Equipment

Laboratory products for your equipment needs.
Better solutions for your laboratory.

Dependable, quality equipment is essential to your laboratory’s success. From centrifuges and refrigerators to incubators and microscopes, Cardinal Health offers advanced technology at affordable prices.

The Cardinal Health laboratory product portfolio features items designed for all disciplines, from hematology to histology. In addition, our dedicated sales professionals can recommend the quality products designed for your lab’s unique needs all while saving you valuable time. Letting you get back to the business of running your lab.

To hear more about how we can support your lab, contact your Cardinal Health sales representative or call 800.964.5227.
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Centrifuges and Accessories

Centrifuges/Microcentrifuges

Benchtop Centrifuge 6F
CARDINAL HEALTH - Encourage standardization with the Cardinal Health™ Benchtop Centrifuge 6F. The single fixed speed and time of the 6F promote centrifugation best practices even at remote sites. The simple two-button design simplifies training. Ideal for doctor’s offices, patient service centers, outreach locations and any application where consistency is key.

Preset to 1,600 x g (3,400 rpm) with a 10-minute spin to suit most common tube IFUs. Horizontal centrifugation ensures that samples spun in the 6F are appropriately prepared for transport to the central lab for analysis.

Can accommodate up to 6 tubes from 3–10 mL (75–100 mm). Arrives ready to run with rotor and tube holders included. Designed, built and supported in the USA.

Specifications:
- Maximum capacity: Up to six (6) 10 mL/17 x 75 mm, Up to six (6) 10 mL/17 x 100 mm
- Speed: 3,400 rpm
- RCF: 1,600 x g
- Motor: 1/30 HP brushless AC
- Acceleration time: 10 seconds
- Power requirement: 115 V, 60 Hz
- Dimensions: (H x W x D): 8.75 x 11.75 x 14 in.
- Weight: 11 lbs. (4.99 kg)
- Warranty: Two-year warranty

Intended use: Chemistry

Cat. No. Description Qty.
CA018104 Centrifuge 6F, 6-place horizontal rotor 1/ea

6F model includes:
- Horizontal rotor
- Six (6) 75 mm tube holders
- Six (6) 100 mm tube holders
- Two (2) 1 to 1.5 mL tube adapters
- Two (2) 1.5 to 2 mL tube adapters

Accessories
- 7713011 Shield cap 1/ea
- 79-009-001 SmartView™ platform 1/ea
- 7713068 Tube adapters, 0.5 to 1 mL 1/ea
- 7713065 Tube adapters, 1.5 to 2 mL 1/ea

Benchtop Centrifuge 6V
CARDINAL HEALTH - Enjoy versatility and power in a small footprint with the Cardinal Health™ Benchtop Centrifuge 6V. Adjust cycle time, speed and deceleration on the fly and program up to nine of your preferred settings for later use.

Once the centrifuge is running, the bright, clear screen becomes a countdown timer, tracking remaining cycle duration at a glance. Convenient swing-out buckets load vertically and spin horizontally.

With a maximum speed of 2,000 x g (3,800 rpm), the 6V provides convenience and flexibility in any lab. The 6V can spin up to 6 tubes from 3–10 mL tubes (75–100 mm) and arrives ready to run with horizontal rotor and tube holder included. Designed, built and supported in the USA.

Specifications:
- Maximum capacity: Up to six (6) 10 mL/17 x 75 mm, Up to six (6) 10 mL/17 x 100 mm
- Speed range: 1,000–3,800 (±100) rpm
- RCF: 114–2,000 (±90) x g
- Motor: 1/30 HP brushless AC
- Timer: Electronic, 1 to 99 minutes
- Power requirements: 115–230 V, 50/60 Hz, 1.5 A
- Dimensions: (H x W x D): 8.75 x 11.75 x 14 in.
- Weight: 12 lbs. (5.4 kg)
- Warranty: Two-year warranty

Intended use: Platelet poor plasma, platelet rich plasma, coagulation, clinical chemistry, urine sedimentation and specialty applications

Cat. No. Description Qty.
CA024104 Centrifuge 6V, 6-place horizontal rotor 1/ea

6V model includes:
- Horizontal rotor
- Six (6) 75 mm tube holders
- Six (6) 100 mm tube holders

Accessories
- 7713011 Shield cap 1/ea
- 79-009-001 SmartView™ platform 1/ea
- 7713068 Tube adapters, 0.5 to 1 mL 1/ea
- 7713065 Tube adapters, 1.5 to 2 mL 1/ea
Benches Top Centrifuge 6V-FA
CARDINAL HEALTH - Similar to the Cardinal Health™ 6V centrifuge, the model 6V-FA provides the flexibility and performance that clinical laboratories require. Programmable force (from 250 to 1,850 x g) and time settings are controlled via an easy to use digital display. Once the cycle starts, the screen becomes a countdown timer for easy status tracking.

With its compact size, the Cardinal Health™ 6V-FA is ideal for any application where flexible settings are needed and fixed angle centrifugation is desired or specimens are analyzed on site. The centrifuge arrives ready to run with rotor and tube holders included and can process up to 6 x 15 mL (125 mm) tubes. Designed, built and supported in the USA.

Specifications:
Maximum capacity .............. Up to six (6) 10 mL/17 x 75 mm, Up to six (6) 10 mL/17 x 100 mm, Up to six (6) 15 mL/17 x 125 mm
Speed range .................... 1,425–3,900 rpm
RCF range ..................... 250–1,850 x g
Rotor type ...................... Fixed-angle rotor
Power requirements .......... 115–230 V, 50/60 Hz
Dimensions: (H x W x D) .... 14 x 11.75 x 8.75 in.
Weight .......................... 12 lbs. (5.4 kg)

Intended Use ............... Blood chemistry specimens, urine, platelet rich plasma (PRP) and platelet poor plasma (PPP)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA00719</td>
<td>Centrifuge 6V-FA, 6-place fixed rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

6V-FA model includes:
- Fixed angle rotor
- Six (6) 75–100 mm tube holders
- Six (6) 125 mm tube holders

Accessories

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7713011</td>
<td>Shield cap</td>
<td>1/ea</td>
</tr>
<tr>
<td>79-009-001</td>
<td>SmartView™ platform</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713068</td>
<td>Tube adapters, 0.5 to 1 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713065</td>
<td>Tube adapters, 1.5 to 2 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Benches Top Centrifuge 8HC
CARDINAL HEALTH - Optimize bench space and maximize capacity with the Cardinal Health™ Benchtop Centrifuge 8HC. Smart, simple interface provides outstanding capacity in a compact design.

One-touch operation with pre-saved protocols. A highly visible backlit display for easy reading of parameters across the lab.

Auto-Lock™ rotor exchange provides secure push-button application versatility and cleaning convenience. ClickSeal™ biocontainment lids provide one-handed sample protection.

Maximized swing-out capacity allows operator to process up to 8 x 50 mL conical tubes, 24 x 5/7 mL blood tubes and microtubes – all in one versatile centrifuge.

Auto-Lock and ClickSeal are trademarks of Thermo Fisher Scientific and its subsidiaries.

Specifications:
Maximum speed .................. 16,000 rpm
Minimum speed ................... 300 rpm
Maximum RCF .................... 24,328 x g
Timer ........................ 99 hr. 59 min. 50 sec., hold
Noise Level at maximum speed1 ... <58 dB(A) (measured with a TX-150 rotor)
Maximum kinetic energy .......... 8.12 kJ
Temperature during operation ... 35.6°F to 95°F (2°C to 35°C)
Dimensions: (H x W x D) ....... 12.6 x 18 x 26.4 in.
Weight 2 ........................ 77 lbs. (35 kg)
Warranty ........................ Two-year warranty

Intended use .................. Blood and urine tubes

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA75100102</td>
<td>Centrifuge 8HC, TX-150 swinging bucket rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

8HC model includes:
- Round buckets (set of 4)
- ClickSeal™ biocontainment lids for round buckets (set of 4)
- Replacement O-rings for lids (set of 4)

1 Front side measurement, 1 m in front of the instrument at 1.6 m height
2 Without rotor
Centrifuges and Accessories

Centrifuges/Microcentrifuges

**Benchtop Centrifuge 8V**

CARDINAL HEALTH - Perform routine clinical and life science applications in one platform with the DualSpin™ rotor. This lightweight 8-place rotor is able to accommodate 1.4 mL to 15 mL tubes with two spacer options.

Run common clinical IVD blood tubes, gel tubes, 10 mL standard syringes and 15 mL conical tubes in one centrifuge with just one rotor. Simply turn knob to secure rotor in place.

Program up to four sets of custom run parameters to easily and quickly perform your routine protocols. The centrifuge has three deceleration profiles including standard, soft and brake-off options, designed to optimize separation.

**Specifications:**
- **Maximum capacity:** 8 x 10 mL (swinging bucket)
- **Speed range:** 300–4,900 rpm, adjustable in increments of 100 rpm
- **Maximum RCF:** 3,490 x g (swing out)
- **Timer:** 1 to 99 minutes, in increments of 1 minute; hold
- **Control system:** Microprocessor
- **Program memory:** 4
- **Acceleration profile:** 1 (standard)
- **Deceleration profiles:** 3 (standard, soft, brake-off)
- **Acceleration/deceleration rates:** 24/31 seconds (swinging bucket)
- **Noise level at maximum speed:** <56 dB(A) (swinging bucket)
- **Temperature during operation:** 35.6°F to 104°F (2°C to 40°C)
- **Power consumption:** 100–130 W, voltage dependent
- **Dimensions:** (H x W x D) 9.45 x 12.79 x 17.72 in.
- **Weight:** 34.1 lbs. (15.5 kg)
- **Warranty:** Two-year warranty

**Intended use:** Common clinical IVD blood tubes, gel tubes, 10 mL standard syringes and 15 mL conical tubes

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA75008801</td>
<td>Centrifuge 8V, 8-place horizontal rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

8V model includes:
- DualSpin™ rotor body
- Swinging buckets (set of 8)
- Green/short spacers (set of 8)
- Yellow/long spacers (set of 8)

**Benchtop Centrifuge 24V**

CARDINAL HEALTH - Experience reliability and flexibility in our largest capacity centrifuge. The 24V holds up to 24 tubes from 3–10 mL (75–100 mm) capacity with the included rotor and tube holders and can hold 12 tubes of 15 mL (125 mm) capacity or 6 tubes of 50 mL capacity with additional accessories (sold separately).

This versatile centrifuge offers complete control over cycle parameters including time, speed, braking and acceleration. Once a cycle is started, the clear digital display shows the time remaining.

With horizontal separation at a maximum speed of 2,000 x g (3,400 rpm), the 24V is suited to a variety of lab needs. Arrives ready to run with rotor and tube holders included. Designed, built and supported in the USA.

**Specifications:**
- **Maximum capacity:** Up to twenty-four (24) 10 mL tubes, up to twelve (12) 15 mL tubes, up to six (6) 50 mL tubes
- **Speed range:** 1,715–3,400 rpm
- **RCF range:** 500–2,000 x g
- **Centrifuge motor:** 1/2 H.P. Brushless DC
- **Timer:** Electronic, w/hold or 1 to 99 minutes
- **Maximum acceleration time:** 15 seconds
- **Maximum deceleration time:** 15 seconds
- **Power requirement:** 115–230 V (± 10), 50/60 Hz, 200 W
- **Dimensions:** (H x W x D) 9 x 14.5 x 17 in.
- **Weight:** 35 lbs. (17.7 kg)
- **Intended use:** Serology, STAT, platelet poor plasma (PPP), platelet rich plasma (PRP), coagulation, clinical chemistry, cytology, urinalysis and general cell/tissue processing

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA00718</td>
<td>Centrifuge 24V, 24-place horizontal rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

24V model includes:
- Fixed angle rotor
- Six (6) 4-place buckets for 75–100 mm tubes (holds a total of 24 tubes)

**Accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7713037</td>
<td>50 mL purple carrier</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713023</td>
<td>75–100 mm 4-place carrier</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713035</td>
<td>Carrier cap</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713068</td>
<td>Tube adapters, 0.5 to 1 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713065</td>
<td>Tube adapters, 1.5 to 2 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

To order, call: 800.964.5227
Centrifuges and Accessories

Centrifuges/Microcentrifuges

**Benchtop Centrifuge Horizon 6 Flex**
CARDINAL HEALTH - Compact, powerful, and versatile: the Cardinal Health™ HORIZON 6 Flex offers complete control over cycle parameters in a small footprint. Program up to 10 custom presets, or use the intuitive digital display to quickly customize run time, speed, and braking as needed.

Track your cycle status with convenient bright LED lid lighting: on when the centrifuge is running, flashing when tubes are ready to be unloaded and off when the centrifuge is ready for its next load. The digital display also becomes a countdown clock once the spin begins, allowing precise tracking of cycle progress.

The rotor and tube holders allow samples to be loaded vertically and then swing out to spin horizontally. The centrifuge can spin up to 6 tubes from 3–10 mL (75–100 mm) with no need to change rotor or tube holders. Maximum force of 2,000 x g (3,800 rpm) in a small, benchtop footprint with no routine maintenance. Designed, built and supported in the USA.

**Specifications:**
- Maximum capacity ............ 6 x 10 mL (60 mL)
- Maximum speed ............. 3,800 rpm
- Maximum RCF ................. 2,000 x g
- Power requirements ........ 95–253 V, 50/60 Hz
- Dimensions: (H x W x D) ........ 9 x 12 x 14 in.
- Weight ....................... 12 lbs. (5.4 kg)
- Warranty  ..................... Two-year warranty

**Intended use** ................. Platelet poor plasma, platelet rich plasma, coagulation, clinical chemistry, urine sedimentation and specialty applications

**Cat. No.**  
**Description**  
**Qty.**
CA376009  
Centrifuge HORIZON 6 Flex, 6-place horizontal rotor  
1/ea

**6 Flex model includes:**
- Horizontal rotor
- Six (6) 75–100 mm tube holders

**Accessories**
- 79-009-001 SmartView™ platform  
1/ea
- 7713068 Tube adapters, 0.5 to 1 mL  
1/ea
- 7713065 Tube adapters, 1.5 to 2 mL  
1/ea

**Benchtop Centrifuge Horizon 6 Flex FA**
CARDINAL HEALTH - Similar to the Cardinal Health™ HORIZON 6 Flex, the HORIZON 6 Flex FA offers fixed angle centrifugation with cycle control in a small footprint. Cycle settings are easily controlled via an intuitive user interface with digital display screen, and can be programmed into one of 10 presets or customized on the fly. Delivering forces of up to 1,850 x g (3,900 rpm), the HORIZON 6 Flex FA can spin up to 6 tubes of 15 mL (125 mm) with the included rotor and tube holders.

Once the cycle begins, LED lid lighting provides a visual status update: on when the centrifuge is running, flashing when tubes are ready to be unloaded and off when the centrifuge is ready for its next load. The digital screen also functions as a countdown timer.

A compact fixed angle countertop centrifuge with no routine maintenance, the Cardinal Health™ HORIZON 6 Flex FA is ideal when fixed angle centrifugation is desired, or specimens will be analyzed on site. The centrifuge arrives ready to run, with rotor and tube holders included. Designed, built and supported in the USA.

**Specifications:**
- Maximum capacity ............. Up to six (6) 10 mL/17 x 75 mm, Up to six (6) 10 mL/17 x 100 mm, Up to six (6) 15 mL/17 x 125 mm
- Maximum speed ............. 3,900 rpm
- Maximum RCF ................. 1,850 x g
- Power requirements ........ 115–230 V, 50/60 Hz
- Dimensions: (H x W x D) ........ 9 x 12 x 14 in.
- Weight ....................... 12 lbs. (5.4 kg)

**Intended use** ................. Blood chemistry specimens, urine, platelet rich plasma (PRP) and platelet poor plasma (PPP)

**Cat. No.**  
**Description**  
**Qty.**
CA3760091  
Centrifuge HORIZON 6 Flex FA, 6-place fixed angle rotor  
1/ea

**6 Flex FA model includes:**
- Fixed angle rotor
- Six (6) 75–100 mm tube holders
- Six (6) 125 mm tube holders

**Accessories**
- 79-009-001 SmartView™ platform  
1/ea
- 7713068 Tube adapters, 0.5 to 1 mL  
1/ea
- 7713065 Tube adapters, 1.5 to 2 mL  
1/ea
**Benchtop Centrifuge Horizon 24 Flex**

**CARDINAL HEALTH** - Enjoy reliability, capacity, and flexibility with the Cardinal Health™ HORIZON 24 Flex. Capable of holding 24 tubes of 3–10 mL (75–100 mm) in size with the included rotor and tube holders, the CHB HORIZON 24 Flex can hold 12 tubes of 15 mL (125 mm) capacity or 6 tubes of 50 mL capacity in alternate tube holders (sold separately).

Set your cycle parameters using the intuitive digital display, allowing adjustment of speed, time, and deceleration on the fly – or program your preferred settings in one of the 10 available presets. Once the cycle starts, track progress at a glance with the bright, clear LED lid lighting: on when the centrifuge is running, flashing when tubes are ready to be unloaded, and off when the centrifuge is ready for its next load. In addition, the digital timer becomes a countdown clock during the cycle for exact monitoring.

Designed to require no routine maintenance, the Cardinal Health™ HORIZON 24 Flex is a workhorse in any routine lab, capable of meeting diverse sample processing needs. Provides force of up to 2,000 x g (3,400 rpm) with horizontal swing-bucket centrifugation, allowing for a vertical load and horizontal run. Designed, built and supported in the USA.

**Specifications:**
- Maximum capacity ............. Up to twenty-four (24) tubes
- Maximum speed ............... 3,400 rpm
- Maximum RCF ................. 2,000 x g
- Power requirements ............ 95–253 V, 50/60 Hz
- Dimensions: (H x W x D) ........ 9 x 15 x 17 in.
- Weight ........................ 39 lbs. (17.7 kg)

**Intended use** ................. Serology, STAT, platelet poor plasma (PPP), platelet rich plasma (PRP), coagulation, clinical chemistry, cytology, urinalysis and general cell/tissue processing

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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<tbody>
<tr>
<td>CA384009</td>
<td>Centrifuge HORIZON 24 Flex, 24-place horizontal rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**24 Flex model includes:**
- Horizontal rotor
- Six (6) 4-place buckets for 75 and 100 mm tubes (holds a total of 24 tubes)

---

**Accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7713037</td>
<td>50 mL purple carrier</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713023</td>
<td>75 to 100 mm 4-place carrier</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713035</td>
<td>Carrier cap</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713068</td>
<td>Tube adapters, 0.5 to 1 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713065</td>
<td>Tube adapters, 1.5 to 2 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

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**Benchtop STAT Centrifuge DASH 6**

**CARDINAL HEALTH** - Improve turnaround time for your STAT samples with the Cardinal Health™ DASH 6. Delivering a maximum RCF of 4,000 x g (5,300 rpm), the DASH 6 is built for STAT. As it runs, its bright LED lid light shows cycle status at a glance: on when running, off when ready to use and flashing when done. This unique visual indicator can greatly reduce forgotten tubes, especially in noisy labs.

The DASH 6 has an easy to use interface with three pre-programmed settings to meet varying STAT lab needs. If desired, these presets can be customized to a lab’s validated settings. Small yet powerful, the DASH 6 fits in accessioning and can be used in an array to cut down on wait time and shorten TAT.

The included horizontal rotor and universal tube holders accommodate 6 tubes from 3–10 mL (75–100 mm) capacity without any change in equipment configuration. Designed, built and supported in the USA.

**Specifications:**
- Maximum capacity ............. 6 tubes – 3 to 10 mL
- Maximum Speed ............... 5,300 rpm
- Maximum RCF ................. 4,000 x g
- Motor ........................ 1/2 HP brushless DC motor
- Timer .......................... Electronic, 1 to 30 minutes
- Power requirement ............ 95–253 V, 50/60 Hz
- Dimensions: (H x W x D) ........ 8 x 11 x 13.5 in.
- Weight ........................ 12 lbs. (5.4 kg)
- Warranty  ...................... Two-year warranty

**Intended use** ................. STAT chemistry, coag and pediatric tubes

**Factory Presets**

<table>
<thead>
<tr>
<th>Cycle</th>
<th>RPM</th>
<th>Time</th>
<th>G-Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 min</td>
<td>5,300</td>
<td>3</td>
<td>4,000</td>
</tr>
<tr>
<td>5 min</td>
<td>5,300</td>
<td>5</td>
<td>4,000</td>
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<tr>
<td>Custom</td>
<td>3,800</td>
<td>7</td>
<td>2,000</td>
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</table>

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA076104</td>
<td>STAT centrifuge DASH 6, 6-place horizontal rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**DASH 6 model includes:**
- Horizontal rotor
- Six (6) 75–100 mm tube holders

---

**Accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7713068</td>
<td>Tube adapters, 0.5 to 1 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>7713065</td>
<td>Tube adapters, 1.5 to 2 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

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To order, call: 800.964.5227
Benchtop STAT Centrifuge Dash 12

CARDINAL HEALTH - Improve STAT performance in the mid-size lab with the Cardinal Health™ Benchtop STAT Centrifuge DASH 12. Simplify operation with the unique two-button interface, allowing technicians to easily switch between the DASH 12’s three presets.

As the centrifuge runs, the bright LED lid light indicates the cycle status: off when ready to load, on when running and flashing when complete. This bright illumination is an easy signal even in the noisiest labs.

Spinning at a STAT-ready 4,000 x g (5,200 rpm) maximum, the DASH 12 can hold up to 12 tubes from 3–10 mL (75–100 mm). Compact and lightweight, it can fit easily into accessioning for faster tube loading, or be used in an array to drive down queue times. The unit arrives ready to run with rotor and tube holder included. Designed, built and supported in the USA.

Specifications:
Maximum capacity ............. 12 tubes – 3 to 10 mL
Maximum speed ............... 5,200 rpm
Maximum RCF ................. 4,000 x g
Motor  ......................... 1/2 HP brushless DC motor
Timer .......................... Electronic, 1 to 30 minutes ±1%
Power requirement ............ 95–253 V, 50/60 Hz
Dimensions: (H x W x D) ...... 9 x 12.5 x 14.75 in.
Weight ........................ 34 lbs. (15 kg)
Warranty ...................... Two-year warranty

Intended use .................. STAT chemistry, coag and pediatric tubes

Factory Presets

<table>
<thead>
<tr>
<th>Cycle</th>
<th>RPM</th>
<th>Time</th>
<th>G-Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 min</td>
<td>5,200</td>
<td>3</td>
<td>4,000</td>
</tr>
<tr>
<td>5 min</td>
<td>5,200</td>
<td>5</td>
<td>4,000</td>
</tr>
<tr>
<td>Custom</td>
<td>3,600</td>
<td>7</td>
<td>2,000</td>
</tr>
</tbody>
</table>

Cat. No.  Description  Qty.
CA00717  STAT centrifuge DASH 12, 12-place horizontal rotor  1/ea
DASH 12 model includes:
• Horizontal rotor
• Twelve (12) 75–100 mm tube holders

Accessories

7713068  Tube adapters, 0.5 to 1 mL  1/ea
7713065  Tube adapters, 1.5 to 2 mL  1/ea

Benchtop STAT Centrifuge Dash Flex 12

CARDINAL HEALTH - The DASH Flex 12 is the most flexible STAT centrifuge in the DASH product line. Offering complete control over time, rpm, and g force, cycle parameters can be adjusted on the fly, or saved as one of 10 presets for easy recall. A bright, clear display makes it easy to select and set all parameters.

Once the centrifuge begins spinning, the CHB DASH Flex 12 shows cycle status at a glance, even in the noisiest labs, with the unique lid illumination system. High-visibility lighting is on when the centrifuge is running, flashing when tubes are ready to be unloaded, and off when the centrifuge is ready for its next load. In addition, once the cycle begins, the display shows a countdown clock to completion.

The DASH Flex 12 delivers STAT performance with force of up to 4,000 x g (5,200 rpm). Capable of holding up to 12 tubes from 3–10 mL (75–100 mm) with no need to change rotor or tube holders, the centrifuge can be placed in accessioning or used as part of an array to further reduce TAT. Ready to run right out of the box, the CHB DASH Flex 12 does not require the purchase of any additional rotors or tube holders. Designed, built and supported in the USA.

Specifications:
Maximum capacity ............. 12 tubes – 3 to 10 mL
Maximum speed ............... 5,200 rpm
Maximum RCF ................. 4,000 x g
Power requirement ............ 95–253 V, 50/60 Hz
Dimensions: (H x W x D) ...... 9 x 13 x 15 in.
Weight ........................ 30 lbs. (13.7 kg)
Warranty ...................... Two-year warranty

Intended use .................. STAT chemistry, coag and pediatric tubes

Cat. No.  Description  Qty.
CA183009  STAT centrifuge DASH Flex 12, 12-place horizontal rotor  1/ea
DASH Flex 12 model includes:
• Horizontal rotor
• Twelve (12) 75–100 mm tube holders

Accessories

7713068  Tube adapters, 0.5 to 1 mL  1/ea
7713065  Tube adapters, 1.5 to 2 mL  1/ea

cardinalhealth.com
Mini Centrifuge

CARDINAL HEALTH - The Mini Centrifuge is ideal for quick spin downs of microtubes and PCR tubes. Speed quickly reaches 6,000 rpm. The Click-n-Lok instant rotor attachment eliminates the requirement for set screws and tools during rotor exchange: simply remove and attach rotors by hand, pulling or pressing the rotor onto the motor shaft.

- Eight position microtube rotor
- Storage compartment for PCR rotor and 0.5 mL adapters
- Decelerate in just one second
- Clear or red lid available

Specifications
- Capacity: 8 x 1.5/2 mL, 32 x 0.2 mL or 4 x PCR strips
- Maximum speed: 6,000 rpm
- Maximum RCF: 2,000 x g
- Maximum radius: 1.77 in. (49 mm)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHC1008-C</td>
<td>Mini centrifuge, clear lid 100-240 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHC1008-R</td>
<td>Mini centrifuge, red lid 100-240 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHC1005-A2</td>
<td>Replacement adapter pack, 0.2 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHC1008-A5</td>
<td>Replacement adapter pack, 0.5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHB1000-RE</td>
<td>Replacement heating element, 230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

High Speed Microcentrifuge

CARDINAL HEALTH - The High Speed Microcentrifuge has a 12-place rotor and provides nearly silent operation. It has a compact, low profile design and it starts and stops with the closing or opening of the lid.

This high-speed microcentrifuge eliminates the need to change rotors when switching between microtubes and PCR strips (12 microtubes and/or 4 (8-position) PCR strips. It operates with fixed speed that produces 2,000 x g – simply close the lid and the unit quickly ramps up to 5,500 rpm.

Specifications:
- Maximum capacity: 12 x 1.5/2 mL tubes
- Maximum speed: 15,500 rpm
- Maximum RCF: 16,100 x g
- Timer: 20 sec. ~ 99 min./continuous or momentary
- Maximum permitted density: 1.2 g/mL
- Acceleration time: 12 seconds
- Braking time from maximum speed: 10 seconds
- Ambient temperature: 35.6°F – 95°F (2°C – 35°C)
- Power requirement: 100~120 V/200~240 V, 50/60 Hz, 100 W
- Dimensions: (H x W x D): 5.9 x 8.7 x 10.6 in.
- Weight: 34.1 lbs. (15.5 kg)
- Warranty: Two-year warranty

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHC1612</td>
<td>High speed microcentrifuge 12-place rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHC1008-61</td>
<td>Adapters for 0.2 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHC1008-6</td>
<td>Adapters for 0.5 mL tubes</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Centrifuges and Accessories

Centrifuges/Microcentrifuges

Azer Mini Centrifuges
AZER SCIENTIFIC - These personal centrifuges quickly reach 7,000 rpm upon closing the lid. The small size makes them the perfect choice for quick spin downs right at your workspace. Simply open the lid and the rotor quickly decelerates to a stop. An 8-place microtube rotor is included and comes installed. A second rotor for 0.2 mL PCR tubes and strips are also included and stored with the rotor removal key in a convenient compartment on the bottom of the centrifuge.

Specifications:
- Maximum capacity: 8 x 1.5 to 2 mL tubes or 2 x PCR strips
- Maximum speed: 7,000 rpm
- Maximum RCF: 2,680 x g
- Dimensions (W x D x H): 6 x 6 x 5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>ESCSMB120V</td>
<td>ESCSMB120V</td>
<td>Blue lid</td>
<td>1/ea</td>
</tr>
<tr>
<td>ESCSMT120V</td>
<td>ESCSMT120V</td>
<td>Teal lid</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Spectrafuge 24D Microcentrifuge
AZER SCIENTIFIC - Precision controls and digital display makes the unit user-friendly. Quiet and cool running. Set and view speed in rpm or g-force. Features an easy access 24-place rotor for 1.5 mL tubes. Safe to use in cold room.

Specifications:
- Ambient operating range: 4°C to 35°C
- Maximum capacity: 24 x 1.5/2 mL microcentrifuge tubes
- Maximum RCF: 16,300 x g
- Maximum speed: 500 to 13,300 rpm
- Timer: 1 to 30 minutes or continuous
- Dimensions: 9.25 x 11.5 x 8.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC24B120V</td>
<td>ESC24B120V</td>
<td>24D Microcentrifuge with 24 x 1.5 mL rotor - blue</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Z100A Compact Variable-Speed Clinical Centrifuge
AZER SCIENTIFIC - Ideal for use in a clinical setting or research lab, this variable-speed centrifuge runs up to 4,000 rpm. It features a clear lid that cuts power to the centrifuge when you open the lid. The easy-to-clean, rugged ABS housing adds durability. The centrifuge includes a 6 x 15mL fixed-angle rotor that accepts six 10 or 15mL tubes directly. Adapters that accept smaller tubes are available separately.

Specifications:
- Maximum capacity: 6 x 15 mL tubes
- Maximum speed: 4,000 rpm
- Maximum RCF: 1,900 x g
- Dimensions (W x D x H): 11 x 13.75 x 10.2 in.
- Power requirements: 120 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCZ100A</td>
<td>ESCZ100A</td>
<td>Z100A compact centrifuge</td>
<td>1/ea</td>
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<tr>
<td>ESC020017A</td>
<td>ESC020017A</td>
<td>Combination adapter for 5 mL, 7 mL and 10 mL tubes</td>
<td>6/pk</td>
</tr>
</tbody>
</table>

Z206A Compact Centrifuge
AZER SCIENTIFIC - This compact centrifuge is ideal for both clinical and research laboratories. The large display on the centrifuge’s modern control panel, along with the precise control of the microprocessor allows for control over 10 levels of acceleration, deceleration and an imbalance sensor.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC206A120</td>
<td>ESC206A120V</td>
<td>Z206A Compact centrifuge - without rotor</td>
<td>1/ea</td>
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<tr>
<td>ESC20096</td>
<td>ESC20096</td>
<td>Angle rotor for 12 x 15 mL tubes</td>
<td>1/ea</td>
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</tbody>
</table>
Centrifuges and Accessories

Centrifuges/Microcentrifuges

Accessories for Z300 Centrifuge
AZER SCIENTIFIC

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC30016</td>
<td>ESC30016</td>
<td>Swing-out rotors With 2 microplate carriers, 2,762 x g maximum</td>
<td>1/ea</td>
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</table>

Inserts for swing-out rotor ESC32371

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<tbody>
<tr>
<td>ESC320724</td>
<td>ESC320724</td>
<td>For 4 x 10 mL (16, 17 x 100 mm) tubes</td>
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Carriers for Z300 models

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>ESC300122</td>
<td>ESC300122</td>
<td>For 1 x 50 mL conical tubes</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

BD Sero-Fuge™ 2000 Centrifuges
BD DIAGNOSTICS - The BD Sero-Fuge™ 2000 Centrifuges are extra-quiet, easy-to-use centrifuges that can accommodate a wide range of tube sizes for blood grouping, typing, cross matching and other cell-washing procedures. The tubes in the head swing out to an angle of 45° in motion and assume a vertical position when the centrifuge is at rest. The interchangeable heads serve as holders in which tubes can be filled, centrifuged, transported, incubated and emptied without individual handling. Tube positions are numbered for quick identification.

The BD Sero-Fuge™ 2000 Centrifuges feature a molded polycarbonate base and lid with a white polyurethane enamel finish. All are shock mounted on four cushioning rubber feet and feature an induction-type motor and special airflow design to minimize sound and vibration. As an additional safety measure, the locking cover with the lid seal gasket cannot be opened until the rotor has stopped. The on-board tachometer and solid-state digital timer help ensure precise control.

Other features include user-controlled end-of-cycle alarm, user-controlled brake, a timer/reset button and a cycle repeat/recall button. Interior and exterior are ergonomically designed for easy operation, cleaning and maintenance. The BD Sero-Fuge™ 2000 Centrifuges come complete with 12-place head and a 6 ft. heavy-duty, strain-relieved three-conductor cord. Choose a fixed-speed (3,550 rpm) or dual-speed (2,450 and 3,550 rpm) model. Fixed-speed centrifuge is available in 115 and 230 V models; dual-speed centrifuge is 115 V.

Specifications:
- Maximum capacity ............. 12 x 75 mm
- Maximum speed ............... 3,550 rpm
- Maximum RCF ................. 2,456 x g
- Dimensions .......... 12.5 x 16 x 19 in.
- Power requirements .......... 115 or 230 V, 60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>B5061-1</td>
<td>420351</td>
<td>Fixed-speed model 2001, 115 V</td>
<td>1/ea</td>
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<tr>
<td>B5061-1D</td>
<td>420354</td>
<td>Fixed-speed model 2001, 230 V</td>
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</tr>
<tr>
<td>B5061-2</td>
<td>420352</td>
<td>Dual-speed model 2002, 115 V</td>
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</tbody>
</table>

BD Dynac™ III Multispeed Centrifuge
BD DIAGNOSTICS - This multipurpose BD Dynac™ III centrifuge is designed for clinical laboratories performing separations in hematology, chemistry, urinalysis, blood banking, microbiology and cytology. The Dynac™ III delivers digitally precise, variable speed which is microprocessor controlled. The centrifuge is user programmable by speed, RCF and time. It is compact and portable and fits into most laboratory refrigerators. It can be used with interchangeable rotors and has a continuously adjustable electronic speed control and electronic tachometer, which permits the selection of a wide range of operating speeds. A zero speed switch, fail-safe positive cover lock and other safety features are incorporated for maximum operator protection. Ten programmable memory locations are available for storage of time and speed settings. Also features a one-piece aluminum guard bowl made of heavy gauge construction and rubber feet bolted to the bottom of the base plate to absorb vibrations. A variety of rotors and accessories for use with the centrifuge are available separately.

Specifications:
- Maximum capacity ............4 x 100 mL
- Maximum speed ................3,530 rpm (swing-out), 4,000 rpm (fixed-angle)
- Maximum RCF ..................2,456 x g (swing-out), 2,509 x g (fixed-angle)
- Dimensions ........12.5 x 16 x 19 in.
- Power requirements ..........120 V, 60 Hz, 6 A

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>C1420-1A</td>
<td>420104</td>
<td>BD Dynac™ III centrifuge</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

To order, call: 800.964.5227
BD Triac™ Combination Centrifuge
BD DIAGNOSTICS - The BD Triac™ Combination Centrifuge is used for direct reading of microhematocrit determinations, plasma/serum separation from blood collection tubes and urine sedimentation. This centrifuge features three push-button modes: urine, blood and microhematocrit. After you select a spin time, the timer stays set for all subsequent operating cycles until it is reset.

The unit accommodates 12 microhematocrit tubes up to 75 mm, eight 17 x 120 mm conical centrifuge tubes or eight 7, 10 or 15 mL vacuum blood collection tubes. Adapters are available for spinning 2 or 3 mL vacuum blood collection tubes. Four interchangeable trunnions hold two tubes each. Features include a push-button brake, lid safety lock, built-in microhematocrit reader and see-through cover. The unit comes complete with a head, four trunnions and 200 precalibrated BD SurePrep™ capillary tubes.

Specifications:
- Maximum capacity: Urine - 8 x 120 mm, blood - 8 x 15 mL, Microhematocrit - 12 x 75 mm
- Maximum speed: Urine - 2,300 rpm, blood - 3,500 rpm, Microhematocrit - 10,400 rpm
- Maximum RCF: Urine - 660 x g, blood - 1,500 x g, Microhematocrit - 12,600 x g
- Dimensions (Dia. x H x D): 12 x 10 x 14 in.
- Power requirements: 120 V, 60 Hz

<table>
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<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>B4389-1</td>
<td>420200</td>
<td>BD Triac™ centrifuge</td>
<td>1/ea</td>
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</table>

LC-8™ Series Centrifuges
BENCHMARK - LC-8™ Series Centrifuges have an eight-position rotor included and designed to directly accept 10 mL and 15 mL test tubes (conical or round bottom), while optional adapters are also available for use with all popular sizes of blood collection and culture tubes. The rotor can be easily removed from the chamber for cleaning. Back-lit, liquid crystal display provides full control over the set run time and rotational speed. The rotational speed can be set/viewed in RPM or RCF and acceleration/deceleration levels can be easily adjusted in the advanced settings mode. To ensure safety, the digital microprocessor ensures that the lid has been closed and that the safety lid lock is engaged prior to starting a centrifugation cycle. In addition, an advanced imbalance detection system constantly monitors the balance and vibration, automatically bringing the rotor to a stop if an imbalance is detected.

Specifications:
- Speed range: LC-8: 400–3,500 rpm (1,500 x g)
  LC-8 Plus: 400–5,000 rpm (3,070 x g)
- Max. capacity: 8 x 15 mL
- Timer range: 20 sec. to 99 min.
- Power requirement: 115 V or 230 V, 50/60 Hz, 150 W
- Dimensions (W x D x H): 11.6 x 14.4 x 8.3 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3100BS</td>
<td>C3100</td>
<td>LC-8 - 3,500 rpm, 115 V</td>
<td>1/ea</td>
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<tr>
<td>C3101BS</td>
<td>C3101</td>
<td>LC-8 - 3,500 rpm, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3102BS</td>
<td>C3102</td>
<td>LC-8 Plus - 5,000 rpm, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3103BS</td>
<td>C3103</td>
<td>LC-8 Plus - 5,000 rpm, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3104BS</td>
<td>C3104</td>
<td>Adapter pack - accepts 2, 5, 7 mL tubes</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

cardinalhealth.com
**Model 614B Fixed-Angle Centrifuge**

**DRUCKER** - With a single g-force setting and adjustable mechanical timer, the 614B provides runtime flexibility and fixed angle processing at an affordable price. Use anywhere specimens are analyzed on site. With a single g-force setting of 1,100 x g and time controlled by a mechanical dial, the 614B offers affordability and runtime flexibility. The unit arrives ready to run, with rotor and tube holders included. Supported by a two year warranty with lifetime rotor warranty. Made in the USA by Drucker Diagnostics.

**Specifications:**
- Maximum capacity: 6 x 15 mL
- Speed: 3,250 rpm
- RCF: 1,100 x g
- Tube sizes: 0.5 to 15 mL; up to 17 x 125 mm
- Power requirement: 115 V, 60 Hz, 4 A
- Dimensions: (H x W x D): 8.75 x 11.75 x 14 in.

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
---|---|---|---
614B | 00-004-009-001 | Fixed-angle centrifuge | 1/ea

**Replacement tube holders**
- 7713033 | 7713033 | 75 mm tube holder - green | 1/ea
- 7713031 | 7713031 | 100 mm tube holder - red | 1/ea

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**Model 642M Centrifuge**

**DRUCKER** - The 642M facilitates efficient routes and longer range for mobile phlebotomists by providing centrifugation in the vehicle. Spin specimens within two hours of draw and run the most convenient route without the need to return to the central lab. Powered directly from a vehicle’s 12 V electrical supply, the 642M provides horizontal centrifugation for high quality gel tube separation and two-button operation for maximum repeatability. With a simple, one-button interface, the 642M processes samples at a consistent 10 minutes at 3,400 rpm/1,600 x g. The unit arrives ready to run, with rotor and tube holders included. Supported by a two year warranty with lifetime rotor warranty. Made in the USA by Drucker Diagnostics.

**Specifications:**
- Maximum capacity: 6 x 10 mL
- Tube sizes: 3 to 10 mL; up to 17 x 100 mm
- Speed: 3,400 rpm
- RCF: 1,600 x g
- Power requirement: 12 V DC, 100 W
- Dimensions (H x W x D): 8.75 x 11.75 x 14 in.

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
---|---|---|---
77-009-000 | 00-077-009-000 | Mobile single speed centrifuge - electronic timer | 1/ea

**Replacement tube holders**
- 7713033 | 7713033 | 75 mm tube holder - green | 1/ea
- 7713031 | 7713031 | 100 mm tube holder - red | 1/ea

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**Centrifuge Accessories**

**DRUCKER**

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
---|---|---|---
9150-DC | 9150 | ¼ in. cushion spacer | 1/ea
1525-DC | 1525 | 1 in. cushion spacer | 1/ea
7735049 | 7735049 | Centrifuge Horizon 642 PSC motor | 1/ea
7713068 | 7713068 | Tube adapters, 0.5 to 1 mL | 1/ea
7713065 | 7713065 | Tube adapters, 1.5 to 2 mL | 1/ea
7713064 | 7713064 | Tube insert, 13 x 75 mm | 1/ea
7713066 | 7713066 | Tube insert, 13 x 100 mm | 1/ea
7713083 | 7713083 | 75–100 mm tube holder (APEX) | 1/ea

Our focus is on your lab.
HemataSTAT II® Microhematocrit Centrifuge

EKF DIAGNOSTICS - This whisper-quiet device will spin up to six capillary tubes in only 60 seconds. It has an easy-to-use, built-in tube reader that provides an electronic display of test results. For operator safety, the unit has a locking lid and a gasket seal for aerosol protection. Also, disposable transparent tube holders are used for the capillary tubes while spinning to minimize contact with specimens. Standard 75 mm capillary tubes with either a 1.1 mm or 0.5 mm I.D. can be spun and read on the device. Capillary tubes C1801-15 require HemataSEAL® tube sealant. Operates on AC current or with an optional rechargeable battery (available separately) to enhance its usefulness in remote locations. Designed to fit almost any lab location. Dimensions (W x L x H): 7 x 11 x 5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1801-1</td>
<td>100-100</td>
<td>HemataSTAT II® centrifuge</td>
<td>1/ea</td>
</tr>
<tr>
<td>C1801-12</td>
<td>230-100</td>
<td>Tube holders</td>
<td>50/pk</td>
</tr>
<tr>
<td>270-106</td>
<td>270-106</td>
<td>ClearCRIT® 100% plastic capillary tubes, 1.1 mm I.D.</td>
<td>1,000/bx</td>
</tr>
<tr>
<td>270-107</td>
<td>270-107B</td>
<td>ClearCRIT® 100% plastic capillary tubes, 0.5 mm I.D.</td>
<td>1,000/bx</td>
</tr>
<tr>
<td>C1801-15</td>
<td>270-108</td>
<td>ClearCRIT® Mylar®-wrapped capillary tubes, 1.1 mm I.D.</td>
<td>1,000/bx</td>
</tr>
<tr>
<td>C1806-22</td>
<td>260-100</td>
<td>HemataSEAL® tube sealant</td>
<td>10/bx</td>
</tr>
<tr>
<td>C1806-23</td>
<td>270-109</td>
<td>ClearCRIT® Mylar®-wrapped self-sealing capillary tubes, 1.1 mm I.D.</td>
<td>2,000/bx</td>
</tr>
</tbody>
</table>

Micro12™ Microcentrifuge

EKF DIAGNOSTICS - Use this microcentrifuge for a variety of applications, including quick spindowns, microfiltrations and small-volume blood and urine separations. It includes a fixed-angle rotor that accommodates eighteen 2 mL tubes directly or tubes up to 0.5 mL in size with adapters. The microcentrifuge also features a 60 minute timer and a locking mechanism that prevents the lid of the microcentrifuge from being opened while the rotor is spinning.

Specifications:
- Maximum capacity ............. 18 x 2 mL
- Maximum speed ............... 14,000 rpm
- Maximum RCF ................. 16,000 x g
- Dimensions (W x D x H) ........ 8.25 x 8.9 x 7.6 in.

Disposable Tube Holders for PlasmaPrep® Centrifuge

EKF DIAGNOSTICS - Use these tube holders instead of adapters and cushions. In case of breakage, simply discard the holder and the tube. There's no need to clean the centrifuge bowl or to have contact with the specimen. Tube holders promote rotor balancing and are color-coded for convenience. Reusable. 25 tube holders per package.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4360-12</td>
<td>230-112</td>
<td>Use with 13 x 75 mm, blue, rubber stopper</td>
<td>25/pk</td>
</tr>
<tr>
<td>B4360-15</td>
<td>230-115</td>
<td>Use with 13 x 100 mm, gold, plastic top</td>
<td>25/pk</td>
</tr>
</tbody>
</table>
**Eppendorf® Centrifuge Model 5702**

EPPENDORF - The economical centrifuge for clinical and cell culture labs. With various fixed-angle and swing-bucket rotors and an extensive range of adapters, virtually all types of tubes can be used. The ventilation system of this model was specifically designed to minimize sample warming—even under constant use.

- Compact footprint to fit on every lab bench
- Whisper-quiet operation to benefit your work environment
- Soft-touch, one-finger lid closure for ergonomic operation
- Low access height for easy loading and unloading
- Digital display and automatic RPM/RCF conversion for reproducible parameter settings
- Soft brake option for slow acceleration and braking optimized for cell separation by gradient centrifugation
- Key lock option to prevent accidental parameter changes
- Imbalance detection for maximum safety
- Stainless steel rotor chamber is rust-proof and easy-to-clean
- 2-year warranty

**Clinical package includes:** the centrifuge, a 4 x 100 mL swing-bucket rotor with round buckets, 4 adapters for blood tubes with an outer diameter of 13 mm and 4 adapters for 16 mm tubes.

**Cell culture package includes:** the centrifuge, a 4 x 100 mL swing-bucket rotor with round buckets, 4 adapters for 15 mL conical tubes and 4 adapters for 50 mL conical tubes.

**Specifications:**
- Capacity: 4 x 100 mL, 30 x 15 mL
- Maximum speed: 100–4,400 rpm
- Maximum RCF: 3,000 x g
- Dimensions (W x D x H): 12½ x 16 x 9½ in.

**Cat. No. | Mfr. No. | Description | Qty.**
--- | --- | --- | ---
C3514-68 | 022626001 | 5702 without rotor - 120 V | 1/ea
C3514-475 | 022629883 | 5702 with 4 x 100 mL swing bucket rotor - 120 V | 1/ea
226-28001 | 022628001 | 5702 clinical package | 1/ea
226-28102 | 022628102 | 5702 cell culture package | 1/ea

---

**Eppendorf® Refrigerated Centrifuge Model 5702 R and Refrigerated and Heated Model 5702 RH**

EPPENDORF - Refrigerated centrifuge 5702 R was developed with the safety of your samples in mind. The compressor at the back of the centrifuge keeps the footprint small and the access height low. It is equipped with the latest innovations in cooling technology for accurate temperature control and energy efficiency. Model 5702 RH allows centrifugation under biological conditions to improve cell viability for more accurate results in downstream applications (e.g., cell transfection, IVF).

**Product features (in addition to features listed for 5702):**
- Virtually silent operation (<45 dB(A))
- 2 programming keys to store routine procedures
- FastTemp function for fast and accurate pre-cooling
- Standby cooling keeps centrifuge at programmed temperature
- ECO shut-off reduces energy consumption
- Built-in condensation drain to eliminate water accumulation
- 2-year warranty

**Clinical package includes:** the centrifuge, a 4 x 100 mL swing-bucket rotor with round buckets, 4 adapters for blood tubes with an outer diameter of 13 mm and 4 adapters for 16 mm tubes.

**Cell culture package includes:** the centrifuge, a 4 x 100 mL swing-bucket rotor with round buckets, 4 adapters for 15 mL conical tubes and 4 adapters for 50 mL conical tubes.

**Specifications:**
- Capacity: 4 x 100 mL, 30 x 15 mL
- Maximum speed: 100–4,400 rpm
- Maximum RCF: 3,000 x g
- Temperature range: –9°C to 40°C (RH: –9°C to 42°C)
- Dimensions (W x D x H): 15 x 22.8 x 10.2 in.

**Cat. No. | Mfr. No. | Description | Qty.**
--- | --- | --- | ---
226-26205 | 022626205 | 5702 R without rotor, 120 V | 1/ea
C3514-476 | 022629905 | 5702 R with 4 x 100 mL swing bucket rotor - 120 V | 1/ea
226-28012 | 022628012 | 5702 R clinical package | 1/ea
226-28113 | 022628113 | 5702 R cell culture package | 1/ea

**Model 5702 RH and accessories**

**Cat. No. | Mfr. No. | Description | Qty.**
--- | --- | --- | ---
C3514-467 | 022626213 | 5702 RH refrigerated and heated centrifuge, 120 V | 1/ea
226-28023 | 022628023 | 5702 RH clinical package | 1/ea
226-28124 | 022628124 | 5702 RH cell culture package | 1/ea
Centrifuge/Microcentrifugues

**Eppendorf® Multipurpose Centrifuges 5804/5804 R and 5810/5810 R**

EPPENDORF - Eppendorf centrifuges 5804/R and 5810/R offer high quality and reliability with cost-efficient solutions for your mid- to high-throughput applications—now and in the future. Whether your applications require spinning many tubes at a time or centrifugation of larger volume vessels at high speed, these multipurpose centrifuges with their variety of rotors and adapters cover virtually any application in tubes, bottles, flasks and microplates. They feature the benefits of three centrifuges in one: a high-capacity centrifuge for cell culture and clinical applications, a high-speed centrifuge for separating cell lysates and a microcentrifuge for nucleic acid purification.

- Low sound level to benefit your work environment
- Low-profile design for easy loading/unloading
- Centrifuge lid with soft-touch lid closure and low opening height for stress-free lid locking
- Compact footprint saves valuable bench space
- Low lid opening height for use under shelves
- Short depth and low weight for a multipurpose centrifuge allows placement on standard laboratory benches
- 120 V power supply for use on standard outlets provides maximum placement flexibility
- Compliant to international safety standards—no need to bolt the unit to the table
- Automatic rotor recognition and imbalance detection for maximum operational safety
- The user can enter speed, RCF and radius correction values
- 10 acceleration and 10 braking ramps for sensitive sample material
- Selectable program memory for up to 34 individual user programs
- 2-year warranty

**Clinical package includes:** the centrifuge, a swing-bucket rotor with buckets, 4 adapters for 15 mL conical tubes and 4 adapters for 50 mL conical tubes.

**Cell Culture package includes:** the centrifuge, a swing-bucket rotor with buckets, 4 adapters for 15 mL conical tubes and 4 adapters for 50 mL conical tubes.

**Centrifuges 5804/5804 R**

These compact models are ideal for applications in deep well plates or for molecular applications in large volume tubes up to 100 mL (max. 15,500 x g). The optional 4 x 100 mL swing-bucket rotor adds flexibility and makes models 5804 and 5804 R winners for all low- to medium-throughput laboratories.

**Specifications:**
- Capacity: 6 x 100 mL, 4 x DWP
- Maximum speed: 200–14,000 rpm
- Maximum RCF: 20,800 x g
- Temperature range: –9°C to 40°C
- Dimensions (W x D x H): 18 x 20 x 13 in. (5804), 25 x 20 x 13 in. (5804 R)

**Model 5804/5804 R and accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-22501</td>
<td>022622501</td>
<td>S804, without rotor, 120 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28034</td>
<td>022628034</td>
<td>S804 clinical package 4 x 100 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28135</td>
<td>022628135</td>
<td>S804 cell culture package 4 x 100 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-23508</td>
<td>022623508</td>
<td>S804 R, without rotor, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28045</td>
<td>022628045</td>
<td>S804 R clinical package 4 x 100 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28146</td>
<td>022628146</td>
<td>S804 R cell culture package 4 x 100 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Centrifuges 5810/5810 R**

These centrifuges are real workhorses for your mid- to high-throughput laboratory. Still equipped with a space-saving small footprint, they provide you high capacity for up to 4 x 500 mL bottles, 28 x 50 mL conical tubes or 16 x microplates—capacity you would normally find in much bigger centrifuges.

**Specifications:**
- Capacity: 4 x 500 mL, 4 x DWP
- Maximum speed: 200–14,000 rpm
- Maximum RCF: 20,800 x g
- Temperature range: –9°C to 40°C
- Dimensions (W x D x H): 21 x 21 x 13 in. (5810), 28 x 21 x 13 in. (5810 R)

**Model 5810/5810 R and accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-25004</td>
<td>022625004</td>
<td>S810, without rotor, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28056</td>
<td>022628056</td>
<td>S810 clinical package 4 x 250 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28078</td>
<td>022628078</td>
<td>S810 clinical package 4 x 500 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28157</td>
<td>022628157</td>
<td>S810 cell culture package 4 x 250 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28179</td>
<td>022628179</td>
<td>S810 cell culture package 4 x 500 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-25501</td>
<td>022625501</td>
<td>S810 R, without rotor, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28067</td>
<td>022628067</td>
<td>S810 R clinical package 4 x 250 mL</td>
<td>1/ea</td>
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<tr>
<td>226-28089</td>
<td>022628089</td>
<td>S810 R clinical package 4 x 500 mL</td>
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<tr>
<td>226-28168</td>
<td>022628168</td>
<td>S810 R cell culture package 4 x 250 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-28180</td>
<td>022628180</td>
<td>S810 R cell culture package 4 x 500 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Eppendorf® Microcentrifuge Model 5418

EPPENDORF® - Centrifuge 5418 features 18-place capacity rotors are specifically designed for low to medium capacity in 1.5/2 mL tubes and Microtainers®. Speed of up to 16,873 x g allows for standard molecular biology and clinical applications.

- Compact footprint to fit on crowded lab benches
- OptiBowl® design allows for whisper-quiet operation without rotor lid to reduce handling time and benefit your work environment
- Centrifuge lid with a soft-touch closure for ergonomic operation
- Lid opens automatically at the end of the run to prevent sample warming and to allow easy access to samples
- QuickLock™ rotor lid for fast and reliable lid locking
- Rotor comes standard with an aerosol-tight lid for safe centrifugation of hazardous samples
- Large digital display and RPM/RCF conversion key for accurate and reproducible parameter settings
- FastTemp function for fast and accurate pre-cooling
- ECO shut-off reduces energy consumption
- Built-in condensation drain to eliminate water accumulation
- 2-year warranty

Specifications:
Capacity .......................... 18 x 1.5/2 mL
Maximum speed .................. 14,000 rpm
Maximum RCF .................... 16,873 x g
Dimensions (W x D x H) .......... 8.2 x 11.8 x 8.2 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS063-144</td>
<td>022620304</td>
<td>5418, with 18 x 1.5/2 mL aerosol-tight rotor - 120V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Eppendorf® Microcentrifuge Models 5430/5430 R

EPPENDORF® - Unique crossover centrifuges 5430 and 5430 R combine the best features of a microcentrifuge (small footprint) and multipurpose centrifuge (versatility) in one instrument. These centrifuges spin rotors for Eppendorf® tubes and PCR strips as well as rotors for 15/50 mL conical tubes, Vacutainer®, 10 to 50 mL OakRidge tubes, cyro and HPLC vials and accommodate a swing bucket rotor for MTP and PCR plates.

- Exceptional versatility—8 different rotors for tubes from 0.2 mL to 50 mL and microplates
- High centrifugation speed of up to 30,130 x g (17,500 rpm)
- Menu-driven operation with large backlit LCD display
- Saves up to 50 programs with names, 5 program keys
- Automatic rotor recognition with speed limitation
- Innovative > FastTemp Pro® allows for automated pre-cooling based on pre-programmable time and date.
- ECO shut-off reduces energy consumption
- Built-in condensation drain to help eliminate water accumulation
- Available as a rotary knob or keypad version
- 2-year warranty

Specifications:
Capacity .......................... 30 x 2 mL, 6 x 50 mL, 2x MTP
Maximum speed .................. 17,500 rpm
Maximum RCF .................... 30,130 x g
Temperature range .................. –11°C to 40°C (5430 R only)
Power requirement ............... 120 V
Dimensions (W x D x H) .......... 13 x 16 x 9.8 in. (5430), 15 x 25.2 x 11.7 in. (5430 R)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5430 with rotor</td>
<td></td>
<td></td>
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<tr>
<td>22620584</td>
<td>022620584</td>
<td>Keypad</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620546</td>
<td>022620546</td>
<td>Keypad, with 2x MTP plate rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620511</td>
<td>022620511</td>
<td>Rotary knobs with 30 x 1.5/2 mL AT rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620572</td>
<td>022620572</td>
<td>Rotary knobs with 2x MTP plate rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>5430 R with rotor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22620601</td>
<td>022620601</td>
<td>Keypad with 30 x 1.5/2 mL AT rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620645</td>
<td>022620645</td>
<td>Keypad with 2x MTP plate rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620623</td>
<td>022620623</td>
<td>Rotary knobs with 30 x 1.5/2 mL AT rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620656</td>
<td>022620656</td>
<td>Rotary knobs with 2x MTP plate rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>5430 without rotor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>226-20584</td>
<td>022620584</td>
<td>Keypad</td>
<td>1/ea</td>
</tr>
<tr>
<td>22620596</td>
<td>022620596</td>
<td>Rotary knobs</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Eppendorf® MiniSpin® and MiniSpin Plus™
Personal Microcentrifuges

EPPENDORF - Powerful and easy-to-use, these personal microcentrifuges are small enough so that each workstation can be equipped with a centrifuge for a wide range of molecular biology separations and quick spins. Two models are available to meet your performance requirements.

- Extremely compact with exceptionally small footprint
- Deceleration and acceleration of <13 s
- Clear, easy-to-use digital display of time and speed
- Remarkably quiet operation
- Metal rotor housing
- Conform to IEC 1010-2-020 safety regulations
- Separate Short Spin button for fast, convenient quick spins
- Excellent air-flow minimizes heating—protects temperature-sensitive samples
- Lid automatically opens at the end of the run to reduce handling time
- Maintenance-free drive
- Rotor is autoclavable at 121°C, 20 minutes
- Chemical-resistant inner centrifuge lid
- 2-year warranty

Specifications:
Capacity .................... 12 x 1.5/2 mL
Maximum speed ............ 13,400/14,500 rpm (MiniSpin Plus™)
Maximum RCF .............. 12,100 x g (C3514-32), 14,100 x g (C3514-33)
Dimensions (W x D x H)  ..... 8.9 x 9.4 x 4.7 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3514-32</td>
<td>022620100</td>
<td>MiniSpin® with 12-place rotor - 120 V, 60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-33</td>
<td>022620207</td>
<td>MiniSpin Plus™ with 12-place rotor - 120 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Eppendorf Vacufuge® Plus Vacuum Concentrator

EPPENDORF - Designed to quickly and efficiently concentrate DNA/ RNA, nucleotides, proteins and other samples, this system offers a choice of three operation modes (aqueous, alcohol or high vapor pressure) to correspond with sample solvent. Automatic vacuum aeration helps prevent condensation build up, maximize evaporation efficiency and prolong pump life. Choose from four heating levels for efficient concentration of a variety of samples: 30°C, 45°C, 60°C and ambient. The unit is narrow to save bench space. Its motorless drive and sealed chamber require little maintenance. Operation is very quiet, even with the pump on. It is available as a complete system with built-in diaphragm pump.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3514-3</td>
<td>022820109</td>
<td>Complete system with built-in diaphragm pump, includes 48 x 1.5/2 mL fixed-angle rotor - 120 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Rotors

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3514-1</td>
<td>022822080</td>
<td>72 x 0.5 mL Eppendorf tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-5</td>
<td>022822004</td>
<td>48 x 1.5/2 mL Eppendorf tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-8</td>
<td>022822101</td>
<td>Stacking spacer for 0.5 and 1.5/2 mL tube rotors</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-424</td>
<td>022822241</td>
<td>2x MTP/PCR plates</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-10</td>
<td>022822144</td>
<td>24 x 5/7 mL tubes (12 x 67–100 mm)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-38</td>
<td>022822233</td>
<td>8 x 15 mL tubes (18 x 105–120 mm)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-37</td>
<td>022822179</td>
<td>8 x 16 mL tubes (18 x 105–128 mm)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-9</td>
<td>022822128</td>
<td>36 x 2/4 mL tubes (15 x 45–48 mm)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-36</td>
<td>022822136</td>
<td>16 x 10 mL tubes (20 x 42–45 mm)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-35</td>
<td>02282217</td>
<td>12 x 20 mL tubes (31 x 55 mm)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

30 x 15 mL Fixed-Angle Rotor (F-35-30-17) for Eppendorf® Centrifuges 5702/5702 R/5702 RH

EPPENDORF - Rotor for high-capacity cell culture and clinical applications (e.g., ultrafiltration columns). Spins 30 x 15 mL glass/Vacutainer or 20 x 15 mL conical tubes. Maximum speed: 4,400 rpm. Maximum RCF: 2,750 x.g. Also accommodates twenty 16 x 125 mm tubes. Rotor, buckets, lids and adapters are autoclavable (121°C, 20 minutes).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3514-73</td>
<td>022639404</td>
<td>Rotor with 30 x 15 mL sleeves, includes 20 inserts for 15 mL conical tubes and 30 rubber mats for glass tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-72</td>
<td>022639421</td>
<td>Rotor with 10 x 15 mL sleeves, includes 10 inserts for 15 mL conical tubes and 10 rubber mats for glass tubes</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Centrifuges and Accessories**

### Centrifuges/Microcentrifuges

**4 x 100 mL Swing-Bucket Rotor (A-4-38) for Eppendorf® Centrifuges 5702/5702 R/5702 RH**

EPPENDORF - Rotor can be operated with either 100 mL round buckets for tubes from 1.5 mL to 85/100 mL or rectangular buckets for glass tubes from 5 to 25 mL. Maximum speed: 4,400 rpm. Maximum RCF: 3,000 x g. Round buckets can be used with aerosol-tight caps for safe centrifugation of hazardous samples. Rotor, buckets, lids and adapters are autoclavable (20 minutes, 121°C).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3514-70</td>
<td>022639048</td>
<td>Rotor A-4-38 with 4 x 100 mL round buckets</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3514-71</td>
<td>022639064</td>
<td>Rotor A-4-38 without buckets</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3512-97</td>
<td>022639081</td>
<td>Bucket - 100 mL round</td>
<td>4/pk</td>
</tr>
<tr>
<td>C3512-96</td>
<td>022639307</td>
<td>Bucket - 90 mL rectangular</td>
<td>4/pk</td>
</tr>
<tr>
<td>C3512-94</td>
<td>022639293</td>
<td>Aerosol-tight lid for 100 mL round buckets</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

**Adapters for A-4-38 round buckets**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3512-133</td>
<td>022639102</td>
<td>5 x 2 to 7 mL (12.5 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-131</td>
<td>022639242</td>
<td>4 x 2.6 to 7 mL (13 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-128</td>
<td>022639269</td>
<td>4 x 4 to 10 mL (16 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-129</td>
<td>022639279</td>
<td>4 x 9 to 15 mL (17.5 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-126</td>
<td>022639200</td>
<td>2 x 15 mL conical tube (not compatible with lid C3512-94)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-121</td>
<td>022639188</td>
<td>1 x 15 mL conical tubes</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-123</td>
<td>022639226</td>
<td>1 x 50 mL conical tubes</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

**Adapters for A-4-38 rectangular buckets**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3512-125</td>
<td>022639323</td>
<td>10 x 5 to 7 mL (13 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-135</td>
<td>022639340</td>
<td>8 x 9 mL tubes (14.5 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-134</td>
<td>022639366</td>
<td>6 x 15 mL tubes (17.5 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-130</td>
<td>022639382</td>
<td>4 x 20 mL tubes (22 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3512-127</td>
<td>022639391</td>
<td>2 x 25 mL tubes (25 mm diameter)</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

**6 x 100 mL Fixed-Angle Rotor (F-34-6-38) for Eppendorf® Centrifuges 5804/5804 R and 5810/5810 R**

EPPENDORF - High-speed rotor for molecular applications in tubes from 0.2 mL to 100 mL (38 mm diameter). Low-weight design (7 lbs./3.2 kg) for easy lifting and ergonomic carrying. The low rotor profile with domed rotor lid provides unmatched tube accessibility and trouble-free tube removal. Maximum speed: 12,000 rpm (11,000 rpm in 5804/5804R/5810). Maximum RCF: 18,500 x g (15,500 rpm in 5804/5804R/5810). Rotor, lids and adapters are autoclavable (20 minutes, 121°C).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-37207</td>
<td>022637207</td>
<td>Rotor 6 x 100 mL with lid</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Adapters**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-37215</td>
<td>022637215</td>
<td>4 x 1.5/2 mL tubes</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-37274</td>
<td>022637274</td>
<td>1 x 15 mL conical tubes</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-37266</td>
<td>022637266</td>
<td>1 x 50 mL conical tubes</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

**4 x 100 mL Swing-Bucket Rotor (A-4-44) for Eppendorf® Centrifuges 5804/5804 R and Centrifuges 5810/5810 R**

EPPENDORF - Rotor accommodates tubes from 0.2 mL to 100 mL. Maximum speed: 5,000 rpm. Maximum RCF: 4,500 x g. Aerosol-tight caps for safe centrifugation of hazardous samples optionally available. Rotor, buckets, lids and adapters are autoclavable (20 minutes, 121°C).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-37401</td>
<td>022637401</td>
<td>Rotor A-4-44 with 4 x 100 mL rectangular buckets</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-37428</td>
<td>022637428</td>
<td>Aerosol-tight lids* for 100 mL rectangular buckets</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

**Adapters**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-37509</td>
<td>022637509</td>
<td>14 x 1.2 to 5 mL tubes (11 mm O.D.)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-37541</td>
<td>022637541</td>
<td>9 x 1.8 to 7 mL tubes (13 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-37568</td>
<td>022637568</td>
<td>7 x 4 to 10 mL tubes (16 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-37584</td>
<td>022637584</td>
<td>6 x 7 to 17 mL tubes (17.5 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-37606</td>
<td>022637606</td>
<td>4 x 15 mL conical tubes</td>
<td>2/pk</td>
</tr>
<tr>
<td>C3514-55</td>
<td>022637673</td>
<td>1 x 50 mL conical tubes</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

*Aerosol-tightness tested and certified by the Centre of Emergency Preparedness and Response, Health Protection Agency, Porton Down, Great Britain.

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To order, call: 800.964.5227
### 4 x 250 mL Swing-Bucket Rotor (A-4-62) for Eppendorf® Centrifuges 5810/5810 R

**EPPENDORF** - Economic swing-bucket rotor A-4-62 accommodates tubes and flasks from 0.2 mL to 250 mL as well as plates up to 53 mm height. Maximum speed: 4,000 rpm. Maximum RCF: 3,250 x g. Aerosol-tight caps for safe centrifugation of hazardous samples optionally available. Rotor, buckets, lids and adapters are autoclavable (20 minutes, 121°C).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-38009</td>
<td>022638009</td>
<td>Rotor A-4-62 with 4 x 250 mL rectangular buckets</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-38068</td>
<td>022638068</td>
<td>Bucket, 3x MTP/1x DWP</td>
<td>4/pk</td>
</tr>
<tr>
<td>226-38033</td>
<td>022638033</td>
<td>Aerosol-tight lids* for 250 mL rectangular buckets</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

#### Adapters

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-38203</td>
<td>022638203</td>
<td>25 x 1.2 to 5 mL tubes (11 mm O.D.)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-38246</td>
<td>022638246</td>
<td>15 x 1.8 to 7 mL tubes (13 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-38262</td>
<td>022638262</td>
<td>12 x 4 to 10 mL tubes (16 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-38301</td>
<td>022638301</td>
<td>12 x 7 to 17 mL tubes (17.5 mm diameter)</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-38289</td>
<td>022638289</td>
<td>9 x 15 mL conical tubes</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-38351</td>
<td>022638351</td>
<td>4 x 50 mL conical tubes**</td>
<td>2/pk</td>
</tr>
<tr>
<td>226-38343</td>
<td>022638343</td>
<td>3 x 50 mL conical tubes**</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

* Aerosol-tightness tested and certified by the Centre of Emergency Preparedness and Response, Health Protection Agency, Porton Down, Great Britain.

****Adapter cannot be used with aerosol-tight cap

### 4 x 500 mL Swing-Bucket Rotor (A-4-81) for Eppendorf® Centrifuges 5810/5810 R

**EPPENDORF** - High-capacity rotor that can handle up to 28 x 50 mL conical or 48 x 15 mL conical tubes as well as up to 72 x 5/7 mL or 64 x 10 mL blood collection tubes. Rotor A-4-81 accommodates buckets for plates up to 60 mm height. Possibility for mixed loading with 2 plate buckets and 2 rectangular tube buckets allows for increased versatility. Maximum speed: 4,000 rpm. Maximum RCF: 3,250 x g. Aerosol-tight caps for safe centrifugation of hazardous samples optionally available. Buckets, lids and adapters are autoclavable (20 minutes, 121°C).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-54047</td>
<td>022654047</td>
<td>30 x 1.5/2 mL aerosol-tight</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-54004</td>
<td>022654004</td>
<td>30 x 1.5/2 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-54080</td>
<td>022654080</td>
<td>24 x 1.5/2 mL aerosol-tight high-speed rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-54128</td>
<td>022654128</td>
<td>24 x MiniPrep kit (or 1.5/2 mL tubes)</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-54403</td>
<td>022654403</td>
<td>2 x MTP plate rotor (plates up to 29 mm height)</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-54306</td>
<td>022654306</td>
<td>6 x 15/50 mL conical rotor including adapter</td>
<td>1/ea</td>
</tr>
<tr>
<td>226-54161</td>
<td>022654161</td>
<td>18 x cryo tube rotor, including adapter</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

### Eppendorf® PCR Plate Adapter for Plate Buckets

**EPPENDORF** - Safe centrifugation of PCR plates (skirted, unskirted and semi-skirted). For use in all MTP and DWP rotors. Optimized bores for most commonly available PCR plates.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>226-38947</td>
<td>022638947</td>
<td>96-well PCR plate</td>
<td>2/pk</td>
</tr>
</tbody>
</table>
Centrifuges and Accessories

StatSpin CytoFuge 2
HEMOCUE - The StatSpin CytoFuge 2 is the perfect solution for your cyto-centrifuge needs. Its simple, understandable controls and new snap-seal filter concentrators make operation easier than ever before. Samples are processed quickly, silently and conveniently on any bench or in a safety cabinet. Results are consistent: easy to scan monolayer cell presentations of excellent morphologic detail.

Specifications:
- Maximum speed ............ 4,400 rpm
- Maximum RCF .............. 1,060 x g
- Cycle times ................. 2, 4, 6, 8, 10 and 30 min.
- Dimensions (H x W x D) .... 5.3 x 6.6 x 8.6 in.
- Power requirements ......... 100–240 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-1</td>
<td>CF02</td>
<td>CytoFuge® 2 centrifuge system</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Replacement parts/accessories

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-14</td>
<td>CRT-2</td>
<td>Rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>B8900-13</td>
<td>CFRC</td>
<td>Cover for rotor B8900-14</td>
<td>1/ea</td>
</tr>
<tr>
<td>B8900-8</td>
<td>FFR1</td>
<td>Filter concentrator, reusable</td>
<td>200/bx</td>
</tr>
<tr>
<td>B8900-10</td>
<td>FFCL</td>
<td>Clip for filter concentrator</td>
<td>4/pk</td>
</tr>
<tr>
<td>B8900-9</td>
<td>CLIP</td>
<td>Clip for cell concentrator</td>
<td>10/pk</td>
</tr>
</tbody>
</table>

Disposable cell concentrators with gasket

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-3</td>
<td>CC01</td>
<td>1-well - disposable</td>
<td>10/bx</td>
</tr>
<tr>
<td>B8900-4</td>
<td>CC03</td>
<td>3-well - disposable</td>
<td>10/bx</td>
</tr>
</tbody>
</table>

StatSpin® Express 2 Centrifuge
HEMOCUE - The StatSpin Express 2 primary tube centrifuge prepares high-quality plasma or serum for chemistry, coag and cardiac markers in only 2 minutes.

This amazingly compact and quiet centrifuge spins standard 5 mL blood collection tubes in only two minutes, yet it produces quality serum or plasma equal to 10-15 minute runs in larger, more costly equipment. Best of all, the Express 2 is small and quiet enough to be used where it's needed most – right at the workstation. The StatSpin Express 2 accepts standard glass or plastic up to 5 mL blood collection tubes (13 x 75 mm or smaller) and the unique rotor design minimizes the chance of breakage.

Specifications:
- Speed/force .......................... 8,500 rpm/4,440 x g
- Cycle times ............................ 30, 120 and 180 sec.
- Maximum tube size .................... 13 x 75 mm (5 mL)
- Dimensions (H x W x D) ................. 6 x 6.6 x 8.6 in.
- Power requirements ................... 100–240 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-61</td>
<td>SSX2</td>
<td>Centrifuge</td>
<td>1/ea</td>
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</table>

Replacement parts

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-67</td>
<td>RTX4</td>
<td>4-place rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>B8900-62</td>
<td>DL01</td>
<td>Disposable chamber liner</td>
<td>10/bx</td>
</tr>
<tr>
<td>B8900-64</td>
<td>SV02</td>
<td>Insert for 3 mL tube (10.25 x 64 mm tube)</td>
<td>4/bx</td>
</tr>
<tr>
<td>B8900-63</td>
<td>SV01</td>
<td>Insert for 5 mL tube (13 x 75 mm tube)</td>
<td>4/bx</td>
</tr>
</tbody>
</table>

StatSpin® Express 3 Centrifuge
HEMOCUE - The Statspin Express 3 primary tube centrifuge can spin 8 tubes up to 10 mL. The centrifuge provides high-quality plasma or serum in 2 minutes. With only 3 settings, it is simple to use. Just select the 2, 3 or 5-minute button and press start. No fumbling with the settings or the need to readjust the speed. The unit beeps when it is done spinning. For safety, the lid remains locked until the rotor comes to a complete stop. Samples can be processed as they arrive in the lab. Now you can process as many as 8 samples at once for high throughput.

The StatSpin Express 3 holds tubes from 1.5–10 mL in size.

Features include a small, round footprint that takes up little bench space and fits well in small corners. Cover interlock system, chamber gasket and proven mechanical containment for operator safety. Certified by a Nationally Recognized Testing Laboratory (NRTL) for the US and Canada. 10% bleach-compatible surfaces and polypropylene rotor make cleaning easy. Disposable bowl liners available for added efficiency.

Specifications:
- Speed/force .......................... 7,200 rpm/4,440 x g at 2 and 3 min., 5,600 rpm/2,685 x g at 5 min.
- Tube size ............................. Accepts blood tubes 1.5 to 10 mL
- Dimensions (H x W x D) ................. 7 x 11 x 10 in.
- Power requirements ................... 100–240 V, 50/60 Hz, 3 amps

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-85</td>
<td>SSX3</td>
<td>Centrifuge</td>
<td>1/ea</td>
</tr>
<tr>
<td>U2251-24</td>
<td>SV10</td>
<td>Insert - 13 x 75 mm</td>
<td>1/pk</td>
</tr>
<tr>
<td>U2251-25</td>
<td>SV11</td>
<td>Insert - 13 x 100 mm</td>
<td>1/pk</td>
</tr>
</tbody>
</table>
StatSpin® Express 4 High-Speed Horizontal Centrifuge

HEMOCUE - Prepare serum or plasma gel tubes in minutes with this high-speed horizontal centrifuge. With only 3 settings, it is simple to use. Just select the 3, 5 or 10 minute button and press start. No fumbling with settings or the need to readjust the speed. For safety, the lid remains locked until the rotor comes to a complete stop. An audible alarm sounds when the cycle is completed. Now you can process as many as 8 samples at once for high throughput. The StatSpin Express 4 is powerful. The rugged brushless motor is maintenance free.

In just 3 minutes, the Express 4 can produce serum or plasma equal to tubes spun for 10 or more minutes in a conventional horizontal centrifuge. It is ideal for rapid separation of gel tubes with flat gel barriers to ensure no cell interference. Versatile adapters for 7 mL and 10 mL tubes come with the unit. It can accommodate tubes from 1.5 mL to 10 mL. Shield interlock and steel bowl provide mechanical containment for operator safety. Certified by a Nationally Recognized Testing Laboratory (NRTL) for the US and Canada. Diagnostic error codes indicate imbalance and reduces chance of operator error.

