



MEDICAL REFRIGERATION

# MINUS40 MEDICAL FRIDGES

RT2-1-2016: SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF MEDICAL EQUIPMENT TO THE STATE FOR THE CONTRACT ENDING 31 OCTOBER 2019



**B200/40/220H**

Vaccine  
Refrigerator  
200-280L

RT2 Item #: 42



**B300/40/220H**

Vaccine  
Refrigerator  
290-350L

RT2 Item #: 43



**MED250HD**

SINGLE GLASS  
DOOR  
REFRIGERATOR

RT2 Item #: 44



**MED900HD**

DOUBLE GLASS  
DOOR  
REFRIGERATOR

RT2 Item #: 45



Additional Information can be found on our website at:

[www.minus40.co.za](http://www.minus40.co.za)





MEDICAL REFRIGERATION

# Selecting A Suitable Medical Fridge For Your Health Facility

Under the 2016 RT-2 Medical portfolio, there are 4 fridges that have been selected for distribution to South African public Health facilities. To select a suitable fridge, the facility manager must consider the following selection criteria;

## 1. Electrical Power supply Reliability

If the facility is reliant on only Eskom supplied electricity with no electrical generator back up, then its recommended to select a B-series Vaccine Fridge. This B-series fridge type has the ability to retain its operating temperature range even if the electricity is off for more than 2 days.

The MED-series Medical Fridge must only be used where the Health facility has back up power through alternative electrical generators should Eskom electricity be interrupted.

## 2. Freezer Compartment Requirement

If the Health facility requires a freezer compartment in the fridge for either freezing ice packs for vaccination transportation events or requiring storage of frozen medical supplies, then a B-series fridge should be selected.

The MED-series does not have a freezer compartment.

## 3. Fridge Volume Requirement

The Health Facility must define the fridge volume required and then select the appropriate fridge to meet this volume requirement. The fridge volumes are as follows;

B-Series fridges with Temperature holdover capability include;

B200/30/220H = 200ltr capacity (with additional 40ltr freezer compartment)

B300/40/220H = 280ltr capacity (with additional 40ltr freezer compartment)

MED-series fridges for reliable power supply facilities include;

MED250HD = 250ltr fridge capacity

MED900HD = 900ltr fridge capacity

## 4. Independent Temperature Monitoring (Optional Extra)

An Independent Temperature Recorder to conform to the Pharmacy Regulations of 2015 may be purchased from Minus40.

We recommend the Berlinger Fridge-tag 2 for it's quality, simplicity and ease of use.

The Berlinger Fridge-Tag 2 **was not** quoted for / included in the RT2-1-2016 Tender. However, quotations for this device can be obtained from our Sales department.

*Please feel free to contact us on 021 386 2290 for a quotation on this device.*



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MEDICAL REFRIGERATION

# B200/40/220H

## VACCINE REFRIGERATOR 200-280L

**Item Number:** 42

**Item Code:** 41103011-00001

**Item Description:** Vaccine Refrigerator 200-280 Litres

**Production lead time:** 3-5 weeks from receipt of order\*

*\*Dependant on customer's payments being current*

**Brand:** Minus40

**Model Number:** B200/40/220H

**Country of Manufacture:** RSA

**Price (VAT inclusive):** R61 042.81\*\*

*\*\*Including delivery within SA, a 2 Year Warranty inclusive of services and a voltage regulator*

The B200/40/220H is a 200L Vaccine Refrigerator that has been specifically designed for Health Facilities which have unreliable electricity supply with no backup generators.

The fridge will retain it's temperature below 10°C for over 2 days with no electricity supply. It also has a 40L freezing compartment that can be used to freeze Ice Packs that are subsequently used in cooler boxes for transporting vaccines to remote locations during vaccination campaigns.

This Fridge is supplied with a 2-year full service warranty and includes delivery to the Health Service facility and a voltage regulator.



