

# Refrigerators

Upright Blood Bank



i.Series®  
Horizon Series™

# Blood Bank Refrigerators

Helmer has provided high-quality laboratory equipment and refrigerated products for over 30 years. Our experience and attention to detail allow us to provide a product that offers superior uniformity, outstanding reliability, and exceptional benefits that bring value every day. In addition, our commitment to service and support ensures satisfaction throughout the life of your product. Whether storing blood products, reagents, vaccines, or medication, a Helmer product offers TrueBlue™ protection.



## Helmer Refrigerators Deliver

### High-Quality Craftsmanship

- Superior chamber temperature uniformity and quick recovery with heavy-duty, air-cooled refrigeration system
- Temperature uniformity of  $\pm 1^{\circ}\text{C}$
- Operating temperature range from  $+2^{\circ}\text{C}$  to  $+10^{\circ}\text{C}$
- Bacteria-resistant powder coated exterior and interior for added security
- Sure-Seal self-closing door with magnetic closure eliminates broken door latches
- No defrost cycle required so constant temperatures are maintained throughout the storage period
- Adjustable LED lighting provides energy-efficient illumination with auto-on feature and ON/OFF switch
- Hospital-grade plug enhances electrical safety/serviceability

### Secure Monitoring for a Safe Storage Environment

- i.C³® with 7" (177mm) full-color touchscreen (i.Series®)
- Microprocessor temperature controller with built-in alarm/monitor (Horizon Series™)
- Key lock
- Password protected settings (i.Series)
- Chart recorder
- Meets AABB, ARC, FDA, EU Blood Directive 2004/33/EC, and Part 4 of the Blood Safety and Quality Regulation 2005 standards for blood storage at  $4^{\circ}\text{C}$

### Designed for Convenience & Performance

- Single and double door models from 11 cf (326 L) to 56 cf (1586 L)
- ADA compliant door handle(s)
- Position flush with a countertop, cabinet, or other equipment with no additional clearance required
- Recessed floor and liquid-tight drawers contain spills for easy clean-up and maintain the integrity of other products stored in the refrigerator
- Rechargeable battery backup (i.C³)

## i.Series® and Horizon Series™

Helmer has two distinct refrigerator lines. The i.Series offers many unique features not found on other refrigerator models. The i.C<sup>3</sup>® User Interface anchors this top-of-the-line series. It offers constant temperature monitoring and control, multiple information logs, event acknowledgement and downloading via a 7" (177mm) full-color touchscreen. (See page 5 for more information.)

The Horizon Series offers a temperature controller with a built-in alarm. It features an LED digital temperature display, programmable high and low temperature alarms, manual alarm checks, and a programmable operating range.

Both the i.Series and Horizon Series offer high quality construction and attention to detail throughout.



## Blood Bank Models

- i.Series and Horizon Series lines
- Upright, Undercounter, and Pass-Thru models
- Capacity from 11 cf to 56 cf (326 L to 1586 L)

### Upright Models

- Double door with 14 drawers
- Single door with either 7 drawers (20 and 25 cf / 572 and 714 L) or 5 drawers (11 cf / 326 L)
- Blood bag capacity from 165 to 1008 bags
- Door-mounted, eye-level controls (i.Series)



# Upright Refrigerators

## Temperature Control and Monitoring

### i.Series

- i.C<sup>3</sup>®, with 7" (177mm) full-color touchscreen monitor described on page 5
- Two stainless steel monitoring probes in product simulation bottles (single probe in iB111)
- Temperature display in °C or °F

### Horizon Series

- Digital microprocessor temperature controller with a built-in alarm/monitor factory set to 4°C
- Single, stainless steel monitoring probe in product simulation bottle
- Digital offset adjustment for calibration

### i.Series and Horizon Series

- Chart recorder with 4" (102mm), 7-day circular charts
  - Inkless, pressure-sensitive chart paper with a range of -5°C to +20°C
  - Battery backup
  - Touch button controls for chart changes and calibration



## Storage

- Solid stainless steel pull out drawers
- Sure-Grip coordinated drawer handles with built-in ledge for labels (i.Series)
- Durable, liquid-tight construction for containment of spills
- Stainless steel drawer standards guard against rust and corrosion
- Easy access to inventory with fully extendable drawer slides
- Scratch-Guard edge protectors keep glass doors from being scratched by drawers
- Tube-Guard drawer shields minimize the risk of tube damage in the drawer