Specifications:
Cycle times .................................. 5,100 rpm/4,000 x g at 3 and 5 min., 4,500 rpm/3,100 x g at 10 min.
Tube size ...................................... Accepts blood tubes 1.5 to 10 mL
Dimensions (H x W x D) ...................... 8 x 13 x 16 in.
Power requirements .......................... 100–240 V, 50/60 Hz, 2.5 amps

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### Accessories for StatSpin® Express 3 and Express 4 Centrifuges

**HEMOCUE**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U2251-22</td>
<td>DL02</td>
<td>Disposable replacement chamber liner</td>
<td>3/pk</td>
</tr>
<tr>
<td>U2251-23</td>
<td>RTX8</td>
<td>8-place rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>U2251-17</td>
<td>SV05</td>
<td>Insert for BD™ 2 mL tubes</td>
<td>4/pk</td>
</tr>
<tr>
<td>U2251-18</td>
<td>SV06</td>
<td>Insert for 7 mL tubes (16 x 75 mm)</td>
<td>8/pk</td>
</tr>
<tr>
<td>U2251-19</td>
<td>SV07</td>
<td>Insert for 10 mL tubes (16 x 100 mm)</td>
<td>8/pk</td>
</tr>
<tr>
<td>U2251-20</td>
<td>SV08</td>
<td>Insert for 5 mL tubes (13 x 75 mm)</td>
<td>8/pk</td>
</tr>
<tr>
<td>U2251-21</td>
<td>SV09</td>
<td>Insert for 7 mL tubes (13 x 100 mm)</td>
<td>8/pk</td>
</tr>
<tr>
<td>RTH8</td>
<td>RTH8</td>
<td>8 x 10 mL horizontal rotor-use with Express 4 only</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Centrifuges and Accessories**

**Centrifuges/Microcentrifuges**

**StatSpin® MP Multipurpose Centrifuge**

HEMOCUE - The StatSpin® MP is an ideal, general-purpose centrifuge for the stat, clinic or office laboratory. Sample preparation is fast with quality serum or plasma in 30 to 120 seconds.

Small sample requirements make the StatSpin® MP centrifuge ideal for finger stick procedures. This reduces labor and expense involved in venous blood collection. Rotors can easily be changed with a simple push-on or pull-off motion, transforming the centrifuge from hematocrit to urine sediment and blood. The interlocking lid prevents access while in cycle and it is designed to meet international safety standards. Power adapter included. Certified by a Nationally Recognized Testing Laboratory (NRTL) for the US and Canada.

**Specifications:**
- Speed ................................ 15,800 rpm
- RCF ................................... 12,000 x g

**Cycle duration**
- Tube Rotors ........................... 30 seconds
- Urine ................................. 45 seconds
- LipoClear ............................. 95 seconds
- Hematocrit ........................... 120 seconds
- Dimensions (H x W x D) ............ 6 x 6.6 x 8.6 in.
- Power requirements ................. 24 V DC, 1.7 A

**Rotors and Accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-19</td>
<td>SSMP</td>
<td>StatSpin® MP centrifuge</td>
</tr>
<tr>
<td>B71954</td>
<td>B71954</td>
<td>StatSpin® MP with CSD2 digital reader</td>
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**Consumables - Microhematocrits**

<table>
<thead>
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<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-18A</td>
<td>CSD2</td>
<td>Digital hematocrit reader with power supply</td>
</tr>
<tr>
<td>B8900-32</td>
<td>HR05</td>
<td>Hematocrit reader, card style</td>
</tr>
<tr>
<td>HR4C</td>
<td>HR4C</td>
<td>Hematocrit reader, circular style</td>
</tr>
<tr>
<td>B8900-36</td>
<td>TU15-10</td>
<td>Precalibrated urine tube, 1.5 mL flip-cap</td>
</tr>
<tr>
<td>B8900-21</td>
<td>HT9H-10</td>
<td>Glass capillary tube (40 mm, Ammonium Heparin)</td>
</tr>
<tr>
<td>B8900-22</td>
<td>HT9U-10</td>
<td>Glass capillary tube (40 mm, untreated)</td>
</tr>
<tr>
<td>B8900-23</td>
<td>HP8H-10</td>
<td>SafeCrit® capillary tube (40 mm, Sodium Heparin)</td>
</tr>
<tr>
<td>B8900-24</td>
<td>HP8U-10</td>
<td>SafeCrit capillary tube (40 mm, untreated)</td>
</tr>
<tr>
<td>B8900-25</td>
<td>HP4H-10</td>
<td>SafeCrit® capillary tube (75 mm, Sodium Heparin)</td>
</tr>
<tr>
<td>B8900-26</td>
<td>HP4U-10</td>
<td>SafeCrit capillary tube (75 mm, untreated)</td>
</tr>
</tbody>
</table>

**LipoClear® Reagent Tubes (for clearing lipemic samples)**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8900-45</td>
<td>LC10</td>
<td>LipoClear® pre-filled reagent tubes for clearing 0.5 mL of serum or plasma</td>
</tr>
<tr>
<td>B8900-46</td>
<td>LC40</td>
<td>LipoClear® pre-filled reagent tubes for clearing 0.5 mL of serum or plasma</td>
</tr>
<tr>
<td>B8900-47</td>
<td>LC15</td>
<td>LipoClear® pre-filled reagent tubes for clearing 1.5 mL of serum or plasma</td>
</tr>
<tr>
<td>B8900-76</td>
<td>LCP1</td>
<td>LipoClear® Plus reagent for clearing serum or plasma, 30 mL bottle</td>
</tr>
</tbody>
</table>

To order, call: 800.964.5227
Hettich EBA 200/200S Tabletop Centrifuge

HETTICH - The EBA 200/200S is a small centrifuge with a built-in, 8-place angle rotor for blood, urine and pediatric tubes up to 15 mL. The high-performance, EBA 200S provides rapid separation for a quick turnaround of STAT chemistry, coag. and pediatric samples. The EBA 200S achieves 8,000 rpm in a fixed-angle rotor and obtains consistent platelet counts in just minutes.

Specifications:
- Maximum capacity: 8 x 15 mL
- Maximum speed: 8,000 rpm
- Maximum RCF: 6,153 x g
- Dimensions (H x W x D): 9 x 10 x 14 in.
- Power requirements: 115 V, 50/60 Hz
- Warranty: 5 years

Cat. No. Mfr. No. Description Qty.
EBA 200 centrifuge packages
200BLOOD8 200BLOOD8 Angle, (8) 13's, 16's 1/kt
200BLD8PED 200BLOOD8-PED Angle, (8) 0.5 mL pediatric 1/kt
200URISIS4 200URINALYSIS4 Angle, (12) 13's, 16's 1/kt
EBA 200S centrifuge packages
200SBLOOD8 200SBLOOD8 Angle, (8) 13's, 16's 1/kt
200SBLOOD8-PED 200SBLOOD8-PED Angle, (8) 0.5 mL pediatric 1/kt

Hettich EBA 280/280 S Tabletop Centrifuge

HETTICH - The EBA 280/280 S is a small centrifuge with a 90° horizontal rotor for flat separation in all standard blood tubes. The high-speed EBA 280 S version, provides rapid separation for a quick turnaround of your STAT chemistry, coag. and pediatric samples in a swing-out rotor at up to 6,000 rpm. A variety of rotors are available for serology, cell washing, urine and cell culture.

Specifications:
- Maximum capacity: 6 x 50 mL
- Maximum speed: 6,000 rpm
- Maximum RCF: 5,071 x g
- Dimensions (H x W x D): 9.5 x 13 x 15.75 in.
- Power requirements: 115 V, 50/60 Hz
- Warranty: 5 years

Cat. No. Mfr. No. Description Qty.
EBA 280 centrifuge packages
280BLOOD6 280BLOOD6 Horiz., (6) 13's, 16's 1/kt
280BLOOD8 280BLOOD8 Horiz., (8) 16's 1/kt
280BLOOD12 280BLOOD12 Angle, (12) 13's, 16's 1/kt
280BLD6PED 280BLOOD6-PED Angle, (6) 0.5 mL 1/kt
280SERL6-D 280SEROLOGY-D Angle, (12) 5-7 mL, decanting 1/kt
280SERLOGY 280SEROLOGY Angle, (12) 12/13 x 75 mm 1/kt
280URLSIS6 280URINALYSIS6 Horiz., (6) 12 mL (KOVA) 1/kt
EBA 280 S centrifuge packages
280SBLOOD6 280SBLOOD6 Horiz., (6) 13's, 16's 1/kt
280SBL-PED 280SBLOOD6-PED Horiz., (6) 0.5 mL 1/kt

Hettich HAEMATOKRIT 200 Benchtop Centrifuge

HETTICH – Spin 24 capillaries for hematology or 20 capillaries for buffy coat analysis in a compact frame with all-metal containment. Rotor lid doubles as an evaluation disc allowing you to determine hematocrit values without having to remove the capillaries and risk disturbing the sedimentation. Achieve maximum packing density of cells within seven minutes. Ideal for hematology, sports medicine, and neonatology. Complete application packages available.

Specifications:
- Maximum capacity: 24 capillaries
- Maximum speed: 13,000 rpm
- Maximum RCF: 16,060 x g
- Dimensions (H x W x D): 9 x 10 x 14 in.
- Warranty: 5 years

Cat. No. Mfr. No. Description Qty.
270COMPLETE 270COMPLETE Horiz. rotor, (6) blood/urine/ pediatric adapters 1/kt

Hettich EBA 270 Tabletop Centrifuge

HETTICH - The EBA 270 is an affordable, all-in-one tabletop centrifuge providing convenience and reliability for routine applications. The built-in, swing-out rotor delivers 90° separation for blood and urine tubes up to 15 mL. The EBA 270 is ideal for use with standard SST (Serum Separator Tube) gel tubes.

Specifications:
- Maximum capacity: 6 x 15 mL
- Maximum speed: 4,000 rpm
- Maximum RCF: 2,254 x g
- Dimensions (H x W x D): 9 x 13 x 15 in.
- Power requirements: 115 V, 50/60 Hz
- Warranty: 5 years

Cat. No. Mfr. No. Description Qty.
270COMPLETE 270COMPLETE Horiz. rotor, (6) blood/urine/pediatric adapters 1/kt

Hettich HAEMATOKRIT 200 Benchtop Centrifuge

HETTICH – Spin 24 capillaries for hematology or 20 capillaries for buffy coat analysis in a compact frame with all-metal containment. Rotor lid doubles as an evaluation disc allowing you to determine hematocrit values without having to remove the capillaries and risk disturbing the sedimentation. Achieve maximum packing density of cells within seven minutes. Ideal for hematology, sports medicine, and neonatology. Complete application packages available.

Specifications:
- Maximum capacity: 24 capillaries
- Maximum speed: 13,000 rpm
- Maximum RCF: 16,060 x g
- Dimensions (H x W x D): 9 x 10 x 14 in.
- Warranty: 5 years

Cat. No. Mfr. No. Description Qty.
200HEMA20 200HEMA20 HAEMATOKRIT 200, (20) capillaries, disc, buffy 1/kt
200HEMA24 200HEMA24 HAEMATOKRIT 200, (24) capillaries 1/kt
Hettich MIKRO™ 185 Micro Centrifuge

HETTICH - The MIKRO™ 185 offers application versatility by enabling users to run up to 24 microliter tubes, 12 pediatric tubes, or 18 spin column kits in a single, ultra-compact frame. High-performance at 17,008 x g with all-metal containment for added safety. Packages include the centrifuge, rotor, buckets, adapters and lids.

**Specifications:**
- Maximum capacity: 24 x 1.5/2 mL
- Maximum speed: 13,300 rpm
- Maximum RCF: 17,008 x g
- Dimensions (H x W x D): 9 x 10 x 14 in.
- Power requirements: 115 V
- Warranty: 5 years

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
--- | --- | --- | ---
185MICRO | 185MICRO12 | Angle, (12) 1.5-2 mL | 1/kt
185MICR-BC | 185MICROSC-BC | Angle, (18) 1.5-2 mL, SpinColumn, bio-lid | 1/kt
185MICROSC | 185MICROSC | Angle, (24) 0.5, 0.8 mL | 1/kt
185MICRO12 | 185MICRO12-PED | Angle, (24) 0.5, 0.8 mL | 1/kt
185MICRO24 | 185MICRO24 | Angle, (24) 1.5-2 mL, bio-lid | 1/kt

Hettich MIKRO™ 200/200R Benchtop Centrifuges

HETTICH - The MIKRO™ 200 and MIKRO™ 200 R microliter centrifuges perform research centrifugation tasks such as PCR, DNA and RNA easily and effectively. The Fast Cool function refrigerates quickly down to +4°C in 10 to 15 minutes making the MIKRO™ 200R microcentrifuge ideal for the fast-paced laboratory. Highly reliable refrigeration helps ensure that even temperature-sensitive samples are centrifuged correctly.

**Specifications:**
- Maximum capacity: 30 x 1.5/2 mL
- Maximum speed: 15,000 rpm
- Maximum RCF: 21,382 x g
- Dimensions (H x W x D): 10 x 11 x 13.5 in.
- Power requirements: 115 V, 50/60 Hz
- Temperature control: –10°C to +40°C (MIKRO 200R)
- Warranty: 5 years

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
--- | --- | --- | ---
C862124000 | 2400-01 | MIKRO™ 200 model - 115 V (see package listings below) | 1/kt
C862124050 | 2405-01 | MIKRO™ 200R refrigerated model - 115 V (see package listings below) | 1/kt

**MIKRO™ 200 centrifuge packages**
- 200CRYO | 200CRYO | Angle, (20) cryo tubes, 1.8 mL | 1/kt
- 200CRYO-BC | 200CRYO-BC | Angle, (20) cryo tubes, 1.8 mL, bio-lid | 1/kt
- 200MIC24BC | 200MICRO24-BC | Angle, (24) microliter tubes, 1.5-2 mL, bio-lid | 1/kt
- 200MIC30BC | 200MICRO30-BC | Angle, (30) microliter tubes, 1.5-2 mL, bio-lid | 1/kt
- 200MICSTRP | 200MICROSTRIP | Angle, 4 x 8 PCR strips | 1/kt
- 200MICROSC | 200MICROSC-BC | Angle, (24) SpinColumn, bio-lid | 1/kt

**MIKRO™ 200R centrifuge packages**
- 200RCRYO | 200RCRYO | Angle, (20) cryo tubes, 1.8 mL | 1/kt
- 200RCRYO-BC | 200RCRYO-BC | Angle, (20) cryo tubes, 1.8 mL, bio-lid | 1/kt
- 200RMIC24BC | 200RMICRO24-BC | Angle, (24) microliter tubes, 1.5-2 mL, bio-lid | 1/kt
- 200RMIC30BC | 200RMICRO30-BC | Angle, microliter tubes, (30) 1.5-2 mL, bio-lid | 1/kt
- 200RMICSTRP | 200RMICROSTRIP | Angle, 4 x 8 PCR strips | 1/kt
- 200RMICROS | 200MICROSC-BC | Angle, (24) SpinColumn, bio-lid | 1/kt
Hettich MIKRO™ 220/220R Benchtop Centrifuges

HETTICH - The MIKRO™ 220 and MIKRO™ 220R are advanced microcentrifuges with Quiet Operation. High-throughput with a maximum capacity of 48 microliter tubes and a maximum RCF of 31,514 x g. The MIKRO™ 220/220R are ideal for microliter tubes required for PCR, DNA and RNA applications. The units will also accommodate blood tubes, conical tubes and round-bottom centrifuge tubes up to 50 mL.

Specifications:
- Drum rotor capacity: 60 x 1.5–2 mL
- Maximum speed: 18,000 rpm
- Maximum RCF: 31,514 x g
- Warranty: 5 years

Specifications for MIKRO™ 220 (C862122000):
- Fixed angle capacity: 48 x 0.2–2 mL and 6 x 50 mL
- Dimensions (H x W x D): 12 x 13 x 16.5 in.

Specifications for MIKRO™ 220R (C862122051):
- Fixed angle capacity: 48 x 0.2–2 mL and 6 x 50 mL
- Temperature control: –20°C to +40°C
- Dimensions (H x W x D): 12 x 13 x 25.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>C862122000</td>
<td>2200-01</td>
<td>MIKRO™ 220 model - 115 V</td>
<td>1/kt</td>
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<tr>
<td>C862122051</td>
<td>2205-01</td>
<td>MIKRO™ 220R refrigerated model - 115 V</td>
<td>1/kt</td>
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</table>

MIKRO™ 220 centrifuge packages
- 220CRYO
- 220CRYO-BC
- 220MICRO24
- 220MICRO30
- 220MICRO48
- 220MICRO90
- 220MCRSTRP

MIKRO™ 220R centrifuge packages
- 220RCRYO
- 220RCryo-BC
- 220RMICR24
- 220RMICR30
- 220RMICR48
- 220RMICR90
- 220RMCSTRP
Hettich ROTANTA 460/460R Benchtop Centrifuges

HETTICH - The ROTANTA 460/460R benchtop centrifuges offer enhanced performance with an extended range of accessories that help guarantee fast, trouble-free operation in daily laboratory use. Features special braking ramp for spinning blood bags. With a maximum capacity of 3 L per run, the Hettich ROTANTA 460/460R tabletop centrifuges are designed for clinics and laboratory centers, as well as in life science R & D laboratories.

In addition to standard tubes, the ROTANTA 460 also accommodates a large variety of specialty applications such as blood bags, cytology, plates, chrome bath and Schlenk tubes. Available in non-refrigerated (460) and refrigerated (460R) versions.

Specifications:
- Maximum capacity: 4 x 750 mL
- Maximum speed: 15,000 rpm
- Maximum RCF: 24,400 x g
- Power requirements: 110–115 V, 60 Hz
- Warranty: 5 years

### ROTANTA 460 centrifuge packages

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>C8622-6374</td>
<td>5650-01</td>
<td>ROTANTA 460 model (see package listings below)</td>
<td>1/kt</td>
</tr>
<tr>
<td>C8622-6375</td>
<td>5660-01</td>
<td>ROTANTA 460R refrigerated model (see package listings below)</td>
<td>1/kt</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>460BLOD2BC</td>
<td>460BLOOD2-BC</td>
<td>Horiz., (47) 13’s, (38) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BLOD4BC</td>
<td>460BLOOD4-BC</td>
<td>Horiz., (84) 13’s, (76) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BLOD4</td>
<td>460BLOOD4B-BC</td>
<td>Horiz., (108) 13’s, (88) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BLODHC</td>
<td>460BLOODHC</td>
<td>Horiz., (196) 13’s, (148) 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BLDHCBC</td>
<td>460BLOODHC-BC</td>
<td>Horiz., (196) 13’s, (148) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BT250BC</td>
<td>460BOTTLE-250-BC</td>
<td>Horiz., (4) 250/290 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BT750BC</td>
<td>460BOTTLE-750-BC</td>
<td>Horiz., (4) 650/750 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460CCLT2BC</td>
<td>460CELLCULTURE2-BC</td>
<td>Horiz., (28) 15 mL, (14) 50 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460CCLT4BC</td>
<td>460CELLCULTURE4-BC</td>
<td>Horiz., (56) 15 mL, (28) 50 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460CCLTEHC</td>
<td>460CELLCULTUREHC</td>
<td>Horiz., (96) 15 mL, (40) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>460PLATE</td>
<td>460PLATE</td>
<td>Horiz., (24) plates</td>
<td>1/kt</td>
</tr>
<tr>
<td>460PLATEBC</td>
<td>460PLATE-BC</td>
<td>Horiz., (24) plates, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460PHTHSLBC</td>
<td>460PLATEHS-BC</td>
<td>Horiz., HS, (12) plates, bio-lids</td>
<td>1/kt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>460RBLD2BC</td>
<td>460BLOOD2-BC</td>
<td>Horiz., (47) 13’s, (38) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RBLD4BC</td>
<td>460BLOOD4-BC</td>
<td>Horiz., (84) 13’s, (76) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RBLD4</td>
<td>460BLOOD4B-BC</td>
<td>Horiz., (108) 13’s, (88) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RLODHC</td>
<td>460BLOODHC</td>
<td>Horiz., (196) 13’s, (148) 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>460BDHHCBC</td>
<td>460BLOODHC-BC</td>
<td>Horiz., (196) 13’s, (148) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RCLTHC</td>
<td>460CELLCULTUREHC</td>
<td>Horiz., (96) 15 mL, (40) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RPLATE</td>
<td>460PLATE</td>
<td>Horiz., (24) plates</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RPLATBC</td>
<td>460PLATE-BC</td>
<td>Horiz., (24) plates, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RPLHSLBC</td>
<td>460PLATEHS-BC</td>
<td>Horiz., HS, (12) plates, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RB250BC</td>
<td>460BOTTLE-250-BC</td>
<td>Horiz., (4) 250/290 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RB750BC</td>
<td>460BOTTLE-750-BC</td>
<td>Horiz., (4) 650/750 mL, bio-lids</td>
<td>1/kt</td>
</tr>
</tbody>
</table>

### ROTANTA 460R centrifuge packages

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>C8622-6374 (ROTANTA 460)</td>
<td>5650-01</td>
<td>Dimensions (H x W x D): 18 x 22 x 28 in.</td>
<td>1/kt</td>
</tr>
<tr>
<td>C8622-6375 (ROTANTA 460 R)</td>
<td>5660-01</td>
<td>Temperature control: –20°C to +40°C</td>
<td>1/kt</td>
</tr>
</tbody>
</table>
## Hettich ROTANTA 460RF Floor Model Centrifuge

HETTICH - Powerful and versatile with robust and steady temperature control system. At a 3 L capacity per run, this floor model centrifuge is capable of virtually any application you choose. Supports a high-speed plate rotor that reaches a RCF of 6,446. Also available as an underbench or benchtop model. Inquire for more information.

### Specifications:
- Maximum capacity: 4 x 750 mL
- Maximum speed: 15,000 rpm
- Maximum RCF: 24,400 x g
- Temperature control: –20°C to +40°C
- Power requirements: 110–115 V 60 Hz
- Warranty: 5 years
- Dimensions (H x W x D): 38 x 22 x 27 in.

### Specifications Table

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tr>
<td>ROTANTA 460RF centrifuge packages</td>
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<tr>
<td>460RFBD2BC</td>
<td>460RFBLOOD2-BC</td>
<td>Horiz., (42) 13’s, (38) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RFBD4BC</td>
<td>460RFBLOOD4-BC</td>
<td>Horiz., (84) 13’s, (76) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RFBLOC</td>
<td>460RFBLOOD4B-BC</td>
<td>Horiz., (108) 13’s, (88) 16’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RFBLDHC</td>
<td>460RFBLOODHC</td>
<td>Horiz., (196) 13’s, (148) 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>46RFBDHBCBC</td>
<td>460RFBLOODHC-BC</td>
<td>Horiz., (196) 13’s, (148) 16’s, bio-lids</td>
<td>1/kt</td>
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<tr>
<td>460RFBLOO</td>
<td>460RFBLOOD4</td>
<td>Horiz., (4) 450 mL bag</td>
<td>1/kt</td>
</tr>
<tr>
<td>46DBAG4-BC</td>
<td>460RFBLOODBAG4</td>
<td>Horiz., (4) 450 mL bag, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>4RFBT250BC</td>
<td>460RFBOTTLE-250-BC</td>
<td>Horiz., (4) 250/290 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>4RFBT750BC</td>
<td>460RFBOTTLE-750-BC</td>
<td>Horiz., (4) 650/750 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>46RFCELLHC</td>
<td>460RFCELLCULTUREHC</td>
<td>Horiz., (96) 15 mL, (40) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RFPLATE</td>
<td>460RFPLATE</td>
<td>Horiz., (24) plates</td>
<td>1/kt</td>
</tr>
<tr>
<td>460RFPLTEBC</td>
<td>460RFPLATE-BC</td>
<td>Horiz., (24) plates, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>4RFPLTHSBC</td>
<td>460RFPLATEHS-BC</td>
<td>Horiz., HS, (12) plates, bio-lids</td>
<td>1/kt</td>
</tr>
</tbody>
</table>

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- Quick orders
- Order status
- Review purchase history

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Hettich ROTINA™ 380/380R Benchtop Centrifuges

HETTICH - The ROTINA™ 380 and 380R benchtop centrifuges save you space, only 18 in. wide, while spinning a large quantity of centrifuge tubes per run. In addition to all standard applications, the ROTINA™ 380 general-purpose centrifuge can handle a variety of specialty applications such as cytology, cell culture flasks and plates. Available in non-refrigerated 380 and refrigerated 380R versions.

Specifications:

<table>
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<th>Cat. No.</th>
<th>Mfr. No.</th>
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<th>Qty.</th>
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<tr>
<td>C8621-6347</td>
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<td>ROTINA 380 model (see package listings below)</td>
<td>1/kt</td>
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<tr>
<td>C8621-6348</td>
<td>1706-01</td>
<td>ROTINA 380R refrigerated model (see package listings below)</td>
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**ROTINA™ 380 centrifuge packages**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>380BLOOD2</td>
<td>380BLOOD2</td>
<td>Horiz., (32) 13’s, (26) 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>380BLOOD2BC</td>
<td>380BLOOD2-BC</td>
<td>Horiz., (32) 13’s, (26) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380BLOOD4</td>
<td>380BLOOD4</td>
<td>Horiz., (64) 13’s, (52) 16’s</td>
<td>1/kt</td>
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<tr>
<td>380BLOOD4BC</td>
<td>380BLOOD4-BC</td>
<td>Horiz., (64) 13’s, (52) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380BOTTLE</td>
<td>380BOTTLE</td>
<td>Horiz., (4) 250/290 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>380BOTLEBC</td>
<td>380BOTTLE-BC</td>
<td>Horiz., (4) 250/290 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380CLCLTR2</td>
<td>380CELLCULTURE2</td>
<td>Horiz., (18) 15 mL, (8) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>380CLLC2BC</td>
<td>380CELLCULTURE2-BC</td>
<td>Horiz., (18) 15 mL, (8) 50 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380CLCLR4</td>
<td>380CELLCULTURE4</td>
<td>Horiz., (36) 15 mL, (16) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>380CLCLR4BC</td>
<td>380CELLCULTURE4-BC</td>
<td>Horiz., (36) 15 mL, (16) 50 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380PLATE</td>
<td>380PLATE</td>
<td>Horiz., (10) microtiter</td>
<td>1/kt</td>
</tr>
</tbody>
</table>

**ROTINA™ 380R centrifuge packages**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>380RBLOOD2</td>
<td>380RBLOOD2</td>
<td>Horiz., (32) 13’s, (26) 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RBLOOD2BC</td>
<td>380RBLLOOD2-BC</td>
<td>Horiz., (32) 13’s, (26) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RBLOOD4</td>
<td>380RBLLOOD4</td>
<td>Horiz., (64) 13’s, (52) 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RBLLOOD4BC</td>
<td>380RBLLOOD4-BC</td>
<td>Horiz., (64) 13’s, (52) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RBOTTLE</td>
<td>380RBOTTLE</td>
<td>Horiz., (4) 250/290 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RBOTLEBC</td>
<td>380RBOTTLE-BC</td>
<td>Horiz., (4) 250/290 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RCLLR2</td>
<td>380RCLELLCULTURE2</td>
<td>Horiz., (18) 15 mL, (8) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RCLCLR4</td>
<td>380RCLELLCULTURE4</td>
<td>Horiz., (36) 15 mL, (16) 50 mL</td>
<td>1/kt</td>
</tr>
<tr>
<td>380RPLATE</td>
<td>380RPLATE</td>
<td>Horiz., (10) microtiter</td>
<td>1/kt</td>
</tr>
</tbody>
</table>
Hettich ROTINA™ 420/420R Benchtop Centrifuges

HETTICH - The ROTINA™ 420 is a high-performance benchtop centrifuge for large sample volumes, yet not overly large in size. With a maximum capacity of 4 x 600 mL, (104) blood collection tubes, (52) 15 mL conical tubes or (16) plates, the ROTINA 420 and ROTINA 420R refrigerated (–20°C to +40°C) centrifuges are ideal for applications in clinical chemistry, in biotechnology and in life science research facilities.

The ROTINA 420 centrifuge features the high-capacity Versa-Rotor for tubes, bottles and plates eliminating the need to change, purchase or store additional rotors.

Specifications:
- Maximum capacity ............. 4 x 600 mL
- Maximum speed ............... 15,000 rpm
- Maximum RCF ................. 24,400 x g
- Power requirements  ........... 115 V
- Warranty  ...................... 5 years

C862147010 (ROTINA™ 420)
Dimensions (H x W x D) ......... 17 x 20 x 25.5 in.

C862147060 (ROTINA™ 420R)
Temperature control ............. –20°C to +40°C
Dimensions (H x W x D) ......... 17 x 28 x 26 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C862147010</td>
<td>4701-01</td>
<td>ROTINA 420 model (see package listings below)</td>
<td>1/kt</td>
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<tr>
<td>C862147060</td>
<td>4706-01</td>
<td>ROTINA 420R refrigerated model (see package listings below)</td>
<td>1/kt</td>
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</table>

**ROTINA™ 420 centrifuge packages**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>420BLOD2BC</td>
<td>420BLOOD2-BC</td>
<td>Horiz., (52) 13’s, (36) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BLOD4BC</td>
<td>420BLOOD4-BC</td>
<td>Horiz., (104) 13’s, (72) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BT250BC</td>
<td>420BOTTLE-250-BC</td>
<td>Horiz., (4) 250 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BT400BC</td>
<td>420BOTTLE-400-BC</td>
<td>Horiz., (4) 400 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BOTTLE6</td>
<td>420BOTTLE-600-BC</td>
<td>Horiz., (4) 600 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420CLCT2BC</td>
<td>420CELLCULTURE2-BC</td>
<td>Horiz., (26) 15’s, (10) 50’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420CLCT4BC</td>
<td>420CELLCULTURE4-BC</td>
<td>Horiz., (52) 15’s, (20) 50’s, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420PLATE</td>
<td>420PLATE</td>
<td>Horiz., (16) microtiter</td>
<td>1/kt</td>
</tr>
</tbody>
</table>

**ROTINA™ 420R centrifuge packages**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>420BLOD2BC</td>
<td>420BLOOD2-BC</td>
<td>Horiz., (52) 13’s, (36) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BLOD4BC</td>
<td>420BLOOD4-BC</td>
<td>Horiz., (104) 13’s, (72) 16’s, (4) bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BOTTLE250BC</td>
<td>420BOTTLE-250-BC</td>
<td>Horiz., (4) 250 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BOTTLE400BC</td>
<td>420BOTTLE-400-BC</td>
<td>Horiz., (4) 400 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420BOTTLE600BC</td>
<td>420BOTTLE-600-BC</td>
<td>Horiz., (4) 600 mL, bio-lids</td>
<td>1/kt</td>
</tr>
<tr>
<td>420RPLATE</td>
<td>420RPLATE</td>
<td>Horiz., (16) microtiter</td>
<td>1/kt</td>
</tr>
</tbody>
</table>
**Hettich ROTOFIX™ 32A Benchtop Centrifuge**

HETTICH - The ROTOFIX™ 32A is a rugged general-purpose benchtop centrifuge ideal for routine laboratory tasks in clinical, research, medical and industrial labs.

A variety of swing-out and fixed angle rotors are available, as well as a complete cytology system with bio-containment that accommodates up to 12 slide carriers. The ROTOFIX™ 32A comes standard with a solid metal housing and metal lid locks for extra protection to help ensure durability and user safety.

**Specifications:**
- Maximum capacity: 4 x 100 mL or 32 x 15 mL
- Maximum speed: 6,000 rpm
- Maximum RCF: 4,226 x g
- Dimensions (H x W x D): 10 x 14 x 17 in.
- Power requirements: 115 V
- Warranty: 5 years

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C862112060</td>
<td>1206-01</td>
<td>ROTOFIX™ 32A benchtop centrifuge (see package listings below)</td>
<td>1/kt</td>
</tr>
</tbody>
</table>

**ROTOFIX™ 32A centrifuge packages**

- **CYTOCLIP-R** CYTOCLIP-R Basic clip rotor, (12) clips, (50) funnels | 1/kt |
- **32ACYTOCLP** 32ACYTOCLIP12 Clip rotor, (12) steel clips, (50) funnels | 1/kt |
- **CYTOCLIPRS** CYTOCLIP-RS Shielded clip rotor, (12) clips, (50) funnels | 1/kt |
- **32CCLP12S** 32ACYTOCLIP12-S Shielded clip rotor, (12) steel clips, (50) funnels | 1/kt |
- **32ABLOOD** 32ABLOOD Horiz., (20) 13s and (16) 16s | 1/kt |
- **32ABLOODBC** 32ABLOOD-BC Horiz., (20) 13s and (16) 16s, bio-lid | 1/kt |
- **32ACLLCTR6** 32ACELLCULTURE6 Horiz., (6) 15/50 mL | 1/kt |
- **32ACLLCTR4** 32ACELLCULTURE4 Horiz., (16) 15 mL, (4) 50 mL | 1/kt |
- **32AURINLYS** 32AURINALYSIS Horiz., (12) KOVA | 1/kt |

**Hettich ROTIXA 500RS Floor Model Centrifuge**

HETTICH - The ROTIXA 500RS is a compact and versatile high-volume blood processing centrifuge. With the capacity to spin up to (4) 1 L blood bags or 192 blood tubes, and the support of convenient accessories such as the HettLiner insert, the ROTIXA 500RS is ideal for blood processing laboratories big and small. Its robust and steady temperature control system protects your samples by maintaining a consistent temperature throughout centrifugation. The ergonomic front-facing control panel is lockable and programmable with easy recall of application parameters, ensuring repeatability and limiting programming errors.

**Specifications:**
- Maximum capacity: 4 x 1,000 mL or 192 blood tubes
- Maximum speed: 11,500 rpm
- Maximum RCF: 17,441 x g
- Temperature control: –20°C to +40°C
- Dimensions (H x W x D): 38.3 x 25.6 x 32 in.
- Power requirements: 115 V
- Warranty: 5 years

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4950-08H</td>
<td>4950-08</td>
<td>ROTIXA 500RS floor model (see package listings below)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**ROTIXA 500RS centrifuge packages**

- **ROTIXA4BC** ROTIXABLOOD4-BC Horiz., (120) 13’s, 16’s | 1/kt |
- **ROTDBG4** ROTIXABLOODBAG4 Horiz., (4) 450/500 mL | 1/kt |
- **ROTDBG4-HC** ROTIXABLOODBAG4-HC Horiz., (4) 750/1,000 mL | 1/kt |
- **ROTIXA4E4** ROTIXABOTTLE4 Horiz., (4) bottles | 1/kt |
- **RPLATE4-BC** ROTIXAPLATE4-BC Horiz., (24) plates | 1/kt |

**Accessories**

- **4564HC** 4564 Hettliner blood bag support | 1/ea |
- **4566HC** 4566 Set of counterweights for 4584 | 1/ea |
Hettich ROTOFIX 46/46H Benchtop Centrifuges

HETTICH - The ROTOFIX 46/46H is available in both ambient and heated versions for research and industrial applications. The powerful and flexible benchtop centrifuge is ideal for organic and inorganic chemistry, preparatory and analytical chemistry, electroplating, and petrochemistry.

Accessories with solutions for a variety of specialty applications.

Universal swing-out rotor for tubes and bottles ranging from 3 to 290 mL.

**Specifications:**

<table>
<thead>
<tr>
<th>Power requirements</th>
<th>120 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warranty</td>
<td>5 years</td>
</tr>
</tbody>
</table>

**ROTOFIX 46**

- Maximum capacity: 4 x 290 mL
- Maximum speed: 4,000 rpm
- Maximum RCF: 3,095 x g
- Dimensions (H x W x D): 14 x 21 x 25.5 in.

**ROTOFIX 46H**

- Maximum capacity: 4 x 100 mL
- Maximum speed: 2,000 rpm
- Maximum RCF: 984 x g
- Temperature control: +10°C to +90°C
- Dimensions (H x W x D): 14 x 21 x 25.5 in.

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
--- | --- | --- | ---
4600-01H | 4600-01 | ROTOFIX 46 model (see package listings below) | 1/kt
4600-51H | 4600-51 | ROTOFIX 46H heated model (see package listings below) | 1/kt

**ROTOFIX 46 centrifuge packages**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>46SCHLENK</td>
<td>46SCHLENK</td>
<td>Angle, (6) 25/50 mL Schlenk</td>
</tr>
<tr>
<td>46ASTM-50</td>
<td>46ASTM-50</td>
<td>Horiz., (4) 50 mL ASTM</td>
</tr>
<tr>
<td>46ASTM100A</td>
<td>46ASTM-100A</td>
<td>Horiz., (4) 100 mL (58 x 161 mm) ASTM</td>
</tr>
<tr>
<td>46ASTM100D</td>
<td>46ASTM-100D</td>
<td>Horiz., (4) 100 mL (45 x 165 mm) ASTM</td>
</tr>
<tr>
<td>46ASTM100B</td>
<td>46ASTM-100B</td>
<td>Horiz., (4) 100 mL (44 x 168 mm) ASTM</td>
</tr>
<tr>
<td>46ASTM100C</td>
<td>46ASTM-100C</td>
<td>Horiz., (4) 100 mL (37 x 200 mm) ASTM</td>
</tr>
<tr>
<td>46BABCOCK</td>
<td>46BABCOCK</td>
<td>Horiz., (4) Babcock</td>
</tr>
<tr>
<td>46CHROME</td>
<td>46CHROME</td>
<td>Horiz., (6) 30 mL chrome bath</td>
</tr>
</tbody>
</table>

**ROTOFIX 46H centrifuge packages**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>46SCHLENK</td>
<td>46SCHLENK</td>
<td>Angle, (6) 25/50 mL Schlenk</td>
</tr>
<tr>
<td>46ASTM-50</td>
<td>46ASTM-50</td>
<td>Horiz., (4) 50 mL ASTM</td>
</tr>
<tr>
<td>46ASTM100A</td>
<td>46ASTM-100A</td>
<td>Horiz., (4) 100 mL (58 x 161 mm) ASTM</td>
</tr>
<tr>
<td>46ASTM100D</td>
<td>46ASTM-100D</td>
<td>Horiz., (4) 100 mL (45 x 165 mm) ASTM</td>
</tr>
<tr>
<td>46ASTM100B</td>
<td>46ASTM-100B</td>
<td>Horiz., (4) 100 mL (44 x 168 mm) ASTM</td>
</tr>
<tr>
<td>46ASTM100C</td>
<td>46ASTM-100C</td>
<td>Horiz., (4) 100 mL (37 x 200 mm) ASTM</td>
</tr>
<tr>
<td>46BABCOCK</td>
<td>46BABCOCK</td>
<td>Horiz., (4) Babcock</td>
</tr>
<tr>
<td>46CHROME</td>
<td>46CHROME</td>
<td>Horiz., (6) 30 mL chrome bath</td>
</tr>
</tbody>
</table>

---

Hettich ROTO SILENTA 630RS Floor Standing Centrifuge

HETTICH - Engineered for whole blood processing and large sample volumes, the ROTO SILENTA is capable of spinning (12) 750 mL blood bags with or without satellite bags. The ROTO SILENTA combines a powerful motor with a wide range of accessories and a secure, hygienic environment to enable a fast, safe workflow. Its low deck height and open chamber provide easy access to the centrifuge rotor for ergonomic loading and unloading. Additionally, open access to the centrifuge chamber simplifies the cleaning process and reduces regular maintenance. Use one rotor for 6- and 12-place blood bag setups.

Multiple accessories are available such as Hettliner blood bag supports, Hettich loading station for double inserts, balancing inserts and counter weights for a complete effortless workflow.

**Specifications:**

<table>
<thead>
<tr>
<th>Maximum capacity</th>
<th>6 x 2,000 mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed</td>
<td>6,000 rpm</td>
</tr>
<tr>
<td>Maximum RCF</td>
<td>6,520 x g</td>
</tr>
<tr>
<td>Temperature control</td>
<td>–20°C to +40°C</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>38 x 32 x 40 in.</td>
</tr>
<tr>
<td>Power requirements</td>
<td>208 V, 3 phase, 60 Hz</td>
</tr>
<tr>
<td>Warranty</td>
<td>5 years</td>
</tr>
</tbody>
</table>

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
--- | --- | --- | ---
C8621-6320 | 5005-08 | ROTO SILENTA 630RS floor model (see package listings below) | 1/kt

**ROTO SILENTA 630RS centrifuge packages**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILENG6-BC</td>
<td>SILENTABLOODBAG6-BC</td>
<td>Horiz., (6) 450/500 mL, bio-lids</td>
</tr>
<tr>
<td>SILENTEL2L</td>
<td>SILENTABOTTLE2L</td>
<td>Horiz., (6) 2 L</td>
</tr>
<tr>
<td>SILENT6BC6HC</td>
<td>SILENTABLOODBAG6-6HC</td>
<td>Horiz., (6) 500 mL – 1 L</td>
</tr>
<tr>
<td>SILENAG12A</td>
<td>SILENTABLOODBAG12A</td>
<td>Horiz., (12) 450 mL</td>
</tr>
<tr>
<td>SILEBAG12C</td>
<td>SILENTABLOODBAG12C</td>
<td>Horiz., (12) 500 mL</td>
</tr>
<tr>
<td>SILENTG12B</td>
<td>SILENTABLOODBAG12B</td>
<td>Horiz., (12) 500/750 mL</td>
</tr>
</tbody>
</table>

**Accessories**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4587-AHC</td>
<td>4587-A</td>
<td>Balancing insert for no. 4592-H</td>
</tr>
<tr>
<td>4509HC</td>
<td>4509</td>
<td>Hettich loading station for double insert</td>
</tr>
<tr>
<td>4564HC</td>
<td>4564</td>
<td>Hettliner blood bag support</td>
</tr>
<tr>
<td>4566HC</td>
<td>4566</td>
<td>Set of counterweights for 4584</td>
</tr>
</tbody>
</table>
Hettich UNIVERSAL™ 320/320R Benchtop Centrifuges

HETTICH - The UNIVERSAL™ 320 and 320R benchtop general purpose centrifuges provide excellent performance and a comprehensive range of accessories. Excellent performance and a comprehensive range of accessories enable the UNIVERSAL 320 to carry out virtually any centrifugation task including plates, blood tubes, cell culture, micro tubes and cytology. Available with or without refrigeration, the UNIVERSAL 320R provides a temperature range from –20°C to +40°C.

Specifications:
- Maximum capacity: 4 x 200 mL or 6 x 85 mL
- Maximum speed: 15,000 rpm
- Maximum RCF: 21,382 x g
- Power requirements: 115 V
- Warranty: 5 years

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C862114010</td>
<td></td>
<td>UNIVERSAL™ 320 model (see package listings below)</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114060</td>
<td></td>
<td>UNIVERSAL™ 320R refrigerated model (see package listings below)</td>
<td>1/kt</td>
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UNIVERSAL™ 320 centrifuge packages

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>C862114010</td>
<td></td>
<td>CYTOCLIP-R Clip rotor only, (12) steel clips, (50) funnels</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114060</td>
<td></td>
<td>CYTOCLIP-R Clip rotor, (12) steel clips, (50) funnels</td>
<td>1/kt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CYTOCLIP-R Shielded clip rotor, (12) clips, funnels</td>
<td>1/kt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>320CYTOCLIP12-5 Shielded clip rotor, (12) steel clips, (50) funnels</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114010</td>
<td></td>
<td>320BLOOD Horiz., (28) 13’s, 16’s</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114060</td>
<td></td>
<td>320BLOOD4-BC Horiz., (28) 13s, (20) 16s, bio-lid</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114010</td>
<td></td>
<td>320CELLCULTURE4 Horiz., (16) 15 mL, (4) 50 mL, conical</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114060</td>
<td></td>
<td>320CELLCULTURE4-BC Horiz., (8) 15 mL, (4) 50 mL conical, bio-lid</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114010</td>
<td></td>
<td>320CONICAL 5-BC Horiz., (16) 5 mL conical</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114060</td>
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<td>320PLATE Horiz., (10) microtiter</td>
<td>1/kt</td>
</tr>
<tr>
<td>C862114010</td>
<td></td>
<td>320URINALYSIS Horiz., (12) 12 mL/KOVA, (16) 10 mL</td>
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UNIVERSAL™ 320R centrifuge packages

<table>
<thead>
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<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>C862114010</td>
<td></td>
<td>320RPLATE Horiz., (10) microtiter</td>
<td>1/kt</td>
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<tr>
<td>C862114060</td>
<td></td>
<td>320RPLATE Horiz., (10) microtiter</td>
<td>1/kt</td>
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</table>

To order, call: 800.964.5227
Centrifuges and Accessories

Hettich Accessories for UNIVERSAL™ 320/320R

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>1554HH</td>
<td>1554</td>
<td>Swing-out rotor, 4-place</td>
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<td>1563</td>
<td>Carrier</td>
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<td>1592HH</td>
<td>1592</td>
<td>Adapter, 1-place, 12/15 mL capacity</td>
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<tr>
<td>1560HH</td>
<td>1560</td>
<td>Carrier with clamp lock</td>
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<td>1561HH</td>
<td>1561</td>
<td>Lid, bio-containment</td>
<td>1/ea</td>
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<tr>
<td>1573HH</td>
<td>1573</td>
<td>Adapter, 1-place, 25 mL capacity</td>
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<td>1578HH</td>
<td>1578</td>
<td>Adapter, 1-place, 30 mL capacity</td>
<td>1/ea</td>
</tr>
<tr>
<td>1585HH</td>
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<td>Adapter, 1-place, 30 mL capacity</td>
<td>1/ea</td>
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<tr>
<td>1587HH</td>
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<td>Adapter, 1-place, 30 mL capacity</td>
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<tr>
<td>1582HH</td>
<td>1582</td>
<td>Adapter, 1-place, 25/30 mL capacity</td>
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<tr>
<td>1574HH</td>
<td>1574</td>
<td>Adapter, 1-place, 50 mL capacity</td>
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<td>1586HH</td>
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<td>1575HH</td>
<td>1575</td>
<td>Adapter, 1-place, 94 mL capacity</td>
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<td>1594HH</td>
<td>1594</td>
<td>Adapter, 1-place, 125/150 mL capacity</td>
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<tr>
<td>1577HH</td>
<td>1577</td>
<td>Adapter, 2-place, 15 mL capacity</td>
<td>1/ea</td>
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<tr>
<td>1591HH</td>
<td>1591</td>
<td>Adapter, 3-place, 12 mL capacity</td>
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</tr>
<tr>
<td>1595HH</td>
<td>1595</td>
<td>Adapter, 3-place, 15 mL capacity</td>
<td>1/ea</td>
</tr>
<tr>
<td>1593HH</td>
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</tr>
<tr>
<td>1581HH</td>
<td>1581</td>
<td>Adapter, 4-place, 12 mL capacity</td>
<td>1/ea</td>
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<tr>
<td>1572HH</td>
<td>1572</td>
<td>Adapter, 4-place, 15 mL capacity</td>
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<tr>
<td>1588HH</td>
<td>1588</td>
<td>Adapter, 5-place, 9/15 mL capacity</td>
<td>1/ea</td>
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<tr>
<td>1584HH</td>
<td>1584</td>
<td>Adapter, 5-place, 10 mL capacity</td>
<td>1/ea</td>
</tr>
<tr>
<td>1571HH</td>
<td>1571</td>
<td>Adapter, 7-place, 1.5/2 mL capacity</td>
<td>1/ea</td>
</tr>
<tr>
<td>1589HH</td>
<td>1589</td>
<td>Adapter, 7-place, 5/6/7 mL capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Hettich Rolling Cabinets

HETTICH - Moveable cabinets for Hettich centrifuges save space on the laboratory bench by providing enhanced flexibility. The cabinets lower the centrifuge to an ergonomic height for easy loading and unloading. Each cabinet provides ample storage for user manuals, rotors, buckets and accessories. Important documentation and accessories remain with the centrifuge at all times. All cabinets are of sturdy design and feature casters with two wheel locks, drawer locks and 2 keys.

Cabinets are available in 1 and 2 drawer versions both high and low varieties. Please check dimensions of your centrifuge to determine the proper fit.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (H x W x D)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE4612-A</td>
<td>4612-A</td>
<td>Rolling cabinet, low/narrow, 1 drawer, 10.23 x 21.65 x 25.5 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>C86214614K</td>
<td>4614-K</td>
<td>Cabinet rolling low/wide, 1 drawer, 10.23 x 30.3 x 25.5 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>HE4613-A</td>
<td>4613-A</td>
<td>Rolling cabinet, high/narrow, 2 drawer, 21.65 x 21.65 x 25.5 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>HE4615-A</td>
<td>4615-A</td>
<td>Rolling cabinet, high/wide, 2 drawer, 21.65 x 30.3 x 25.5 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Combo V24 Centrifuge

LW SCIENTIFIC - The Combo V24 spins 24 test tubes (3 mL to 15 mL) up to 4,000 rpm (2,400 g-force) in an angled rotor for serum separations in under 10 minutes. The variable speed control allows the unit to spin slower for urines and other biological specimens needing lower g-forces. Choose either the manual-control model with variable speed knob and mechanical timer, or choose the digital model for more precise times and digital tachometer showing actual rotor speed. The Combo V24 is built with an all-metal body with a metal rotor and metal tube sleeves for strength and durability.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5700-36</td>
<td>CMC-24AV-1501</td>
<td>V24 centrifuge, 24-place angled test-tube rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>MC24AV15T1</td>
<td>CMC-24AV-15T1</td>
<td>V24 centrifuge, 24-place angled rotor, digital</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Universal Centrifuge**

LW SCIENTIFIC - The Universal Centrifuge features a ZERO-RPM locking lid for safety and digital programming of time and speed ranging from 800–3,400 rpm. Achieve up to 1,450 x g with the fixed angle rotor and 1,809 x g with the swing-out rotor resulting in clean, easy to read lines of separation. Programmable digital time and speed. The Universal Centrifuge has a 110–220 V auto-switching power adapter.

**Maximum tube sizes:**
- 4-place, 50 mL rotor: 30 x 120 mm (W x H)
- 6-place swing-out 15 mL rotor: 17.5 x 131 mm (W x H)
- 8-place fixed-angle 15 mL rotor: 17.5 x 122 mm (W x H)

**Specifications:**
- Variable speed ................. 800–3,400 rpm
- Dimensions (H x L x W) .......... 10.65 x 14.5 x 14.5 in.
- Power requirements ............. 110–220 V auto-switching

**Table:**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
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<tbody>
<tr>
<td>NC04AD50T3</td>
<td>UNC-04AD-50T3</td>
<td>Universal centrifuge with 4-place 50 mL rotor</td>
<td>1/ea</td>
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<tr>
<td>UNC06SD15T</td>
<td>UNC-06SD-15T3</td>
<td>Universal centrifuge with 6-place swing-out 15 mL rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>UNC8AD15TA</td>
<td>UNC-08AD-15T3</td>
<td>Universal centrifuge with 8-place angled 15 mL rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**USA E8 Centrifuge**

LW SCIENTIFIC - This model is loaded with features and improvements, such as higher speeds for faster and cleaner separations, quieter operation for work environments, lower chamber temperatures for cooler test-tube samples, shorter height to fit under any cabinet, and auto-calibrating speed for precision results. It even has an auto-brake to stop the rotor in less than 30 seconds to save time in busy labs. The E8 family also includes a digital model, with no knobs and precise time and speed programs for CLIA compliance and the highest accuracy at an affordable price.

The E8 fixed is designed for blood separations at a fixed speed of 3,500 rpm only (1,534 g-force). The E8 variable and E8 digital will separate blood at 3,500 rpm and can be slowed to separate other fluids at lower g-force, such as urine specimens as outlined by CLIA regulations.

**Features:**
- Clear view port in lid for using tachometer
- Suction-cupped feet prevent slipping
- Lid safety shut-off switch
- 12 volt DC maintenance-free motor

**Specifications:**
- Rotor ......................... Angled rotor, 8-tube capacity
- Capacity ...................... 3 to 15 mL size tubes
- Maximum speed ............... 3,500 rpm
- Maximum RCF ................. 1,534 x g
- Power requirements .......... 100–220 V auto-switching

**Table:**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8CU8AF1503</td>
<td>E8C-U8AF-1503</td>
<td>8-place angled centrifuge fixed-speed for blood only</td>
<td>1/ea</td>
</tr>
<tr>
<td>8CU8AV1503</td>
<td>E8C-U8AV-1503</td>
<td>8-place angled centrifuge variable-speed</td>
<td>1/ea</td>
</tr>
<tr>
<td>8CU8AD15T3</td>
<td>E8C-U8AD-15T3</td>
<td>8-place angled centrifuge digital speed and time</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
ZipCombo Centrifuge

LW SCIENTIFIC - The ZipCombo is a multi-function micro-centrifuge available with a choice of rotors to meet all your micro-centrifugation needs in one unit. The flat microhematocrit rotor spins shorter capillary tubes and eliminates angled separation lines, clay blow-outs and broken tubes. The six place microtube rotor spins 1.5 to 2 mL tubes for serum and urine separations and comes with adapters for smaller sized tubes (0.2–1.5 mL). Designed with robust construction for long life, the ZipCombo is well-suited to accomplish blood and urine separations, microfiltrations, and DNA preparations. The small footprint makes the ZipCombo Centrifuge the perfect addition to any clinic or lab.

- Interchangeable rotors
- Digital LCD display of speed and time; lid open/close
- Clear lid for using tachometer; beep signals end of cycle
- Suction-cupped feet to prevent slipping
- 24 V brushless DC motor

Specifications:
- Variable speed .......... 1,000–12,000 rpm in steps of 1,000 rpm
- Maximum RCF .......... 6,900 x g
- Digital timer ............ 15 seconds–99 minutes or continuous mode
- Dimensions (H x W x L) .......... 5.1 x 6.3 x 7.9 in.
- Power requirements ............ 100–240 V 50/60 Hz auto-switching

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>CC06AD02T3</td>
<td>ZCC-06AD-02T3</td>
<td>Centrifuge with 6-place microtube rotor</td>
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<tr>
<td>CC12HD40T3</td>
<td>ZCC-12HD-40T3</td>
<td>Centrifuge with 12-place microhematocrit rotor, vial of 200, 40 mm capillary tubes and reader card</td>
<td>1/ea</td>
</tr>
<tr>
<td>CC120677T3</td>
<td>ZCC-1206-77T3</td>
<td>Centrifuge with 6-place microtube rotor, 12-place microhematocrit rotor, vial of 200, 40 mm capillary tubes and reader card</td>
<td>1/ea</td>
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</table>

Frontier™ 5000 Series Mini

OHAUS - The Frontier™ 5306 is a powerful mini centrifuge for simple and rapid liquid separation. The Frontier 5306 includes an 8-position 1.5/2 mL tube rotor as well as a 4-position 8-strip PCR tube rotor that can accommodate 32 individual PCR tubes or 0.2 mL strip tubes. With the included adapters, 0.2 mL and 0.5 mL strip tubes can also be accommodated in the 8-position tube rotor, further increasing its versatility. Frontier 5306 also has a quick release design in which the rotors can be removed and installed without the use of any tools. This centrifuge provides quiet, safe, and easy operation for your everyday quick spin-down applications.

Specifications:
- Maximum capacity .................... 8 x 1.5/2 mL, 4 x 8-place PCR Strips
- Maximum speed ...................... 6,000 rpm
- Maximum RCF ........................ 2,000 x g
- Dimensions (H x L x W) .......... 5 x 6.6 x 5.9 in.
- Power requirements ............ 100–240 V

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30134157</td>
<td>30134157</td>
<td>FCS306 model - mini centrifuge</td>
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</tr>
</tbody>
</table>
Centrifuges and Accessories

Centrifuges/Microcentrifuges

**Thermo Scientific™ Heraeus™ Cryofuge™ 5500i Refrigerated Floor Model Centrifuge**

THERMO FISHER SCIENTIFIC - The Heraeus™ Cryofuge™ 5500i large capacity centrifuges can be used in a wide range of environments for a variety of blood banking and clinical applications. Offering optimal capacity for small, blood processing centers and blood banks, these versatile centrifuges can accommodate blood bags, blood collection, clinical tubes and clinical analyzer tube racks. Each centrifuge features Thermo Scientific™ SMARTSpin™ imbalance detection system, a Soft-Touch lid lock and a maintenance-free brushless induction drive. Rotors and accessories are sold separately.

**Specifications:**
- Maximum capacity: 8 x 500 mL blood bags, 4 x 1,000 mL or 4 x 8 standard microplates
- Maximum speed: 10,000 rpm
- Maximum RCF: 15,320 x g
- Temperature range: -9°C to +40°C
- Dimensions (H x W x D): 38 x 27 x 28 in.

**Specifications:**
- Maximum capacity: 8 x 500 mL (SW), 6 x 50 mL (FA)
- Maximum speed: 16,000 rpm (Meg 8), 17,850 rpm (Meg 8R)
- Maximum RCF: 24,328 x g (Meg 8), 30,279 x g (Meg 8R)
- Temperature range: -10°C to +40°C (ref. unit)
- Dimensions (L x W x H): 18.9 x 14.6 x 12.2 in. (Meg 8), 26.4 x 18.1 x 12.6 in. (Meg 8R)

---

**Thermo Scientific™ Heraeus™ Megafuge™ 8 Centrifuge Series**

THERMO FISHER SCIENTIFIC - Carry out clinical and research applications with the Heraeus™ Megafuge™ 8 small benchtop centrifuge, featuring a smart, simple interface and exceptional capacity in a compact design—now available in both ventilated and refrigerated models. It fits in to your lab, with its compact footprint. Innovative Thermo Scientific™ technologies, including Auto-Lock rotor exchange for secure, push-button application flexibility and ClickSeal biocontainment lids for one-handed sample protection. Process up to 8 x 50 mL conical tubes, 24 x 5/7 mL blood tubes, microplates and microtubes, all in one versatile centrifuge.

**Specifications:**
- Maximum capacity: 4 x 145 mL (SW), 6 x 50 mL (FA)
- Maximum speed: 16,000 rpm (Meg 8), 17,850 rpm (Meg 8R)
- Maximum RCF: 24,328 x g (Meg 8), 30,279 x g (Meg 8R)
- Temperature range: -10°C to +40°C (ref. unit)
- Dimensions (L x W x H): 18.9 x 14.6 x 12.2 in. (Meg 8), 26.4 x 18.1 x 12.6 in. (Meg 8R)

---

**Thermo Scientific™ Heraeus™ Megafuge™ 8 Centrifuge Clinical Packages**

THERMO FISHER SCIENTIFIC - For the simplicity and convenience of ordering the Heraeus™ Megafuge™ 8 centrifuges, rotors and accessories you can now order one part number which will come with everything you’ll need to start your centrifugation process, right out of the box. See all our clinical centrifuge packages below:

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Heraeus Centrifuge (120V)</th>
<th>Package Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75100102</td>
<td>75100102</td>
<td>Megafuge 8</td>
<td>TX-150 rotor, TX-150 round bucket (4), sealing lids (4), 14 mL urine adapter (4), 5/7 mL vac blood collection tube adapter (4)</td>
</tr>
<tr>
<td>H75130102</td>
<td>75130102</td>
<td>Megafuge 8R</td>
<td>TX-100 clinical SB rotor with unsealed carriers, adapters with 5/7 mL blood tube</td>
</tr>
<tr>
<td>H75100596</td>
<td>75100596</td>
<td>Megafuge 8</td>
<td>TX-100S clinical SB rotor with sealed carriers, adapters with 5/7 mL blood tube</td>
</tr>
<tr>
<td>H75100496</td>
<td>75100496</td>
<td>Megafuge 8</td>
<td>TX-150 rotor, TX-150 round bucket (4), sealing lids (4), HIGHConic rotor</td>
</tr>
<tr>
<td>75100709A</td>
<td>75100709</td>
<td>Megafuge 8</td>
<td>HIGHConic rotor, adapters for 12 mL tubes (16 x 95 mm) - set of 6</td>
</tr>
<tr>
<td>H75100947</td>
<td>75100947</td>
<td>Megafuge 8</td>
<td>M-10 swinging bucket rotor, unsealed bucket set, set of 2</td>
</tr>
</tbody>
</table>

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To order, call: 800.964.5227
Thermo Scientific™ Megafuge ST4 Plus Centrifuge Series

THERMO FISHER SCIENTIFIC - The new Megafuge ST4 Plus series features a standard high contrast user interface for up to 6 saved programs with simple push-button operation for routine applications. With capacity up to 4 L including 196 blood tubes and 96 x 15 mL conical tubes, Auto-Lock™ for fast rotor exchange and 13 available rotors.

- Intuitive controls simplify operation and provide detailed information on a wide range of operating parameters and processing status
- Motorized lid latch enables one finger downward motion for easiest closing and locking of centrifuge lid
- 40% energy consumption savings on industry standard protocols, such as standard blood separation or conical tubes processing
- Compact dimensions optimize work area
- Ergonomic height and curved design ensure easy sample loading, unloading and easy cleaning

Benefit from innovative Thermo Scientific™ technologies, such as:

**Auto-Lock™ III rotor system:**
- Secure locking system allows easy push-button installation and exchange of rotors
- System saves time in switch between applications
- Easy access to rotor chamber offers quick cleaning, a healthier working environment and longer unit life

**ClickSeal™ bucket sealing system:**
- Biocontainment solution seals with a snap; eliminates screw caps and complicated clips
- System has glove-friendly, one-handed open/close capability
- System is certified by CAMR™ in Porton Down, UK

**Specifications:**
- Maximum capacity .......... 4 L (4 x 1,000 mL)
- Maximum speed ............. 15,200 rpm (FA)
- Maximum RCF .......... 25,830 x g (FA)
- Temperature range .......... –10°C to +40°C (ref. unit)
- Dimensions (L x W x H) ...... 27.2 x 22.3 x 14.2 in. (ST4), 27.2 x 29.4 x 14.2 in. (ST4R)

**Package Includes:**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Megafuge Centrifuge (120 V)</th>
<th>Package Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>75009504</td>
<td>75009504</td>
<td>ST4 Plus-MD</td>
<td>ST4 Plus-MD ventilated centrifuge only</td>
</tr>
<tr>
<td>75009519</td>
<td>75009519</td>
<td>ST4R Plus-MD</td>
<td>ST4R Plus-MD refrigerated centrifuge only</td>
</tr>
<tr>
<td>75016038*</td>
<td>75016038</td>
<td>ST4 Plus-MD</td>
<td>TX-1000 rotor with Auto-Lock™ buckets (set/4) ClickSeal biocontainment lids (set/4) 5/7 mL blood tube adapters (set/4, 196 tube capacity) 10 mL blood tube adapters (set/4, 148 tube capacity)</td>
</tr>
<tr>
<td>75016037*</td>
<td>75016037</td>
<td>ST4R Plus-MD</td>
<td>TX-1000 rotor with Auto-Lock™ buckets (set/4) ClickSeal biocontainment lids (set/4) 15 mL conical tube adapters (set/4, 96 tube capacity) 50 mL conical tube adapters (set/4, 40 tube capacity)</td>
</tr>
</tbody>
</table>

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.
**Thermo Scientific™ Multifuge X4 Pro Centrifuge Series**

THERMO FISHER SCIENTIFIC - The new Multifuge X4 Pro series touch screen enables easier programming for quicker results — plus easily access and track all runs, rotor life and centrifuge health. With capacity up to 4 L, including 196 blood tubes and 96 x 15 mL conical tubes, Auto-Lock™ for fast rotor exchange.

- Full color intuitive touch screen for fast programming, centrifuge health monitoring and up to 100 program storage.
- Detailed operation information, including display of set and actual parameters, maximizes run performance and temperature accuracy.
- Easily adjust speed, time and temperature, even during the run, with the convenient keyboard for direct input.
- Double temperature management system displays the air temperature in the chamber as well as the sample temperature.
- Innovative lid-locking technology enables one finger downward motion for easy closing and locking of centrifuge lid.
- Compact size conserves workspace on benchtop or floor.
- Ergonomic height and curved design ensure comfortable sample handling and cleaning of unit.
- Saves up to 40% of energy on industry standard protocols such as blood separations or conical-tube processing.

Benefit from innovative Thermo Scientific™ technologies, such as:

**Auto-Lock™ III rotor system:**
- Secure locking system allows easy push-button installation and exchange of rotors.
- Saves time in switch between applications.
- Easy access to the chamber enables quick cleaning, a healthier working environment and longer unit life.

**ClickSeal™ bucket sealing system:**
- Biocontainment system seals with a snap; eliminates screw caps and complicated clips.
- Glove-friendly, one-handed open/close capability.
- Certified by CAMR™ in Porton Down, UK.

**SMARTSpin™ technology:**
- Advanced rotor management system maximizes acceleration, braking and residual load imbalance for each rotor and bucket option.
- Optimizes safety and improves separations.

**Specifications:**
- Maximum capacity: 4 L (4 x 1,000 mL).
- Maximum speed: 15,200 rpm (FA).
- Maximum RCF: 25,830 x g (FA).
- Temperature range: –10°C to +40°C (ref. unit).
- Dimensions (L x W x H): 27.2 x 22.3 x 14.2 in. (X4), 27.2 x 29.4 x 14.2 in. (X4R).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Multifuge Centrifuge (120 V)</th>
<th>Package Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>75009501</td>
<td>75009501</td>
<td>X4 Pro-MD</td>
<td>X4 Pro-MD ventilated centrifuge only</td>
</tr>
<tr>
<td>75009516</td>
<td>75009516</td>
<td>X4R Pro-MD</td>
<td>X4R Pro-MD refrigerated centrifuge only</td>
</tr>
<tr>
<td>75016034*</td>
<td>75016034</td>
<td>X4 Pro-MD</td>
<td>TX-1000 rotor with Auto-Lock™ buckets (set/4)</td>
</tr>
<tr>
<td>75016033*</td>
<td>75016033</td>
<td>X4R Pro-MD</td>
<td>5/7 mL blood tube adapters (set/4, 196 tube capacity)</td>
</tr>
<tr>
<td>75016046*</td>
<td>75016046</td>
<td>X4 Pro-MD</td>
<td>10 mL blood tube adapters (set/4, 148 tube capacity)</td>
</tr>
<tr>
<td>75016045*</td>
<td>75016045</td>
<td>X4R Pro-MD</td>
<td>TX-1000 rotor with Auto-Lock™ buckets (set/4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ClickSeal™ biocontainment lids (set/4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 mL conical tube adapters (set/4, 96 tube capacity)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50 mL conical tube adapters (set/4, 40 tube capacity)</td>
</tr>
</tbody>
</table>

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.
**Thermo Scientific™ Heraeus™ Megafuge™ 16 Centrifuge Series**

THERMO FISHER SCIENTIFIC - The Heraeus™ Megafuge™ 16 general purpose centrifuge series delivers exceptional capacity, ergonomic features and value for routine centrifugation needs.

It is ideal for everyday sample processing including cell culture and microplate processing, and clinical applications including clinical chemistry, hematology, RBC, coag studies, pathology/urinalysis, clinical microbiology, clinical immunology and immunological testing. Compact dimensions optimize work area and ergonomic height and curved design enables easy sample loading and unloading and easy cleaning.

These centrifuges also incorporate intuitive controls for simple operation and innovative Thermo Scientific™ technologies, such as:

- **Auto-Lock™** rotor exchange: Improvement allows easy push-button installation and exchange of rotors, saving time switching between applications and also enabling easy access to rotor chamber for quick cleaning, a healthier working environment and longer unit life.
- **Certified ClickSeal™** bio-containment lids: Bio-containment system that seals with a snap; eliminates screw caps and complicated clips
  - Glove-friendly, one-handed open/close capability
  - Certified by CAMR™ in Porton Down, UK

**Specifications:**
- Maximum capacity: 1.6 L (4 x 400 mL)
- Maximum speed: 15,200 rpm (FA)
- Maximum RCF: 25,830 x g (FA)
- Temperature range: –10°C to +40°C (ref. unit)
- Dimensions (L x W x H): 23.8 x 17.3 x 14.2 in. (Meg 16)
- 23.8 x 24.5 x 14.2 in. (Meg 16R)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75004231</td>
<td>75004231</td>
<td>Heraeus™ Megafuge™ 16 ventilated centrifuge</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75004271</td>
<td>75004271</td>
<td>Heraeus™ Megafuge™ 16R refrigerated centrifuge</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Thermo Scientific™ Heraeus™ Multifuge™ X1 Centrifuge Series**

THERMO FISHER SCIENTIFIC - Handle a diverse range of laboratory applications with the Thermo Scientific™ Heraeus™ Multifuge™ X1 centrifuge series, which features a broad range of rotors and adapters.

Featuring industry-leading throughput and energy-efficient operation, this centrifuge series can handle a range of general-purpose processing, including cell culture, microplate, bio-production, blood separation and microbiology. It features a convenient 1 L capacity and is available in both ventilated and refrigerated units, which are ideal for processing temperature-sensitive samples.

Benefit from innovative Thermo Scientific™ technologies, such as:

- **Auto-Lock™** rotor exchange:
  - Secure locking system allows easy push-button installation and exchange of rotors.
  - System saves time in switch between applications.
  - Easy access to the chamber enables quick cleaning, a healthier working environment and longer unit life.

- **ClickSeal™** bio-containment lids:
  - Bio-containment system that seals with a snap; eliminates screw caps and complicated clips
  - Glove-friendly, one-handed open/close capability
  - Certified by CAMR™ in Porton Down, UK

**Specifications:**
- Maximum capacity: 1.6 L (4 x 400 mL)
- Maximum speed: 15,200 rpm (FA)
- Maximum RCF: 25,830 x g (FA)
- Temperature range: –10°C to +40°C (ref. unit)
- Dimensions (L x W x H): 23.8 x 17.3 x 14.2 in. (X1)
  - 23.8 x 24.5 x 14.2 in. (X1R)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75004211</td>
<td>75004211</td>
<td>Heraeus™ Multifuge™ X1 ventilated centrifuge</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75004251</td>
<td>75004251</td>
<td>Heraeus™ Multifuge™ X1R refrigerated centrifuge</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Centrifuges and Accessories

Thermo Scientific™ Heraeus™ Multifuge™ X3 Centrifuge Series

THERMO FISHER SCIENTIFIC - The Heraeus™ Multifuge™ X3 centrifuge series offers outstanding performance and versatility, energy efficiency and a broad range of rotors and adapters. This centrifuge series can handle a range of general-purpose processing, including cell culture, microplate, bioproduction, blood separation and microbiology. It features a convenient 4 L capacity and is available in both ventilated and refrigerated units, which are ideal for processing temperature-sensitive samples.

The Heraeus™ Multifuge X3 series also offers innovative Thermo Scientific™ technologies, such as:

Auto-Lock™ rotor exchange:
• Secure locking system allows easy push-button installation and exchange of rotors.
• System saves time in switch between applications.
• Easy access to the chamber enables quick cleaning, a healthier working environment and longer unit life.

ClickSeal™ biocontainment lids:
• Biocontainment system that seals with a snap; eliminates screw caps and complicated clips
• Glove-friendly, one-handed open/close capability
• Certified by CAMR™ in Porton Down, UK

Space-saving design:
• Compact size conserves workspace.
• Ergonomic height and curved design ensure comfortable sample handling and cleaning of unit.

Specifications:
Maximum capacity ............. 4 L (4 x 1,000 mL)
Maximum speed ............... 15,200 rpm (FA)
Maximum RCF ................. 25,830 x g (FA)
Temperature range. . . . . . . . . . –10°C to +40°C (ref. unit)
Dimensions (L x W x H) ........ 26.4 x 22.2 x 33.2 in.

ClickSeal™ biocontainment lids:
• Biocontainment system that seals with a snap; eliminates screw caps and complicated clips
• Glove-friendly, one-handed open/close capability
• Certified by CAMR™ in Porton Down, UK

Thermo Scientific™ Heraeus™ Megafuge™ and Multifuge General Purpose Centrifuge Clinical Packages

THERMO FISHER SCIENTIFIC - Heraeus™ Megafuge™ and Multifuge™ General Purpose Centrifuges:

Fits in:
• With compact designs – spin 4 liters in a traditional 3-liter footprint with the Thermo Scientific™ TX-1000 rotor.
• Clinical applications, with a wide range of rotors and accessories.

Stands out:
• Featuring innovative Thermo Scientific™ technologies, including:
• Push-button security and application flexibility with Auto-Lock™ rotor exchange.
• One-handed sample protection with ClickSeal™ biocontainment lids.
• Outstanding ergonomics and performance with Fiberlite™ carbon fiber rotors.

And for your convenience, you can now order one part number which will come with everything you’ll need to start your centrifugation process, right out of the box… see all our clinical centrifuge packages below:

### Heraeus Centrifuge (120V)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Package Includes</th>
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<tbody>
<tr>
<td>H75310885</td>
<td>75310885</td>
<td>Megafuge 16</td>
<td>TX-200 swinging bucket rotor, 200 mL round buckets (4), ClickSeal lids (4), 7 x 15/10 mL blood collection adapters (4), 8 x 5/7 mL blood collection adapters (4)</td>
</tr>
<tr>
<td>H75710885</td>
<td>75710885</td>
<td>Megafuge 16R</td>
<td>TX-400* swinging bucket rotor, 400 mL round buckets (4), ClickSeal lids (4), 14 x 15/10 mL blood collection adapters (4), 19 x 5/7 mL blood collection adapters (4)</td>
</tr>
<tr>
<td>H75311810</td>
<td>75311810</td>
<td>Megafuge 16</td>
<td>M-20 microplate</td>
</tr>
<tr>
<td>H75711810</td>
<td>75711810</td>
<td>Megafuge 16R</td>
<td></td>
</tr>
<tr>
<td>H75312452</td>
<td>75312452</td>
<td>Megafuge 16</td>
<td></td>
</tr>
<tr>
<td>H75712452</td>
<td>75712452</td>
<td>Megafuge 16R</td>
<td></td>
</tr>
<tr>
<td>H75310094A</td>
<td>75310094</td>
<td>Megafuge 16</td>
<td>8 x 50 individually sealed rotor</td>
</tr>
<tr>
<td>H75010817</td>
<td>75010817</td>
<td>Multifuge X3R</td>
<td>TX-750* swinging bucket rotor, carriers for microplates and T-H75 horizontal flasks</td>
</tr>
<tr>
<td>H75311771</td>
<td>75311771</td>
<td>Multifuge X3</td>
<td>TX-1000* swinging bucket rotor, 1,000 mL buckets (4), ClickSeal lids (4), 37 x 10 mL blood collection adapters (4), 49 x 5/7 mL blood collection adapters</td>
</tr>
</tbody>
</table>

*Now with Thermo Scientific™ Slide-Coat™ anti-friction finish

### Heraeus Accessories - bench carts for Thermo Scientific General Purpose Centrifuges

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Dimensions (H x W x D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1900-6</td>
<td>76000076</td>
<td>Under bench cart for refrigerated centrifuges</td>
<td>Under bench cart: 11 x 30 x 26 in., 290 x 750 x 665 mm</td>
</tr>
<tr>
<td>C19008</td>
<td>76000078</td>
<td>Under bench cart non-refrigerated centrifuges</td>
<td>Under bench cart: 11 x 22 x 26 in., 290 x 550 x 665 mm</td>
</tr>
<tr>
<td>C1900-7</td>
<td>76000077</td>
<td>Bench height cart non-refrigerated centrifuges</td>
<td>Bench height cart 24 x 22 x 26 in., 600 x 550 x 665 mm</td>
</tr>
</tbody>
</table>

To order, call: 800.964.5227
Thermo Scientific™ Heraeus™ Pico™ and Fresco™ Microcentrifuges

These microcentrifuges provide quick and efficient processing of micro volume samples, such as molecular biology tests, DNA/RNA isolation, and hematocrit processing. Their fast acceleration/deceleration times provide higher throughput per hour and the extensive rotor selection and two speed options available (17,000 and 21,000 x g) easily allow for both complex and simple protocols. Intuitive controls and bright displays allow for easy setup and operation, and the integrated timer with HOLD mode is programmable from 1 through 99 minutes in 1 minute increments. For added safety, its transparent Thermo Scientific™ ClickSeal™ biocontainment rotor lid makes an audible click when a proper seal has been made, ensuring that samples are secure and also allowing the user to see if there’s an issue with the sample without removing the containment lid. Highly-resistant rotor materials allow vigorous cleaning and autoclaving. Small footprint minimizes bench space required.

