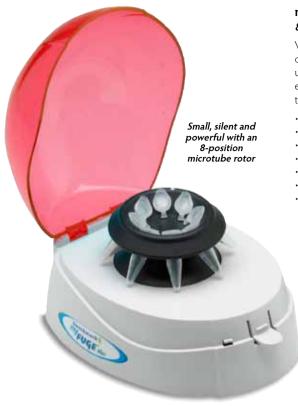
LIFE SCIENCES INSTRUMENTATION



Low-Cost Solutions for High Technology





myFuge™ Mini by Benchmark Scientific 8 Position Microtube Rotor

With twice the capacity of most mini centrifuges, the myFuge instantly reaches 6,000 rpm once the lid is closed and quickly stops once the lid is open. Models are ideal for personal use or for quick spindowns of microtubes and PCR tubes. The unit comes with an installed eight-position microtube rotor and the second PCR 0.2 ml rotor is conveniently stored in the bottom compartment.

- · 8-position microtube rotor for increased productivity
- Capacity: 8 x 1.5 / 2.0 ml tubes; 16 x 0.2 ml PCR tubes; 2 x 0.2 ml PCR strips
- Speed: 6000 rpm/2000 x g
- Dimensions: 4.5"W x 5.9"D x 4.5"H
- Electrical: 120 240V. 50/60 hz
- Includes microtube rotor, PCR rotor, 0.5 ml & 0.2 ml adapters
- · View the online product page



CE Listed units available in five colors

Color	Cat. #	\$/Each
Red	BR04-05	218.00
Blue	BR04-06	218.00
Clear	BR04-07	218.00
Green	BR04-08	218.00
Purple	BR04-09	218.00



myFuge[™] 12 Mini Centrifuge 12 x 15/2 ml Tubes Capacity

Ideal for quick spin-downs, the myFuge™ 12 by Benchmark Scientific has a silent operation and a lid-operated COMBI-Rotor that eliminates rotor changes when switching between microtubes and PCR Strips.

- Capacity: 12 x 15/2.0 ml tubes; 32 x 0.2 ml tubes; 4 x PCR strips (8 x 0.2 ml)
- Speed Range: 5500 rpm/2000 x g
- Dimensions: 5.5"W x 7.9"D x 4.4"H
- · View the online product page

	Cat. #	\$/Each
115V plug	BR15-00	293.00



StripSpin[™] 12 Mini Centrifuge 4 x 12 Position PCR Strip Capacity

These silent and compact units by Benchmark Scientific are ideal for quick spindowns of samples. Units feature a lid-operated spinning rotor that quickly spins samples at 5500 rpm when lid is closed. Open the lid to begin deceleration.

- Capacity: 4 x PCR strips (8- or 12- position) or 48 x individual 0.2 ml PCR tubes
- Fixed speed: 5500 rpm/2000 x g
- Dimensions: 5.5"W x 7.9"D x 4.4"H
- View the online product page

Cat. # \$/Each 115V plug **BR19-25 360.00**



Medilite[™] Centrifuge 6-Place or 12-Place Rotor Capacity

High-performance and cost-effective units by Thermo Scientific have safety features that protect the user when performing routine, low-speed applications of blood and urine separations.

- 6-Place Rotor Capacity: 90 ml (6 x 15 ml)
- 12-Place Rotor Capacity: 120 ml (12 x 10 ml)
- Max Speed: 3100/2700 rpm
- Max RCF: 1228/920 x g
- CE marked, CSA approved (select models)
- View the online product page

6-Place Rotor Capacity 3615-71 901.00 12-Place Rotor Capacity 3615-73 1,006.00

BENCHTOP and FREE-STANDING CENTRIFUGES by Thermo Scientific

Heraeus™ Multifuge™ X3 3-Liter Capacity

The 3-liter Heraeus Multifuge X3 is ideal for high-throughput environments and takes up to 40% less benchtop space. With nearly twice the capacity for standard tubes compared to same-sized centrifuges, these energy saving models accommodate various swinging, fixed-angle and lightweight Fiberlite™ rotors.

- Features: 3-second rotor exchange; biocontainment solution; powersave; auto-correct detection
- Max Speed: 6000 to 15200 rpm (depending on rotor)
- Max RCF: 7164 to 25314 x g (depending on rotor)



Ventilated models have a low-profile design that takes up to 40% less benchtop space compared to other models.



Refrigerated models are ideal for temperature sensitive processes in high-performance applications. CFC-free refrigeration systems have a temperature range of -10° to +40°C.

Select models are UL, CE, or CSA certified

View the online product page.

120V Models	Dimensions (W" x D "x H")	Cat. #	\$/Each
Benchtop Models			
Ventilated	22.2 x 26.4 x 14.2	3618-71	6,659.00
Refrigerated	29.3 x 26.4 x 14.2	3618-73	8,836.00
Floor-Standing Models			
Ventilated	22.2 x 26.4 x 54.5	3618-75	7,756.00
Refrigerated	22.2 x 26.4 x 31.1	3618-77	9,763.00



Transportable floor-standing model with an ergonomic height of 31.1" for easy reach of samples



Heraeus Multifuge X1 1-Liter Capacity

As the only 1-liter centrifuge capable of spinning 14×50 ml conical tubes in angle configuration at over $12000 \times g$, the energy-saving Multifuge X1 accepts various swinging bucket, fixed-angle and lightweight Fiberlite rotors. **Features**: 3-second rotor exchange; biocontainment solution; powersave; and autocorrect detection.