### SPECIFICATIONS

Gross Capacity Fridge	200L
Gross Capacity Freezer	40L
Pre-set Operating Temperature range - Fridge	2°C to 8°C
Pre-set Operating Temperature range - Freezer	-15°C to -10°C
Suitable for usage in a maximum ambient temperature of	43°C
Hold-over time at less than 10°C (32°C AMB)	55Hrs
Ice Pack Freezing per Kg/24hrs	8Kg
Defrost Cycle	Manual
Voltage	220V AC /50Hz
Refrigerant	R134a
Rated Power Input	3 Amps
Shelves	5

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MEDICAL REFRIGERATION

# B200/40/220H

## VACCINE REFRIGERATOR 200-280L

### FEATURES

The refrigeration system consists of two independent condensing units, one dedicated to the fridge and the other to the freezer.

The refrigerator temperature is controlled by a 2-stage digital controller.

The first stage of the digital controller cools the unit by switching the compressor either on or off.

The second stage of the digital controller is set to prevent freezing of the vaccine load.

Should internal temperature near freezing point, the controller switches on a heating unit to provide sufficient heating to prevent freezing.

Alarm indication is provided for temperatures outside the 2°C to 8°C.

There is a cavity positioned towards the back of the unit for independent temperature control.

An internal fan is fitted to circulate air inside the cabinet.

The freezer compartment operates between -15°C to -10°C and is used for ice pack freezing.

Carrying handles are fitted on the unit to assist in off-loading, positioning and during hygiene cleaning exercises.

This unit is environmentally friendly as the refrigerator is CFC free.

Rated power input 3 Amps.

Fridge interior surfaces prepared with stainless steel for superior hygiene standards.

Low operating sound, ideal for medical facilities.

5 Adjustable Stainless Steel Shelves – uniquely designed to ensure correct packaging of medicines.

Individual internal door is fitted to the freezer compartment to ensure that freezer temperature is regulated when main door is opened.

Door is a self-closing, solid door.

Lockable door for product security.

An operating and installation manual is provided.

Manufactured with LED lights which aid in the prevention of Bacteria growth.

### EXTERNAL DIMENSIONS

Height mm	1725
Width mm	650
Depth mm	710
Weight kg	160

### INTERNAL FRIDGE DIMENSIONS

Height mm	920
Width mm	450
Depth mm	535

### INTERNAL FREEZER DIMENSIONS

Height mm	210
Width mm	450
Depth mm	535

### STANDARD PACKAGED DIMENSIONS

Height mm	1800
Width mm	700
Depth mm	780
Weight kg	170



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MEDICAL REFRIGERATION

# B300/40/220H

## VACCINE REFRIGERATOR 290-350L

**Item Number:** 43

**Item Code:** 41103011-00002

**Item Description:** Fridge, Vaccine, with a capacity of 290-350L

**Production lead time:** 3-5 weeks from receipt of order\*

*\*Dependant on customer's payments being current*

**Brand:** Minus40

**Model Number:** B300/40/220H

**Country of Manufacture:** RSA

**Price (VAT inclusive):** R70 330.57\*\*

*\*\*Including delivery within SA, a 2 Year Warranty inclusive of services and a voltage regulator*

The B300/40/220H is a 280L Vaccine Refrigerator that has been specifically designed for Health Facilities which have unreliable electricity supply with no backup generators.

The fridge will retain it's temperature below 10°C for over 2 days with no electricity supply. It also has a 40L freezing compartment that can be used to freeze Ice Packs that are subsequently used in cooler boxes for transporting vaccines to remote locations during vaccination campaigns.

This Fridge is supplied with a 2-year full service warranty and includes delivery to the Health Service facility and a voltage regulator.



### SPECIFICATIONS

Gross Capacity Fridge	280L
Gross Capacity Freezer	40L
Pre-set Operating Temperature range - Fridge	2°C to 8°C
Pre-set Operating Temperature range - Freezer	-15°C to -10°C
Suitable for usage in a maximum ambient temperature of	43°C
Hold-over time at less than 10°C (32°C AMB)	48Hrs
Ice Pack Freezing per Kg/24hrs	8Kg
Defrost Cycle	Manual
Voltage	220V AC /50Hz
Refrigerant	R134a
Rated Power Input	3.5 Amps
Shelves	6

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MEDICAL REFRIGERATION

# B300/40/220H

## VACCINE REFRIGERATOR 290-350L

### FEATURES

The refrigeration system consists of two independent condensing units, one dedicated to the fridge and the other to the freezer.

