

Thalheimer Blood Bank Refrigerator

In the blood transfusion and donation process and over the years, safety has emerged as a key concern in blood products sourced from blood bank refrigerators. Thalheimer has developed its new HAEMO Med Line products including Blood Bank Refrigerator. This Blood Fridge is designed to conform with German standards and manufactured to comply with DIN58371 utilizing Thalheimer’s Technology developed over a period of six decades of specialization in medical refrigerated systems. The company is accredited with the ISO9001.

Our new innovative products have been designed with fully-automated pre-installed software system which enables our blood bank refrigerators and Freezers to fully control and record the operation.

All components are of German/EU origin. The fridge provides rapid cooling, quick performance and well controlled sustainable stable temperature compatible with human blood storage.

Some of our newly developed features represent the latest innovation in blood refrigeration system.

Microprocessor control system

Product Temp controller

Driven by 12 V. rechargeable battery with automatic charging. The control gives alarm during low and high temp and during power fault.

Refrigeration controller

Controlled by microprocessor. The temperature is adjustable from +2C to +6C. Factory setting is at +4 C.

Manual defrosting

In case the evaporator allows manual defrosting and the overcooling function is not activated, then manual defrosting can be achieved by pressing the button for few seconds.

Set point

This provides access to th set point edit function=

On/stand by

BY pressing this button for a few seconds the cabinet will be switched on or will be on stand by

Chamber light

In case of glass door, you can switch the chamber light on and off manually.

Down/up

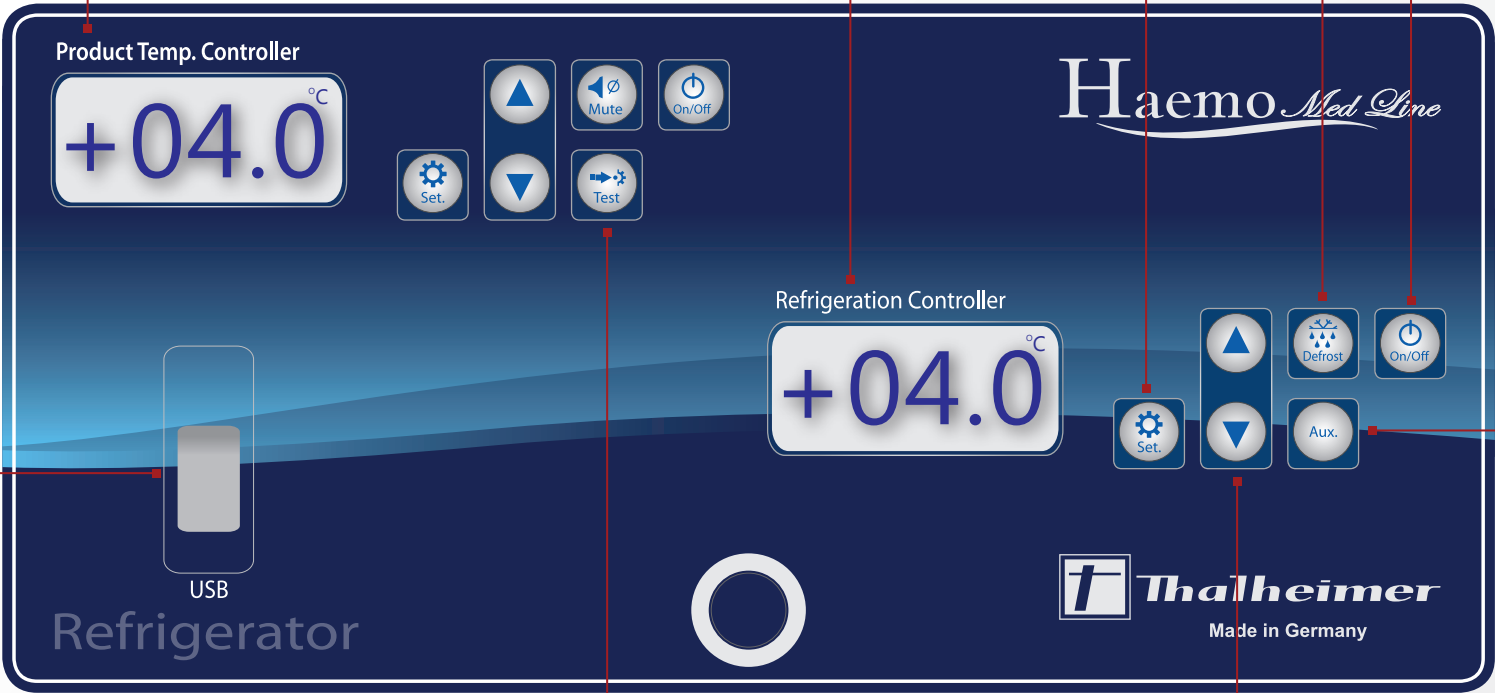
These are used to scroll the menu items and change the values.

