

**Thermo Scientific  
HERAfreeze® Freezers**

**Solutions for safe sample storage**

# Safeguarding your precious samples

Researchers worldwide protect more than two billion samples inside Thermo Scientific cold storage equipment. With proven solutions including +4°C refrigerators to -196°C cryogenic freezers and Nalgene® and Nunc™ consumables, you're free to concentrate on your work without worrying about your valuable samples.

Thermo Scientific HERAFreeze freezers are engineered to provide reliable, user-friendly operation and the safe, protected ultra-low temperature environment your precious samples require.

**-86°C Super Insulation Freezers**  
Our Super Insulation (SI) upright freezers set the standard for capacity and floor space efficiency in critical materials storage. Manufactured to exacting quality standards for dependable, worry-free operation, our SI freezers store more samples than conventional upright models without occupying additional lab space.

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superior  
reliability



▲  
Our -86°C freezers are available in chest and upright configurations

### **-86°C Upright Freezers**

Energy-efficient upright freezers maximize storage capacity and minimize operating costs. Upright models are ideal for everyday storage, and maintain constant temperatures even when doors are opened frequently.

### **-86°C Chest Freezers**

Maximize storage capacity and minimize operating costs. Chest freezers provide a safe, stable environment for long-term storage and sample archiving.

### **-80°C and -86°C Specialty Freezers**

Designed for storage applications in biomedical, clinical, pharmaceutical and industrial research environments. Models provide reliable storage for a variety of sample types and allow easy access to inventory.

### **Accessory Systems**

Our racks and accessories enable freezers to be configured for specific storage applications. Perfectly matched boxes, inserts and racks integrate to make inventory management more efficient and optimize the use of available freezer space.

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▲ Top biological storage freezer

▲ HERAFreeze racks for upright freezers

▲ Built-in circular chart recorder.

# Thermo Scientific HERAFreeze -86°C Super Insulation Freezers

More storage capacity for valuable samples and materials

Available in a variety of sizes and control configurations, our Super Insulation (SI) freezers store more inventory than conventional upright freezers without taking up additional lab floor space. Highly efficient, thin-wall super insulation significantly increases internal volume – so there's more space for sample storage when compared to conventional uprights with an equivalent footprint.

# Super Insu



◀ Our 691 ltrs and 906 ltrs SI models use hot gas halo heat around the perimeter of the cabinet to minimize frost build-up

- Composite wall design minimizes wall thickness to maximize interior space without impacting on R-value
- Adjustable shelves for a variety of inventory configurations
- Heavy-duty casters provide mobility and make installation easier
- Inner doors create independent storage compartments, so ambient thermal exposure is minimized when samples are accessed

# vation Freezers

## 906 ltrs SI Freezer

Requires less floor space than comparable models

- High capacity freezer with a footprint of only 1 m<sup>2</sup>
- Accommodates an unprecedented 70,000 sample vials in 700 (50 mm) standard fiberboard boxes, or 52,500 vials in 525 (75 mm) boxes
- Seven racks per shelf and five shelf positions provide a total freezer volume of 35 inventory racks
- Ten inner doors
- Exterior alarm contact for connection to remote monitoring system
- Advanced cascade refrigeration system ensures unmatched reliability for critical storage applications
- Available with Top control system



◀ Keyed CryoLatch assembly prevents unauthorized access and facilitates effortless door openings and closings available on 906 ltrs and 691 ltrs models



# Thermo Scientific -86°C HERAfreeze Super Insulation Freezers

## 691 Itrs SI Freezers

20% more inventory capacity than equivalent conventional uprights



- Footprint of only 0.85 m<sup>2</sup>
- Accommodates up to 48,000 sample vials in 480 (50 mm) standard fiberboard boxes, or 36,000 vials in 360 (75 mm) boxes
- Six racks per shelf and five shelf positions provide a total freezer volume of 30 inventory racks
- Five inner doors
- Exterior alarm contact for connection to remote monitoring system
- Dependable Alliance™ refrigeration system for safe, worry-free storage
- Available with Top and Basic control systems