The refrigerator temperature is controlled by a 2-stage digital controller.

The first stage of the digital controller cools the unit by switching the compressor either on or off.

The second stage of the digital controller is set to prevent freezing of the vaccine load.

Should internal temperature near freezing point, the controller switches on a heating unit to provide sufficient heating to prevent freezing.

Alarm indication is provided for temperatures outside the 2°C to 8°C.

There is a cavity positioned towards the back of the unit for independent temperature control.

An internal fan is fitted to circulate air inside the cabinet.

The freezer compartment operates between -15°C to -10°C and is used for ice pack freezing.

Carrying handles are fitted on the unit to assist in off-loading, positioning and during hygiene cleaning exercises.

This unit is environmentally friendly as the refrigerator is CFC free.

Rated power Input 3.5 Amps.

Fridge interior surfaces prepared with stainless steel for superior hygiene standards.

Low operating sound, ideal for medical facilities.

6 Adjustable Stainless Steel Shelves – uniquely designed to ensure correct packaging of medicines.

Individual internal door is fitted to the freezer compartment to ensure that freezer temperature is regulated when main door is opened.

Door is a self-closing, solid door.

Lockable door for product security.

An operating and installation manual is provided.

Manufactured with LED lights which aid in the prevention of Bacteria growth.

### EXTERNAL DIMENSIONS

Height mm	1960
Width mm	650
Depth mm	710
Weight kg	200

### INTERNAL FRIDGE DIMENSIONS

Height mm	1155
Width mm	450
Depth mm	535

### INTERNAL FREEZER DIMENSIONS

Height mm	210
Width mm	450
Depth mm	535

### STANDARD PACKAGED DIMENSIONS

Height mm	2150
Width mm	750
Depth mm	750
Weight kg	210



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MEDICAL REFRIGERATION

# MED250HD

## Single Glass Door Refrigerator

**Item Number:** 44

**Item Code:** 41103011-00003

**Item Description:** Single Glass Door Refrigerator

**Production lead time:** 3-5 weeks from receipt of order\*

*\*Dependant on customer's payments being current*

**Brand:** Minus40

**Model Number:** MED250HD

**Country of Manufacture:** RSA

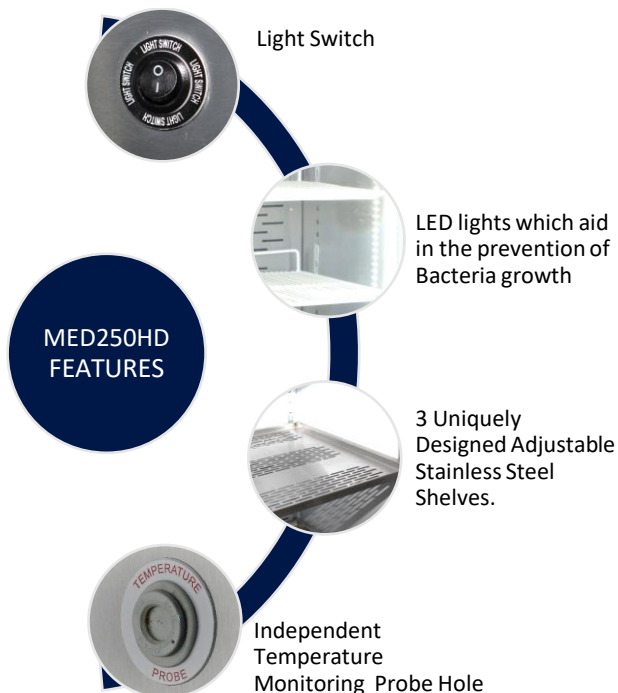
**Price (VAT inclusive):** R48 752.94\*\*

*\*\*Including delivery within SA, a 2 Year Warranty inclusive of services and a voltage regulator*

The MED250HD is a 250L Pharmacy Refrigerator that has been specifically designed for Hospitals and Clinics that have a stable, continuous power supply.