Specifications:
- Maximum capacity: 24 x 1.5/2 mL
- Maximum speed: 13,300 rpm (Pico/Fresco 17), 14,800 rpm (Pico/Fresco 21)
- Maximum RCF: 17,000 x g (Pico/Fresco 17), 21,000 x g (Pico/Fresco 21)
- Temperature range: –10°C to +40°C (ref. unit)
- Dimensions (L x W x H): 17.5 x 11.6 x 12.9 in. (Fresco 17/21)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pico 17 microcentrifuge</td>
<td>C1900-50</td>
<td>60 Hz, 24 x 1.5/2 mL rotor, ClickSeal® lid</td>
</tr>
<tr>
<td>C1900-60</td>
<td>75002492</td>
<td>60 Hz, 24 x 1.5/2 mL hematocrit rotor</td>
</tr>
<tr>
<td>Pico 21 microcentrifuge</td>
<td>C1900-56</td>
<td>60 Hz, 24 x 1.5/2 mL rotor, ClickSeal® lid</td>
</tr>
<tr>
<td>C1900-58</td>
<td>75002477</td>
<td>60 Hz, 24 x 1.5/2 mL rotor, ClickSeal® lid, dual row rotor 18 x 0.5 mL and 18 x 2 mL with screw-on lid</td>
</tr>
<tr>
<td>Fresco 17 microcentrifuge</td>
<td>C1900-51</td>
<td>60 Hz, 24 x 1.5/2 mL rotor, ClickSeal® lid</td>
</tr>
<tr>
<td>Fresco 21 microcentrifuge</td>
<td>C1900-57</td>
<td>60 Hz, 24 x 1.5/2 mL rotor, ClickSeal® lid</td>
</tr>
<tr>
<td>C1900-59</td>
<td>75002478</td>
<td>60 Hz, 24 x 1.5/2 mL rotor, ClickSeal® lid, dual row rotor 18 x 0.5 mL and 18 x 2 mL with screw-on lid</td>
</tr>
<tr>
<td>Replacement parts</td>
<td>C1900-52</td>
<td>24 x 1.5/2 mL rotor, ClickSeal® lid</td>
</tr>
<tr>
<td>C1715-36</td>
<td>76003758</td>
<td>0.5/0.6 mL microliter tube adapters</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Medifuge™ Small Benchtop Centrifuge

This small benchtop centrifuge is ideal for clinical laboratory procedures such as processing patients’ samples for blood, urine or fecal separations, for clinical chemistry, hematology, RBC or coag studies. It fits in with its compact design and stands out with the unique Thermo Scientific™ DualSpin™ rotor featuring a 2-in-1 hybrid design. Easily change between fixed angle and swinging buckets using the same rotor and utilize up to four customizable programs allowing you to quickly run routine protocols. It also has three selectable deceleration profiles, including a brake-off option, are designed to optimize separation.

Specifications:
- Maximum capacity: 8 x 15 mL (fixed angle), 8 x 10 mL (swinging bucket)
- Maximum speed: 4,900 rpm
- Maximum RCF: 3,114 x g (fixed angle), 3,490 x g (swinging bucket)
- Dimensions (L x W x H): 17.7 x 12.8 x 9.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>75008801</td>
<td>75008801</td>
<td>Medifuge™ centrifuge, 120 V, 60 Hz, includes: dual spin rotor body, fixed angle buckets (set of 8) swinging buckets (set of 8), green/short spacers (set of 8), yellow/long spacers (set of 8)</td>
</tr>
</tbody>
</table>

cardinalhealth.com
# Centrifuges and Accessories

## Centrifuges/Microcentrifuges

**Thermo Scientific™ mySPIN™ 6 Mini Centrifuge**

THERMO FISHER SCIENTIFIC - The mySPIN™ 6 Mini Centrifuge has an ergonomic design, tool-free rotors and quick-spin options make it fast and easy to use. Ideal for microfilter cell separations and HPLC samples, with adapters to accommodate all major microtube and PCR tube styles (0.2, 0.5, 1.5, 2 mL) for customized use.

**Includes:** 6 x 1.5/2 mL tube rotor, 16 x 0.2 mL tube rotor (singles or 2 x 8 strip), 6 tube adapters 0.2 mL, 6 tube adapters 0.5 mL, storage case for rotors and adapters, tube rack, universal power adapter 110–240 V, 50/60 Hz, with 4 interchangeable plug type.

- Small footprint for efficient use of lab space
- Easy operation and palm-shaped lid for left- or right-handed users
- Quick-spin feature
- Quiet operation, low vibration
- Safety features including unit will not operate without lid in place for safety
- Tool-free, quick rotor exchange

**Specifications:**

<table>
<thead>
<tr>
<th>Capacity</th>
<th>6 x 2 mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed</td>
<td>6,000 rpm</td>
</tr>
<tr>
<td>Maximum RCF</td>
<td>2,000 x g</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>4.1 x 5 x 6 in.</td>
</tr>
</tbody>
</table>

**Cat. No.** 75004061  
**Mfr. No.** 75004061  
**Description** mySPIN™ 6 Mini Centrifuge  
**Qty.** 1/ea

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**Thermo Scientific™ mySPIN™ 12 Mini Centrifuge**

THERMO FISHER SCIENTIFIC - The mySPIN™ 12 Mini Centrifuge is designed to give you maximum speed and flexibility in a minimized footprint. Its compact, ergonomic design fits on any workstation and is comfortable and easy for anyone to operate. Safety features help ensure it will not operate when the lid is open, a rotor is jammed, or the unit is out of balance. Ideal for most protocols requiring fast spins (12,500 rpm/9,800 x g), and appropriate for PCR, microfilter cell separation, and HPLC protocols.

**Includes:** 6 x 1.5/2 mL tube rotor, 16 x 0.2 mL tube rotor (singles or 2 x 8 strip), 6 tube adapters 0.2 mL, 6 tube adapters 0.5 mL, storage case for rotors and adapters, tube rack, universal power adapter 110–240 V, 50/60 Hz, with 4 interchangeable plug type.

- Small footprint for efficient use of lab space
- Easy operation, with back-lit, customizable display that can be set for rpm or RCF
- Designed for quick and pulse spins
- Quiet operation, low vibration
- Safety features including imbalance and tilt safety cut-out, as well as safety interlock lid designed to prevent opening while rotor is turning
- Includes 2 rotors to accommodate 0.2, 0.5, 1.5, 2 mL microcentrifuge tubes and PCR strip tubes
- Tool-free, quick rotor exchange

**Specifications:**

<table>
<thead>
<tr>
<th>Capacity</th>
<th>12 x 2 mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed</td>
<td>12,500 rpm</td>
</tr>
<tr>
<td>Maximum RCF</td>
<td>9,800 x g</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>4.4 x 6.7 x 8 in.</td>
</tr>
</tbody>
</table>

**Cat. No.** 75004081  
**Mfr. No.** 75004081  
**Description** mySPIN™ 12 Mini Centrifuge  
**Qty.** 1/ea

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[To order, call: 800.964.5227](tel:800.964.5227)
Thermo Scientific™ CW3 Cell Washer

THERMO FISHER SCIENTIFIC - The CW3 cell washing system is designed for precise, automated performance, providing thorough, reproducible blood cell washing, up to 24 tubes per run. Save time with pre-set programs in automatic mode and flexibility of 12- or 24-place rotors meets your protocol requirements. Easy-to-read digital display enables simple, user friendly operation.

Efficient performance
- Finish washing 24 samples in as little as 3 minutes
- Achieve optimal corpuscle dryness by setting desired decanting speed

User-friendly design
- Save time with pre-set programs in automatic mode
- Four stage display: wash, centrifuge, decant, agitate
- Manual mode available to wash the cells step-by-step, allowing closed monitoring of washing process
- Tube racks with red and blue number labeling for easy sample balancing

Safe operation
- Automatic alerts for low or disrupted saline level and for a completed run
- View port on top of unit is available for speed calibration
- Reduces risk of cross-contamination with the saline distributor mounted directly on top of the rotor
- Stainless steel rotor body enhances system durability
- Low-maintenance design with easy-to-change pump tubing
- Cleaning convenience with easy-to-remove catch basin, rotor and rotating bowl

Specifications:
- Capacity: 8 x 50 mL
- Maximum speed: 6,500 rpm
- Maximum RCF: 6,755 x g

Cat. No. Mfr. No. Description Qty.
H75003694 75003694 8 x 50 mL individually sealed rotor for 50 mL conical tubes 1/ea
H75003689 75003689 Sealing lids for microplate carriers - set of 4 1/ea

Thermo Scientific™ BIOShield™

8 x 50 mL Individually Sealed Fixed-Angle Rotor

THERMO FISHER SCIENTIFIC - The 8 x 50 mL Sealed Fixed-Angle Rotor have 8 conical tubes in individually sealed vessels.

Compatible with: Thermo Scientific™ Heraeus™ Megafuge™ 16/16R and Multifuge™ X1/X1R centrifuges.

Compatibility:
- Thermo Scientific™ Heraeus™ Megafuge™ 16/16R and Multifuge™ X1/X1R centrifuges.
- Thermo Scientific™ BIOShield™ 720 High-Speed Swinging-Bucket Rotor.
- Tube adapters, sold in sets of four, are sold separately.

Specifications:
- Maximum capacity: 4 x 180 mL
- Maximum speed: 6,300 rpm
- Maximum RCF: 7,188 x g

Cat. No. Mfr. No. Description Qty.
H75003183 75003183 BIOShield™ 720 Swinging Bucket Rotor 1/ea
H75003821 75003821 Adapter for 5/7 mL blood collection tube (13 x 75–100 mm) (set of 4) 1/ea
H75003701 75003701 Adapter for 10 mL blood collection tube (16 x 100 mm) (set of 4) 1/ea
H75003693 75003693 180 mL Bio-Bottle - polypropylene (set of 12) 1/ea
Centrifuges and Accessories

Centrifuges/Microcentrifuges

Thermo Scientific™ CLINIConic™ Fixed Angle Rotor
THERMO FISHER SCIENTIFIC - Optimize separations with fast acceleration of 30 blood tubes or 15 mL conical in a fixed angle configuration with the Thermo Scientific™ CLINIConic™ Fixed Angle Rotor.

Compatible with: Thermo Scientific™ Heraeus™ Megafuge™ 8/8R/16/16R and Multifuge™ X1/X1R centrifuges.

Specifications:
- Capacity: 30 x 15 mL
- Maximum speed: 4,400 rpm
- Maximum RCF: 3,030 x g

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75003623</td>
<td>75003623</td>
<td>CLINIConic Rotor, 37°, radius max 140 mm</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Hematocrit Fixed Angle Rotor
THERMO FISHER SCIENTIFIC - Save time in clinical processing applications with the Thermo Scientific™ Hematocrit Fixed Angle Rotor, which provides dedicated blood processing to achieve 24 capillary separations per run.

Compatible with: Thermo Scientific™ Heraeus™ Megafuge™ 8/8R centrifuges.

Specifications:
- Capacity: 24 capillaries
- Maximum speed: 13,300 rpm
- Maximum RCF: 16,810 x g

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75005733</td>
<td>75005733</td>
<td>Hematocrit rotor, 90°, Rmax 85 mm, includes linear scale</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ HIGHConic™ II Fixed Angle Rotor
THERMO FISHER SCIENTIFIC - Deliver biocontainment at 10,350 rpm with the Thermo Scientific™ HIGHConic™ II Aluminum Fixed-Angle Rotor.


Specifications:
- Capacity: 6 x 94 mL
- Maximum speed: 10,350 rpm
- Maximum RCF: 15,090 x g

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75003620</td>
<td>75003620</td>
<td>HighConic II rotor</td>
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</tr>
<tr>
<td>H75003058</td>
<td>75003058</td>
<td>Replacement sealing O-rings (set of 2 with grease)</td>
<td>1/set</td>
</tr>
</tbody>
</table>

Thermo Scientific™ HIGHConic™ III Fixed Angle Rotor
THERMO FISHER SCIENTIFIC - View samples through a transparent lid for added safety and convenience with the Thermo Scientific™ HIGHConic™ III rotor, which accommodates 6 x 50 mL conical tubes at up to 9,500 rpm/12,108 x g in a fixed angle configuration for your research-based applications.

Compatible with: Thermo Scientific™ Heraeus™ Megafuge™ 8/8R centrifuges.

Specifications:
- Capacity: 6 x 50 mL
- Maximum speed: 9,500 rpm (Meg 8R) 8,700 rpm (Meg 8)
- Maximum RCF: 12,108 x g (Meg 8R) 10,155 x g (Meg 8)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75005709</td>
<td>75005709</td>
<td>Thermo Scientific™ HighConic III rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75005731</td>
<td>75005731</td>
<td>Replacement lid (each)</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75003058</td>
<td>75003058</td>
<td>Replacement sealing O-rings (set of 2 with grease)</td>
<td>1/set</td>
</tr>
</tbody>
</table>
**Thermo Scientific™ HIGHPlate™ 6000 Microplate Rotor**

THERMO FISHER SCIENTIFIC - The HIGHPlate™ 6000 Microplate Rotor accommodates a variety of filtration plates up to 80 mm high.

**Compatible with:** Thermo Scientific™ Multifuge X4 Pro and Heraeus™ Multifuge™ X3/X3R/X3F/X3FR centrifuges.

**Specifications:**
- Capacity: 2 x 5 standard plates
- Maximum speed: 6,300 rpm
- Maximum RCF: 6,168 x g

<table>
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<tbody>
<tr>
<td>H75003606</td>
<td>75003606</td>
<td>HIGHPlate microplate rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Thermo Scientific™ M-20 Microplate Swinging Bucket Rotor**

THERMO FISHER SCIENTIFIC - The M-20 Microplate Rotor spins up to six microplates and, using sealed carriers, ensures certified sealed conditions for all samples.

**Compatible with:** Thermo Scientific™ Multifuge X4 Pro and Megafuge X4 Plus, Heraeus™ Megafuge™ 16/16R/40/40R and Multifuge™ X1/X1R/X3/X3R/X3F/X3FR centrifuges.

**Specifications:**
- Capacity: 4 standard or 2 deepwell plates
- Maximum speed: 4,000 rpm
- Maximum RCF: 2,272 x g

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<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H75003624</td>
<td>75003624</td>
<td>M-20 microplate rotor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Thermo Scientific™ Microliter 48 x 2 mL Sealed Aluminum Fixed Angle Rotor**

THERMO FISHER SCIENTIFIC - The Microliter 48 x 2 mL Sealed Aluminum Fixed Angle Rotor supports micro-volume protocols. Capacity flexibility from PCR to microtubes.

**Compatible with:** Thermo Scientific™ Multifuge X4 Pro and Megafuge X4 Plus, Heraeus™ Megafuge™ 16/16R/40/40R and Multifuge™ X1/X1R/X3/X3R/X3F/X3FR centrifuges.

**Specifications:**
- Capacity: 48 x 2 mL
- Maximum speed: 15,200 rpm
- Maximum RCF: 25,314 x g

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<tbody>
<tr>
<td>H75003602</td>
<td>75003602</td>
<td>Microliter 48 x 2 mL rotor</td>
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**Accessories**

<table>
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<th>Qty.</th>
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<tbody>
<tr>
<td>H75005723</td>
<td>75005723</td>
<td>Unsealed buckets (set of 2)</td>
<td>1/set</td>
</tr>
<tr>
<td>H75005721</td>
<td>75005721</td>
<td>Sealed buckets (set of 2) Rmax 109 mm</td>
<td>1/set</td>
</tr>
</tbody>
</table>
# Centrifuges and Accessories

## Centrifuges/Microcentrifuges

### Thermo Scientific™ TX-150 Rotor

THERMO FISHER SCIENTIFIC - Perform a wide range of clinical and research applications with the Thermo Scientific™ TX-150 swinging bucket rotor. This rotor accommodates up to 24 x 5/7 mL blood collection tubes or 8 x 50 mL conical tubes at 4,500 rpm/3,260 x g, and provides additional flexibility for swing-out processing needs with available adapters. Rotor innovations—from Thermo Scientific™ Auto-Lock™ rotor exchange to Thermo Scientific™ ClickSeal™ biocontainment lids—shorten run set-up time while providing peace-of-mind that samples are secure.

**Compatible with:** Thermo Scientific™ Heraeus™ Megafuge™ 8/8R centrifuges

**Specifications:**
- Capacity: 4 x 145 mL (SW)
- Maximum speed: 4,500 rpm
- Maximum RCF: 3,260 x g

<table>
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<tr>
<td>H75005701</td>
<td>75005701</td>
<td>Thermo Scientific™ TX-150 Rotor</td>
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**Accessories**

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<tr>
<td>H75005703</td>
<td>75005703</td>
<td>50 mL conical buckets (unsealed, no adapter needed) (set of 4)</td>
<td>1/ea</td>
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<tr>
<td>H75005707</td>
<td>75005707</td>
<td>ClickSeal biocontainment lids for round buckets (set of 4)</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75005808</td>
<td>75005808</td>
<td>15 mL conical adapters for 50 mL conical buckets (PN: 75005703) - set of 2</td>
<td>1/ea</td>
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</tbody>
</table>

### Thermo Scientific™ TX-200 Swinging Bucket Rotors

THERMO FISHER SCIENTIFIC - The TX-200 rotor accommodates a wide range of processing volumes. Capacity is flexible with round bucket adapters ranging from 180 to 2.0 mL.

**Compatible with:** Thermo Scientific™ Heraeus™ Multifuge™ X1/X1R and Megafuge™ 16/16R centrifuges

**Specifications:**
- Capacity: 4 x 180mL (0.72 L)
- Maximum speed: 5,500 rpm
- Maximum RCF: 5,580 x g

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<td>H75003658</td>
<td>75003658</td>
<td>TX-200 rotor cross</td>
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</tr>
<tr>
<td>H75003659</td>
<td>75003659</td>
<td>Round buckets, 200 mL (set of 4)</td>
<td>1/set</td>
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**Accessories**

<table>
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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
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<td>H75003660</td>
<td>75003660</td>
<td>ClickSeal biocontainment lids (set of 4)</td>
<td>1/set</td>
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<tr>
<td>H75003800</td>
<td>75003800</td>
<td>180 mL Bio-Bottle - polypropylene (set of 12)</td>
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**Adapters**

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<th>Qty.</th>
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<tr>
<td>H75003812</td>
<td>75003812</td>
<td>Adapter for 48 x 2 mL conical microtube (set of 4)</td>
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<tr>
<td>H75003807</td>
<td>75003807</td>
<td>Adapter for 8 x 14 mL conical urine tube (set of 4)</td>
<td>1/set</td>
</tr>
<tr>
<td>H75003810</td>
<td>75003810</td>
<td>Adapter for 36 x 5/7 mL round bottom open-top tube (set of 4)</td>
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</tr>
<tr>
<td>H75003771</td>
<td>75003771</td>
<td>Adapter for 20 x 15 mL conical tube (set of 4)</td>
<td>1/set</td>
</tr>
<tr>
<td>H75003808</td>
<td>75003808</td>
<td>Adapter for 28 x 10/15 mL blood collection tube (set of 4)</td>
<td>1/set</td>
</tr>
<tr>
<td>H75003785</td>
<td>75003785</td>
<td>Adapter for 32 x 5/7 mL blood collection tube (set of 4)</td>
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<tr>
<td>H75003803</td>
<td>75003803</td>
<td>Adapter for 4 x 50 mL conical or skirted tube (set of 4)</td>
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</table>
# Thermo Scientific™ TX-400 Swinging Bucket Rotors

Thermo Scientific™ TX-400 Swinging Bucket Rotors support a wide range of sample sizes and applications. The rotor accepts 32 to 76 blood tubes and up to 16 conical tubes in a single run. Flexible capacity with adapters ranging from 400 to 1.5 mL.

**Compatible with:** Thermo Scientific™ Heraeus™ Multifuge™ X1/X1R and Megafuge™ 16/16R centrifuges

**Specifications:**
- Capacity: 4 x 400 mL (1.6 L)
- Maximum speed/RCF: 5,000 rpm/4,696 x g

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<tbody>
<tr>
<td>H75003181</td>
<td>75003181</td>
<td>TX-400 rotor cross</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75003655</td>
<td>75003655</td>
<td>Round buckets, 400 mL (set of 4)</td>
<td>1/set</td>
</tr>
</tbody>
</table>

**Accessories**
- H75003656: 75003656 ClickSeal biocontainment lids (set of 4) | 1/set |
- H75003657: 75003657 Replacement O-rings for lids (pk of 4) | 1/set |
- H75007585: 75007585 400 mL Bio-Bottle - polypropylene (set of 12) | 1/set |

**Adapters**
- H75003680: 75003680 Adapter for 19 x 5/7 mL blood collection tube (set of 4) | 1/set |
- H75003798: 75003798 Adapter for 7 x 15 mL conical urine tube (set of 4) | 1/set |
- H75003681: 75003681 Adapter for 14 x 10/15 mL blood collection tube (set of 4) | 1/set |
- H75003704: 75003704 Adapter for 10 x 15 mL round bottom tube (set of 4) | 1/set |
- H75003682: 75003682 Adapter for 9 x 15 mL conical tube (set of 4) | 1/set |
- H75003700: 75003700 Adapter for 136 x 2 mL conical microtube (set of 4) | 1/set |
- H75003683: 75003683 Adapter for 4 x 50 mL conical tube (set of 4) | 1/set |

# Thermo Scientific™ TX-750 Swinging Bucket Rotor

The TX-750 Swinging Bucket Rotor delivers maximum flexibility at 4,700 rpm. Capacity is flexible with adapters ranging from 750 to 1.5 mL. Choose from round or rectangular buckets and a wide array of available adapters. Optional microplate carriers accommodate standard and deepwell microplates for greater versatility.

**Compatible with:** Thermo Scientific™ Multifuge X4 Pro and MegaFuge X4 Plus, Heraeus™ MegaFuge™ 40/40R and MultiFuge™ X3/X3R/X3F/X3FR centrifuges

**Specifications:**
- Capacity: 4 x 750 mL (3 L)
- Maximum speed: 4,700 rpm
- Maximum RCF: 4,816 x g

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<tbody>
<tr>
<td>75003180</td>
<td>75003180</td>
<td>TX-750 rotor</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75003017</td>
<td>75003017</td>
<td>TX-750 buckets (set of 4)</td>
<td>1/set</td>
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</tbody>
</table>

**Accessories**
- H75003017: 75003017 TX-750 ClickSeal biocontainment lids (set of 4) | 1/set |
- H75007309: 75007309 1000 mL Bio-Bottle - polypropylene (set of 4) | 1/set |

# Thermo Scientific™ TX-1000 Swinging Bucket Rotor

The TX-1000 Swinging Bucket Rotor delivers maximum flexibility at 4,200 rpm and can accommodate up to 196 blood tubes in one run. With its flexibility in capacity and the ability to spin a variety of tubes and microplates, this rotor is definitely the most productive rotor for your centrifuges.

**Compatible with:** Thermo Scientific™ Multifuge X4 Pro and MegaFuge X4 Plus, Heraeus™ MegaFuge™ 40/40R and MultiFuge™ X3/X3R/X3F/X3FR centrifuges

**Specifications:**
- Maximum capacity: 4 x 1,000 mL (4 L)
- Maximum speed: 4,200 rpm
- Maximum RCF: 4,121 x g

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<tbody>
<tr>
<td>H75003017</td>
<td>75003017</td>
<td>TX-1000 rotor cross</td>
<td>1/ea</td>
</tr>
<tr>
<td>H75003001</td>
<td>75003001</td>
<td>TX-1000 buckets (set of 4)</td>
<td>1/set</td>
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</tbody>
</table>

**Accessories**
- H75007309: 75007309 TX-1000 ClickSeal biocontainment lids (set of 4) | 1/set |
- H75007300: 75007300 1000 mL Bio-Bottle - polypropylene (set of 4) | 1/set |
**UNICO® C-MH30 Microhematocrit Centrifuge**

UNICO - The C-MH30 Microhematocrit Centrifuge is built for years of dependable use. A safety switch built into the latch assembly disconnects the power to the motor whenever the latch is lifted. The brushed motor is mounted on rubber mounts to provide quiet running and dampen vibration.

- Twenty-four (24) place rotor with replaceable rubber ring and screw down metal lid
- Includes microhematocrit tube reader
- Dependable mechanical 5-minute timer with bell signal at end of run
- Safety switch in latch shuts off motor when lid is lifted
- Electric motor braking
- Indicator light tells when unit is in use

**Specifications:**
- Nominal speed: 12,000 rpm
- Power requirements: 115 V, 60 Hz AC

<table>
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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>C-MH30</td>
<td>C-MH30</td>
<td>24-place microhematocrit centrifuge with reader</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**UNICO® PowerSpin™ FX and LX Centrifuges**

UNICO - The PowerSpin™ series centrifuges are compact, economical and quiet. Offered in both fixed (FX) and variable (LX) speed models with fixed angle rotors, for 6 or 8 tubes to spin 7.5 to 15 mL tubes. By using adapters, you can also spin tubes ranging from 2 to 7 mL. An optional Tube Holdster™ allows you to have up to 18 tubes or adapters at your fingertips, side-mounted on the centrifuge. PowerSpins are pre-drilled/tapped to accept optional Tube Holdsters.

- Standard 6- or 8-place rotor for 2 to 15 mL tubes
- Adapters for 2 mL or 4–7 mL tubes (part # C800-04 and C800-03)
- 0–30 minute timer with bell tone signal
- Quiet at full speed, only 58 decibels
- Latching lid with safety switch triggered to shut-off power to the motor when the lid is opened
- Stainless steel rotor chamber is easily accessible for cleaning and disinfection
- Maintenance-free brushless motors
- Suction cup rubber feet for stability while reducing vibration
- Lid window for strobe tachometer RPM check

**Specifications:**
- **FX centrifuge**
  - Maximum speed: 3,400 rpm (fixed speed)
  - Maximum RCF: 1,350 x g
- **LX centrifuge**
  - Maximum speed: 300–4,000 rpm (variable speed)
  - Maximum RCF: 1,825 x g

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<tbody>
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<td>C806</td>
<td>6-place rotor - 6 x 10 mL</td>
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<tr>
<td>C808</td>
<td>C808</td>
<td>8-place rotor - 8 x 10 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C856</td>
<td>C856</td>
<td>6-place rotor - 6 x 10 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C858</td>
<td>C858</td>
<td>8-place rotor - 8 x 10 mL</td>
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</tr>
<tr>
<td>C800-01</td>
<td>C800-01</td>
<td>8-place rotor</td>
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</tr>
<tr>
<td>C800-03</td>
<td>C800-03</td>
<td>Short tube adapters for 4–7 mL tubes</td>
<td>10/pk</td>
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<tr>
<td>C800-04</td>
<td>C800-04</td>
<td>Small tube adapters for 2 mL tubes</td>
<td>2/pk</td>
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</table>
Premier Plus Series Lab Refrigerators

CARDINAL HEALTH - Premier Plus high-performance lab refrigerators combine advanced temperature control with high-quality cabinet construction and alarm systems. Positive, forced-air circulation is designed to maintain temperature uniformity to protect important medical and pharmaceutical-grade storage as well as laboratory media, reagents and more. Available in glass or solid door models.

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Forced-air circulation for temperature uniformity at all shelf levels
- Heat-free defrost for maximum temperature uniformity
- Quiet operation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- Built-in remote alarm contacts

ENERGY STAR®, UL and cUL certified.

Temperature range: +3°C to +7°C, factory pre-set to +5°C, auto defrost

<table>
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<tbody>
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<td>CAX1205GA</td>
<td>11.5</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Space saver</td>
<td>Single, glass</td>
<td>4</td>
<td>21.8 x 20 x 52.4</td>
<td>30.5 x 24 x 73</td>
<td>339</td>
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<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Space saver</td>
<td>Single, glass</td>
<td>4</td>
<td>21.8 x 20 x 52.4</td>
<td>30.5 x 24 x 73</td>
<td>339</td>
</tr>
<tr>
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<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Single, solid</td>
<td>Single, solid</td>
<td>4</td>
<td>21.8 x 20 x 52.4</td>
<td>31.1 x 24 x 73</td>
<td>340</td>
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<td>208–230 (60)</td>
<td>NEMA 6-15</td>
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<td>Single, solid</td>
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<td>21.8 x 20 x 52.4</td>
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<td>NEMA 5-15</td>
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<td>Single, solid</td>
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<td>37.9 x 28 x 78.5</td>
<td>426</td>
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<td>NEMA 6-15</td>
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<td>Single, solid</td>
<td>4</td>
<td>28.5 x 24 x 58</td>
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<td>405</td>
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<td>Single, glass</td>
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<td>37.3 x 34 x 78.5</td>
<td>458</td>
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<td>Single, glass</td>
<td>4</td>
<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
<td>458</td>
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<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Single, solid</td>
<td>Single, solid</td>
<td>4</td>
<td>28.5 x 30 x 58</td>
<td>37.9 x 34 x 78.5</td>
<td>459</td>
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<tr>
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<td>208–230 (60)</td>
<td>NEMA 6-15</td>
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<td>Single, solid</td>
<td>4</td>
<td>28.5 x 30 x 58</td>
<td>37.9 x 34 x 78.5</td>
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<td>26 x 52.5 x 58</td>
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<td>Single, glass</td>
<td>8</td>
<td>26 x 52.5 x 58</td>
<td>36.6 x 56.5 x 78.5</td>
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</tbody>
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* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representatives. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representatives for specific inquiries regarding your application.
Cold Storage

Refrigerators: General Laboratory

Pro Series Laboratory Refrigerators

CARDINAL HEALTH - Pro Series Laboratory Refrigerators are ideal for the demanding requirements of daily use in research, clinical, and industrial laboratories storing reagents, media, proteins, and samples used in the lab. These refrigerators combine the performance, security and quality required for everyday laboratory applications.

- SNAP compliant
- Quiet operation
- Adaptive defrost
- Glass (double pane) or solid door configurations
- Choice of white painted interior and exterior, or stainless steel interior and gray exterior
- LED interior lighting
- Temperature, door ajar, and power failure (with battery back-up) alarms
- Digital controller
- Low heat output
- Rear access port
- Keyed door lock(s)
- Remote alarm contacts

ENERGY STAR® and cULus certified.

Temperature range: +2°C to +10°C, preset to +5°C, adaptive defrost

<table>
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**Premier Pass-Through Refrigerators**

NOR-LAKE SCIENTIFIC - These laboratory refrigerators have a front and rear door, for two-sided access. They are available with one pair, two pairs or three pairs in a variety of configurations—glass front door(s) and solid back door(s), all-glass doors or all-solid doors. All models have a microprocessor control with high/low audible and visual alarms, remote alarm contacts and an LED digital display. The exterior front, solid doors and sides are white. The exterior top and bottom are galvanized steel. The interior liner and door panel are white and there are three epoxy-coated shelves per door, which can be adjusted in 1 in. increments.

Cabinet and doors are formed-in-place with high-density polyurethane foam insulation. Doors have pull handles, key locks and self-adjusting magnetic gaskets. These refrigerators feature top-mounted refrigeration. There are four casters (two locking) on one- and two-door models. UL/CUL-listed. CE Mark. Refrigerators are available with several optional features including extra shelves, two-way drawer wire baskets or two-way stainless-steel drawers (on applicable models), chart recorder, lead access ports and stainless-steel interior and exterior. Warranties: 18-month parts and labor, 5-year compressor (US and Canada).

**Specifications:**
- Temperature range: 2°C to 10°C factory preset at 4°C
- Power requirement: 115 V, 60 Hz

**PT242WWF0**
- Shelf area: 12.8 sq. ft.
- Interior dimensions (H x W x D): 59 x 23½ x 32 in.
- Exterior dimensions (H x W x D): 79⅞ x 27½ x 37¾ in.

**PT554WWG0 and PT524WWF0**
- Shelf area: 28.6 sq. ft.
- Interior dimensions (H x W x D): 59 x 51 x 32 in.
- Exterior dimensions (H x W x D): 79⅞ x 55 x 37¾ in.

**NSPT806WWG and NSPT806WWF**
- Shelf area: 42.8 sq. ft.
- Interior dimensions (H x W x D): 59 x 78½ x 32 in.
- Exterior dimensions (H x W x D): 79⅞ x 82½ x 37¾ in.

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<td>NSPT24WWF0</td>
<td>85.8 cu. ft. - 3 doors</td>
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Refrigerators: General Laboratory

Premier Lab Refrigerator with Sliding Glass Doors
NOR-LAKE SCIENTIFIC - Designed to meet the demanding requirements of scientific and laboratory applications, this premier laboratory refrigerator features two sliding glass doors and a microprocessor control with digital LED display. Factory preset operating temperature is 4°C. Audible and visual alarms will alert you of temperature fluctuations. Remote alarm contacts are included.

The unit offers top-mounted refrigeration, an air-cooled condensing unit, automatic defrost and foamed-in-place, high-density polyurethane foam insulation. The exterior and interior are white and there are six epoxy-coated adjustable shelves. Doors have a self-closing and hold-open feature. Other features include fluorescent interior lighting, key locks and four casters (two locking). Refrigerators are also available with optional internal electrical outlet, chart recorder, access port and stainless-steel interior and exterior. UL/CUL listed. Warranties: 18-month parts and labor, 5-year compressor (US and Canada).

Specifications:
Shelf area ................................ 26 sq. ft.
Temperature range. . . . . . . . . . . . . . . . . . . . . . . 2°C to 10°C factory preset at 4°C
Power requirements  ..................... 115 V, 60 Hz
Interior dimensions (H x W x D) ........... 59 x 51 x 30 in.
Exterior dimensions (H x W x D) ........... 795/8 x 55 x 34 in.

Select™ Glass Door Laboratory Refrigerators
NOR-LAKE SCIENTIFIC - These refrigerators include a digital 4 x 20 character LCD display microprocessor temperature controller with audible and visual high/low temperature alarm, which can be tested. Remote alarm contacts. Door ajar alarm, visual and audible (volume adjustable). Sensor failure alarm. 100-event alarm logging. Password protection and adjustable alarm beep or constant on (keypad selectable). Door opening counter with 24-hour automatic reset.


White exterior cabinet front, sides and back. Interior cabinet liner is also white. Exterior cabinet top and bottom are galvanized steel. Cabinet and solid doors are foamed-in-place with CFC-free high-density polyurethane foam insulation. Glass door(s), full size, double pane with pivot hinges and pull door handles. Magnetic door gaskets.

Key door lock(s) (two keys). Three coated wire shelves per door section. Sensor access port, 1 in. diameter. Four casters on one- and two-door models. 2 to 10 V DC output for product temperature (selectable to air temperature)

Warranties: 24-month parts and labor, 5-year compressor (US and Canada). UL/CUL listed.

Specifications:
Temperature control range .......... 2°C to 10°C factory preset at 4°C
Power requirements  ..................... 115 V, 1PH, 60 Hz, NEMA plug 5-15P
Interior dimensions (H x W x D) ........... 59 x 23½ x 30 in.
Exterior dimensions (H x W x D) ........... 79½ x 27½ x 35½ in.

Cat. No.  Mfr. No.  Description  Qty.
LR502WWG0  NSPR502WWG/0  52 cu. ft. refrigerator  1/ea
NSSR241WG0  NSSR241WWG/0  24 cu. ft. refrigerator  1/ea
**Large Capacity Laboratory Refrigerators**

PHC CORPORATION OF NORTH AMERICA* - ENERGY STAR® certified the Large Capacity Laboratory Refrigerator, which offers a stable and reliable environment for carrying out clinical, pharmaceutical and industrial research at uniform temperatures. A user-friendly design and flexible temperature range allows for application in various laboratory procedures, including chromatography and pharmaceutical storage.

- Unique defrost cycle is performed automatically during compressor “off” cycles by sensing frost levels
- Uniformity with forced air circulation
- Microprocessor controller for maintaining temperature levels with audible and visual alarms
- Versatile design with adjustable shelves and a wide setpoint range for varying laboratory applications

**Specifications:**

- Temperature range: 2°C to 23°C, adjustable by 1°C increments
- Warranty: 2-year parts and labor, 3-year compressor parts

**MPR-722/MPR-722R dimensions**

- Interior (W x D x H): 25.6 x 27.9 x 59.1 in.
- Exterior (W x D x H): 30.3 x 36.2 x 76.9 in.

**MPR-1412/MPR-1412R dimensions**

- Interior (W x D x H): 52 x 28 x 59.1 in.
- Exterior (W x D x H): 56.7 x 36.2 x 76.8 in.

*Formerly known as Panasonic Healthcare Corporation of North America*
Cold Storage

Refrigerators: **General Laboratory**

**Thermo Scientific™ TSX Series High-Performance BioMedical Lab Refrigerators**

THERMO FISHER SCIENTIFIC - Available in glass or solid door, high-performance refrigerators combine advanced temperature control with high-quality cabinet construction and alarm systems. Positive, forced-air circulation is designed to maintain temperature uniformity to protect important medical and pharmaceutical-products as well as laboratory media, reagents and more.

- ENERGY STAR® and UL, cUL certified
- Factory pre-set to 5°C
- Temperature range 3°C to 7°C, auto defrost
- Forced-air circulation for temperature uniformity at all shelf levels
- Heat-free defrost for maximum temperature uniformity
- Quiet operation at just 52 dBA
- GMP Clean Room Class A / ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- Glass door versions are standard with triple pane glass door

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<td>51 cu. ft., 2 solid doors, 8 shelves, 208–230 V</td>
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To order, call: 800.964.5227
### Thermo Scientific™ TSG Series General Purpose Refrigerators

THERMO FISHER SCIENTIFIC - TSG Series General Purpose Refrigerators are designed with your laboratory in mind, combining the performance, security, and quality required for everyday laboratory applications.

- ENERGY STAR® and cULus certified
- Factory pre-set to 5°C
- Temperature range 2°C to 10°C
- Featuring a wide range of cabinet sizes from 12 cu. ft. to 72 cu. ft.
- Whisper-quiet operation at 51 dBA
- Adaptive defrost
- Glass (double pane) or solid door configurations
- Choice of white painted interior and exterior, or stainless steel interior and gray exterior
- LED interior lighting
- Temperature, door ajar, and power failure (with battery back-up) alarms
- Digital controller
- Low heat output
- Rear access port
- Keyed door lock(s)
- Remote alarm contacts

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**Exterior color - gray/interior color – stainless steel**

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Refrigerators: **General Laboratory Undercounter**

**Premier Plus Series Lab Undercounter Refrigerators**

CARDINAL HEALTH - Premier Plus high-performance undercounter refrigerators are designed for your lab environment. These undercounter refrigerators save energy, reduce noise and meet sustainability protocols.

- Solid State Cooling Technology adjusts cooling performance to the conditions
- Redundant cooling for extra sample security
- 50% more capacity to store more in less space
- ENERGY STAR® rated performance meaning lower operating costs
- SNAP compliant
- Quiet operation
- Sleek exterior design and touch screen
- Solid and glycol temperature display
- Bright, easy-to-adjust interior LED lighting
- Choice of transparent glass or solid door
- Data logging with USB download functionality
- 1 in. rear access port

ENERGY STAR® and cULus certified.

**Temperature range: +3°C to +7°C, auto defrost**

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<td>NEMA 5-15</td>
<td>Undercounter</td>
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<td>26 x 23.6 x 31.8</td>
<td>144</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representatives. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representatives for specific inquiries regarding your application.

**Pro Series Laboratory Undercounter Refrigerators**

CARDINAL HEALTH - Pro Series Laboratory Undercounter Refrigerators powered by Solid State Cooling Technology, has been designed to meet the rigorous and demanding needs of healthcare, research and industrial applications where solid performance is required. Solid state refrigeration in place of traditional refrigeration methods allows you to maintain the most demanding storage conditions.

- Solid State Cooling Technology adjusts cooling performance to the conditions
- 50% more capacity to store more in less space
- ENERGY STAR® rated performance meaning lower operating costs
- SNAP compliant
- Quiet operation
- Increased capacities to store more in less space
- Full alarm set, including hi/lo temperature, door ajar and power fail to support requirements for medical storage
- Remote alarm contacts supporting requirements of research for monitoring

ENERGY STAR®, UL and CE certified.

**Temperature range: +2°C to +9°C, preset to +5°C, auto defrost**

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>CAG505GA</td>
<td>5.5</td>
<td>100–240 (50/60)</td>
<td>NEMA 5-15</td>
<td>Single, glass</td>
<td>3</td>
<td>19.5 x 20.5 x 23</td>
<td>26 x 23.6 x 32</td>
<td>145</td>
</tr>
<tr>
<td>CAG505SA</td>
<td>5.5</td>
<td>100–240 (50/60)</td>
<td>NEMA 5-15</td>
<td>Single, solid</td>
<td>3</td>
<td>19.5 x 20.5 x 23</td>
<td>26 x 23.6 x 32</td>
<td>128</td>
</tr>
</tbody>
</table>
High Performance Biomedical Undercounter Refrigerator

PHC CORPORATION OF NORTH AMERICA* - This undercounter refrigerator is designed for the critical storage of vaccines and biological materials. The freestanding or undercounter high performance laboratory refrigerator combines PHCbi brand compressors with stringent control processes to provide the highest quality laboratory refrigerator available. This space-saving lab refrigerator provides a versatile undercounter design, high performance optimized temperature control and LED display for alarms and diagnostic functions.

- Microprocessor control/alarm system
- Front airflow refrigeration compartment design requires no additional air space around the cabinet.
- Refrigerator includes an automatic defrost function
- One cabinet can be stacked on top of another to double storage volume, an optional stacking adapter is required.

Specifications:
Temperature range: 1°C to 14°C (ambient temperature 26°C, no load)
Temperature uniformity: ±3°C (ambient temperature: 26°C, no load)
Power requirements: 115 V, 60 Hz, 0.9 A

Dimensions
Interior (W x D x H): 20.9 x 17.4 x 27.8 in.
Exterior (W x D x H): 23.6 x 25.7 x 34.6 in.

*Formerly known as Panasonic Healthcare Corporation of North America

---

High Performance Undercounter and Countertop Design Laboratory Refrigerator

PHC CORPORATION OF NORTH AMERICA* - This refrigerator is designed for critical storage of vaccines, pharmaceuticals and lab materials. The cabinet is an ideal size for personal lab storage or for isolated storage of single specific or quarantined product. The unique refrigeration system maintains critical temperature of 5°C with uniformity of ±3°C.

Cabinet operation from 2°C to 8°C allows for ideal storage of pharmaceutical and lab materials without freezing. The refrigerator is UL471 commercially rated by Underwriters Laboratory.

The microprocessor controller with digital display and touchpad interface simplifies temperature and alarm programming. The control panel includes audible warnings and indicator lights for high and low temperature or door ajar alarms. The refrigeration system is powered by a quiet, air cooled compressor. Defrost is initiated automatically with compressor cycling.

Specifications:
Temperature range: 2°C to 8°C
Shelves: 2 adjustable powder coated wire with rear guard
Power requirements: 115 V, 60 Hz

Dimensions
Interior (W x D x H): 15.7 x 10.3 x 17.3 in.
Exterior (W x D x H): 18.6 x 19.9 x 25 in.

*Formerly known as Panasonic Healthcare Corporation of North America

---

Undercounter Laboratory Refrigerators

PHC CORPORATION OF NORTH AMERICA* - These undercounter laboratory refrigerators are specifically designed to optimize cold storage for a variety of laboratory applications. This model is ideal for the demanding standards of laboratory applications that need a precise and uniform temperature environment. This undercounter refrigerator provides a space saving design with minimal maintenance and cleaning.

- State-of-the-art compressor technology for temperature uniformity
- Easy maintenance with foamed in condenser design that reduces collection of dust particles on unit, minimizing cleaning time.

Specifications:
Temperature range: 2°C to 14°C
Shelves: 3 adjustable coated wire shelves
Power requirements: 115 V, 60 Hz

Dimensions
Interior (W x D x H): 18.6 x 15.2 x 29.5 in.
Exterior (W x D x H): 21.4 x 22.8 x 33.8 in.

*Formerly known as Panasonic Healthcare Corporation of North America

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<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRL6111W</td>
<td>SR-L6111W-PA</td>
<td>5.7 cu. ft. with key lock</td>
<td>1/ea</td>
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<tr>
<td>SRF-L61PS</td>
<td>SRFL61PS</td>
<td>Stacking adapter</td>
<td>1/ea</td>
</tr>
<tr>
<td>PRL2466WPA</td>
<td>PR-L2466W-PA</td>
<td>1.62 cu. ft. - 2 wire shelves</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

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Cold Storage

Refrigerators: **General Laboratory Undercounter**

**Thermo Scientific™ TSX Series High-Performance Undercounter Lab Refrigerators**

THERMO FISHER SCIENTIFIC - TSX Series High-Performance Undercounter Lab Refrigerators support sample protection and sustainability objectives for the storage of media, reagents, chemotherapy, pharmaceutical and other research and medical products. Powered by V-drive, the TSX Series delivers low energy, decreased noise levels and improved performance and user experience. These new undercounter refrigerators are quiet and feature an improved user interface, automated locking and increased storage capacity and reliability.

- U.S. Environmental Protection Agency SNAP (Significant New Alternatives Policy) compliant refrigerants
- Temperature range 3°C to 7°C, auto defrost
- Unique V-drive technology is designed to save energy without compromising the protection of stored products
- Quiet operation at just 35dBa (43 during pull down)
- Reduced energy consumption
- Sleek exterior design and touch screen
- Bright, easy-to-adjust interior LED lighting
- Touchscreen controller with password protection
- Datalogging with USB download functionality
- Battery backup
- Choice of reversible glass or solid door
- Air or glycol temperature display
- Automated locking
- 1 in. rear access port
- Remote alarm contacts
- Audible and visual alarms: power fail, high temp, low temp, low battery, memory full, door ajar
- ADA compliant

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<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSX505GA</td>
<td>TSX505GA</td>
<td>5.5 cu. ft., glass door, 3 shelves, 100–230 V, NEMA 5-15 plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX505GD</td>
<td>TSX505GD</td>
<td>5.5 cu. ft., glass door, 3 shelves, 100–230 V, NEMA 5-16 plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX505SA</td>
<td>TSX505SA</td>
<td>5.5 cu. ft., solid door, 3 shelves, 100–230 V, NEMA 5-15 plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX505SD</td>
<td>TSX505SD</td>
<td>5.5 cu. ft., solid door, 3 shelves, 100–230 V, NEMA 5-16 plug</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Thermo Scientific™ TSG Series Small Capacity Refrigerators**

THERMO FISHER SCIENTIFIC - TSG Series Small Capacity Refrigerators are powered by Phononic™ solid state refrigeration technology. Designed to meet the rigorous and demanding needs of healthcare, research and industrial applications where solid performance is required.

- ENERGY STAR® rated performance meaning lower operating costs
- Solid state refrigeration technology
- Whisper quiet operation leading to a more comfortable work environment supporting clinical and healthcare needs
- Increased capacities due to fewer refrigeration components means you can store more in less space
- Green refrigerators supporting global initiatives to reduce greenhouse gas emissions
- Full alarm set, including hi/lo temperature, door ajar and power fail to support requirements for medical storage
- Remote alarm contacts on TSG505, supporting requirements of research for monitoring
- Datalogging and download capability on TSG205 via USB port to support clinical record management requirements

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<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>TSG205SA</td>
<td>TSG205SA</td>
<td>1.8 cu. ft. countertop, solid door, 3 shelves, 120 V, NEMA 5-15 plug</td>
<td>1/ea</td>
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<tr>
<td>TSG505GA</td>
<td>TSG505GA</td>
<td>5.5 cu. ft. undercounter, glass door, 3 shelves, 100–240 V, NEMA 5-15 plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSG505GD</td>
<td>TSG505GD</td>
<td>5.5 cu. ft. undercounter, glass door, 3 shelves, 100–240 V, NEMA 5-16 plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSG505SA</td>
<td>TSG505SA</td>
<td>5.5 cu. ft. undercounter, solid door, 3 shelves, 100–240 V, NEMA 5-15 plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSG505SD</td>
<td>TSG505SD</td>
<td>5.5 cu. ft. undercounter, solid door, 3 shelves, 100–240 V, NEMA 5-16 plug</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Premier Plus Series Blood Bank Refrigerators

CARDINAL HEALTH - Premier Plus high-performance blood bank refrigerators are designed to meet strict requirements established by the AABB for the storage of whole blood and blood components.

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Factory pre-set to 4°C to meet blood storage guidelines
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Heat-free defrost for maximum temperature uniformity
- Convenient, stainless steel, fully extendable and adjustable drawers
- Standard, built-in chart recorder
- Quiet operation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- FDA listed Class II Medical Device, 510K exempt

ENERGY STAR®, UL and cUL certified.

Temperature range: +3°C to +7°C, factory pre-set to +4°C, auto defrost

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Cu. Ft. (Bag capacity**)</th>
<th>Voltage (Hz)</th>
<th>Electrical Plug</th>
<th>Cabinet</th>
<th>Door</th>
<th>Drawers</th>
<th>Int. Dimensions* D x W x H in.</th>
<th>Ext. Dimensions* D x W x H in.</th>
<th>Ship Wt. lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAX1204BA</td>
<td>11.5 (192)</td>
<td>115 (60)</td>
<td>NEMA 5-15 Space saver Single, glass 6</td>
<td>21.8 x 20 x 52.4</td>
<td>30.5 x 24 x 73</td>
<td>404</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAX1204BD</td>
<td>11.5 (192)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15 Space saver Single, glass 6</td>
<td>21.8 x 20 x 52.4</td>
<td>30.5 x 24 x 73</td>
<td>404</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAX2304BA</td>
<td>23 (385)</td>
<td>115 (60)</td>
<td>NEMA 5-15 Upright Single, glass 7</td>
<td>28.5 x 24 x 58</td>
<td>37.8 x 28 x 78.5</td>
<td>550</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAX2304BD</td>
<td>23 (385)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15 Upright Single, glass 7</td>
<td>28.5 x 24 x 58</td>
<td>37.8 x 28 x 78.5</td>
<td>550</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAX3004BA</td>
<td>29.2 (426)</td>
<td>115 (60)</td>
<td>NEMA 5-15 Upright Single, glass 6</td>
<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
<td>554</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAX3004BD</td>
<td>29.2 (426)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15 Upright Single, glass 6</td>
<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
<td>554</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAX5004BA</td>
<td>51.1 (770)</td>
<td>115 (60)</td>
<td>NEMA 5-15 Upright Double, glass 14</td>
<td>28.5 x 52.5 x 58</td>
<td>37.8 x 56.5 x 78.5</td>
<td>865</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CAX5004BD</td>
<td>51.1 (770)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15 Upright Double, glass 14</td>
<td>28.5 x 52.5 x 58</td>
<td>37.8 x 56.5 x 78.5</td>
<td>865</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

** Nominal capacity based on 450 mL whole blood bags.

Premier Series Blood Bank Refrigerator

Temperature range: +3°C to +7°C, factory pre-set to +4°C, auto defrost

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Cu. Ft. (Bag capacity**)</th>
<th>Voltage (Hz)</th>
<th>Electrical Plug</th>
<th>Cabinet</th>
<th>Door</th>
<th>Drawers</th>
<th>Int. Dimensions* D x W x H in.</th>
<th>Ext. Dimensions* D x W x H in.</th>
<th>Ship Wt. lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R3863-4A</td>
<td>4.9 (64)</td>
<td>115 (60)</td>
<td>NEMA 5-15 Undercounter Single, solid 2</td>
<td>20.5 x 20 x 20</td>
<td>26 x 24 x 33.4</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

** Nominal capacity based on 450 mL whole blood bags.

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Cold Storage

Refrigerators: Blood Bank

Thermo Scientific™ TSX Series High-Performance Blood Bank Refrigerators
THERMO FISHER SCIENTIFIC - High-performance blood bank refrigerators are designed to meet strict requirements established by the AABB for the storage of whole blood and blood components.

- ENERGY STAR® certified
- FDA and UL, cUL certified
- Factory pre-set to 4°C to meet blood storage guidelines
- Temperature range 3°C to 7°C, auto defrost
- Triple pane glass door helps maintain optimal internal condition
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Heat-free defrost for maximum temperature uniformity
- Convenient, stainless steel, fully extendable and adjustable drawers
- Standard, built-in chart recorder
- Quiet operation at just 52 dBA
- GMP Clean Room Class A / ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSX2304BA</td>
<td>TSX2304BA</td>
<td>23 cu. ft., glass door, 7 drawers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2304BD</td>
<td>TSX2304BD</td>
<td>23 cu. ft., glass door, 7 drawers, 208–230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5004BA</td>
<td>TSX5004BA</td>
<td>51 cu. ft., 2 glass doors, 14 drawers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5004BD</td>
<td>TSX5004BD</td>
<td>51 cu. ft., 2 glass doors, 14 drawers, 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Navigating challenges, discovering solutions.
**Premier Plus Series Chromatography Refrigerators**

**CARDINAL HEALTH** - Premier Plus high-performance chromatography refrigerators are designed for a variety of applications requiring close temperature control, full access to chromatography instrumentation and easy set-up of instrumentation and apparatus within the chamber.

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Forced-air circulation for temperature uniformity at all shelf levels
- Heat-free defrost for maximum temperature uniformity
- Quiet operation at just 52 dBA
- Two 2 in. side wall access ports with insulated hinged covers
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, set-point security
- Self-closing door with 90° stop to assist with inventory loads
- Triple pane glass doors standard on all models
- Safety switch protected internal electrical outlet on all models

ENERGY STAR®, UL and cUL certified.

**Temperature range:** +3°C to +7°C, factory pre-set to +5°C, auto defrost

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</tr>
</thead>
<tbody>
<tr>
<td>CAX2305CA</td>
<td>23</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, glass</td>
<td>0 (2)</td>
<td>28.5 x 24 x 58</td>
<td>37.8 x 28 x 78.5</td>
<td>439</td>
</tr>
<tr>
<td>CAX2305CD</td>
<td>23</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, glass</td>
<td>0 (2)</td>
<td>28.5 x 24 x 58</td>
<td>37.8 x 28 x 78.5</td>
<td>418</td>
</tr>
<tr>
<td>CAX3005CA</td>
<td>29.2</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, glass</td>
<td>0 (2)</td>
<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
<td>442</td>
</tr>
<tr>
<td>CAX3005CD</td>
<td>29.2</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, glass</td>
<td>0 (2)</td>
<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
<td>442</td>
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<tr>
<td>CAX4505CA</td>
<td>45.8</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Double, sliding glass</td>
<td>4 (2)</td>
<td>26 x 52.5 x 58</td>
<td>36.6 x 56.5 x 78.5</td>
<td>600</td>
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<tr>
<td>CAX4505CD</td>
<td>45.8</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Double, sliding glass</td>
<td>4 (2)</td>
<td>26 x 52.5 x 58</td>
<td>36.6 x 56.5 x 78.5</td>
<td>600</td>
</tr>
<tr>
<td>CAX5005CA</td>
<td>51.1</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Double, glass</td>
<td>4 (2)</td>
<td>28.5 x 52.5 x 58</td>
<td>37.8 x 56.5 x 78.5</td>
<td>658</td>
</tr>
<tr>
<td>CAX5005CD</td>
<td>51.1</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Double, glass</td>
<td>4 (2)</td>
<td>28.5 x 52.5 x 58</td>
<td>37.8 x 56.5 x 78.5</td>
<td>658</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.
Cold Storage

Refrigerators: Chromatography

Pro Series Chromatography Refrigerators
CARDINAL HEALTH - Pro Series Chromatography Refrigerators are designed with your chromatography applications in mind.

- SNAP compliant
- Hydrocarbon safety sensor protected interior duplex outlet
- Quiet operation
- Adaptive defrost
- Double pane glass doors
- Choice of white painted interior and exterior, or stainless steel interior and gray exterior
- LED interior lighting
- Temperature, door ajar and power failure (with battery back-up) alarms
- Digital controller
- Low heat output
- Rear access port, plus two 2 in. side access ports
- Keyed door lock(s)
- Remote alarm contacts

ENERGY STAR® and cULus certified.

Temperature range: +2°C to +10°C, preset to +5°C, adaptive defrost

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>CHG30CPGA</td>
<td>27</td>
<td>115 (60)</td>
<td>NEMA 5-15 (2)</td>
<td>Single, glass</td>
<td>Painted white/white</td>
<td>4 (3)</td>
<td>28.5 x 27 x 61.75</td>
<td>32 x 30.75 x 81</td>
<td>386</td>
</tr>
<tr>
<td>CHG30CSGA</td>
<td>27</td>
<td>115 (60)</td>
<td>NEMA 5-15 (2)</td>
<td>Single, glass</td>
<td>Stainless steel/gray</td>
<td>4 (3)</td>
<td>28.5 x 27 x 61.75</td>
<td>32 x 30.75 x 81</td>
<td>386</td>
</tr>
<tr>
<td>CHG45CPLA</td>
<td>45</td>
<td>115 (60)</td>
<td>NEMA 5-15 (2)</td>
<td>Double slide, glass</td>
<td>Painted white/white</td>
<td>8 (2)</td>
<td>28.5 x 49 x 61.75</td>
<td>32 x 52.7 x 81</td>
<td>561</td>
</tr>
<tr>
<td>CHG45CSLA</td>
<td>45</td>
<td>115 (60)</td>
<td>NEMA 5-15 (2)</td>
<td>Double slide, glass</td>
<td>Stainless steel/gray</td>
<td>8 (2)</td>
<td>28.5 x 49 x 61.75</td>
<td>32 x 52.7 x 81</td>
<td>561</td>
</tr>
<tr>
<td>CHG49CPGA</td>
<td>49</td>
<td>115 (60)</td>
<td>NEMA 5-15 (2)</td>
<td>Double, glass</td>
<td>Painted white/white</td>
<td>8 (2)</td>
<td>28.5 x 49 x 61.75</td>
<td>32 x 52.7 x 81</td>
<td>597</td>
</tr>
<tr>
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<td>Double, glass</td>
<td>Stainless steel/gray</td>
<td>8 (2)</td>
<td>28.5 x 49 x 61.75</td>
<td>32 x 52.7 x 81</td>
<td>597</td>
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<tr>
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<td>28.5 x 72 x 61.75</td>
<td>32 x 75.7 x 81</td>
<td>733</td>
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<tr>
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<td>Triple, glass</td>
<td>Stainless steel/gray</td>
<td>12 (2)</td>
<td>28.5 x 72 x 61.75</td>
<td>32 x 75.7 x 81</td>
<td>733</td>
</tr>
</tbody>
</table>

*Chromatography Refrigerators are supplied with two power cords (one for the unit and one for the internal receptacle and Hydrocarbon Safety Sensor)
Cold Storage

Refrigerators: Chromatography

Thermo Scientific™ TSX Series High Performance Chromatography Refrigerators

THERMO FISHER SCIENTIFIC - TSX High-Performance Chromatography Refrigerators are designed for a variety of applications requiring close temperature control, full access to chromatography instrumentation, and easy set-up of instrumentation and apparatus within the chamber. The TSX Chromatography series features industry-leading safety features to ensure maximum protection.

- ENERGY STAR® certified and SNAP compliant
- UL and cUL certified
- Factory pre-set to 5°C
- Temperature range 3°C to 7°C, auto defrost
- Forced-air circulation for temperature uniformity at all shelf levels
- Heat-free defrost for maximum temperature uniformity
- Quiet operation at just 52 dBA
- Two 2 in. (5 cm) side wall access ports with insulated hinged covers
- GMP Clean Room Class A / ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, set-point security
- Self-closing door with 90° stop to assist with inventory loads
- Triple pane glass doors standard on all models
- Safety switch protected internal electrical outlet on all models (Duplex outlet on A and D models, single outlet on V models)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSX2305CA</td>
<td>TSX2305CA</td>
<td>23 cu. ft., glass door, 0 full 2 half shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2305CD</td>
<td>TSX2305CD</td>
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<tr>
<td>TSX4505CA</td>
<td>TSX4505CA</td>
<td>45.8 cu. ft., double sliding glass, 4 full 2 half shelves, 115 V</td>
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<tr>
<td>TSX4505CD</td>
<td>TSX4505CD</td>
<td>45.8 cu. ft., double sliding glass, 4 full 2 half shelves, 208–230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5005CA</td>
<td>TSX5005CA</td>
<td>51.1 cu. ft., 2 glass doors, 4 full 2 half shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5005CD</td>
<td>TSX5005CD</td>
<td>51.1 cu. ft., 2 glass doors, 4 full 2 half shelves, 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Thermo Scientific™ TSG Series Chromatography Refrigerators**

THERMO FISHER SCIENTIFIC - The TSG Series is ideal for the demanding requirements of daily use in research, clinical, and industrial laboratories storing non-critical products such as reagents, media, proteins, and other samples requiring a 2°C to 10°C controlled environment.

- ENERGY STAR® and cULus certified
- Factory pre-set to 5°C
- Temperature range 2°C to 10°C
- Featuring a wide range of cabinet sizes from 30 cu. ft. to 72 cu. ft.
- Hydrocarbon safety sensor protected interior duplex outlet
- Whisper-quiet operation at 51 dBA
- Adaptive defrost
- Double pane glass doors
- Choice of white painted interior and exterior, or stainless steel interior and gray exterior
- LED interior lighting
- Temperature, door ajar, and power failure (with battery back-up) alarms
- Digital controller
- Low heat output
- Rear access port, plus two 2 in. side access ports
- Keyed door lock(s)
- Remote alarm contacts

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior color - white/interior color - white</td>
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</tr>
<tr>
<td>TSG30CPGA</td>
<td>TSG30CPGA</td>
<td>27 cu. ft., glass door, 4 full 3 half shelves, 115 V</td>
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<tr>
<td>TSG45CPLA</td>
<td>TSG45CPLA</td>
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<tr>
<td>TSG49CPGA</td>
<td>TSG49CPGA</td>
<td>49 cu. ft., 2 glass doors, 8 full 2 half shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSG72CPGA</td>
<td>TSG72CPGA</td>
<td>72 cu. ft., 3 glass doors, 12 full 2 half shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>Exterior color - gray/interior color - stainless steel</td>
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<td></td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>TSG49CSGA</td>
<td>TSG49CSGA</td>
<td>49 cu. ft., 2 glass doors, 8 full 2 half shelves, 115 V</td>
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</tr>
<tr>
<td>TSG72CSGA</td>
<td>TSG72CSGA</td>
<td>72 cu. ft., 3 glass doors, 12 full 2 half shelves, 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Premier Plus Series Pharmacy Refrigerators

CARDINAL HEALTH - Premier Plus high-performance pharmacy refrigerators feature adjustable basket drawers and glass doors for the easy identification and access of vaccines, pharmaceuticals, chemotherapeutics and other material requiring 2°C to 8°C storage.

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Triple panel glass door helps maintain optimal internal conditions
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Heat-free defrost for maximum temperature uniformity
- Convenient, fully extendable and adjustable basket drawers
- Quiet operation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- Built-in remote alarm contacts

ENERGY STAR®, UL and cUL certified.

Temperature range: +3°C to +7°C, factory pre-set to +5°C, auto defrost

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>CAX1205PA</td>
<td>11.5</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Space saver</td>
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<td>5</td>
<td>21.8 x 20 x 52.4</td>
<td>30.5 x 24 x 73</td>
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</tr>
<tr>
<td>CAX1205PD</td>
<td>11.5</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Space saver</td>
<td>Single, glass</td>
<td>5</td>
<td>21.8 x 20 x 52.4</td>
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</tr>
<tr>
<td>CAX2305PA</td>
<td>23</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, glass</td>
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<td>28.5 x 24 x 58</td>
<td>37.8 x 28 x 78.5</td>
<td>531</td>
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<tr>
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<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, glass</td>
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<td>28.5 x 24 x 58</td>
<td>37.8 x 28 x 78.5</td>
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<tr>
<td>CAX3005PA</td>
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<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, glass</td>
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<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
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<td>29.2</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, glass</td>
<td>6</td>
<td>28.5 x 30 x 58</td>
<td>37.3 x 34 x 78.5</td>
<td>541</td>
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<tr>
<td>CAX5005PA</td>
<td>51.1</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Double, glass</td>
<td>12</td>
<td>28.5 x 52.5 x 58</td>
<td>37.8 x 56.5 x 78.5</td>
<td>830</td>
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<tr>
<td>CAX5005PD</td>
<td>51.1</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Double, glass</td>
<td>12</td>
<td>28.5 x 52.5 x 58</td>
<td>37.8 x 56.5 x 78.5</td>
<td>830</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; usable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.
Cold Storage

Refrigerators: Pharmacy

Premier Laboratory and Pharmacy Refrigerators
NOR-LAKE SCIENTIFIC - Heavy-duty design with one or two doors, in either solid or glass. Automatic defrost and digital LED microprocessor control with audible/visual high/low alarms with remote alarm contacts. White exterior front, sides and back. Exterior top and bottom are galvanized steel. White interior with three epoxy-coated shelves per door, which can be adjusted in 1 in. increments.

Refrigerator cabinet is formed-in-place with high-density polyurethane foam insulation. Doors have heavy-duty pivot hinges and pull handles with centered key locks and self-adjusting magnetic gaskets. Top-mounted refrigeration, air-cooled condensing unit, automatic condensate evaporation and door-opening heaters (glass door models). Four casters (two locking) on one- and two-door models. Available with optional chart recorder, up to eight stainless steel drawers, up to six wire basket drawers, internal electrical outlet, lead access ports, stainless steel interior and exterior and extra shelves. UL/CUL listed. Warranties: 18-month parts and labor, 5-year compressor (US and Canada).

Specifications:
Temperature range. 2°C to 10°C factory preset at 4°C
Power requirement. 115 V, 60 Hz

**PR241WWW0 and PR241WW0**
- Shelf area. 12.8 sq. ft.
- Interior dimensions (H x W x D). 59 x 23½ x 30 in.
- Exterior dimensions (H x W x D). 79½ x 27½ x 35½ in.

**PR331WWW0 and PR331WWW0**
- Shelf area. 15.8 sq. ft.
- Interior dimensions (H x W x D). 67 x 27½ x 31 in.
- Exterior dimensions (H x W x D). 87½ x 31¾ x 36½ in.

**PR522WWW0 and PR522WWW0**
- Shelf area. 28.6 sq. ft.
- Interior dimensions (H x W x D). 59 x 51 x 30 in.
- Exterior dimensions (H x W x D). 79½ x 55 x 35½ in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
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<tbody>
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<td>Glass doors</td>
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<tr>
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<td>24 cu. ft. - 1 door</td>
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<tr>
<td>PR331WWW0</td>
<td>NSPR331WWW/0</td>
<td>33 cu. ft. - 1 door</td>
<td>1/ea</td>
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<tr>
<td>Solid doors</td>
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</tr>
<tr>
<td>PR241WWW0</td>
<td>NSPR241WWW/0</td>
<td>24 cu. ft. - 1 door</td>
<td>1/ea</td>
</tr>
<tr>
<td>PR331WWW0</td>
<td>NSPR331WWW/0</td>
<td>33 cu. ft. - 1 door</td>
<td>1/ea</td>
</tr>
<tr>
<td>PR522WWW0</td>
<td>NSPR522WWW/0</td>
<td>52 cu. ft. - 2 doors</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Pharmaceutical Refrigerators

PHC CORPORATION OF NORTH AMERICA* - The ENERGY STAR® certified pharmacy refrigerator offers an integrated solution for precise storage temperatures necessary for pharmaceuticals, medicines, vaccines and other temperature sensitive biologicals. The slim front-to-back design and optional sliding shelves allow for ergonomic retrieval of your product while fitting seamlessly into your facility.

- Temperature uniformity with fan-forced air circulation
- Validated storage: plenum design allows for uniform airflow distribution to ensure temperature uniformity
- Defrosting is performed automatically during compressor “off” cycles by sensing frost levels
- Microprocessor controller for comprehensive setpoint, alarm, monitoring and diagnostic functions

Specifications:
Temperature range...................... 2°C to 14°C
Power requirement ...................... 115 V, 60 Hz, NEMA 5-15P plug

MPR-514/MPR-514R
Interior dimensions (W x D x H) ........... 31.5 x 18.3 x 51.2 in.
External dimensions (W x D x H) ........... 35.4 x 23.6 x 70.5 in.

MPR-1014
Interior dimensions (W x D x H) ........... 66.9 x 18.3 x 51.2 in.
External dimensions (W x D x H) ........... 71 x 23.6 x 70.5 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>MPR-514</td>
<td>MPR-514-PA</td>
<td>17.3 cu. ft. - 5 wire shelves</td>
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<tr>
<td>MPR-514R</td>
<td>MPR-514R-PA</td>
<td>17.2 cu. ft. - 5 wire shelves, 5 sliding racks</td>
<td>1/ea</td>
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<tr>
<td>MPR-1014</td>
<td>MPR-1014-PA</td>
<td>36.5 cu. ft. - 10 wire shelves</td>
<td>1/ea</td>
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<tr>
<td>MPR-1014R</td>
<td>MPR-1014R-PA</td>
<td>36.3 cu. ft. - 5 wire shelves, 10 sliding racks</td>
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<tr>
<td>Accessories</td>
<td>MPR-513SLF</td>
<td>Wire shelf with clips MPR-514</td>
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</table>
## Thermo Scientific™ TSX Series High-Performance Pharmacy Refrigerators

**THERMO FISHER SCIENTIFIC** - High-performance pharmacy refrigerators feature adjustable basket drawers and glass doors for the easy identification and access of vaccines, pharmaceuticals, chemotherapeutics and other material requiring 2°C to 8°C storage.

- ENERGY STAR® certified and SNAP compliant
- UL and cUL certified
- Factory pre-set to 5°C
- Temperature range 3°C to 7°C, auto defrost
- Triple panel glass door helps maintain optimal internal conditions
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Heat-free defrost for maximum temperature uniformity
- Convenient, fully extendable and adjustable basket drawers
- Quiet operation at just 52 dBA
- GMP Clean Room Class A / ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- NEW ergonomic handle with soft touch grip
- Built-in remote alarm contacts

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSX2305PA</td>
<td>TSX2305PA</td>
<td>23 cu. ft., glass door, 6 basket drawers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2305PD</td>
<td>TSX2305PD</td>
<td>23 cu. ft., glass door, 6 basket drawers, 208–230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5005PA</td>
<td>TSX5005PA</td>
<td>51 cu. ft., 2 glass doors, 12 basket drawers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5005PD</td>
<td>TSX5005PD</td>
<td>51 cu. ft., 2 glass doors, 12 basket drawers, 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**General-Purpose Laboratory Refrigerator**

**Upright Auto Defrost**

NOR-LAKE SCIENTIFIC - This auto forced-air defrost model's standard shelving includes two adjustable wire shelves, five full-width fixed door bins, two fixed wire shelves and a bottom shelf. The unit offers an interior light, two adjustable leg levelers and automatic door closers. Features a white interior, exterior, door and handle. Operating temperature +4°C with adjustable temperature control. The cabinet is foamed-in-place with CFC-free high-density polyurethane foam insulation. Units come with a 12-month parts warranty.

**Specifications:**

Interior dimensions (H x W x D) .......... 52 x 27½ x 21½ in.
Exterior dimensions (H x W x D) .......... 64½ x 32 x 28½ in.
Power requirements ...................... 115 V, 1 PH, 60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>LR161WWW0</td>
<td>LR161WWW/0</td>
<td>16.7 cu. ft. refrigerator</td>
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</table>

**Thermo Scientific™ Explosion-Proof Refrigerators**

THERMO FISHER SCIENTIFIC - Prevent the triggering of an explosion inside or outside the unit with Thermo Scientific™ Explosion-Proof Refrigerators, suitable for use in Class I, Division I Group C and D hazardous environments. Thermostat and compressor components are isolated within a vapor-proof enclosure and electrical connections are hardwired to prevent sparking and accidental disconnection.

- Temperature range: 1°C to 12°C
- Hydraulic thermostat
- Manual defrost
- Magnetic vinyl gaskets for positive door seal
- CFC-free insulation and refrigerant

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>20ERCETSA</td>
<td>20ERCETSA</td>
<td>20.9 cu. ft. refrigerator, 4 fixed shelves, 115 V</td>
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<tr>
<td>20EREETSAA</td>
<td>20EREETSAA</td>
<td>20.9 cu. ft. refrigerator, 4 fixed shelves, 6 fixed door shelves, 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Corrosion-resistant model, features stainless steel interior door and stainless steel shelves
Cold Storage

Refrigerators: **General-Purpose**

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**Thermo Scientific™ Flammable-Material Storage Refrigerators**

THERMO FISHER SCIENTIFIC - Designed to be used for the storage of volatiles, compounds and solvents where a spark-free internal cabinet environment is required. These units are engineered with no internal electrical components that could trigger an explosion and meet OSHA and National Fire Protection Association safety requirements.

- Temperature range: 1°C to 12°C
- Manual defrost
- Hydraulic thermostat on exterior to eliminate interaction with stored materials
- Aluminum evaporator coil
- Magnetic vinyl gaskets for positive door seal
- CFC-free insulation and coolant

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>20FRCETS A</td>
<td>20FRCETS A</td>
<td>20.9 cu. ft. refrigerator, 4 fixed shelves, 115 V</td>
<td>1/ea</td>
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<tr>
<td>20FREETSA</td>
<td>20FREETSA</td>
<td>20.9 cu. ft. refrigerator, 4 fixed shelves, 115 V</td>
<td>1/ea</td>
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</tbody>
</table>

*Corrosion-resistant model, features stainless steel interior door and stainless steel shelves

---

**Thermo Scientific™ Value Lab Refrigerators**

THERMO FISHER SCIENTIFIC - Value laboratory refrigerators are particularly suited for routine laboratory applications.

- Temperature range: 1°C to 12°C
- Environmentally friendly, CFC-free insulation and coolant
- Easy-to-clean, durable finish
- Manual defrost

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>5LRAETS A</td>
<td>05LREETSA</td>
<td>5.5 cu. ft. refrigerator, 3 adjustable shelves, storage on bottom, 115 V</td>
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</tr>
<tr>
<td>20LREETSA</td>
<td>20LREETSA</td>
<td>20.3 cu. ft. refrigerator, 4 fixed interior shelves, 6 door shelves, 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

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To order, call: 800.964.5227
Refrigerators/Freezers and Combinations: **General-Purpose**

**Select Series Laboratory Refrigerators and Freezers**

CARDINAL HEALTH - Select Series Laboratory Refrigerators, Freezers and combination units provide an economical solution for safe sample storage. This range of models is particularly suited for routine laboratory applications with sizes from small benchtop to full-height freestanding.

- Factory tested prior to shipment
- NRTL listed
- Non CFC refrigerants
- Adjustable temperature control
- Easy-to-clean, durable finish
- Manual and auto defrost combination units
- Manual defrost refrigerators and freezers

CSA or UL certified.

### Refrigerators - Temperature range: 1°C to 12°C

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<tbody>
<tr>
<td>CH05LREECA*</td>
<td>5.5</td>
<td>Manual</td>
<td>115 (60)</td>
<td>3 adjustable</td>
<td>17.5 x 20 x 27.75</td>
<td>23.5 x 23.63 x 33.5</td>
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<tr>
<td>CH17LREECA</td>
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<td>20.3</td>
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<td>115 (60)</td>
<td>4 fixed, 6 door</td>
<td>23.8 x 27.8 x 57.8</td>
<td>32.13 x 34 x 73.13</td>
<td>283</td>
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</table>

*Key lock available

### Freezers - Temperature range: –12°C to –24°C on CH05LFEECA, –12°C to –20°C on CH20LFEECA

<table>
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<tbody>
<tr>
<td>CH05LFEECA</td>
<td>5</td>
<td>Manual</td>
<td>115 (60)</td>
<td>2 fixed, 3 door</td>
<td>19 x 18.63 x 29.5</td>
<td>25.75 x 21.38 x 33.13</td>
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<tr>
<td>CH20LFEECA*</td>
<td>20.9</td>
<td>Manual</td>
<td>115 (60)</td>
<td>4 fixed, 6 door</td>
<td>23.8 x 27.8 x 57.8</td>
<td>32.13 x 34 x 73.13</td>
<td>198</td>
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</tbody>
</table>

*Key lock available

### Combination Ref./Frz. - Temp. range 1°C to 12°C ref., –12°C to –20°C frz., 0°C to 8°C ref., –6°C to –20°C frz. on CH18LCEECA

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<thead>
<tr>
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<tr>
<td>CH05LCEECA*</td>
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<td>17 x 20.5 x 19.5 (ref)</td>
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<tr>
<td>CH10LCEECA</td>
<td>10.1</td>
<td>Manual</td>
<td>115 (60)</td>
<td>3 adjustable, 1 fixed, 4 door</td>
<td>1</td>
<td>18.25 x 19.75 x 38.25 (ref)</td>
<td>24 x 23.63 x 59.75</td>
<td>150</td>
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<tr>
<td>CH18LCEECA</td>
<td>18</td>
<td>Automatic</td>
<td>115 (60)</td>
<td>Ref: 2 adjustable, 3 door Frz: 1 adjustable, 2 door</td>
<td>2</td>
<td>24.75 x 26 x 39.75 (ref)</td>
<td>30.13 x 30 x 66.63</td>
<td>205</td>
</tr>
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</table>

*Key lock available
Cold Storage

Refrigerators/Freezers and Combinations: General-Purpose

General-Purpose Laboratory Refrigerator/Freezer Upright Auto Defrost

NOR-LAKE SCIENTIFIC - This auto, forced air defrost model's standard shelving and storage for the refrigerator includes three adjustable sliding full-width shelves, three independent removable clear plastic drawer storage bins, three full-width fixed door bins and one-door storage bin with removable hinged clear plastic cover. Standard shelving and storage for the freezer two full-width door storage bins and one adjustable shelf.