- · Select models are UL, CE, or CSA certified
- Max Speed/RCF: 15200 rpm/25999 x g;
- Ventilated: 17.3"W x 23.8"D x 14.2"H
- Refrigerated: 24.5"W x 23.8"L x 14.2"H
- · View the online product page

120V Models	Cat. #	\$/Each
Ventilated	1538-52	4,921.00
Refrigerated*	1538-54	6,900.00

* Model shown



Heraeus Megafuge[™] 8 4 x 145 ml to 6 x 50 ml Capacity

This compact centrifuge accepts a wide variety of swing-out and fixed-angle rotors ideal for clinical and research applications. **Features**: 3-second rotor exchange; biocontainment solution; powersave; and auto-correct detection.

- · Select models are UL, CE and IVD listed
- Max Speed/RCF: 4500 rpm/ 3260 x g
- Ventilated: 14.6"W x 18.9"D x 12.2"H
- · View the online product page

120V Models	Cat. #	\$/Eac
Ventilated	1716-01	2,155.0



Heraeus Clinifuge™ 12 x 15 ml Capacity

Ideal for clinical blood sample processing in small labs and medical practices, units also display error faults, an autoclavable rotor, and accepts a wide range of adapters. Rotor chambers are completely sealed during centrifugation and the brushless motor eliminates replacement of carbon brushes.

- CSA Certified
- Max Speed/RCF: 5000 rpm /2600 x g
- Dimension: 11.2"W x 14.8"D x 9.5"H
- View the online product page

 120V Models
 Cat. #
 \$/Each

 Ventilated
 1798-58
 1,579.00



Practum® Analytical Balances

A great value for standard applications in busy labs. **Features**: rugged weigh cell for reliable results; sturdy draft shield, extra-large feet and upfront level indicator. Dimensions: 8.5"W x 14.1"D x 12.6"H. <u>View</u> the online product page.

Weighing Capacity	Cat. #	\$/Each
120 g	5701-18	1,559.00
220 g	5701-17	1,856.00



Quintix® Analytical Balances

Designed for daily lab routine, balances include built-in applications for custom settings. **Features**: isoCAL for accurate results, touchscreen, user interface and data transfer. Dimensions: 8.5"W x 14.1"D x 12.6"H. <u>View</u> the online product page.

Weighing Capacity	Cat. #	\$/Each
120 g	5702-01	2,430.00
220 g	5702-02	2,754.00



Secura® Analytical Balances

Units with integrated systems and safety features are ideal in pharmaceutical applications. **Features**: level control, password protection, USP min. sample weight measurement and isoCAL. Dimensions: 8.5"W x 14.1"D x 12.6"H. <u>View</u> the online product page.

Weighing Capacity	Cat. #	\$/Each
120 g	5702-03	3,159.00
220 g	5702-04	3,571.00



Cubis® Ultra-Micro Balance

Modular and configurable models are designed for filter weighing, customized work flows and high resolutions. For stringent compliance requirements: **Specs**: dimensions: 9.4"W x 14"D x 3.5"H; semi-automatic leveling; readability: 0.0001 mg. <u>View</u> the online product page.

	Cat. #	\$/Each
2.1 g	5701-00	29,437.00



Cubis Micro-Balance

Modular and configurable models are designed for the smallest sample weighing, customized work flows and high resolutions. For stringent compliance requirements. **Specs**: dimensions: 9.4"W x 14"D x 3.5"H; semi-automatic leveling; readability: 0.0005 mg (max). View the online product page.

Cat. #	\$/Each
5701-02	18,144.00



Cubis Semi Micro-Balance

Modular and configurable models are designed for filter weighing, customized work flows and high resolutions. For stringent compliance requirements. **Specs**: dimensions: 9.8"W x 17.7"D x 14"H; Integrated Ionizer; automatic Leveling; readability: 0.01 mg. <u>View</u> the online product page.

Cat. #	\$/Each
5701-04	13,163.00



Entris® Analytical Balance

Models have built-in applications and function keys for easy operation. Backlit display provides easy viewing of controls. **Specs**: dimension: $9.1\text{"W} \times 11.9\text{"D} \times 13\text{"H}$; weighing pan: 3.5" diam.; weighing capacity: 60 g to 220 g.

Weighing Capacity	Cat. #	\$/Each
60g	5702-84	1,073.00



Entris Precision Balance

User-friendly models have built-in applications and function keys for easy operation. Backlit display provides easy viewing of controls. **Specs**: 11.9"W x 9.1"D x 5.4"H; weighing pan: 4.5" diam.; weighing capacity: 150 g to 620 g.