## 311 Itrs SI Freezer

Ideal for labs with limited floor space

- Footprint of only 0.54 m<sup>2</sup>
- Accommodates up to 18,000 sample vials in 180 (50 mm) standard fiberboard boxes, or 13,500 vials in 135 (75 mm) boxes
- Three racks per shelf and five shelf positions provide a total freezer volume of 15 inventory racks
- Five inner doors
- Convenient chrome latch assures a positive door seal and accommodates a padlock for greater sample security
- Dependable Alliance refrigeration system for safe, worry-free storage
- Available with Basic control system
- Key-operated on/off switch engages preset overtemperature alarm
- Automatic voltage boost compensates for low voltage and brown-out conditions
- Exterior alarm contact provides connection to remote monitoring system

### -86°C Top Super Insulation Freezers

| Temperature Range: -50°C to -86°C |         |                        |  |   |                |              |                      |
|-----------------------------------|---------|------------------------|--|---|----------------|--------------|----------------------|
| Model (Catalog No.)               | Style   | Volume Liters (cu.ft.) | Interior Dimensions H x W x D, mm (inches) | Exterior Dimensions H x W x D*, mm (inches) | Electrical     | Amps/Breaker | Ship Weight kg (lbs) |
| HFU2585 SI TOP                    | Upright | 691 (24.4)             | 1283 x 876 x 616<br>(50.5 x 34.5 x 24.0)   | 1972 x 1118 x 944<br>(77.6 x 44.0 x 37.2)   | 230 V/50 Hz 1Ø | 11.2/15      | 359 (790)            |
| HFU3285 SI TOP                    | Upright | 906 (32.0)             | 1283 x 991 x 889<br>(50.5 x 39.3 x 26.8)   | 1969 x 1130 x 889<br>(77.5 x 44.5 x 35.0)   | 230 V/50 Hz 1Ø | 12.0/15      | 480 (1055)           |

### -86°C Basic Super Insulation Freezers

| Temperature Range: -50°C to -86°C |         |                        |  |   |                |              |                      |
|-----------------------------------|---------|------------------------|--|---|----------------|--------------|----------------------|
| Model (Catalog No.)               | Style   | Volume Liters (cu.ft.) | Interior Dimensions H x W x D, mm (inches) | Exterior Dimensions H x W x D*, mm (inches) | Electrical     | Amps/Breaker | Ship Weight kg (lbs) |
| HFU1185 SI BASIC                  | Upright | 311 (11.0)             | 1283 x 470 x 508<br>(50.5 x 18.5 x 20.0)   | 1919 x 673 x 940<br>(77.5 x 33.6 x 41.9)    | 230 V/50 Hz 1Ø | 7.5/15       | 275 (605)            |
| HFU2585 SI BASIC                  | Upright | 691 (24.4)             | 1283 x 876 x 616<br>(50.5 x 34.5 x 24.0)   | 1972 x 1118 x 944<br>(77.6 x 44.0 x 37.2)   | 230 V/50 Hz 1Ø | 11.2/15      | 359 (790)            |

\*Plus compulsory wall distance.  
Exterior dimensions include allowances for cabinet, hinges, door latches, handles and control panel protrusions.

# Two Levels of Control Sophistication – Top and Basic

## Top Microprocessor Control\*

For demanding storage applications

Our Top control features an intuitive microprocessor control system that offers comprehensive remote monitoring capabilities and incorporates an RS232 interface for data download to a PC.

Our Top control offers active and passive supervision of all functions for unsurpassed safety and security. Door-mounted controls and eye-level displays at simplify operation and enable at-a-glance monitoring.

- Easy input of temperature and high/low alarm setpoints
- Set parameters for temperature back-up, alarm delay and lock on/off
- Continuous remote monitoring of compressor function, condenser temperature, door/lid open, and ambient temperature

**Audible/visual alarms** alert to any temperature deviation beyond pre-set high/low limits

**High ambient alert** warns if room temperature may impact on freezer performance

**Low voltage alert** warns of insufficient incoming line voltage and automatically compensates for low source power

**RS232 interface** for data download to PC

**Performance deviation alert** warns of current or recent automatically adjusted incidents that may affect performance

**Low battery alarm** with auto-charge for battery back-up.

**3-position key switch** for tamper-proof power, alarm and setpoint security



## Basic Solid-State Control\*

For reliable, routine storage

Our Basic control incorporate an easy-to-use solid-state control system with an RS232 option.

