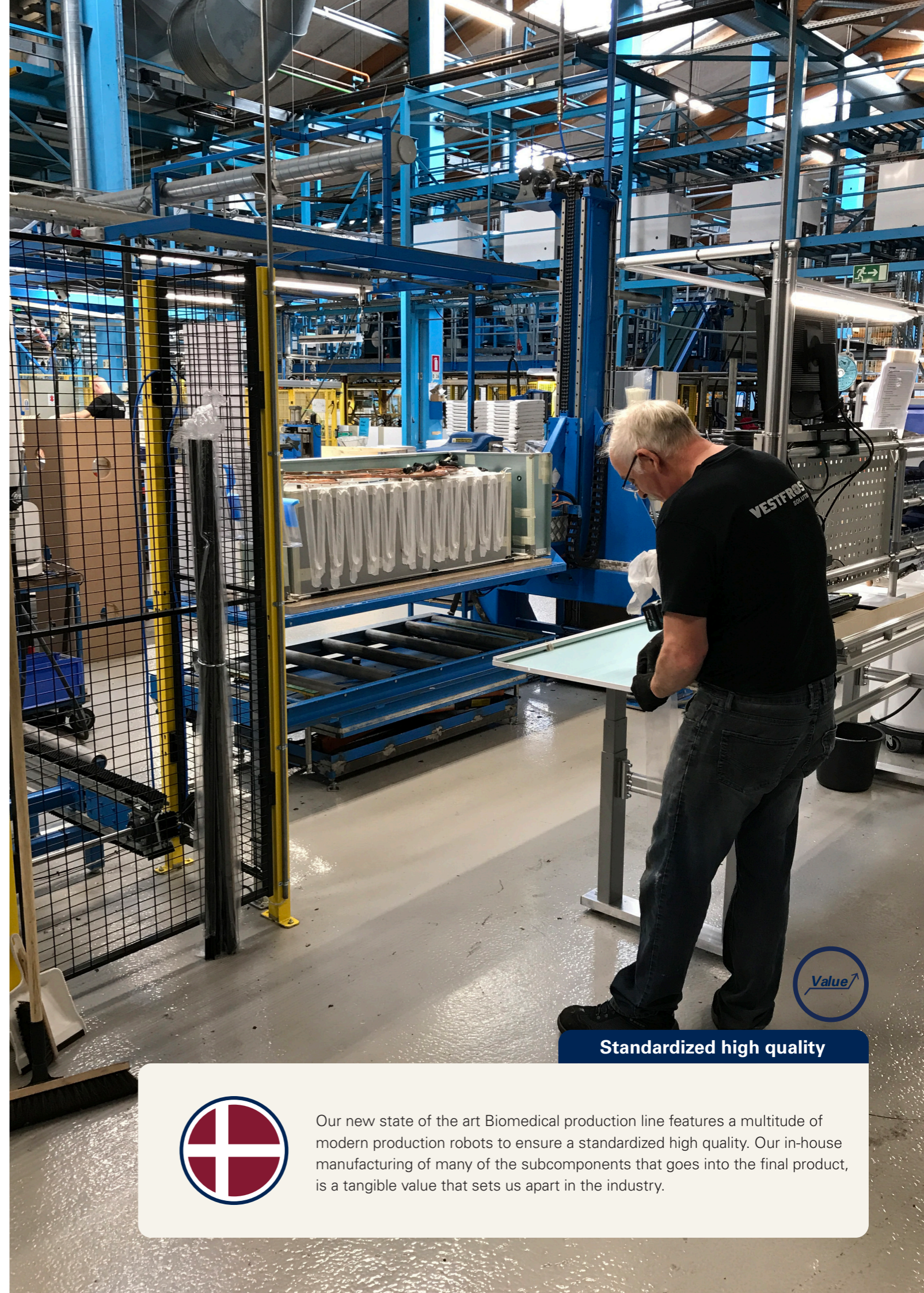
Additional testing of randomly picked units.

Stress testing to determine performance and accelerated lifetime test of exposed and vital parts.

Performance, transportation & 'what if' tests of units before release.

Safety tests and certifications according to the highest standards.

All our products are made in Denmark



## Standardized high quality



Our new state of the art Biomedical production line features a multitude of modern production robots to ensure a standardized high quality. Our in-house manufacturing of many of the subcomponents that goes into the final product, is a tangible value that sets us apart in the industry.



ISO 9001,  
14001 & 45001  
Certified

# QUALITY BIOMEDICAL APPLIANCES