The unit offers an interior light, two adjustable leg levelers and automatic door closers. Feature a white interior, exterior, door and handle. Operating temperature +4°C refrigerator, –10°C freezer with adjustable temperature control independent for refrigerator and freezer. The cabinet is foamed-in-place with CFC-free high-density polyurethane foam insulation. Units come with a 12-month parts warranty.

Specifications:

Refrigerator compartment (H x W x D)
Interior dimensions ............. 39½ x 26 x 26½ in.
Exterior dimensions ............. 68 x 30 x 34 in.

Freezer compartment (H x W x D)
Interior dimensions ............. 17¼ x 24 x 22 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRF201WWW0</td>
<td>LRF201WWW/0</td>
<td>20.5 cu. ft.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Value Lab Combination Refrigerator/Freezers

THERMO FISHER SCIENTIFIC - Chill, freeze and retrieve samples safely, simply and economically with the Value Lab Refrigerator/Freezer.

- Temperature range: (5LCEETSA) 1°C to 12°C ref, –12°C to –20°C frz
- Temperature range: (25LCEETSA) 1°C to 12°C ref, –14°C to –25°C frz
- Environmentally-friendly, non CFC refrigerants
- Adjustable temperature control
- Easy to clean, durable finish
- Manual and auto defrost combination units

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5LCEETSA</td>
<td>05LCEETSA</td>
<td>5.6 cu. ft. refrigerator/freezer, 2 adj. shelves, 1 drawer, 3 door shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>25LCEETSA</td>
<td>25LCEETSA</td>
<td>22 cu. ft. refrigerator/freezer, ref: 3 shelves, 5 door bins, 2 storage bins; frz: 2 wire baskets, 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Select Series Flammable Material Laboratory Refrigerators and Freezers

CARDINAL HEALTH - Flammable storage refrigerators, freezers and combination units are designed to be used for storage of volatiles where a spark-free internal cabinet environment is required. A range of models particularly suited for storage of flammable materials with sizes from small undercounter to full height freestanding.

- Spark-free interiors to reduce risk of internal explosion
- All units are manual defrost
- Tough white exterior
- CFC- and HCFC-free refrigeration system and insulation
- Designed to meet NFPA 45 and 99 along with OSHA article 1910.307

CSA or UL certified.

### Refrigerators - Temperature range: 1°C to 12°C

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<tr>
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</thead>
<tbody>
<tr>
<td>CH05FREECA*</td>
<td>5.5</td>
<td>Manual</td>
<td>115 (60)</td>
<td>3 adjustable</td>
<td>17.5 x 20 x 27.75</td>
<td>28.1 x 23.63 x 33.5</td>
<td>120</td>
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<tr>
<td>CH20FREECA*</td>
<td>20.9</td>
<td>Manual</td>
<td>115 (60)</td>
<td>4 fixed, 6 door</td>
<td>23.8 x 27.8 x 57.8</td>
<td>35.81 x 34 x 73.13</td>
<td>198</td>
</tr>
</tbody>
</table>

*Key lock available

### Freezers - Temperature range: –12°C to –20°C

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<tbody>
<tr>
<td>CH05FFEECA</td>
<td>5</td>
<td>Manual</td>
<td>115 (60)</td>
<td>2 fixed, 3 door</td>
<td>19 x 18.63 x 29.5</td>
<td>25.75 x 21.38 x 33.13</td>
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<tr>
<td>CH20FFEECA*</td>
<td>20.9</td>
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<td>115 (60)</td>
<td>4 fixed, 6 door</td>
<td>23.8 x 27.8 x 57.8</td>
<td>35.81 x 34 x 73.13</td>
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*Key lock available

### Combination refrigerator/freezer - Temperature range: 1°C to 12°C Ref., –12°C to –20°C Frz.

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</thead>
<tbody>
<tr>
<td>CH10FCEECA</td>
<td>10.1</td>
<td>Manual</td>
<td>115 (60)</td>
<td>3 adjustable, 1 fixed, 4 door</td>
<td>1</td>
<td>18.25 x 19.75 x 38.25 (ref)</td>
<td>18.25 x 18 x 11.25 (frz)</td>
<td>28.6 x 23.63 x 59.75</td>
<td>150</td>
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</tbody>
</table>
Cold Storage

Refrigerators/Freezers and Combinations: **Flammable Material**

**Thermo Scientific™ Flammable Material Storage Refrigerator/Freezer**

THERMO FISHER SCIENTIFIC - Safely store volatile materials with the Flammable Material Storage Refrigerator/Freezer. Engineered with no internal electrical components which could trigger an explosion. The refrigerator/freezer meets OSHA and National Fire Protection Association safety requirements.

- Temperature range: 1°C to 12°C ref, –12°C to –20°C frz
- Magnetic vinyl gaskets for positive door seal
- CFC-free insulation and coolant
- Three adjustable shelves and four door shelves in refrigerator section
- Hydraulic thermostat; adjustable natural air flow vent
- ABS plastic interior with enameled steel exterior
- Manual defrost
- Refrigerator/freezer has separate doors

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>10FCEETSA</td>
<td>10FCEETSA</td>
<td>10.1 cu. ft. refrigerator/freezer, 3 adjustable, 1 fixed shelf, 1 drawer, 4 door shelves, 115 V</td>
<td>1/ea</td>
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</table>
Select Series Spark-free Laboratory Refrigerators and Freezers

CARDINAL HEALTH - Spark-free refrigerators, freezers and combination units are designed to be used in areas where ignitable materials are normally present. A range of models, particularly suited for safe storage in hazardous environments, are available with sizes from undercounter to full height freestanding.

- Spark-free interior and exteriors reduce the risk of explosion
- All models are manual defrost
- Tough white exterior
- CFC- and HCFC-free refrigeration system and insulation
- Designed for use in Class I, Groups C, D, Group II B and Zone 1
- Plug-free cords (units must be hardwired to wall)

CSA or UL certified.

Refrigerators - Temperature range: 1°C to 12°C

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<tr>
<td>CH05ERECA*</td>
<td>5.5</td>
<td>Manual</td>
<td>115 (60)</td>
<td>3 adjustable</td>
<td>17.5 x 20 x 27.75</td>
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<td>CH20ERECA*</td>
<td>20.9</td>
<td>Manual</td>
<td>115 (60)</td>
<td>4 fixed, 6 door</td>
<td>23.8 x 27.8 x 57.8</td>
<td>34.96 x 34 x 77.5</td>
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<td></td>
<td>*Key lock available</td>
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Freezers - Temperature range: –12°C to –24°C

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<tbody>
<tr>
<td>CH20EFEECA*</td>
<td>20.9</td>
<td>Manual</td>
<td>115 (60)</td>
<td>4 fixed, 6 door</td>
<td>23.8 x 27.8 x 57.8</td>
<td>34.96 x 34 x 77.5</td>
<td>198</td>
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<td></td>
<td>*Key lock available</td>
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Combination refrigerator/freezer - Temperature range: 1°C to 12°C Ref., –12°C to –20°C Frz.

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<tbody>
<tr>
<td>CH10ECEECA</td>
<td>10.1</td>
<td>Manual</td>
<td>115 (60)</td>
<td>3 adjustable, 1 fixed, 4 door</td>
<td>1</td>
<td>18.25 x 19.75 x 38.25 (ref)</td>
<td>28.6 x 23.63 x 59.75</td>
<td>150</td>
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<td></td>
<td>18.25 x 18 x 11.25 (frz)</td>
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</table>
Cold Storage

Freezers: General Laboratory

Premier Plus Series –20°C Laboratory Freezers
CARDINAL HEALTH - High-performance manual defrost –20°C laboratory freezers are designed for applications in which even slight intermittent coil warming during auto defrost cannot be tolerated.

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Cold wall convection cooling with temperature uniformity
- Enzyme freezers feature enzyme bins
- Quiet operation
- Four 2 in. casters for easy mobility; the front two are lockable
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- Built-in remote alarm contacts

ENERGY STAR®, UL and cUL certified.


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<td>CAX2320FA</td>
<td>23.3</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>4 (0)</td>
<td>28.5 x 24 x 58</td>
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<td>CAX2320FD</td>
<td>23.3</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>4 (0)</td>
<td>28.5 x 24 x 58</td>
<td>38.9 x 28 x 78.5</td>
<td>438</td>
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<td>NEMA 5-15</td>
<td>Upright</td>
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<td>4 (0)</td>
<td>28.5 x 30 x 58</td>
<td>38.9 x 34 x 78.5</td>
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<td>9 (45)</td>
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<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>9 (54)</td>
<td>28.5 x 30 x 58</td>
<td>38.9 x 34 x 78.5</td>
<td>552</td>
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<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>9 (54)</td>
<td>28.5 x 30 x 58</td>
<td>38.9 x 34 x 78.5</td>
<td>552</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.
Premier Plus Series –30°C Laboratory Freezers

CARDINAL HEALTH - High-performance auto defrost –30°C laboratory freezers are designed for applications requiring storage of reagents, pharmaceuticals, biological and other commonly used laboratory materials such as primers, siRNA molecules and fetal bovine serum (FBS).

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Non-invasive defrost with time and temperature guided cycle
- Quiet operation
- Available in single and double door models
- Four 2 in. casters for easy mobility; the front two are lockable
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- Built-in remote alarm contacts

ENERGY STAR®, UL and cUL certified.

Temperature range: –15°C to –35°C, factory pre-set to –30°C, auto defrost

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<tr>
<td>CAX1230FA</td>
<td>11.5</td>
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<td>NEMA 5-15</td>
<td>Space saver</td>
<td>Single, solid</td>
<td>4</td>
<td>21.8 x 20 x 25.4</td>
<td>31.1 x 24 x 73</td>
<td>335</td>
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<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Space saver</td>
<td>Single, solid</td>
<td>4</td>
<td>21.8 x 20 x 25.4</td>
<td>31.1 x 24 x 73</td>
<td>335</td>
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<td>NEMA 5-15</td>
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<td>4</td>
<td>28.5 x 24 x 58</td>
<td>37.9 x 28 x 78.5</td>
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<td>NEMA 5-15</td>
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<td>28.5 x 30 x 58</td>
<td>37.9 x 34 x 78.5</td>
<td>439</td>
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<td>CAX3030FD</td>
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<td>NEMA 6-15</td>
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<td>115 (60)</td>
<td>NEMA 5-20</td>
<td>Upright</td>
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<td>28.5 x 52.5 x 58</td>
<td>37.9 x 56.5 x 78.5</td>
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<td>NEMA 6-15</td>
<td>Upright</td>
<td>Double, solid</td>
<td>8</td>
<td>28.5 x 52.5 x 58</td>
<td>37.9 x 56.5 x 78.5</td>
<td>621</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

Premier Series –30°C Laboratory Freezer

Temperature range: –15°C to –35°C, factory pre-set to –30°C, auto defrost

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<tbody>
<tr>
<td>R3863-2A</td>
<td>4.9</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Undercounter</td>
<td>Single, solid</td>
<td>3</td>
<td>20.5 x 20 x 20</td>
<td>26 x 24 x 33.4</td>
<td>220</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.
Cold Storage

Freezers: General Laboratory

**Pro Series Freezers**
CARDINAL HEALTH - Pro Series Freezers are designed with your laboratory in mind, combining the performance, security and quality required for everyday laboratory applications.

- SNAP compliant
- Whisper-quiet operation at 51 dBA
- Adaptive defrost
- Stainless steel interior and gray exterior
- LED interior lighting
- Temperature, door ajar, and power failure (with battery back-up) alarms
- Digital controller
- Low heat output
- Rear access port
- Keyed door lock(s)

ENERGY STAR® and cULus certified.

**Temperature range: -12°C to -24°C, adaptive defrost**

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<tbody>
<tr>
<td>CHG25FSSA</td>
<td>26.5</td>
<td>115 (60)</td>
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<td>26 x 27 x 61.6</td>
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<td>CHG49FSSA</td>
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<td>Solid</td>
<td>6</td>
<td>26 x 49 x 61.6</td>
<td>33.75 x 52 x 82</td>
<td>640</td>
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</tbody>
</table>
Premier Laboratory Freezers
NOR-LAKE SCIENTIFIC - These laboratory freezers are designed for heavy-duty use and are available with one, two or three solid doors. They feature a top-mounted non-CFC refrigeration system, air-cooled condensing unit, automatic condensate evaporators, automatic defrost and microprocessor control with integrated LED visual display and warm/cold audible and visual alarm. The freezer cabinet is formed-in-place with high-density polyurethane foam insulation. The exterior front, sides and top and bottom are galvanized steel. The interior liner and door panel are white and there are three epoxy-coated wire shelves per door. Doors have heavy-duty pivot hinges, pull handles with centered key locks and self-adjusting magnetic gaskets. There are four casters (two locking) on one- and two-door models and six casters (three locking) on three-door models. Preset at –25°C. UL- and CUL-listed.

Specifications:
Temperature range. ................. 25°C to –10°C
Power requirements  ................. 115 V, 60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF241WWW0</td>
<td>NSPF241WWW/0</td>
<td>24 cu. ft. - 12.8 sq. ft. shelf area - 1 door</td>
<td>1/ea</td>
</tr>
<tr>
<td>PF331WWW0</td>
<td>NSPF331WWW/0</td>
<td>33 cu. ft. - 15.9 sq. ft. shelf area - 1 door</td>
<td>1/ea</td>
</tr>
<tr>
<td>PF522WWW0</td>
<td>NSPF522WWW/0</td>
<td>52 cu. ft. - 28.6 sq. ft. shelf area - 2 doors</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Premier Low-Temperature Laboratory Freezer
NOR-LAKE SCIENTIFIC - Designed for heavy-duty laboratory and pharmacy storage, this freezer features a digital LED microprocessor control with high/low visual alarm and remote alarm contacts. Also features a top-mounted, non-CFC refrigeration system, air-cooled condensing unit, automatic condensate evaporator and automatic defrost. Freezer has white interior with three epoxy-coated shelves per door. The exterior front, sides and back are white baked-on enamel and the exterior top and bottom are galvanized steel. The cabinet and doors are foamed-in-place with high-density polyurethane foam insulation. Doors have heavy-duty pivot hinges, full-length stainless-steel pull handles and centered key locks, magnetic door gasket and interior light.

Mounted on four casters for convenient mobility. Operating temperature factory preset to –30°C. UL/CUL-listed. Warranties: 18-month parts and labor, 5-year compressor (US and Canada). Available with optional features including chart recorder, stainless steel interior and exterior, extra shelves, stainless steel drawers (eight per door), wire drawers baskets (eight per door) and lead access ports. This model is rated for 115 V, 1 PH, 60 Hz; includes: power cord with NEMA 5-20 plug.

Specifications:
Temperature range. ................. –30°C to –20°C
Interior dimensions (H x W x D) .................. 50 x 51 x 30 in.
Exterior dimensions (H x W x D) .................. 83¼ x 55 x 34¾ in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XF482WWW0</td>
<td>NSXF482WWW/0</td>
<td>52 cu. ft. - 39.7 sq. ft. - 6 shelves</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
## Cold Storage

**Freezers:** General Laboratory

### Biomedical Refrigerators with Freezers

PHC CORPORATION OF NORTH AMERICA* - With the growing emphasis on proper storage of laboratory and pharmacy materials, refrigerators with freezers combine high performance refrigeration, control and monitoring systems with energy efficient, cost-effective cabinet design. Separate refrigeration systems and compressors allow you to maintain proper temperature uniformity while saving space for even the smallest of facilities.

- Temperature uniformity with forced air refrigerator circulation
- Separate refrigeration systems for refrigerator and freezer
- Microprocessor controller for comprehensive setpoint, alarm, monitoring and diagnostic functions
- Unique cycle defrost refrigerator only initiates as required and maintains internal temperature uniformity without fluctuations
- Validated storage: refrigerator freezer is designed to assure stored product safety to meet regulatory guidelines

### Specifications:

**Temperature uniformity/range**
- Refrigerator: 2°C to 14°C
- Freezer: –20°C to –30°C

**Dimensions (W x D x H)**

**MPR-215F**
- Interior: Refrigerator 17.9 x 18.3 x 36.1 in., freezer 16.5 x 13.5 x 10.5 in.
- External: 21.3 x 21.9 x 70.6 in.

**MPRN450FH**
- Interior: Refrigerator 28.3 x 20.3 x 35.9 in., freezer 26.8 x 18.5 x 16.3 in.
- External: 31.9 x 25.2 x 72.4 in.

**MPR-715F**
- Interior: Refrigerator 31.9 x 24.2 x 35.2 in., freezer 30.3 x 21.7 x 16.6 in.
- External: 35.4 x 28.1 x 75.2 in.

*Formerly known as Panasonic Healthcare Corporation of North America

### Cat. No. Mfr. No. Description Qty.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPR-215F</td>
<td>MPR-215F-PA</td>
<td>6.2/1.4 cu. ft. ref. / freezer - 2-door, 3 wire coated shelves - ref./1 wire coated shelf - frz.</td>
</tr>
<tr>
<td>MPRN450FH</td>
<td>MPRN450FH-PA</td>
<td>11.5/4.8 cu. ft. ref. / freezer - glass windows top, 4-door, 3 glass shelves - ref./2 wire coated - frz.</td>
</tr>
<tr>
<td>MPRN450FSH</td>
<td>MPRN450FSH-PA</td>
<td>11.5/4.8 cu. ft. ref. / freezer - solid doors top, 4-door, 3 glass shelves - ref./2 wire coated - frz.</td>
</tr>
<tr>
<td>MPR-715F</td>
<td>MPR-715F-PA</td>
<td>14.7/6.2 cu. ft. ref. / freezer - 4-door, 3 wire coated shelves - ref. / 2 wire coated shelves - frz.</td>
</tr>
</tbody>
</table>
**–30°C Biomedical Upright Freezer**

PHC CORPORATION OF NORTH AMERICA* - The –30°C Biomedical Upright Freezer is a high performance freezer designed to preserve the integrity of biological samples at temperatures as low as -30°C. Constructed with high performance laboratory and clinical grade refrigeration systems, these freezers are used in medical, biotechnology and industrial labs for storage of blood components, enzymes, culture media, reagents, specimens and vaccines.

- Optimum storage capabilities designed for short- and intermediate-term storage
- Temperature uniformity assures stored product safety regardless of where in the refrigerator it is placed
- Microprocessor controller includes setpoint management, digital temperature displays, battery backup, audio/visual alarms

**Specifications:**

Temperature range ............ MDF-U333/MDF-U5312 (-20°C to -30°C)
Temperature range ............ MDF-U731/MDF-U5312 (-15°C to -30°C)
Temperature range ............ MDF-U731M (-18°C to -30°C)

**Dimensions (W x D x H)**

| MDF-U333 | MDF-U334-PA | 9.7 cu. ft. - bins 4 large, 1 small | 1/ea |
| MDF-U5312 | MDF-U5312-PA | 17 cu. ft. - bins 4 large, 6 medium | 1/ea |
| MDF-U731 | MDF-U731-PA | 22 cu. ft. - 4 shelves | 1/ea |
| MDF-U731M | MDF-U731M-PA | 24.4 cu. ft. - 4 shelves | 1/ea |

*Formerly known as Panasonic Healthcare Corporation of North America*
Cold Storage

Freezers: General Laboratory

Thermo Scientific™ TSX Series High-Performance Manual Defrost –20°C Freezers

THERMO FISHER SCIENTIFIC - Manual defrost, high-performance freezers are designed for applications in which even slight intermittent coil warming during auto defrost cannot be tolerated.

- ENERGY STAR® certified and SNAP compliant
- UL and cUL certified
- Factory pre-set to –20°C
- Temperature range –25°C to –15°C, manual defrost
- Cold wall convection cooling with temperature uniformity
- Enzyme freezers feature enzyme bins
- GMP Clean Room Class A/ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Quiet operation at just 50 dBA
- Four 2 in. casters for easy mobility; the front two are lockable
- Keyed on/off switch with easy to use, setpoint security
- NEW ergonomic handle with soft touch grip
- Self-closing door with 90° stop to assist with inventory loads
- Built-in remote alarm contacts

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>TSX2320FA</td>
<td>TSX2320FA</td>
<td>23 cu. ft. freezer, solid door, 4 shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2320FD</td>
<td>TSX2320FD</td>
<td>23 cu. ft. freezer, solid door, 4 shelves, 208–230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2320EA</td>
<td>TSX2320EA</td>
<td>23 cu. ft. enzyme freezer, solid door, 9 shelves, 45 bins, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2320ED</td>
<td>TSX2320ED</td>
<td>23 cu. ft. enzyme freezer, solid door, 9 shelves, 45 bins, 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ TSX Series High-Performance Auto Defrost –30°C Freezers

THERMO FISHER SCIENTIFIC - High-performance laboratory freezers are designed for applications requiring storage of reagents, pharmaceuticals, biological and other commonly used laboratory materials such as primers, siRNA molecules and fetal bovine serum (FBS).

- Energy Star certified and SNAP compliant
- FDA and UL, cUL certified
- Factory pre-set to –30°C
- Temperature range –35°C to –15°C, auto defrost
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Non-invasive defrost with time and temperature guided cycle
- GMP Clean Room Class A / ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Quiet operation at just 52 dBA
- Available in single and double door models
- Four 2 in. casters for easy mobility; the front two are lockable
- Keyed on/off switch with easy to use, setpoint security
- NEW ergonomic handle with soft touch grip
- Built-in remote alarm contacts

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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>TSX2330FA</td>
<td>TSX2330FA</td>
<td>23 cu. ft. freezer, solid door, 4 shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2330FD</td>
<td>TSX2330FD</td>
<td>23 cu. ft. freezer, solid door, 4 shelves, 208–230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5030FA</td>
<td>TSX5030FA</td>
<td>51 cu. ft. freezer, 2 solid doors, 8 shelves, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5030FD</td>
<td>TSX5030FD</td>
<td>51 cu. ft. freezer, 2 solid doors, 8 shelves, 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Premier Plus Series –30°C Plasma Freezers**

**CARDINAL HEALTH** - High-performance auto defrost –30°C plasma freezers with automatic defrost are designed to meet strict requirements established by the AABB for the storage of plasma.

- Variable Speed Compressor Technology adjusts cooling performance to the conditions
- SNAP compliant
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Heat-free defrost for maximum temperature uniformity
- Convenient, stainless steel, fully extendable and adjustable drawers
- Standard, built-in chart recorder
- Quiet operation
- Available in single and double door models
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- Built-in remote alarm contacts
- FDA listed Class I Medical Device, 510K exempt

ENERGY STAR®, UL and cUL certified.

**Temperature range: –15°C to –35°C, factory pre-set to –30°C, auto defrost**

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<tbody>
<tr>
<td>CAX1230LA</td>
<td>11.5 (273)</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Space saver</td>
<td>Single, solid</td>
<td>7</td>
<td>21.8 x 20 x 52.4</td>
<td>31.1 x 24 x 73</td>
<td>412</td>
</tr>
<tr>
<td>CAX1230LD</td>
<td>11.5 (273)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Space saver</td>
<td>Single, solid</td>
<td>7</td>
<td>21.8 x 20 x 52.4</td>
<td>31.1 x 24 x 73</td>
<td>412</td>
</tr>
<tr>
<td>CAX2330LA</td>
<td>23.3 (532)</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>7</td>
<td>28.5 x 24 x 58</td>
<td>37.9 x 28 x 78.5</td>
<td>526</td>
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<tr>
<td>CAX2330LD</td>
<td>23.3 (532)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>7</td>
<td>28.5 x 24 x 58</td>
<td>37.9 x 28 x 78.5</td>
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<td>CAX3030LA</td>
<td>29.2 (665)</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>7</td>
<td>28.5 x 30 x 58</td>
<td>37.9 x 34 x 78.5</td>
<td>556</td>
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<tr>
<td>CAX3030LD</td>
<td>29.2 (665)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Single, solid</td>
<td>7</td>
<td>28.5 x 30 x 58</td>
<td>37.9 x 34 x 78.5</td>
<td>556</td>
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<tr>
<td>CAX5030LA</td>
<td>51.1 (1064)</td>
<td>115 (60)</td>
<td>NEMA 5-20</td>
<td>Upright</td>
<td>Double, solid</td>
<td>14</td>
<td>28.5 x 52.5 x 58</td>
<td>37.9 x 56.5 x 78.5</td>
<td>817</td>
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<tr>
<td>CAX5030LD</td>
<td>51.1 (1064)</td>
<td>208–230 (60)</td>
<td>NEMA 6-15</td>
<td>Upright</td>
<td>Double, solid</td>
<td>14</td>
<td>28.5 x 52.5 x 58</td>
<td>37.9 x 56.5 x 78.5</td>
<td>817</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

**250 mL plasma boxes

**Premier Series –30°C Plasma Freezer**

**Temperature range: –15°C to –35°C, factory pre-set to –30°C, auto defrost**

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</thead>
<tbody>
<tr>
<td>R3863-3A</td>
<td>4.9 (78)</td>
<td>115 (60)</td>
<td>NEMA 5-15</td>
<td>Undercounter</td>
<td>Single, solid</td>
<td>2</td>
<td>20.5 x 20 x 20</td>
<td>26 x 24 x 33.4</td>
<td>220</td>
</tr>
</tbody>
</table>

* Published interior volumes are nominal; useable cu. ft. capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

**250 mL plasma boxes

cardinalhealth.com
Cold Storage

Freezers: –30°C Plasma

Thermo Scientific™ TSX Series High-Performance –30°C Plasma Freezers
Thermo Fisher Scientific – Our pre-set, high-performance –30°C plasma freezers with automatic defrost are designed to meet strict requirements established by the AABB for the storage of plasma.

- Energy Star certified and SNAP compliant
- FDA and UL, cUL certified
- Factory pre-set to –30°C
- Temperature range –15°C to –35°C, auto defrost
- Forced-air circulation for temperature uniformity and fast temperature recovery
- Heat-free defrost for maximum temperature uniformity
- Convenient, stainless steel, fully extendable and adjustable drawers
- GMP Clean Room Class A / ISO 6 (ISO EN 14644-1) compatible with appropriate pre-install preparation
- Standard, built-in chart recorder
- Quiet operation at just 52 dBA
- Available in single and double door models
- Four 2 in. casters for easy mobility; the front two are lockable
- Bright, LED interior lighting
- Keyed on/off switch with easy to use, setpoint security
- Self-closing door with 90° stop to assist with inventory loads
- NEW ergonomic handle with soft touch grip
- Built-in remote alarm contacts

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>TSX2330LA</td>
<td>TSX2330LA</td>
<td>23 cu. ft. freezer, solid door, 7 drawers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX2330LD</td>
<td>TSX2330LD</td>
<td>23 cu. ft. freezer, solid door, 7 drawers, 208–230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5030LA</td>
<td>TSX5030LA</td>
<td>51 cu. ft. freezer, 2 solid doors, 14 drawers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSX5030LD</td>
<td>TSX5030LD</td>
<td>51 cu. ft. freezer, 2 solid doors, 14 drawers, 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Thermo Scientific™ Explosion-Proof Freezer**

THERMO FISHER SCIENTIFIC - These explosion-proof freezers are particularly suited for safe storage in hazardous environments.

- Temperature range: –12°C to –20°C
- Thermostat and compressor components isolated within a vapor-proof enclosure
- Electrical connections hardwired to prevent sparking and accidental disconnection
- Magnetic vinyl gaskets for positive door seal
- CFC-free insulation and refrigerant
- Hydraulic thermostat
- Aluminum evaporator coil

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20EFEETSA</td>
<td>20EFEETSA</td>
<td>20.9 cu. ft. freezer, 4 fixed interior shelves,</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 wire basket, 6 door shelves, 115 V</td>
<td></td>
</tr>
</tbody>
</table>

**High Performance Biomedical Undercounter Freezer**

PHC CORPORATION OF NORTH AMERICA* - This ENERGY STAR® certified undercounter freezer was developed for the critical storage of vaccine and biological materials. The freestanding or undercounter high performance laboratory freezer combines PHCbi brand compressors with stringent control processes to provide the highest quality laboratory freezer available. This small vaccine freezer provides a versatile undercounter design, high performance optimized temperature control and LED display for alarms and diagnostic functions.

- Microprocessor control/alarm system
- Front airflow refrigeration compartment design requires no additional air space around the cabinet.
- Freezer includes a manual defrost function so that sensitive frozen enzymes or vaccines are not exposed to temperature deviation
- One cabinet can be stacked on top of another to double storage volume, an optional stacking adapter is required.

**Specifications:**

- Temperature range: –15°C to –20°C in 1°C increments
- Temperature uniformity: ±5°C

**Dimensions**

- Interior (W x D x H): 20.9 x 17.4 x 27.8 in.
- Exterior (W x D x H): 23.6 x 25.7 x 34.6 in.

**Power requirements**: 115 V, 60 Hz

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>SF-L6111W</td>
<td>SF-L6111W-PA</td>
<td>5.5 cu. ft. freezer with key lock</td>
<td>1/ea</td>
</tr>
<tr>
<td>SRF-L61PS</td>
<td>SRF-L61PS</td>
<td>Stacking adapter</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Cold Storage

Freezers: Undercounter

Undercounter Laboratory Freezer
PHC CORPORATION OF NORTH AMERICA* - Under the counter laboratory freezers are specifically designed to optimize cold storage for a variety of laboratory applications. Compact size makes installation easy for under the counter storage. Reliable temperature storage is achieved at a performance range of –13°C to –20°C. Freezers are also equipped with manual defrost feature for steady temperature uniformity. Easy maintenance is achieved by a foamed in condenser design that reduces collection of dust particles on unit, minimizing cleaning time.

Specifications:
Temperature range: –13°C to –20°C
Shelves: 2 fixed shelves with cooling coil in shelves
Dimensions (W x D x H): 21.4 x 25.9 x 33.7 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty</th>
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</thead>
<tbody>
<tr>
<td>PFL5011WPA</td>
<td>PF-L5011W-PA</td>
<td>5 cu. ft. freezer</td>
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<tr>
<td>5011WSECPA</td>
<td>PF-L5011WSEC-PA</td>
<td>5 cu. ft. freezer with hasp lock</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Value Lab Freezers
THERMO FISHER SCIENTIFIC - Meet routine laboratory storage requirements with Thermo Scientific™ Value Lab Upright Freezers. Freezers feature digital controls and excellent temperature stability.

- Environmentally-friendly, non CFC refrigerants
- Adjustable temperature control
- Easy-to-clean, durable finish
- Manual defrost

Specifications:
Temperature range
Model 4LFEETSA: –12°C to –20°C
Model 5LFEETSA: –12°C to –24°C

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty</th>
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</thead>
<tbody>
<tr>
<td>4LFEETSA</td>
<td>04LFEETSA</td>
<td>3.5 cu. ft. freezer, 3 drawers</td>
<td>1/ea</td>
</tr>
<tr>
<td>5LFEETSA</td>
<td>05LFEETSA</td>
<td>5 cu. ft. freezer, 2 fixed interior, 3 door shelves, 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
# Cold Storage

## Cardinal Health™ Accessories: Refrigerators and Freezers

### Premier Plus and Premier Accessories

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>4.9 cu. ft. (133 L)</td>
<td>TFS7125</td>
<td>TFS7125</td>
<td>TFS6696</td>
<td>TFS6695</td>
<td>TFS6696</td>
<td>TFS6696</td>
<td>TFS6696</td>
</tr>
<tr>
<td>11.5 cu. ft. (326 L)</td>
<td>TFS7125</td>
<td>TFS7125</td>
<td>TFS6696</td>
<td>TFS6695</td>
<td>TFS6696</td>
<td>TFS6696</td>
<td>TFS6696</td>
</tr>
<tr>
<td>23.3 cu. ft. (659 L)</td>
<td>TFS6696</td>
<td>TFS6969</td>
<td>TFS7032</td>
<td>TFS7013</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>29.2 cu. ft. (826 L)</td>
<td>TFS6696</td>
<td>TFS6969</td>
<td>TFS7032</td>
<td>TFS7013</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>45.8 cu. ft. (1,297 L)</td>
<td>TFS6696</td>
<td>TFS6969</td>
<td>TFS7032</td>
<td>TFS7013</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>51.1 cu. ft. (1,447 L)</td>
<td>TFS6696</td>
<td>TFS6969</td>
<td>TFS7032</td>
<td>TFS7013</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>78.8 cu. ft. (2,231 L)</td>
<td>TFS6696</td>
<td>TFS6969</td>
<td>TFS7032</td>
<td>TFS7013</td>
<td>n/a</td>
<td>n/a</td>
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### Door options

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</thead>
<tbody>
<tr>
<td>LH swing, solid</td>
<td>TFS7119</td>
<td>TFS6995</td>
<td>TFS6997</td>
<td>TFS6999</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>LH swing, glass</td>
<td>n/a</td>
<td>TFS6996</td>
<td>TFS6998</td>
<td>TFS7000</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>RH swing, glass</td>
<td>TFS7118</td>
<td>TFS7066</td>
<td>TFS7012</td>
<td>TFS7013</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>LH/RH swing, glass</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7014</td>
</tr>
<tr>
<td>LH/LH/LH swing, solid</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7070</td>
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<tr>
<td>LH/LH/LH swing, glass</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7071</td>
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<tr>
<td>LH/LH/LH swing, heated glass</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7093</td>
</tr>
<tr>
<td>RH/RH/RH swing, solid</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7019</td>
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<tr>
<td>RH/RH/RH swing, glass</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7020</td>
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<tr>
<td>RH/RH/RH swing, heated glass</td>
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<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7083</td>
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<tr>
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<td>n/a</td>
<td>n/a</td>
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<td>n/a</td>
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<tr>
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<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7010</td>
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<tr>
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<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7084</td>
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<tr>
<td>LH/RH/RH swing, glass</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS7015</td>
</tr>
</tbody>
</table>

### Roll-out drawers – Complete set

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator and freezer</td>
<td>n/a</td>
<td>TFS7445 (5)</td>
<td>TFS6699 (6)</td>
<td>TFS6704 (6)</td>
<td>n/a</td>
<td>TFS6700 (12)</td>
</tr>
<tr>
<td>Additional refrigerator and freezer</td>
<td>n/a</td>
<td>n/a</td>
<td>TFS6702</td>
<td>TFS6725</td>
<td>n/a</td>
<td>TFS6702</td>
</tr>
</tbody>
</table>

### Finishes (adds 1 in. or 25 mm to unit height)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel interior (not available on -20°C models)</td>
<td>TFS7116</td>
<td>TFS6199-3D</td>
<td>TFS6115</td>
<td>TFS6709</td>
<td>TFS6711</td>
<td>TFS6116</td>
</tr>
</tbody>
</table>
## Cold Storage

### Cardinal Health™ Accessories: Refrigerators and Freezers

#### Premier Plus and Premier Accessories

<table>
<thead>
<tr>
<th></th>
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<th>45.8 cu. ft. (1,297 L)</th>
<th>51.1 cu. ft. (1,447 L)</th>
<th>78.8 cu. ft. (2,231 L)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n/a</td>
<td>TFS6183-7</td>
<td>TFS6183-7</td>
<td>TFS6183-7</td>
<td>TFS6183-7</td>
<td>TFS6183-7</td>
<td>TFS6183-7</td>
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<tr>
<td></td>
<td>Built-in, factory</td>
<td>n/a</td>
<td>TFS6184</td>
<td>TFS6184</td>
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<tr>
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<tr>
<td></td>
<td>Replacement chart</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>paper</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–40°C to +25°C, box</td>
<td>TFS6184</td>
<td>TFS6184</td>
<td>TFS6184</td>
<td>TFS6184</td>
<td>TFS6184</td>
<td>TFS6184</td>
</tr>
<tr>
<td></td>
<td>of 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Surge suppressor

|                       | 115 V, 60 Hz model  | TFS6402-1            | TFS6402-1            | TFS6402-1            | TFS6402-1            | TFS6402-1            | TFS6402-1            |
|                       | 208–230 V, 60 Hz    | 6402-2               | 6402-2               | 6402-2               | 6402-2               | 6402-2               | 6402-2               |
| model                 | model               |                      |                      |                      |                      |                      |                      |

#### Lab cooler modules

|                       | Lab Cooler II       | TFS6744              | TFS6744              | TFS6744              | TFS6744              | TFS6744              | TFS6744              |
|                       | (holds 24 - 1.5 mL  |                      |                      |                      |                      |                      |                      |
|                       | tubes and 8 - 0.5   |                      |                      |                      |                      |                      |                      |
|                       | mL tubes)           |                      |                      |                      |                      |                      |                      |
|                       | LabCooler Lite      | TFS6745              | TFS6745              | TFS6745              | TFS6745              | TFS6745              | TFS6745              |
|                       | (holds 7 - 1.5 mL   |                      |                      |                      |                      |                      |                      |
|                       | tubes)              |                      |                      |                      |                      |                      |                      |

#### Deluxe electronic telephone dialer

|                       | Requires dedicated  | TFS6224TA            | TFS6224TA            | TFS6224TA            | TFS6224TA            | TFS6224TA            | TFS6224TA            |
|                       | phone line          |                      |                      |                      |                      |                      |                      |

#### Alarm delay module

|                       | Specify refrigerator| TFS6903              | TFS6903              | TFS6903              | TFS6903              | TFS6903              | TFS6903              |
|                       | freezer voltage     |                      |                      |                      |                      |                      |                      |
|                       | with order          |                      |                      |                      |                      |                      |                      |

#### Digital temperature monitor

|                       | Single input channel, | TFS6898              | TFS6898              | TFS6898              | TFS6898              | TFS6898              | TFS6898              |
|                       | temperature range     |                      |                      |                      |                      |                      |                      |
|                       | –100°C to +25°C, set  |                      |                      |                      |                      |                      |                      |
|                       | point resolution of   |                      |                      |                      |                      |                      |                      |
|                       | 1°C, high temperature |                      |                      |                      |                      |                      |                      |
|                       | alarm only, numeric  |                      |                      |                      |                      |                      |                      |
|                       | LCD display, red     |                      |                      |                      |                      |                      |                      |
|                       | visual alarm, 8 ft.   |                      |                      |                      |                      |                      |                      |
|                       | Teflon® lead wire,    |                      |                      |                      |                      |                      |                      |
|                       | 5 L x 2 D x 4.5 W/in. |                      |                      |                      |                      |                      |                      |
|                       | (130 x 50 x 110 mm), |                      |                      |                      |                      |                      |                      |
|                       | 120 V, 60 Hz, with    |                      |                      |                      |                      |                      |                      |
|                       | a 15 amp dual prong  |                      |                      |                      |                      |                      |                      |
|                       | plug (fits NEMA 5-15R) |                      |                      |                      |                      |                      |                      |

#### Enzyme storage bin

|                       | Labels not included  | n/a                  | n/a                  | TFS6736              | TFS6736              | n/a                  | n/a                  |

---

To order, call: 800.964.5227
Cold Storage

Freezers: **Ultra-Low Temperature**

**Cardinal Health™ –86°C Ultra-Low Temperature Freezers**

**Features and Benefits:**

- Reduced/low peak variation to protect sample temperature¹
- Lower energy consumption and HVAC costs
- Low noise, like your home refrigerator²
- Fast door opening recovery
- Four capacities: 300, 400, 500 and 600, 2-inch box
- Two voltages: 115 V, 60 Hz and 208–230 V, 60 Hz
- Environmentally-friendly, water-blown foam insulation compliant with EPA SNAP
- FDA Class II medical device for storage of blood, plasma, tissue, skin and bone.³

**User Interface and Ergonomic Design:**

- Plug in and go, no setup required.
- 5.6 in. with bold temperature display and capacitive touch button
- Alarm settings, setpoint security passcode and padlock-compatible doors
- Single-hand door operation, quick maintenance with easy access filter/grill assembly
- Four inner doors to reduce heat impacts on samples during normal use

**Upright Freezers Temperature range: –50°C to –86°C**

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR30086FA</td>
<td>CAR30086LA</td>
<td>14.9 (300)</td>
<td>115 (60)</td>
<td>12.6/20 (NEMA 5-20)</td>
<td>125</td>
<td>28.3 x 17.8 x 51.2</td>
<td>38.5 x 23 x 78</td>
<td>712</td>
</tr>
<tr>
<td>CAR30086FD</td>
<td>CAR30086LD</td>
<td>14.9 (300)</td>
<td>208–230 (60)</td>
<td>5.6/15 (NEMA 6-15)</td>
<td>125</td>
<td>28.3 x 17.8 x 51.2</td>
<td>38.5 x 23 x 78</td>
<td>712</td>
</tr>
<tr>
<td>CAR40086FA</td>
<td>CAR40086LA</td>
<td>19.4 (400)</td>
<td>115 (60)</td>
<td>13.0/20 (NEMA 5-20)</td>
<td>165</td>
<td>28.3 x 23.1 x 51.2</td>
<td>38.5 x 28.3 x 78</td>
<td>687</td>
</tr>
<tr>
<td>CAR40086FD</td>
<td>CAR40086LD</td>
<td>19.4 (400)</td>
<td>208–230 (60)</td>
<td>5.9/15 (NEMA 6-15)</td>
<td>165</td>
<td>28.3 x 23.1 x 51.2</td>
<td>38.5 x 28.3 x 78</td>
<td>687</td>
</tr>
<tr>
<td>CAR50086FA</td>
<td>CAR50086LA</td>
<td>24.1 (500)</td>
<td>115 (60)</td>
<td>12.5/20 (NEMA 5-20)</td>
<td>205</td>
<td>28.3 x 28.8 x 51.2</td>
<td>38.5 x 34 x 78**</td>
<td>734</td>
</tr>
<tr>
<td>CAR50086FD</td>
<td>CAR50086LD</td>
<td>24.1 (500)</td>
<td>208–230 (60)</td>
<td>5.0/15 (NEMA 6-15)</td>
<td>205</td>
<td>28.3 x 28.8 x 51.2</td>
<td>38.5 x 34 x 78**</td>
<td>734</td>
</tr>
<tr>
<td>CAR60086FA</td>
<td>CAR60086LA</td>
<td>28.8 (600)</td>
<td>115 (60)</td>
<td>12.7/20 (NEMA 5-20)</td>
<td>245</td>
<td>28.3 x 34.4 x 51.2</td>
<td>38.5 x 39.6 x 78**</td>
<td>820</td>
</tr>
<tr>
<td>CAR60086FD</td>
<td>CAR60086LD</td>
<td>28.8 (600)</td>
<td>208–230 (60)</td>
<td>6.2/15 (NEMA 6-15)</td>
<td>245</td>
<td>28.3 x 34.4 x 51.2</td>
<td>38.5 x 39.6 x 78**</td>
<td>820</td>
</tr>
</tbody>
</table>

¹ Typical freezer data based on internal testing with freezer setpoint at –80°C and ambient temperature at 20°C. Performance data varies across freezer size and electrical specifications.
² All data based on internal data unless otherwise noted. Data on file.
³ FDA Class II Models are listed under product code KSE, regulation number 864.9700. This unit is not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory. Reference: AABB - Technical Manual 17th Ed., page 273,274. STANDARDS FOR TISSUE BANKING 14th Ed., Section E, E3.300, E3.310, Table E3.331. Note for clarity: The ‘Bone’ is the Osteoarticular Graft, a weight bearing allograft with intact articular surfaces, consisting of a joint with associated soft tissue and bone. STANDARDS FOR TISSUE BANKING 14th Ed., Section page 8.

**Chest Freezer Temperature range: –50°C to –86°C**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>CARC0386A†</td>
<td>3 (63)</td>
<td>115 (60)</td>
<td>11.5/15 (NEMA 5-15)</td>
<td>18.5 x 18.5 x 16.5</td>
<td>32.3 x 28.7 x 43.8</td>
<td>432</td>
</tr>
</tbody>
</table>

† Note: 3 cu. ft. chest freezer is not SNAP compliant
## Cold Storage

### Freezer Packages: Ultra-Low Temperature

#### Cardinal Health™ General Purpose –86°C Ultra-Low Freezer with two shelves of sliding drawer racks

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Package Description</th>
<th>Box Capacity</th>
<th>Voltage</th>
<th>Package for Model #</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR386FARK</td>
<td>Two shelves of sliding drawer racks and 2 inch boxes</td>
<td>300 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR30086FA</td>
</tr>
<tr>
<td>CAR386FDRK</td>
<td>Two shelves of sliding drawer racks and 2 inch boxes</td>
<td>400 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR40086FD</td>
</tr>
<tr>
<td>CAR486FARK</td>
<td>Two shelves of sliding drawer racks and 2 inch boxes</td>
<td>400 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR40086FA</td>
</tr>
<tr>
<td>CAR486FDRK</td>
<td>Two shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR50086FD</td>
</tr>
<tr>
<td>CAR586FARK</td>
<td>Two shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR60086FA</td>
</tr>
<tr>
<td>CAR586FDRK</td>
<td>Two shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR60086FD</td>
</tr>
</tbody>
</table>

#### Cardinal Health™ General Purpose –86°C Ultra-Low Freezer with factory installed chart recorder and two shelves of sliding drawer racks

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Package Description</th>
<th>Box Capacity</th>
<th>Voltage</th>
<th>Package for Model #</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR5FARCR</td>
<td>Chart recorder - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR50086FA</td>
</tr>
<tr>
<td>CAR5FDRCR</td>
<td>Chart recorder - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR50086FD</td>
</tr>
<tr>
<td>CAR6FARCR</td>
<td>Chart recorder - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR60086FA</td>
</tr>
<tr>
<td>CAR6FDRCR</td>
<td>Chart recorder - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR60086FD</td>
</tr>
</tbody>
</table>

#### Cardinal Health™ General Purpose –86°C Ultra-Low Freezer with factory installed CO₂ back-up and two shelves of sliding drawer racks

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Package Description</th>
<th>Box Capacity</th>
<th>Voltage</th>
<th>Package for Model #</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR4FARCO</td>
<td>CO₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>400 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR40086FA</td>
</tr>
<tr>
<td>CAR4FDRCO</td>
<td>CO₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>400 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR40086FD</td>
</tr>
<tr>
<td>CAR5FARCO</td>
<td>CO₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR50086FA</td>
</tr>
<tr>
<td>CAR5FDRCO</td>
<td>CO₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR50086FD</td>
</tr>
<tr>
<td>CAR6FARCO</td>
<td>CO₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR60086FA</td>
</tr>
<tr>
<td>CAR6FDRCO</td>
<td>CO₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR60086FD</td>
</tr>
</tbody>
</table>

#### Cardinal Health™ General Purpose –86°C Ultra-Low Freezer with factory installed LN₂ back-up and two shelves of sliding drawer racks

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Box Capacity</th>
<th>Voltage</th>
<th>Package for Model #</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR4FARLN</td>
<td>LN₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>400 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR40086FA</td>
</tr>
<tr>
<td>CAR4FDRLN</td>
<td>LN₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>400 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR40086FD</td>
</tr>
<tr>
<td>CAR5FARLN</td>
<td>LN₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR50086FA</td>
</tr>
<tr>
<td>CAR5FDRLN</td>
<td>LN₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>500 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR50086FD</td>
</tr>
<tr>
<td>CAR6FARLN</td>
<td>LN₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>115 V, 60 Hz</td>
<td>CAR60086FA</td>
</tr>
<tr>
<td>CAR6FDRLN</td>
<td>LN₂ backup system - 2 shelves of sliding drawer racks and 2 inch boxes</td>
<td>600 box capacity</td>
<td>208–230 V, 60 Hz</td>
<td>CAR60086FD</td>
</tr>
</tbody>
</table>
# Freezer Options and Accessories: Ultra-Low Temperature

## Options for Cardinal Health™ –86°C Ultra-Low Temperature Freezers

<table>
<thead>
<tr>
<th>Model CAR30086 Cat. No.</th>
<th>Model CAR40086 Cat. No.</th>
<th>Model CAR50086 Cat. No.</th>
<th>Model CAR60086 Cat. No.</th>
<th>Installation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>CRP4567</td>
<td>CRP4567</td>
<td>Factory</td>
<td>Chart Recorder (Ink)</td>
</tr>
<tr>
<td>6383-6A*</td>
<td>6383-6A*</td>
<td>FCRP5LE</td>
<td>FCRP6LE</td>
<td>Field</td>
<td>Chart Recorder (Inkless)</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>CR4567</td>
<td>CR4567</td>
<td>Factory</td>
<td>Chart Recorder (Ink)</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>FCR500LE</td>
<td>FCR600LE</td>
<td>Field</td>
<td>Chart Recorder (Inkless)</td>
</tr>
<tr>
<td>N/A</td>
<td>CO4567</td>
<td>CO4567</td>
<td>CO4567</td>
<td>Factory</td>
<td>CO₂ Backup System</td>
</tr>
<tr>
<td>FCO300A*</td>
<td>FCO456LEA*</td>
<td>FCO456LEA*</td>
<td>FCO456LEA*</td>
<td>Field</td>
<td>CO₂ Backup System</td>
</tr>
<tr>
<td>FCO300D*</td>
<td>FCO456LED*</td>
<td>FCO456LED*</td>
<td>FCO456LED*</td>
<td>Field</td>
<td>CO₂ Backup System</td>
</tr>
<tr>
<td>FLN300A*</td>
<td>FLN456LEA*</td>
<td>FLN456LEA*</td>
<td>FLN456LEA*</td>
<td>Field</td>
<td>CO₂ Backup System</td>
</tr>
<tr>
<td>FLN300D*</td>
<td>FLN456LED*</td>
<td>FLN456LED*</td>
<td>FLN456LED*</td>
<td>Field</td>
<td>CO₂ Backup System</td>
</tr>
<tr>
<td>S125V20ATL</td>
<td>S125V20ATL</td>
<td>S125V20ATL</td>
<td>S125V20ATL</td>
<td>Factory</td>
<td>Twist Lock Plug</td>
</tr>
<tr>
<td>TL125V20A</td>
<td>TL125V20A</td>
<td>TL125V20A</td>
<td>TL125V20A</td>
<td>Field</td>
<td>Twist Lock Plug</td>
</tr>
</tbody>
</table>

* A = 115 V, 60 Hz (NEMA 5-20 plug), D = 208–230 V, 60 Hz (NEMA 6-15 plug)

** Note: field installed must be installed by a qualified professional

## Accessories for Cardinal Health™ –86°C Ultra-Low Temperature Freezers

<table>
<thead>
<tr>
<th>Model CAR30086 Cat. No.</th>
<th>Model CAR40086 Cat. No.</th>
<th>Model CAR50086 Cat. No.</th>
<th>Model CAR60086 Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SK300</td>
<td>SK400</td>
<td>SK500</td>
<td>SK600</td>
<td>Shelf Kit</td>
</tr>
<tr>
<td>CA17020</td>
<td>CA17020</td>
<td>CA17020</td>
<td>CA17020</td>
<td>Chart paper</td>
</tr>
<tr>
<td>N/A</td>
<td>R3894-6</td>
<td>R3894-6</td>
<td>Chart paper</td>
<td></td>
</tr>
<tr>
<td>AF34567LE</td>
<td>AF34567LE</td>
<td>AF34567LE</td>
<td>AFL34567LE</td>
<td>Replacement</td>
</tr>
<tr>
<td>CA400159</td>
<td>CA400159</td>
<td>CA400159</td>
<td>CA400159</td>
<td>Replacement</td>
</tr>
<tr>
<td>TFS6903</td>
<td>TFS6903</td>
<td>TFS6903</td>
<td>TFS6903</td>
<td>Replacement</td>
</tr>
</tbody>
</table>

Alarm Delay Module—eliminates nuisance alarms due to intermittent or transitory conditions. Adjustable delay requires alarm condition to exist for user defined period before signal is released to monitoring system.
Cold Storage

Freezer Accessories: **Ultra-Low Temperature**

### Racks for Cardinal Health™ –86°C Ultra-Low Temperature Freezers

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Dimensions H x W x D in.</th>
<th>Storage</th>
<th>Model CAR30086</th>
<th>Model CAR40086</th>
<th>Model CAR50086</th>
<th>Model CAR60086</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Racks for 2 in. boxes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA920090</td>
<td>Sliding drawer rack</td>
<td>11.9 x 5.5 x 26.9</td>
<td>Boxes per rack 25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per shelf 3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per freezer 12</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boxes per freezer 3000</td>
<td>400</td>
<td>500</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Racks for 3 in. boxes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA920091</td>
<td>Sliding drawer rack</td>
<td>11.9 x 5.5 x 26.9</td>
<td>Boxes per rack 15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per shelf 3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per freezer 12</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boxes per freezer 1800</td>
<td>240</td>
<td>300</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Racks for Microplates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1950592</td>
<td>Side access rack with locking rod for standard</td>
<td>11.9 x 5.5 x 25.7</td>
<td>Boxes per rack 147</td>
<td>147</td>
<td>147</td>
<td>147</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>or deepwell</td>
<td></td>
<td>Racks per shelf 3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per freezer 12</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boxes per freezer 1764</td>
<td>2352</td>
<td>2940</td>
<td>3528</td>
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<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Dimensions H x W x D in.</th>
<th>Storage</th>
<th>Chest Freezer Model CARC0386A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Racks for Chest Freezer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA398184</td>
<td>2 in. box rack with locking rod</td>
<td>15.2 x 5.5 x 5.5</td>
<td>Boxes per rack 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per freezer 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boxes per freezer 63</td>
<td></td>
</tr>
<tr>
<td>CA398185</td>
<td>3 in. box rack</td>
<td>16 x 5.5 x 5.5</td>
<td>Boxes per rack 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Racks per freezer 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boxes per freezer 45</td>
<td></td>
</tr>
</tbody>
</table>

**Intended Use Statements:**

**General Purpose Models:**

The general purpose –86°C freezers described here are high-performance units for professional use. These products are intended for use as cold storage in research use and as a general purpose laboratory freezer, storing samples or inventory at operating temperatures between –50°C and –80°C. It is not considered a medical device and therefore been registered with a medical device regulatory body (e.g., FDA): that is, it has not been evaluated for the storage of samples for diagnostic use or for samples to be re-introduced to the body. This unit is not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory.

**FDA Class II Models:**

The –86°C freezers described in this manual are intended for the storage of Frozen Red Blood Cells in 40% glycerol at –65°C for up to 10 years; Frozen Rejuvenated Red Blood Cells at –65°C for up to 10 years; Fresh Frozen Plasma at –65°C for up to 10 years; and Frozen or Cryopreserved Tissue for long term storage: Musculoskeletal Tissue at –40°C or colder, Skin at –40°C or colder and Bone at –40°C or colder.

These products should only be used by authorized and adequately trained personnel. It is considered a medical device and has therefore been listed with medical device regulatory body FDA and is considered a Class II medical device by the FDA. This product is listed under product code KSE, regulation number 864.9700 and is considered 510(K) exempt. This unit is not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory.


**Note for clarity:** The ‘Bone’ is the Osteoarticular Graft, a weight bearing allograft with intact articular surfaces, consisting of a joint with associated soft tissue and bone. STANDARDS FOR TISSUE BANKING 14th Ed., Section page 8
TwinGuard® Series –86°C Ultra-Low Upright Freezers

PHC CORPORATION OF NORTH AMERICA® - The patented TwinGuard –86°C upright freezer is powered by a dual cooling system offering highest level of sample protection through the use of two independent refrigeration systems that maintain –86°C temperature. The two circuits work together for fast temperature recovery, while the secondary system keeps the temperature at –70°C if a service event occurs. Redundant auto-cascade refrigeration systems unique to TwinGuard Series achieve superior temperature stability during initial startup and maintain uniformity following routine door openings and throughout the steady state.

- Easy to read LCD display allows for easy touchscreen use.
- Display panel includes comprehensive audible and visual warnings
- Microprocessor controller and alarms
- EZlatch for frequent door openings, simplify one-handed access and control frost associated with extreme temperature differentials.

Specifications:
- Temperature range: –50°C to –86°C in 1°C increments
- Power requirements: 208–230 V, 1Ø, 60 Hz, NEMA 6-15P, requires NEMA 6-15R receptacle
- Shelves: 3 adjustable

DU702VXC
Dimensions (W x D x H): Interior 34.3 x 23.6 x 55.1 in., exterior 40.6 x 36.8 x 78.5 in.

DU502VXC
Dimensions (W x D x H): Interior 24.8 x 23.6 x 55.1 in., exterior 31.1 x 34.7 x 78.5 in.

DU302VXPA
Dimensions (W x D x H): Interior 19.3 x 23.6 x 48.4 in., exterior 26.4 x 34.7 x 72.4 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DU302VXPA</td>
<td>MDF-DU302VX-PA</td>
<td>12.7 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>DU502VXC</td>
<td>MDF-DU502VXC-PA</td>
<td>18.6 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>DU702VXC</td>
<td>MDF-DU702VXC-PA</td>
<td>25.7 cu. ft.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
VIP® Series –86°C Ultra-Low Temperature Upright Freezers

PHC CORPORATION OF NORTH AMERICA* - The VIP® ultra-low temperature freezers represent the complete combination of refrigeration, control, alarm configuration, monitoring, and accessibility for product safety at –86°C. Well-known for its reliability, energy savings, and performance, the VIP Series is ideal for material storage in biorepositories, hospitals, clinics, and medical research facilities.

Integrated microprocessor-based controller and LED display include comprehensive setpoint, alarms, monitoring, diagnostic and communication features. VIP vacuum insulation panels with compressors specifically designed for ultra-low temperature applications, assures temperature uniformity (±5°C) The robust refrigeration system is powered by specially engineered compressors. The system provides dependable cooling by balancing temperature performance and energy management.

Specifications:
- Temperature range: –50°C to –86°C in 1°C increments
- Shelves: 3

MDFU76VAPA and MDF-U76VC
- Interior dimensions (W x D x H): 34.3 x 23.6 x 55.1 in.
- Exterior dimensions (W x D x H): 39.8 x 34.3 x 78.3 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDFU76VAPA</td>
<td>MDF-U76VA-PA</td>
<td>25.7 cu. ft. - 115 V</td>
<td>1/ea</td>
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<tr>
<td>MDF-U76VC</td>
<td>MDF-U76VC-PA</td>
<td>25.7 cu. ft. - 208–230 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Cold Storage

Thermo Scientific™ Revco™ DxF Series –40°C Upright Freezers
THERMO FISHER SCIENTIFIC - Revco™ DxF Series upright freezers are designed for daily sample protection and dependability for applications requiring –10°C to –40°C.

- Easy-to-use, knee-level microprocessor control
- Five interior compartment doors
- Galvaneneel interior in three sizes (13, 17.3 and 23 cu. ft.)
- Heavy-gauge, cold-rolled steel exterior construction
- 5 in. foamed-in-place, polyurethane insulation
- Optional, built-in chart recorder
- Sturdy, solid, stainless steel shelving
- Vacuum relief port
- Power management system with low voltage surge protection and buck/boost

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DxF24040A</td>
<td>DxF24040A</td>
<td>13 cu. ft. - 115 V, 60 Hz (240 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>DxF24040D</td>
<td>DxF24040D</td>
<td>13 cu. ft. - 208–230 V, 60 Hz (240 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>DxF32040A</td>
<td>DxF32040A</td>
<td>17.3 cu. ft. - 115 V, 60 Hz (320 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>DxF32040D</td>
<td>DxF32040D</td>
<td>17.3 cu. ft. - 208–230 V, 60 Hz (320 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>DxF40040A</td>
<td>DxF40040A</td>
<td>23 cu. ft. - 115 V, 60 Hz (400 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>DxF40040D</td>
<td>DxF40040D</td>
<td>23 cu. ft. - 208–230 V, 60 Hz (400 box)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Revco™ ExF Series –86°C Upright Freezers
THERMO FISHER SCIENTIFIC - Revco™ ExF Series upright freezers are designed for daily sample protection and dependability for applications requiring –50°C to –86°C.

- Easy-to-use, eye-level microprocessor control
- Five interior compartment doors
- Stainless steel interior in four sizes (13, 17.3, 23 and 28 cu. ft.)
- Heavy-gauge, cold-rolled steel exterior construction
- 5 in. foamed-in-place, polyurethane insulation
- Optional, built-in chart recorder
- Sturdy, solid, stainless steel shelving
- Vacuum relief port
- Power management system with low voltage surge protection and buck/boost

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExF24086A</td>
<td>ExF24086A</td>
<td>13 cu. ft. - 115 V (240 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>ExF24086D</td>
<td>ExF24086D</td>
<td>13 cu. ft. - 208–230 V (240 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>ExF32086A</td>
<td>ExF32086A</td>
<td>17.3 cu. ft. - 115 V (320 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>ExF32086D</td>
<td>ExF32086D</td>
<td>17.3 cu. ft. - 208–230 V (320 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>ExF40086A</td>
<td>ExF40086A</td>
<td>23 cu. ft. - 115 V (400 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>ExF40086D</td>
<td>ExF40086D</td>
<td>23 cu. ft. - 208–230 V (400 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>ExF60086D</td>
<td>ExF60086D</td>
<td>28 cu. ft. - 208–230 V (600 box)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Cold Storage

Freezers: Ultra-Low Temperature

Thermo Scientific™ Revco™ RLE Series –86°C Ultra Low Temperature Freezers


- Low peak variation helps ensure sample protection throughout entire cabinet
- Fast door opening recovery in as little as 13 minutes
- Long warm-up time from –80°C to –50°C in 5 hours
- Easy-to-use set-up wizard, event log, temperature mapping and data downloads
- Touch-screen datalogging and temperature mapping eliminates the need for a separate chart recorder
- Advanced security features: alarm settings, password-protected controller, padlock-compatible doors and optional access card entry
- Ergonomic design: comfortable door handle, eye-level touch-screen and shelf-level placement that do not require floor-level loading of racks
- Five inner doors minimize ambient temperature during sample retrieval
- Four capacities (300, 400, 500 and 600 2-inch box) to accommodate a variety of storage needs and lab footprint specifications

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLE30086A</td>
<td>RLE30086A</td>
<td>14.9 cu. ft. - 115 V, 60 Hz (300 box)</td>
<td>1/ea</td>
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<tr>
<td>RLE30086D</td>
<td>RLE30086D</td>
<td>14.9 cu. ft. - 208–230 V, 60 Hz (300 box)</td>
<td>1/ea</td>
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<tr>
<td>RLE40086A</td>
<td>RLE40086A</td>
<td>19.4 cu. ft. - 115 V, 60 Hz (400 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>RLE40086D</td>
<td>RLE40086D</td>
<td>19.4 cu. ft. - 208–230 V, 60 Hz (400 box)</td>
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<tr>
<td>RLE50086A</td>
<td>RLE50086A</td>
<td>24.1 cu. ft. - 115 V, 60 Hz (500 box)</td>
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<tr>
<td>RLE50086D</td>
<td>RLE50086D</td>
<td>24.1 cu. ft. - 208–230 V, 60 Hz (500 box)</td>
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<tr>
<td>RLE60086A</td>
<td>RLE60086A</td>
<td>28.8 cu. ft. - 115 V, 60 Hz (600 box)</td>
<td>1/ea</td>
</tr>
<tr>
<td>RLE60086D</td>
<td>RLE60086D</td>
<td>28.8 cu. ft. - 208–230 V, 60 Hz (600 box)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ TSX Series –86°C Ultra-Low Freezers

THERMO FISHER SCIENTIFIC - TSX Series ultra-low freezers are designed to meet the highest standards in reliability, sustainability and temperature management. At the heart of the TSX Series is V-drive technology, designed to adapt to user patterns, substantially reducing energy and HVAC costs without compromising performance. TSX Series freezers are built with natural refrigerants and water-blown foam insulation, compliant with the U.S. EPA’s Significant New Alternatives Policy (SNAP), the European Union’s F-Gas compliance and other sustainability standards.

- Lifetime V-Drive variable speed compressor warranty*
- Best peak variation of energy-efficient ultra-low freezers: less than 5°C
- Fastest door opening recovery on the market: 17 minutes
- Long warm-up time from –80°C to –50°C at 5.05 hours
- NEW! Easy-to-use set-up wizard, event log, temperature mapping and data downloads
- Eliminate the need for a separate chart recorder with datalogging and temperature mapping features, all exportable via a built-in USB port
- Advanced security features: alarm settings, padlock-compatible doors and optional access card entry
- Ergonomic design: comfortable door handle, eye-level touch-screen and shelf-level placement that doesn’t require floor-level loading of racks
- Four capacities (400, 500, 600 and 700, 2-inch box) to accommodate a variety of storage needs and lab footprint specifications

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSX40086A</td>
<td>TSX40086A</td>
<td>19.4 cu. ft. - 115 V, 60 Hz (400 box)</td>
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<tr>
<td>TSX40086D</td>
<td>TSX40086D</td>
<td>19.4 cu. ft. - 208–230 V, 60 Hz (400 box)</td>
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<tr>
<td>TSX50086A</td>
<td>TSX50086A</td>
<td>24.1 cu. ft. - 115 V, 60 Hz (500 box)</td>
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<td>TSX50086D</td>
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<td>24.1 cu. ft. - 208–230 V, 60 Hz (500 box)</td>
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<td>TSX60086A</td>
<td>TSX60086A</td>
<td>28.8 cu. ft. - 115 V, 60 Hz (600 box)</td>
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<tr>
<td>TSX60086D</td>
<td>TSX60086D</td>
<td>28.8 cu. ft. - 208–230 V, 60 Hz (600 box)</td>
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<tr>
<td>TSX70086A</td>
<td>TSX70086A</td>
<td>33.5 cu. ft. - 115 V, 60 Hz (700 box)</td>
<td>1/ea</td>
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<tr>
<td>TSX70086D</td>
<td>TSX70086D</td>
<td>33.5 cu. ft. - 208–230 V, 60 Hz (700 box)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Lifetime of the compressor is 12 years. Lifetime compressor warranty is void if the unit is not maintained as set forth in the operation and service manuals. U.S. and Canada only.
Cold Storage

Freezers: **Benchtop/Chest Ultra-Low Temperature**

### TwinGuard® Series –86°C Ultra-Low Chest Freezer

PHC CORPORATION OF NORTH AMERICA* - The patented TwinGuard –86°C chest freezer is powered by a unique concept of two independent auto-cascade cooling circuits that work together, both independently and concurrently, to provide continuity in stored product protection over a range of real world conditions. Performance down to –86°C is based on integrated complementary refrigeration circuits, robust cabinet design and intuitive smart controls and monitoring. TwinGuard Series freezers are ideal for safe, long term storage of your most high valued products, such as stem cells, embryos, cell lines, rare specimens and other biological materials.

**Specifications:**
- Temperature range: –50°C to –86°C in 1°C increments
- Power requirements: 208–230 V, 60 Hz
- Dimensions (W x D x H):
  - Interior: 58.3 x 25.2 x 29.8 in.
  - Exterior: 90.6 x 33.3 x 42.1 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDFDC700VX</td>
<td>MDFDC700VXCPA</td>
<td>25.3 cu. ft. freezer</td>
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</tr>
</tbody>
</table>

### VIP® Series –80°C Ultra-Low Chest Freezer

PHC CORPORATION OF NORTH AMERICA* - The VIP® ultra-low temperature freezers represent the complete combination of refrigeration, control, alarm configuration, monitoring, and accessibility for product safety at –80°C. Well-known for its reliability, energy savings, biorepositories, hospitals, clinics, and medical research facilities.

The compact biomedical chest freezer boasts a powerful VIP insulation panel that maximizes storage capacity while keeping temperatures consistently uniform. The uniquely engineered single-compressor system provides higher energy efficiency and more savings annually, all within an ergonomic and compact design.

- **VIP insulation composite which results in a highly efficient, thin-walled cabinet**
- **Microprocessor controller with LED display includes alarms, diagnostic and communication features**
- **Consistent temperature uniformity of ±5°C**

**Specifications:**
- Temperature range: –60°C to –80°C in 1°C increments
- Interior dimensions (W x D x H): 15.9 x 19.3 x 16.7 in.
- Exterior dimensions (W x D x H): 21.7 x 27 x 37.2 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>MDF-C8V</td>
<td>MDF-C8V1-PA</td>
<td>3 cu. ft. freezer</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Cold Storage

Freezers: **Benchtop/Chest Ultra-Low Temperature**

**Stirling Ultracold Compact Ultra-Low Freezer**

*Undercounter/Benchtop/Stackable*

STIRLING ULTRACOLD - This ultra-low freezer offers a spacious 3.7 cu. ft. (105 L) cabinet that delivers stable, uniform storage over a range of –20°C to –86°C at a fraction of the operating cost of conventional cascade refrigeration systems.

Using 100% natural refrigerants, it combines the performance of a unique free-piston Stirling engine with an efficient, non-CFC urethane foam and vacuum-insulated cabinet. This permits high-performance ultra-low storage capacity in an undercounter, benchtop or stacked cabinet configuration.

The ultra-low freezer operates on standard 115 V, 60 Hz AC, and can plug into any outlet, eliminating the cost of converting an outlet to 240 V. The self-modulating cooling system demands minimal power at ambient start-up and decreases for most efficiency when setpoint is reached.

The integral control and alarm system includes an intuitive graphic user interface to display operating temperature, reserve cooling capacity, status functions and performance metrics for field troubleshooting. Secure touchpad inputs permit secure programming for all control setpoints.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>SU105UE</td>
<td>SU105UE</td>
<td>3.7 cu. ft. freezer</td>
<td>1/ea</td>
</tr>
<tr>
<td>SU-018000</td>
<td>SU-018000</td>
<td>120 V power cord - 7.4 ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>SU-019000</td>
<td>SU-019000</td>
<td>240 V power cord - 9.8 ft.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Stirling Ultracold Shuttle™ Portable Ultra-Low Temperature Freezer**

*Ideal for Clinical Trials*

STIRLING ULTRACOLD - The Shuttle™ is the only portable and deployable solution available today for bringing ULT storage to the patient. With its innovative free-piston Stirling engine cooling technology, this small, lightweight, and efficient ULT freezer is ideal for clinical trials and biologic drug delivery.

Imagine the confidence of knowing that your biologic drugs or specimens are always safely preserved at clinical sites, and feel certain that your samples are staying at ultra-low temperatures. The unique Shuttle makes that possible.

- Portable, reliable, continuous ULT operation. Just like our other ULT freezers, the Shuttle has a wide temperature range of –20°C to –86°C
- Weighs only 46 lbs. (net weight, empty), it can easily and inexpensively be shipped anywhere in the world as a parcel
- Built-in universal power supply, so the Shuttle can plug into any AC or 12 V DC outlet worldwide
- 100% natural refrigerant. There are no special export shipping classifications required
- No compressors to fail, only 2 moving parts
- Holds up to 18 - 2 in. boxes in very small footprint

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<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>ULT25NE</td>
<td>ULT-25NE</td>
<td>0.9 cu. ft. portable freezer</td>
<td>1/ea</td>
</tr>
<tr>
<td>SU-018000</td>
<td>SU-018000</td>
<td>120 V power cord - 7.4 ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>SU-019000</td>
<td>SU-019000</td>
<td>240 V power cord - 9.8 ft.</td>
<td>1/ea</td>
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<tr>
<td>T25-6D0000</td>
<td>ULT25-6D0000</td>
<td>12 V Mobile/DC power cord - 10 ft.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

To order, call: 800.964.5227
Cold Storage

Freezers: Benchtop/Chest Ultra-Low Temperature

**Thermo Scientific™ Revco™ –80°C Benchtop Freezers**

THERMO FISHER SCIENTIFIC - The Revco™ –80°C Benchtop Freezer is ideal for personal or clinical trial applications. These benchtop freezers offer a full 1 cu. ft. (28 L) capacity and help ensure the protection of your valuable samples.

- Air-cooled refrigeration systems are engineered to maintain design temperatures in warm 32°C (90°F) ambient conditions. (factory setpoint –30°C)
- Solid-state control system with adjustable temperature setpoint
- Digital temperature display resolution to 1°C
- Compact 25.2 x 30.7 in. (640 x 781 mm) footprint
- Industrial-grade hermetically-sealed refrigeration compressors
- All-steel cabinet with high-impact epoxy finish for easy cleaning
- 4 in. (102 mm) foamed-in-place, CFC-free urethane insulation to protect product against high ambient conditions
- Heavy-duty counterbalanced lid with key lock
- Thermal interior sublid
- Digital temperature display resolution to 1°C
- Push button setpoint display
- Key operated main power switch
- Integrated preset overtemperature safety alarm with battery back-up and audible warning of temperature deviation
- Exterior alarm contacts for connection to remote monitoring system

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>R3928-185A</td>
<td>ULT185-5-A</td>
<td>Benchtop freezer</td>
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</table>

**Thermo Scientific™ Revco™ CxF Series –40°C and –86°C Ultra-Low Temperature Chest Freezers**

THERMO FISHER SCIENTIFIC - Revco™ CxF Series chest freezers provide versatile and reliable sample storage. These chest freezers deliver all the sample protection features of the ExF freezers in four convenient sizes and are available with a full range of racking solutions for maximum sample storage.

- Easy-to-use microprocessor control panel
- Message center: 12-character alphanumeric LED displays setpoints, system status and alarm messages
- Access code to ensure setpoint security
- Heavy gauge, cold-rolled steel exterior construction with a powder-coat paint finish that resists chipping and rust and ergonomic, lockable door handle
- 5 in. (127 mm) foamed-in-place, polyurethane insulation
- Optional built-in chart recorder or data logger for continuous monitoring
- Easy-to-remove air filter
- Inner sub-lids protect bulk samples from ambient exposure during single sample retrievals
- Optional CO₂ or LN₂ safety back-up system for additional protection in the event of a power or mechanical failure
- RS-232 and 4-20 milliamp analog outputs for independent monitoring devices and recorders

<table>
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<tr>
<th>Cat. No.</th>
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<th>Description</th>
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<tbody>
<tr>
<td>ULT350-10A</td>
<td>ULT350-10-A</td>
<td>3 cu. ft. - 115 V, 60 Hz</td>
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<tr>
<td>ULT135010A</td>
<td>ULT1350-10-A</td>
<td>12.7 cu. ft. - 115 V, 60 Hz</td>
<td>1/ea</td>
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<tr>
<td>ULT175010A</td>
<td>ULT1750-10-A</td>
<td>17 cu. ft. – 115 V, 60 Hz</td>
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<tr>
<td>ULT205010A</td>
<td>ULT2050-10-A</td>
<td>20 cu. ft. - 115 V, 60 Hz</td>
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<tr>
<td>ULT390-10A</td>
<td>ULT390-10-A</td>
<td>3 cu. ft. - 115 V, 60 Hz</td>
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<tr>
<td>ULT139010A</td>
<td>ULT1390-10-A</td>
<td>12.7 cu. ft. - 115 V, 60 Hz</td>
<td>1/ea</td>
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<tr>
<td>ULT139010D</td>
<td>ULT1390-10-D</td>
<td>12.7 cu. ft. - 230 V, 60 Hz</td>
<td>1/ea</td>
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<tr>
<td>ULT179010A</td>
<td>ULT1790-10-A</td>
<td>17 cu. ft. – 115 V, 60 Hz</td>
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<tr>
<td>ULT209010A</td>
<td>ULT2090-10-A</td>
<td>20 cu. ft. – 115 V, 60 Hz</td>
<td>1/ea</td>
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</table>

cardinalhealth.com
**Digital Hotplates, Hotplate Stirrers and Stirrers**

**BENCHMARK** - These hotplates, stirrers and hotplate-stirrers feature an exceptionally durable, chemical resistant, white ceramic work surface. The space-efficient design (7 x 10.5 in. footprint) and square 6.5 in. work surface makes them ideal for use on crowded benchtops, biological safety cabinets and in bio-hoods. Advanced microprocessor controls allow quick, precise adjustment of speed and temperature. The large, backlit LCD display provides constant visualization of the speed and temperature while a safety LED indicates when the top plate is above 50°C. In addition, an optional probe is available for applications that require precise temperature control. When connected, the probe provides direct feedback to the microprocessor, which continuously adjusts and maintains the selected temperature in the sample within ±1°C. An optional support rod (H3760-ROD) is available for mounting thermometers, temperature probes, etc.