Our Basic control features a high visibility digital temperature display.

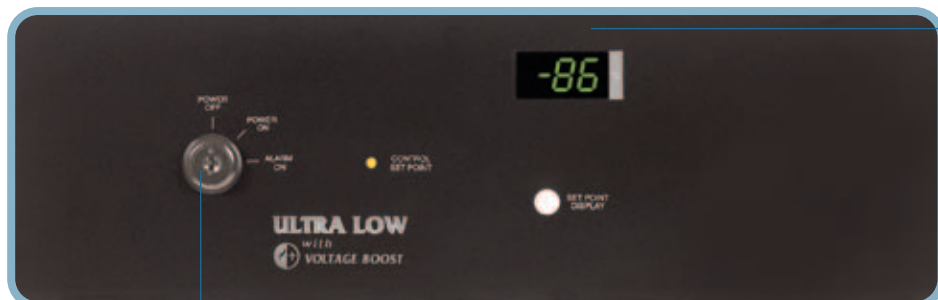
- Digital setpoint and display
- Pre-set audible overtemperature alarm
- Monitoring of compressor function and door/lid open

# Basic

**Bright LED display** shows setpoint and actual temperature at the push of a button

**Integrated preset overtemperature alarm** provides an audible alert to warm conditions

**Automatic voltage boost** compensates for low source power during peak demand periods



**Key-operated on/off switch** for power supply security

\* This controller is also available on HERAfreeze biological storage freezers (see page 10).

# Thermo Scientific HERAfreeze -86°C Upright and Chest Freezers

Secure, energy-efficient sample storage

Our upright and chest freezers are available in a wide range of sizes and two control configurations (Top and Basic) to meet a variety of short and long-term sample storage needs.

All models use the powerful Alliance refrigeration system, which provides rapid cooling, fast response to door openings and unmatched long-term performance under fluctuating voltage and environmental conditions.

- Capacities from 220 ltrs to 630 ltrs
- Energy-saving design reduces energy consumption by up to 60% compared to other models
- Easy to clean, corrosion-resistant interiors
- Upright models available with right or left-hinged doors
- Casters with locking brakes provide mobility and make installation easier



**Easy-open lid**  
with torque-compensated, tensioned hinges that keep the lid open at any angle and allow safe, smooth closures

## Upright and

**High visibility display**  
large LED display on all models enable at-a-glance monitoring



**Flexible shelf positions**  
for a variety of inventory configurations



**Ergonomically designed handle**  
with security keylock for effortless door openings and closures with just one hand



**Five inner doors**  
in upright models create independent storage compartments, so ambient thermal exposure is minimized when samples are accessed



**Dual gasket system**  
ensures a tight door seal and minimizes frost build-up. The outer seal is heated to prevent condensation and sticking doors

**Polystyrene inner lids**  
on chest models protect samples by minimizing heat transfer



## Top and Basic Control

Top model freezers feature an intuitive microprocessor control system that offers comprehensive remote monitoring capabilities and incorporates an RS232 interface for data download to a PC.

- Easy input of temperature and high/low alarm setpoints
- Set parameters for temperature back-up, alarm delay and lock on/off
- Continuous remote monitoring of compressor function, condenser temperature, door/lid open and ambient temperature

Basic model freezers incorporate an easy-to-use solid-state control system with an RS232 option.

- Digital setpoint and display
- Pre-set audible overtemperature alarm
- Monitoring of compressor function and door/lid open