The MED250HD Pharmacy Refrigerator has the added advantage that it has a low operating sound which makes it ideal to operate in medical facilities and wards.

This Fridge is supplied with a 2-year full service warranty and includes delivery to the Health Service facility.



### SPECIFICATIONS

Gross Capacity	250L
Pre-set Operating Temperature range	2°C to 8°C
Suitable for usage in a maximum ambient temperature of	35°C
Voltage	AC 220V/50Hz
Refrigerant	R600a
Rated Power Input	1.34 Amps
Shelves	3
Sound Level	44dB



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MEDICAL REFRIGERATION

# MED250HD

## Single Glass Door Refrigerator

### FEATURES

- The outer casing is produced with Stainless Steel.
- The inner casing is produced with Stainless Steel.
- This unit's insulation is foamed in place by Polyurethane 32kg/m<sup>2</sup> density with a minimum of 45mm thickness.
- The refrigeration system is fitted with a condensing unit that cools a finned coil within the insulated cabinet.
- Air is forced over the finned coil by an axial fan. Cold air is forced to the rear of the cabinet.
- This air flow ensures even temperature distribution within the cabinet irrespective of how each shelf is packed.
- PLC controller to optimally control temperature and multifunction alarms.
- Alarm indication is provided for temperatures outside the range 2°C to 8°C.
- There is an orifice positioned towards the back of the unit for independent temperature monitoring capability.
- An environmentally friendly refrigerator that is CFC free.
- Rated power input is 1.34 Amps.
- A light switch is situated on the outer casing, enabling the user to easily switch the light on and off.
- Defrosting of the inner coil takes place automatically and the defrost water is drained away and evaporated in the compressor compartment.
- 3 Adjustable stainless steel shelves.
- Door is self-closing, lockable door for product security.
- The door is a Low E heat reflective glass in custom made frame.
- Low operating sound, ideal for medical facilities.
- An operating and installation manual is provided.
- Comes standard with levelling feet.
- A Voltage regulator is supplied with the fridge to ensure the fridge is always protected from power surges.
- Manufactured with LED lights which aid in the prevention of Bacteria growth.

### EXTERNAL DIMENSIONS

Height mm	1380
Width mm	575
Depth mm	615
Weight kg	80

### INTERNAL DIMENSIONS

Height mm	800
Width mm	485
Depth mm	460

### STANDARD PACKAGED DIMENSIONS

Height mm	1420
Width mm	700
Depth mm	700
Weight kg	85



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MEDICAL REFRIGERATION

# MED900HD

## Double Glass Door Refrigerator

**Item Number:** 45

**Brand:** Minus40

**Item Code:** 41103011-00004

**Model Number:** MED900HD

**Item Description:** Double Glass Door Refrigerator

**Country of Manufacture:** RSA

**Production lead time:** 3-5 weeks from receipt of order\*

**Price (VAT inclusive):** R59 969.47\*\*

*\*Dependant on customer's payments being current*

*\*\*Including delivery within SA, a 2 Year Warranty inclusive of services and a voltage regulator*

The MED900HD is a 900L Pharmacy Refrigerator that has been specifically designed for Hospitals and Clinics that have a stable, continuous power supply.

This Pharmacy Refrigerator is ideal for Health facilities that are required to store a large volume of product.

This Fridge is supplied with a 2-year full service warranty and includes delivery to the Health Service facility and a voltage regulator.

Customer to indicate whether the sliding door or hinged door version is to be supplied at time of order.