**Specifications:**
- **Speed range** ................... 200 to 1,500 rpm
- **Temperature range** ........... Ambient +5°C to 380°C
- **Max stirring capacity** ........... 2.5 L
- **Power requirement** ............ 115 V or 230 V, 50-60 Hz, 500 W

<table>
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<tr>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>C3158BS</td>
<td>C3158</td>
<td>Digital hotplate, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3159BS</td>
<td>C3159</td>
<td>Digital hotplate magnetic stirrer, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3156BS</td>
<td>C3156</td>
<td>Digital hotplate magnetic stirrer, 230 V</td>
<td>1/ea</td>
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<tr>
<td>C3157BS</td>
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<td>Magnetic Stirrer, 115 V</td>
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<tr>
<td>C3160BS</td>
<td>C3160</td>
<td>Magnetic Stirrer, 230 V</td>
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<tr>
<td>C3161BS</td>
<td>C3161</td>
<td>Rod for Hotplate/Stirrer (H3760 Series)</td>
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<tr>
<td>C3162BS</td>
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<td>Temperature Probe (H3760 Series)</td>
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<tr>
<td>C3163BS</td>
<td>C3163</td>
<td>Clamp set for H3760 series</td>
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</tbody>
</table>

**Corning® Stirring Hot Plate**

CORNING LIFE SCIENCES - The Corning® stirring hot plate has a 5 x 7 in. Pyroceram® top, digital temperature and stirring speed displays. Designed to operate on 120 V, 60 Hz. Microprocessor maintains consistent and repeatable temperature settings from 5°C (if ambient temperature is 0°C or lower) up to 550°C. Digital LED temperature display is adjustable in 5°C increments and blinks until set temperature is reached. Exclusive closed-loop stirring control monitors and regulates the stirring speed from 60–1,150 rpm for aqueous, viscous, or semi-solid solutions. 2-year warranty. UL and cUL approved.

<table>
<thead>
<tr>
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<th>Qty.</th>
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<tbody>
<tr>
<td>C6795-420D</td>
<td>6795-420D</td>
<td>Stirring hot plate</td>
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</tr>
</tbody>
</table>

**Thermo Scientific™ Micro Hot Plate**

THERMO FISHER SCIENTIFIC - Use this compact hot plate where single or multiple heat source is required. Ideal for volumes under 500 mL. Hot plate provides stepless temperature control from 38°C to 371°C ±5°. Nickel-chromium element is embedded in refractory plate. Case is perforated for heat dissipation. Complete with three-conductor appliance cord with three-prong plug. Dimensions (H x D): 3¼ x 3½ in., top plate 3¾ in. dia. Operates on 120 V, 50/60 Hz, 2.7 A, 325 W at 371°C. UL listed.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>H2155</td>
<td>HP2305BQ</td>
<td>Micro hot plate</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Talboys Advanced Hot Plates**

TROEMNER - Talboys Advanced Hot Plates deliver accurate and repeatable results. Excellent temperature uniformity. These units are microprocessor-controlled and have an LED display for temperature. Control panel features easy-to-use controls that allow users to dial in adjustments. Rear housing features an integral support rod holder with locking knob to accept the optional support rod and clamp kit.

**Specifications:**
- **Maximum capacity** ............. 600 mL
- **Temperature range** ............ Ambient +5°C to 400°C
- **Temperature stability** ........... ±2%

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<thead>
<tr>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA4AHPUSA</td>
<td>984TA4AHPUSA</td>
<td>4 x 4 in. aluminum top plate</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Below 100°C ±2°C. Environmental and sample conditions permitting.
Gravity Convection Ovens

BOEKEL - These durable yet lightweight reach-in ovens are suited for bacteriological, clinical, educational and industrial laboratory needs. The exterior is constructed of steel and finished in gray baked enamel. The inside chamber is aluminum and is insulated from the outer chamber with glass wool insulation.

These units are designed for continuous temperature uniformity, with natural air convection that allows them to reach the maximum temperature within ½ hr. of the start-up time. All models are equipped with intake/exhaust vents, a cool handle, a neon pilot light and an on/off switch. All ovens utilize bimetallic thermostats and reach a maximum temperature of 215°C in 30 minutes. Ovens include 2 removable zinc-plated steel shelves, a thermometer with holder and a 6 ft. cord with grounded plug. Ovens operate on 115 V. **Note:** Not for use in melting paraffin wax or any other combustible or flammable materials and/or solvents.

**Specifications:**
Temperature range: 100°C to 215°C
Temperature control: ±3°C

**Dimensions (W x D x H)**

**N8412-1**
- Chamber: 14 x 15 x 14 in.
- Exterior: 16½ x 19 x 21¼ in.

**N8414-1**
- Chamber: 17 x 15 x 18½ in.
- Exterior: 19½ x 18¾ x 25¼ in.

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<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
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<td>N8412-1</td>
<td>107905</td>
<td>1.6 cu. ft. - 115 V, 1,200 W power requirement</td>
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<tr>
<td>N8414-1</td>
<td>107801</td>
<td>2.7 cu. ft. - 115 V, 1,500 W power requirement</td>
<td>1/ea</td>
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</table>

Thermo Scientific™ Heratherm™ General Protocol Oven

THERMO FISHER SCIENTIFIC - The Heratherm™ General Protocol table top ovens are perfect for routine daily work, providing the ideal heating and drying solution for your applications. Inner chambers made from corrosion-resistant stainless steel with rounded corners for easy cleaning. Large, easy to view vacuum fluorescent display. Simple, microprocessor-based touch button controls. Doors can be opened over 180° making these units easy to access. Automatic overtemperature alarm system for safety. Built-in timer. Low energy consumption. Includes two wire mesh shelves and access port.

**Specifications:**
Temperature range: 50°C to 250°C
Temperature stability: ±0.3°C
Number of shelves: 2 supplied

**Dimensions (D x W x H) interior:** 14.5 x 13.9 x 20 in.
**Dimensions (L x W x H) exterior:** 22.2 x 20.9 x 28.3 in.

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<thead>
<tr>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>51028121</td>
<td>51028121</td>
<td>2.3 cu. ft. - 120 V, 60 Hz, 1440 W, 12 A</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Thermo Scientific™ Heratherm™ Large Capacity General Protocol Ovens**

THERMO FISHER SCIENTIFIC - Heratherm™ Large Capacity General Protocol Ovens have been designed with your need for larger samples or high sample volume in mind. The General Protocol Ovens provide high capacity for day-to-day drying and heating applications. Inner chambers made from corrosion-resistant stainless steel with rounded corners for easy cleaning. Large, easy to view vacuum fluorescent display. Simple, microprocessor-based touch button controls. Doors can be opened over 180° making these units easy to access contents. Automatic overtemperature alarm for safety. Built-in timer. Low energy consumption.

- Gravity convection technology for gentle heating and drying
- Great footprint/volume ratio and optimal use of chamber with flexible shelving system

**Specifications:**
- Temperature range: 50°C to 250°C
- Temperature deviation over time: ±0.5°C at 150°C
- Number of shelves: 2 supplied, 39 max

**Spatial temperature deviation at 150°C**
- 51029327: ±3°C
- 51029339: ±3.7°C

**Dimensions (W x H x D)**
- 51029327: Chamber: 21.4 x 51.5 x 23.2 in., exterior: 30.6 x 60.8 x 30.3 in.
- 51029339: Chamber: 39.5 x 51.5 x 23.2 in., exterior: 49.6 x 60.8 x 30.3 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity convection oven</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51029327</td>
<td>51029327</td>
<td>14.8 cu. ft. - 208–240 V, 60 Hz, 2,640 W, 11 A</td>
<td>1/ea</td>
</tr>
<tr>
<td>51029339</td>
<td>51029339</td>
<td>27.3 cu. ft. - 208–240 V, 60 Hz, 3,240 W, 13.5 A</td>
<td>1/ea</td>
</tr>
<tr>
<td>50135245</td>
<td>50135245</td>
<td>Wire mesh shelf for (51029327), includes 2 shelf supports, 20.79 x 21.06 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>50135246</td>
<td>50135246</td>
<td>Wire mesh shelf for (51029339), includes 2 shelf supports, 38.74 x 21.06 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

1 Temperatures as low as ambient +10°C can be selected – requires open damper and no additional heat in unit.
2 Depth of handle/display not included in depth (2.6 in.); casters not included in height (4.3 in.) – required distance to rear wall: 4.7 in.
Thermo Scientific™ Heratherm™ Large Capacity Advanced Protocol Ovens

THERMO FISHER SCIENTIFIC - Heratherm™ Large Capacity Advanced Protocol Ovens offer mechanical convection technology for faster drying and better temperature stability and uniformity. Greater flexibility, accuracy and dependability are provided through a wide range of additional features.

- 2-speed fan for application flexibility
- Access port for introduction of external sensors
- Programmable controller for pre-defined temperature ramps
- Sophisticated daily/weekly/real time timer

Specifications:
Temperature range: ....... 50°C to 250°C
Number of shelves: ....... 2 supplied, 39 max
Spatial temperature deviation at 150°C:
51029329, 51029330 ........... ±2.1°C
51029343, 51029344 ........... ±3.1°C
Temperature deviation over time at 150°C:
51029329, 51029330 ........... ±0.3°C
51029343, 51029344 ........... ±0.4°C

Dimensions (W x H x D):
51029329, 51029330 ....... chamber; 21.4 x 52.6 x 21.5 in.exterior; 30.6 x 60.8 x 30.3 in.
51029343, 51029344 ....... chamber; 39.5 x 52.5 x 21.5 in.exterior; 49.6 x 60.8 x 30.3 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>51029329</td>
<td>51029329</td>
<td>14 cu. ft. - 208–240 V, 60 Hz, 3,240 W, 13.5 A</td>
<td>1/ea</td>
</tr>
<tr>
<td>51029343</td>
<td>51029343</td>
<td>25.8 cu. ft. - 208–240 V, 60 Hz, 3,480 W, 14.5 A</td>
<td>1/ea</td>
</tr>
<tr>
<td>50135245</td>
<td>50135245</td>
<td>Wire mesh shelf for (51029329), includes 2 shelf supports, 20.79 x 21.06 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>50135246</td>
<td>50135246</td>
<td>Wire mesh shelf for (51029343), includes 2 shelf supports, 38.74 x 21.06 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Precision® Compact Gravity Convection Ovens

THERMO FISHER SCIENTIFIC - Precision® compact heating and drying ovens conserve valuable benchtop space. Double-wall interior with 2.5 cm (1 in.) silica-based insulation and powder-coated cold-rolled steel exterior. Pilot light visually indicates oven operation status.

Feature mechanical or gravity convection models that provide the ideal choice for any application. 48 L (1.7 cu. ft.) capacity.

Gravity convection models
- Gentle drying with low turbulence: air is moved vertically through chamber to heat samples
- Preset high-temperature safety bimetallic thermostat ensures overtemperature protection
- Aluminum chamber
- Interior (D x W x H): 11.5 x 16 x 16.2 in.
- Exterior (L x W x H): 13.5 x 18.5 x 22.5 in.

Mechanical convection models
- Uniform heating, precise temperature control and fast drying
- Hydraulic thermostat and LED display
- Stainless-steel chamber
- Interior (D x W x H): 11.5 x 16 x 16 in.
- Exterior (L x W x H): 14.1 x 16.9 x 16.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N8222-25</td>
<td>PR305225G</td>
<td>Gravity convection oven - 120 V, 60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>N8222-27</td>
<td>PR305225M</td>
<td>Mechanical convection oven - 120 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
myBath™ Digital Water Baths

BENCHMARK - The myBath™ series water baths with easy to use controls allow the user to digitally select and monitor settings. Adjustable in 0.1°C increments, the temperature is shown on a large, 3-digit display. The proprietary Quik-CAL™ feature allows for simple, in-lab calibration. High efficiency insulation maintains temperature stability and uniformity within the bath, while keeping the housing cool to the touch.

All myBath™ models feature seamless, stainless steel chambers for easy cleaning and long life. The chambers resist rust and have no corners to collect dirt or contamination. The larger 8 L and 12 L units have drains for hassle-free water changes.

The 4 L, 8 L, and 12 L models include a see-through cover that can be removed, or flipped back on a rear hinge to conserve bench space. The lid's gabled design will divert condensation to the front and back of the bath, away from samples. Racks are available to accommodate 1.5/2 mL, 15 mL and 50 mL tubes within the 4 L, 8 L and 12 L baths. The myBath™ 4 L is supplied with all three racks.

Specifications:
Temperature range. . . . . . . . . . . . . . Ambient +5°C to 100°C
Temperature accuracy ...........  2 L, 4 L: ± 0.2°C at 37°C
                                      8 L, 12 L: ± 0.5°C at 37°C
Temperature uniformity ......... ± 0.2°C at 37°C
Power requirement ............. 115 V or 230 V, 50-60 Hz, 250–700 W

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3142BS</td>
<td>C3142</td>
<td>2 L digital water bath, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3143BS</td>
<td>C3143</td>
<td>2 L digital water bath, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3144BS</td>
<td>C3144</td>
<td>4 L digital water bath, 115 V, includes tube racks for 1.5, 2, 15 and 50 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3145BS</td>
<td>C3145</td>
<td>4 L digital water bath, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3146BS</td>
<td>C3146</td>
<td>8 L digital water bath, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3147BS</td>
<td>C3147</td>
<td>8 L digital water bath, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3148BS</td>
<td>C3148</td>
<td>12 L digital water bath, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3149BS</td>
<td>C3149</td>
<td>12 L digital water bath, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3150BS</td>
<td>C3150</td>
<td>Test tube rack for 40 x 0.5 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3151BS</td>
<td>C3151</td>
<td>Test tube rack for 48 x 1.5/2 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3152BS</td>
<td>C3152</td>
<td>Test tube rack for 41 x 15 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3154BS</td>
<td>C3154</td>
<td>Test tube rack for 76 x 15 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3153BS</td>
<td>C3153</td>
<td>Test tube rack for 15 x 50 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3155BS</td>
<td>C3155</td>
<td>Test tube rack for 30 x 50 mL tubes</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Shaking Water Bath

BENCHMARK - This compact shaking water bath utilizes the well proven, beltless motor drive system with the addition of precision temperature control up to 80°C. The seamless, stainless steel chamber has a 12-liter capacity. The unit is supplied complete with a universal spring platform for securing 15 and 50 mL test tubes, as well as Erlenmeyer flasks and media bottles up to 1 liter. A hinged and removable lid is also included to reduce energy waste, help prevent splashing and divert condensation away from samples. Easy to use controls allow the user to digitally select and monitor time, temperature and shaking speed, while a constant feedback system helps ensure accuracy over each parameter. Optional test tube racks are available for microtubes and custom designed racks can also be made available by request.

Specifications:
Temperature range. . . . . . . . . . . . . . Ambient +5°C to 80°C
Temperature accuracy ........... ±0.3°C at 37°C
Temperature uniformity ......... ± 0.2°C at 37°C
Shaking speed range ........... 30 to 200 rpm
Platform dimensions ........... 6.5 x 8 in.
Dimensions: (W x D x H) ........ 12.2 x 13.25 x 12 in.
Power requirement ............ 115 V or 230 V, 50-60 Hz, 300 W

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3209BS</td>
<td>C3209</td>
<td>SB-12L Shaking Water Bath, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3210BS</td>
<td>C3210</td>
<td>SB-12L Shaking Water Bath, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3212BS</td>
<td>C3212</td>
<td>Optional rack for 0.5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3211BS</td>
<td>C3211</td>
<td>Optional rack for 1.5/2 mL</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Boekel Hot Tubs General-Purpose Water Baths

BOEKELE - These unstirred water baths offer excellent performance and are ideal for general lab applications. They feature a PID controller for easy temperature selection, rapid heat-up and excellent stability (±0.1°C). You can program the timer up to 99 hrs., 59 min. The baths will stop heating when the timed mode is complete. The water baths also feature a seamless passivated stainless steel tank and include a stainless steel diffuser tray/shelf. Easy operation instructions are clearly printed on the front of each unit. The temperature can be set in 0.1°C increments up to 100°C. These baths can also be used as a boiling water bath. Each unit is supplied with a polycarbonate lid. A stainless steel gabled lid, available separately, is required when you place the unit in the boiling mode.

Specifications:
- Power requirements: 115 V, 50/60 Hz
- PB-600A - dimensions (W x L x H): Tank: 11.75 x 6 x 5.5 in., Overall: 13.25 x 8.25 x 9.88 in.
- PB-1400A - dimensions (W x L x H): Tank: 11.75 x 12.75 x 5.75 in., Overall: 13.25 x 15.13 x 9.63 in.
- PB-2800A - dimensions (W x L x H): Tank: 11.75 x 20 x 7.5 in., Overall: 13.25 x 22.13 x 11.63 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB-600A</td>
<td>290100</td>
<td>6 L volume - 360 W power requirement</td>
<td>1/ea</td>
</tr>
<tr>
<td>PB-1400A</td>
<td>290200</td>
<td>14 L volume - 700 W power requirement</td>
<td>1/ea</td>
</tr>
<tr>
<td>PB-2800A</td>
<td>290300</td>
<td>28 L volume - 1,400 W power requirement</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

TempaChek™-LC Liquid Crystal Thermometer

HEALTHMARK INDUSTRIES - The TempaChek™-LC is a liquid crystal thermometer which can be immersed in a liquid bath. With the adhesive back, the thermometer can be mounted to the side of the bath, below the water line. This inexpensive and reusable thermometer will display the real-time temperature of the bath, providing valuable feedback about the appropriateness of the bath temperature when compared to the temperature recommended by the detergent manufacturer.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMPACHKL</td>
<td>TEMPACHEK-LC</td>
<td>Liquid crystal thermometer</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Constant Temperature

Water Baths and Accessories

**Lab Armor® Beads**
LAB ARMOR - Lab Armor® Beads are small, dry, metallic thermal beads designed to replace water in laboratory water baths and ice in ice buckets.

- Stay dry and protected from waterborne microbial contaminants
- Hold capped and non-watertight vessels in place without racks or accessories
- Use less energy than water
- Don't require germicides
- Eliminate warm-up time and make lab experiments easy and repeatable
- Made from recyclable material

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>42370-002</td>
<td>42370-002</td>
<td>2 liters</td>
<td>1/ea</td>
</tr>
<tr>
<td>42370-004</td>
<td>42370-004</td>
<td>4 liters</td>
<td>1/ea</td>
</tr>
<tr>
<td>42370-008</td>
<td>42370-008</td>
<td>8 liters</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Water Bath**
LW SCIENTIFIC - This Water Bath creates a constant temperature with an open reservoir and immersion circulator, ideal for heating temperature-sensitive samples. The stainless-steel reservoir is seamless, eliminating the possibility of rust and leaks, and the rounded corners are easy to clean. The control unit achieves the desired temperature quickly and maintains a constant temperature to prevent sample overheating. Select desired setting with the touch-pad digital controller, and view the actual temperature on the red LED display. The compact design and stainless-steel reservoir make this product a must for every lab.

**Specifications:**
Temperature:
- Range ................. Ambient + 5°C to 100°C
- Sensor .................. 100 ohm Platinum RTD
- Stability ................ ±0.2

Dimensions (H x W x D) ........ 8 x 13 x 11 in.
Power requirements ........... 110 V

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (L x W x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL10LCSSD1</td>
<td>WBL-10LC-SSD1</td>
<td>Water Bath - 10 liter</td>
<td>1/ea</td>
</tr>
<tr>
<td>W3600-1</td>
<td>WBL-20LC-SSD1</td>
<td>Water Bath - 20 liter</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Thermo Scientific™ Precision™ Circulating Water Baths**
THERMO FISHER SCIENTIFIC - Precision™ Circulating Water Baths are an ideal choice when temperature uniformity and control are particularly critical, as when working with enzymes or in serological applications. Available in three capacities 19 L, 35 L and 89 L with stainless steel gable cover.

- Achieve enhanced temperature uniformity with perimeter-directed water flow
- Easily clean and maintain bath with coil-free internal design
- Optimize scheduling with auto-on and auto-off timers
- Accommodate taller labware with new hinged lid and extended height
- Help prevent bath overheating and damage with low-fluid protection
- Easily operate and monitor with icon-based graphical display
- Protect your work with audible alarms
- Baths include stainless steel gable covers, diffuser tray and rubber duck
- UL Listed and CE Marked; US FDA Class I Medical Device

**Specifications:**
Temperature range .............. Ambient + 5°C to 100°C
Temperature stability ........... ±0.1°C at 37°C*
Temperature uniformity ........ ±0.05°C at 37°C*
Electrical requirements ...... 100–115 V, 200–230 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCIR19</td>
<td>TSCIR19</td>
<td>19 liter - 12 x 15.3 x 7.6 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSCIR35</td>
<td>TSCIR35</td>
<td>35 liter - 12 x 27.3 x 7.6 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSCIR89</td>
<td>TSCIR89</td>
<td>89 liter - 19 x 36 x 9.5 in. work area</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Uniformity and stability tests were performed with cover installed and ambient controlled to ±1°C.
Thermo Scientific™ Precision™ General Purpose Water Baths

THERMO FISHER SCIENTIFIC - Precision™ General Purpose Water Baths are rugged, high performance baths that are designed to maintain water temperature from ambient to 100°C. Ideal for a wide range of lab applications. Over-temperature safety circuitry is designed to prevent thermal runaway, while new auto-on and auto-off timers allow you to optimize operation schedules. Benefit from outstanding chemical and corrosion resistance with epoxy powder-coated exterior, and easily clean the chamber with its seamless stainless-steel interior.

- Smaller footprint, frees up valuable benchtop space
- Advanced microprocessor controller for extended functionality
- Protect your work with audible alarms
- Save commonly used settings with four temperature presets
- Baths come with clear polycarbonate gable cover, diffuser tray, drain hose and rubber duck
- UL Listed and CE Marked; US FDA Class I medical device
- Includes a setting for thermal beads*

Specifications:
Temperature range. . . . . . . . . . . . . Ambient to 100°C
Temperature stability . . . . . . . . ±0.1°C at 37°C**
Temperature uniformity . . . . . . . ±0.2°C at 37°C**
Electrical requirements . . . . . . . 100–115 V, 200–230 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (L x W x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSGP05</td>
<td>TSGP05</td>
<td>5 liter - 6.1 x 11.8 x 5.9 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSGP10</td>
<td>TSGP10</td>
<td>10 liter - 11.9 x 13 x 5.9 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSGP20</td>
<td>TSGP20</td>
<td>20 liter - 11.7 x 19.7 x 5.9 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSGP28</td>
<td>TSGP28</td>
<td>28 liter - 11.7 x 19.7 x 7.9 in. work area</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Thermal beads do not provide the same performance as water; see manual for additional instructions.

**Uniformity and stability tests were performed with cover installed and ambient controlled to ±1°C.

Thermo Scientific™ Precision™ Shaking Water Baths

THERMO FISHER SCIENTIFIC - Precision™ Shaking Water Baths support a range of sensitive life science and QA/QC applications, from warming fragile reagents to tissue culturing and genetics sequencing. Easily clean and maintain your bath with new coil-free interior. Precision Shaking Water Baths are available in 15 L and 27 L capacities.

The Precision shallow form shaking bath has a capacity of 15 L with a removable tray that provides a depth of 3.5 in (8.9 cm) for use with smaller sample containers.

- Optimize scheduling with auto-on and auto-off timers
- Help prevent bath overheating and damage with low-fluid protection
- Four temperature and shaking speed presets
- Help protect your work with audible alarms
- Accommodate taller labware with new hinged lid and extended height
- Features next-generation shaker motor
- Baths come with stainless steel gable cover, shaking tray and rubber duck
- Adjustable shaking speed from 30 to 200 oscillations per minute
- UL Listed and CE Marked; US FDA Class I medical device

Specifications:
Temperature range. . . . . . . . . . . . . Ambient + 5°C to 100°C
Temperature stability . . . . . . . . ±0.1°C at 37°C*
Temperature uniformity . . . . . . . ±0.05°C at 37°C*
Electrical requirements . . . . . . . 100–115 V, 200–230 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (L x W x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSSWB15</td>
<td>TSSWB15</td>
<td>15 liter - 11.5 x 12 x 6.5 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSSWB15S</td>
<td>TSSWB15S</td>
<td>15 liter (shallow) - 11.5 x 12 x 3.5 in. work area</td>
<td>1/ea</td>
</tr>
<tr>
<td>TSSWB27</td>
<td>TSSWB27</td>
<td>27 liter - 11.5 x 24 x 6.5 in. work area</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Uniformity and stability tests were performed with cover installed and ambient controlled to ±1°C.
Furniture

Blood Draw Chairs

**Cardinal Health** - These chairs are compression-molded, nylon-filled polyester chair(s) with a dry powder, glacier white epoxy-coated and 1 in. square tubular steel frame. Includes type 304 stainless steel footrest, and molded urethane padded arm with integral coating and gas-assist arm lift mechanism. The arm easily adjusts to fit any size patient and is angled to support the patient's arm in a fully extended position for easier venipuncture. The elevated seat on these chairs places the patient at the ideal height to allow a blood draw with limited back strain on the technician. Ten-year limited warranty on materials and workmanship.* Weight capacity is 450 lbs. (204 kg). Shipping weight 58 lbs. (26 kg). Some assembly required. Dimensions for chair only (W x D x H): 26.5 x 27.5 x 37 in.

Chair with storage cabinet includes one slide-out tray of high impact ABS plastic with dish dimensions (W x D): 14 x 20.25 in. Overall inside cabinet dimensions (W x D x H): 16.3 x 22 x 9 in. Padded urethane storage cabinet top includes a dished compartment. Bracket and hardware are provided to mount the interchangeable cabinet on right or left side of chair. Ten-year limited warranty on materials and workmanship.* Shipping weight 111 lbs. (50 kg). Some assembly required. Dimensions for chair with cabinet (W x D x H): 46.5 x 27.5 x 37 in.

Double blood drawing chair with center storage cabinet includes bracket and hardware to mount the cabinet between the two chairs. Ten-year limited warranty on materials and workmanship.* Shipping weight 169 lbs. (77 kg). Some assembly required. Dimensions for double chair with center storage cabinet (W x D x H): 75.4 x 27.5 x 37 in.

**Cat. No.** | **Description** | **Qty.**
--- | --- | ---
L5165-1B | Blood drawing chair | 1/ea
L5165-2B | Blood drawing chair w/side storage cabinet | 1/ea
L5165-3B | Double blood drawing chair w/center storage cabinet | 1/ea

*See product packaging and inserts for limited warranty terms.

**Bariatric Blood Drawing Chairs**

**Cardinal Health** - These chairs are durable and constructed for long life use. Rated to accommodate up to 700 lbs., the chair comfortably seats larger-proportioned individuals or an adult with a small child. This gray vinyl upholstered chair features two hinged padded arms and a type 304 stainless steel footrest. Chairs are constructed with a powder-coated, glacier white, 1 in. square tubular steel frame. This sturdy unit comes with a ten-year limited warranty on materials and workmanship.* Two easy-to-use knob mechanisms on each arm allow for incremental adjustments; arm height from chair seat of 8.2–13.2 in., arm depth from chair back of 18.4–21.4 in. The hinged arms may be lifted upright to vertical and the elevated seat reduces back strain on the technician. The vinyl upholstery on this chair is durable and easy to clean. Dimensions for chair only (W x D x H): 50.10 x 30.75 x 43.45 in.

The optional storage cabinet is constructed of epoxy-coated steel with a laminate top and has a slide-out tray with inside dimensions (W x D): 14 x 20.25 in. The tray is removable for cleaning and the cabinet placement is interchangeable from the left side to the right side of the chair. Some assembly is required. Overall inside cabinet dimensions (W x D x H): 16.3 x 22 x 9 in. Dimensions for chair with cabinet (W x D x H): 69.15 x 30.75 x 43.45 in.

**Cat. No.** | **Description** | **Qty.**
--- | --- | ---
L5165-4A | Chair without cabinet | 1/ea
L5165-5A | Chair with cabinet | 1/ea

*Warranty excludes normal upholstery wear.

**Space Saver™ Stationary Medical Lounge Chair**

**Arlington Scientific** - The Space Saver™ is specially designed to accommodate space restrictions while assuring patient/donor comfort and technician safety. Interchangeable armrests allow left or right draws from either side of the lounge. Superior tear strength fabric that resists scuffs and scrapes. The Space Saver™ comes in both manual and electric models to meet your Apheresis, Oncology or blood collection needs.

- One adjustable armrest
- One control switch
- Two armrest mounts - your choice of positions
- Fourteen standard colors
- 110 V or 220 V electric motor
- Rated up to 650 lbs.

**Cat. No.** | **Mfr. No.** | **Description** | **Qty.**
--- | --- | --- | ---
B6255-20 | LS-611-003 | 24 in. electric medical lounge chair | 1/ea
Lab X Series Bariatric Blood Drawing Chair with Padded Arms
CLINTON INDUSTRIES - Sturdy, steel construction is combined with thick foam padding on seat and backrest to provide an extra measure of comfort and security for larger patients. Built tough enough to support 700 lbs. under normal use. Dimensions: overall (W x D) 46 x 29 in., seat (W x D x H) 35 x 21 x 20 in.
- 1¼ in. square, heavy duty, all-welded, tubular steel frame (3.18 cm)
- Extra steel center support
- Neutral gray powder-coated frame
- Adjustable height and depth flip arm(s)
- Flip arm(s) positions in place when in use, then flips out of the way for easy exit
- 9 choices of arm styles with no upcharge
- Comfortable 2 in. padding throughout (5 cm)
- Easy-clean, durable vinyl in a selection of colors
- 700 lbs. combined load capacity under normal use (181.4 kg)

Important note: Clinton Blood Drawing Chairs are not engineered to restrain a fainting or falling occupant. The chair's occupant should NEVER be left unattended.

Ordering note: MUST add arm suffix number to model number when ordering any model with arm options, otherwise chair will be shipped as shown.

Due to the possibility of blood borne pathogen contamination, all blood drawing products are non-returnable unless they are unused in unopened, original packaging.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
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<tbody>
<tr>
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<td>66000B</td>
<td>Bariatric chair with flip-arms</td>
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<tr>
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<td>66000B-3RB</td>
<td>Bariatric chair with flip-arms - royal blue</td>
<td>1/ea</td>
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<tr>
<td>66000B-3WW</td>
<td>66000B-3WW</td>
<td>Bariatric chair with flip-arms - wedgewood blue</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

* Corresponding color code must accompany vinyl color selection when placing order.

Lab X Series Blood Drawing Chair with Padded Arms
CLINTON INDUSTRIES - Blood Drawing Chairs put patient comfort first. A thick, padded, contoured seat and arched backrest are supported by a stable, durable, steel, powder-coated frame. Height-adjustable arms make operation easy for clinician and comfortable for patient. Dimensions: overall (W x D x H) 31 x 27 x 36 in., seat (W x D x H) 17½ x 18 x 19 in.
- 1¼ in. square, heavy duty, all-welded, tubular steel, frame (3.18 cm)
- Neutral gray, powder-coated frame
- Adjustable height and depth flip arm
- Flip arm positions in place when in use, then flips out of the way for easy exit
- Height adjustable armrest
- 9 choices of arm styles with no upcharge
- Comfortable, 2 in. padding throughout (5 cm)
- Easy-clean, durable vinyl in a selection of colors
- 400 lbs. load capacity under normal use (181.4 kg)

Important note: Clinton Blood Drawing Chairs are not engineered to restrain a fainting or falling occupant. The chair’s occupant should NEVER be left unattended.

Ordering note: MUST add arm suffix number to model number when ordering any model with arm options, otherwise chair will be shipped as shown.

Due to the possibility of blood borne pathogen contamination, all blood drawing products are non-returnable unless they are unused in unopened, original packaging.

<table>
<thead>
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<tbody>
<tr>
<td>66010-3BK</td>
<td>66010-3BK</td>
<td>Chair with flip-arm - black</td>
<td>1/ea</td>
</tr>
<tr>
<td>66010-3RB</td>
<td>66010-3RB</td>
<td>Chair with flip-arm - royal blue</td>
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</tbody>
</table>
**Furniture**

**Blood Draw Chairs**

### Lab X Series Extra-Tall Blood Drawing Chair with Padded Arms

**CLINTON INDUSTRIES - Blood Drawing Chairs put patient comfort first.**

A thick, padded, contoured seat and arched backrest are supported by a stable, durable, steel, powder-coated frame. Extra height reduces bending for phlebotomist. Height-adjustable arms make operation easy for clinician and comfortable for patient. Dimensions: overall (W x D x H) 31 x 27 x 42½ in., seat (W x D x H) 17½ x 18 x 26 in.

- Extra height reduces bending for phlebotomist
- 1¼ in. square, heavy duty, all-welded, tubular steel, frame (3.18 cm)
- Neutral gray, powder-coated frame
- Adjustable height and depth flip arm
- Flip arm positions in place when in use, then flips out of the way for easy exit
- Height adjustable armrest
- 9 choices of arm styles with no upcharge
- Comfortable, 2 in. padding throughout (5 cm)
- Easy-clean, durable vinyl in a selection of colors
- 400 lbs. load capacity under normal use (181.4 kg)

**Important note:** Clinton Blood Drawing Chairs are not engineered to restrain a fainting or falling occupant. The chair’s occupant should NEVER be left unattended.

**Ordering note:** MUST add arm suffix number to model number when ordering any model with arm options, otherwise chair will be shipped as shown.

Due to the possibility of blood borne pathogen contamination, all blood drawing products are non-returnable unless they are unused in unopened, original packaging.

<table>
<thead>
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<th>Cat. No.</th>
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<tr>
<td>66011-3BK</td>
<td>66011-3BK</td>
<td>Extra-tall chair with flip-arm - black</td>
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</tr>
</tbody>
</table>

### Lab X Series Extra-Tall Blood Drawing Chair with Padded Flip Arm and Drawer

**CLINTON INDUSTRIES - Blood Drawing Chairs put patient comfort first.**

A thick, padded, contoured seat and arched backrest are supported by a stable, durable, steel, powder-coated frame. One-piece, all-plastic drawer with ClintonClean™ drawer top. Extra height reduces bending for phlebotomist. Height-adjustable arms make operation easy for clinician and comfortable for patient. Dimensions: overall (W x D x H) 38 x 27 x 42½ in., seat (W x D x H) 17½ x 18 x 26 in.

- ClintonClean™ drawer top
- One-piece, all-plastic drawer
- Extra height reduces bending for phlebotomist
- 1¼ in. square, heavy duty, all-welded, tubular steel, frame (3.18 cm)
- Neutral gray, powder-coated frame
- Adjustable height and depth flip arm
- Flip arm positions in place when in use, then flips out of the way for easy exit
- Height adjustable armrest
- 9 choices of arm styles with no upcharge
- Comfortable, 2 in. padding throughout (5 cm)
- Easy-clean, durable vinyl in a selection of colors
- 400 lbs. load capacity under normal use (181.4 kg)

**Important note:** Clinton Blood Drawing Chairs are not engineered to restrain a fainting or falling occupant. The chair’s occupant should NEVER be left unattended.

**Ordering note:** MUST add arm suffix number to model number when ordering any model with arm options, otherwise chair will be shipped as shown.

Due to the possibility of blood borne pathogen contamination, all blood drawing products are non-returnable unless they are unused in unopened, original packaging.

<table>
<thead>
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<td>Extra-tall chair with flip-arm and drawer</td>
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</tbody>
</table>

*Corresponding color code must accompany vinyl color selection when placing and order...
### Recliner Series Hi-Lo Blood Drawing Chair

**CLINTON INDUSTRIES** - Optimal height and the correct position of the patient are easy with Clinton's recliner series, blood drawing chair. This chair features a height travel range of 8 in., as well as reclining positions for upper body and legs to accommodate different procedures.

**Dimensions:** overall (W x H) 35 x 50 in., length retracted 35 in., length extended 66 in., seat (W x D) 20½ x 17 in.
- Smooth, fully electric reclining and height adjustment
- Self-leveling arms and synchronized footrest that move with chair’s seat and backrest
- Keeps patients comfortable and may better accommodate patients who may faint during a procedure
- Power supplies and motors meet UL 60601-1 and CAN/CSA C22.2 601.1
- Hand controller
- Heavy duty, all-welded, steel, neutral gray, powder-coated frame
- Padded seat, backrest, armrests and footrest
- Armrests flip up out of the way for easy entry and exit
- Adjustable foot levelers
- Easy-clean, durable, vinyl in a selection of colors
- 375 lbs. load capacity under normal use (170 kg)

**Important note:** Clinton Blood Drawing Chairs are not engineered to restrain a fainting or falling occupant. The chair’s occupant should NEVER be left unattended.

**Due to the possibility of blood borne pathogen contamination, all blood drawing products are non-returnable unless they are unused in unopened, original packaging.**

<table>
<thead>
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<td>6810</td>
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</tbody>
</table>

*Corresponding color code must accompany vinyl color selection when placing and order

### Tech-Med® Standard Blood Drawing Chair

**DUKAL** - Plastic seat with Formica arm. One control knob allows you to raise and lower the arms effortlessly. Optional flip-up arm can be adjusted to varying angles with a single knob. Adjustable levelers on all four legs allow the chair to sit solidly on an uneven floor.
- 300 lb. weight capacity
- Overall dimensions (H x W x D): 32 x 34 x 28 in.
- Chair dimensions: seat height to floor 18 in., inside arm width 21 in., seat depth 16 in., height of adjustable arm 28–35 in.

<table>
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<th>Description</th>
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<td>Straight arm blood draw chair</td>
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<tr>
<td>4381-FD</td>
<td>4381-F</td>
<td>Flip arm blood draw chair</td>
<td></td>
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</tbody>
</table>

### Tech-Med® Tall Blood Drawing Chair

**DUKAL** - High quality chair with tool free assembly and padded seat for ultimate patient comfort. One control knob allows you to raise and lower the arms effortlessly. Optional flip-up arm can be adjusted to varying angles with a single knob. Arms can be raised and lowered in infinite positions and rotate left or right. Adjustable levelers on all four legs allow the chair to sit solidly on an uneven floor. Vinyl is mildew resistant, sulfide stain resistant and static dissipative.
- 500 lb. weight capacity
- Overall dimensions (H x W x D): 43 x 34 x 28 in.
- Chair dimensions: seat height to floor 24 in., inside arm width 21 in., seat depth 17 in., height of adjustable arm 33–40 in.

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<td>4383</td>
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<tr>
<td>4383-FD</td>
<td>4383-F</td>
<td>Flip arm, blue, tall blood draw chair</td>
<td></td>
</tr>
</tbody>
</table>
Blood Draw Chairs

**Tech-Med® Upholstered Blood Drawing Chair**

DUKAL - High quality chair with tool free assembly and padded seat for ultimate patient comfort. One control knob allows you to raise and lower the arms effortlessly. Optional flip-up arm can be adjusted to varying angles with a single knob. Arms can be raised and lowered in infinite positions and rotate left or right. Adjustable levelers on all four legs allow the chair to sit solidly on an uneven floor. Vinyl is mildew resistant, sulfide stain resistant and static dissipative.

- 500 lb. weight capacity
- Overall dimensions (H x W x D): 36 x 34 x 36 in.
- Chair dimensions: seat height to floor 19 in., inside arm width 21 in., seat depth 17 in., height of adjustable arm 28–35 in.

**Tech-Med® Wide Blood Drawing Chair**

DUKAL - High quality chair with tool free assembly and padded seat for ultimate patient comfort. One control knob allows you to raise and lower the arms effortlessly. Optional flip-up arm can be adjusted to varying angles with a single knob. Arms can be raised and lowered in infinite positions and rotate left or right. Adjustable levelers on all four legs allow the chair to sit solidly on an uneven floor. Vinyl is mildew resistant, sulfide stain resistant and static dissipative.

- 700 lb. weight capacity
- Overall dimensions (H x W x D): 40 x 43 x 28 in.
- Chair dimensions: seat height to floor 19 in., inside arm width 31 in., seat depth 17 in., height of adjustable arm 28–35 in.

**Tech-Med® Tray and Drawer Assembly**

DUKAL - Attaches to the straight arm. Straight arm is pre-drilled for easy installment of tray and drawer.

- Tray dimensions (W x D): 8 x 11 in.
- Drawer dimensions (H x W x D): 4 x 11 x 11 in.

**Blood Drawing Chair**

LABCONCO - Labconco Blood Drawing Chairs provide optimal positions for venipuncture, ergonomically correct for both patient and phlebotomist. Designed with input from phlebotomists, elevated chair height and angled, padded arm helps ensure patient comfort.

Additional features:

- Padded arm cleans easily and withstands disinfection, angled at 10° to support the patient’s arm in fully extended position for easier venipuncture
- Elevated 21 in. chair height reduces phlebotomist’s back strain
- Stainless steel footrest provides support
- One piece welded 1 in. tubular steel frame with chemical-resistant powder epoxy
- Dimensions (W x L x H): 26.5 x 27.5 x 37 in.
- Weight capacity is 450 lbs. (204 kg)
**XL Padded Blood Drawing Chairs**

WINCO - The 2575 features two infinitely adjustable armrests, padded seat and back and non-marring leveling feet. The flip-up contoured urethane armrest provides comfort, easy access, and added safety for the user. XL chairs have a seat width of 24 in. and a weight capacity of 450 lbs.

<table>
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<tr>
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<th>Description</th>
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</thead>
<tbody>
<tr>
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<td>2575-17</td>
<td>Blueridge - XL chair</td>
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<tr>
<td>WI575-14</td>
<td>2575-14</td>
<td>Burgundy - XL chair</td>
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<tr>
<td>WI575-02</td>
<td>2575-02</td>
<td>Royal blue - XL chair</td>
<td>1/ea</td>
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</table>

**Basic Blood Drawing Chair**

WINCO - The flip-up contoured urethane armrest provides comfort, easy access and added safety for the user. Offers a durable easy-clean seat and back, sturdy leveling feet, to provide years of trouble-free service.

<table>
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<tr>
<th>Cat. No.</th>
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</thead>
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<tr>
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<td>2571</td>
<td>Black - chair</td>
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</tr>
</tbody>
</table>

**XL Padded Blood Drawing Chairs with Cabinet**

WINCO - The 2574 features a 24.25 in. wide padded seat, high-impact aluminum frame and plastic storage cabinet with a slotted drawer. Additionally, it has adjustable armrests and high impact leveling feet. The 2574 is designed to safely accommodate patients up to 450 lbs.

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<td>WI2574-08</td>
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</table>

**Padded Blood Drawing Chair with Cabinet**

WINCO - The 2572 Padded Blood-Drawing Chair includes a high impact aluminum frame and plastic storage cabinet. The adjustable, steel reinforced, flip-up, contoured urethane armrest provides easy access and superior safety for the user. Chair has a seat width of 18.75 in. and a weight capacity of 300 lbs.

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<tbody>
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</table>
Carts

Carboy Caddy
LABCONCO - Safe transport of large carboys or cartons. Helps eliminate heavy lifting and back strain. 20 x 23.6 in. shelf is made of phenolic board with a melamine high-pressure laminate surface. Handle measures 38.5 in. high and 19 in. wide with extruded molded plastic handle grips. 3 in. diameter casters provide low profile, elevating shelf only 4.25 in. above the floor. Durable glacier white, epoxy-coated 18 gauge welded 1 in. square tubular steel frame. Supports loads up to 360 lbs. Lifetime guarantee.

<table>
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<tr>
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<td>8000300</td>
<td>Carboy caddy</td>
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</table>

Cart for the Cure™
LABCONCO - Cart for the Cure™ is a special, limited edition model of our popular portable table laboratory cart. It has all the great features of our standard portable table, except the 18 gauge welded tubular steel frame boasts the official Breast Cancer Awareness pink color. The cart also includes an official pink ribbon identification tag. Supports loads up to 400 lbs. Plus, for each Cart for the Cure™ sold, Labconco will donate $50.00 to the St. Luke’s Foundation to help provide free mammograms to women who can’t afford them. Lifetime guarantee. Dimensions (L x W x H): 34.88 x 19 x 36.38 in.

<table>
<thead>
<tr>
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<td>8025000PNK</td>
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Chemical Cart
LABCONCO - Chemical Cart has two open shelves with rigid PVC extrusions on two sides to prevent containers from sliding off. The lower shelf also has rigid plastic guard rails on both ends. Ergonomic, extruded molded plastic handle grips. The cart has 4 in. diameter casters, two with toe locks; ready-to-roll full factory assembly. The frame is durable glacier white, epoxy-coated 18 gauge welded tubular steel. Supports loads up to 400 lbs. Lifetime guarantee. Dimensions (L x W x H): 34.88 x 19 x 36.38 in.

<table>
<thead>
<tr>
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Flexi-Bin™ Carts
LABCONCO - Flexi-Bin™ Cart with 4 or 10 in. deep bin, for safe transport of glassware and chemical containers. Features a removable, corrosion-resistant polyethylene bin offered in two overall depths of 4 and 10 in. Includes three long (20.25 in.) and four short (15.25 in.) polyethylene dividers for partitioning the bin to securely hold items in upright position. The bottom open shelf holds additional supplies. Ergonomic, extruded molded plastic handle grips. The cart has 4 in. diameter casters, two with toe locks; ready-to-roll full factory assembly. The frame is durable glacier white, epoxy-coated 18 gauge welded tubular steel. Supports loads up to 400 lbs. Lifetime guarantee. Dimensions (L x W x H): 34.88 x 19 x 36.38 in.

<table>
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<td>C1261</td>
<td>8010001</td>
<td>Flexi-Bin cart – 10 in. bin</td>
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</table>

Glassware Carts
LABCONCO - Glassware Carts are used to carry glassware, plasticware, and small instruments in vinyl-coated wire baskets. Choose 2-basket or 4-basket style, complete with removable plastic drip pan to catch spills. The cart has 4 in. diameter casters, two with toe locks. Supports loads up to 400 lbs. Lifetime guarantee. Dimensions (L x W x H): 34.9 x 19 x 36.4 in.

<table>
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<tr>
<td>C1253</td>
<td>8045000</td>
<td>4 basket cart - basket 16 x 18 x 4 in.</td>
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</table>
Instrument Desk
LABCONCO - This desk includes 4 in. diameter casters, 2 with toe locks for mobile or stationary use. It features standard desk height with a center reinforcing bar to allow seating from either side. Top is phenolic board with high-pressure melamine laminate surface that resists stains and corrosion. Handle has an ergonomic molded plastic grip. Glacier white epoxy-coated frame is welded of 1 in. square steel tubing. The desk holds up to 400 lbs. Lifetime guarantee. Dimensions (L x W x H): 42.13 x 19 x 31.63 in.

<table>
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LOGIC® Cart
LABCONCO - LOGIC® Cart, specifically designed to provide convenient storage of supplies commonly used in biological safety cabinets. Its compact size allows it to fit easily under Purifier Logic, Logic+ and Axiom Class II Biosafety Cabinets and PuriCare Procedure Stations mounted on telescoping base stands adjusted to any height. Two in. diameter casters and front and right side handle cutouts allow the cart to be easily moved to within reach while the user works. Three right side compartments accommodate pipettes and other supplies. The top left side compartment with front panel cutouts accommodates boxes of wipes and gloves. The drawer holds a variety of miscellaneous small instruments and supplies. An open storage area holds larger equipment and supplies. The 25 x 19 in. (W x D) work surface and cart bottom are constructed of corrosion-resistant white high density polyethylene that is easy to clean. Remaining components are constructed of corrosion-resistant white ABS. Dimensions (L x W x H): 25 x 19 x 27 in.

<table>
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Mobile Bench
LABCONCO - Mobile Bench provides auxiliary bench space and transports equipment from lab to lab. Durable work surface is fiber board with high pressure melamine laminate. Supports loads up to 540 lbs. The cart has 5 in. diameter non-marking polyurethane casters with toe locks. Frame is constructed of 2 in. square steel tubing painted with corrosion-resistant, glacier white epoxy powder. Lifetime guarantee. Dimensions (L x W x H): 48 x 24 x 37.2 in. Work surface is 1.1 in. thick.

<table>
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<td>8060000</td>
<td>Mobile Bench</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Pan Cart
LABCONCO - This pan cart transports wet or soiled glassware, labware and other materials. Features two 2 in. deep powder-coated steel removable watertight pans. The unit is lined with removable gray rubber mats to help prevent loads from shifting. The pan cart ships fully factory-assembled and ready to roll on its 4 in. dia. casters. Features include ergonomic, extruded molded plastic handle grips; a durable glacier white, powder-coated 18G welded tubular steel frame and ID tag. The pan cart can support loads up to 400 lbs. and comes with a lifetime guarantee. Dimensions: (L x W x H) 34.88 x 19 x 36.38 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1256</td>
<td>8047500</td>
<td>Pan Cart</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Portable Table
LABCONCO - Portable Table features two open shelves that provide easy transfer of equipment from countertop to cart. Table features 1 in. square steel tubing and has 4 in. diameter casters for mobility, two with toe locks. Shelves of glacier white phenolic board with high-pressure melamine laminate surface resist staining and corrosion. Handles have ergonomic molded plastic grips. Frame is constructed of glacier white 1 in. square steel tubing. Holds up to 400 lbs. Lifetime guarantee. Dimensions (L x W x H): 34.9 x 19 x 36.4 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>80250</td>
<td>8025000</td>
<td>Portable Table</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Carts and Chairs

**ScrubberMate™ Glassware and Rack Cart**
LABCONCO - Designed for Labconco glassware washers, the ScrubberMate provides convenient storage and transport of extra Labconco washer racks, inserts or miscellaneous glassware. Accommodates up to 2 Labconco washer racks or 4 wire inserts. Alternatively, 48 adjustable and removable pins, 0.5 in. wide x 4.75 in. high may be arranged in the drawers to hold inverted flasks, beakers and other glassware.

Rails are provided to allow a lower washer rack to slide directly onto the cart from the washer. In addition, the lower drawer pulls out for simple loading of inserts or individual glassware. An upper washer rack may be docked above the upper drawer. The upper drawer accommodates 2 wire inserts and is removable so that tall glassware may be loaded in the lower drawer. Durable and chemical-resistant, high density polyethylene construction. Includes 2.5 in. diameter casters with toe locks. Dimensions (L x W x H): 23.3 x 22.6 x 31.6 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5218-232</td>
<td>8027000</td>
<td>ScrubberMate™ Glassware Cart</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Stainless Steel Cart**
LABCONCO - Stainless Steel Cart holds a variety of laboratory supplies, equipment and miscellaneous containers. Features 2 removable polished Type 304 stainless steel pans that are 2 in. deep on three sides with one open side for easy equipment transfer from countertop to cart. Durable glacier white, epoxy-coated 18 gauge welded 1 in. square tubular steel frame. Four 4 in. diameter casters, two with toe locks. Handles have ergonomic molded plastic grips. Supports loads up to 400 lbs. with lifetime guarantee. Dimensions: (L x W x H) 34.88 x 28 x 39.6 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>C1257</td>
<td>8019000</td>
<td>Stainless Steel Cart</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Utility Cart**
LABCONCO - The Utility Cart is a compact, mobile work station for laboratory equipment. An open shelf transports and supports small electrical equipment. Lower 2 in. deep epoxy-coated steel, removable watertight pan transports wet or soiled glassware and other labware. Cart includes power strip with 115 V, 60 Hz, 12 amps capacity, has 6 electrical outlets, cord bracket and a 12-foot, 3-wire cord with plug. Two corrosion-resistant, one-piece, vacuum-formed ABS plastic drawers, 15.75 x 14.9 x 4.2 in. high hold small labware and supplies. 4 in. diameter casters, two with toe locks. Supports loads up to 400 lbs. Lifetime guarantee. Dimensions (L x W x H): 34.9 x 19.0 x 36.4 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1258</td>
<td>8070000</td>
<td>Utility Cart with power strip</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Variable Height Bench**
LABCONCO - Variable Height Bench with four adjustable heights, provides heavy duty auxiliary bench space and transports equipment from lab to lab. Durable work surface is fiber board with high pressure melamine laminate. Heights range from 29.6 to 37.4 in. using steel pins with nuts inserted in vertical frame members. Supports loads up to 540 lbs. Frame is constructed of glacier white 2 in. square steel tubing. The cart has 5 in. diameter non-marking polyurethane casters with toe locks. Lifetime guarantee. Dimensions (L x W x H): 38 x 28 x 29.6 to 37.4 in. Work surface is 1.1 in. thick.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>C1260-5</td>
<td>8075000</td>
<td>Mobile bench</td>
<td>1/ea</td>
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</tbody>
</table>

**Ergonomic Chair with Armrests**
LABCONCO - Chair has 6-way articulating seat and back control for personalized adjustment. Pneumatic mechanism adjusts seat height from 18.25 to 25.75 in. Five-leg reinforced composite base with 2 in. diameter ball bearing casters. Aluminum support ring. Removable armrests. Black vinyl upholstery.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5302-16</td>
<td>3744000</td>
<td>Ergonomic Chair with Armrests</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

To order, call: 800.964.5227
Digital Dry Baths

**CARDINAL HEALTH** - This series of digital dry baths offer control over both temperature and time, eliminating the need for an external thermometer or timer. Available in three configurations, our digital dry baths offer capacity up to four blocks. Extremely space efficient — our four-block model can accommodate up to 96 x 1.5 mL tubes in less than a square foot of bench space.

Precision machined to match the conical shape of 0.5, 1.5, 2, 15 and 50 mL tubes, the wells in the aluminum blocks offer excellent thermal transfer to sample tubes. Assorted blocks are available for compatibility with nearly all common tube sizes.

Built-in user recalibration function helps to ensure long-term temperature accuracy. Each dry bath includes an easy-to-use block lifter with a temperature insulated handle for quick, convenient exchange of blocks… even while they’re still hot.

**Specifications:**
- **Temperature range**: Ambient +5°C to 150°C - single, double block
  
  Ambient +5°C to 130°C - four block
- **Temperature accuracy**: ± 0.2°C
- **Temperature uniformity**: ± 0.2°C
- **Temperature increments**: 0.1°C
- **Timer**: 1 to 999 minutes
- **Electrical**: 115 V, 50/60 Hz
- **Dimensions (W x D x H)**:
  - **Single block**: 7.8 x 9 x 3.2 in. (20 x 23 x 8 cm)
  - **Two block**: 8.7 x 10.3 x 3.2 in. (22 x 26 x 8 cm)
  - **Four block**: 8.7 x 14 x 3.2 in. (22 x 35.5 x 8 cm)
- **Blocks**: High grade aluminum
- **Warranty**: Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH1001</td>
<td>Digital Dry Bath - single position, without blocks</td>
<td>1/ea</td>
</tr>
<tr>
<td>CH1002</td>
<td>Digital Dry Bath - two position, without blocks</td>
<td>1/ea</td>
</tr>
<tr>
<td>CH1004</td>
<td>Digital Dry Bath - four position, without blocks</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW02</td>
<td>48 x 0.2 mL tubes or 6 PCR tube strips</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW05</td>
<td>24 x 0.5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW1500</td>
<td>24 x 1.5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW1520</td>
<td>24 x 1.5/2 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW10</td>
<td>20 x 10 mm (or 20 x 2 mL) for 10 x 75 tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW5MT</td>
<td>12 x 5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW13</td>
<td>20 x 13 mm (or 20 x 5/7 mL) for 12 x 75 tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW1516</td>
<td>12 x 15-16 mm (or 12 x 10 mL)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW15</td>
<td>12 x 15 mL (block height is 3.25 in.)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW50</td>
<td>5 x 50 mL (block height is 3.25 in.)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSWPCR1</td>
<td>1 x 96-well PCR Plate (for 1 block model)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSWPCR2</td>
<td>1 x 96-well PCR Plate (for 2 and 4 block models)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSWMT</td>
<td>1 x Micro titer plate (for 2 and 4 block models)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSW01</td>
<td>Solid – for slides or custom machining</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Digital Dry Baths and Blocks

Digital Dry Baths with Removable Hinged Lid
CARDINAL HEALTH - The next generation of digital dry baths offers advanced microprocessor controls and timed or continuous operation. They also feature a transparent, removable, hinged lid that promotes better uniformity and less temperature stratification in the block by maintaining a warm air layer. The hinged lid also helps to reduce energy consumption by minimizing heat loss to the environment. It can be flipped open (to the rear) or easily removed (lifted off) to accommodate taller tubes.

The dry baths are available as single or dual block models. The IsoBlock model has two independently controlled temperature blocks to allow for different temperature incubations within the same machine.

Both single and dual block models can be ordered in a configuration that includes our unique combination blocks (CHBSWCMB). These universal blocks accept tubes from 0.5 to 2 mL and, with a quick flip to the other side, accommodate 0.2 mL tubes, PCR strips or (in the dual block model only) a PCR plate. Other blocks are available for tubes up to 50 mL.

Specifications:
- Temperature range: Ambient +5°C to 105°C
- Temperature accuracy: ± 0.25°C
- Temperature uniformity: ± 0.2°C
- Temperature increments: 0.1°C
- Timer: 1 minute to 99 hours and 59 minutes
- Electrical: 115 V, 50/60 Hz
- Dimensions (W x D x H): Single chamber - 7 x 10 x 5 in. (18 x 25 x 13 cm),
  Dual chamber - 6.3 x 14.5 x 5 in. (16 x 36.5 x 13 cm)
- Weight: 10 lbs. (4.5 kg)
- Warranty: Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Digital Dry Baths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHH5001</td>
<td>Digital Dry Bath - single chamber without blocks</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHH50011B</td>
<td>Digital Dry Bath - single chamber with one block (CHBSWCMB) for tubes 0.2 to 2 mL and PCR strips</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHH5002</td>
<td>Digital Dry Bath - dual chamber without blocks</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHH50022B</td>
<td>Digital Dry Bath - dual chamber with two blocks (CHBSWCMB) for tubes 0.2 to 2 mL and PCR strips and PCR plate</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHH6000</td>
<td>IsoBlock Digital Dry Bath with two independently controlled chambers, without blocks</td>
<td>1/ea</td>
</tr>
<tr>
<td><strong>Blocks</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| CHBSWCMB | Combination block: One holds - 24 x 1.5 mL/2 mL and 14 x 0.5 mL
  Two holds - 6 x PCR strips, 48 x 0.2 mL or one PCR plate* | 1/ea |
| CHBSW02 | 48 x 0.2 mL tubes or 6 PCR tube strips | 1/ea |
| CHBSW05 | 24 x 0.5 mL | 1/ea |
| CHBSW1500 | 24 x 1.5 mL | 1/ea |
| CHBSW1520 | 24 x 1.5/2 mL | 1/ea |
| CHBSW10 | 20 x 10 mm (or 20 x 2 mL)** | 1/ea |
| CHBSW13 | 20 x 13 mm (or 20 x 5/7 mL) for 12 x 75 tubes** | 1/ea |
| CHBSW1516 | 12 x 15-16 mm (or 12 x 10 mL) | 1/ea |
| CHBSW15 | 12 x 15 mL** | 1/ea |
| CHBSW50 | 5 x 50 mL** | 1/ea |
| CHBSWP1R | 1 x 96-well PCR Plate | 1/ea |
| CHBSWP2R | 1 x 96-well PCR Plate (for dual chamber models) | 1/ea |
| CHBSWMT | 1 x Micro titer plate (for dual chamber models) | 1/ea |
| CHBSW01 | Solid – for slides or custom machining | 1/ea |

*Two blocks required for use with PCR plates
**Tall block (3.25 in.), height prevents use with lid
Mini Digital Dry Baths
CARDINAL HEALTH - The Mini Digital Dry Baths are compact and have a small footprint on the benchtop. They are available in heating and cooling versions. Each of these units offers a broad temperature range and multiple block options for laboratory incubation. The optional 12 V adapter is available for field use. The clear cover improves temperature uniformity. Blocks are purchased separately.

- Exchangeable blocks for 0.2 to 50 mL tubes
- Less than 4.3 inches wide
- Cooling model allows for linking two consecutive temperature steps

Specifications:
- Temperature accuracy: ± 0.5°C
- Temperature uniformity: ± 0.2°C
- Temperature increments: 0.1°C
- Electrical requirements: 100–240 V, 50/60 Hz
- Weight: 2 lbs. (1 kg)
- Warranty: Two-year

CHBSH200
- Temp range: Ambient –25°C to 100°C
- Heating time: 20°C to 100°C, <20 min.
- Dimensions (W x D x H): 4 x 6 x 4.5 in. (10.2 x 15 x 11.5 cm)

CHBSH300
- Temp range: Ambient +5°C to 100°C
- Heating time: 20°C to 100°C, <20 min.
- Cooling time: 20°C to 0°C, <25 min.
- Dimensions (W x D x H): 4.3 x 6.4 x 5.5 in. (11 x 16.2 x 14 cm)

Blocks and accessories

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHBSH100-1</td>
<td>Block, 40 x 0.2 mL or 5 x PCR strips</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-2</td>
<td>Block, 24 x 0.5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-3</td>
<td>Block, 15 x 1.5 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-4</td>
<td>Block, 15 x 1.5 or 2 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-8</td>
<td>Block, 15 x 2 mL autosampler vials</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-5</td>
<td>Block, 6 x 5 mL conical (17 mm diameter)*</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-6</td>
<td>Block, 4 x 15 mL*</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-7</td>
<td>Block, 2 x 50 mL*</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH100-9</td>
<td>Block, 15 x 12-13 mm diameter tubes and vacutainers*</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH10-10</td>
<td>Block, 8 x cuvettes (not compatible with cover)</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHBSH10-11</td>
<td>12 V vehicle power adapter</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Block height may prevent lid from closing.

Thermo Scientific™ Digital Dry Bath/Block Heater
THERMO FISHER SCIENTIFIC - Increase lab versatility with the digital dry baths/block heaters, which offer a range of configurations with interchangeable modular blocks for a variety application needs.

- Digital controls and display of time and temperature
- Built-in temperature sensing probe for outstanding temperature accuracy and control
- 1, 2 and 4 block sizes, blocks sold separately
- Precise temperature control with PID circuit
- Timer allows the user to accurately monitor the heating time
- Powder-coated steel body construction ensures durability

Specifications:
- Temperature range: Ambient +5°C to 130°C (ambient at 25°C)
- Temperature accuracy: ≤ ± 0.5°C at 37°C
- Temperature uniformity: ≤ ± 1°C at 37°C
- Timer range: 0-99:59 min or continuous
- Heating up time: ≤ 20 min. 30°C to 130°C

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>88870001</td>
<td>88870001</td>
<td>Digital dry bath, 1 block - 100-120 V 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
FreeZone Legacy 6 Liter Benchtop Freeze Dryer
LABCONCO - FreeZone Legacy 6 Liter Benchtop Freeze Dryer is designed for light to moderate aqueous sample loads. This model is not for use with samples containing acetonitrile. Removes a maximum of 4 liters of water in 24 hours.* Includes brushed stainless steel and powder-coated steel exterior; stainless steel collector chamber and coil; LCD that displays system operating parameters, set-up parameters and alarm messages, choice of temperature in °C and °F, choice of vacuum in mBar, Pa and Torr.

- ¾ hp CFC-free refrigeration system
- Red alarm light
- LED vacuum and temperature wave graphs
- Patented moisture sensor
- Vacuum control and break valves
- Rear-mounted RS-232 port
- Automatic start-up switch for collector cool-down and vacuum pull-down with manual override switches
- Retractable collector drain line
- 3 in. diameter port for connection of drying accessory (drying accessory sold separately)
- Rear-mounted electrical receptacle for vacuum pump connection (pump not included)
- Includes ¾ in. OD vacuum connection; 3 ft. of ¾ in. ID vacuum hose; and two clamps.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5218-81</td>
<td>7752020</td>
<td>FreeZone Legacy 6 L freeze dryer - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Freeze drying rate will be lower for samples other than shell-frozen plain water. For optimum performance, room temperature should be 21°C (70°F) or colder.

12-Port and 16-Port Drying Chamber with PTFE
LABCONCO - The 12-Port Drying Chamber includes 12 neoprene valves with molded plastic knobs that accommodate both ½ in. and ¾ in. adapters for connection of flasks, a ½ in. thick acrylic lid with neoprene gasket and one latching pin.

The 16-Port Drying Chamber includes ¾ in. thick acrylic lid with neoprene gasket, 16 neoprene valves with molded plastic knobs that accommodate both ½ in. and ¾ in. adapters for connection of flasks and one latching pin.

Drying Chambers provide a means to attach flasks to your freeze dryer or contain samples in bulk. Made of type 304 stainless steel. It is compatible with FreeZone 1, 2.5, 4.5, 6, 8, 12 or 18 liter freeze dryers.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7522801</td>
<td>7522801</td>
<td>12-port - 8 in. diameter x 9.75 in. H</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7522901</td>
<td>7522901</td>
<td>16-port - 13 in. diameter x 13 in. H</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Freeze Dryer Accessories

Ampule Pods
LABCONCO - Ampule pod attaches to a single valve port and accommodates up to 15 ampules for simultaneous freeze drying. Polypropylene base has 15 each ¼ in. ID or ½ in. ID tubing ports, each with silicone tubing for attachment of ampules. For ampule neck sizes: ¼ in. ID tubing ports – less than 10 mm, ½ in. ID tubing ports – 10 mm or larger. Includes 15 plugs, 2 each clamps and 1 straight stainless steel adapter. Ampules not included. Adapter attaches to port on freeze dryer. Provides connection of ampules to drying chambers and manifolds. Dimensions (W x D x H): 3.8 x 3.8 x 7.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7205100</td>
<td>7205100</td>
<td>Ampule Pod - ¼ in. ID tubing ports</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7205101</td>
<td>7205101</td>
<td>Ampule Pod - ½ in. ID tubing ports</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Clear Chambers
LABCONCO – Clear acrylic chamber fits all FreeZone freeze dryers. Provides visibility for bulk freeze drying. Short chamber accommodates short product shelves (L7317100), tall chamber accommodates tall product shelves (L7317200). Inside dimensions of short chamber: 11.5 in. diameter x 12.4 in. high; inside dimensions of tall chamber: 11.5 in. diameter x 20.2 in. high. Includes clear acrylic lid with gasket, cap for vacuum port, vacuum release valve and pass through for electrical cords. 8 in. diameter opening to collector on bottom of chamber. Will fit 10.12 or 14 in. diameter condensers. Drying chambers provide a means to attach flasks to your freeze dryer or contain samples in bulk.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7318702</td>
<td>7318702</td>
<td>Short - 13.6 diameter x 16.8 in. H</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7318700</td>
<td>7318700</td>
<td>Tall - 13.6 diameter x 24.6 in. H</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Clear Chamber with Eight Valves
LABCONCO - Clear acrylic chamber for all FreeZone freeze dryers. Provides visibility for bulk freeze drying. Short chamber accommodates short product shelves (L7317100), tall chamber accommodates tall product shelves (L7317200). Inside dimensions of short chamber: 11.5 in. diameter x 12.3 in. high; inside dimensions of tall chamber: 11.5 in. diameter x 20.0 in. high. Includes aluminum lid with 8 neoprene valves with molded plastic knobs for use with both ½ and ¼ in. adapters, cap for vacuum port and pass through for electrical cords. 8 in. diameter opening to collector on bottom of chamber. Will fit 10.12, or 14 in. diameter condensers. Drying chambers provide a means to attach flasks to your freeze dryer or contain samples in bulk.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7318802</td>
<td>7318802</td>
<td>Short - 17.4 diameter x 15.3 in. H</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7318800</td>
<td>7318800</td>
<td>Tall - 17.4 diameter x 23 in. H</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Complete Fast-Freeze Flask, Amber
LABCONCO - High strength borosilicate glass withstands extreme temperatures and high vacuum. Amber-colored glass protects light-sensitive samples. Includes one non-contaminating silicone rubber top. Features flat bottom and wide mouth for easy loading and cleaning. Fast-Freeze Flasks attach with adapters to valve ports on Labconco drying chambers and manifolds. A complete Fast-Freeze Flask consists of a rubber top, glass bottom and a supply of filter paper. Glass flasks withstand max temperature of 490°C. Flask topsers withstand a max temperature of 450°C.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7540601</td>
<td>7540601</td>
<td>300 mL - amber flask with silicone top</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7540801</td>
<td>7540801</td>
<td>600 mL - amber flask with silicone top</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7541101</td>
<td>7541101</td>
<td>750 mL - amber flask with silicone top</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7540901</td>
<td>7540901</td>
<td>900 mL - amber flask with silicone top</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7542601</td>
<td>7542601</td>
<td>300 mL - amber flask bottom only</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7542801</td>
<td>7542801</td>
<td>600 mL - amber flask bottom only</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7542701</td>
<td>7542701</td>
<td>750 mL - amber flask bottom only</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7542901</td>
<td>7542901</td>
<td>900 mL - amber flask bottom only</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

FreeZone Cart
LABCONCO - Powder-coated steel cart supports FreeZone benchtop, Legacy benchtop and Triad freeze dryers during use, storage, or transportation. Lower shelf provides space for vacuum pump. Casters provide mobility. Maximum weight capacity of 450 lbs. 23.3 in. between shelves.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7368700</td>
<td>7368700</td>
<td>FreeZone Cart - 28 x 28. x 31.3 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Manifolds
LABCONCO - Manifolds with neoprene valves with molded plastic knobs that accommodate both ½ in. and ¾ in. adapters for connection of flasks. Includes a latching pin. Manifolds are made of type 304 stainless steel and mount atop FreeZone freeze dryers. 4-port and 8-port manifolds are for use with any FreeZone freeze dryer. 14-port and 28-port manifolds are for use with any FreeZone console freeze dryer.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7201700</td>
<td>7201700</td>
<td>4-port - 8.6 x 8.6 x 11.2 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7201800</td>
<td>7201800</td>
<td>8-port - 8.6 x 8.6 x 15.7 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7201900</td>
<td>7201900</td>
<td>14-port - 24.3 x 10.6 x 10.3 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7202000</td>
<td>7202000</td>
<td>28-port - 24.3 x 10.6 x 18.3 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Freeze Dryer Accessories

**Microwell Plate Holder**
LABCONCO - Solid aluminum base tightly holds a 127.8 x 85.5 mm microplate. Eliminates the air gap on the bottom of the plate, providing excellent heat transfer to the microplate. It gives temperature stability to small samples that are susceptible to meltback. Microplate not included.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7369600</td>
<td>7369600</td>
<td>Plate holder - 5.7 x 8.0 x 0.7 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Oil Return Kit for Rotary Vane Vacuum Pump**
LABCONCO - Allows extended operation of the pump with the ballast open and helps to keep oil purged of contaminants. Consists of a stainless steel cylinder and tubing with clamp. When the excess oil collects in the filter, it is directed back to the pump to conserve oil.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1473500</td>
<td>1473500</td>
<td>Oil Return Kit for Rotary Vacuum Pump</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Product Shelves**
LABCONCO - Removable, 10 in. diameter aluminum shelves with ¼ in. rim. Shelves slide into stainless steel support. Includes three rubber feet. Removable shelf design allows for flexible shelf height spacing. Shelves can be placed in freezer to pre-freeze sample for quick loading. Product shelves accommodate bulk samples, microtiter plates, vials or serum bottles. They are designed to fit inside Clear and 16-port drying chambers (sold separately).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7317100</td>
<td>7317100</td>
<td>3 short product shelves - 10.9 x 10.4 x 9.8 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7317200</td>
<td>7317200</td>
<td>5 tall product shelves - 10.9 x 10.4 x 17.5 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Slant Freeze Flask Holder**
LABCONCO - Powder-coated steel holder accommodates Labconco flasks of any size. Manually adjust angle from 5° to 35°. Excellent for pre-freezing flasks for greater surface area. Slant freezing increases the surface area to volume ratio, maximizing freeze drying rate. Flask not included.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7369700</td>
<td>7369700</td>
<td>Flask holder - 4.5 x 10.4 x 6.7 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Small Tray**
LABCONCO - Stainless steel tray to contain pre-frozen liquids for bulk drying. Makes sample loading and unloading as well as cleaning easy. Tray has a 0.9 in. lip. Dimensions fit the FreeZone small tray dryer perfectly. May also be used with FreeZone stoppering and bulk tray dryers.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7377900</td>
<td>7377900</td>
<td>Small tray - 10.3 x 11.6 x 0.9 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Stainless Steel and Acrylic Lids for FreeZone Freeze Dryers**
LABCONCO - Stainless steel lids with 3 in. diameter center hole replaces acrylic lid included with FreeZone 2.5, 4.5, 6, 8, 12 and 18 L freeze dryers. Stainless steel provides additional protection from solvents and corrosives that attack acrylic, such as acetonitrile. Includes neoprene gasket. A cap is provided to close off the freeze dryer’s 3 in. diameter attachment port when not in use. Lids fit on drying chambers and FreeZone collector chambers.

Optional acrylic lid fits FreeZone 6, 12 and 18 L freeze dryer collector chambers. 14 in. diameter acrylic lid has a 3 in. diameter hole for direct accessory connection. Includes neoprene gasket. A cap is provided to close off the freeze dryer’s 3 in. diameter attachment port when not in use. Lid is compatible with FreeZone drying chambers, 4- and 8-port manifolds, clear chambers and heated product shelves. Lids fit on drying chambers and FreeZone collector chambers.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7207500</td>
<td>7207500</td>
<td>10.12 in. diameter lid for FreeZone 2.5 L freeze dryers</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7207400</td>
<td>7207400</td>
<td>14 in. diameter lid for FreeZone 4.5, 6, 8, 12 and 18 L freeze dryers</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7208200</td>
<td>7208200</td>
<td>14 in. diameter lid for FreeZone 6, 12 and 18 L freeze dryers</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Support Shelves
LABCONCO - Support Shelves attach easily without tools to the sides of the FreeZone benchtop and Legacy benchtop freeze dryers or left-hand side of the FreeZone Triad freeze dryer to provide support for large flasks attached to the drying chamber or manifold. Multiple rows of perforations on the sides of the FreeZone cabinet allow for height adjustment of the shelves to support various sizes of flasks. One pair. Glacier white powder-coated steel wire.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5218-9</td>
<td>7426400</td>
<td>Support Shelves - pair</td>
<td>1/pk</td>
</tr>
</tbody>
</table>

Tube Holders
LABCONCO - Holder accommodates up to 9 each (15 mL) 17 x 120 mm or 4 each (50 mL) 30 x 116 mm tubes and secures them in an upright position. Fits inside a 900 mL or larger Fast-Freeze Flask (tubes and glassware not included). Stainless steel.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7379400</td>
<td>7379400</td>
<td>17 x 120 mm tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>L7379500</td>
<td>7379500</td>
<td>30 x 115 mm tubes</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Scroll Vacuum Pump
LABCONCO - Scroll Vacuum Pumps are low maintenance, corrosion-resistant pumps that require no oil. While they can have higher up-front costs, the lifetime operation costs are much lower. It is recommended that the scrolls be changed every 40,000 hours of use. Eliminating the oil eliminates hydrocarbon contamination. Scroll pumps handle water vapor better than most types of pumps and make significantly less noise during operation.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7587000</td>
<td>7587000</td>
<td>Scroll pump 190 LPM 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Silencer for Scroll Vacuum Pump
LABCONCO - Silencer for Labconco Scroll Pumps filters exhaust while silencing exhaust pump noise. It also prevents tip seal dust from contaminating the environment. Sound absorbent element is replaceable. Includes filter, centering ring and clamp to attach to exhaust outlet.

<table>
<thead>
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<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7587300</td>
<td>7587300</td>
<td>Silencer for Scroll Vacuum Pump</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

VACUUBRAND Diaphragm Vacuum Pump
LABCONCO - VACUUBRAND Diaphragm Vacuum Pumps are sized for use with CentriVap centrifugal concentrators, RapidVap vacuum evaporation systems and vacuum desiccators and have uses with many other pieces of laboratory equipment that require a vacuum source. The wetted parts of these pumps are PTFE-coated for corrosion resistance. Displacement capacities range from 38 to 63 liters per minute. Dimensions (W x D x H): 9.6 x 8.3 x 7.8 in.