# Chest Freezers



### -86°C Top Upright and Chest Freezers

Temperature Range: -50°C to -86°C

| Model (Catalog No.)    | Internal Doors | Volume Liters (cu.ft.) | Interior Dimensions H x W x D, mm (inches) | Exterior Dimensions H x W x D, mm (inches) | Electrical*    | Amps/Breaker | Ship Weight kg (lbs) |
|------------------------|----------------|------------------------|--|--|----------------|--------------|----------------------|
| HFU 486 Top (51019572) | 5              | 400 (14)               | 1300 x 610 x 505 (51.2 x 24 x 19.9)        | 1970 x 920 x 895 (77.6 x 36.2 x 35.3)      | 230 V/50 Hz 1Ø | 16/20        | 273 (600)            |
| HFU 586 Top (51019573) | 5              | 510 (18)               | 1300 x 610 x 645 (51.2 x 24 x 25.4)        | 1970 x 920 x 1035 (77.6 x 36.2 x 40.8)     | 230 V/50 Hz 1Ø | 16/20        | 313 (689)            |
| HFU 686 Top (51019574) | 5              | 630 (22)               | 1300 x 755 x 645 (51.2 x 24.7 x 25.4)      | 1970 x 1065 x 1035 (77.6 x 42 x 40.8)      | 230 V/50 Hz 1Ø | 16/20        | 335 (737)            |
| HFC 286 Top (51019553) | —              | 220 (7.8)              | 705 x 630 x 500 (21.8 x 24.8 x 19.7)       | 1070 x 1350 x 910 (42.2 x 53.2 x 35.9)     | 230 V/50 Hz 1Ø | 16/20        | 202 (444)            |
| HFC 486 Top (51019565) | —              | 375 (13.3)             | 705 x 1070 x 500 (27.8 x 42.2 x 19.7)      | 1070 x 1790 x 910 (42.2 x 70.5 x 35.9)     | 230 V/50 Hz 1Ø | 16/20        | 250 (550)            |
| HFC 586 Top (51019566) | —              | 525 (18.6)             | 705 x 1490 x 500 (27.8 x 58.7 x 19.7)      | 1070 x 2210 x 910 (42.2 x 87 x 35.9)       | 230 V/50 Hz 1Ø | 16/20        | 286 (629)            |

\*Other power supplies available on request.

### -86°C Basic Upright and Chest Freezers

Temperature Range: -50°C to -86°C

| Model (Catalog No.)      | Internal Doors | Volume Liters (cu.ft.) | Interior Dimensions H x W x D, mm (inches) | Exterior Dimensions H x W x D, mm (inches) | Electrical*    | Amps/Breaker | Ship Weight kg (lbs) |
|--------------------------|----------------|------------------------|--|--|----------------|--------------|----------------------|
| HFU 486 Basic (51019575) | 5              | 400 (14)               | 1300 x 610 x 505 (51.2 x 24 x 19.9)        | 1970 x 920 x 895 (77.6 x 36.2 x 35.3)      | 230 V/50 Hz 1Ø | 16/20        | 270 (594)            |
| HFU 586 Basic (51019576) | 5              | 510 (18)               | 1300 x 610 x 645 (51.2 x 24 x 25.4)        | 1970 x 920 x 1035 (77.6 x 36.2 x 40.8)     | 230 V/50 Hz 1Ø | 16/20        | 310 (682)            |
| HFU 686 Basic (51019577) | 5              | 620 (22)               | 1300 x 755 x 645 (51.2 x 29.7 x 25.4)      | 1970 x 1065 x 1035 (77.6 x 42 x 40.8)      | 230 V/50 Hz 1Ø | 16/20        | 332 (730)            |
| HFC 286 Basic (51019567) | —              | 220 (7.8)              | 705 x 630 x 500 (21.8 x 24.8 x 19.7)       | 1070 x 1350 x 910 (42.2 x 53.2 x 35.9)     | 230 V/50 Hz 1Ø | 16/20        | 202 (444)            |
| HFC 486 Basic (51019568) | —              | 375 (13.3)             | 705 x 1070 x 500 (27.8 x 42.2 x 19.7)      | 1070 x 1790 x 910 (42.2 x 70.5 x 35.9)     | 230 V/50 Hz 1Ø | 16/20        | 250 (550)            |
| HFC 586 Basic (51019569) | —              | 525 (18.6)             | 705 x 1490 x 500 (27.8 x 58.7 x 19.7)      | 1070 x 2210 x 910 (42.2 x 87 x 35.9)       | 230 V/50 Hz 1Ø | 16/20        | 286 (629)            |

\*Other power supplies available on request.

# Thermo Scientific HERAfreeze Specialty Freezers

## Biological Storage Freezers

Stable long-term preservation of critical materials



- Our biological storage freezers offer lots of space for the long-term preservation of valuable samples under a safe, controlled, ultra-low temperature environment.
- Large 88 ltrs capacity with easy access to inventory
  - Adjustable temperatures from -50°C to -86°C in 1°C increments
  - Dependable Alliance refrigeration system for safe, worry-free storage

- Dual gasket system with four-point seal minimizes frost build-up
- High-impact, scratch-resistant, epoxy exterior finish
- Easy-open, counterbalanced lid with padlock provision for added security
- Exterior alarm contact for connection to remote monitoring system

## Tabletop Storage

The 185 tabletop freezer is ideal for small personal storage needs or clinical trial applications.