## Refrigeration System

- Heavy-duty, air-cooled refrigeration system with non-CFC R-134A refrigerant provides high efficiency and is environmentally friendly
- Forced-air circulation maintains chamber uniformity of  $\pm 1^{\circ}\text{C}$  and provides quick recovery after door openings
- Auto condensate evaporation. Evaporator fan(s) shut off during door openings to maintain stable temperatures
- No defrost cycle required to maintain constant temperature

## Cabinet Construction

- Bacteria-resistant powder coated interior, exterior, and door handle(s)
- Ergonomic Sure-Grip door handle is padded for comfort (i.Series)
- Superior engineered frame for maximum rigidity
- Dual-pane glass door(s) with ADA compliant full-length handle
- Innovative self-closing Sure-Seal door system with magnetic seal
- Key lock
- LED lighting with control panel mounted switch
  - Auto ON/OFF (i.Series)
- Minimum of 2" (51mm) non-CFC foamed urethane insulation
- Dual, swivel locking casters
- Access port located in top of cabinet for external monitoring probe(s)
- Rechargeable battery is environmentally friendly and long-lasting (i.C<sup>3</sup>)
- Recessed floor for easy clean-up
- Hospital-grade plug and cord





## i.C<sup>3</sup> Monitor · Acknowledge · Download

### Exclusively on i.Series® Models

i.Series refrigerators are monitored with Helmer's exclusive i.C<sup>3</sup> User Interface. The i.C<sup>3</sup> provides constant temperature monitoring and control, and multiple information logs with historical data that can be downloaded and saved.

i.Act™ event acknowledgement allows users to immediately record corrective actions on-screen at the time of the event. Once downloaded, this information will be available to maintain quality control data for auditing purposes.

This icon-driven monitoring system features a door mounted 7" (177mm) full-color touchscreen ergonomically placed at eye-level on upright models and angled on undercounter models. The i.C<sup>3</sup> includes sound and visual indicators, and touch navigation. An interactive temperature graph, home screen customization, password protection, and modular design for future options are also included.

The i.D™ Integrated Electronic Access Control factory-installed option offers secure access to the unit via PIN entry on the i.C<sup>3</sup> for up to 100 users. For more information see page 8.



Home



Temperature Graph





Download

## i.Act™ Event Acknowledgement

Enter Event Cause, Action Taken, and Signature directly on-screen and download for audits



## i.Series® / Horizon Series™ Monitoring

i.Series® 	Horizon Series™ 
<b>Exclusive i.C<sup>3</sup>® User Interface</b> <ul style="list-style-type: none"> <li>· 7" (177mm) full-color, door-mounted touchscreen</li> <li>· Automatic high/low alarm testing (Peltier-based)</li> <li>· USB ports (2) for download/upload/upgrade</li> <li>· Optional RS-232 data port</li> <li>· Dry contact alarm connection</li> <li>· Password protected settings</li> <li>· Dual alarm probes*</li> <li>· Digital display of upper and lower chamber temperatures*</li> <li>· Event log displays date, time, and temperature data</li> <li>· Compressor log displays compressor temperature performance</li> <li>· Interactive temperature graph</li> <li>· Digital calibration</li> <li>· Rechargeable battery backup</li> <li>· Date and time display</li> <li>· Alarm mute with adjustable ring-back interval</li> <li>· Adjustable alarm volume</li> <li>· Four alarm tones</li> <li>· High and low temperature alarms</li> <li>· Door ajar alarm</li> <li>· Power failure alarm</li> <li>· Condenser temperature alarm</li> <li>· RJ45 hub**</li> </ul>	<b>Microprocessor-based controller with alarm/monitor</b> <ul style="list-style-type: none"> <li>· LED digital display, top bezel mounted</li> <li>· Manual alarm test</li> <li>· Dry contact alarm connection</li> <li>· Single alarm probe</li> <li>· LED display of chamber temperature</li> <li>· Digital calibration</li> <li>· Battery backup</li> <li>· Alarm mute with 5-minute ring-back interval</li> <li>· Alarm silence with key switch</li> <li>· High and low temperature alarms</li> <li>· Door ajar alarm</li> <li>· Power failure alarm</li> </ul>

\* 11 cu ft (326 L) models: single alarm probe and upper temperature display only