<table>
<thead>
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<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>7359020</td>
<td>7359020</td>
<td>Vacuum pump 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

3 Ft. Protector Evidence Drying Cabinet with UV Light
LABCONCO - The durable, stainless steel-lined Protector Evidence Drying Cabinet provides a secure ventilated area to dry evidence such as clothing and bedding. The cabinet's HEPA and carbon filtered exhaust protects personnel from exposure to biohazards while eliminating nuisance odors. The key-activated ultraviolet light provides secondary disinfection of the Evidence Drying Cabinet's interior between cases to prevent cross contamination, ensuring integrity of samples for DNA testing. The lockable cabinet maintains the chain of custody.

<table>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5218-235</td>
<td>3400000</td>
<td>Evidence Drying Cabinet - 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Polyethylene Carboy with Handle and Screw Cap
BEL-ART - Thick-walled, high-density polyethylene carboy has easy-grip handle for transporting.
- Threaded, 83 mm knurled cap with gasket provides leak-proof shipping and storage
- Dual scale graduations: every ½ gallon up to 5 gallons and every 5 liters up to 15 liters
- Indented labeling area: 6¼ x 4 in. (16 x 10.3 cm)
- Maximum operating temperature 248°F (120°C); minimum operating temperature –58°F (–50°C)
- Dimensions: 10.9 dia. x 19.6 in. H (28 dia. x 49.8 cm H )

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>T107950000</td>
<td>107950000</td>
<td>Carboy - 5 gal. (20 L)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Hand Tally Counter
CARDINAL HEALTH - This four-digit hand tally counter records to 9,999. White numerals are on a black background behind a protective glass window. Features include heavy-duty, chrome-finish case with hinged finger loop and reset button for return to zero. Thumb pressure on the button produces an audible click. 1⅞ dia. x 1⅜ in. W. Net wt. 3 oz.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4117-1</td>
<td>Hand Tally Counter</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

RapidVap N2/48 Dry Evaporation System
LABCONCO - RapidVap N2/48 Evaporation Systems use nitrogen blow down, vortex motion and heat to speed evaporation of up to 48 small samples or eight 450 milliliter samples at once. A stream of nitrogen or dry gas is directed downward onto the surface of the sample. Nitrogen blow down reduces the partial pressure directly over the liquid to speed evaporation and help remove the solvent as it evaporates. These systems may be used to prepare samples for applications such as drug development and metabolism, biosearch, combinatorial chemistry, environmental testing, forensics and toxicology. Dimensions (W x D x H): 21.7 x 19 x 13.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>E5405-36</td>
<td>7910012</td>
<td>RAPIDVAP N2/48 system 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Eppendorf® IsoTherm Iceless Cold Storage System
EPPENDORF - The IsoTherm-System® specializes in cooling samples effectively and constantly at –21°C or 0°C over many hours. It consists of the following components: the IsoRack (work rack), IsoPack (cool pack) and IsoSafe (insulating box). The IsoTherm System® can be used as an enzyme bar to prevent enzymes from becoming inactive as well as for PCR sample preparation, sample transport and slow thawing of frozen samples. Holds 24 reaction tubes (0.5/2 mL). Choose the complete system or combination set with IsoPack cool pack and IsoRack rack. The white cool pack will maintain 0°C for up to 6 hrs., while the blue pack will maintain –21°C for up to 3 hrs. Racks can be centrifuged and are stackable, autoclavable and floatable.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3513-2</td>
<td>022510053</td>
<td>System starter set includes IsoSafe, IsoRack, 0°C IsoPack and –21°C IsoPack for 1.5/2 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3513-8</td>
<td>022510282</td>
<td>For 0.5 mL tubes, 0°C</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3513-6</td>
<td>022510240</td>
<td>For 1.5/2 mL tubes, 0°C</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Frigimat Cub - Dry Ice Maker
BEL-ART - Easy to set up and use, this compact device saves the time and expense of receiving a dry ice delivery. Can be attached to a liquid CO₂ cylinder (not included) equipped with a dip tube to produce a ready-to-use 250 to 350 gram block of dry ice in only a few minutes.
- Each 50 lb. cylinder makes from 10-16 blocks of dry ice
- Dry ice production can be viewed through the transparent polycarbonate body that secures without clamps, screws or tools ensuring easy removal of the solid block of dry ice and disconnection from the CO₂ cylinder
- Lightweight body is never as cold as the dry ice; allows safe transport of the unit and contents when wearing appropriate gloves
- Rugged nickel-plated “pigtail” connects it to the CO₂ cylinder valve which is used to regulate gas flow
- Operates at very low pressure (displayed on the built-in dial gauge); incorporates multiple pressure relief safeguards
- Includes a 6 ft. (1.8 m) nickel-plated copper connecting tube with standard CGA 320 thread coupling for easy attachment to a LCO₂ cylinder

<table>
<thead>
<tr>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1228-15</td>
<td>388740000</td>
<td>Dry Ice Maker with valve attached - 5⅝ x 7⅞ x 6½ in. (14.4 x 19.4 x 16.5 cm)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Handheld Homogenizer
CARDINAL HEALTH - The Handheld Homogenizer is designed to rapidly homogenize, emulsify, suspend and disrupt biological samples. It can be used with microtubes and works well with samples from 0.1 mL to 250 mL (depending upon the generator probe used).

The Cardinal Health™ Handheld Homogenizer works by drawing the sample, in liquid, into the generator probe with the variable speed rotor and then forcing it out through the slots in the stator. As the sample is repeatedly drawn up and forced through the stator, additional shearing takes place. It offers speeds up to 8,500 to 30,000 rpm and speed is adjustable in six steps.

Generator probes are available in four sizes. The 5 mm and 7 mm diameter probes are 50 mm long and designed for use in microtubes. One of each of these is supplied with the unit. The optional 10 x 115 mm probe is ideal for use with 15 and 50 mm tubes while the 14 x 130 mm probe is for 50 mL tubes and vessels up to 250 mL. The probes are made of stainless steel and can be sterilized by autoclaving.

Specifications:
- Speed range ................... 8,500 to 30,000 rpm
- Capacity ....................... 0.1 to 250 mL
- Included probes ............... 5 mm flat and 7 mm saw tooth
- Electrical requirements ...... 115 V, 50/60 Hz
- Dimensions (W x D x H) ...... 1.8 x 2.3 x 9 in. (4.5 x 5.8 x 22.5 cm)
- Weight ......................... 1.35 lbs. (0.62 kg)
- Warranty ...................... Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD1000</td>
<td>Hand-Held Homogenizer, supplied with one 5 mm flat bottom probe and one 7 mm saw tooth probe</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1000M10</td>
<td>Optional generator 10 x 115 mm saw tooth, for 15 and 50 mL tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1000M1</td>
<td>Optional generator 14 x 130 mm saw tooth, for 50 to 250 mL vessels</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1000M5</td>
<td>Replacement generator, 5 x 50 mm flat bottom, for microtubes, 5 pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1000M7</td>
<td>Replacement generator, 7 x 50 mm saw tooth, for microtubes, 5 pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1000ST</td>
<td>Stand for hand-held homogenizer</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Microtube Homogenizer
CARDINAL HEALTH - The Microtube Homogenizer provides extremely powerful mixing action for cell lysis. It effectively addresses the cross contamination associated with handheld homogenizers. The optimal mixing motion causes rapid cell disruption through constant high velocity impact from the hardened micro-beads chosen specifically for your sample type.

Features include:
- Process up to 3 x 2 mL non-skirted tubes simultaneously
- Small footprint on the bench – 7 x 8 in.
- Homogenization often takes place within 45 seconds
- Faster and more effective than tissue grinders.

Specifications:
- Speed range ................... 2,800 to 4,000 rpm
- Capacity ....................... 3 x 2 mL (screw cap/non-skirted)
- Timer .......................... 3 seconds to 3 minutes
- Electrical requirements ...... 115 V, 50/60 Hz
- Dimensions (W x D x H) ...... 6.9 x 8.3 x 5.3 in. (17 x 21 x 13.5 cm)
- Weight ......................... 5 lbs. (2.2 kg)
- Warranty ...................... Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD1030</td>
<td>Microtube Homogenizer</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1031-01</td>
<td>Silica glass beads 0.1 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1031-05</td>
<td>Silica glass beads 0.5 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1031-10</td>
<td>Silica glass beads 1 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1033-28</td>
<td>Stainless steel beads 2.8 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1032-01</td>
<td>Zirconium beads 0.1 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1032-05</td>
<td>Zirconium beads 0.5 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1032-10</td>
<td>Zirconium beads 1 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1032-15</td>
<td>Zirconium beads 1.5 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1032-30</td>
<td>Zirconium beads 3 mm - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1032-SK</td>
<td>Zirconium beads starter kit -10 ea of 0.1, 0.5, 1, 1.5 and 3 mm</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1031T21</td>
<td>Empty 2 mL tubes with caps and sealing ring - 50/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1031T20</td>
<td>Empty 2 mL tubes with caps and sealing ring - 1,000/pk</td>
<td>1/ea</td>
</tr>
<tr>
<td>CHD1031ST2</td>
<td>PCR clean screw cap tubes 2 mL - 500/pk</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Lockboxes with Urethane Foam Insulation

CARDINAL HEALTH - These lockboxes will keep your sensitive specimens safe during storage and transport and cool for hours. When outdoor temperatures fall to 15°F (–9°C), hematology specimens stored in an insulated steel lockbox can freeze and hemolyze in as little as 15 minutes. Using the Cardinal Health™ Lockbox keeps your samples safe for 3.5 hours. Unmatched urethane insulation properties guarantee the highest sample integrity possible. Comes standard with traditional lock and set of keys. Additional accessories are below.

- UV and moisture resistant
- Recessed lock to prevent icing
- Retractable handle
- Lockbox 20 has sample guard to prevent specimen from falling out

Specifications:
- Time to overheat .............. 24 hours at 100°F (38°C) outside temperature with cold pack
- Time to freezing .............. 3.5 hours at 15°F (–9°C) outside temperature
- Dimensions (H x W x D) ....... Lockbox 10 - 13½ x 12 x 12½ in.
- Internal volume .............. Lockbox 10 - 868 in.³, Lockbox 20 - 570 in.³

Microsterilizer

CARDINAL HEALTH - The Microsterilizer offers sterilization in 5 to 7 seconds. It is safe, convenient and has no spatter. This microsterilizer is ideal for platinum loops and needles. It has an asbestos-free core element that quickly heats to 815°C (1,500°F). A low temperature setting (500°C) can be used as a “standby” setting which extends the usable life of the heating element. The ceramic heating element is safely enclosed in a perforated stainless steel guard chamber to protect users from accidental contact with extreme temperatures.

Specifications:
- High temperature setting ........... 1,500°F (815°C)
- Low temperature setting ............ 950°F (500°C)
- Chamber diameter .................. 0.55 in. (14 mm)
- Chamber length ..................... 6 in. (153 mm)
- Sterilization time .................... 5 to 7 seconds
- Power requirements ................. 115 V, 50/60 Hz
- Exterior dimensions (W x D x H) .... 4 x 6 x 6.5 in. (10.2 x 15.2 x 16.5 cm)
- Weight .............................. 2.9 lbs. (1.3 kg)
- Warranty ............................ One-year

Bacti-Cinerator™ IV Sterilizer

LEICA BIOSYSTEMS - Conveniently and efficiently sterilize inoculating loops, needles and culture tube mouths with these sterilizers. Units kill microorganisms utilizing infrared heat produced by a ceramic core element with no asbestos, ensuring sterility and helping to prevent splatter across the work area.

Complete sterilization is achieved within 5 to 7 seconds at a temperature of 1,500°F. Featuring a small footprint, the units are ideal for both anaerobic and aerobic chambers. Select from models configured for different voltages. Replacement heating elements are also available separately. Sterilizer dimensions (L x W x H): 7 x 3 x 9 in.

---

**Cat. No.** | **Description** | **Qty.** | **Cat. No.** | **Description** | **Qty.**
--- | --- | --- | --- | --- | ---
CA071104 | Lockbox 10 - 8½ lbs. | 1/ea | CHB1000 | Microsterilizer | 1/ea
CA078104 | Lockbox 20 - 11½ lbs. | 1/ea | CHB1000-01 | Loop holder attachment | 1/ea
3100120056 | Key (replacement) | 1/ea | CHB1000-03 | Slide dryer attachment | 1/ea
3100120052 | Combination lock | 1/ea | CHB1000-RA | Replacement heating element, 115 V | 1/ea
200400003 | Anchor bracket kit (use with cable) | 1/ea | CHB1000-RE | Replacement heating element, 230 V | 1/ea
3100120054 | Anchor cable - 6 ft. | 1/ea | 39001373 | Combustion chamber, 120 V | 1/ea
200400007 | Door hanging bracket - 24 in., **Lockbox 20 only** | 1/ea | 39000402 | Combustion chamber, 120 V | 1/ea
78109000 | Door hanging bracket - 36 in., **Lockbox 20 only** | 1/ea | MS004002 | 120 V sterilizer | 1/ea
200400002 | Under door bracket kit | 1/ea | MS001373 | Replacement heating element, 120 V | 1/ea
200400009 | Wall mounting kit (bracket and screws), **Lockbox 20 only** | 1/ea | 39001373 | Replacement heating element, 120 V | 1/ea
3100120053 | Cold pack - 6 x 9 x 0.8 in. | 1/ea | 39000402 | 120 V sterilizer | 1/ea
3100120039 | False bottom for cold pack, **Lockbox 10 only** | 1/ea | 39001373 | Replacement heating element, 120 V | 1/ea
200400004 | Rubber feet kit (includes mounting hardware), **Lockbox 10 only** | 1/ea
MicroBead Bead Sterilizer

BENCHMARK - MicroBead Sterilizer has digital control up to 300°C. Quickly sterilizes forceps, needles and other laboratory tools. Eliminates the danger associated with open flames.

Specifications:
- Temperature range: 100°C to 300°C
- Preheat Time: Approx. 25 min. (to 300°C)
- Chamber Diameter: 40 mm
- Power requirement: 115 V or 230 V, 50/60 Hz

<table>
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<th>Cat. No.</th>
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<th>Qty.</th>
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</thead>
<tbody>
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<td>C3137BS</td>
<td>C3137</td>
<td>Sterilizer, glass beads, 115 V</td>
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<tr>
<td>C3138BS</td>
<td>C3138</td>
<td>Sterilizer, glass beads, 230 V</td>
<td>1/ea</td>
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<tr>
<td>C3139BS</td>
<td>C3139</td>
<td>Sterilizer, tall, glass beads, 115 V</td>
<td>1/ea</td>
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<tr>
<td>C3140BS</td>
<td>C3140</td>
<td>Sterilizer, tall, glass beads, 230 V</td>
<td>1/ea</td>
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<tr>
<td>C3141BS</td>
<td>C3141</td>
<td>Refill glass beads, 3 mm, 1,000 g</td>
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</tr>
</tbody>
</table>

Dial Barometer Thermometer/Hygrometer

CARDINAL HEALTH
- NIST Compliant® with certificate
- Min/max with memory recall

Specifications:
- Temperature range: –10°C to 55°C
- Humidity range: 20% to 100% RH

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>CH2504-1</td>
<td>Dial barometer thermometer/hygrometer</td>
<td>1/ea</td>
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</table>
Miscellaneous

FlaskScrubber® Glassware Washers
LABCONCO - These washers, are designed to wash and dry narrow-neck and general purpose labware. They have a lower spindle rack of Type 304 stainless steel, that holds up to 36 pieces of primarily narrow-neck glassware such as volumetric flasks. Water and detergent are pumped through the spindles to reach the innermost areas of your glassware. Forced air drying through the spindles ensures thorough drying inside and out. Specialized inserts for pipets, BOD bottles, petri dishes, culture tubes and small utensils enhance the FlaskScrubber’s versatility. The washer may be outfitted with an upper standard or spindle rack to increase capacity. In addition, a lower standard rack may be used instead of the lower spindle rack. (Additional racks and accessory inserts are sold separately).

Features:
- Water temperature reaches 82°C (180°F) on 115 V models to sanitize glassware and for enhanced washing and faster drying
- LCD information center for customizing cycles and monitoring operation, including internal water temperature (°C or °F)
- Dual pumps, one for washing and one for draining, to reduce potential for cross contamination
- Purified water pump to bring non-pressurized or pressurized purified water into the tank for up to six pure water rinses
- Steam generator that produces hot vapor to penetrate and remove dried residue for cleaner glassware
- Forced air drying into the tank up to 250 minutes and programmable from 38°C to 70°C (100°F to 158°F)
- All 115 V models have seven programs: Rinse Only, Plastic, Glass, Glass Plus, Science, Science Plus and Dry Only.
- Two user-set cycle programs
- Programs may be locked to prevent unauthorized changes
- User-set delayed start (up to 8 hours)
- Includes lower spindle rack, 36 detachable large spindles, 18 glassware holders, 36 clips and 10 additional interchangeable small spindles

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>W1852-73</td>
<td>4420420</td>
<td>Freestanding washer - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>W1852-69</td>
<td>4420320</td>
<td>Undercounter washer - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Undercounter SteamScrubber® Glassware Washer
LABCONCO - These washers, are designed to wash and dry general purpose labware. They have stainless steel top and bottom racks that accommodate basket inserts for a wide variety of glassware shapes and sizes, primarily beakers and other wide-mouth glassware. Specialized inserts for BOD bottles, petri dishes, culture tubes and small utensils enhance the SteamScrubber’s versatility. In addition, the SteamScrubber accommodates upper and lower spindle racks. (Additional racks and basket inserts are sold separately).

Features:
- Water temperature reaches 82°C (180°F) on 115 V models to sanitize glassware and for enhanced washing and faster drying
- LCD information center for customizing cycles and monitoring operation, including internal water temperature (°C or °F)
- Dual pumps, one for washing and one for draining, to reduce potential for cross contamination
- Purified water pump to bring non-pressurized or pressurized purified water into the tank for up to six pure water rinses
- Steam generator that produces hot vapor to penetrate and remove dried residue for cleaner glassware
- Forced air drying up to 250 minutes and programmable from 38°C to 70°C (100°F to 158°F)
- All 115 V models have seven programs: Rinse Only, Plastic, Glass, Glass Plus, Science, Science Plus and Dry Only.
- Two user-set cycle programs
- Programs may be locked to prevent unauthorized changes
- User-set delayed start (up to 8 hours)
- Includes upper and lower standard open racks

<table>
<thead>
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<tr>
<td>W1852-61</td>
<td>4400320</td>
<td>Undercounter glassware washer - 115 V, 60 Hz</td>
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</table>
Mixer
CARDINAL HEALTH - Featuring touch or continuous operation, our general purpose mixer provides smooth vortexing for even large sample sizes, including full 50 mL tubes. The unique counter balance system creates maximum vortexing action, while minimizing noise and excessive vibration. This results in quieter, more efficient and longer lasting operation. Other features include no-walk suction feet and spill-proof electronic controls.

Specifications:
- Speed range ................. 200 to 3,200 rpm
- Operating modes ............. Touch or continuous
- Orbit .......................... 3 mm
- Electrical ..................... 115 V, 60 Hz
- Operating temp. range ...... +4°C to +45°C
- Dimensions (W x D x H) ..... 5.2 x 6.7 x 6.7 in. (13 x 17 x 17 cm)
- Weight ........................... 8.4 lbs. (3.8 kg)
- Warranty ..................... Two-year

Cat. No. | Description | Qty.
--- | --- | ---
CHV1000 | Mixer with standard cup head | 1/ea

Multi-Head Mixer
CARDINAL HEALTH - More than your standard mixer, the unique head design features a traditional cup for general purpose mixing, plus holders for up to eight microcentrifuge tubes. A dynamic balanced drive system provides smooth vortexing action while minimizing noise and excessive vibration. Increased speed, up to 3,400 rpm, produces an instant vortex for all tubes, up to 50 mL. Other features include no-walk suction feet and spill-proof electronic controls.

Specifications:
- Speed range ................. 200 to 3,400 rpm
- Operating modes ............. Touch or continuous
- Orbit .......................... 3 mm
- Electrical ..................... 115 V, 60 Hz
- Operating temp. range ...... +4°C to +45°C
- Dimensions (W x D x H) ..... 5 x 6.3 x 6.7 in. (13 x 16 x 17 cm)
- Weight ........................... 8.4 lbs. (3.8 kg)
- Warranty ..................... Two-year

Cat. No. | Description | Qty.
--- | --- | ---
CHV1005 | Multi-head mixer | 1/ea

Rotating Mixer
CARDINAL HEALTH - Gentle to vigorous mixing of lab samples is provided by the Rotating Mixer. It is ideal for a variety of applications from mixing blood samples to the preparation of homogeneous dispersions. A unique reversing mode provides for increased agitation, the mixer rotates for up to 360° then stops and rotates in the reverse direction.

- Adjustable speed and tilt
- Cold room and incubator safe

Specifications:
- Speed range .......... Variable, 1 to 40 rpm
- Tilt angle ................. Variable, 0° to 90°
- Capacity .................. 48 x 2 mL, 20 x 15 mL or 12 x 50 mL
- Timer ..................... 1 second to 9 hours or continuous
- Electrical .................. 100–240 V, 50/60 Hz
- Operating temp. range .... +4°C to +65°C
- Dimensions (W x D x H) ... 8.25 x 10.5 x 12.5 in. (21 x 27 x 32 cm)
- Weight ........................ 7 lbs. (3.2 kg)
- Warranty ..................... Two-year

Cat. No. | Description | Qty.
--- | --- | ---
CHR5010 | Rotating Mixer with 3 rotisserie tube holders | 1/ea

Mini Vortexer
CARDINAL HEALTH - With a 4 mm orbit and fixed speed of 2,800 rpm, the Mini Vortexer vortexes even large samples, including nearly full 50 mL tubes. A complement to its powerful motor, the Mini Vortexer has a small footprint of less than 4 x 4 in., allowing it to fit on crowded benches. Pressure activated operation means that the motor is automatically started with slight pressure on the center cup head. Operation is smooth, quiet and efficient. When pressure is removed, operation ceases. The unique head design prevents liquid from entering the housing, prolonging motor life.

Specifications:
- Fixed speed .................. 2,800 rpm
- Motor activation .......... Touch
- Orbit .......................... 4 mm
- Electrical ..................... 100–240 V, 50/60 Hz
- Operating temp. range .... +4°C to +45°C
- Dimensions (W x D x H) ..... 3.7 x 3.9 x 2.6 in. (9.4 x 9.9 x 6.6 cm)
- Weight .......................... 1 lb. (0.4 kg)
- Warranty ..................... Two-year

Cat. No. | Description | Qty.
--- | --- | ---
CHV101-R | Mini Vortexer with red cup head | 1/ea
Mixers

**GyroMini™ 3-D Nutating Mixer**
AZER SCIENTIFIC - This mixer combines the actions of an orbital shaker with a rocker to provide gentle and thorough 3-D mixing without foaming. Ideal for use with blood and centrifuge tubes and for resuspending large, fragile DNA fragments. Mixer has a fixed 20° pitch and can hold a maximum load of 1.75 lbs. Supplied with a dimpled mat to hold tubes in place. Fixed speed and pitch. Safe for cold room use.

**Specifications:**
- Maximum speed: 24 rpm
- Operating conditions: Ambient 4°C to 65°C
- Power requirements: 120 V, 60 Hz

**Dimensions**
- Platform: 9.5 x 6.75 in.
- Overall (W x D x H): 9.5 x 6.75 x 6 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>ESS0500</td>
<td>ESS0500</td>
<td>3-D Nutating Mixer</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Vortex Mixer**
AZER SCIENTIFIC - This variable speed vortex mixer provides smooth instant vortexing of even the largest sample sizes, including full 50mL tubes. Variable speed control from 0 to 2,500 rpm. The unique counter balance system creates maximum vortexing action, while minimizing noise and excessive vibration. The steel base and silicone feet also provide stability and vibration damping. This results in quieter, more efficient and longer-lasting operation.

**Specifications:**
- Maximum speed: 2,500 rpm
- Operation mode: Touch or continuous
- Dimensions: 6 x 6 x 7 in.
- Electrical: 110 V, 60 Hz

<table>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>ES3362</td>
<td>ES3362</td>
<td>Vortex Mixer, variable speed</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**TubeRoller Tilting Tube and Bottle Rollers**
BENCHMARK - TubeRollers are designed for the gentle, thorough mixing of a variety of containers, including Vacutainers™, bottles, test tubes, centrifuge tubes and roller bottles. Both models (5 roller and 10 roller) operate at a constant 38 rpm, chosen as the optimum speed for the broadest range of mixing requirements. As the roller mechanism rotates through each complete revolution, the right side of each roller is gently elevated approximately 0.5 in. (13 mm) and returns to the horizontal starting position. This additional, gentle up/down motion provides a “wave” effect and guarantees that the entire sample is subjected to complete, thorough mixing, end to end. From blood collection tubes to roller bottles, Benchmark TubeRollers are the ideal choice for research, clinical laboratories and doctors’ offices.

**Specifications:**
- Speed: Fixed, 38 rpm (±10%)
- Motion: Simultaneous roll and tilt (±5°)
- Operating temperature: 4°C to 40°C
- Vessels accepted: 8 to 200 mm diameter
- Power requirement: 115 V or 230V, 50/60 Hz, 50 W

<table>
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<tbody>
<tr>
<td>C3133BS</td>
<td>C3133</td>
<td>TubeRoller with 5 rollers, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3134BS</td>
<td>C3134</td>
<td>TubeRoller with 5 rollers, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3135BS</td>
<td>C3135</td>
<td>TubeRoller with 10 rollers, 115 V</td>
<td>1/ea</td>
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<tr>
<td>C3136BS</td>
<td>C3136</td>
<td>TubeRoller with 10 rollers, 230 V</td>
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</table>

**Tap Dancer Mini Vortex Mixer**
BOEKEL - This compact mixer features a low profile and small footprint, a pressure-sensitive cup, continuous or touch operation capabilities and rubber suction pads to prevent walking and absorb vibration. It uses a low-voltage supply, which makes it safe for cold room use.

**Specifications:**
- Speed: 300 to 6,000 rpm
- Orbit: 2 mm
- Dimensions: 3¼ x 5¼ x 3 in.
- Power requirements: 12 V, 0.5 A

<table>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>S8250-4A</td>
<td>270100</td>
<td>Mini Vortex Mixer</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Mixers**

**Turbo Mixer**
LW SCIENTIFIC - This turbo mixer features variable speed control, continuous operation and suction-cupped feet. Soft, rubber cup head is for single tube mixing. Maximum speed: 3,000 rpm.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
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<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R4199-1</td>
<td>MXL-TMV7-7RC1</td>
<td>Turbo Mixer with mixing cup</td>
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</tr>
</tbody>
</table>

**Mini Vortex Mixers**
OHAUS - Mini Vortex Mixer models for gentle to high-speed reliable mixing. Non-digital model offers variable speed control, and digital model allows input of the exact speed and time to achieve repeatable results every time. Pulsing model features a unique pulse action that reduces heat generation, while providing more effective mixing and cell disruption. Fixed speed model offers simple one-touch, high-speed mixing for repeat applications.

**Standard Features:**
- Touch mode operation activates mixing when depressing the cup head or continuous mode for use with accessory attachments.
- Robust digital and non-digital Vortex Mixers offer effective speed control from low RPM start-up for gentle shaking to high-speed mixing for vigorous vortexing of samples.
- The fixed speed Vortex Mixer is an economical choice for vigorous mixing of samples at high speed. To ease repetitive sample processing, this unit provides simple, effective full-speed mixing.

**Specifications:**
- Orbit ......................... 0.2 in (4.9 mm)
- Capacity ...................... 0.5 kg
- Speed range .................. (30392108) fixed speed: 3,200 rpm
  (30392115) analog: 300 to 3,200 rpm
  (30392122) digital: 500 to 3,000 rpm
- Power requirements .......... 120 V, 50/60 Hz, 1.2 A
- Dimensions (W x D x H) ...... 4.8 x 8.3 x 6.5 in.
- Weight .......................... 9.7 lb. (4.4 kg)

<table>
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<tr>
<th>Cat. No.</th>
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</thead>
<tbody>
<tr>
<td>9456TAFSUS</td>
<td>30392108</td>
<td>Fixed speed vortex mixer</td>
<td>1/ea</td>
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<tr>
<td>9456TAALLUS</td>
<td>30392115</td>
<td>Analog vortex mixer</td>
<td>1/ea</td>
</tr>
<tr>
<td>9456TADGUS</td>
<td>30392122</td>
<td>Digital vortex mixer</td>
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</tbody>
</table>

**Multi-Tube Vortexers**
OHAUS - Multi-Tube Vortexers are ideal for high throughput sample processing. Interchangeable foam racks for vortexing tubes from 10 to 29 mm in diameter are available. Vortexing action is created by securing the top of the sample in place while allowing the bottom to rotate freely in a 3.6 mm orbit. Suction cup feet reduce motion and prevent sliding on work surface. Analog and digital models are both microprocessor-controlled and run in continuous or timed mode.

**Standard Features:**
- Improve efficiency by processing up to 50 samples at a time
- Digital models ideal for applications that require accuracy and repeatability. Digital models feature touchpad control for easy input of settings, and independent LED displays for speed/time. Timer displays elapsed time and when programmed, shuts off unit when time reaches zero.
- Pulsing mode on digital models to enhance vortexing action. Digital models feature a programmable pulse mode which allows the user to adjust the pulse-on/pulse-off times between 1-59 second intervals, enhancing the vortex action by creating a more vigorous mix.
- Analog model offers an economical alternative when exact speed/time not required. The variable speed microprocessor control provides consistent uniform mixing action. Basic speed and time settings are adjusted with knobs using 1 to 10 dial settings.
- One-piece stainless steel housing design optimizes clean-ups. All models feature a one piece, stainless steel housing and are ideal for use in clean rooms and any work where clean-up is critical.

**Specifications:**
- Capacity .......................... 10 lb. (4.5 kg)
- Orbit .......................... 0.1 in. (3.6 mm)
- Power requirements ............ 120 V, 50/60 Hz, 20 A
- Tray size (L x W) ................. 7.25 x 12.25 in.
- Dimensions (W x D x H) .......... 15.1 x 9.5 x 18 in.
- Operating speed
  Analog units .................... 1,200 to 2,400 rpm
  Digital units .................... 500 to 2,500 rpm

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<td>58284-1</td>
<td>30392164</td>
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<tr>
<td>TR-945065</td>
<td>30392171</td>
<td>Digital vortexer</td>
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</table>
### Thermo Scientific™ MaxiMix® I Vortex Mixer

**Specifications:**
- Speed range: 3,000 rpm
- Platform, foam pad: 4 in. (10.1 cm)
- Exterior (L x W x H): 5.5 x 5.5 x 4.2 in. (13.9 x 13.9 x 10.6 cm)

<table>
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</thead>
<tbody>
<tr>
<td>M16715Q</td>
<td>M16715Q</td>
<td>MaxiMix® I Vortex Mixer</td>
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</tr>
</tbody>
</table>

### Thermo Scientific™ MaxiMix® III Vortex Mixer

**Specifications:**
- Operating speed: 18 rpm
- Capacity: 8 tubes: 10 to 20 mm; 3 tubes: 22 to 30 mm
- Mixing surface (D x W): 4½ x 6 in.
- Dimensions (W x H x D): 7½ x 4.3 x 5½ in.

<table>
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<td>R4189-2</td>
<td>M71015Q</td>
<td>Half-size mixer</td>
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</table>

### Thermo Scientific™ Speci-Mix™ Mixer

**Specifications:**
- Operating speed: 18 rpm
- Capacity: 16 tubes: 10 to 20 mm; 7 tubes: 22 to 30 mm
- Mixing surface (W x L): 4.5 x 12 in.
- Dimensions (W x H x D): 15 x 4.25 x 5.5 in.

<table>
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<td>R4188-1</td>
<td>M48725Q</td>
<td>Test tube mixer</td>
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</table>

### Thermo Scientific™ Vari-Mix™ Test Tube Mixer

**Specifications:**
- Operating speed: 2 to 20 rpm
- Capacity: 16 tubes: 10 to 20 mm; 7 tubes: 22 to 30 mm
- Mixing surface (W x L): 4.5 x 12 in.
- Dimensions (W x H x D): 15 x 4.25 x 5.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R4188-1</td>
<td>M48725Q</td>
<td>Test tube mixer</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Mixers/Rockers**

**Rock-IT™ Tube Mixer**
UNICO - This heavy-duty tube mixer provides smooth and gentle movement at 25 rpm to assure a uniform, thoroughly mixed specimen, while preserving the integrity of the fragile blood cells. It will also get hematology controls ready to use in no time for accurate results. The oversized platform will accommodate larger and hard-to-mix tubes. The mixer is a compact size that uses minimal benchtop space. It features a nonslip, reversible and autoclavable tube pad made of silicone rubber.

**Specifications:**
- Maximum capacity ............. 15 x 120 mm tubes
- Maximum speed ............... 25 rpm

<table>
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<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>L-TTR200</td>
<td>L-TTR200</td>
<td>15-place tube mixer</td>
<td>1/ea</td>
</tr>
<tr>
<td>LTTR200-1</td>
<td>LTTR200-1</td>
<td>Replacement tube pad - 15-place</td>
<td>1/bx</td>
</tr>
</tbody>
</table>

**3D Rocker**
CARDINAL HEALTH - 3D Rocker is designed to provide the speed and tilt angle required for a broad range of molecular and biological mixing applications. The user can adjust both parameters to match the vessel size and the volume of liquid being mixed, yielding high-quality results. The rocking speed is easily set using the front knob while the tilt angle can be changed without tools or disassembly — simply grip the platform and move to the desired angle. Low speeds and a minimal tilt angle create a gentle wave motion required for most blot washing. Higher speeds and steeper angles produce more aggressive agitation for vigorous sample mixing. 3D Rocker comes standard with autoclavable dimpled and flat mats and maintenance-free, brushless motors.

**Specifications:**
- Speed ......................... Variable, 2 to 30 rpm
- Tilt angle ........................ ± 30°
- Capacity .......................... 5 lbs. (2.3 kg)
- Electrical ........................ 115 V, 50/60 Hz
- Operating temp. range .......... +4°C to +65°C
- Platform dimensions (W x D) .... 12 x 12 in. (30 x 30 cm)
- Exterior dimensions (W x D x H) 12 x 12 x 8 in. (30 x 30 x 20 cm)
- Weight ............................. 7.5 lbs. (3.4 kg)
- Warranty .......................... Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH3D2300</td>
<td>3D Rocker with dimpled and flat mats</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Nutating Rocker**
CARDINAL HEALTH - The platform rocker provides a 3-dimensional “nutating” motion for moderately aggressive mixing. The platform size and rubber mat configuration allow for foam-free mixing in blood tubes and centrifuge tubes as well as in a variety of flat vessels. The supplied, autoclavable, dimpled mat holds tubes securely in place on its large, 12 x 12 in. surface. The maintenance-free, brushless motor is capable of handling loads up to 1.8 kg.

**Specifications:**
- Speed ............................. Fixed, 24 rpm
- Tilt angle ........................ Fixed, ±20°
- Capacity ........................... 4 lbs. (1.8 kg)
- Electrical ........................ 115 V, 50/60 Hz
- Operating temp. range .......... +4°C to +65°C
- Platform size (W x D) ........... 12 x 12 in. (30 x 30 cm)
- Dimensions (W x D x H) .......... 12 x 12 x 8 in. (30 x 30 x 20 cm)
- Weight ............................. 4.4 lbs. (2 kg)
- Warranty .......................... Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH3D1320</td>
<td>Nutating Rocker</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Tube Rocker**
CARDINAL HEALTH - The Tube Rocker is designed to provide the speed and tilt angle (24 rpm/30°) for gentle agitation of sample tubes. The grooved design of the included rubber mat properly secures all tube sizes ranging from 1.5 to 50 mL, without the use of added straps or bands. No complicated controls, settings or adjustments to be made; just press the power switch and let it rock. Small in size (only 5.3 x 13.3 in.) and able to withstand temperatures from 4°C to 65°C, our tube rocker is small enough to fit on any lab bench.

**Specifications:**
- Speed ............................. Fixed, 24 rpm
- Tilt angle ........................ Fixed, ±30°
- Capacity ........................... 30 x 1.5/2 mL, 15 x 5 mL, 7 mL, 10 mL or 15 mL*, 8 x 50 mL
- Electrical ........................ 115 V, 50/60 Hz
- Operating temp. range .......... +4°C to +65°C
- Platform dimensions (W x D) .... 12 x 4.5 in. (30 x 11.4 cm)
- Exterior dimensions (W x D x H) 13.3 x 5.3 x 4 in. (33.6 x 13.5 x 10 cm)
- Weight ............................. 4 lbs. (1.8 kg)
- Warranty .......................... Two-year

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM2100</td>
<td>15-place compact rocker with grooved mat</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*15 mL blood collections tubes (16 x 125 mm) extend off the platform surface.
Rockers

BenchRocker™ 2D Variable Speed Rocker
BENCHMARK - The BenchRocker 2D is designed to provide the precise speeds and tilt angles required for a broad range of molecular and biological mixing applications. The user can adjust both parameters to match the vessel size and the volume of liquid being mixed, yielding optimum results.

Specifications:
- Speed range: Variable, 2 to 30 rpm
- Tilt angle: Variable, 0° to ± 30°
- Operating temperature: +4°C to +45°C
- Load capacity: 8 lbs. (3.6kg)
- Platform size: 14 x 12 in.
- Dimensions: (W x D x H): 14 x 12 x 8 in.
- Power requirement: 115 V or 230 V, 50/60 Hz, 50 W

Cat. No. Mfr. No. Description Qty.
C3105BS C3105 BenchRocker 2D variable, 115 V 1/ea
C3106BS C3106 BenchRocker 2D variable, 230 V 1/ea

Rocker II™ Model 260350
BOEKEL - Accepts a wide variety of flasks, plates and tubes. Adjust tilt angle and speed without the need for tools. Supplied with flat non-skid mat. 2-year warranty. Applications include gel staining and destaining; northern, southern and western blots; mixing test tubes and rocking agglutination card. Power pac is UL, CSA and CE approved.

Specifications:
- Capacity: 16 tubes
- Load capacity: 2.7 kg (6 lbs.)
- Adjustable tilt angle: 0° to 20°
- Adjustable speed: 3 to 25 rpm
- Operating temperature range: 4°C to 40°C
- Dimensions with platform (W x D x H): 12 x 12 x 7 in.

Cat. No. Mfr. No. Description Qty.
260350 260350 Rocker II™ 1/ea

LW-100 Blood Rocker
LW SCIENTIFIC - Gently rock blood sample tubes and small vials with this rocker. The gentle motion helps provide mixing without damage to fragile cell suspensions. It features a space-saving design. A rubber cushion pad prevents test tubes from slipping and can be easily removed for cleaning.

Specifications:
- Capacity: 16 tubes
- Speed range: 24 rpm at 60 Hz, 20 rpm at 50 Hz
- Tilt angle: 27°
- Dimensions (H x L x W): 4 x 13½ x 5¼ in.
- Platform dimensions (W x D): 12 x 4½ in.

Cat. No. Mfr. No. Description Qty.
R3401-1 MXL-BLF7-16T1 Blood Rocker 1/ea

Thermo Scientific™ Vari-Mix™ Platform Rocker
THERMO FISHER SCIENTIFIC - Utilize the steep angle rocking of the Thermo Scientific™ Vari-Mix™ Platform Rocker for applications such as hybridization, blotting and staining or destaining gels. Variable speed control provides a gentle to vigorous wave motion. The built-in timer makes it easy to perform time-dependent studies.

Specifications:
- Temperature range: 4°C to 40°C (operating)
- Speed range: 5 to 30 variable rpm
- Rocking angle: 1° to 48°
- Dimensions (L x W x H): 12 x 15.6 x 7.3 in.

Cat. No. Mfr. No. Description Qty.
M79735Q M79735Q Platform rocker - 120 V 1/ea
Mini LabRoller™ Rotator
AZER SCIENTIFIC - Mix samples in both a horizontal and vertical plane with this rotator. It is incubator- and cold room-safe. The rotator’s compact design helps you to conserve valuable benchtop space. Rotator features a fixed speed of 24 rpm and rotating, rocking and tumbling motions that you can adjust by changing the rotisserie position. The Mini LabRoller is supplied with a rotisserie for 36 x 1.5/2 mL tubes. You can also use two microplates on any of the rotisseries.

Specifications:
- Maximum speed: 24 rpm
- Operating conditions: Ambient +4°C to 55°C up to 85% RH
- Dimensions (W x H x D): 8.4 x 4 x 5 in.
- Power requirements: 120 V, 50/60 Hz, 0.03 A

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ESH5500</td>
<td>ESH5500</td>
<td>Rotator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Roto-Bot™ Programmable Rotators
BENCHMARK - The Roto-Bot™ rotating mixers feature advanced programming with digital speed control and more than 10 operating modes. The Roto-Bot™ can be selected to perform a wide variety of rotating, mixing and vibrating actions. In addition, these actions can be combined in succession using the C1 and C2 “Custom Modes”; providing the user with a nearly infinite level of programming. The Roto-Bot™ and Roto-Bot™ Mini each include an assortment of vertical tube holders. The mini model is supplied with holders for 12 x 1.5 mL tubes, 2 x 15 mL and 2 x 50 mL tubes. The standard model is supplied with holders for 30 x 1.5/2 mL, 8 x 15 mL and 2 x 50 mL tubes. For higher capacity applications, more of these holders can be purchased as accessories. The unique, sliding attachment allows for quick and easy changing of tube holders. For rocking applications, a platform with a non-slip mat is available. Once attached, simply select the “PP” mode to activate the rocking mode.

Specifications:
- Speed range: 1 to 80 rpm
- Capacity (C3107BS): 6 x 50 mL, 10 x 15 mL or 60 x 1.5 mL
- Capacity (C3109BS): 12 x 50 mL, 22 x 15 mL or 84 x 1.5 mL
- Operating temp. range: +2°C to +70°C
- Power requirement: 100 to 240 V, 50/60 Hz, 3 A

<table>
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<tbody>
<tr>
<td>C3107BS</td>
<td>C3107</td>
<td>Roto-Bot™ Mini programmable rotator</td>
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<tr>
<td>C3108BS</td>
<td>C3108</td>
<td>Roto-Bot™ Mini programmable rotator, 240 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3109BS</td>
<td>C3109</td>
<td>Roto-Bot™ programmable rotator</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3110BS</td>
<td>C3110</td>
<td>Roto-Bot™ programmable rotator, 240 V</td>
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<tr>
<td>C3116BS</td>
<td>C3116</td>
<td>Rocking platform for Roto-Bot™ Mini 6 x 5.5 in.</td>
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<tr>
<td>C3117BS</td>
<td>C3117</td>
<td>Rocking platform Roto-Bot™, 6 x 10 in.</td>
<td>1/ea</td>
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</tbody>
</table>

Orbitron Rotator
BOEKEL - This benchtop rotator features a 12 x 12 in. square platform and an even smaller footprint to conserve your valuable bench space. It provides gentle, low-foaming agitation and uniform mixing. Applications include immunoassays, hybridizations, mixing of blood samples, coupling affinity chromatography media and DNA extractions. Provides fixed-speed operation for 20 orbits per minute and fixed tilt of 23°. Comes with a removable dimpled pad that accepts many different sizes of tubes at once so you don’t need unwieldy racks or clamps. Solid vinyl boot helps ensure long life of rotator mechanism.

Specifications:
- Power requirements: 120 V, 0.8 A
- Dimensions (W x D x H): 7½ x 7 x 5 in.
- Rotator with platform: 12 x 12 x 12 in.

<table>
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<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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<tr>
<td>R3300-1</td>
<td>260200</td>
<td>Orbitron Rotator</td>
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Accessories

<table>
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<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C31111BS</td>
<td>C3111</td>
<td>6 x 1.5/2 mL tube holder, pack of 2</td>
<td>1/ea</td>
</tr>
<tr>
<td>C31128BS</td>
<td>C3112</td>
<td>1 x 15 mL tube holder, pack of 2</td>
<td>1/ea</td>
</tr>
<tr>
<td>C31138BS</td>
<td>C3113</td>
<td>1 x 50 mL tube holder, pack of 2</td>
<td>1/ea</td>
</tr>
<tr>
<td>C31148BS</td>
<td>C3114</td>
<td>6 x 15 mL horizontal rotisserie</td>
<td>1/ea</td>
</tr>
<tr>
<td>C31158BS</td>
<td>C3115</td>
<td>6 x 50 mL horizontal rotisserie</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Variable Speed Mini Orbitron**

BOEKELE - Small nutating lab mixer that provides gentle continuous mixing of specimens in blood tubes, microcentrifuge tubes, glass vials, or plates. Low profile and small footprint minimizes bench space. Supplied with a non-slip dimpled mat and a non-slip flat mat. Mats can be cleaned with soap and water and can also be autoclaved.

**Specifications:**
- Variable speed ................. 4 to 24 rpm
- Tilt angle ...................... Fixed 20°
- Load Capacity .................. 1.8 lbs.
- Power requirements ............ 115 V, 60 Hz
- Dimensions (W x D x H)
  - Unit .................................. 7½ x 5 x 5¼ in.
  - Tray size ........................... 9¼ x 5¼ in.

<table>
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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>201100</td>
<td>201100</td>
<td>Variable Speed Mini Orbitron</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Platelet Bag Rotators**


**Specifications:**
- Load capacity .................. 4.4 lbs. at 20 to 150 rpm
  - 2.2 lbs. at 151 to 240 rpm
- Speed .......................... 20 to 240 rpm
- Timer .......................... 99 hours and 99 minute digital timer
- Power supply .................... 110 V, 60 Hz
- Platform ........................ 9 x 9 in. (230 x 230 mm)
- Orbit diameter .................. 0.8 in.
- Dimensions (W x D x H) ........... 10 x 12 x 5½ in.

<table>
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<th>Cat. No.</th>
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<th>Description</th>
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<tbody>
<tr>
<td>R3401-2</td>
<td>RTL-BLVD-24T1</td>
<td>Digital rotator - 110 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Thermo Scientific™ Cellgro® Tissue Culture Rotators**

THERMO FISHER SCIENTIFIC - These rotators feature variable speed and adjustable angle rotation to give you optimum culture results in applications such as growth of tissues and viruses, hormone production from selected tissues and sample testing for the presence of viruses and cytotoxicity assays. Constructed of durable powder-coated stainless steel, the rotators operate in standard incubators for cultivation under controlled temperature conditions up to 40°C and humidity conditions from 20% to 80% noncondensing. Drums can be lifted off rotors without interrupting operation of the units.

**Specifications:**
- Rotating angle ................. Adjustable 5° above horizontal to 90°
- Speed range .................... 12 to 70 rpm
- Tube capacity .................. 142 - 16 mm tubes; 76 - 25 mm tubes; 60 - 30 mm tubes

<table>
<thead>
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<tbody>
<tr>
<td>T4100-33</td>
<td>1640Q</td>
<td>Single drum</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
UNICO® Digital Rotator

UNICO - This Digital Rotator is a compact, durable, variable speed orbital mixer that will accommodate a wide variety of printed well slides, culture plates, flasks and small test tube racks, as well as RPR and VDRL slides or 96-well microtiter (immunoassay) plates.

- 11 x 11 in. mixing platform with a removable/replaceable rubber pad
- Humidity cover with moisturizing sponge
- Variable speed from 20 to 240 rpm
- Digital timer 0 to 99 hours, 59 minutes
- Three-position switch for: constant on, off, timed mixing
- Digital time and speed display
- Load 4.4 lbs. at 20 to 150 rpm; 2.2 lbs. at 151 to 240 rpm
- Indicator bell at end of timed mixing cycle
- Small flask hold down spring

<table>
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<th>Qty.</th>
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<tbody>
<tr>
<td>L-RT30C</td>
<td>L-RT30C</td>
<td>Rotator - 10.4 x 9.2 x 6 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Orbi-Shaker™ JR. Orbital Shaker

BENCHMARK - The Orbi-Shaker™ JR has horizontally circular 19 mm orbit for aeration and mixing. It is extremely compact, perfect for low to medium capacity applications. Instantly exchange flask clamps with MAGic Clamp™ accessories.

Specifications:
- Speed range: Variable, 50 to 300 rpm
- Motion/orbit: Orbital/19 mm
- Operating temperature: +4°C to +65°C
- Load capacity: 4 x 1 L or 9 lbs. (4kg)
- Platform size: 9.5 x 8 in.
- Timer: 1 min. to 99 hr. or continuous
- Dimensions: (W x D x H): 13.1 x 11.7 x 4.7 in.
- Power requirement: 100–240 V, 50/60 Hz, 250 W

<table>
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<tbody>
<tr>
<td>C3118BS</td>
<td>C3118</td>
<td>Orbi-Shaker™ JR. 100–240 V</td>
<td>1/ea</td>
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<tr>
<td>C3119BS</td>
<td>C3119</td>
<td>Orbi-Shaker™ JR. European 2 prong plug</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3120BS</td>
<td>C3120</td>
<td>MAGic clamp universal platform</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3132BS</td>
<td>C3132</td>
<td>Roller platform, adjustable</td>
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</table>

MAGic Clamp Platform Accessories for Shakers

BENCHMARK

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<tbody>
<tr>
<td>C3125BS</td>
<td>C3125</td>
<td>MAGic Clamp magnetic clamp, 50 mL</td>
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<tr>
<td>C3124BS</td>
<td>C3124</td>
<td>MAGic Clamp magnetic clamp, 125 mL</td>
<td>1/ea</td>
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<tr>
<td>C3123BS</td>
<td>C3123</td>
<td>MAGic Clamp magnetic clamp, 250 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3122BS</td>
<td>C3122</td>
<td>MAGic Clamp magnetic clamp, 500 mL</td>
<td>1/ea</td>
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<tr>
<td>C3121BS</td>
<td>C3121</td>
<td>MAGic Clamp magnetic clamp, 1,000 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3126BS</td>
<td>C3126</td>
<td>MAGic Clamp magnetic clamp, microplate</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3128BS</td>
<td>C3128</td>
<td>MAGic Clamp Tube Rack, 32 x 15 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3127BS</td>
<td>C3127</td>
<td>MAGic Clamp Rack, 30 x 15 mL, 20 x 50 mL</td>
<td>1/ea</td>
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<tr>
<td>C3129BS</td>
<td>C3129</td>
<td>MAGic Clamp Tube Rack, 15 x 50 mL</td>
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<tr>
<td>C3130BS</td>
<td>C3130</td>
<td>MAGic Clamp COMBO, 125, 250, 500 mL</td>
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<tr>
<td>C3182BS</td>
<td>C3182</td>
<td>MAGic Clamp Tube Rack, 12 x 1.5/2 mL</td>
<td>1/ea</td>
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<tr>
<td>C3183BS</td>
<td>C3183</td>
<td>MAGic Clamp Tube Rack, 4 x 15 mL tubes</td>
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<tr>
<td>C3185BS</td>
<td>C3185</td>
<td>MAGic Clamp tilted holder 15 mL and 50 mL</td>
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<tr>
<td>C3184BS</td>
<td>C3184</td>
<td>MAGic Clamp Tube Rack, 2 x 50 mL tubes</td>
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<tr>
<td>C3204BS</td>
<td>C3204</td>
<td>MAGic Clamp Tube Rack, 12 x 1.5/2 mL</td>
<td>1/ea</td>
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<tr>
<td>C3205BS</td>
<td>C3205</td>
<td>MAGic Clamp Tube Rack, 4 x 15 mL</td>
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<tr>
<td>C3206BS</td>
<td>C3206</td>
<td>MAGic Clamp Tube Rack, 2 x 50 mL tubes</td>
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<tr>
<td>C3181BS</td>
<td>C3181</td>
<td>MAGic Clamp Tube Rack, 4 x 500 mL or 600 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3190BS</td>
<td>C3190</td>
<td>MAGic Clamp platform flasks/tube 16 x 16.5</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Flask Dancer Orbital Shaker

BOEKEL - This microprocessor-controlled shaker uses a smooth horizontal orbital motion for mixing in bottles, flasks and beakers. It features a soft start and noise-free operation. Platform not included.

Specifications:
- Speed: 50 to 300 rpm
- Orbit: 18 mm
- Timer: 1 minute to 99 hours
- Time setting resolution: 1 minute
- Unit Dimensions (W x D x H): 10½ x 11 x 4 in.
- Tray Dimensions (W x D): 10 x 8 in.
- Power requirements: 12 V, 0.5 A

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>R3301-3A</td>
<td>270200</td>
<td>Orbital shaker</td>
<td>1/ea</td>
</tr>
<tr>
<td>R3301-2A</td>
<td>270292</td>
<td>Universal platform w/adjustable bars</td>
<td>1/ea</td>
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</tbody>
</table>
**Shakers**

**AS 260.1 Universal Attachment**  
IKA WORKS - For various types of vessels. Infinitely variable clamping rolls allow universal adaptation to the vessels  
**Specifications:**  
Dimensions (W x D x H) .......... 425 x 335 x 135 mm  
Set-up plate ................... 320 x 320 mm  

<table>
<thead>
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<tr>
<td>S7389-128</td>
<td>8017400</td>
<td>AS 260.1 Universal Attachment</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**HS 260 Control Shaker**  
IKA WORKS - This compact, flat shaker features ideal swivel motion and can accommodate a maximum shaking weight of 7.5 kg. Digital display makes it possible to read the speed, timer function and operating modes. Electronic time switching clock: 0 to 9 hr., 59 min. or continuous operation (endless), Integrated endpoint positioning (for automated robot-controlled sampling). All functions can be controlled and documented with labworldsoft® software. Wide range of attachment combinations makes it possible to use almost all shapes and sizes of vessels. Attachments are not included, please order separately.  
**Specifications:**  
Shaking movement ............ Reciprocating  
Shaker diameter .......... 20 mm  
Speed range ............. 10 to 300 rpm  
Timer .................. 0 to 9 hours 59 minutes or continuous operation  
Dimensions (W x D x H) .......... 360 x 420 x 100 mm  

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7389-158</td>
<td>3066701</td>
<td>Control shaker - 100–120 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**KS 130 Basic Shaker**  
IKA WORKS - This small, quiet shaker helps ensure long service life with ideal swivel motion and can accommodate a maximum shaking weight of 2 kg. Features an electronic adjustment of speed and timer. Basic model has LED line display for speed and time adjustment. Shaker can be used with a wide range of attachments to make it possible to use almost all shapes and sizes of vessels. Universal attachment S7389-127 includes one basic holder; three clamping rolls and six fastening screws.  
**Specifications:**  
Shaking movement ............ Orbital  
Shaker diameter .......... 4 mm  
Speed range ............. 80 to 800 rpm  
Dimensions (W x D x H) .......... 270 x 316 x 98 mm  

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7389-160</td>
<td>2980001</td>
<td>Basic Shaker - 100–120 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>S7389-127</td>
<td>8017300</td>
<td>AS 130.1 Universal Attachment</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**MS 3 Digital Shaker**  
IKA WORKS - This compact, universal shaker is suitable for shaking tasks with all small vessels and microtiter plates. Features attachment detection and offer continuous or touch operation. The shaker has two operating modes. Mode A (safe mode with attachment detection) the maximum speed of 3,000 rpm is only reached with the standard attachment in touch mode. When using other attachments, the speed is limited to 1,300 rpm. Mode B (without attachment detection) a speed of 3,000 rpm is possible with all attachments, depending on the application (see accessory list in the manual). Digital shaker has a timer with countdown function.  
**Specifications:**  
Shaking movement ............ Orbital  
Shaker diameter .......... 4.5 mm  
Speed range ............. 0 to 3,000 rpm  
Dimensions (W x D x H) .......... 148 x 205 x 63 mm  

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7389-183</td>
<td>3319000</td>
<td>Digital Shaker - 100–240 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>S7389-130</td>
<td>3426600</td>
<td>MS 3.3 Universal Attachment</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**VORTEX 3 Shaker**

IKA WORKS - Vortex shaker suitable for short-time operation (touch function), activated by pressing shaker attachment or continuous operation. Features an infinitely adjustable wide-speed range. Unit has a silicon base with special feet to minimize vibration at high speeds. Attachments (available separately) make the shakers useful for many different applications.

**Specifications:**
- Shaking movement: Orbital
- Shaker diameter: 4 mm
- Speed range: 500 to 2,500 rpm
- Dimensions (W x D x H): 127 x 149 x 136 mm

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7389-168</td>
<td>3340001</td>
<td>Vortex 3 - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>S7389-134</td>
<td>3342400</td>
<td>VG 3.3 universal attachment</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**VXR Basic Vibrax®**

IKA WORKS - Optoelectronically controlled small shaker with a very wide speed range (0 to 2200 rpm).
- Suitable for continuous operation
- New design and improved drive system
- Circular shaking motions
- Slow speeds are well maintained
- Attachments are interchangeable

**Specifications:**
- Shaking movement: Orbital
- Shaker diameter: 4 mm
- Speed range: 0 to 2,200 rpm
- Dimensions (W x H x D): 157 x 130 x 247 mm

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7389-169</td>
<td>2819001</td>
<td>VXR Basic Vibrax® - 100–120 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Pipette Shakers**

LW SCIENTIFIC - The Pipette Shakers easily achieve consistent results in specimen separation and are especially effective for blood preparation. The 6-place shaker has the option of either continuous motion or timed motion using the 15 minute timer. Compact size and durability make the Pipette Shaker convenient for any laboratory.

- 15-minute timer
- Space-saving design
- Suction-cupped feet
- LED indicator light

**Specifications:**
- Capacity: 6 places, 5–7 mL pipettes
- Fixed speed: 2,500 rpm
- Power requirements: 110 V

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLPPF706F1</td>
<td>SHL-PPF7-06F1</td>
<td>Pipette Shaker - 6 places</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Heavy Duty Orbital Shaker**

OHAUS - Heavy Duty Shakers are designed to handle a wide range of applications no matter how difficult the task. Powerful, convenient shakers provide consistent orbital shaking action. Digital models offer accurate speed control for applications that demand repeatable results. Maximize throughput and efficiency in your laboratory.

- Independent LED displays for speed/time allow the operator to view both settings simultaneously
- RS232 interface provides two-way communication for data logging and unit control
- Built-in tray 11 x 13 in. with a non-slip rubber mat (included)
- Cold rolled steel (CRS) construction
- Detachable 3-wire cord and plug (included)

**Specifications:**
- Speed range: 15 to 500 rpm
- Speed accuracy: Above 100 rpm ± 1% of set speed, Below 100 rpm ± 1 rpm
- Orbit: 0.75 in. (19 mm)
- Timer range: 1 second to 160 hours
- Maximum capacity: 35 lbs. (16 kg)
- Dimensions (W x D x H): 14 x 16.3 x 5.9 in.
- Power requirements: 120 V, 50/60 Hz, 5 A

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR-980023</td>
<td>30391807</td>
<td>Orbital shaker - 120 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
## Shakers/Slide Warmer

### Talboys Digital Mini Shaker
TROEMNER - This shaker features a variable-speed microprocessor control that provides consistent, uniform mixing action. The ramping feature slowly increases speed to set point for added safety. The independent LED display features speed and time. Timer displays elapsed time or, when programmed to user-defined limit, will count down to zero and shut off unit. The audible alarm sounds when time reaches zero. Ideal for use in incubators, CO₂ incubators or cold rooms. Shakers accommodate a 14°F to 140°F (−10°C to +60°C), 80% relative humidity, noncondensing environment. Durable base is constructed of cast aluminum for extra stability. The triple eccentric drive features permanently lubricated ball bearings. The maintenance-free, brushless DC motor provides a long service life.

The tray included with the shaker can be used as a platform for mounting optional Erlenmeyer flask clamps, test tube racks or microplate holders. It features a nonskid rubber mat appropriate for holding petri dishes and cell culture flasks.

**Specifications:**
- **Orbit:** 3 mm
- **Timer:** 1 second to 160 hours
- **Capacity:** 25 lbs.
- **Speed Range:** 100 to 1,200 rpm
- **Accuracy:** ±2% of set speed or 2 rpm for speeds below 100 rpm

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR980175</td>
<td>980175</td>
<td>Digital Mini Shaker - 120 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

### Talboys Digital Rocking Platform Shaker
TROEMNER - This shaker is ideal for cell culture work, staining and destaining gels, hybridization procedures, hematology and blotting techniques. Designed for use in incubators, CO₂ incubators, cold rooms (−10°C to +60°C) and 80% relative humidity, noncondensing environments. The large platform tray is ideal for holding staining trays, culture flasks, petri dishes and microtiter and multiwell plates. Spill-resistant design channels fluids away from internal components. Base is constructed of durable cast aluminum for extra stability.

Microprocessor touchpad control provides electronic angle adjustment that allows user to easily adjust rocking angle from 0° to 15° while unit is operating. Precise speed control provides smooth, low-speed rocking motion down to 1 rpm. For improved repeatability, onboard memory recalls last settings even when unit is turned off.

Audible and visual signals will activate when system detects an overloaded, unbalanced condition or obstruction of the tray. LED display will show elapsed time or, when programmed to user-defined limit, will count down to zero and shut off unit. Audible alarm will sound when time reaches zero. Optional alarm mute can be set from the touchpad control. Powerful, maintenance-free stepper motor handles heavy loads up to 10 lbs. (4.5 kg) and provides a long service life.

**Specifications:**
- **Tilt angle:** 0° to 15°
- **Timer:** 1 second to 160 hours
- **Maximum capacity:** 10 lbs.
- **Speed Range:** 1 to 50 rpm
- **Accuracy:** ±1 rpm

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR980530</td>
<td>980530</td>
<td>Shaker 120 V - 12.75 x 10 in. platform</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

### Slide Warmer
LW SCIENTIFIC - The Slide Warmer is designed to be used for a broad range of applications. Our thick metal platform paired with our proprietary heating system ensures stable temperatures and even heating, eliminating the hot and cold spots common to other models. The 12 V electronics make it portable when the optional battery cords are purchased. Economical and dependable, the Slide Warmer is ideal for use in fertility, cytology, biology, tissue mounting, histology, as well as other applications.

- Digital temperature display programmable in F° or C°
- 14-slide capacity
- Suction-cupped feet
- Compact, space-saving design
- LED temperature display
- Portable – can be operated by 12 V battery power

**Specifications:**
- **Temperature range:** Ambient +2°F up to 150°F
- **Accuracy:** ±0.3°F
- **Preset at:** 98.6°F (37°C)
- **Dimensions (W x D x H):** 7.5 x 7.7 x 4 in.
- **Power requirements:** 100–240 V, 50/60 Hz; Output: 12 V, 8 A

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL14PL77DP</td>
<td>SWL-14PL-77DP</td>
<td>Slide Warmer - 14 slide</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Large Capacity Reach-In CO₂ Incubator

CARDINAL HEALTH - Temperature uniformity is absolutely critical for optimal culturing. This large capacity reach-in CO₂ incubator delivers optimum temperature uniformity and recovery even with large product loads and low output, heat-generating equipment in the chamber.

The unique directed horizontal laminar airflow system uses positive and negative pressures to direct air across the entire shelf surfaces, assuring a consistent flow of conditioned air for maximum temperature uniformity. The air feed plenum cannot be accidentally blocked by the chamber contents, leading to temperature variations that can damage the chamber’s contents.

This large capacity reach-in CO₂ incubator is exceptionally simple to operate and loaded with valuable features that will serve you from day one. You don't need to purchase a range of expensive options to have a chamber that truly meets your needs. It’s been designed with the primary features built-in.

Two-year parts and labor warranty. Limitations apply. See your instruction manual for full warranty terms and conditions.

Features:
- 29 cu. ft. of capacity—easy access to large-volume samples
- Standard remote alarm contacts—facilitates monitoring/alarm system to track chamber conditions
- Temperature uniformity for optimal culturing
- Enviro-Scan™ microprocessor message center—offers the freedom to control all critical parameters
- Stainless steel interior
- Heated solid door—minimizes condensation and protects light sensitive samples
- Three adjustable stainless steel shelves—easy-to-clean, corrosion resistant
- Swivel, locking casters—for easy unit installation and cleaning
- Adjustable RH system—three settings: low, medium and high
- Thermal conductivity (TC) sensors for accurate CO₂ monitoring

Specifications:

Temperature
Control ...................... ±0.1°C
Range ....................... 5°C above ambient to 60°C (140°F)
Uniformity ................... ±0.3°C @ 37°C (98.6°F)

CO₂
Control ...................... Better than ±0.1%
Range ....................... 0 to 20%
Readability and setability .... 0.1%

Humidity
Selectable ranges ............ Off, medium >80%, high >90%

Stainless Steel Shelves
Dimensions .................. 30.6 x 25.8 in.
Surface area ................. 5.4 sq. ft.
Max. per chamber ............ 145.8 sq. ft.
Standard, maximum .......... 3, 27

Electrical Requirements

Electrical ..................... 115 V, 50/60 Hz, 10.0 FLA (operating range 90–125 V includes voltage fluctuations)
Plug .......................... 115 V: NEMA 5-15P plug

Dimensions (W x H x D)
Exterior ..................... 38 x 80 x 33 in. F-B
Interior ....................... 31 x 60 x 27 in. F-B

Cat. No. | Description | Qty.
--- | --- | ---
CH3850 | Large capacity reach-in CO₂ incubator | 1/ea

Specifications are based on nominal voltages of 115 V in ambient of 22°C to 25°C (71.6°F to 77°F). UL Listed to United States requirements.

Enviro-Scan™ is a trademark of Thermo Fisher Scientific Inc.
Digital Incubators

**CARDINAL HEALTH** - With digital temperature control, Cardinal Health™ mini incubators provide convenient “set and walk away” operation, eliminating the need for external thermometers. Simply choose the desired temperature and the incubator immediately begins to heat up (or cool down-HC model only) while accurately monitoring the chamber temperature and conveniently displaying the temperature in real time on the large LED control panel. Despite a modest footprint of 13.2 x 14.5 in., our incubators feature large internal chambers capable of accommodating flasks and bottles up to 2 liters and two adjustable/removable shelves for increased capacity.

**Specifications:**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Capacity</th>
<th>Electrical</th>
<th>Dimensions (W x D x H)</th>
<th>Weight</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (H)</td>
<td>0.8 cu. ft. (22.65 L)</td>
<td>100–240 V, 50/60 Hz</td>
<td>Exterior 13.2 x 14.5 x 18.7 in. (33.5 x 37 x 48 cm)</td>
<td>15 lbs. (6.8 kg)</td>
<td>Two-year</td>
</tr>
<tr>
<td>Range (HC)</td>
<td></td>
<td></td>
<td>Interior 10.3 x 9.3 x 12.9 in. (26 x 23.5 x 33 cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 0.5°C (at 37°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniformity</td>
<td>± 1.5°C (at 37°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increments</td>
<td>1°C</td>
<td></td>
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</tr>
</tbody>
</table>

*For example: minimum temperature in a 22°C environment is approximately 7°C

Mini Incubator

**AZER SCIENTIFIC** - Space saving, compact analog incubator is ideal for incubating culture flasks, dishes, test tubes, and plates. Plexiglas viewing area in the door gives clear view of contents. Incubator has easy-to-clean shelves that can be placed at three levels within chamber. Corrosion-resistant interior and dependable construction.

**Specifications:**

<table>
<thead>
<tr>
<th>Operating conditions</th>
<th>Capacity</th>
<th>Interior Dimensions (W x D x H)</th>
<th>Exterior Dimensions (W x D x H)</th>
<th>Power requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient +5°C to 60°C</td>
<td>9.2 L / 0.375 cu. ft.</td>
<td>9 x 7.9 x 7.9 in.</td>
<td>11.2 x 11 x 13.2 in.</td>
<td>120 V, 50/60 Hz</td>
</tr>
</tbody>
</table>

**Cat. No.**

<table>
<thead>
<tr>
<th>Description</th>
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<tr>
<td>ESi110120V</td>
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**Cat. No.**

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>ESi311ID</td>
<td>1/ea</td>
</tr>
<tr>
<td>ESi611ID</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Incu-Shaker™ Mini Shaking Incubator**

BENCHMARK - The Incu-Shaker™ Mini has a remarkably small footprint, the interior is spacious enough to accept a 9.5 x 11 in. platform as well as clamps for a variety of flasks, tube and other common vessels. The standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flasks, petri dishes and staining trays. The convenient MAGic Clamp™ platform is also available for use with Erlenmeyer flasks and test tube racks. This unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

**Specifications:**
- Temperature range: Ambient +5°C to 70°C
- Temperature accuracy: ±0.1°C
- Temperature uniformity: ± 0.25°C
- Shaking speed range: 30 to 300 rpm
- Platform dimensions: 9.5 x 11.5 in.
- Dimensions: (W x D x H): 11 x 16.2 x 13 in.
- Power requirement: 115 V or 230 V, 50/60 Hz, 300 W

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3168BS</td>
<td>C3168</td>
<td>Incu-Shaker Mini, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3169BS</td>
<td>C3169</td>
<td>Incu-Shaker Mini, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3170BS</td>
<td>C3170</td>
<td>MAGic Clamp universal platform</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3186BS</td>
<td>C3186</td>
<td>MAGic Clamp COMBO 125, 250 and 500 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3175BS</td>
<td>C3175</td>
<td>MAGic Clamp magnetic clamp, 50 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3174BS</td>
<td>C3174</td>
<td>MAGic Clamp magnetic clamp, 125 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3173BS</td>
<td>C3173</td>
<td>MAGic Clamp magnetic clamp, 250 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3172BS</td>
<td>C3172</td>
<td>MAGic Clamp magnetic clamp, 500 mL</td>
<td>1/ea</td>
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<tr>
<td>C3171BS</td>
<td>C3171</td>
<td>MAGic Clamp magnetic clamp, 1,000 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3176BS</td>
<td>C3176</td>
<td>MAGic clamp for 1 x microplate (max. 4)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3177BS</td>
<td>C3177</td>
<td>MAGic Clamp tube rack, 30 x 15 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and 20 x 50 mL</td>
<td></td>
</tr>
<tr>
<td>C3178BS</td>
<td>C3178</td>
<td>MAGic Clamp tube rack, 72 x 14 mm culture</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3179BS</td>
<td>C3179</td>
<td>MAGic Clamp tube rack, 32 x 15 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3180BS</td>
<td>C3180</td>
<td>MAGic Clamp tube rack, 15 x 50 mL</td>
<td>1/ea</td>
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<tr>
<td>C3207BS</td>
<td>C3207</td>
<td>MAGic Clamp holder for 15 mL/50 mL racks</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Incu-Shaker™ 10 L Shaking Incubators**

BENCHMARK - The Incu-Shaker 10 L model are equipped with a large 18 x 18 in. platform for high capacity applications as well as clamps for a variety of flasks, tube and other common vessels. The standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flasks, petri dishes and staining trays. The convenient MAGic Clamp™ platform is also available for use with Erlenmeyer flasks and test tube racks. This unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

**Specifications:**
- Temperature range: Ambient +5°C to 60°C
- Temperature accuracy: ±0.1°C
- Temperature uniformity: ± 0.25°C
- Shaking speed range: 30 to 300 rpm
- Platform dimensions: 17.8 x 17.8 in.
- Dimensions: (W x D x H): 20 x 26 x 19 in.
- Power requirement: 115 V or 230 V, 50/60 Hz, 450 W

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3187BS</td>
<td>C3187</td>
<td>Incu-Shaker 10 L with non-slip mat, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3188BS</td>
<td>C3188</td>
<td>Incu-Shaker 10 L with non-slip mat, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3189BS</td>
<td>C3189</td>
<td>MAGic Clamp™ universal platform for flasks and tube racks (18 x 18 in.)</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3208BS</td>
<td>C3208</td>
<td>MAGic Clamp™ COMBO, for 125 mL, 250 mL, 500 mL flasks</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3197BS</td>
<td>C3125</td>
<td>MAGic Clamp magnetic clamp, 50 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3196BS</td>
<td>C3124</td>
<td>MAGic Clamp magnetic clamp, 125 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3195BS</td>
<td>C3123</td>
<td>MAGic Clamp magnetic clamp, 250 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3194BS</td>
<td>C3122</td>
<td>MAGic Clamp magnetic clamp, 500 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3193BS</td>
<td>C3121</td>
<td>MAGic Clamp magnetic clamp, 1,000 mL</td>
<td>1/ea</td>
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<tr>
<td>C3192BS</td>
<td>C3119</td>
<td>MAGic Clamp magnetic clamp, 2,000 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3191BS</td>
<td>C3118</td>
<td>MAGic Clamp magnetic clamp, 3,000 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3198BS</td>
<td>C3198</td>
<td>MAGic Clamp magnetic clamp 1 microplate</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3199BS</td>
<td>C3199</td>
<td>MAGic Clamp tube rack, 30 x 15 mL and 20 x 50 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3200BS</td>
<td>C3200</td>
<td>MAGic Clamp tube rack, culture tubes</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3201BS</td>
<td>C3201</td>
<td>MAGic Clamp tube rack, 32 x 15 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3202BS</td>
<td>C3202</td>
<td>MAGic Clamp tube rack, 15 x 50 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3203BS</td>
<td>C3203</td>
<td>MAGic Clamp tube rack, 4 x 500 mL or 600 mL</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3131BS</td>
<td>C3131</td>
<td>MAGic Clamp tilted holder</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
myTemp 65HC™ Heating and Cooling Incubator

BENCHMARK - The myTemp 65HC™ incubator is designed to provide accurate and uniform temperature control from 0°C to 60°C. The broad temperature range of the instrument expands the use of this incubator to both heating and cooling applications. A large, digital display allows for visualization of the chamber temperature and the remaining incubation time, while an internal light is included for improved visualization of the chamber. In addition, a built-in, internal outlet can be used to provide power to small instruments, such as shakers, rockers, etc. With forced air technology and stainless steel inner construction, uniform heat transfer is ensured throughout the chamber. When set for sub-ambient temperatures, the powerful compressor is activated, quickly cooling the chamber to the desired temperature. With an exterior height of 39 in. (100cm), the incubator is designed to be floor-standing, yet is also compact enough for bench-use. (Not recommended for use on benchtops higher than 32 in., 81 cm). The instrument is supplied with two, adjustable height shelves, while additional shelves can also be purchased separately (item: H2265-SH).

Specifications:
Temperature range: 0°C to 60°C (ambient –25°C to 60°C)
Temperature accuracy: ±0.5°C (at 37°C)
Temperature uniformity: ±1°C (at 37°C)
Capacity: 2.3 cu. ft. or 65 L
Timer: 1 min. to 99 hr. 59 min.
Power requirement: 115 V, 60 Hz or 230 V, 50 Hz, 385 W
Dimensions(W x D x H): Exterior 21.25 x 21 x 39.35 in., interior 15.75 x 12.75 x 19.75 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3165BS</td>
<td>C3165</td>
<td>myTemp 65HC™ digital Incubator, 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3166BS</td>
<td>C3166</td>
<td>myTemp 65HC™ digital Incubator, 230 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>C3167BS</td>
<td>C3167</td>
<td>Extra shelf, 12 x 15 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Analog Incubators

BOEKEL - These incubators are ideal for a wide range of applications, including culturing, bacteriology, warming of samples, E. coli tests and diagnostic protocol for water, wastewater, pharmaceutical and biotech testing. They are manufactured from 22G steel. The exterior is powder-coated for scratch- and stain-resistance and the interior is easy-to-clean aluminum. Incubators come with a thermometer as a standard accessory and have two adjustable shelves. They also have a blower fan to improve heating and stability of the desired temperature. The 115 V analog incubators meet UL and CSA requirements.

Specifications:
Shelves supplied: 2
Power requirements: 115 V, 60 Hz
Temperature
Range: Ambient +10°C to 90°C
Uniformity @ 37°C: ±1.5°C
Chamber dimensions (W x D x H)
CCC 1.4a: 13½ x 13½ x 13½ in.
CCC 2.5a: 17 x 17 x 15 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BO139200</td>
<td>139200</td>
<td>CCC 1.4a Analog Incubator - 1.4 cu. ft., solid door, 2 shelves</td>
<td>1/cs</td>
</tr>
<tr>
<td>BO139300</td>
<td>139300</td>
<td>CCC 2.5a Analog Incubator - 2.5 cu. ft., solid door, 2 shelves</td>
<td>1/cs</td>
</tr>
</tbody>
</table>
Incubators

Benchtop Incubator
BOEKEL - This convenient benchtop analog incubator provides you with a reliable, inexpensive method of incubating cultures, test kits, eggs and other biological materials. It is ideal for use in clinical, industrial and school laboratories and in physicians' offices. The unit includes a see-through smoked acrylic door. It includes a nickel-plated steel bottom shelf plus one adjustable shelf.