- Full 28 ltrs capacity with the convenience of tabletop placement
- Adjustable temperatures from -50°C to -80°C in 1°C increments
- Air-cooled refrigeration system maintains set temperature even in warm ambient conditions

- Rugged steel cabinet with a high-impact epoxy finish for easy cleaning
- Counterbalanced lid with key lock to prevent unauthorized access
- Exterior alarm contact for connection to remote monitoring system



### -86°C Biological Storage Freezers

Temperature Range: -50°C to -86°C

| Model (Catalog No.)           | Volume Liters (cu.ft.) | Interior Dimensions H x W x D, mm (inches) | Exterior Dimensions H x W x D*, mm (inches) | Electrical     | Amps/Breaker | Ship Weight kg (lbs) |
|-------------------------------|------------------------|--|---|----------------|--------------|----------------------|
| HFC 390 Top (HFC390TOP-V)     | 88 (3)                 | 431 x 483 x 431 (17 x 19 x 17)             | 1156 x 760 x 765 (45.5 x 29.9 x 30.2)       | 230 V/50 Hz 1ø | 11.2/15      | 188 (415)            |
| HFC 390 Basic (HFC390BASIC-V) | 88 (3)                 | 431 x 483 x 431 (17 x 19 x 17)             | 1156 x 760 x 765 (45.5 x 29.9 x 30.2)       | 230 V/50 Hz 1ø | 11.2/15      | 188 (415)            |

\*Plus compulsory wall distance.  
Exterior dimensions include allowances for cabinet, hinges, door latches, handles, and control panel protrusions.

### -80°C Tabletop Freezer

Temperature Range: -50°C to -80°C

| Model (Catalog No.)           | Volume Liters (cu.ft.) | Interior Dimensions H x W x D, mm (inches) | Exterior Dimensions H x W x D*, mm (inches) | Electrical     | Amps/Breaker | Ship Weight kg (lbs) |
|-------------------------------|------------------------|--|---|----------------|--------------|----------------------|
| HFC 185 Basic (HFC185BASIC-V) | 28 (1)                 | 245 x 387 x 305 (9.6 x 15.2 x 12)          | 508 x 781 x 640 (20 x 30 x 25.2)            | 230 V/50 Hz 1ø | 8.0/15       | 147 (325)            |

\*Plus compulsory wall distance.  
Exterior dimensions include allowances for cabinet, hinges, door latches, handles and control panel protrusions.

# Thermo Scientific HERAfreeze Racks and Accessories

Maximize the value of your freezer

Now there's a way to get exceptionally efficient storage configurations that maximize your productivity while reducing operating costs.

Our racks provide a complete, customizable solution for all of your application needs – cryoboxes, microplates, bulk or kits – along with proven reliability and quality you can depend on year after year.



## > Racks – Upright Freezers

### Vials – Side Access Racks

| Cat No. | Description<br>Size: H x D x W inches (mm) | Freezer Volume<br>Liters (cu.ft.)                                 | Quantity of<br>2" Boxes | Quantity of<br>3" Boxes | Racks/Shelf | Total Racks/<br>Freezer |    |
|---------|--|---|-------------------------|-------------------------|-------------|-------------------------|----|
|         |  |   |                         |                         |             |                         |    |
|         | H6C4-3/SA                                  | Adjustable Side Access Rack<br>9.4 x 16.1 x 5.4 (240 x 410 x 137) | 379 (13.4)              | 12                      | 9           | 4                       | 20 |
|         | H7C4-3/SA                                  | Adjustable Side Access Rack<br>9.4 x 21.7 x 5.4 (240 x 550 x 137) | 400 (14.1)              | 16                      | 12          | 3                       | 15 |
|         |  |   | 487 (17.2)              | 16                      | 12          | 4                       | 20 |
|         |  |   | 510 (18)                | 16                      | 12          | 4                       | 20 |
|         |  |   | 572 (20.2)              | 16                      | 12          | 4                       | 20 |
|         |  |   | 630 (22.2)              | 16                      | 12          | 5                       | 25 |
|         | 691 (24.4)                                 | 16  | 12                      | 5                       | 25          |                         |    |