Test

by pressing the button for at least two seconds you can check the battery level

USB for recording system

Temperature recording is done by a USB-recording devices. The record is being stored all the time in the system and can be down loaded at any time for any period.



Innovation...Quality...Simplicity

Blood Bank Refrigerators
Blood Plasma Freezers

SPECIFICATION

Capacity: ranging between 500L - 700L – 850L
Exterior housing: made from stainless steel (1.4301 AISI 304) brushed longitudinally.
Interior: made from stainless steel.
Door: The self-closing door is made from stainless steel with easily replaceable magnetic seal. The door stop-open on the right hand side and is lockable.
Insulation: The 75mm thick insulation is made from high-quality compression -molded, environmentally friendly injected polyurethane that ensures maximum energy saving. **This is unique to the Thalheimer model.**
Drawers: The fridge is supplied with Five or six drawers made from aluminum of medical specification. Their heights are adjustable and each has dividers similar to those adopted internationally. The drawers are equipped with telescopic runners that stop at full withdrawal. Maximum load of each drawer is 50 kg.
Castors: The fridge is equipped with four swivel castors. The front two have brake mechanism.
Ambient Temperature: +10 to +34 °C



OPTIONS

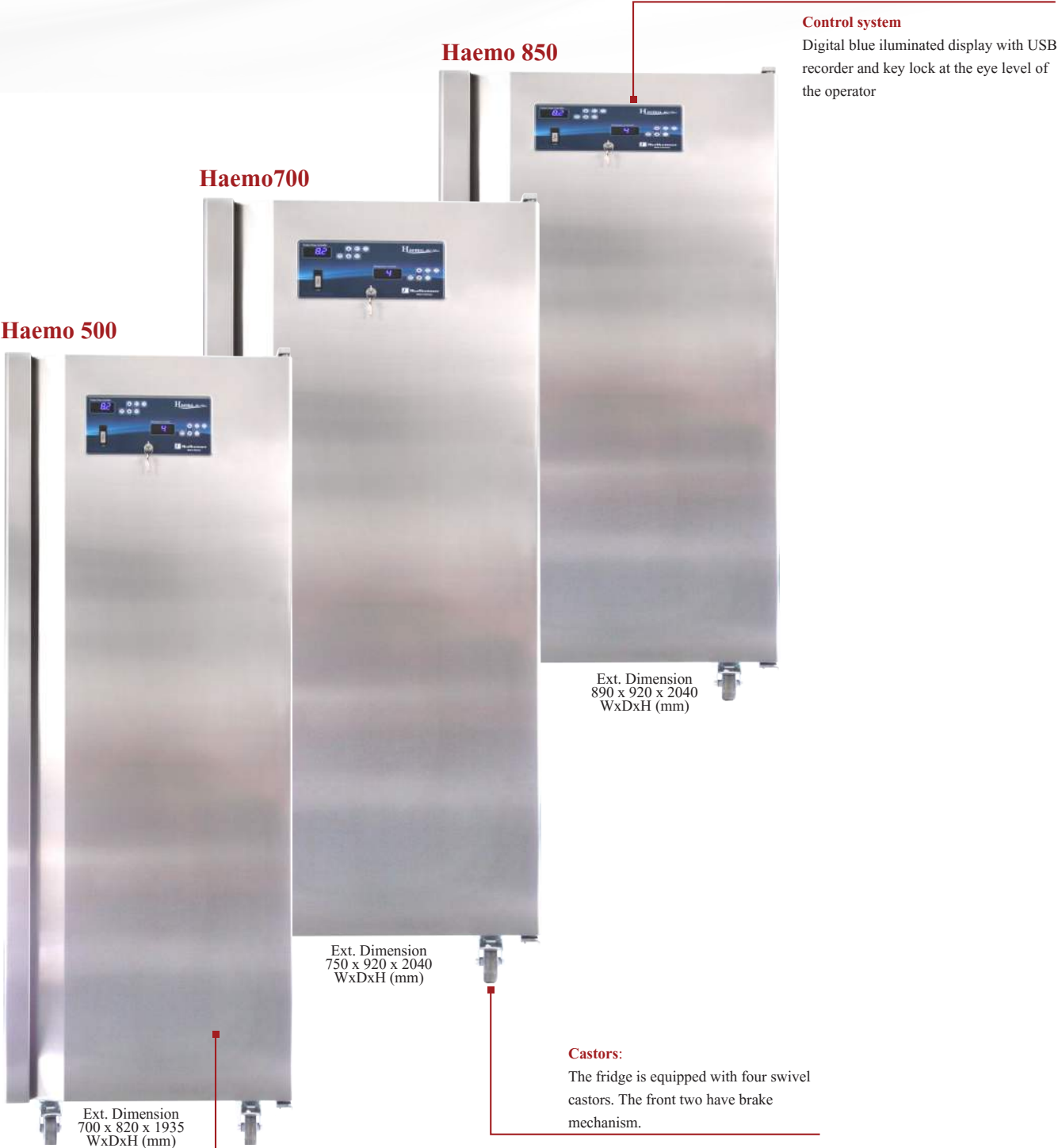
- Drawers made from various other materials.
- Drawer's dividers of various arrangements.
- Glass door
- Left or right hinged door
- GSM module
- Temperature documentation via PC