Specifications:
- Shelves supplied: 2
- Power requirements: 120 V, 90 W
- Temperature Range: Ambient +5°C to 60°C
- Uniformity @ 37°C: ±1°C

Dimensions (W x D x H)
- Chamber: 11½ x 12 x 10½ in.
- Exterior: 13 x 14 x 16¼ in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1670-10</td>
<td>132000</td>
<td>0.8 cu. ft. benchtop incubator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Incubator with Digital LCD
BOEKEL - Incubate cultures, test kits, eggs and other biologicals with this general-purpose analog incubator. Designed for storage under low-hanging cabinetry, it features a digital temperature LCD that can be viewed throughout the laboratory. The unit is supplied with 2 adjustable shelves and a rugged metal door with a magnetic latch.

Specifications:
- Capacity: 0.8 cu. ft.
- Shelves supplied: 2
- Power requirements: 115 V, 90 W
- Temperature Range: Ambient +5°C to 60°C
- Uniformity @ 37°C: ±1°C

Dimensions (W x D x H)
- Chamber: 11½ x 12 x 10½ in.
- Exterior: 13 x 14 x 16¼ in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1672-1</td>
<td>133000</td>
<td>0.8 cu. ft. incubator with digital LCD</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Digital Incubators
BOEKEL - These incubators are ideal for incubating and culturing reagents, media and samples in just about every laboratory where samples need warming and a steady temperature. They allow for digital input and readout of incubation temperature. Temperature range is from ambient +10°C to 90°C. The incubators contain a blower fan for rapid heat-up and better uniformity of temperature. An over-range safety thermostat with a red warning indicator light and 5-hour timer are also provided. Incubators utilize a PID controller and a separate power switch.

Made from 22G steel and the exterior is powder-coated for both scratch- and stain-resistance. The interior is easy-to-clean aluminum.

Specifications:
- Power requirements: 115 V, 60 Hz
- Temperature Range: Ambient +10°C to 90°C
- Uniformity @ 37°C: ±0.7°C

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCC 0.5d</td>
<td>138000</td>
<td>digital incubator - 0.5 cu. ft.</td>
<td>1/cs</td>
</tr>
<tr>
<td>BO138000</td>
<td>138025</td>
<td>Solid door, 1 shelf</td>
<td>1/cs</td>
</tr>
<tr>
<td>BO138025</td>
<td></td>
<td>See-through door, 1 shelf</td>
<td>1/cs</td>
</tr>
<tr>
<td>CCC 1.4d</td>
<td>138200</td>
<td>digital incubator - 1.4 cu. ft.</td>
<td>1/cs</td>
</tr>
<tr>
<td>BO138200</td>
<td>138225</td>
<td>Solid door, 2 shelves</td>
<td>1/cs</td>
</tr>
<tr>
<td>BO138225</td>
<td></td>
<td>See-through door, 2 shelves</td>
<td>1/cs</td>
</tr>
<tr>
<td>CCC 2.5d</td>
<td>138325</td>
<td>digital incubator - 2.5 cu. ft.</td>
<td>1/cs</td>
</tr>
<tr>
<td>BO138325</td>
<td></td>
<td>See-through door, 2 shelves</td>
<td>1/cs</td>
</tr>
</tbody>
</table>

cardinalhealth.com
Microplate Incubator

BOEKEN - The heating element in this microplate incubator is located behind a back panel to provide uniform heat and to help eliminate the risk of scorching. The incubator can be used for a wide range of applications, including RIA, EIA, FIA, ELISA, culturing, kinetics, enzymatic incubation, temperature equilibration, hybridoma screening or any other technique that requires incubation at or near 37°C. A Plexiglas® door allows viewing of contents. The ivory Kydex® outer cover and sturdy aluminum interior make cleanup easy. The incubator comes complete with a flat plastic Digitemp® thermometer which is attached to the interior floor.

Specifications:

<table>
<thead>
<tr>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range ................. Ambient +5°C to 42°C</td>
</tr>
<tr>
<td>Uniformity @37°C .......... ±2°C chamber</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Power requirements</th>
<th>Dimensions (W x D x H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 cu. ft.</td>
<td>120 V, 24 W</td>
<td>7¼ x 5¼ x 6¼ in.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1668-1</td>
<td>260700</td>
<td>0.1 cu. ft. Microplate Incubator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Small Platelet Incubator and Agitator

BOEKEN - Introducing the new Small Platelet Incubator and Agitator. The agitation system has been designed for continuous quiet operation and to meet AABB Guidelines.

Features:

- Patent pending inventory management system to decrease wastage
- Gas-less/compressor-less heating and cooling design
- Onboard thermal printer for keeping records of temperature data
- Downloadable event log
- Massive 7 in. industrial touch screen with intuitive icons
- Battery backup in the event of a power failure
- Two-year warranty
- Removable shelves with smooth platform designed to reduce label sticking

Applications:

For short term storage of blood platelets for human treatment

Specifications:

- Power requirements .............. 115 V, 60 Hz, 50 W

Incubator temperature

Range ...................... 16°C to 28°C ambient
Accuracy .................... ±0.5°C between 20°C and 24°C
Setting ...................... 20°C to 24°C (22°C default temperature)

Dimensions (W x D x H) ........ 21.25 x 19.75 x 26 in.

Agitator

Speed ......................... 60 rpm
Capacity ........................ 6 shelves/6-12 apheresis bags or 18 random bags

Dimensions (W x D x H) ........ 15.75 x 11.25 x 13.625 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>BI301550</td>
<td>301550</td>
<td>Platelet Incubator</td>
<td>1/ea</td>
</tr>
<tr>
<td>BI301200</td>
<td>301200</td>
<td>Platelet Agitator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Large Platelet Incubator and Agitator

BOEKEN - Introducing the new Large Platelet Incubator and Agitator. The agitation system has been designed for continuous quiet operation and to meet AABB Guidelines.

Features:

- Patent pending inventory management system to decrease wastage
- Gas-less/compressor-less heating and cooling design
- Onboard thermal printer for keeping records of temperature data
- Downloadable event log
- Massive 7 in. industrial touch screen with intuitive icons
- Battery backup in the event of a power failure
- Two-year warranty
- Removable shelves with smooth platform designed to reduce label sticking

Applications:

For short term storage of blood platelets for human treatment

Specifications:

- Power requirements .............. 115 V, 1 Phase, 50/60 Hz

Incubator temperature

Range ...................... 16°C to 28°C ambient
Accuracy .................... ±0.5°C between 20°C and 24°C
Setting ...................... 20°C to 24°C (22°C default temperature)

Dimensions (W x D x H) ........ 25.3 x 26.5 x 30 in.

Agitator

Speed ......................... 60 rpm
Capacity ........................ 8 shelves/8 - 16 apheresis bags or 18 random bags

Dimensions (W x D x H) ........ 18.5 x 16.5 x 17.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>301650B</td>
<td>301650</td>
<td>Platelet Incubator</td>
<td>1/ea</td>
</tr>
<tr>
<td>301300B</td>
<td>301300</td>
<td>Platelet Agitator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Hettich HettCube Incubators

HETTICH - HettCube eco-friendly incubators combine the advantages of natural and forced convection to provide a stable and uniform environment for cultures. The fan is housed outside of usable space, providing higher throughputs and limiting airflow inside the incubator. Temperature is maintained by radiated heat to ensure even temperature distribution and to prevent hotspots. Cultures conditions are homogeneous at all points of the chamber for reproducible results.

Hettich HettCube incubators come in 3 convenient sizes 5.29 cu. ft., 10.95 cu. ft. and 18.36 cu. ft. heated or cooled and are available with a glass door option. Multiple accessories are available, please inquire.

Specifications:
Power requirements .......... 120 V, 50/60 Hz
Warranty .................... 2 years

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
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<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H62000-01</td>
<td>62000-01</td>
<td>HettCube 200 (heated) - 5.29 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>H62005-01</td>
<td>62005-01</td>
<td>HettCube 200 R (cooled) - 5.29 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>H64000-01</td>
<td>64000-01</td>
<td>HettCube 400 (heated) - 10.95 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>H64005-01</td>
<td>64005-01</td>
<td>HettCube 400 R (cooled) - 10.95 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>H66000-01</td>
<td>66000-01</td>
<td>HettCube 600 (heated) - 18.36 cu. ft.</td>
<td>1/ea</td>
</tr>
<tr>
<td>H66005-01</td>
<td>66005-01</td>
<td>HettCube 600 R (cooled) - 18.36 cu. ft.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

USA Incubators

LW SCIENTIFIC - The digitally controlled USA Incubators are perfect for various applications such as cultures, egg incubation, test kits, and other microbiological uses in pediatric, physician, and hospital labs. This new line of incubators is designed, engineered, and assembled in the USA by LW Scientific Atlanta. They provide better temperature stability and accuracy with the digital PID microprocessor controls, and the convection heat provides excellent heat distribution and uniformity. The LED temperature display shows constant temperature in Celsius or Fahrenheit, and the aluminum and stainless steel components are corrosion resistant and easy to clean. The LW Scientific incubator is perfect for labs requiring better temperature accuracy and a small footprint.

Features:
• Acrylic see-through door
• Adjustable stainless steel shelves
• Suction-cupped rubber fee
• Programmable temperature correction
• PID controller
• Simple keypad input
• Digital LED display
• Visual alarm alerts when actual internal temperature exceeds programmed temperature

Specifications:
Temperature range ............ Ambient +2°C to 65°C
Temperature accuracy ......... ±0.5°C
Power Requirements .......... 115 V AC, 300 W

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL010LD031</td>
<td>ICL-010L-D031</td>
<td>10-liter (0.35 cu. ft.) - 2 shelves, 1 adjustable</td>
<td>1/ea</td>
</tr>
<tr>
<td>CL020LD071</td>
<td>ICL-020L-D071</td>
<td>20-liter (0.7 cu. ft.) - 3 shelves, 2 adjustable</td>
<td>1/ea</td>
</tr>
<tr>
<td>CL030LD101</td>
<td>ICL-030L-D101</td>
<td>30-liter (1.1 cu. ft.) - 3 shelves, 2 adjustable</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Cell IQ™ CO₂ Incubator for Cell Culture**

PHC CORPORATION OF NORTH AMERICA* - Enhance the production yield of your cell culture experiments with the large capacity CO₂ incubator. The ideal high throughput cell culture incubator for culturing or protocols that may require the use of an experimental apparatus. The patented direct heat and air jacket system works with the IR2 sensor to provide precise temperature and CO₂ levels, respectively. InCu-saFe® and SafeCell™ UV function together to prevent contamination. The isolated UV lamp decontaminates circulated air and the humidity water reservoir without harming the cultured cells. The control panel interface allows for easy programming of temperature, CO₂ and other internal conditions of your incubator.

**Specifications:**
- CO₂ range and fluctuation: 0% to 20%, ±0.15%
- Temperature range: 5°C above ambient to 50°C, ± 0.1°C
- Temperature uniformity: ±0.25°C
- Shelves: 4 stainless steel copper enriched alloy

**Dimensions**
- Interior (W x D x H): 25.3 x 20.6 x 27.6 in.
- Exterior (W x D x H): 30.3 x 28.7 x 35.6 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>230AICUVL</td>
<td>MCO-230AICUVL-PA</td>
<td>CO₂ incubator with a UV lamp 8.1 cu. ft. - 4 wire shelves</td>
<td>1/ea</td>
</tr>
<tr>
<td>MCO230RBPW</td>
<td>MCO-230RBPW</td>
<td>Roller base</td>
<td>1/ea</td>
</tr>
<tr>
<td>MCO230SBPW</td>
<td>MCO-230SB-PW</td>
<td>Stacking spacer</td>
<td>1/ea</td>
</tr>
<tr>
<td>MCO230STPW</td>
<td>MCO-230ST-PW</td>
<td>Shelf</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**CytoGrow CO₂ Incubator**

PHC CORPORATION OF NORTH AMERICA* - The ideal CO₂ incubator for research and clinical microbiology, the CytoGrow GLP CO₂ incubator offers a high performance solution for mainstream cell culture applications in the research and clinical environment where precise control and contamination resistance is critical. The patented direct heat and air jacket conditioning system provides for stable chamber temperature. High density insulation surrounds the incubator chamber to maintain precise temperature and protect against ambient temperature fluctuations. Incubator interior, shelves and shelf rack system incorporate InCu-saFe® copper enriched, stainless steel alloy which offers germicidal properties of elemental copper. This passive contamination control method prevents corrosion and discoloration. The CytoGrow incubator utilizes a microprocessor controller and provides accurate digital display of chamber conditions along with an easy to operate control panel with independent LED displays for temperature and CO₂. The incubator offers a removable shelf channel system, no tools required, for easy cleaning.

**Specifications:**
- CO₂ range and fluctuation: 0% to 20%, ±0.15%
- Temperature range: 5°C above ambient to 50°C, ± 0.1°C
- Temperature uniformity: ±0.25°C
- Shelves: 3 stainless steel copper enriched alloy

**Dimensions**
- Interior (W x D x H): 19.3 × 20.6 × 26.2 in.
- Exterior (W x D x H): 24.4 × 28.0 × 35.4 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCO18ACLPA</td>
<td>MCO-18ACL-PA</td>
<td>6 cu. ft. - 3 wire shelves</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
CytoGrow Stackable CO₂ Incubator

PHC CORPORATION OF NORTH AMERICA* - CytoGrow CO₂ stackable incubator offers precise CO₂ control in a compact, space saving design that allows up to three models to be stacked. The unit is ideal for individual cell culture studies and laboratories with limited space.

The patented direct heat and air jacket conditioning system provides for stable chamber temperature. High density insulation surrounds the incubator chamber to maintain precise temperature and protect against ambient temperature fluctuations. Incubator interior, shelves and shelf rack system incorporate InCu-saFe® copper enriched, stainless steel alloy which offers germicidal properties of elemental copper. InCu-saFe prevents corrosion and discoloration of the incubator interior. The CytoGrow incubator utilizes a microprocessor controller and provides accurate digital display of chamber conditions along with an easy to operate control panel with independent LED displays for temperature and CO₂.

Specifications:
- CO₂ range and fluctuation: 0% to 20%, ±0.15%
- Temperature range: 5°C above ambient to 50°C, ±0.1°C
- Temperature uniformity: ±0.25°C
- Shelves: 3 stainless steel copper enriched alloy

Dimensions
- Interior (W x D x H): 13.8 x 14.9 x 14.8 in.
- Exterior (W x D x H): 18.9 x 21.6 x 22.4 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCO5ACLPA</td>
<td>MCO-5ACL-PA</td>
<td>1.7 cu. ft. stackable incubator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Multigas CO₂/O₂ Incubator

PHC CORPORATION OF NORTH AMERICA* - The air jacketed stackable multigas incubator provides precise CO₂ and O₂ level control for an optimal cell culture environment. Ergonomically designed it allows two additional units to be stacked on top. As a research-grade cell culture incubator with integrated InCu-saFe and SafeCell UV contamination control technology, the compact multigas incubator saves valuable space and is ideally suited for a variety of applications, including in vitro fertilization.

The patented direct heat and air jacket conditioning system provides for stable chamber temperature. High density insulation surrounds the incubator chamber to maintain precise temperature and protect against ambient temperature fluctuations. Incubator interior, shelves and shelf rack system incorporate InCu-saFe® copper enriched, stainless steel alloy which offers germicidal properties of elemental copper. InCu-saFe prevents corrosion and discoloration of the incubator interior. Microprocessor controller and provides accurate digital display of chamber conditions along with an easy to operate control panel with independent LED displays for temperature and CO₂.

Specifications:
- CO₂ range and fluctuation: 0% to 20%, ±0.15%
- O₂ range: 1% to 18% and 22% to 80%
- Temperature range: 5°C to 50°C
- Temperature uniformity: ±0.25°C
- Shelves: 3 stainless steel copper enriched alloy

Dimensions
- Interior (W x D x H): 13.8 x 14.9 x 14.8 in.
- Exterior (W x D x H): 18.9 x 21.6 x 22.6 in.

*Formerly known as Panasonic Healthcare Corporation of North America

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MCO-5M</td>
<td>MCO-5M-PA</td>
<td>1.7 cu. ft. stackable incubator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Incubators

MIR Series Heated Incubators
PHC CORPORATION OF NORTH AMERICA* - The MIR series offers accurate temperature control and consistent uniformity suitable for laboratory culturing, industrial incubation and various testing applications. Multiple programming capability through wide temperature range (+5°C to +80°C) with excellent chamber uniformity. Improved usability with modern design, reversible door, adjustable low vibration and gentle air circulation that reduces media drying. The microprocessor allows for precision temperature control combined with a heater PID and compressor ON-OFF system. Completely programmable, allowing for direct numeric input of operational functions.

Specifications:
- Temperature range: Ambient +5°C to +80°C
- Temperature uniformity: ±1°C
- Power requirements: 115 V, 60 Hz, 1 phase

Dimensions (H x W x D)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIR-H163</td>
<td>MIR-H163-PA</td>
<td>3.3 cu. ft. - 2 wire shelves</td>
<td>1/ea</td>
</tr>
<tr>
<td>MIR-262</td>
<td>MIR-H263-PA</td>
<td>5.4 cu. ft. - 3 wire shelves</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Formerly known as Panasonic Healthcare Corporation of North America

MIR Series Refrigerated Incubators
PHC CORPORATION OF NORTH AMERICA* - The MIR Series Refrigerated Incubators offer accurate temperature control and consistent uniformity making them suitable for laboratory culturing, industrial incubation and various testing applications. Multiple programming capability through wide temperature range (-10°C up to +60°C) with excellent chamber uniformity. Improved usability with modern design, reversible door, adjustable low vibration and gentle air circulation that reduces media drying. The microprocessor allows for precision temperature control combined with a heater PID and compressor ON-OFF system. Programmable operational functions are simple and accommodates a range of diversified experimentation requirements.

Specifications:
- Temperature range: -10°C to 60°C (ambient temperature: 5°C to 35°C, no load)
- Temperature uniformity: ±0.5°C at 37°C
- Shelves: PE coated steel wire, adjustable
- Power requirements: 115 V, 60 Hz, 1 phase

Dimensions (H x W x D)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIR-154</td>
<td>MIR-154-PA</td>
<td>4.3 cu. ft. - 3 wire shelves</td>
<td>1/ea</td>
</tr>
<tr>
<td>MIR-254</td>
<td>MIR-254-PA</td>
<td>8.4 cu. ft. - 5 wire shelves</td>
<td>1/ea</td>
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<tr>
<td>MIR-554</td>
<td>MIR-554-PA</td>
<td>14.3 cu. ft. - 5 wire shelves</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Formerly known as Panasonic Healthcare Corporation of North America
Thermo Scientific™ Forma® 3960 Series Environmental Chamber

THERMO FISHER SCIENTIFIC - Ideal for many clinical applications, including elevated temperature stability and shelf-life testing. The 3960 series features the horizontal laminar airflow system, stainless steel interior, microprocessor controls for a high-performance, high-capacity unit that is ideal for a wide range of constant temperature applications. Optimum uniformity and an elevated temperature range helps ensure easy compliance with regulatory requirements.

Laminar airflow through side plenums for extremely tight temperature uniformity. Microprocessor controls offer constant display of temperature, as well as an alphanumeric message center for ease of setup and programming. Access ports, locking casters and alarm contacts are standard.

Directed airflow system promotes an ideal growth environment. Positive pressure feed plenum and negative pressure return plenum direct air across shelf surface. Feed plenum cannot be blocked by chamber contents. Precise temperature control without complicated programming. Operating modes include run, setpoint, calibration and system configuration.

Easy-to-read display for continuous monitoring. Audible/visual under- and overtemperature alarms. Programmable and indicator low alarm and remote alarm contacts. Data outputs allow connection to inhouse monitor/alarm system to track chamber conditions.

Exterior cabinet is 18 gauge cold-rolled steel, powder coated for durability; resists scratches and chipping. Heated glass door for minimal condensation and a clear view. 2 in. (5.1 cm) thick fiberglass cabinet insulation for maximum product thermal protection. Solid, stainless-steel interior and five heavy-duty solid stainless steel shelves ensures long life and minimized equipment costs. Thru-wall access ports on both chamber sides for probes, sensors, etc.

Interior GFCI duplex receptacle on 115 V model (single European 230 V CEE 7 on 230 V model) for shakers, cell rollers and other equipment. Exterior receptacle on upper-right side of control panel for connecting optional recorder or other equipment.

Specifications:

<table>
<thead>
<tr>
<th>Temperature range</th>
<th>±0.5°C at 45°C (113°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature uniformity</td>
<td>±0.3°C at 37°C (98.6°F)</td>
</tr>
<tr>
<td>Temperature sensitivity</td>
<td>±0.1°C</td>
</tr>
</tbody>
</table>

Cat. No. Mfr. No. Description Qty.
J8105-48 3960 Environmental Chamber - 29 cu. ft. 1/ea
J1805-45 224139 Stainless steel shelf kit for models 3950/3960 1/ea

Thermo Scientific™ Midi CO2 Incubator

THERMO FISHER SCIENTIFIC - With a chamber capacity of 1.4 cu. ft., this incubator is designed for personal, single-user or small sample applications and is ideal for benchtop use. It features an IntrLogic™ II control system with alphanumeric set-point display of temperature, CO2, alarm, calibration and diagnostic functions. The incubator has a seamless interior chamber with radiant wall heating for accurate, uniform temperatures in a low-maintenance, easy-to-clean configuration. It also has auto-zero calibration, which maintains accurate thermal gas performance. A touchpad allows for the control of temperature and CO2 and a high-visibility vacuum fluorescent display allows for at-a-glance monitoring from across the room.

The incubator’s solid outer door closes gently against the cabinet with a magnetic gasket and the tempered glass inner door is heated by the outer door to prevent condensation. The reinforced cabinet permits stacking and four stainless-steel shelves are supplied. Incubator has a thermal conductivity sensor, which provides accurate CO2 control for applications with more consistent temperature and humidity levels. Unit is built to meet UL, CUL and CE standards for safety and performance. Power requirements: 120 V, 60 Hz, 1.5 A.

Specifications:

<table>
<thead>
<tr>
<th>Temperature range</th>
<th>±0.1°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior dimensions</td>
<td>14 x 12 x 14 in. (H x D x W)</td>
</tr>
<tr>
<td>Exterior dimensions</td>
<td>18.3 x 18.5 x 23.5 in. (H x D x W)</td>
</tr>
</tbody>
</table>

Cat. No. Mfr. No. Description Qty.
J1756-78 3403 1.4 cu. ft. (40 L) incubator 1/ea
Thermo Scientific™ Direct Heat CO₂ Incubator - Heracell™ 150i and 240i

THERMO FISHER SCIENTIFIC - Renowned for accuracy, uniformity and quick recovery rates, Thermo Scientific™ Heracell™ 150i and 240i direct heat incubators combine optimal culturing conditions with simplicity and ease-of-use.

- Two convenient stackable sizes 150 L, 240 L (5.3 cu. ft., 8.4 cu. ft.) with electropolished stainless steel or 100% pure copper interior
- Intuitive iCAN touchscreen interface
- Optional O₂ control with choice of 1 to 21% or 5 to 90% ranges
- Choose reliable long-life TC or dual-beam IR CO₂ sensors
- Convenient, 90°C high temperature decontamination routine

Specifications:
Temperature range......................... +3°C to +55°C
Temperature deviation.................... ±0.1°C/±0.5°C
Ambient temperature range............. +18°C to +33°C
Power requirement...................... 120 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heracell™ 150i incubator (5.3 cu. ft.) - single chamber</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J1805-25</td>
<td>51026282</td>
<td>Stainless steel interior, TC sensor, 90°C high temp decontamination</td>
<td>1/ea</td>
</tr>
<tr>
<td>J1805-27</td>
<td>51026406</td>
<td>Stainless steel interior, IR sensor, 90°C high temp decontamination</td>
<td>1/ea</td>
</tr>
<tr>
<td>51026283</td>
<td>51026283</td>
<td>100% pure copper interior, TC sensor</td>
<td>1/ea</td>
</tr>
<tr>
<td>51026534</td>
<td>51026534</td>
<td>100% pure copper interior, IR sensor</td>
<td>1/ea</td>
</tr>
<tr>
<td><strong>Heracell™ 150i (5.3 cu. ft.) – dual incubator stack units</strong></td>
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<tr>
<td>J1805-26</td>
<td>50116048</td>
<td>Dual Stack, 2 x 51026282 with roller base, stainless steel interior, TC sensor</td>
<td>1/ea</td>
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<tr>
<td>50116050</td>
<td>50116050</td>
<td>Dual Stack, 2 x 51026283 with roller base, 100% pure copper interior, TC sensor</td>
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<td><strong>Heracell™ 150i tri-gas incubator(5.3 cu. ft.)</strong></td>
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<tr>
<td>51026410</td>
<td>51026410</td>
<td>Stainless steel interior, TC sensor, O₂ control range 1–21% - 3 door inner glass door assembly</td>
<td>1/ea</td>
</tr>
<tr>
<td>51026408</td>
<td>51026408</td>
<td>100% pure copper interior, TC sensor O₂ control range 1–21% - 3 door inner glass door assembly</td>
<td>1/ea</td>
</tr>
<tr>
<td>51026402</td>
<td>51026402</td>
<td>Stainless steel interior, IR sensor - O₂ control range 1–21% - 3 door inner glass door assembly</td>
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</tr>
<tr>
<td>51026537</td>
<td>51026537</td>
<td>100% pure copper interior, IR sensor, O₂ control range 1–21% - 3 door inner glass door assembly</td>
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<td><strong>Heracell™ 240i - single chamber (8.4 cu. ft.)</strong></td>
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<td>51026331</td>
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<td>Stainless steel interior, TC sensor</td>
<td>1/ea</td>
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<tr>
<td>51026332</td>
<td>51026332</td>
<td>100% pure copper interior, TC sensor</td>
<td>1/ea</td>
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<tr>
<td>51026420</td>
<td>51026420</td>
<td>Stainless steel interior - IR sensor</td>
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<td>51026419</td>
<td>51026419</td>
<td>100% pure copper interior - IR sensor</td>
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<tr>
<td><strong>Accessories</strong></td>
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<tr>
<td>J1805-34</td>
<td>95001012</td>
<td>CO₂ gas regulator, 2-stage, for gas tank</td>
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<tr>
<td>J1805-33</td>
<td>50059043</td>
<td>External gas guard for Heracell™</td>
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<tr>
<td>J1805-31</td>
<td>50057161</td>
<td>Roller base, support frame for 150i</td>
<td>1/ea</td>
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<tr>
<td>50067224</td>
<td>50067224</td>
<td>Support frame with castors for double chamber 240i, 200 mm high</td>
<td>1/ea</td>
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</tbody>
</table>
Thermo Scientific Heracell™ VIOS CO₂ 160i and 250i Incubators

THERMO FISHER SCIENTIFIC - Heracell™ VIOS series represents a new era in advanced incubator design for sensitive cultures like stem and primary cells in leading research, pharmaceutical and clinical laboratory applications. The Heracell VIOS CO₂ incubator delivers the performance reliability, ease of operation and value required to support a range of culturing needs.

Better solutions for optimal cell growth. Get added culturing flexibility with our CO₂ incubators with variable oxygen control (tri-gas).

Features include:

- Choice of either 165 L (5.8 cu. ft.) or 255 L (9 cu. ft.), 255 L chamber accommodates high throughput and large culture vessels
- Choice of electropolished stainless steel or 100% pure copper
- Incubators with 100% pure copper interiors are easy-to-clean, provide long service life and safe for cultured cells
- Adjustable, perforated shelving
- Easy-to-clean, coved-corner interior with convenient access port
- Reversible exterior door for added flexibility
- THRIVE active airflow technology: fan distributes clean, humidified air throughout the chamber ensuring homogeneous conditions
- Condensation free humidification system: covered integrated humidity reservoir to maximize relative humidity without condensation
- ISO-Class 5 HEPA filtration: clean room air quality is achieved in the culture chamber within 5 minutes, filters air volume every 60 seconds
- Steri-Run™ high temperature sterilization: fully automatic 180°C cycle assures total, uniform sterilization of all chamber surfaces (12 log SAL)
- Intuitive, interactive iCAN™ Touchscreen interface provides complete data visibility to monitor all incubator interactions
- Choice of accurate and reliable CO₂ sensor technology: TC180 sensor is ideal for everyday cell culture applications, IR180Si infrared CO₂ sensor is ideal for the best of both technologies for advanced, high volume, or value culturing.

Specifications:

- CO₂ control .................... ±0.1%
- CO₂ range  ..................... 1 to 20%
- O₂ control ..................... ±0.1%
- O₂ range ....................... 1 to 21% or 5 to 90%
- Temperature control ........... ±0.1°C
- Temperature range ............. 3°C above ambient to 55°C
- Temperature uniformity ........ < ±0.3°C
- Power requirement ............ 120 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>51030284</td>
<td>51030284</td>
<td>TC CO₂ sensor</td>
<td>1/ea</td>
</tr>
<tr>
<td>51030408</td>
<td>51030408</td>
<td>Tri-gas with 1–21% O₂ control - TC CO₂ sensor - gas tight 3-segment inner door</td>
<td>1/ea</td>
</tr>
<tr>
<td>51030401</td>
<td>51030401</td>
<td>IR CO₂ sensor</td>
<td>1/ea</td>
</tr>
<tr>
<td>51030410</td>
<td>51030410</td>
<td>Tri-gas with 1–21% O₂ control - IR CO₂ sensor - gas tight 3-segment inner door</td>
<td>1/ea</td>
</tr>
<tr>
<td>51030411</td>
<td>51030411</td>
<td>Tri-gas with 5–90% O₂ control - IR CO₂ sensor - gas tight 3-segment inner door</td>
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<tr>
<td>51030285</td>
<td>51030285</td>
<td>TC CO₂ sensor</td>
<td>1/ea</td>
</tr>
<tr>
<td>51030403</td>
<td>51030403</td>
<td>Tri-gas with 1–21% O₂ control - TC CO₂ sensor - gas tight 3-segment inner door</td>
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<tr>
<td>51030400</td>
<td>51030400</td>
<td>IR CO₂ sensor</td>
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<td>51030405</td>
<td>51030405</td>
<td>Tri-gas with 1–21% O₂ control - IR CO₂ sensor - gas tight 3-segment inner door</td>
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<td>51030406</td>
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<td>Tri-gas with 5–90% O₂ control - IR CO₂ sensor - gas tight 3-segment inner door</td>
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<td>TC CO₂ sensor</td>
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<tr>
<td>51031048</td>
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<td>Tri-gas with 1–21% O₂ control - TC CO₂ sensor - gas tight 6-segment inner door</td>
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<td>51030991</td>
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<td>51030992</td>
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<td>51031160</td>
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<td>Tri-gas with 1–21% O₂ control - IR CO₂ sensor - gas tight 6-segment inner door</td>
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</table>
Thermo Scientific™ Heratherm™ Compact Incubator

THERMO FISHER SCIENTIFIC - The most compact unit of the Heratherm™ microbiological incubator family has an 18 L capacity, ideal for a personalized workspace.

- Minimal footprint for space restricted lab areas
- Temperatures at or below ambient
- High temperature accuracy
- Internal light facilitates sample observation
- Two stainless steel shelves

Specifications:
Temperature range ......................... 17°C to 50°C
Temperature uniformity .................. ±1.2°C (measured at 37°C)
Temperature stability ..................... ±0.2°C (measured at 37°C)
Power requirements ...................... 100–240 V, 50/60 Hz, 45 W, 0.45–0.85 A

Dimensions (W x H x D)
Chamber ............................ 7.1 x 12.2 x 11.4 in.
Exterior .............................. 10.2 x 16.3 x 18.5 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1790-54</td>
<td>50125590</td>
<td>0.65 cu. ft. (18 L) compact incubator</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Thermo Scientific™ Heratherm™
General Protocol Microbiological Incubators

THERMO FISHER SCIENTIFIC – This incubator is suited for routine applications in pharmaceutical, medical, food and research laboratories, with sample safety in mind. Gravity convection provides gentle airflow and minimal drying out.

- Corrosion-resistant, stainless steel chamber (1.4016 / AISI 430)
- Easy to clean rounded edges
- Stackable—No tools or kit required
- Large, easy to read vacuum fluorescent display
- Internal glass door allows sample viewing without impacting temperature

Specifications:
Temperature range ................. Ambient +5°C to 75°C
Temperature uniformity .......... ±0.6°C (measured at 37°C)
Temperature stability ............ ±0.2°C (measured at 37°C)

J1790-42 dimensions (D x W x H)
Chamber ............................ 16.3 x 13.9 x 20.0 in.
Exterior .............................. 22.2 x 20.9 x 28.3 in.

J1790-43 dimensions (D x W x H)
Chamber ............................ 16.3 x 18.3 x 23.9 in.
Exterior .............................. 22.2 x 25.2 x 32.3 in.

J1790-44 dimensions (D x W x H)
Chamber ............................ 23.2 x 18.3 x 27.9 in.
Exterior .............................. 29.1 x 25.2 x 36.2 in.

<table>
<thead>
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<th>Cat. No.</th>
<th>Mfr. No.</th>
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<th>Qty.</th>
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<tbody>
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<td>J1790-42</td>
<td>51028063</td>
<td>2.6 cu. ft. (60 L) incubator</td>
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<tr>
<td>J1790-43</td>
<td>51028064</td>
<td>4 cu. ft. (100 L) incubator</td>
<td>1/ea</td>
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<tr>
<td>J1790-44</td>
<td>51028065</td>
<td>6.3 cu. ft. (180 L) incubator</td>
<td>1/ea</td>
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<tr>
<td>51029321</td>
<td>51029321</td>
<td>14.3 cu. ft. (405 L) incubator - 120 V, 60 Hz, 720 W, 6 A</td>
<td>1/ea</td>
</tr>
<tr>
<td>51029333</td>
<td>51029333</td>
<td>26.4 cu. ft. (747 L) incubator - 120 V, 60 Hz, 1500 W, 12.5 A</td>
<td>1/ea</td>
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</tbody>
</table>
Thermo Scientific™ Heratherm™ Advanced Protocol Microbiological Incubators

THERMO FISHER SCIENTIFIC - Innovative dual convection technology with excellent temperature performance, providing an optimal, sample environment.

- Dual convection for application versatility—fan speed adjustable from 0% to 100%
- Advanced digital timer for daily or weekly ON/OFF cycles
- Internal socket for connection of electrical device such as shakers or stirrers inside unit
- Easy to clean rounded edges
- Stackable—no tools or kit required
- Corrosion-resistant, stainless steel interior (1.4301/AISI 304)
- Large, easy-to-view vacuum fluorescent display
- Internal glass door allows sample viewing without impacting temperature

Specifications:

Temperature range. . . . . . . . . 5°C above ambient to 105°C
Temperature uniformity . . . . ±0.2 °C (measured at 37°C)
Temperature stability . . . . ±0.1°C (measured at 37°C)

J1790-45 dimensions (W x H x D)
Chamber . . . . . . . . . . . . . . . . . . 13.9 x 20.0 x 16.3 in.
Exterior . . . . . . . . . . . . . . . . . . 20.9 x 28.3 x 22.2 in.

Cat. No.  Mfr. No.  Description  Qty.
J1790-45  S1028066  2.3 cu. ft. (66 L) incubator - 120 V, 60 Hz, 600 W, 5 A  1/ea
J1790-46  S1028067  3.67 cu. ft. (104 L) incubator - 120 V, 60 Hz, 840 W, 7 A  1/ea
J1790-47  S1028068  6.3 cu. ft. (178 L) incubator - 120 V, 60 Hz, 1,020 W, 8.5 A  1/ea

J1790-46 dimensions (W x H x D)
Chamber . . . . . . . . . . . . . . . . . . 18.3 x 23.9 x 16.3 in.
Exterior . . . . . . . . . . . . . . . . . . 25.2 x 32.3 x 22.2 in.

Thermo Scientific™ Heratherm™ Advanced Protocol Security Incubators

THERMO FISHER SCIENTIFIC - This incubator provides sample protection with all the features of the General and Advanced Protocol models plus:

- Certified 140°C decontamination cycle. At 140°C contaminating microorganisms are reduced to a minimum, comparable to sterilization, within a six hour cycle
- No need for separate autoclaving of interior fittings
- Certified by an accredited microbiological institute
- Lockable incubator door for restricted access
- Audible alarm if door is left open. Automatic over-and-under temperature alarm
- Stainless steel exterior available separately

Note: Access port replaces internal socket due to decontamination cycle

Specifications:

Temperature range. . . . . . . . . 5°C above ambient to 105°C
Temperature uniformity . . . . ±0.6°C; models J1790-48, J1790-49, J1790-50
Temperature uniformity . . . . ±0.2°C; model 51029323
Temperature stability . . . . ±0.1°C; models J1790-48, J1790-49, J1790-50
Temperature stability . . . . ±0.2°C; model 51029323

J1790-48 dimensions (W x H x D)
Chamber . . . . . . . . . . . . . . . . . . 13.9 x 20.0 x 16.3 in.
Exterior . . . . . . . . . . . . . . . . . . 20.9 x 28.3 x 22.2 in.

Cat. No.  Mfr. No.  Description  Qty.
J1790-48  S1028069  2.6 cu. ft. (60 L) incubator  1/ea
J1790-49  S1028070  4 cu. ft. (100 L) incubator  1/ea
J1790-50  S1028111  6.3 cu. ft. (180 L) incubator  1/ea
51029323  S1029323  13.45 cu. ft. (381 L) incubator - 120 V, 60 Hz, 1380 W, 11.5 A  1/ea

J1790-49 dimensions (W x H x D)
Chamber . . . . . . . . . . . . . . . . . . 18.3 x 23.9 x 16.3 in.
Exterior . . . . . . . . . . . . . . . . . . 25.2 x 32.3 x 22.2 in.

J1790-50 dimensions (D x W x H)
Chamber . . . . . . . . . . . . . . . . . . 21.4 x 18.3 x 27.9 in.
Exterior . . . . . . . . . . . . . . . . . . 29.1 x 25.2 x 36.2 in.

51029323 dimensions (D x W x H)
Chamber . . . . . . . . . . . . . . . . . . 20.6 x 21.4 x 52.6 in.
Exterior . . . . . . . . . . . . . . . . . . 30.3 x 30.6 x 60.8 in.
Microscopes and Accessories

Microscopes

Test Tube Agglutination Viewer

BD DIAGNOSTICS - Use for blood typing, cross matching, prothrombin time, Kahn and other agglutinations, flocculation and serodiagnostic tests. Viewer provides a magnified view of the undersurface of test tube contents and permits an easier and more accurate reading than a magnifying lens. Test tube contents are illuminated from above by a 5 W bulb and from below by a magnifying mirror.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>L6045-1A</td>
<td>420630</td>
<td>Test Tube Agglutination Viewer</td>
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<tr>
<td>L6045-5AA</td>
<td>421484</td>
<td>Replacement bulb</td>
<td>2/pk</td>
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</tbody>
</table>

Cordless Medical and Research Microscope

C & A SCIENTIFIC - These research microscopes offer the same optics as our larger professional scopes with ball bearing movements in focusing and stage systems to ensure long life, reliability and accuracy. Complete with standard popular accessories. Contemporary body design includes space-saving, rear-facing objectives and low-position mechanical stage controls providing more comfort for the user.

Features:
- 30° inclined binocular Seidentopf style head, rotatable 360°
- Pair of 10X widefield eyepieces
- 4 DIN objectives: 4X (N.A. 0.10), 10X (N.A. 0.25), 40X (N.A. 0.65), 100XR (oil immersion, N.A. 1.25)
- Magnifications: 40X to 1000X
- 4½ x 5 in. (130 x 125 mm) mechanical stage with coaxial drive/rack and pinion adjustment, low knob position
- Abbe condenser NA 1.25
- Iris diaphragm with filter holder including blue filter
- Coaxial coarse and fine focusing
- International voltage, 100–240 V
- Spare bulb, immersion oil, vinyl dust cover, blue filter
- Size: 6½ x 8¼ x 15 in. H; net weight: 10½ lbs.
- Variable intensity 4.5 V LED cool illumination system
- Built in rechargeable battery with detachable AC power cord
- CE certified

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
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<td>MRP-3001</td>
<td>MRP-3001</td>
<td>Professional LED microscope</td>
<td>1/ea</td>
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</tbody>
</table>

Professional MRP-3001 Binocular Microscope

C & A SCIENTIFIC - The professional binocular microscope incorporates all the best features of a quality laboratory instrument. Providing quality images with a higher resolution ratio and a wide, clear range. The LED illuminator reduces eye-strain and the large mechanical stage with low-position controls provide more comfort for the user over extended use. A durable and reliable microscope.

Features:
- 30° inclined binocular Seidentopf style head, rotatable 360°
- Pair of 10X widefield eyepieces, interpupillary distance adjustable 55–75 mm, ±5° diopter control
- 4 DIN achromatic parfocal and parcentered objectives: 4X (N.A. 0.10), 10X (N.A. 0.25), 40XR (N.A. 0.65), 100XR (oil immersion N.A. 1.25)
- Magnifications: 40X to 1000X
- 140 x 132 mm mechanical stage (range of travel 77 x 50 mm) with coaxial drive, low knob position
- Abbe condenser NA 1.25 and Iris diaphragm with filter holder including blue, yellow and green filters
- Coaxial coarse and fine focusing
- Variable intensity 6 V 500MA LED bulb
- Wide range voltage for international markets, 100–240 V
- Detachable UL approved power cord
- Immersion oil, vinyl dust cover, color filters
- Net weight: 11 lbs.
- CE certified

<table>
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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tbody>
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<td>MRJ-03L</td>
<td>MRJ-03L</td>
<td>Cordless Research Microscope</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with LED light system</td>
<td></td>
</tr>
</tbody>
</table>
BK-Series Microscopes
JENCO INTL - Infinity planachromatic optics provide outstanding flatness, clarity, contrast and superb image resolution.

Easy to use - Jenco simplified set up
- Installed and centered objectives, condenser
- 3 quick steps: place head on frame, eye pieces in head, power cord – done

Easy to choose - Infinity design allows multiple techniques to work on one frame. Attach modular kits or order complete with:
- Fluorescence – clinical for AFB test, fluorescent filters
- Polarization – urinalysis, identify crystals with first class red compensator components
- Phase contrast – bacteria more visible, added contrast and depth
- Education – features protect and minimize damage or loss of parts

Specifications:
Optical body ................... Inclined 30°, rotates 360°; 55–75 mm interpupillary adjustment
Eyepieces ...................... Wide field 10X eye pieces, FN 22
Focus mechanism .............. Coaxial coarse and fine adjustments
Illumination  ................... Koehler, LED or 20 W, 6 V halogen bulb with electronic dimmer
Power requirements: ........... AC 110–240 V, 50/60 Hz
Dimensions (L x W x H) ......... 12 x 8 x 15 in.
Weight .......................... 20 lbs.

Standard: 10X eye pieces FN22; Infinity Plan bright field objectives: 4, 10, 40 and 100X; phase contrast 10, 20, 40 and 100X; power cord, dust cover, immersion oil, blue filters spare lamp, fuse; phase telescoping eyepiece, green filter phase; anti-microbial treatment on frame and head

Cat. No. Mfr. No. Description Qty.
BK-211 BK-211  Binocular - Bright Field 1/ea
BK-221 BK-221  Binocular - Phase Contrast 1/ea
BK-2EF BK-2EF  Binocular - Fluorescence 1/ea
BK-2PL BK-2PL  Binocular - Bright Field with polarization for clinical use 1/ea

Objective lenses

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP-050</td>
<td>OP-050</td>
<td>50XR (oil)</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

CK Series Microscope
JENCO INTL - Striking design combines exceptional Infinity E-plan achromat optics with durability and ease of use for routine tasks like wet preps, gram stains, counting.

Ease of use
- Quick focus - stage lock built in, raise stage to stop, view specimen, fine focus
- Load slides fast – inward facing objectives
- Slide holder, gentle spring loaded, capacity 2
- Enhance contrast with iris diaphragm
- Portable - handle integrated, easy to carry

Durability
- 5-year warranty – robust frame yet light at 14.3 lbs.
- All glass components stay bright, last over time

Specifications:
Head ............... 30° inclination, 360° rotation. Seidentopf with 50 to 75mm interpupillary adjustment
Eyepieces ....... 10X wide-field, field no. 20 mm
Turret .......... Reversed, four position ball-bearing
Stage .......... Mechanical, vernier scale, 5.6 x 5.5 in.
Condenser ........ 1.25 N.A. Abbe with iris diaphragm and markings that correspond to objectives
Illumination ... 20 W halogen or LED (rechargeable option) with dimmer

Cat. No. Mfr. No. Description Qty.
CK-102 CK-102  Binocular microscope 1/ea
Microscopes and Accessories

Microscopes

DG6 Economy Stereo Microscope
JENCO INTL - Works like a 3-D TV, use Greenough design, both eyes to enable a three-dimensional stereo effect.

Ideal image reproduction
• Adds depth to a crisp, clear and flat image
• Superior optics = vivid details, wide field of view at 29 mm
• Continuous zoom 7X–45X; 6.3:1 zoom ratio

Easy to use
• Large flat stage - ample room to manipulate sample, 100 mm working distance
• LED illumination - three directions
• Parfocal - stays in focus

Reliable and durable
• Solid metal mechanisms endure high usage
• Five-year warranty

Specifications:
Power requirements: Input 110/220 VAC
Dimensions (W x D x H) 11 x 8 x 13 in., base height 1.5 in.
Weight 13 lbs.

Cat. No. Mfr. No. Description Qty.
DG6-2L DG6-2L Economy binocular stereo microscope - includes: 10X eye pieces, optical body, dust cover, power cord and manual, head inclined 45°, diopter adjustable 1/ea

I4: 4 Objective Infinity Microscopes
LW SCIENTIFIC - The i4 modular series microscopes feature exceptional optical quality and expandability for top-notch performance in the lab. Use the rotating head to adjust the height for taller users. Infinity Plan or Semi-Plan optics with a 30-year antifungal coating match quality with value within any clinic or laboratory budget. The i4 microscope provides durability, dependability and superior imaging in the laboratory. LED illumination. 4X, 10X, 40X, and 100X (oil) objectives.

Specifications:
Head Inclined 30°, rotates 360°
Eyepiece 10X/18X wide-field eyepieces
Objectives Infinity Semi-Plan or Plan objectives 4X, 10X, 40XR, 100XR (oil)

Illumination Variable LED "daylight" long-life light source
Power requirements 100–240 V, 50/60Hz
Dimensions (H x L x W) 14.1 x 10.7 x 6.1 in.

Cat. No. Mfr. No. Description Qty.
M8000-81 I4M-BN4A-IPL3 Binocular head - Infinity Plan objectives, LED 1/ea
M8000-78 I4M-BN4A-ISL3 Binocular head - Infinity Semi-Plan objectives, LED 1/ea
M8000-80 I4M-TN4A-IPL3 Trinocular head - Infinity Plan objectives, LED 1/ea
M8000-79 I4M-TN4A-ISL3 Trinocular head - Infinity Semi-Plan objectives, LED 1/ea

Innovation Biological Microscope
LW SCIENTIFIC - The Innovation microscope is equipped with powerful performance, crisp clarity, and rugged construction backed by a lifetime warranty on optical and mechanical components.

Developed with high-contrast Infinity Plan objectives, the Innovation microscope produces sharp, crisp, flat-field images across the entire field of view. The 4-objective model features 4X, 10X, 40X and 100X (oil) – and the 5-objective model features 4X, 10X, 20X, 40X and 100X (oil). The reverse nosepiece allows for greater access to slides for quick changes. The bright, white, uniform LED illumination maintains constant daylight-color, showing stained specimens in their true vibrant colors. With variable intensity, it is more than bright enough for routine brightfield microscopy and also well suited for applications such as phase contrast and darkfield. The LED bulb lasts approximately 50,000 hours.

The Innovation microscope with BioVIEW camera and monitor is the essential tool for live presentations and client education. The premium BioVID HD1080+ camera paired with the 1080p 11.6 in. HD Monitor provides a bright and beautiful image, and software is included. This is a complete video system – all included with only 1 part number.

Specifications:
Head Inclined 30°, rotates 360°
Eyepiece 10X/22 super wide-field HP eyepieces
Objectives 4X, 10X, 40XR and 100XR (oil)

Illumination Variable LED light source
Dimensions (H x L x W) 16 x 15 x 8.5 in.

Cat. No. Mfr. No. Description Qty.
NMB04AIPL3 INM-B04A-IPL3 Binocular – Infinity Plan, 4 objectives, LED 1/ea
NMB05AIPL3 INM-B05A-IPL3 Binocular – Infinity Plan, 5 objectives, LED 1/ea
NMT04AIPL3 INM-T04A-IPL3 Trinocular – Infinity Plan, 4 objectives, LED 1/ea
NMT05AIPL3 INM-T05A-IPL3 Trinocular – Infinity Plan, 5 objectives, LED 1/ea
NST4BV IPL3 INS-T4BV-IPL3 Trinocular, 4 objectives, LED, with BioVIEW camera and monitor 1/ea

To order, call: 800.964.5227
Revelation III Microscopes
LW SCIENTIFIC INC - The Revelation III is a professional-grade economically-priced clinical microscope. It comes with LED illumination for daylight color, low heat, low power consumption, and super-long bulb life (30,000 hours). Equipped for performance, it features DIN achromatic or DIN Plan optics and a 30-year anti-fungal coating. They also feature coarse adjustment with a range of 30 mm and fine adjustment with a graduation of 2μ. The Dual-Binocular model allows two users to look in at the same time (front/back orientation) for collaboration and training.

Specifications:
- Head: Inclined 30°, rotates 360°
- Eyepiece: 10X/18X wide-field eyepieces
- Objectives: DIN Achro 4X, 10X, 40X, 100XR (oil)
- Illumination: Variable LED light source
- Power requirements: 90–240 V, 50/60Hz
- Dimensions (H x L x W): 15 x 9 x 7 in.

<table>
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<tr>
<th>Cat. No.</th>
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<tr>
<td>RMBN4ADAL3</td>
<td>R3M-BN4A-DAL3</td>
<td>Binocular head - DIN achromatic objectives, LED</td>
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<tr>
<td>M8000-112</td>
<td>R3M-BN4A-DPL3</td>
<td>Binocular head - DIN Plan objectives, LED</td>
<td>1/ea</td>
</tr>
<tr>
<td>M8000-17</td>
<td>R3M-DN4A-DAL3</td>
<td>Dual-Binocular head – DIN Achromatic objectives, LED</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

BioVIEW Camera and Monitor
LW SCIENTIFIC - The BioVIEW microscope camera and monitor is the essential tool for live presentations and client education. The premium BioVID HD1080+ camera paired with the 1080p 11.6 in. HD Monitor provides a bright and beautiful image. Simply mount the camera onto any trinocular c-mount for amazing resolution and fast-action video (60 fps). Using the included mouse and SD card, click to save and view images and videos...even view side-by-side comparisons.

Specifications:
- Monitor: Panasonic super TFT LCD display
- Display resolution: True 1080p resolution
- Display viewing area: 11.6 in., LED backlight with 50,000 hours
- Camera resolution: 1920 x 1080
- Memory card: 8GB SD card
- HDMI/USB interface: Yes
- Power supply: 100–240 V, 50/60 Hz, DC output: 12 V, 1 A
- Dimensions (H x L x W): 3.6 x 2.8 x 3.1 in.

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<thead>
<tr>
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<th>Qty.</th>
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<tbody>
<tr>
<td>VC1080TVK3</td>
<td>BVC-1080-TVK3</td>
<td>BioVIEW camera and monitor</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

BioVID HD 1080+ Microscope Camera
LW SCIENTIFIC - The BioVID HD 1080+ microscope camera connects to any trinocular microscope via C-mount threading and plug the HDMI cable into any large screen HDTV for amazing resolution and fast-action video (60 fps). Use the included USB cable and advanced imaging software to save and edit images and videos on your computer. Or save images and videos to the included SD card for portability and future use. The BioVID HD 1080+ has 1920 x 1080 resolution, increased sensitivity, low-noise and great color rendition – creating stunning, high-resolution images with smooth live-image display.

Specifications:
- Resolution: 1920 x 1080
- Memory card: 8GB SD card
- USB interface: Yes, includes advanced software
- Power supply: 100–240 V, 50/60 Hz, DC Output: 12 V, 1 A
- Dimensions (H x L x W): 3.6 x 2.8 x 3.1 in.

<table>
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<th>Cat. No.</th>
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<th>Description</th>
<th>Qty.</th>
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<tr>
<td>VC1080CMT3</td>
<td>BVC-1080-CMT3</td>
<td>BioVID HD 1080+ microscope camera only</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Microscopes and Accessories

Microscopes

MiniVID USB Cameras
LW SCIENTIFIC - The MiniVID USB is our best-selling camera series for microscopy. Choose from a 5.1 MP USB 2.0 model, or the faster 6.3 MP USB 3.0 model. It can be mounted to nearly any brand or type of microscope, either into the eye-tube of a binocular microscope, or thread-mounted onto any trinocular c-mount. Optical eyetube adapter included.

Economy model - MiniVID 5.1 MP USB 2.0 works on any MAC or PC computer with USB 2.0 port

Specifications (MiniVID 5.1 MP):
- Sensitivity ........... 1.2 lux sensitivity; 2.0 USB for “LIVE” streaming
- Image sensor ........ Color CMOS chip - 5.1 MP
- Resolution .......... 2592 x 1944 pixels, 2.2 um pixel size
- Interface .......... USB 2.0
- Frame rate ........... 5 fps @2592 x 1944, 18 fps @1280 x 960, 60 fps @640 x 480
- Software .......... ToupView micro-image analysis software, save digital images and videos

Highest quality for professional use - MiniVID 6.3 MP USB 3.0 has a very fast frame rate for fast-action digital video. Works on any MAC or PC computer with USB 3.0 port.

Specifications (MiniVID 6.3 MP):
- Sensor .............. Sony sensor; 3.0 USB for super-fast “LIVE” streaming
- Image sensor ........ Color Sony CMOS chip - 6.3 MP
- Resolution .......... 3072 x 2048, 2.4 um pixel size
- Interface .......... USB 3.0
- Frame rate ........... 30 fps @ 3072 x 2048, 38 fps @ 1536 x 1024
- Software .......... ToupView micro-image analysis software, save digital images and videos

Cat. No. Mfr. No. Description Qty.
VCUSMPETM  MVC-USMP-EMTN 5.1 MP USB 2.0 digital eyepiece/c-mount camera with software 1/ea
VCUSMPUSB3 MVC-U6MP-USB3 6.3 MP USB 3.0 super-fast camera with Sony sensor and software 1/ea

50X Infinity Oil Objective
LW SCIENTIFIC - The 50X Infinity Plan oil objective is the highest resolution objective available, and can be added to nearly any brand of microscope that has standard-size infinity objectives. Plan means a 100% flat field of view, and oil immersion eliminates refraction for the highest clarity for cytology samples. This is a popular add-on objective for the i4 and Innovation microscopes.

Cat. No. Mfr. No. Description Qty.
40050XIPOL I4O-050X-IPOL 50X Infinity Plan oil objective, RMS threading 1/ea

MiniVID WiFi Camera
LW SCIENTIFIC - The MiniVID WiFi 5 MP Camera is an incredible addition to our camera line. It can be mounted to nearly any brand or type of microscope with trinocular c-mount or inserted into one eyetube of a binocular head using the optional eyetube adapter. Connect to any iOS device (iPhone/iPad) or Android phone/tablet through the “UCAM Plus” app. Additionally, the MiniVID WiFi can be utilized with the included software for all PCs. The MiniVID WiFi has many different applications, but is best suited for teaching, training, and educating clients and students.

- Take the microscope image to the client, not the client to the microscope
- Best of both: High resolution and fast frame rates
- Stream live images to multiple devices at the same time

Specifications:
- Image sensor ........... ½ in. color CMOS 5 MP
- Interface .............. USB 2.0 to PC or WiFi to hand-held phone or tablet
- Frame rate .............. USB mode - 40 fps @ 640 x 480, 15 fps @ 2592 x 1944
- WiFi mode - 30 fps @ 640 x 480, 5 fps @ 2592 x 1944
- Software .......... Micro-capture full function for images and video
- Mounting .......... Trinocular c-mount

Cat. No. Mfr. No. Description Qty.
MVCUSMPWIF MVC-USMP-WIFI MiniVID WiFi Camera 1/ea

Simple Polarizer Microscope Adaptor
LW SCIENTIFIC - Add another level of usability to your i4 microscope with the simple polarizer attachment. This adapter makes urine crystals easier to see and identify. This adapter is NOT suitable for rheumatology applications.

Cat. No. Mfr. No. Description Qty.
14PPOL7777 I4P-POL7-7777 Simple Polarizer Microscope Adaptor 1/ea

Microscopes and Accessories
Westlab III Binocular Microscope
SEILER - This binocular microscope is designed for general use in clinical laboratories. It features low-position, coaxial coarse and calibrated fine focus control. It has two 10X wide-field eyepieces with four semi-plan achromat objectives including 4X, 10X, 40X and 100X oil objective, all mounted on a ball-bearing inward quadruple click stop nosepiece. Automatic 100–240 V universal power supply, 6 V, 20 W halogen illumination and an optional live video feature. The microscope also comes with a dust cover, blue filter, immersion oil, spare bulb and instruction manual.

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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<tr>
<td>WLB814</td>
<td>WLB814</td>
<td>Binocular microscope</td>
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</tr>
</tbody>
</table>

G380-Series Microscopes
UNICO - These microscopes provide crisp, clear imaging on a versatile and ergonomic platform. They were designed with your viewing comfort in mind. The standard 10X high eye-point eyepieces are engineered to reduce eyestrain for users wearing glasses. Each eye tube features an independent focusing diopter adjustment to compensate for the natural vision differential between each eye. The base design adds stability to the body while allowing extra room for hand access to the oversized coarse and fine focus controls and the coaxial mechanical stage controls. The microscopes are available with monocular, binocular or dual-view heads. Binocular head features Seidentopf optical design with 52 to 75 mm interpupillary distance adjustment. All rotate 360° and lock in place with a thumbscrew. All optics feature anti-glare, color-correction and antifungal coatings.

Specifications:
Eyepiece ....................... 10X high-eyepoint widefield
Objectives ..................... 4X, 10X, 40XR and 100XR
Focusing ....................... Coaxial coarse and fine focus
Illumination ................... LED light source

<table>
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<tr>
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<td>G380</td>
<td>Binocular head</td>
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<tr>
<td>G380PL</td>
<td>G380PL</td>
<td>Binocular head with Plan objectives</td>
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<tr>
<td>G381</td>
<td>G381</td>
<td>Monocular head</td>
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<tr>
<td>G383PL</td>
<td>G383PL</td>
<td>Trinocular head with Plan objectives</td>
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</table>

ZM180-Series Zoom Stereo Microscope
UNICO - This microscope is ideal for a variety of industrial, medical, educational and special OEM applications. It features a binocular body and has a comfortable 45° inclination angle. The body may be rotated 360° for group sessions. Dual-diopter adjustment of five diopters enables precise setting to focus according to individuals’ needs. Total magnification range extends from 2.1 to 225X. Interpupillary adjustment range from 55 to 75 mm.

Specifications:
Eyepiece ....................... WF10X
Zoom range ..................... 0.7 to 4.5X
Illumination ................... Top halogen and bottom fluorescent
Objectives ..................... 1X

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<tbody>
<tr>
<td>ZM181HF</td>
<td>ZM181HF</td>
<td>Binocular head with PE-HF stand</td>
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<td>D4-2001</td>
<td>D4-2001</td>
<td>2X auxiliary lens</td>
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<tr>
<td>D4-2004</td>
<td>D4-2004</td>
<td>0.5X auxiliary lens</td>
<td>1/ea</td>
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</table>
Advanced™ 3250 Single-Sample Osmometer
ADVANCED INSTRUMENTS - The Advanced™ 3250 Single-Sample Osmometer utilizes the freezing-point method for an accurate determination of total concentration. It features a traditional liquid cooling bath design and offers a wide measurement range of 0 to 4,000 mOsm using a 250 µL sample size. It is ideally suited for routine osmolality testing in the clinical laboratory and also for research applications in pharmaceutical, academic and industrial laboratory settings.

Specifications:
Sample test volume ............. 250 µL
Typical testing time ............. 2-3 minutes
Resolution ..................... 1 mOsm/kg H2O
Dimensions (W x D x H) ......... 13 x 18 x 16 in.
Power requirements ............. 100–240 V, 50/60 Hz

Ranges
Low ................................ 0 to 2,000 mOsm/kg H2O
High ................................ 1,400 to 4,000 mOsm/kg H2O

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<td>N6025-30</td>
<td>3250</td>
<td>Advanced™ 3250 Single-Sample Osmometer</td>
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<td>N6025-11</td>
<td>3LA825</td>
<td>Disposable sample tubes</td>
<td>500/pk</td>
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<tr>
<td>N6024-15</td>
<td>3DA811</td>
<td>Heat transfer fluid - 150 mL bottle</td>
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<tr>
<td>N6024-9</td>
<td>FLA835</td>
<td>Thermal printer paper</td>
<td>5/pk</td>
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Fiske™ 210 Micro Sample Osmometer
ADVANCED INSTRUMENTS - The Fiske™ 210 freezing-point osmometer provides accurate osmolality results in less than 90 seconds requiring only a 20 µL sample. The fully accessible probe design is easy to clean and service. To use, pipette sample into a disposable sample tube and place the tube into the test chamber. Lower the probe into the sample and push the "test" button. Results are displayed in keypad window.

Specifications:
Sample test volume ............. 20 µL
Test time ....................... Less than 90 seconds
Resolution ..................... 1 mOsm/kg H2O
Range ............................ 0 to 2,000 mOsm/kg H2O
Dimensions (W x D x H) ......... 12 x 9½ x 12 in.
Power requirements ............. 100–240 V, 50/60 Hz

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<td>Fiske™ 210 Micro Sample Osmometer</td>
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<td>N6011-1</td>
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<td>Sample tubes and probe cleaners</td>
<td>250/pk</td>
</tr>
<tr>
<td>210555NA</td>
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<td>Thermal printer</td>
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<tr>
<td>N6024-26A</td>
<td>3D3835</td>
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</tr>
</tbody>
</table>

Osmo1™ Single-Sample Micro-Osmometer
ADVANCED INSTRUMENTS - Osmo1™ Single-Sample Micro-Osmometer is designed for laboratories who prefer to directly draw and test small sample volumes and are looking for an osmometer that offers ease-of-use, accurate and precise results, and the security and efficiency of electronic data management.

Specifications:
Sample test volume ............. 20 µL
Test time ....................... 90 seconds
Resolution ..................... 1 mOsm/kg H2O
Range ............................ 0 to 2,000 mOsm/kg H2O
Dimensions (W x D x H) ......... 14 x 15 x 10 in.
Power requirements ............. 100–240 V, 50/60 Hz

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<th>Qty.</th>
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<tbody>
<tr>
<td>N6024-4</td>
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<td>Osmo1™ Single-Sample Micro-Osmometer</td>
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<td>Osmo1™ Single Sample test kit</td>
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<tr>
<td>N6008-9</td>
<td>3M0825</td>
<td>Pipette 20 µL sampler</td>
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</tr>
<tr>
<td>N6024-20</td>
<td>3M0827</td>
<td>Pipette 20 µL calibration key</td>
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<tr>
<td>N6024-9</td>
<td>FLA835</td>
<td>Thermal printer paper</td>
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A2O Osmometer Supplies and Accessories
ADVANCED INSTRUMENTS

<table>
<thead>
<tr>
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<th>Mfr. No.</th>
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<td>A2O sample tubes</td>
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<tr>
<td>N200222</td>
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<td>A2O system fluid (bottle) - 1 x 500 mL</td>
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<td>N6024-9</td>
<td>FLA835</td>
<td>Thermal printer paper</td>
<td>5/pk</td>
</tr>
</tbody>
</table>

*New item replacement for 3320 Osmometer and 3MA800 Micro-sample test kit

To order, call: 800.964.5227
Osmometers

OsmoPRO® Multi-Sample Micro-Osmometer
ADVANCED INSTRUMENTS - OsmoPRO® features a convenient carousel design for easy loading of up to 20 samples and requires only a small 20 µL sample volume. Large 7 in. touchscreen display seamlessly integrated with intuitive and functional software control capabilities. OsmoPRO® is ideally suited for mid- to high-volume laboratories who need to free up resources for other testing needs. OsmoPRO® has the built-in flexibility, automation and ease-of-use that allows users to simply load samples and walk away while the testing is completed.

Specifications:
Sample test volume ..................... 20 µL
Test time ................................. 2 minutes
Resolution ................................. 1 mOsm/kg H₂O
Range .............................. 0 to 2,000 mOsm/kg H₂O
Dimensions (W x D x H) ............. 10 x 14.5 x 17.5 in.
Power requirements ............... 100–240 V, 50/60 Hz

<table>
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<th>Cat. No.</th>
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<tr>
<td>N6025-31</td>
<td>202840</td>
<td>Probe wiper rings</td>
<td>50/bx</td>
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<td>N6025-55</td>
<td>202850</td>
<td>Swab cleaner kit</td>
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<td>FLA835</td>
<td>Thermal printer paper</td>
<td>5/pk</td>
</tr>
</tbody>
</table>

Multi-OSMETTE™ Auto-Sampling Turntable Osmometer
PRECISION SYSTEMS - Laboratory model freezing point osmometer for multiple 30 µL samples. Use the freezing point depression method to provide a quick, accurate indication of total concentration. Automatic digital osmometers measure osmolality in mOsm/kg H₂O.

- High capacity 24-position turntable - fast 50–70 seconds per reading
- Self identifying, fully automatic calibration
- Flexible calibration using from 2 to 5 calibration points
- 0-2,000 mOsm/kg range, built-in ink based printer

Comes with instruction manual, printer paper, printer ribbon, sample carousel, evaporation shield, 30 µL sample tubes, 1 pk of CON-TROL 290 ampules and calibration standards of 100, 500, 1,500 and 2,000 mOsm/kg. Power: 115 V, 50/60 Hz. Multi-OSMETTE™ is shipped assembled and ready to use.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
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<td>PS2020</td>
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<td>Sample tube - 30 µL</td>
<td>1,000/pk</td>
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</table>

Calibration Standards, Reference Solutions and Controls
ADVANCED INSTRUMENTS - Strengthen your laboratory’s quality control program by using products made specifically for your osmometer.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<td>50 mOsm calibration standard, 10 x 2 mL</td>
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<td>N6025-18</td>
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<td>100 mOsm calibration standard, 10 x 5 mL</td>
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<td>N6025-21</td>
<td>3LA010</td>
<td>100 mOsm calibration standard, 110 mL</td>
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<td>N6025-60</td>
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<td>200 mOsm calibration standard, 10 x 2 mL</td>
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<td>N6025-61</td>
<td>3MA040</td>
<td>400 mOsm calibration standard, 10 x 2 mL</td>
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<tr>
<td>N6024-12</td>
<td>3LA051</td>
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<td>3LA151</td>
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<td>2,000 mOsm calibration standard, 10 x 5 mL</td>
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<td>Control Solutions</td>
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<tr>
<td>3MA028</td>
<td>3MA028</td>
<td>Protinol 3-level serum osmometer control kit, 3 x 3 x 3 mL</td>
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<tr>
<td>N6025-28</td>
<td>3LA085</td>
<td>Renol 2-level urine control kit, 2 x 4 x 3 mL</td>
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<td>3MA029</td>
<td>Clinitrol 290 reference solution, 10 x 2 mL</td>
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<td>N6025-8</td>
<td>3LA029</td>
<td>Clinitrol 290 reference solution, 10 x 5 mL</td>
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<td>Osmolality Linearity Set</td>
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<tr>
<td>3LA028</td>
<td>3LA028</td>
<td>Osmolality linearity set 100–2,000 mOsm, 10 x 5 mL</td>
<td>1/ea</td>
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</tbody>
</table>
Safety Cabinets and Fume Hoods

Labconco

Basic™ 47 Laboratory Hoods
LABCONCO - Basic™ Laboratory Hoods are designed specifically for laboratories, classrooms and light duty applications where safe ventilation is required. Constructed of powder-coated steel, Basic Hoods are economical and have a smaller overall height and depth than traditional hoods so they fit in areas with low ceilings or narrow aisles. Choose from 4-foot (Basic™ 47) and 6-foot (Basic™ 70) widths.
- By-pass airflow design
- Durable glacier white powder-coated 16-gauge steel exterior and interior resists chemical exposure
- Vertical-rising tempered safety glass sash
- Powder-coated steel 10.3 in. OD exhaust connection
Available with built-in blower or for use with remote blower.

Fiberglass 30 Laboratory Fume Hood
LABCONCO - Compact, benchtop Fiberglass 30 Laboratory Hoods are designed for research, educational and clinical applications requiring small working space and efficient fume removal. The fiberglass liner is corrosion-resistant, durable, fire-resistant and light reflective. The smooth one-piece molded liner construction offers fewer crevices for easy cleaning.
- Durable glacier white, powder-coated steel exterior
- One-piece molded fiberglass interior and pre-set baffle with flame spread index less than 25 per ASTM E-84
- Vertical-rising tempered safety glass sash
- 6.7 in. ID fiberglass exhaust connection
Available with built-in blower or for use with remote blower.

Paramount Ductless Enclosures
LABCONCO - Paramount Ductless Enclosures are self-contained work stations, also known as ductless fume hoods, that use carbon filters to rid the laboratory of annoying or unsafe concentrations of organic solvents, formaldehyde, acid gases, ammonia, or radioisotopes. Unlike traditional fume hoods, they require no ducting so they can be moved from lab to lab. Paramount Ductless Enclosures are capable of using both carbon and 99.99% efficient HEPA filters for removing gaseous and particulate contaminants. Filters used in the Paramount are sold separately and come in seven types: Ammonia-Amine, Acid-Sulfur, Organic Vapor, Formaldehyde-Formalin, Radioisotope, Mixed Bed and HEPA.
- Patented slotted rear baffle promotes horizontal laminar airflow to ensure vapors and fumes are drawn to the back of the enclosure without causing turbulence that could cause lack of containment
- Patented Clean-Sweep™ Air Foil
- Safety-First™ Vapor Sensor detects chemicals breaking through the filter ensuring operator protection is maintained
- Digital display of airflow and filter status, and touchpad control of enclosure operation
- Tempered safety glass front sash and sides
- Powder-coated aluminum frame

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>L5150-30</td>
<td>2247300</td>
<td>Laboratory hood with 1/3 HP blower - 115 V, 60 Hz</td>
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<tr>
<td>L5250-31</td>
<td>2247400</td>
<td>Laboratory hood without blower - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-14</td>
<td>4882803</td>
<td>Flat solid epoxy work surface - 48 x 30 x 1.25 in. (W x D x H)</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5501-40</td>
<td>3030000</td>
<td>Fume hood with 1/10 HP built-in blower, 30 x 30.2 x 48 in. - 115 V, 60 Hz</td>
<td>1/ea</td>
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<tr>
<td>F1307-30</td>
<td>4882806</td>
<td>30 x 30 x 1.25 in. flat solid epoxy work surface</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Safety Cabinets and Fume Hoods

Labconco

Protector Fiberglass Filtered Glove Box and Accessories
LABCONCO - Protector Filtered Glove Boxes provide inlet and outlet HEPA or ULPA filtration and a leak-tight physical barrier to protect the operator from exposure to potentially hazardous materials. These glove boxes feature particulate containment <20 nanograms per cubic meter as confirmed by Safebridge Consultants, Incorporated and also meet ISO Class 3 standards. Labconco HEPA Filtered Glove Boxes may be appropriate for use as containment isolators for applications that include compounds assigned OEB 4 and OEB 5 banding levels.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>L5218-249</td>
<td>5065010</td>
<td>Protector HEPA-Filtered Glove Box with fiberglass liner 115 V</td>
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Hands and sleeves for Protector® glove box

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
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</thead>
<tbody>
<tr>
<td>L5281-34</td>
<td>5033100</td>
<td>Neoprene hand, size 10</td>
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<tr>
<td>L5287-15</td>
<td>5005900</td>
<td>Neoprene accordion sleeves</td>
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<tr>
<td>L5281-27</td>
<td>5005800</td>
<td>Neoprene straight sleeves</td>
<td>2/pk</td>
</tr>
</tbody>
</table>

Protector Airo™ Filtered Fume Hoods
LABCONCO - The Protector Airo™ Filtered Fume Hood* delivers uncompromising safety to confined laboratory spaces. Combining Labconco’s patented fully-featured, containment-enhancing Protector® Hood design with Erlab’s GreenFumeHood® (GFH) Filtration Technology to deliver a multi-use fume hood that requires no ducting. The Protector Airo™ uses Neutrodine® Filters, the most comprehensive, safety-driven carbon filter available. This single molecular filter type can easily adsorb most chemicals and mixtures, taking the guesswork out of filter selection. Neutrodine Filters are required for operation and sold separately.

- Glacier white powder-coated steel exterior
- Single piece, tempered safety glass vertical-rising sash with cable and pulley, sash weight and powder-coated aluminum sash handle and tracks with Clean-Sweep™ airflow openings. Sash stop at 16 in. sash opening height. Sash opens to 26 in. high for loading.
- Built-in exhaust fan(s) to maintain 60 fpm face velocity at 16 in. sash opening height
- Audible/visual alarms for breakthrough detection, temperature ≥40°C (104°F), fan failure and high sash position opening. At ≥60°C (140°F), all fans stop.

Work surface, filters and supporting base required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>184300000</td>
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<td>No service fixtures - 115 V, 50/60 Hz</td>
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<tr>
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<td>2 service fixtures - 115 V, 50/60 Hz</td>
<td>1/ea</td>
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<td>184300002</td>
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<td>2 service fixtures + 1 GFCI duplex receptacle - 115 V, 50/60 Hz</td>
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<tr>
<td>184300003</td>
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<tr>
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<td>184410003</td>
<td>No service fixtures + 1 GFCI duplex receptacle - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

*Available only in the Americas.
Safety Cabinets and Fume Hoods

Labconco

Protector Pass-Through Laboratory Hood
LABCONCO - Protector Pass-Through Laboratory Hoods offer sashes on two sides allowing operation on either side of the fume hood. An audible alarm sounds to prevent simultaneous opening of both sashes. With unobstructed visibility from either side, this hood is ideal for conducting chemistry demonstrations. An optional right-side or left-side viewing window further enhances visibility. These hoods may also be installed in the wall between two rooms for sample preparation.

- By-pass airflow design and by-pass blocks, one for each sash
- Glacier white powder-coated steel and aluminum exterior
- Powder-coated steel Eco-Foil™ air foil with Clean-Sweep™ airflow openings.
- Powder-coated aluminum sash handle with Clean-Sweep™ openings and Clean-Sweep™ slots on the powder-coated steel sash tracks
- Two tempered safety glass vertical-rising sashes with cable pulleys and sash stops mounted at 25 in. (63.5 cm) opening height
- Audible alarm that sounds when both sashes are open at the same time
- Side window models feature right or left side-mounted tempered safety glass window, 14.9 x 23.9 in. (37.8 x 60.7 cm)

Work surface, supporting base and remote blower required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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<td>4 ft. model</td>
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<tr>
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<td>Left side window - 2 service fixtures + 1 GFCI duplex receptacle - 115 V, 50/60 Hz</td>
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<tr>
<td>113408000</td>
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<tr>
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<td>Left side window - no service fixtures - 115 V, 50/60 Hz</td>
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</tr>
<tr>
<td>113607002</td>
<td>113607002</td>
<td>Left side window - 2 service fixtures + 1 GFCI duplex receptacle - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>113608000</td>
<td>113608000</td>
<td>Right side window - no service fixtures - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Protector Premier Laboratory Hoods
LABCONCO - Protector Premier Laboratory Hoods incorporate a sleek interior with a molded one-piece fiberglass liner. The one-piece liner of specially-formulated, fiberglass-reinforced polyester offers corrosion and fire resistance and easy clean up. Without seams, the interior has fewer points of deterioration for longer life.

These hoods are suitable for providing personal protection needed for general chemistry applications involving fumes and vapors. They meet the SEFA-1 standard of a low velocity, high performance hood and may be safely operated as low as 60 fpm. Choose from hoods designed to be used with a remotely-located blower or hoods that include a built-in blower.

Eco-Foil™ Air Foil reduces energy consumption by 7–10% compared to flat air foils while its aerodynamic curve allows air to sweep the work surface for maximum containment. Clean-Sweep™ openings pull inflow air from under the air foil forcing air into non-turbulent air streams.