\*\* For special applications

## Specifications

Model/Series	Operating Range	Doors	Bag Capacity**	Volume (cu ft/L)	Interior Dimensions (w x h x d) (in/mm)	Exterior Dimensions (w x h x d) (in/mm)	Drawers	Compressor	Electrical	Net Weight
<b>Single Door</b>										
<b>iB111</b> i.Series	2° to 10°C	1	165	11 / 326	20 x 49.5 x 20 508 x 1258 x 508	24.25 x 70.5 x 24.5 616 x 1791 x 623	5	.25 HP Air-Cooled R-134A Non-CFC	115V 60Hz 7.0FLA 230V 50/60Hz 3.5FLA	352 lb / 160 kg
<b>HB111</b> Horizon Series	2° to 10°C	1	165	11 / 326	20 x 49.5 x 20 508 x 1258 x 508	24.25 x 70.5 x 24.5 616 x 1791 x 623	5	.25 HP Air-Cooled R-134A Non-CFC	115V 60Hz 7.0FLA 230V 50/60Hz 3.5FLA	345 lb / 157 kg
<b>iB120</b> i.Series	2° to 10°C	1	364	20.2 / 572	24.75 x 58.25 x 24.25 629 x 1480 x 616	29.5 x 79.5 x 29.5 750 x 2020 x 750	7	.33 HP Air-Cooled R-134A Non-CFC	115V 60Hz 7.5FLA 230V 50/60Hz 4.2FLA	531 lb / 241 kg
<b>HB120</b> Horizon Series	2° to 10°C	1	364	20.2 / 572	24.75 x 58.25 x 24.25 629 x 1480 x 616	29.5 x 78.75 x 29.5 750 x 2001 x 750	7	.33 HP Air-Cooled R-134A Non-CFC	115V 60Hz 7.5FLA 230V 50/60Hz 4.2FLA	528 lb / 240 kg
<b>iB125</b> i.Series	2° to 10°C	1	504	25.2 / 714	24.75 x 58.25 x 30.25 629 x 1480 x 769	29.5 x 79.5 x 35.5 750 x 2020 x 902	7	.33 HP Air-Cooled R-134A Non-CFC	115V 60Hz 7.5FLA 230V 50/60Hz 4.2FLA	559 lb / 254 kg
<b>HB125</b> Horizon Series	2° to 10°C	1	504	25.2 / 714	24.75 x 58.25 x 30.25 629 x 1480 x 769	29.5 x 78.75 x 35.5 750 x 2001 x 902	7	.33 HP Air-Cooled R-134A Non-CFC	115V 60Hz 7.5FLA 230V 50/60Hz 4.2FLA	556 lb / 253 kg
<b>Double Door</b>										
<b>iB245</b> i.Series	2° to 10°C	2	728	44.9 / 1271	55 x 58.25 x 24.25 1397 x 1480 x 616	59.25 x 79.5 x 29.5 1505 x 2020 x 750	14	.5 HP Air-Cooled R-134A Non-CFC	115V 60Hz 11.5FLA 230V 50/60Hz 6.0FLA	836 lb / 380 kg
<b>HB245</b> Horizon Series	2° to 10°C	2	728	44.9 / 1271	55 x 58.25 x 24.25 1397 x 1480 x 616	59.25 x 78.75 x 29.5 1505 x 2001 x 750	14	.5 HP Air-Cooled R-134A Non-CFC	115V 60Hz 11.5FLA 230V 50/60Hz 6.0FLA	835 lb / 379 kg
<b>iB256</b> i.Series	2° to 10°C	2	1008	56 / 1586	55 x 58.25 x 30.25 1397 x 1480 x 769	59.25 x 79.5 x 35.5 1505 x 2020 x 902	14	.5 HP Air-Cooled R-134A Non-CFC	115V 60Hz 11.5FLA 230V 50/60Hz 6.0FLA	890 lb / 404 kg
<b>HB256</b> Horizon Series	2° to 10°C	2	1008	56 / 1586	55 x 58.25 x 30.25 1397 x 1480 x 769	59.25 x 78.75 x 35.5 1505 x 2001 x 902	14	.5 HP Air-Cooled R-134A Non-CFC	115V 60Hz 11.5FLA 230V 50/60Hz 6.0FLA	880 lb / 400 kg

\*\* Capacity based on blood bag volume of 450mL · Meets AABB, ARC, and FDA standards for blood storage  
 Specifications subject to change · Certified to applicable UL and CSA standards by a NRTL  
 Product Data Sheets for all Blood Bank Refrigerators are available at [www.helmerinc.com](http://www.helmerinc.com)  
 Published interior volumes are nominal; usable cu ft (liters) capacity may be offset by protrusions into cabinet.



## Warranty

### i.Series® / Rel.i™ Plus

7 years compressor / 2 years parts / 1 year labor at Helmer

### Horizon Series™ / Rel.i™

5 years compressor / 2 years parts / 1 year labor at Helmer

Warranties applicable in the US and Canada

Contact your local distributor for International Warranties

## Options & Accessories

### Left-Hinged Single Door

Factory installed

### Heated Glass Door

Removes fogging and condensation in humid environments

### Stainless Steel Interior

Specify when ordering

### Leveling Feet

Field-installable kit. Can be installed without tipping unit.