Technical Overview

Haemo Med Line
Frezo Med Line

		Refrigerators according to DIN 58371			Freezers according to DIN 58375		
Model Name		Haema 500	Haema 700	Haema 850	FREZO 500	FREZO 700	FREZO 850
	Capacity (Liter) 3 different capacity are available in our product range	500 L	700 L	850 L	500 L	700 L	850 L
	Temperature setting (°C) According to the above DIN standard.	+4	+4	+4	-25 °C	-25 °C	-25 °C
	Number of drawers The drawers made from aluminum of medical specification.	5	6	6	5	6	6
	Total capacity of blood bags 375ml - 400ml Blood bag are considered in the calculation. bigger bags can also fit in the drawers	375	540	648	375	540	648
	Max. load Per drawer (50 Kg)	●	●	●	●	●	●
	Insulation (75 mm) thick made from high-quality compression -molded, environmentally friendly injected polyurethane	●	●	●	●	●	●
	Power supply (220-240 V)	●	●	●	●	●	●
	Frequency (50-60 Hz)	●	●	●	●	●	●
	Admissible ambient temperature (+10 to +38 °C) Maximum performance can be achieved within the above ambient Temp.	●	●	●	●	●	●
	Noise level (45 dB(A)); distance 1m	●	●	●	●	●	●
	Weight (Kg)	132	145	155	132	145	155
	One compressor	●	●	●	●	●	●

Products Range



Door:
The self-closing door is made from stainless steel with easily replaceable magnetic seal. The door stop-open on the right hand side and is lockable.

Castors:
The fridge is equipped with four swivel castors. The front two have brake mechanism.

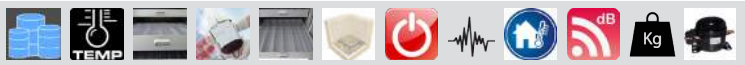


eco friendly



A COMMITMENT DEMONSTRATED BY DISTINCTIVE VALUE

A global search for quality and environmental care: Thalheimer has achieved the **ISO 9001 certification**. The company's strategy is to minimize its environmental impact in every aspect of production, from the supply of raw materials to manufacturing, from packaging materials to logistics. Further evidence of the ability to understand the market and interpret current trends and the changes taking place, asserting itself as a modern and dynamic organization that can stand out from the competition.