- Glacier white powder-coated steel exterior is durable and corrosion-resistant
- One-piece molded fiberglass liner and pre-set baffle(s) with flame spread less than 25 per ASTM E84
- Tempered safety glass vertical-rising sash with powder-coated sash handle and Clean-Sweep™ openings

Work surface, supporting base and remote blower required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>100400000</td>
<td>100400000</td>
<td>4 ft. hood with no service fixtures - remote blower required - 100–115 V, 50/60 Hz, 48 x 31.7 x 59 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>100600000</td>
<td>100600000</td>
<td>6 ft. hood with no service fixtures - remote blower required - 100–115 V, 50/60 Hz, 72 x 31.7 x 59 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Protector® Storage Cabinets
LABCONCO - Base cabinets provide support for the full line of benchtop Labconco fume hoods and other enclosures and may be mixed or matched so that total width equals the width of the hood. Work surface is required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5301-46</td>
<td>9901500</td>
<td>24 in. wide - single door, left hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-45</td>
<td>9901300</td>
<td>24 in. wide - single door, right hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-9</td>
<td>9901200</td>
<td>30 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-7</td>
<td>9901100</td>
<td>36 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-8</td>
<td>9901000</td>
<td>48 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Acid storage cabinet
<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5301-48</td>
<td>9902400</td>
<td>24 in. wide - single door, left hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-47</td>
<td>9902300</td>
<td>24 in. wide - single door, right hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-50</td>
<td>9903400</td>
<td>24 in. wide - single door, left hinge, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-49</td>
<td>9903300</td>
<td>24 in. wide - single door, right hinge, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-6</td>
<td>9902200</td>
<td>30 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-51</td>
<td>9903200</td>
<td>30 in. wide - dual doors, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-4</td>
<td>9902100</td>
<td>36 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-52</td>
<td>9903100</td>
<td>36 in. wide - dual doors, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-5</td>
<td>9902000</td>
<td>48 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-53</td>
<td>9903000</td>
<td>48 in. wide - dual doors, self-closing</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Solvent storage cabinet
<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5301-48</td>
<td>9902400</td>
<td>24 in. wide - single door, left hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-47</td>
<td>9902300</td>
<td>24 in. wide - single door, right hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-50</td>
<td>9903400</td>
<td>24 in. wide - single door, left hinge, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-49</td>
<td>9903300</td>
<td>24 in. wide - single door, right hinge, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-6</td>
<td>9902200</td>
<td>30 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-51</td>
<td>9903200</td>
<td>30 in. wide - dual doors, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-4</td>
<td>9902100</td>
<td>36 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-52</td>
<td>9903100</td>
<td>36 in. wide - dual doors, self-closing</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-5</td>
<td>9902000</td>
<td>48 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-53</td>
<td>9903000</td>
<td>48 in. wide - dual doors, self-closing</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Standard storage cabinet
<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5301-42</td>
<td>9900600</td>
<td>24 in. wide - single door, left hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-41</td>
<td>9900300</td>
<td>24 in. wide - single door, right hinge, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-3</td>
<td>9900200</td>
<td>30 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-1</td>
<td>9900100</td>
<td>36 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5301-2</td>
<td>9900000</td>
<td>48 in. wide - dual doors, manual close</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Safety Cabinets and Fume Hoods

Labconco

Protector® Work Stations

LABCONCO - Protector® Work Stations are specifically designed for the needs of pathologists and histotechnologists. These enclosures have a front air foil and rear baffle to direct the inflow air across the work area and away from the operator. Protector® Work Stations have a low profile so they fit easily under standard upper cabinets.

Protector® Work Stations are available with or without a built-in blower. If there is no feasible way to vent to the outside, models with a built-in blower are available that use specially-treated carbon filters. These filter packs keep low level concentrations of toluene, xylene, formalin, formaldehyde and other solvents below their OSHA-recommended, time-weighted averages, restoring clean air to the laboratory. Filters are sold separately.

- Powder-coated aluminum frame and steel rear plenum
- ¼ in. thick tempered safety glass front sash and sides
- 8 in. high sash opening
- Ergonomic 20° angled and hinged sash with wiping seals and spring-loaded latch that pivots upward and locks to a 19 in. height
- Fluorescent lighting

Work surface and supporting base required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3930-000</td>
<td>3930000</td>
<td>Work station with built-in blower - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>L3930-001</td>
<td>3930001</td>
<td>Work station for use with remote blower (required, not included) - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Purifier HEPA-Filtered Enclosure with Airflow Monitor

LABCONCO - Purifier HEPA Filtered Enclosures protect the user from hazardous chemical powders, dust, and allergens in diverse applications ranging from screening suspicious mail to blending dry chemicals. Exclusive features include ergonomic air foil with aerodynamic Clean-Sweep™ airflow openings; upper dilution air supply; zone-perforated rear baffle; side-entry air foils; and upper containment sash foil. Other features include 99.99% efficient exhaust HEPA filter; variable speed built-in blower with vibration-isolated impeller and solid state control rated for 2 amps; intrinsically-safe, negative pressure design; Minihelic pressure gauge; low discharge volume and quiet operation.

Powder-coated aluminum and steel construction; fluorescent lamp; switches for blower and light. Tempered safety glass ¼ in. thick, front sash and sides; 9.4 in. high sash opening; ergonomic 10° angled and hinged sash that pivots upward, locks to a loading height of 20 in. and has side wiping seals to contain contaminants. Two utility ports; particulate containment tested; and one-year warranty on parts and labor.

Optional Guardian Airflow Monitor continuously monitors airflow and has two LED lights to indicate when airflow is within or outside set point range. The green LED glows when airflow is within set point range. The red LED glows and an audible alarm sounds when airflow is outside set point range.

Work surface and supporting base required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5279-47</td>
<td>3980302</td>
<td>3 ft. HEPA-filtered - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>L5279-49</td>
<td>3980402</td>
<td>4 ft. HEPA-filtered - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Purifier® Horizontal Clean Benches

LABCONCO - Purifier® Horizontal Clean Benches direct HEPA-filtered air horizontally over the work area to provide ISO Class 5 conditions and protect your work from particulate contamination. Applications for clean benches include plant tissue culture, media plate preparation, electronics inspection, medical device assembly and nonhazardous drug preparation. Because they do not provide protection to the user, they should not be used in conjunction with biohazardous material, toxins or radionuclides. Optional 254 nm UV light with screen for secondary decontamination while the bench is not in use. Glacier white powder-coated steel exterior. ¼ in. thick tempered safety glass side panels with utility ports and integrated Type 304 brushed stainless steel work surface. Includes differential pressure gauge that displays the pressure across the HEPA filter. Purifier Horizontal Clean Benches are available in 3, 4, 5, 6 and 8 ft. widths. Supporting base is required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3888400</td>
<td>3888400</td>
<td>4 ft. horizontal bench with 21 in. interior depth - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>3888420</td>
<td>3888420</td>
<td>4 ft. horizontal bench with 21 in. interior depth and UV light - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Purifier® Non-Ventilated PCR Enclosure**

LABCONCO - Purifier® Non-Ventilated PCR Enclosures provide an enclosed non-ventilated work space for conducting polymerase chain reaction procedures. These enclosures include a UV light with timer so that interior surfaces may be decontaminated and trace DNA denatured during periods of non-use. The user may select from eight time settings. The UV light automatically shuts off when time expires, signaling the enclosure is ready for the next experiment. Because these enclosures do not provide protection to the user; they should not be used in conjunction with biohazardous material, toxins or radionuclides.

- UV-resistant, glacier white and gray, powder-coated aluminum and steel construction
- UV-opaque and resistant, ¼ in. thick tempered safety glass sash and sides
- 7.8 in. high sash opening
- Ergonomic 20° angled and hinged sash that pivots upward, locks to a loading height of 20 in. and has wiping seals to reduce cross contamination
- Protection panel with UV light interlock to close the sash opening
- Fluorescent lamp
- Variable digital timer for UV exposure with eight settings in minutes of 5, 10, 15, 30, 60, 120, 240 and continuous

Work surface and supporting base required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3952-400</td>
<td>3952400</td>
<td>PCR enclosure - 115 V, 60 Hz, 10 A</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

---

**Purifier® Class I Safety Enclosure**

LABCONCO - Purifier® Class I Safety Enclosures protect the user from agents that require Biosafety Level 1, 2 or 3 containment but no product protection.

- Ergonomic air foil with aerodynamic Clean-Sweep™ airflow openings; upper dilution air supply; zone-perforated rear baffle; side-entry air foils; and upper containment sash foil.
- 99.99% efficient exhaust HEPA filter
- Variable speed built-in blower with vibration-isolated impeller and solid-state control rated for 5 amps
- Powder-coated aluminum and steel construction
- Fluorescent and 254 nm UV lamps
- UV protection panel interlocked with UV lamp
- Variable digital timer for UV exposure with 8 settings in minutes of 5, 10, 15, 30, 60, 120 and 240
- ¼ in. thick tempered safety glass front sash and sides
- 9.4 in. high sash opening
- Ergonomic 10° angled and hinged sash that pivots upward, locks to a loading height of 20 in. and has side wiping seals to contain contaminants

Optional Guardian Airflow Monitor continuously monitors airflow and has two LED lights to indicate when airflow is within or outside set point range. The green LED glows when airflow is within set point range. The red LED glows and an audible alarm sounds when airflow is outside set point range.

Work surface and supporting base are required (not included).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F20002</td>
<td>3980201</td>
<td>2 ft. safety enclosure - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>F20003</td>
<td>3980203</td>
<td>2 ft. safety enclosure with airflow monitor - 115 V, 50/60 Hz</td>
<td>1/ea</td>
</tr>
<tr>
<td>F30003</td>
<td>3980303</td>
<td>3 ft. safety enclosure with airflow monitor - 115V , 50/60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

cardinalhealth.com
Safety Cabinets/Fume Hoods

**Purifier® Logic®+ Class II A2 Biosafety Cabinets**

LABCONCO - Purifier® Logic®+ Class II A2 Biosafety Cabinets provide personnel, product and environmental protection from hazardous particulates such as agents that require Biosafety Level 1, 2 or 3 containment. All models are NSF-Listed. These biological safety cabinets are designed to discharge HEPA-filtered exhaust air directly into the laboratory, or into an exhaust system through the optional canopy connection. When canopy-connected, the biosafety cabinets may be used for applications involving minute quantities of volatile toxic chemicals and tracer amounts of radionuclides as an adjunct to microbiological research.

- Constant Airflow Profile™ (CAP) technology airflow monitoring system
- Smart-Start™ System that allows the user to program start up and shut down operations
- LCD information center with “Filter Life Remaining” bar graph, status line for alarm and alerts when filter life diminishes to 20% and 0%
- Fully-closing, clear ¼ in. tempered safety glass sash
- Supply and exhaust 99.99% efficient HEPA filters. Contact Labconco for optional 99.999% efficient ULPA filters.
- Leak-tight stainless steel interior
- Interior-mounted, line-of-sight, full color LCD information center with easy-to-understand MyLogic™ OS
- 10° angled sash with counterbalanced, anti-racking mechanism for ease of lifting
- ADA-compliant touchpad for manual activation of blower, light(s), timer, electrical receptacles, audible alarm mute and menu selection
- Approximately 70% air recirculation

Base stand required (included on select models).

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ft. model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>302380001</td>
<td>302380001</td>
<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302380101</td>
<td>302380101</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302381001</td>
<td>302381001</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302381101</td>
<td>302381101</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302310001</td>
<td>302310001</td>
<td>10 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302310101</td>
<td>302310101</td>
<td>10 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302311001</td>
<td>302311001</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302311101</td>
<td>302311101</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>4 ft. model</td>
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<tr>
<td>302480001</td>
<td>302480001</td>
<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302480101</td>
<td>302480101</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302481001</td>
<td>302481001</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302481101</td>
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<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302410001</td>
<td>302410001</td>
<td>10 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302410101</td>
<td>302410101</td>
<td>10 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302411001</td>
<td>302411001</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
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<tr>
<td>302411101</td>
<td>302411101</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
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<tr>
<td>5 ft. model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>302580001</td>
<td>302580001</td>
<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302580101</td>
<td>302580101</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302581001</td>
<td>302581001</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302581101</td>
<td>302581101</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302510001</td>
<td>302510001</td>
<td>10 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302510101</td>
<td>302510101</td>
<td>10 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302511001</td>
<td>302511001</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
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<tr>
<td>302511101</td>
<td>302511101</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
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</tr>
<tr>
<td>6 ft. model</td>
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</tr>
<tr>
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<td>302680001</td>
<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302680101</td>
<td>302680101</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302681001</td>
<td>302681001</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302681101</td>
<td>302681101</td>
<td>8 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
<td>1/ea</td>
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<tr>
<td>302610001</td>
<td>302610001</td>
<td>10 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302610101</td>
<td>302610101</td>
<td>10 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302611001</td>
<td>302611001</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>302611101</td>
<td>302611101</td>
<td>10 in. sash opening - UV, service fixture, Vacu-Pass Portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Purifier® Logic®+ Class II B2 Biosafety Cabinets
LABCONCO - Purifier® Logic®+ Class II B2 Biosafety Cabinets provide personnel, product and environmental protection from hazardous particulates such as agents that require Biosafety Level 1, 2 or 3 containment. Other appropriate applications include work with antineoplastic drugs, genetic material, asbestos and additional substances that generate hazardous airborne particulates. All models are NSF-Listed.

These biological safety cabinets are designed to be hard ducted to the outside. During operation, room air is drawn into the top of the cabinet and through a supply HEPA filter. This filtered air flows downward through the work area. All of the contaminated air passes through the exhaust HEPA filter. A dedicated exhaust system and remote blower discharge 100% of the filtered exhaust air from the laboratory. Since none of the air is recirculated, these biohazard cabinets may be used for work with agents treated with volatile toxic chemicals and radionuclides.

- Constant Airflow Profile™ (CAP) Technology airflow monitoring system
- Smart-Start™ System that allows the user to program start up and shut down operations
- LCD information center with “Filter Life Remaining” bar graph, status line for alarm and alerts when filter life diminishes to 20% and 0%
- Fully-closing, clear ¼ in. tempered safety glass sash with 8 in. (20 cm) working height opening
- Supply and exhaust 99.99% efficient HEPA filters. Contact Labconco for optional 99.999% efficient ULPA filters.
- Leak-tight stainless steel interior
- Interior-mounted, line-of-sight, full color LCD information center with easy-to-understand MyLogic™ OS
- 10° angled sash with counterbalanced, anti-racking mechanism for ease of lifting
- ADA-compliant touchpad for manual activation of blower, light(s), timer, electrical receptacles, audible alarm mute and menu selection
- 10 in. diameter exhaust outlet with air-tight damper

Base stand required (included on select models).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ft. model</td>
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<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>303480101</td>
<td>303480101</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>303481001</td>
<td>303481001</td>
<td>8 in. sash opening - UV light, service fixtures, Vacu-Pass portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>303481101</td>
<td>303481101</td>
<td>8 in. sash opening - UV light, service fixtures, Vacu-Pass portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>6 ft. model</td>
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<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>303680101</td>
<td>303680101</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>303681001</td>
<td>303681001</td>
<td>8 in. sash opening - UV light, service fixtures, Vacu-Pass portal - 115 V</td>
<td>1/ea</td>
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<tr>
<td>303681101</td>
<td>303681101</td>
<td>8 in. sash opening - UV light, service fixtures, Vacu-Pass portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Safety Cabinets/Fume Hoods

Purifier® Axiom® Class II C1 Biosafety Cabinets

LABCONCO - The Purifier® Axiom® Class II C1 Biosafety Cabinet is the first that can be used in a recirculating Type A mode for standard microbiological work, or can be connected to an exhaust system to function in Type B mode for handling hazardous chemical vapors or radionuclides. Because of the efficient, well-defined airflow pattern over its work surface, the Axiom is safer and easier to operate than traditional biosafety cabinets.

The patent pending design of the Chem-Zone™™ maximizes chemical safety. Other features that make the Axiom safe and easy to operate include its ergonomic Inclination™ Technology, the intuitive MyLogic™ Operating System and Active Protection Protocol†.

The Axiom provides protection for personnel, product and the laboratory environment by filtering hazardous particulates and aerosols, such as agents that require Biosafety Level 1, 2 or 3 containment, with the option of venting away hazardous fumes. Type C1 enclosures may also be used for a wide variety of applications that incorporate antineoplastic drugs, genetic material, carcinogens, allergens, or other airborne hazards. NSF-listed.

Base stand required (included on select models).

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>304480100</td>
<td>304480100</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304481000</td>
<td>304481000</td>
<td>8 in. sash opening - UV light, service fixture, Vacu-Pass portal - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304481100</td>
<td>304481100</td>
<td>8 in. sash opening - UV light, service fixture, Vacu-Pass portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304400000</td>
<td>304400000</td>
<td>10 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304410100</td>
<td>304410100</td>
<td>10 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304411000</td>
<td>304411000</td>
<td>10 in. sash opening - UV light, service fixture, Vacu-Pass portal - 115 V</td>
<td>1/ea</td>
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<tr>
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<td>1/ea</td>
</tr>
<tr>
<td>304460000</td>
<td>304460000</td>
<td>8 in. sash opening - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304460100</td>
<td>304460100</td>
<td>8 in. sash opening - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
<tr>
<td>304461000</td>
<td>304461000</td>
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<td>1/ea</td>
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<tr>
<td>304461100</td>
<td>304611000</td>
<td>8 in. sash opening - UV light, service fixture, Vacu-Pass portal - base stand included - 115 V</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

† Patent pending
Telescoping Base Stands for Labconco Fume Hoods, Safety Cabinets and Enclosures

LABCONCO - Labconco offers multiple styles of base stands designed to support Labconco fume hoods, safety cabinets and enclosures. Base stands for use with Purifier Class II Biosafety Cabinets are non-welded and have telescoping legs so they may be adjusted to 8 height positions in 1 in. increments to provide a 30 in. to 37 in. working height. They are NSF-approved, ADA-compliant and support loads up to 1,000 lbs. The frame is durable 1.75 in. tubular, glacier white powder-coated steel with a back panel support. A 9 in. shelf and four fixed leveling feet are provided.

Base stands for use with Purifier Enclosures, Protector Hoods, Parament Enclosures and XPert and RXPert Systems, Stations and Enclosures are welded and have telescoping legs adjustable in 1 in. increments from 27½ to 34½ in. They are ADA-compliant; models with casters support loads up to 1,000 lbs. and models with fixed feet support loads up to 4,000 lbs. The frame is durable 1.75 in. tubular, glacier white powder-coated steel. Models 3 ft. and wider have rear crossbar supports. Stands are available with fixed feet for stationary use or with 5 in. diameter toe-locking, non-marking polyurethane casters for mobility.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>3401003</td>
<td>3401003</td>
<td>3 ft. stand for Purifier Cell Logic Biosafety Cabinets, Logic and Logic+ Biosafety Cabinets, Axiom Biosafety Cabinets - 38.5 x 29 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>3888700</td>
<td>3888700</td>
<td>4 ft. stand for Purifier Horizontal Clean Benches - 47 x 29 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>3401004</td>
<td>3401004</td>
<td>4 ft. stand for PuriCare Procedure Stations, Purifier Cell Logic Biosafety Cabinets, Logic and Logic+ Biosafety Cabinets, Axiom Biosafety Cabinets - 50.5 x 29 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>3401006</td>
<td>3401006</td>
<td>6 ft. stand for PuriCare Procedure Stations, Purifier Cell Logic Biosafety Cabinets, Logic and Logic+ Biosafety Cabinets, Axiom Biosafety Cabinets - 74.5 x 29 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

6 Ft. Electric Hydraulic Lift Base Stand

LABCONCO - Electric Hydraulic Lift Base Stands offer the flexibility to be adjusted at any time. Height is infinitely adjustable from 25.5 to 33.5 in. They allow you to position the stand and the enclosure it supports to accommodate persons of different heights and wheelchair-bound users. They meet the NSF standard for stability and construction, are ADA-compliant and support loads up to 1,000 lbs. Constructed of durable 1.75 in. tubular, glacier white powder-coated steel frame with rear crossbar supports. Sub-frame has 2 x 3 in. rectangular tubing. Include four powder-coated, die-cast feet with levelers. Electric models include a front-accessible up/down switch. Manual models include a front-accessible hand crank. Shipped fully assembled.

For use with PuriCare Procedure Stations, Purifier Axiom Biosafety Cabinets, Logic+ Biosafety Cabinets and Cell Logic+ Biosafety Cabinets.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L5600-35</td>
<td>3780102</td>
<td>Hydraulic Lift Base Stand - 115 V, 60 Hz</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Safety Cabinets and Fume Hoods

Labconco Accessories

4 ft. Black Solid Epoxy Work Surface
LABCONCO - Work surface may be used to support a variety of Labconco enclosures including, Purifier Non-ventilated PCR Enclosures, Protector XVS Ventilation Stations and Work Stations, XPert Balance Enclosures. Dimensions: (W x D x H) 48 x 26.7 x 1 in.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1307-3</td>
<td>3908402</td>
<td>4 ft. Black Solid Epoxy Work Surface</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

4 Ft. Dished Epoxy Work Surface with Sink
LABCONCO - Designed specifically for the Protector Work Station, this unique molded solid epoxy work surface accommodates standard dissecting boards and is dished to contain spills. It resists corrosion and does not stain or absorb liquids. Includes a 10 x 14 x 6 in. deep molded epoxy sink. Fixtures include a corrosion-resistant chrome-plated gooseneck faucet with vacuum breaker, two chrome-plated faucet controls, and a spray nozzle with hose. Sink requires a 1.5 in. drain connection.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>L6942-003</td>
<td>6942003</td>
<td>Work Surface with Sink</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Solid Epoxy Dished Work Surfaces
LABCONCO - Solid Epoxy Dished Work Surfaces are available in 2, 3, 4, 5 and 6 ft. widths. These black chemical-resistant work surfaces are contoured to fit Labconco enclosures and to contain spills. They may be used to support a variety of Labconco enclosures including Paramount Ductless Enclosures, Purifier Class I, HEPA Filtered, Filtered PCR, Vertical Clean Benches, Protector Work Stations, XPert Filtered Balance Systems and Stations and RXPert Filtered Balance Systems.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS279-36</td>
<td>3909900</td>
<td>2 ft. work surface - 24 x 29 x 1 in.</td>
<td>1/ea</td>
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<tr>
<td>LS279-37</td>
<td>3909901</td>
<td>3 ft. work surface - 36 x 29 x 1 in.</td>
<td>1/ea</td>
</tr>
<tr>
<td>LS279-38</td>
<td>3909902</td>
<td>4 ft. work surface - 48 x 29 x 1 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Stainless Steel Work Surfaces
LABCONCO - Stainless Steel Work Surfaces are available in 2, 3 and 4 ft. widths. They may be used to support a variety of Labconco enclosures including Purifier Filtered PCR Enclosures, Purifier Vertical Clean Benches, XPert Filtered Balance Stations, and XPert & RXPert Filtered Balance Systems.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description (W x D x H)</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3970602</td>
<td>3970602</td>
<td>2 ft. work surface - 24 x 29 x 0.8 in.</td>
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<tr>
<td>3970603</td>
<td>3970603</td>
<td>3 ft. work surface - 36 x 29 x 0.8 in.</td>
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<tr>
<td>3970604</td>
<td>3970604</td>
<td>4 ft. work surface - 48 x 29 x 0.8 in.</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

SpillStopper Work Surfaces for Protector Pass-Through Laboratory Hoods
LABCONCO - SpillStopper Work Surfaces are molded from a special formulation of corrosion-resistant epoxy resins. They are dished and contoured to conform to the interior liner of Protector Laboratory Hoods. Pre-drilled holes for venting and plumbing pass-throughs are provided. Some include 6 x 3 in. cupsink cutouts. Cupsink is sold separately.

For use with Protector® Pass-Through Laboratory Hoods.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
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</thead>
<tbody>
<tr>
<td>9570410</td>
<td>9570410</td>
<td>Left rear cupsink cutout</td>
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</tr>
<tr>
<td>9570420</td>
<td>9570420</td>
<td>Left side cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570411</td>
<td>9570411</td>
<td>Left and right rear cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570412</td>
<td>9570412</td>
<td>Left rear and right side cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570421</td>
<td>9570421</td>
<td>Left side and right rear cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570401</td>
<td>9570401</td>
<td>Right rear cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570402</td>
<td>9570402</td>
<td>Right side cupsink cutout</td>
<td>1/ea</td>
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</table>

4 ft. work surface

<table>
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<td>9570500</td>
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<tr>
<td>9570510</td>
<td>9570510</td>
<td>Left rear cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
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<td>9570511</td>
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<td>Left and right rear cupsink cutout</td>
<td>1/ea</td>
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<td>9570522</td>
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<tr>
<td>9570512</td>
<td>9570512</td>
<td>Left rear and right side cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570521</td>
<td>9570521</td>
<td>Left side and right rear cupsink cutout</td>
<td>1/ea</td>
</tr>
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<td>9570501</td>
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<td>9570502</td>
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<td>1/ea</td>
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</table>

5 ft. work surface

<table>
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<td>1/ea</td>
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<tr>
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<tr>
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<td>9570612</td>
<td>Left rear and right side cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570621</td>
<td>9570621</td>
<td>Left side and right rear cupsink cutout</td>
<td>1/ea</td>
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<td>9570601</td>
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</table>

6 ft. work surface

<table>
<thead>
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</thead>
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<td>9570610</td>
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<td>Left and right rear cupsink cutout</td>
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<td>Left and right side cupsink cutout</td>
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<td>9570612</td>
<td>Left rear and right side cupsink cutout</td>
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<td>9570621</td>
<td>Left side and right rear cupsink cutout</td>
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<td>Right rear cupsink cutout</td>
<td>1/ea</td>
</tr>
<tr>
<td>9570602</td>
<td>9570602</td>
<td>Right side cupsink cutout</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
SpillStopper Work Surfaces for Protector Laboratory Hoods

LABCONCO - SpillStopper Work Surfaces are molded from a special formulation of corrosion-resistant epoxy resins. They are dished and contoured to conform to the interior liner of Protector Laboratory Hoods. The front edge has a large radius to aerodynamically direct airflow into the fume hood. Pre-drilled holes for venting and plumbing pass-throughs are provided. Some include 6 x 3 in. cupsink cutouts. Cupsink is sold separately.

For use with Protector® Premier, XStream, XL, Echo and Airo Laboratory Hoods with 31.7 in. depth.

Contact your Cardinal Health representative to order SpillStopper Work Surfaces for 37.7 in. depth hoods.

Cat. No. Mfr. No. Description Qty.
3 ft. work surface - use with Premier, XL and Airo with 31.7 in. depth
9500300 9500300 No cupsink cutout 1/ea
4 ft. work surface - use with Premier, XL and Airo with 31.7 in. depth
9500400 9500400 No cupsink cutout 1/ea
9500410 9500410 Left rear cupsink cutout 1/ea
9500420 9500420 Left side cupsink cutout 1/ea
9500411 9500411 Left and right rear cupsink cutouts 1/ea
9500422 9500422 Left and right side cupsink cutouts 1/ea
9500401 9500401 Right rear cupsink cutout 1/ea
9500402 9500402 Right side cupsink cutout 1/ea
5 ft. work surface - for Premier and XL with 31.7 in. depth
9500500 9500500 No cupsink cutout 1/ea
9500510 9500510 Left rear cupsink cutout 1/ea
9500520 9500520 Left side cupsink cutout 1/ea
9500501 9500501 Right rear cupsink cutout 1/ea
9500502 9500502 Right side cupsink cutout 1/ea
9500511 9500511 Left and right rear cupsink cutouts 1/ea
9500522 9500522 Left rear and right side cupsink cutouts 1/ea
6 ft. work surface - for Premier and XL with 31.7 in. depth
9500600 9500600 No cupsink cutout 1/ea
9500610 9500610 Left rear cupsink cutout 1/ea
9500620 9500620 Left side cupsink cutout 1/ea
9500601 9500601 Right rear cupsink cutout 1/ea
9500602 9500602 Right side cupsink cutout 1/ea
9500611 9500611 Left and right rear cupsink cutouts 1/ea
9500622 9500622 Left and right side cupsink cutouts 1/ea

Laptop Computer Arms for SoLo and Telescoping Base Stand

LABCONCO - Securely supports a laptop computer within easy view of an operator at the Purifier Logic+ Biosafety Cabinet, Purifier Cell Logic+ Biosafety Cabinet, Purifier Axiom Biosafety Cabinet or PuriCare Procedure Station. Articulating arm raises, lowers and pivots to a steady position. Includes powder-coated steel arm and support work surface with cloth loop fasteners and mounting hardware. Not for use with other hydraulic lift base stands. Installation is required.

Cat. No. Mfr. No. Description Qty.
P3869200 3869200 Laptop arm for SoLo hydraulic base stand 1/ea
P3869300 3869300 Laptop arm for telescoping base stand 1/ea

Utility Shelves

LABCONCO - Three powder-coated steel shelves attach to the rear baffle perforations of Purifier Class I and HEPA Filtered Enclosures and Xpert Enclosures, Systems and Stations to hold a printer, utensils or other miscellaneous supplies. The utensil shelf has a scalloped front edge to support spatulas, brushes and other items.

Cat. No. Mfr. No. Description Qty.
F1307-14 3925000 Utility shelf kit with 3 shelves 1/ea
Safety Cabinets and Fume Hoods

Thermo Fisher Scientific

Thermo Scientific™ 1300 Series A2 Biological Safety Cabinet and Packages

THERMO FISHER SCIENTIFIC - Perform daily applications safely and efficiently with simple-to-order Thermo Scientific™ 1300 Series Class II, Type A2 Biological Safety Cabinet Packages, which includes cabinet; manual adjustable height stand; factory installed UV light and one set of armrests. These safety cabinets deliver exceptional design and technology advancements such as superior protection with proprietary airflow design, exceptional ergonomics for a safe and comfortable environment, and outstanding energy efficiency for operational cost savings. 120 V, 50/60 Hz.

- Containment—Thermo Scientific™ SmartFlow™ airflow design automatically balance the cabinet inflow and downflow air velocities in real time
- Comfort—ergonomically designed 10° sloped front window is designed to reduce user fatigue
- Convenience—intuitive control panel for at-a-glance monitoring of safety and performance data
- Energy efficiency—dual DC motors deliver operational cost savings and low heat emissions for lower cost of ownership

<table>
<thead>
<tr>
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</tbody>
</table>

To order, call: 800.964.5227
Analytical Balances

CARDINAL HEALTH - Analytical Balances provide accuracy and precision for the most demanding research applications. Two capacity options are available. Each incorporates a highly precise, electromagnetic sensor to deliver accuracy and readability to 0.0001 g (0.1 mg). Widely spaced, the feet lend stability and are adjustable to level the unit. Tare keys are conveniently located on both sides of the control panel for easy access by both right- and left-handed users. These balances incorporate in-lab calibration firmware and are provided with a stainless steel calibration weight. The glass draft shield isolates the weighing area from the outside environment and features sliding doors on the right, left and top.

Specifications:
- Pan size (round) ............ Stainless steel, 3.5 in. (9 cm)
- Capacity ................... CHW31-120 - 120 g, CHW31-210 - 210 g
- Readability ................ 0.0001 g
- Draft shield ............... Yes, glass, 3-door
- Weighing units ............. g, oz., lb., ct
- Calibration ............... External
- Display .................... Backlit LCD
- Dimensions (W x D x H) .... Exterior 12.5 x 18.5 x 11 in. (32 x 47 x 28 cm)

Compact Balances

CARDINAL HEALTH - These economical, compact balances are ideal for a wide range of general weighing applications. Six models cover a weighing range up to 10,000 g, with a readability of 0.01 g or 0.1 g. With enhanced shock resistance and overload protection, the compact series of balances is ideal for use in a variety of environments.

Compact Balances quickly and accurately display sample measurements on a large, backlit LCD control panel. Utilizing a highly precise, gold-plated ceramic capacitance sensor. Multiple program options allow for weighing, count (piece) mode and percent deviation. In-lab calibration is easy and reliable with the incorporated firmware.

Specifications:
- CHW33-120, CHW33-300, CHW33-500
  - Readability ............ 0.01 g
  - Pan size (round) ....... 4.5 in. (11.5 cm)
  - Draft shield ........... Yes, plastic ring
- CHW33-1200
  - Readability ............ 0.1 g
  - Pan size (round) ....... 6.3 in. (16 cm)
  - Draft shield ........... No
- CHW33-5K, CHW33-10K
  - Readability ............ 0.1 g
  - Pan size (round) ....... 7 in. (18 cm)
  - Draft shield ........... No
- Weighing units .......... g, oz., ct
- Calibration .............. External
- Display .................. Backlit LCD
- Dimensions (W x D x H) .... Exterior 7.5 x 11 x 3.1 in. (18.8 x 28 x 8 cm)

Cat. No. | Description | Qty.
--- | --- | ---
CHW31-120 | 120 g capacity - 0.0001 g readability | 1/ea
CHW31-210 | 210 g capacity - 0.0001 g readability | 1/ea

Cat. No. | Description | Qty.
--- | --- | ---
CHW33-120 | 120 g capacity - 0.01 g readability | 1/ea
CHW33-300 | 300 g capacity - 0.01 g readability | 1/ea
CHW33-500 | 500 g capacity - 0.01 g readability | 1/ea
CHW33-1200 | 1,200 g capacity - 0.1 g readability | 1/ea
CHW33-5K | 5,000 g capacity - 0.1 g readability | 1/ea
CHW33-10K | 10,000 g capacity - 0.1 g readability | 1/ea
Precision Balances

CARDINAL HEALTH - The precision series of balances is designed for true research grade applications. With a higher level of precision and readability, they are useful for any laboratory application that does not require a dedicated analytical balance with sub-milligram readability. Advanced software helps to ensure error-free weighing in various applications, including weight accumulation, count weighing, percent deviation and inspection mode.

Precision Balances quickly and accurately display sample measurements on a large, backlit LCD control panel. Utilizing a highly precise, gold-plated ceramic capacitance sensor, these balances provide reliable measurements to 0.001 g. Multiple program options allow for weighing, count (piece) mode and percent deviation. In-lab calibration is easy and reliable with the incorporated firmware.

Specifications:

CHW32-120, CHW32-320, CHW32-500
Readability ............... 0.001 g
Pan size (round) ........... 4.5 in. (11.5 cm)
Draft shield ............... Yes, glass, 3-door
Dimensions (W x D x H): Exterior 8 x 13.75 x 12.25 in. (20.5 x 35 x 31 cm)

CHW32-1200, CHW32-3200, CHW32-5K
Readability ............... 0.01 g
Pan size (round) ........... 6.3 in. (16 cm)
Draft shield ............... No
Dimensions (W x D x H): Exterior 8 x 13.75 x 3.5 in. (20.5 x 35 x 9 cm)

Weighing units ............... g, oz., ct
 Calibration .................. External
 Display ...................... Backlit LCD

Adventurer® Analytical Balances

OHAUS - The Adventurer® Analytical Balance incorporates all of the applications necessary for routine weighing and measurement activities. With a color touchscreen, GLP/GMP compliance capabilities, two USB ports, and much more.

Fast stabilization and reliable operation are enhanced by the AutoCal™ option to ensure solid weighing performance and accurate, repeatable results for standard laboratory applications. The wide viewing angle color touchscreen provides access to all of Adventurer's applications, while dual USB ports with GLP/GMP tracking capabilities assist in the monitoring and reporting of data. The two-piece, top-mounted draftshield doors reduce the footprint of the doors in the rear of the balance when open, and open wide on both sides in order to provide ample room to place samples.

Specifications:

Linearity ....................... ±0.2 mg
Readability .................... 0.1 mg
Pan size ......................... 3.5 in. (90 mm)
Dimensions (H x L x W) ........ 13.39 x 13.93 x 9.05 in

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<td>AX224 model - 220 g capacity 1 mg</td>
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<td>AX324 model - 320 g capacity</td>
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**Adventurer® Precision Balances**

OHAUS - The Adventurer® Precision Balance incorporates all of the applications necessary for routine weighing and measurement activities. With a color touchscreen, GLP/GMP compliance capabilities, two USB ports, and much more.

Fast stabilization and reliable operation are enhanced by the AutoCal™ option to ensure solid weighing performance and accurate, repeatable results for standard laboratory applications. The wide viewing angle color touchscreen provides access to all of Adventurer's applications, while dual USB ports with GLP/GMP tracking capabilities assist in the monitoring and reporting of data. The 1 mg models have a two piece, top-mounted draftshield with doors that open wide, providing ample room for sample placement, while the 0.01g and 0.1g models feature large weighing pans.

**Specifications:**
- Linearity: ±0.002 g
- Dimensions (H x L x W): 13.39 x 13.93 x 9.05 in.

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**Readability 0.01 g – pan size 7.7 x 6.9 in.**

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**Readability 0.1 g – pan size 7.7 x 6.9 in.**

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Weighing

Balances – Electronic

**Explorer® Analytical Balances**

OHAUS - The Explorer® Analytical Balance combine modern features and design elements to offer unmatched functionality in a line of high-performance balances. Modular design, metal base, ABS top housing, stainless steel pan, glass draft shield with top mounted side doors and flip/sliding top door. Illuminated up-front level indicator, integral weigh below hook, security bracket, calibration lock, four touchless sensors, full housing in-use cover. Selectable environmental filters, auto tare, user selectable span calibration points, software lockout and reset menu. User selectable communication settings and data print options. 5.7 in. (145 mm) full-color VGA graphic touchscreen display with user-controlled brightness. The base and display separate for maximum flexibility in any work area. Draftshield models isolate the weighing chamber to enhance stability and speed results while offering maximum accessibility through the flip-top and expansive side doors. Handsfree entry is available with optional automated side doors.

**Specifications:**

- Linearity: ± 0.0002 g
- Readability: 0.1 mg
- Pan size: 3.5 in. (90 mm)
- Dimensions (H x L x W): 13.8 x 15.5 x 9.1 in. (350 x 393 x 230 mm)

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**Explorer® Semi-Micro Balances**

OHAUS - The Explorer® Semi-Micro Balance has capacities ranging from 52 g to 220 g and readabilities from 0.1 mg to 0.01 mg. Explorer’s ultra-fast stabilization time (0.1 mg: ≤3 second, 0.01 mg: ≤8 second) and audible stability alert increases laboratory efficiency.

OHAUS’ signature AutoCal™ internal calibration system provides routine maintenance by automatically calibrating the balance every time it senses a temperature change of 1.5°C or every 3 hours, whichever occurs first. To minimize weighing errors and ensure accurate measurements, AutoCal™ utilizes two internal weights to perform a linear calibration. Explorer’s features are designed to improve user experience and ensure the integrity of result. Color touchscreen display. Four programmable touchless sensors allow the operator to perform common functions and commands with a swipe of the hand. The automatic door on certain models allows the user to open the draftshield door with a wave of their left hand when their right hand is occupied with the sample. Modular design in which the base and display can be separated to allow the balance to fit ideally on the lab bench. The built-in ionizer, included in Explorer automatic door models, generates bipolar ions continuously discharge electrodes to eliminate static electricity which can alter weighing results by as much as several milligrams. Pan size 3.14 in. (80 mm).

<table>
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<td>30139514</td>
<td>30139514</td>
<td>EX225/AD model - 220 g capacity, 0.01 mg readability, auto door</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Explorer® Precision Balances**

OHAUS - The Explorer® Precision balances combine modern features and design elements to offer unmatched functionality in a line of high-performance balances. Modular design, metal base, ABS top housing, stainless steel pan, glass draftshield with top mounted side doors and flip/sliding top door (1 mg models only), illuminated up-front level indicator, integral weigh below hook, security bracket, calibration lock, four touchless sensors, full housing in-use cover. 5.7 in. (145 mm). Full-color VGA graphic touchscreen display with user-controlled brightness. Selectable environmental filters, auto tare, user selectable span calibration points, software lockout and reset menu. User selectable communication settings and data print options. Up to 14 operating languages.

**Specifications:**
- Linearity: ± 0.002 g
- Pan size: 5.1 in (130 mm)
- Dimensions (H x L x W): 13.8 x 15.5 x 9.1 in (350 x 393 x 230 mm)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30061979</td>
<td>30061979</td>
<td>EX223/E model - 220 g capacity, 1 mg readability</td>
<td>1/ea</td>
</tr>
<tr>
<td>30061980</td>
<td>30061980</td>
<td>EX423/E model - 420 g capacity, 1 mg readability</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Pan size - 5 in. (130 mm) in diameter**

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30057099</td>
<td>30057099</td>
<td>EX12001 model - 12,000 g capacity, 0.1 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td>30057100</td>
<td>30057100</td>
<td>EX24001 model - 24,000 g capacity, 0.1 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td>30057101</td>
<td>30057101</td>
<td>EX35001 model - 35,000 g capacity, 0.1 g readability</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Explorer® Precision High Capacity Balances**

OHAUS - Explorer® Precision High Capacity balances provide unmatched functionality in a line of high-performance, high-capacity balances. Modular design, IP54 metal base, die-cast top housing with stainless steel pan. Up-front level indicator, integral weigh below hook, calibration lock, two touchless sensors, full housing in-use cover. Selectable environmental filters, auto tare, user selectable span calibration points, software lockout and reset menu. User selectable communication settings and data print options. 5.7 in. (145 mm) full-color VGA graphic touchscreen display with user-controlled brightness.

**Specifications:**
- Linearity: 0.2 g
- Pan size (L x W): 14.8 x 12.2 in (377 x 311 mm)
- Dimensions (H x L x W): 4.7 x 17.44 x 14.9 in (120 x 443 x 377 mm)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30061981</td>
<td>30061981</td>
<td>EX2202/E model - 2,200 g capacity, 0.01 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td>30061982</td>
<td>30061982</td>
<td>EX4202/E model - 4,200 g capacity, 0.01 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td>30061983</td>
<td>30061983</td>
<td>EX6202/E model - 6,200 g capacity, 0.01 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td>30061984</td>
<td>30061984</td>
<td>EX6202/E model - 6,200 g capacity, 0.1 g readability</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Ohaus AC Adapter**

OHAUS - For use with Ohaus scales and balances.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>46001802</td>
<td>46001802</td>
<td>AC adapter</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Weighing

Balances – Electronic

**Scout® SPX Balances**

OHAUS - The Scout® SPX comes in a slim, stackable design with large backlit LCD. Features include overload protection rated at 10 times the capacity of the balance, multiple weighing units and application modes. Geared for high performance in your facility with fast stabilization time as fast as 1 second. High resolution for precise and repeatable weighing results. High strength stainless steel pan, impact-resistant pan support and integrated transportation/storage lock.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30253027</td>
<td>SPX622 model - 620 g capacity, 0.01 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td>30253028</td>
<td>SPX6201 model - 6,200 g capacity, 0.1 g readability</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td>30253029</td>
<td>SPX8200 model - 8,200 g capacity, 1 g readability</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Practum® Precision Balances**

SARTORIUS - Practum® has everything you need for standard applications. Accurate, consistent readings with excellent repeatability based on Sartorius quality and technology designed in Germany. High reliability and durability provided by mechanical overload protection. Supervisor lock for preventing unintentional changes to the setup settings.

- Overload protection for years of reliability
- Supervisor lock
- Fast and easy data transfer

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5005012</td>
<td>610 g capacity - 10 mg readability</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td>5005015</td>
<td>5,100 g capacity - 100 mg readability</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Secura® Precision Balance**

SARTORIUS - Secura® provides highly accurate weighing results and operating convenience, it also features built-in protection systems for complete reliability and regulatory compliance – the safe and secure way. Real-time guidance prompts for leveling, automatic internal adjustment, and 100% traceable, clear documentation with sample and batch identifiers make your lab work more efficient.

- Real-time alarm messaging and interactive user guidance for leveling
- SQmin for automatic detection and monitoring for acceptable USP operating range
- Fully automatic internal adjustment function, isoCAL
- Cal Audit Trail for easy, traceable documentation of data
- GLP-GMP-compliant printouts
- Standard password security features
- Integrated PC direct function and plug & work connectivity to printer

<table>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5005012</td>
<td>610 g capacity - 10 mg readability</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Weighing
Balances – Mechanical

Dial-O-Gram® 300 Series Balance
OHAUS - The Dial-O-Gram® balances offer the accuracy and convenience of an integrated weigh below balance while allowing students to visualize mass measurement principles. Designed with a hanging pan system with aluminum pressure castings for the base and beam assembly, agate bearings, steel knife-edges, and stainless steel pan, the Dial-O-Gram® is built to the highest standard of quality. The three-point base, special floating bearing principle and beam design eliminates the need for level adjustments. The self-aligning beam ensures accurate results are garnered effortlessly.

Specifications:
- Readability: 0.1 g
- Linearity: ±0.01 g
- Pan size: 0.5 x 3.5 in. (13 x 89 mm)

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-13</td>
<td>80000009</td>
<td>310-00 model - 310 g balance</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Harvard Trip Balances
OHAUS - The Harvard Trip Balance is carefully engineered to provide the accuracy necessary in comparative weighing. Deep notched and tiered beams. All-metal base and beam, stainless steel pan. Weight set (2,000 g model, accessory sold separately), built-in sliding masses, magnetic damping, self-aligning beam design and floating agate bearings, counterbalancing knob for quick zeroing, hardened steel edges.

Specifications:
- Maximum Capacity: 2,000 g
- Readability: 0.1 g
- Linearity: ± 0.1 g

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-15</td>
<td>80000003</td>
<td>1450-SD model - 1 beam</td>
<td>1/ea</td>
</tr>
<tr>
<td>B1900-18</td>
<td>80000004</td>
<td>1550-SD model - 2 beams</td>
<td>1/ea</td>
</tr>
<tr>
<td>B1900-19</td>
<td>80000005</td>
<td>1560-SD model - 2 beams and</td>
<td>1/ea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tare beam</td>
<td></td>
</tr>
</tbody>
</table>

Triple Beam 700 Series Balances
OHAUS - These balances offer the accuracy and convenience of a top loading balance while allowing students to gain hands-on experience through manipulation of the poises and attachment weights (sold separately), as well as to visualize mass measurement principles. The 700 series accommodates a range of laboratory and education applications. Some models have a tare beam to allow containers up to 225 g to be balanced out, and a variety of weighing platforms are also available.

Specifications:
- Readability: 0.1 g
- Pan size: 6 in. diameter

<table>
<thead>
<tr>
<th>Beams</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>10 x 0.1 g</td>
</tr>
<tr>
<td>Center</td>
<td>500 x 100 g</td>
</tr>
<tr>
<td>Rear</td>
<td>100 x 10 g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-6</td>
<td>80000012</td>
<td>750-50 model - no tare capacity</td>
<td>1/ea</td>
</tr>
<tr>
<td>B1900-5</td>
<td>80000013</td>
<td>760-00 model - 225 g tare capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Stainless steel pan platform

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-1</td>
<td>80000011</td>
<td>710-00 model - removable pan, no tare capacity</td>
<td>1/ea</td>
</tr>
<tr>
<td>B1900-2</td>
<td>80000031</td>
<td>710-T0 model - removable pan, 225 g tare capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-12</td>
<td>80000036</td>
<td>1610-00 model - removable pan - 225 g tare capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Stainless steel plate platform

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-11</td>
<td>80000006</td>
<td>1650-00 model - 225 g tare capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Triple Beam Dial-O-Gram® 1600 Series Balances
OHAUS - Choose from either a 6 in. (152 mm) flat stainless steel weighing platform or a 6 in. (152 mm) removable stainless steel pan (¾ in. deep). Counterbalancing knob for quick zeroing, positive poise positioning for repeatable results, self-aligning beam design, magnetic damping to minimize oscillation and speed weighing.

Specifications:
- Readability: 0.1 g
- Capacity: 610 g

<table>
<thead>
<tr>
<th>Beams</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>10 x 0.1 g</td>
</tr>
<tr>
<td>Center</td>
<td>500 x 100 g</td>
</tr>
<tr>
<td>Rear</td>
<td>100 x 10 g</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
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<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-12</td>
<td>80000036</td>
<td>1610-00 model - removable pan - 225 g tare capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Stainless steel plate platform

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<tbody>
<tr>
<td>B1900-11</td>
<td>80000006</td>
<td>1650-00 model - 225 g tare capacity</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Weighing

Calipers/Scales

Carbon-Fiber Calipers
CARDINAL HEALTH - These Traceable® composite carbon-fiber calipers measure outer diameter and inner diameter. They have an easy-to-read digital ½ in. high jumbo display and switch from inches to millimeters at the touch of a button. The “zero” button instantly sets the unit to zero when the jaws are at any position; this permits setting a Floating Zero™ reference point to read greater than/less than results without calculations.

Available in 4 in. and 6 in. measuring ranges, these ergonomically designed calipers have an ultra-smooth slide bar that requires no lubrication. Units will run on the supplied battery for 10,000 hours. Resolution is 0.01 in. (0.1 mm) and accuracy is ±0.01 in. (0.2 mm). A serial-numbered certificate is provided from an ISO/IEC 17025 calibration laboratory indicating traceability N.I.S.T. standards.

Traceable® is a registered trademark of Control Company.
Floating Zero™ is a trademark of Control Company.

Cat. No. Description Qty.
C3316-10 4 in. caliper 1/ea
C3316-11 6 in. caliper 1/ea

Handheld Scales
OHAUS - These small hand-held balances that fit conveniently in the palm of the hand deliver high performance in a functional design. These little scales with sleek styling and convenient size are ideal to take anywhere.

- Liquid crystal display (LCD)
- 2 AAA batteries (included)
- ABS housing and pan, protective snap-on cover
- Software overload/underload protection, external push-button calibration

Cat No. Mfr. No. Description Qty.
B1902-02 71142842 HH120 model - 120 g capacity, 0.1 g readability 1/ea
B1902-03 71142844 HH320 model - 320 g capacity, 0.1 g readability 1/ea

Ohaus Spring Scale
OHAUS - The rugged OHAUS spring scales are constructed of shatterproof plastic and metal and are a great economical choice for general weighing, force experiments, action-reaction demonstrations, and much more. ABS housing with metal face plate, pointer, spring and hook. Large bright colored dial face, easy-to-read black graduations on a frosted aluminum background.

Specifications:
Maximum capacity ............. 5,000 g
Readability .......................... 100 g
Dimensions (H x L x W) .......... 0.9 x 7.59 x 1.81 in. (23 x 193 x 46 mm)

Cat. No. Mfr. No. Description Qty.
8008-MN 80000018 8008-MN model - spring scale 1/ea

YA Gold Pocket Scale
OHAUS - The YA Gold Pocket Scale delivers great performance in a stylish, yet functional design and convenient size, that’s ideal to take anywhere. Bright, backlit LCD and simple, quick operation.

- Unique hinged cover design protects the scale
- Rugged plastic construction with stainless steel weighing pan
- Weighs in g, oz, ct, gn
- Energy-saving auto shut-off feature

Specifications:
Maximum capacity ............. 100 g
Readability .......................... 0.01 g
Linearity .............................. ± 3 g

Cat. No. Mfr. No. Description Qty.
B1900-300 80251910 YA102 model - pocket scale 1/ea

Vernier Calipers with Metric and English Scales
BEL-ART - Vernier Calipers can be used to measure internal and external dimensions with utmost precision. Precise measurements can be made with the fine adjustment thumb roller, and reading scales create no parallax.

- Parallel jaws are 1½ in. (40 mm) deep
- Inside jaws and round plastic rod depth gauge provide added value
- Lower scale: 6 in. with 0.005 in. subdivisions; upper scale: 150 mm with 0.1 mm subdivisions
- Molded in rigid plastic; will not scratch like metal
- Non-conducting, corrosion resistant, and lightweight

Cat. No. Mfr. No. Description Qty.
M1109-1 134150000 Vernier Metric/English Calipers 1/ea
Weighing Boats

Weigh Boat® Containers
DYN-A-MED - These lightweight and disposable plastic Weigh Boat® Containers simplify handling and transferring of liquid or solid samples during weighing procedures.

A stable, flat bottom and a flat-turned gripping edge make them easier to manipulate than unwieldy papers or heavy glass and porcelain labware. Flexible boats can be squeezed to control pouring, then can be rinsed with a wash-bottle stream, transferring the total sample.

The smooth surface finish and rounded interior corners facilitate the removal of granular and powdered samples. Non-wetting polystyrene is resistant to inorganic solutions. Precision manufacturing methods hold individual Weigh Boat® containers to close weight tolerance, simplifying taring procedures. 500 containers per package.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>B2045-5</td>
<td>80050</td>
<td>Micro – 7 mL 12 pk/cs</td>
</tr>
<tr>
<td>B2045-10</td>
<td>80055</td>
<td>Standard – 100 mL 4 pk/cs</td>
</tr>
<tr>
<td>B2045-15A</td>
<td>80060</td>
<td>Large – 250 mL 2 pk/cs</td>
</tr>
</tbody>
</table>

Hexagonal Weighing Boats
HEATHROW SCIENTIFIC - These flexible polystyrene boats feature smooth surfaces to provide accurate pour-outs with minimal sample loss.

- Bend flexible boats at points to form pour spouts
- Flat bottoms and sloping sides provide accurate transfer
- Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases.
- Temperature range –10°C to 70°C (14°F to 158°F)
- Can be used with microwave moisture analyzers
- Boats are shallow with a wide, flat bottom to resist tipping.
- Rounded corners simplify transfer
- 1 color (white), 3 sizes
- All are FDA/food-grade compliant

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>B2145-10</td>
<td>HS14251A</td>
<td>Small - 38 x 25 x 9 mm 500/pk</td>
</tr>
<tr>
<td>B2145-11</td>
<td>HS14251B</td>
<td>Medium - 64 x 51 x 19 mm 500/pk</td>
</tr>
<tr>
<td>B2145-12</td>
<td>HS14251C</td>
<td>Large - 102 x 76 x 22 mm 500/pk</td>
</tr>
</tbody>
</table>

Standard Weighing Boats
HEATHROW SCIENTIFIC - These flexible polystyrene boats feature smooth surfaces to provide accurate pour-outs with minimal sample loss.

- Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols, and bases
- Temperature range –10°C to 70°C (14°F to 158°F)
- Can be used with microwave moisture analyzers
- Boats are shallow with a wide, flat bottom to resist tipping.
- Rounded corners simplify transfer
- 1 color (blue) and 3 sizes
- All are FDA/food-grade compliant

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>B2145-7</td>
<td>HS1421A</td>
<td>Small - 46 x 46 x 8 mm 500/pk</td>
</tr>
<tr>
<td>B2145-8</td>
<td>HS1421B</td>
<td>Medium - 85 x 85 x 24 mm 500/pk</td>
</tr>
<tr>
<td>B2145-9</td>
<td>HS1421C</td>
<td>Large - 140 x 140 x 22 mm 500/pk</td>
</tr>
</tbody>
</table>

Pour-Boat Weighing Dishes
HEATHROW SCIENTIFIC - Pour-spout design easily dispenses samples without flexing the dish. Flat-bottom dishes are made from 12-mil thick polystyrene for better strength, stability, and handling. Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases.

- Temperature range –10°C to 70°C (14°F to 158°F)
- Can be used with microwave moisture analyzers
- 1 color (white), 3 sizes
- All are FDA/food-grade compliant

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>B2145-4</td>
<td>HS1419A</td>
<td>Small - 43 x 58 x 13 mm 500/pk</td>
</tr>
<tr>
<td>B2145-5</td>
<td>HS1419B</td>
<td>Medium - 83 x 132 x 26 mm 500/pk</td>
</tr>
<tr>
<td>B2145-6</td>
<td>HS1419C</td>
<td>Large - 108 x 183 x 26 mm 500/pk</td>
</tr>
</tbody>
</table>

cardinalhealth.com
Weighing
Weights and Weight Sets

ASTM Class 4 Weight Sets
OHAUS - Adjusted to meet or exceed ASTM Class 4 tolerances. Weights from 5 mg to 2 kg are stainless steel. Weights from 1 mg to 2 mg are aluminum. Weight sets include a polycarbonate case. No certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1900-49</td>
<td>80780100</td>
<td>500 mg–1 mg weight set</td>
<td>1/ea</td>
</tr>
<tr>
<td>B1900-50</td>
<td>80780111</td>
<td>50 g–1 mg weight set</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

ASTM Class 6 Weight Set
OHAUS - Adjusted to meet or exceed ASTM Class 6 tolerances. Weights from 2 kg to 1 g are stainless steel and weights 500 mg and below are aluminum. Weight sets include a weight case.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1903-05</td>
<td>80850116</td>
<td>Cylindrical set, 2 kg–1 g</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Avoirdupois Class F Cast Iron Grip Handle Weight
TROEMNER - Cast iron weights are manufactured to meet NIST handbook 105-1 specifications. The weights are manufactured from high quality iron that meets specifications for hardness. Castings are free of cracks, pits and sharp edges and meet surface roughness requirements. Each weight has an adjusting cavity located on its side and is sealed with a lead plug and steel back-up spacer to provide a tamper resistant seal.

All surfaces are smooth and free of scratches, dents and pores as outlined in NIST handbook 105-1. Weights are protected by a durable coat of paint to protect the casting from rusting, and resistant to chipping. Color coding – gold for metric and silver for avoirdupois – is used to differentiate the weights. Cast Iron weights are not supplied in a case.

Weights are available with no certificate, Traceable Certificate or NVLAP Certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR9074</td>
<td>9074</td>
<td>10 lb. weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR9080</td>
<td>9080</td>
<td>25 lb. weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR9076T</td>
<td>9076T</td>
<td>20 lb. weight</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Class 1 Stainless Steel Electronic Balance Calibration Weights

TROEMNER - Class 1 weights have a mirror-like finish and are made of high-quality, stainless steel alloy, which offers controlled density, low magnetic susceptibility, good stability and resistance to corrosion and damage. They have an adjusting cavity to allow for adjustment during future calibrations. Weights are available in a cylindrical design up to 5 kg and a stackable grip-handle design from 4 to 30 kg. Weights 5 kg and below are supplied in protective case. Weight sets include five weights: 100, 200, 300 and 500 g and 1 kg. Weights are available with no certificate, Traceable certificate or with NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cylindrical weights</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2185-20</td>
<td>8152</td>
<td>50 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>B2185-16</td>
<td>8144</td>
<td>100 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>B2185-12</td>
<td>8136</td>
<td>300 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td><strong>Cylindrical weights with traceable certificate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TR8152T</td>
<td>8152T</td>
<td>50 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td><strong>Cylindrical weights with NVLAP certificate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2185-10C</td>
<td>8132W</td>
<td>500 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>B2185-8C</td>
<td>8128W</td>
<td>1,000 g weight</td>
<td>1/ea</td>
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<tr>
<td>B2185-6C</td>
<td>8124W</td>
<td>2 kg weight</td>
<td>1/ea</td>
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<tr>
<td><strong>Weight sets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TR8170T</td>
<td>8170T</td>
<td>100 g–1 kg weight set with traceable certificate</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Class 4 Stainless Steel Electronic Balance Calibration Weights

TROEMNER - Class 4 weights have a satin-like appearance and finish and are made of high-quality, stainless steel alloy, which offers controlled density, low magnetic susceptibility, good stability and resistance to corrosion and damage. An adjusting cavity allows for adjustment during future calibrations. Weights are available in a cylindrical design up to 5 kg and a stackable grip-handle design from 4 to 30 kg. Weights 5 kg and below are supplied in a protective case. Weights are available with no certificate, Traceable certificate or with NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cylindrical weights with traceable certificate</strong></td>
<td></td>
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</tr>
<tr>
<td>TR8432T</td>
<td>8432T</td>
<td>500 g weight</td>
<td>1/ea</td>
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<tr>
<td><strong>Weight set with NVLAP certificate</strong></td>
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<td></td>
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<tr>
<td>TR8470W</td>
<td>8470W</td>
<td>100 g–1 kg weight set</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
**Weights and Weight Sets**

**Metric Precision Weight Sets, ANSI/ASTM Class 1**

TROEMNER - Troemner Class 1 precision weight sets conform to ANSI/ASTM E617 Class 1 standards.

Class 1 weights 1 g to 1 kg are made of Troemner Alloy 8 stainless steel, which possesses low magnetic susceptibility, uniform consistency and high resistance to corrosion. Weights 5 to 500 mg are made of stainless steel (30 mg weights are made of aluminum). Weights 3 mg and smaller are made of aluminum.

Weights 1 g and larger feature a two-piece construction. The body of the weight is one piece, and the knob of the weight is the second piece. The knob has a thread that screws into the body and is tightened. There is a cavity below the knob thread in the body that contains adjusting material, typically of the same material from which the weight is made. Weights 500 mg and smaller feature one-piece construction with one side turned up to make them easy to handle with forceps. The corners and edges of these weights are smooth. The nominal value is etched or stamped on the top surface of the weight and their shape is square. All surfaces are polished to a mirror-like finish and conform to specifications in ANSI/ASTM E617.

Weights are available with no certificate, Traceable certificate or NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR7223-1T</td>
<td>7223-1T</td>
<td>1 mg–200 g weight set</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

**Metric Precision Weights, ANSI/ASTM Class 1**

TROEMNER - Troemner Class 1 precision weights are manufactured of high-quality stainless steel and conform to ANSI/ASTM E617 Class I specifications.

Class 1 weights 1 g to 1 kg are made of Troemner Alloy 8 stainless steel, which possesses low magnetic susceptibility, uniform consistency and high resistance to corrosion. Weights 5 to 500 mg are made of stainless steel (30 mg weights are made of aluminum). Weights 1 g and larger feature a two-piece construction. The body of the weight is one piece and the knob of the weight is the second piece. The knob has a thread that screws into the body and is tightened. There is a cavity below the knob thread in the body that contains adjusting material, typically of the same material from which the weight is made. Weights 500 mg and smaller feature one-piece construction with one side turned up to make them easy to handle with forceps. The corners and edges of these weights are smooth. The nominal value is etched or stamped on the top surface of the weight and their shape is square. All surfaces are polished to a mirror-like finish and conform to specifications in ANSI/ASTM E617. Weights 1 mg through 2 kg are supplied with a case.

Weights are available with no certificate, Traceable certificate or NVLAP certificate. The traceable certificate is designed for those laboratories and companies that require traceability but do not need to meet any stringent regulatory requirements. The NVLAP certificate provides compliance in both measurement process and data reported to the customer to meet a variety of standards, including NVLAP Handbook 150-2, ISO 9000, ISO/IEC 17025, FDA, GMP, GLP, DOD, ANSI/NCSL Z540-1 and nuclear requirements.

<table>
<thead>
<tr>
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<td>B2170-26</td>
<td>7033-1</td>
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<td>1/ea</td>
</tr>
<tr>
<td>B2170-23</td>
<td>7029-1</td>
<td>100 mg weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>B2170-17</td>
<td>7025-1</td>
<td>1 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7032-1W</td>
<td>7032-1W</td>
<td>20 mg weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7024-1W</td>
<td>7024-1W</td>
<td>2 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7022-1W</td>
<td>7022-1W</td>
<td>5 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7030-1T</td>
<td>7030-1T</td>
<td>50 mg weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7028-1T</td>
<td>7028-1T</td>
<td>200 mg weight</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Metric Precision Weight Sets, ANSI/ASTM Class 2
TROEMNER - Troemner Class 2 precision weight sets conform to ANSI/ASTM E617 Class 2 standards.
Weight sets where the largest weight is 500 g and below are supplied in attractive, durable, high quality, patented polycarbonate cases with a compartment for each weight within the case. There is also a compartment for a brush, forceps and a USB Flash Drive which contains the electronic certificate. (Weight sets ordered with Traceable certificate will not have a USB Flash Drive; a printed certificate will be sent with the weights.). The cases are designed specific to the size and style of the weight so each weight fits snug in its compartment. Custom bumpers rest above each weight to assure weights are held securely in place.

Weights are available with no certificate, Traceable certificate or NVLAP certificate. The traceable certificate is designed for those laboratories and companies that require traceability but do not need to meet any stringent regulatory requirements. The NVLAP certificate provides compliance in both measurement process and data reported to the customer to meet a variety of standards, including NVLAP Handbook 150-2, ISO 9000, ISO/IEC 17025, FDA, GMP, GLP, DOD, ANSI/NCSL Z540-1 and nuclear requirements. One weight set per each.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR7223-2T</td>
<td>7223-2T</td>
<td>1 mg–200 g weight set</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Metric Precision Weights, ANSI/ASTM Class 2
TROEMNER - Troemner Class 2 precision weights conform to ANSI/ASTM E617 Class 2 standards.
Class 2 weights 1 g and larger are of two-piece construction with the body of the weight being the primary piece and the knob of the weight is the secondary piece. The knob has a thread that screws into the body and is tightened. In the body, there is a cavity below the knob thread which contains adjusting material, typically the same material from which the weight is made. Weights 1 mg through 10 kg are supplied in a case.

Weights are available with no certificate, Traceable certificate or NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR7021-2T</td>
<td>7021-2T</td>
<td>10 g weight</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Metric Precision Weights, ANSI/ASTM Class 3
TROEMNER - Troemner Class 3 precision weights conform to ANSI/ASTM E617 Class 3 standards.
Class 3 weights 1 g and larger are of two-piece construction with the body of the weight being the primary piece and the knob of the weight is the secondary piece. The knob has a thread that screws into the body and is tightened. In the body, there is a cavity below the knob thread which contains adjusting material, typically the same material from which the weight is made. Weights 500 mg and smaller are of one-piece stainless steel construction with one side turned up for easy handling. Weights 1 mg through 10 kg are supplied in a case.

Weights are available with no certificate, Traceable certificate or NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR7029-3T</td>
<td>7029-3T</td>
<td>100 mg weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7025-3T</td>
<td>7025-3T</td>
<td>1 g weight</td>
<td>1/ea</td>
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</tbody>
</table>
### Metric Precision Weight Sets, ANSI/ASTM Class 4

TROEMNER - Troemner Class 4 precision weight sets conform to ANSI/ASTM E617 Class 4 standards.

Class 4 weights 1 g to 1 kg are made of Troemner Alloy 8 stainless steel, which possesses low magnetic susceptibility, uniform consistency and high resistance to corrosion. Weights 1 g and larger feature a 2-piece construction. The body of the weight is one piece, and the knob of the weight is the second piece. The knob has a thread that screws into the body and is tightened. There is a cavity below the knob thread in the body that contains adjusting material, typically of the same material from which the weight is made. All surfaces are polished to a mirror-like finish and conform to specifications in ANSI/ASTM E617.

Weights are available with no certificate, Traceable certificate or NVLAP certificate. The traceable certificate is designed for those laboratories and companies that require traceability but do not need to meet any stringent regulatory requirements. The NVLAP certificate provides compliance in both measurement process and data reported to the customer to meet a variety of standards, including NVLAP Handbook 150-2, ISO 9000, ISO/IEC 17025, FDA, GMP, GLP, DOD, ANSI/NCSL Z540-1 and nuclear requirements. One weight set per each.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR7224-4T</td>
<td>7224-4T</td>
<td>1 g–100 g weight set</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Metric Precision Troemner UltraClass™ Weights

TROEMNER - UltraClass™ weights 1 g to 1 kg are made of Troemner Alloy 8 stainless steel, which possesses low magnetic susceptibility, uniform consistency and high resistance to corrosion. Weights 5 to 500 mg are made of stainless steel. Weights 1 g and larger feature a two-piece construction. The body of the weight is one piece and the knob of the weight is the second piece. All surfaces are polished to a mirror like finish and conform to specifications in ANSI/ASTM E617. Weights 1 mg through 2 kg are supplied with a case.

Weights are available with no certificate, Traceable certificate or NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weights with NVLAP calibration certificate</td>
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</tr>
<tr>
<td>TR7029-0W</td>
<td>7029-0W</td>
<td>100 mg weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7018-0W</td>
<td>7018-0W</td>
<td>50 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7017-0W</td>
<td>7017-0W</td>
<td>100 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7016-0W</td>
<td>7016-0W</td>
<td>200 g weight</td>
<td>1/ea</td>
</tr>
<tr>
<td>TR7014-0W</td>
<td>7014-0W</td>
<td>500 g weight</td>
<td>1/ea</td>
</tr>
</tbody>
</table>

Weighing Metric Stainless Steel Test Weights, NIST Class F

TROEMNER – Stainless steel NIST Class F weights 100 mg and above are manufactured from grade 303 stainless steel alloy, which offers closely controlled density, low magnetic susceptibility, good stability and resistance to corrosion and handling damage. All surfaces have a satin finish and conform to specifications in NIST handbook 105-1.

Weights 200 g and larger have two-piece construction which indicates that the weight is constructed of multiple pieces of raw material. The body of the weight is constructed with a cavity that contains the adjusting material, which is typically the same material from which the weight is made. Once the weight is adjusted into tolerance, it is sealed using an aluminum cap and stainless steel back-up spacer.

Weights are available with no certificate, Traceable certificate or NVLAP certificate.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weights with no certificate</td>
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<td></td>
</tr>
<tr>
<td>TR1312</td>
<td>1312</td>
<td>500 g weight</td>
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</tbody>
</table>

<table>
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<tr>
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<th>Mfr. No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight sets with NVLAP calibration certificate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRTW10010W</td>
<td>TW-100-10W</td>
<td>10 mg–100 g weight set</td>
<td>1/ea</td>
</tr>
</tbody>
</table>
Terms and Conditions of Sale

The following sets forth the terms and conditions of sale for Cardinal Health 200, LLC located at 7000 Cardinal Place, Dublin, Ohio 43017 (“Cardinal Health”). By placing an order, Customer agrees to the terms and conditions below to the extent not inconsistent with any specific written agreement between Cardinal Health and Customer.

**Prices**

For up-to-the-minute price and availability, call your local Cardinal Health Customer Service Representative or sign in to www.cardinalhealth.com. Minimum order quantities and/or special handling and/or delivery fees may apply. Please confirm at time of order placement.

Some products distributed by Cardinal Health may not be available for sale outside the U.S. and Puerto Rico.

**Payment Terms**

Payment terms are net 30 days, provided that Cardinal Health may at any time cancel, increase or decrease such credit limit, place Customer on C.O.D. or hold products from shipping based upon Customer’s payment performance, changes in Customer’s financial condition or other credit considerations deemed relevant by Cardinal Health. Any invoice that is paid past its due date will be assessed interest at a 1½% monthly (or 18% annual) rate or the highest amount allowed by law, if lower. Failure or delay by Cardinal Health to bill Customer for any such service charge will not waive Cardinal Health’s right to receive the same.

Any invoice dispute must include the following along with the partial payment of any undisputed portion from such invoice:

1. Invoice number,
2. Product code,
3. Amount disputed, and
4. Specific details as to the nature of the dispute.

Until products are paid for in full, Cardinal Health retains, and the Customer hereby grants Cardinal Health, a security interest in the products. Cardinal Health shall have a security interest in any deposit(s) to secure payment of all of Customer’s obligations, now existing, and arising in the future, to Cardinal Health or any entities affiliated with Cardinal Health. If Customer defaults on any payment due to Cardinal Health, Cardinal Health may exercise a right of setoff against any deposit held by Cardinal Health or any amounts owed by any affiliate of Cardinal Health to Customer.

**Returned Goods Policy**

Return Procedure

All returns must be authorized by your Cardinal Health Sales or Customer Service Representative, who will advise you of the proper mode of transportation for the shipment. Authorization will be valid for only 30 days.

Each return must include the following information:

1. Return Goods Authorization,
2. Purchaser name and address,
3. Cardinal Health invoice number,
4. Invoice date,
5. Purchaser purchase order number,
6. Quantity, catalog number and description of item,
7. Reason for return, and
8. Signed Ongoing Assurance Statement for prescription drugs or other products specified by Cardinal Health.

**Return Policy**

Cardinal Health will authorize the return of all products in salable condition with the following exceptions:

- **Products not purchased from Cardinal Health. By offering product for return to Cardinal Health, Customer warrants and certifies that the products were purchased by the Customer directly from Cardinal Health.**
- **Products purchased more than 3 months prior to the return request.**
- **Products with expiration date less than 60 days.**
- **Products that are regulated hazardous chemicals or reagents.**
- **Instruments that have been used to analyze human body tissue.**
- **Sterile eakes of low unit of measure product.**
- **Special or custom products made to customer specifications.**
- **Products returned in defaced or other than original packaging.**
- **Drug products that are shipped outside the United States (reimport prohibited).**
- **Flu Vaccine.**
- **Any controlled substance product that is regulated by the DEA.**
- **Prescription drugs or other products specified by Cardinal Health that are returned without a customer-signed Cardinal Health Ongoing Assurance Statement.**
- **Prescription drugs that are returned that do not achieve Cardinal Health protective service and protective packaging guidelines.**
- **Refrigerated, frozen or temperature-controlled products with the exception that Cool Room coded product (“C” coded) can be accepted back from customers and returned to stock only if ALL circumstances noted below apply to the return.**

1. The product is returned within a 5-day transit time window.
2. The external outdoor air temperature is less than 86 degrees Fahrenheit (86°F).
3. The only acceptable reasons for the return are a picking error or an ordering error.

All return items not locally stocked will be subject to locally determined restocking fee. All returns not due to Cardinal Health error will be subject to a minimum of 15% restocking fee. In the event that an unauthorized return is accepted, there will be a minimum of 25% restocking fee.

**Freight Claims**

Shortages and damages must be reported to Customer Service within 72 hours from receipt. Customer must inspect all shipments the same day they are received (visible damage). Visible damage must be noted on the delivery and inspection requested from delivery carrier or claim will be disallowed. Concealed damage requires a request of inspection from the delivering carrier, which will be made within five (5) days of notification of the damage.

During the inspection, an Inspection Report of Loss or Damage will be filled out for signature by both Customer and the applicable carrier. Customer should take exception to any statement by the inspector with which they do not agree and retain a copy of the inspection report. Customer must retain the merchandise, carton(s) and inside packaging at Customer’s facility until the inspection has been made and Customer has been given instructions for disposition of damaged merchandise.

Due to medical product licensing constraints, carriers are not entitled to salvage of damaged product. Obtain a Certificate of Destruction from the carrier. In the event an inspection is waived, an internal Certificate of Destruction is acceptable with approval from Cardinal Health.

**Product Delivery**

Shipment are FOB Destination. Cardinal Health shall use reasonable efforts to fill orders, but Cardinal Health shall not be liable for nonperformance or delays caused by a shortage of raw materials, manufacturing problems, delivery or labor problems, acts of regulatory agencies, discontinuation of a product line, Acts of God or causes beyond its control. Customer agrees that, in such events, Cardinal Health may allocate products among all purchasers, without liability.

**Warranty**

**Cardinal Health Warrants that any product it manufactures is, as of the date of shipment, fit for the purposes and indications described in the labeling. Unless the product is used in accordance with its instructions, these warranties are void and of no effect. Other products distributed by Cardinal Health Carry only those warranties made for them by their manufacturer. There are no other expressed or implied warranties, including any warranty of merchantability or fitness for a particular purpose. Cardinal Health’s sole obligation and Customer’s exclusive remedy for breach of any warranty shall be, at Cardinal Health’s option, to repair or replace the product. Cardinal Health shall not be liable for proximate, incidental or consequential damages. More specific warranties may accompany individual products.**

**Publicity**

Customer will not make any press release or other public announcement regarding its purchases of products from Cardinal Health without Cardinal Health’s express prior written consent.

**Compliance with Law**

By placing an order, Customer represents and warrants that it has all required local, state and federal licenses, permits and approvals required to purchase, use and/or store the products it elects to purchase from Cardinal Health and that all purchases from Cardinal Health are for Customer’s “own use”, as such term is defined in judicial or legislative interpretation. Customer acknowledges that Cardinal Health may suspend sales to Customer immediately if it reasonably determines that Customer has breached this “own use” limitation. If Customer receives from Cardinal Health any “discounts or other reductions in price” under Section 1128(b)(3)(a) of the Social Security Act (42 U.S.C.1320-7b(b)(3)(a)), Customer shall disclose the discounts or reductions in price under any state or federal program which provides cost or charge-based reimbursement to such customer for the products or services it purchases from Cardinal Health.

**Governing Law**

The agreement resulting from these Terms and Conditions of Sale shall be governed by the laws of the State of Ohio, applicable to contracts made and to be performed in that state.

**Effective Date:** February 1, 2007. All terms and conditions contained herein are subject to change without notice.
We are your lab partner.

For more information or to order,
contact your Cardinal Health sales representative or
call 800.964.5227 or visit cardinalhealth.com.