\*Boxes not included

### Vials – Front Access Racks

| Cat No. | Description<br>Size: H x D x W inches (mm)                | Freezer Volume<br>Liters (cu.ft.)                         | Quantity of<br>2" Boxes | Quantity of<br>3" Boxes | Racks/Shelf | Total Racks/<br>Freezer |    |
|---------|---|---|-------------------------|-------------------------|-------------|-------------------------|----|
|         |   |   |                         |                         |             |                         |    |
|         | H7C4/00   | Sliding Drawer Rack<br>9.4 x 16.5 x 5.5 (240 x 420 x 140) | 400 (14.1)              | 12                      | -           | 3                       | 15 |
|         |   |   | 487 (17.2)              | 12                      | -           | 4                       | 20 |
|         |   |   | 510 (18)                | 12                      | -           | 4                       | 20 |
|         |   |   | 572 (20.2)              | 12                      | -           | 4                       | 20 |
|         |   |   | 630 (22.2)              | 12                      | -           | 5                       | 25 |
|         |   | 691 (24.4)  | 12                      | -                       | 5           | 25                      |    |
| H6C4/00 | Sliding Drawer Rack<br>9.4 x 21.9 x 5.5 (240 x 555 x 140) | 379 (13.4)  | 16                      | -                       | 4           | 20                      |    |

\*Boxes not included

### Microplates – Side Access Racks

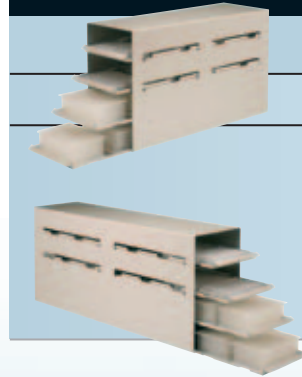
| Cat No.    | Description  | Size:<br>H x D x W inches (mm)                       | Freezer Volume<br>Liters (cu.ft.) | Capacity     |           | Racks/Shelf |
|------------|--|--|-----------------------------------|--------------|-----------|-------------|
|            |  |  |                                   | Shallow well | Deep well |             |
|            | H7C4/MP/SA   | Microplates<br>9.4 x 21.7 x 5.4<br>(240 x 550 x 137) | 400 (14.1)                        | 16           | 48        | 3           |
|            |  |  |                                   | 16           | 48        | 4           |
|            |  |  |                                   | 16           | 48        | 4           |
|            |  |  |                                   | 16           | 48        | 4           |
|            |  |  |                                   | 16           | 48        | 5           |
|            |  |  |                                   | 16           | 48        | 5           |
| H6C4/MP/SA | Microplates<br>9.4 x 14.6 x 5.4<br>(240 x 370 x 137) | 379 (13.4)   | 24                                | 72           | 4         |             |
|            |  |  |                                   |              |           |             |

# Thermo Scientific HERAfreeze Cryo Boxes



## > Racks – Upright Freezers

### Microplates – Front Access Racks



| Cat No. | Description | Size:<br>H x D x W inches (mm)        | Freezer Volume<br>Liters (cu.ft.) | Capacity     |           | Racks/Shelf |
|---------|-------------|---------------------------------------|-----------------------------------|--------------|-----------|-------------|
|         |             |                                       |                                   | Shallow well | Deep well |             |
| H6C4/MP | Microplates | 9.4 x 16.5 x 5.5<br>(240 x 420 x 140) | 379 (13.4)                        | 16           | 48        | 4           |
| H7C4/MP | Microplates | 9.4 x 21.9 x 5.5<br>(240 x 555 x 140) | 400 (14.1)                        | 24           | 72        | 3           |
|         |             |                                       | 487 (17.2)                        | 24           | 72        | 4           |
|         |             |                                       | 510 (18)                          | 24           | 72        | 4           |
|         |             |                                       | 572 (20.2)                        | 24           | 72        | 4           |
|         |             |                                       | 630 (22.2)                        | 24           | 72        | 5           |
|         |             | 691 (24.4)                            | 24                                | 72           | 5         |             |