Haemo 500

Designed & manufactured according to DIN 58371



Exterior dimensions	700 x 820 x 1935
Temperature setting	+4 °C
Capacity	500 Liter
Number of drawers	5

SPECIFICATIONS

Exterior housing: made from stainless steel (1.4301 AISI 304) brushed longitudinally.

Interior: made from stainless steel.

Door: The self-closing door is made from stainless steel with easily replaceable magnetic seal. The door stop-open on the right hand side and is lockable.

Insulation: The 75mm thick insulation is made from high-quality compression -molded, environmentally friendly injected polyurethane that ensures maximum energy saving. This is unique to the Thalheimer model.

Drawers: The fridge is supplied with Five drawers made from aluminum of medical specification. Their heights are adjustable and each has dividers similar to those adopted internationally. The drawers are equipped with telescopic runners that stop at full withdrawal. Maximum load of each drawer is 50kg.

Castors: The fridge is equipped with four swivel castors. The front two have brake mechanism.

Interior light: The fridge has an interior LED lighting that is not only energy saving but has reduced heat output

Refrigeration System

- Danfos Compressor of high – quality system of EU origin, hermetically sealed, vibration free, low noise, energy saving, ventilation – enforced system.
- Inlet and exhaust air flow through slits at the top.
- Forced – air cooling and distribution through a blower that ensures uniform temperature throughout the volume and minimizes temperature deviations.
- Automatic fast defrosting when required
- Re-evaporation of defrost water in the evaporation panel under the compressor.
- Special air distribution system to stabilize temperature within the cabinet.
- Installed condenser filter.
- Energy efficient defrost management.

Specification Haema 500

Item code	FR3T11192719M
Capacity (Liter)	500 L
Exterior dimensions including door (mm)	700 x 820 x 1935
Interior dimensions (mm)	550 x 690 x 1350
Dimensions inner drawer	510 x 650 x 100
Number of bags per drawer	5 X 15 = 75
Number of drawers	5
Total capacity of blood bags	375
Max. load drawer (Kg)	50
Insulation (mm)	75
Power supply (V)	220-240
Frequency (Hz)	50-60
Admissible ambient temperature (°C)	+10 °C to +38 °C
Temperature setting (°C)	+4 °C
Power consumption (W)	295
Normal consumption (Kwh/24h)	2.4
Heat emission (max.) (W)	410
AMP (A)	1.8
Noise level (dB(A)); distance 1m	45
Weight (Kg)	132
No. of compressors	1
Refrigerant	R 134 a

Control and Measurement

- The fridge has a front display that shows:
Refrigeration controller on the lower RHS.
Product temperature controller on the upper LHS.
- USB data recorder downloaded via USB Pindrive
- Temperature is measured and ultimately controlled by sensors located in liquid loaded monitor vessel designed to mimic the shape of the blood bag within the fridge. The sensors constantly measure the temperatures that are recorded on the Product Temperature controller and are easily downloaded via the USB pindrive.
- The required temperature is set on the refrigeration controller to be +4°C ± 1.5°C.
- Continuous temperature control is secured for at least 48 hours through an installed battery.

Alarm and Safety Functions

Mechanical safety thermostat is activated if the simulated core temperature is lower than the minimum tolerance limit of + 2 °C.

If the door is unduly kept open an optical and acoustic alarm is activated and the interior LED lightning is activated; the compressor and fan switched off. Two stage management is utilized, the first gives a visual and audio alarm at the refrigeration controller and can be attended to by the operator, the second is managed at the product temp. controller where it can be manipulated through the central monitoring station. **This unique system is available only on Thalheimer fridge.**

In the event of electrical power failure, the alarm and control mechanism and data recording remains operative for 48 hours with the help of an installed battery. **This feature is unique to the Thalheimer fridge.**

Intelligent energy –efficient defrost management is available.

The condensing temperature can be monitored even if the filter is blocked or rendered inoperative.

OPTIONS

- Drawers made from various other materials.
- Drawer's dividers of various arrangements.
- Glass door
- Left or right hinged door
- GSM module
- Temperature documentation via PC



5X15=75 Bags per drawer



Drawers made from aluminum of medical specification.



Drawer's dividers of various arrangements.