### Chart Recorder Paper

4" (102mm) diameter, -5°C to +20°C, package of 52

### Chart Recorder Deduction

Refrigerators may be ordered without chart recorder. Specify when ordering.

### Floor and Wall Bracket Kit

Secures refrigerator to the building floor and/or wall. The unit has factory-threaded mounting holes. Heavy-gauge, powder coated steel floor mounting brackets and cabinet anchor hardware are provided. Customer to provide floor and/or wall anchor hardware and onsite assembly.

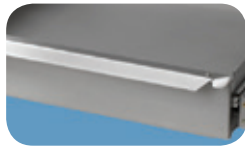
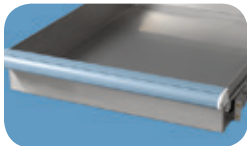
### Remote Alarms (RA1 and RA4)

Extends existing alarms to remote locations within the facility. The RA1 offers monitoring of one device or zone and the RA4 provides monitoring of up to four devices or zones. Operational up to 3000 ft / 915m away (wiring not included).



### Drawer Assembly

An additional / replacement drawer assembly, with slides, is available. Specify when ordering (Replacement only for 11 cf / 326 L models). i.Series and Horizon Series available.



### i.C<sup>3</sup>® Screen Protectors

Package of 3 clear screen protectors for use on i.C<sup>3</sup> User Interface



### USB Flashdrive

Used to download and upload information from/to the i.C<sup>3</sup>



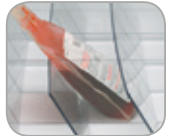
### Angled Polycarbonate Drawer Dividers

Slanted plastic. Excellent for blood bags and automated medication dispensing systems.

iB111/HB111 - 24 bags per drawer

iB120/HB120 iB245/HB245 - 30 bags per drawer

iB125/HB125 iB256/HB256 - 40 bags per drawer



### Upright Polycarbonate Drawer Dividers

Vertical plastic. Excellent for blood bags and automated medication dispensing systems.

iB111/HB111 - 28 bags per drawer

iB120/HB120 iB245/HB245 - 45 bags per drawer

iB125/HB125 iB256/HB256 - 55 bags per drawer



### Temperature Validation

Package certifies the temperature performance of the refrigerator. This option must be ordered at the time the unit is purchased. Contact Helmer for additional details.

### Certificate of Calibration

Certifies that monitor was calibrated with NIST traceable thermometer before it left Helmer facility.

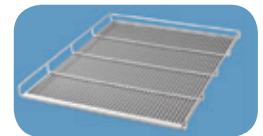
### Roll Out Baskets

Epoxy coated wire baskets are 4" (102mm) high and adjustable in 1" (26mm) increments. Maximum load 100 lb (46 kg) per basket.



### Full-Size Shelf with Hardware

Epoxy coated wire shelves are adjustable in 1" (26mm) increments. Maximum load 100 lb (46 kg) per shelf.



## Optional Access Control

### i.Series®

#### i.D™ Integrated Electronic Access Control via

#### i.C³® User Interface



Optional Access Control offers secure access to a refrigerator or freezer. An electronic lock is integrated into the unit and controlled by PIN entry.

- Up to 100 user ID's can be set up directly from the i.C³ and programmed with an individual access PIN
- The Access Control display can be set as an alternative Home Screen.
- Key override

The Access Control log provides an audit trail of all refrigerator or freezer entries and includes the User ID, Date, Time, Duration and Method of Entry. This log can be downloaded and saved.

### Horizon Series™

#### Integrated Access Control via Keypad



The optional Horizon Access Control keypad provides fail-secure digital keypad access. A lock is integrated into the unit and unlocked by entering a user code on the integrated keypad.

- Up to 100 user codes can be entered into the keypad.
- Key override

## Pass-Thru Refrigerators



i.Series and Horizon Series Blood Bank Pass-Thru Refrigerators feature superior temperature uniformity, advanced monitoring, and convenient operation.

Please refer to our Pass-Thru Refrigerator literature or [www.helmerinc.com](http://www.helmerinc.com) for more information.

## Undercounter Refrigerators



i.Series and Horizon Series Blood Bank Undercounter Refrigerators feature high-quality craftsmanship, secure monitoring, and easy access for cleaning and maintenance.

Please refer to our Undercounter Refrigerator literature or [www.helmerinc.com](http://www.helmerinc.com) for more information.