\*Microplates not included



## > Racks – Chest Freezers

### Vials



| Cat No. | Description              | Size: H x D x W in. (mm)              | Freezer Volume Liters (cu.ft.) | Quantity of 2" Boxes | Quantity of 3" boxes | Racks/freezer |
|---------|--------------------------|---------------------------------------|--------------------------------|----------------------|----------------------|---------------|
| K7A12   | Vertical<br>Cryobox Rack | 23.0 x 5.5 x 5.5<br>(585 x 139 x 140) | 220 (7.8)                      | 12 x 2"              | –                    | 12            |
|         |                          |                                       | 375 (13.3)                     | 12 x 2"              | –                    | 21            |
|         |                          |                                       | 525 (18.6)                     | 12 x 2"              | –                    | 30            |

### Microplates



| Cat No. | Description | Size: H x D x W in. (mm)             | Freezer Volume Liters (cu.ft.) | Shallow well (mm) | Deep well (mm) | Racks/freezer |
|---------|-------------|--------------------------------------|--------------------------------|-------------------|----------------|---------------|
| K7/10SD | Microplate  | 23.4 x 5.2 x 3.4<br>(595 x 131 x 87) | 220 (7.8)                      | 30                | 10             | 20            |
|         |             |                                      | 375 (13.3)                     | 30                | 10             | 40            |
|         |             |                                      | 525 (18.6)                     | 30                | 10             | 55            |

\*Microplates not included

# Thermo Scientific HERAfreeze Cryo Boxes



## > Cryo Boxes – Upright/Chest Freezers

### Fiberboard (BFB) Boxes – Light Flexible and Economical

|                        |  |
|------------------------|--|
| Dimensions             | 131mm x 131mm (lid 137mm x 137mm)            |
| Available heights (mm) | 25, 35, 50, 75, 100, 130                     |
| Available dividers     | 3x3, 5x5, 7x7, 8x8, 9x9, 10x10, 13x13, 16x16 |
| Available colors       | white, red, blue, green, yellow              |

### Polycarbonate (BPC) Boxes – Robust, Flexible and Temperature Resistant

Description      Transparent lids for easier sample monitoring  
 Numerical labeling on lids and boxes prevents sample mix-ups  
 Ventilation holes make lid openings and closures easier  
 Available in a variety of colors for better sample management

|                        | <b>BPC-53-100 Color Boxes</b>              | <b>BPC-53-80 Color Boxes</b>                          |
|------------------------|--|---|
| Dimensions (H x W X D) | 53mm x 133mm x 133mm                       | 53mm x 133mm x 133mm                                  |
| Sample Places          | 100  | 81  |
| Divider for tubes      | Integrated (max. 12.3mm diameter x 50mm H) | Integrated (max. 13mm diameter x 50mm H)              |
| Available colors       | red, blue, green, yellow                   | red, blue, green, yellow                              |
| Extras                 | –  | Supplied with an adapter to improve cryotube handling |

|                        | <b>BPC-80-81 Color Boxes</b>             | <b>BPC-96-81 Color Boxes</b>             |
|------------------------|--|--|
| Dimensions (H x W X D) | 80mm x 133mm x 133mm                     | 96mm x 133mm x 133mm                     |
| Sample Places          | 81                                       | 81                                       |
| Divider for tubes      | Integrated (max. 13mm diameter x 70mm H) | Integrated (max. 13mm diameter x 93mm H) |
| Available colors       | red, blue, green, yellow                 | red, blue, green, yellow                 |

### Polypropylene (BPP) Boxes – Robust and Autoclavable

Description      Transparent lids for easier sample monitoring  
 Numerical labeling on lids and boxes prevents sample mix-ups  
 Available in a variety of colors for better sample management

|                        | <b>BPP-46-81 Color Boxes</b>               | <b>BPP-45-64 Color Boxes (Ideal for microcentrifuge tubes)</b> |
|------------------------|--|--|
| Dimensions (H x W X D) | 46mm x 133mm x 133mm                       | 45mm x 134mm x 134mm   |
| Sample Places          | 81   | 64   |
| Divider for tubes      | Integrated (max. 12.8mm diameter x 43mm H) | Integrated (max. 6mm or 12.3mm diameter x 42mm H)              |
| Available colors       | red, blue, green, yellow, pink             | red, blue, green, yellow, pink                                 |



**NALGENE and NUNC cryogenic storage** give you everything you need to safely store precious specimens, organize freezer space and simplify sample retrieval. NALGENE and NUNC combine to provide one-stop shopping for the widest variety and highest quality of externally and internally threaded cryovials, storage boxes, lab top coolers and controlled rate freezing containers.