Haemo 700

Designed & manufactured according to DIN 58371



Exterior dimensions	750 x 920 x 2040
Temperature setting	+4 °C
Capacity	700 Liter
Number of drawers	6

SPECIFICATIONS

Exterior housing: made from stainless steel (1.4301 AISI 304) brushed longitudinally.

Interior: made from stainless steel.

Door: The self-closing door is made from stainless steel with easily replaceable magnetic seal. The door stop-open on the right hand side and is lockable.

Insulation: The 75mm thick insulation is made from high-quality compression -molded, environmentally friendly injected polyurethane that ensures maximum energy saving. This is unique to the Thalheimer model.

Drawers: The fridge is supplied with six drawers made from aluminum of medical specification. Their heights are adjustable and each has dividers similar to those adopted internationally. The drawers are equipped with telescopic runners that stop at full withdrawal. Maximum load of each drawer is 50kg.

Castors: The fridge is equipped with four swivel castors. The front two have brake mechanism.

Interior light: The fridge has an interior LED lighting that is not only energy saving but has reduced heat output

Refrigeration System

- Danfos Compressor of high – quality system of EU origin, hermetically sealed, vibration free, low noise, energy saving, ventilation – enforced system.
- Inlet and exhaust air flow through slits at the top.
- Forced – air cooling and distribution through a blower that ensures uniform temperature throughout the volume and minimizes temperature deviations.
- Automatic fast defrosting when required
- Re-evaporation of defrost water in the evaporation panel under the compressor.
- Special air distribution system to stabilize temperature within the cabinet.
- Installed condenser filter.
- Energy efficient defrost management.

Specification Haema 700

Item code	FR3T11192710N
Capacity (Liter)	700 L
Exterior dimensions including door (mm)	750 x 920 x 2040
Interior dimensions (mm)	600 x 790 x 1450
Dimensions inner drawer	560 x 750 x 100
Number of bags per drawer	5 x 18 = 90
Number of drawers	6
Total capacity of blood bags	540
Max. load drawer (Kg)	50
Insulation (mm)	75
Power supply (V)	220-240
Frequency (Hz)	50-60
Admissible ambient temperature (°C)	+10 °C to +38 °C
Temperature setting (°C)	+4 °C
Power consumption (W)	295
Normal consumption (Kwh/24h)	2.7
Heat emission (max.) (W)	410
AMP (A)	1.8
Noise level (dB(A)); distance 1m	45
Weight (Kg)	145
No. of compressors	1
Refrigerant	R 134 a

Control and Measurement

- The fridge has a front display that shows:
Refrigeration controller on the lower RHS.
Product temperature controller on the upper LHS.
- USB data recorder downloaded via USB Pindrive
- Temperature is measured and ultimately controlled by sensors located in liquid loaded monitor vessel designed to mimic the shape of the blood bag within the fridge. The sensors constantly measure the temperatures that are recorded on the Product Temperature controller and are easily downloaded via the USB pindrive.
- The required temperature is set on the refrigeration controller to be +4°C ± 1.5°C.
- Continuous temperature control is secured for at least 48 hours through an installed battery.

Alarm and Safety Functions

Mechanical safety thermostat is activated if the simulated core temperature is lower than the minimum tolerance limit of + 2 °C.

If the door is unduly kept open an optical and acoustic alarm is activated and the interior LED lightning is activated; the compressor and fan switched off. Two stage management is utilized, the first gives a visual and audio alarm at the refrigeration controller and can be attended to by the operator, the second is managed at the product temp. controller where it can be manipulated through the central monitoring station. **This unique system is available only on Thalheimer fridge.**

In the event of electrical power failure, the alarm and control mechanism and data recording remains operative for 48 hours with the help of an installed battery. **This feature is unique to the Thalheimer fridge.**

Intelligent energy –efficient defrost management is available.

The condensing temperature can be monitored even if the filter is blocked or rendered inoperative.