LED lights which aid in the prevention of Bacteria growth



Independent Temperature Monitoring Probe Hole



8 Uniquely Designed Adjustable Stainless Steel Shelves



### SPECIFICATIONS

Gross Capacity	900L
Pre-set Operating Temperature range	2°C to 8°C
Suitable for usage in a maximum ambient temperature of	35°C
Voltage	AC 220V/50Hz
Refrigerant	R134a
Rated Power Input	4 Amps
Shelves	8



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MEDICAL REFRIGERATION

# MED900HD

## Double Glass Door Refrigerator

### FEATURES

- The outer casing is produced with white Chromadek.
- The inner casing is produced with white Chromadek.
- This unit's insulation is foamed in place by Polyurethane 32kg/m<sup>2</sup> density with a minimum of 45mm thickness.
- The refrigeration system is fitted with a condensing unit that cools a finned coil within the insulated cabinet.
- Air is forced over the finned coil by an axial fan. Cold air is forced to the rear of the cabinet.
- This air flow ensures even temperature distribution within the cabinet irrespective of how each shelf is packed.
- Control of the refrigerator temperature is by means of a digital thermostat.
- Alarm indication is provided for temperatures outside the range 2°C to 8°C.
- There is an orifice positioned towards the back of the unit for independent temperature monitoring capability.
- An environmentally friendly refrigerator that is CFC free.
- Rated power input is 4 Amps.
- Manufactured with LED lights which aid in the prevention of Bacteria growth.
- Defrosting of the inner coil takes place automatically and the defrost water is drained away and evaporated in the compressor compartment.
- 8 Adjustable Stainless Steel shelves – uniquely designed to ensure correct packing of medicines.
- It comes with Hinged doors that are self-closing and lockable for product security.
- The door is a Low E heat reflective glass in custom made aluminium frame.
- Low operating sound, ideal for medical facilities.
- An operating and installation manual is provided.
- Comes standard with levelling feet.
- A Voltage regulator is supplied with the fridge to ensure the fridge is always protected from power surges.

### EXTERNAL DIMENSIONS

### INTERNAL DIMENSIONS

### STANDARD PACKAGED DIMENSIONS

Height mm	2020	Height mm	1380	Height mm	2100
Width mm	1140	Width mm	1050	Width mm	1180
Depth mm	635	Depth mm	485	Depth mm	700
Weight kg	180			Weight kg	195



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MEDICAL REFRIGERATION

# Installation & Maintenance Requirements

## **Installation Requirements**

The Medical Fridges must be installed in;

- Well ventilated room that is dust free.
- Must have its supplied Voltage Protector installed at all times.
- Room temperatures must be maintained between 2°C and 35°C for optimum fridge operation.

## **Maintenance required:**

### - **Do's:**

- o Ensure the unit has its own dedicated 15A plug.
- o Unit is plugged into the voltage protector.
- o The condenser is cleaned regularly.
- o B-series Vaccine fridge must be manually defrosted periodically depending on level of condensate ice build-up in the fridge.

### - **Don't:**

- o Use multi-plugs or leads to plug the unit to mains.
- o Place the unit in direct sunlight.
- o Block ventilation to the unit



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MEDICAL REFRIGERATION

# Key Contacts

## **Sales & Support**

For Sales & Support in the **Western Cape, Eastern Cape, Northern Cape & Free State** area please contact:

Ms. Twanette Muller

Cell: 083 628 9323

Office Tel: 021 386 2290

Email: [twanette@minus40.co.za](mailto:twanette@minus40.co.za)

For Sales & Support in the **North West Province, KwaZulu Natal, Gauteng, Limpopo & Mpumalanga** area please contact:

Mr. Warren Taylor

Cell: 082 739 9812

Office Tel: 021 386 2290

Email: [warren@minus40.co.za](mailto:warren@minus40.co.za)

## **Servicing & Spares**

For any Servicing & Spares related queries please contact:

Ms. Angelique Labuschagne

Cell: 084 602 9586

Office Tel: 021 386 2290

Email: [angeliquel@minus40.co.za](mailto:angeliquel@minus40.co.za)

## **Contract Manager**

For any assistance relating to the RT2-1 Contract please contact:

Ms. Lindi Cronje

Office Tel: 021 386 2290

Email: [lindi@minus40.co.za](mailto:lindi@minus40.co.za)



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[www.minus40.co.za](http://www.minus40.co.za)