For further information regarding these products – visit [www.nalgene.com](http://www.nalgene.com) or [www.nuncbrand.com](http://www.nuncbrand.com)

# Thermo Scientific HERAfreeze Freezer Options



## > Options – Super Insulation Freezers

|  | 311 Litres | 691 Litres | 906 Litres |
|--|------------|------------|------------|
|  | Cat. No.   | Cat. No.   | Cat. No.   |
| <b>Safety Backup System</b>  |            |            |            |
| CO <sub>2</sub> back-up system (free-standing, customer installed) | AVL7218    | AVL6593    | AVL7214    |
| LN <sub>2</sub> back-up system (free-standing, customer installed) | AVL7219    | AVL6214    | AVL7215    |
| CO <sub>2</sub> back-up system (built-in, factory installed)       | –          | AVL6594    | AVL7216    |
| LN <sub>2</sub> back-up system (built-in, factory installed)       | –          | AVL6595    | AVL7217    |
| <b>Temperature Recorders</b>                                       |            |            |            |
| Temperature recorder (free-standing, customer installed)           | AVL6383-6  | AVL6383-6  | AVL6383-6  |
| Temperature recorder (built-in, factory installed)                 | AVL6283-6  | AVL6283-6  | AVL6283-6  |
| Chart paper (temperature range +50°C to -115°C)                    | AVL6185    | AVL6185    | AVL6185    |
| <b>Alarm Systems</b>   |            |            |            |
| Alarm delay module   | AVL6903    | –          | –          |



## > Options – Top and Basic Chest and Upright Freezers

|  | HFU Top Freezers | HFU Basic Freezers | HFC Top Freezers | HFC Basic Freezers |
|--|------------------|--------------------|------------------|--------------------|
|  | Cat. No.         | Cat. No.           | Cat. No.         | Cat. No.           |
| <b>Safety Backup System</b>  |                  |                    |                  |                    |
| CO <sub>2</sub> back-up system (-30°C to -70°C, adjustable in 1°C increments)  | AVL6594          | –                  | AVL6594          | –                  |
| <b>Temperature Recorders and Sensors</b>                                       |                  |                    |                  |                    |
| Temperature recorder   | AVL6183-6        | AVL6183-6          | AVL6183-6        | AVL6183-6          |
| Chart paper  | AVL6185          | AVL6185            | AVL6185          | AVL6185            |
| Pt 100 sensor (allows connection to an external temperature monitoring system) | AVL4706          | AVL4706            | AVL4706          | AVL4706            |

### Water Cooling Option

Chest and Upright freezers are available with a water-cooled condenser in place of the standard air cooling system. The condenser minimizes heat dissipation into the work environment, making a water-cooled Thermo Scientific

HERAfreeze unit the perfect choice for labs that contain several items of heat-generating equipment. Water cooling also offers the possibility of energy recovery.



## > Options – Biological Storage/Tabletop Freezers

|  | HFC 390<br>Freezers | HFC 185<br>Freezers |
|--|---------------------|---------------------|
|  | Cat. No.            | Cat. No.            |
| <b>Safety Backup Sytem</b>   |                     |                     |
| CO <sub>2</sub> back-up system (free-standing, customer installed) | AVL6593             | –                   |
| LN <sub>2</sub> back-up system (free-standing, customer installed) | AVL6214             | –                   |
| <b>Temperature Recorders</b>                                       |                     |                     |
| Temperature recorder (free-standing, customer installed)           | AVL6383-6           | AVL6383-6           |
| Temperature recorder (built-in, factory installed)                 | AVL6283-6           | AVL6283-6           |
| Chart paper (temperature range +50°C to -115°C)                    | AVL6185             | AVL6185             |
| <b>Alarm Systems</b>   |                     |                     |
| Alarm delay module   | AVL6903             | AVL6903             |



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