OPTIONS

- Drawers made from various other materials.
- Drawer’s dividers of various arrangements.
- Glass door
- Left or right hinged door
- GSM module
- Temperature documentation via PC



USB data recorder downloaded via USB Pindrive



Telescopic runners that stop at full withdrawal



Temp. controlled by sensors located in liquid loaded monitor vessel



Haemo 850

Designed & manufactured according to DIN 58371



Exterior dimensions	890 x 920 x 2040
Temperature setting	+4 °C
Capacity	850 Liter
Number of drawers	6

SPECIFICATIONS

Exterior housing: made from stainless steel (1.4301 AISI 304) brushed longitudinally.

Interior: made from stainless steel.

Door: The self-closing door is made from stainless steel with easily replaceable magnetic seal. The door stop-open on the right hand side and is lockable.

Insulation: The 75mm thick insulation is made from high-quality compression -molded, environmentally friendly injected polyurethane that ensures maximum energy saving. This is unique to the Thalheimer model.

Drawers: The fridge is supplied with six drawers made from aluminum of medical specification. Their heights are adjustable and each has dividers similar to those adopted internationally. The drawers are equipped with telescopic runners that stop at full withdrawal. Maximum load of each drawer is 50kg.

Castors: The fridge is equipped with four swivel castors. The front two have brake mechanism.

Interior light: The fridge has an interior LED lighting that is not only energy saving but has reduced heat output

Refrigeration System

- Danfos Compressor of high – quality system of EU origin, hermetically sealed, vibration free, low noise, energy saving, ventilation – enforced system.
- Inlet and exhaust air flow through slits at the top.
- Forced – air cooling and distribution through a blower that ensures uniform temperature throughout the volume and minimizes temperature deviations.
- Automatic fast defrosting when required
- Re-evaporation of defrost water in the evaporation panel under the compressor.
- Special air distribution system to stabilize temperature within the cabinet.
- Installed condenser filter.
- Energy efficient defrost management.

Specification Haema 850

Item code	FR3T11192711N
Capacity (Liter)	850 L
Exterior dimensions including door (mm)	890 x 920 x 2040
Interior dimensions (mm)	740 x 790 x 1450
Dimensions inner drawer	700 x 750 x 100
Number of bags per drawer	6 x 18 = 108
Number of drawers	6
Total capacity of blood bags	648
Max. load drawer (Kg)	50
Insulation (mm)	75
Power supply (V)	220-240
Frequency (Hz)	50-60
Admissible ambient temperature (°C)	+10 °C to +38 °C
Temperature setting (°C)	+4 °C
Power consumption (W)	295
Normal consumption (Kwh/24h)	3.0
Heat emission (max.) (W)	410
AMP (A)	1.8
Noise level (dB(A)); distance 1m	45
Weight (Kg)	155
No. of compressors	1
Refrigerant	R 134 a

Control and Measurement

- The fridge has a front display that shows:
 - Refrigeration controller on the lower RHS.
 - Product temperature controller on the upper LHS.
- USB data recorder downloaded via USB Pindrive
- Temperature is measured and ultimately controlled by sensors located in liquid loaded monitor vessel designed to mimic the shape of the blood bag within the fridge. The sensors constantly measure the temperatures that are recorded on the Product Temperature controller and are easily downloaded via the USB pindrive.
- The required temperature is set on the refrigeration controller to be +4°C ± 1.5°C.
- Continuous temperature control is secured for at least 48 hours through an installed battery.

Alarm and Safety Functions

Mechanical safety thermostat is activated if the simulated core temperature is lower than the minimum tolerance limit of + 2 °C.

If the door is unduly kept open an optical and acoustic alarm is activated and the interior LED lightning is activated; the compressor and fan switched off. Two stage management is utilized, the first gives a visual and audio alarm at the refrigeration controller and can be attended to by the operator, the second is managed at the product temp. controller where it can be manipulated through the central monitoring station. **This unique system is available only on Thalheimer fridge.**

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Intelligent energy –efficient defrost management is available.

The condensing temperature can be monitored even if the filter is blocked or rendered inoperative.

OPTIONS

- Drawers made from various other materials.
- Drawer's dividers of various arrangements.
- Glass door
- Left or right hinged door
- GSM module
- Temperature documentation via PC



Forced – air cooling and distribution that ensures uniform temperature



Inlet and exhaust air flow through slits at the top.



The drawers are equipped with telescopic runners that stop at full withdrawal