Weighing Capacity	Cat. #	\$/Each
150g	5702-86	644.00



Entris Top-Loading Precision Balance

Models have built-in applications and function keys for easy operation. Backlit display provides easy viewing of controls. **Specs**: dimension: 11.9"W x 9.1"D x 5.4"H; weighing pan: 7.1" X 7.1"; weighing capacity: 820 g to 8200 g.

Weighing Capacity	Cat. #	\$/Each
8200 g	5702-98	787.00

Ergonomic, High-Performance and Reliable

- Wide range of styles and configurations meets diverse requirements
- Ergonomic and lightweight pipettes reduce finger fatigue and prevent Repetitive Strain Injury (RSI)
- Designed and manufactured in compliance with ISO 9001, ISO 13485 and ISO 14001 quality and environmental standards
- · Made with recyclable materials
- · Color-coding for easy pipette and tip selection
- Accessories: SafetySpace Filter Tips, Safe-Cone Filters; Charging stands for eLINE and Picus
- Two Year Manufacturer Warranty



Visit <u>Laboratory-Equipment.com</u> for complete ordering selection of pipettes!

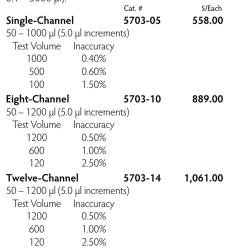


eLINE® Electronic Pipettes

Autoclavable pipettes are designed with a comprehensive feature of pipetting modes that streamline work stages. <u>View</u> online product page.

- · DC-motor has built-in error control
- Optiload for perfect tip sealing and equal constant force for multi-channel models
- **Super Pipetting** on 0.1 5 μl increases accuracy and reduces contamination risk
- Effortless electronic tip ejection
- Autoclavable lower parts > 10 μl
- 9 speeds for aspiration and dispensing
- Memory saves 6 programs
- LCD-display and keypad for programming
- · Chargeable when in use, includes AC adapter

Models shown (other sample ranges available from $0.1-5000~\mu l$):





Picus Electronic Pipettes

Extremely lightweight and ergonomic models with eight pipetting modes for handling various liquid-handling tasks. <u>View</u> online product page.

- Lightest and smallest electronic pipette weighs only 100 g (0.22 lbs.)
- Enhanced DC-motor for outstanding performance
- Micro DC-motor electronic brake quickly stops the piston; ideal for serial dispensing
- Adjustment Wheel for one-handed volume setting
- Autoclavable lower parts (select models)
- · Electronic tip ejection and hot key
- · Optional: plate tracker

120

Models shown (other sample ranges available from $0.1 - 1200 \mu$):

Cat. #

\$/Each

Single-Channe		5702-45	751.00
50 – 1000 μl (0.:	50 μl increme	ents)	
Test Volume	Inaccuracy		
1000	0.40%		
500	0.60%		
100	1.50%		
Eight-Channel		5702-51	1,247.00
$50 - 1200 \mu$ l (50	0.0 µl increme	ents)	
Test Volume	Inaccuracy		
1200	0.50%		
600	1.00%		
120	2.50%		
Twelve-Chann	nel	5702-55	1,579.00
50 - 1200 μl (50).0 μl increme	ents)	
Test Volume	Inaccuracy		
1200	0.90%		
600	1.00%		



mLINE® Mechanical Pipettes

Lightweight, autoclavable models prevent repetitive strain injury (RSI) and are easy to sterilize without disassembly. <u>View</u> online product page.

- Extremely light pipetting and tip ejection forces with a 12N pipetting force on 1000 μm 1-channel models
- Optiload for perfect tip sealing and equal constant force for multi-channel models
- Secure and smooth volume setting locks prevent accidental changes, ideal for clinical use
- · Autoclavable without disassembly
- Multipacks available with pipettes, Optifit Tip Tray and Linear Stand

Models shows (other sample ranges available from $0.1 \, \mu l - 10 \, ml$):

Single-Chann	el	PP03-04	254.00
20 – 200 µl (0.2	0 μl incremer	nts)	
Test Volume	Inaccuracy		
200	0.60%		
100	0.80%		
20	2.00%		
Eight-Channe	l	PP03-10	651.00
30 – 300 μl (0.2	0 μl incremer	nts)	
Test Volume	Inaccuracy		
300	0.60%		
150	1.00%		
30	2.00%		
Twelve-Chan	nel	PP03-12	776.00
30 – 300 μl (10	0 μl increme	nts)	
Test Volume	Inaccuracy		
300	0.60%		
150	1.00%		
50	2.00%		

2 50%

S/Each

PCR WORKSTATIONS by Terra Universal



Terra manufactures turnkey laminar flow Polymerase Chain Reaction (PCR) Hoods with laminar flow HEPA filtering for cleanliness. The air-velocity meter monitors air flow. These lightweight models are made with acrylic or static-dissipative PVC panels. Models are available with a stainless steel work surface. View the online product page.

- Portable, economical turnkey hood converts any benchtop surface into a controlled PCR work station
- Safe UVC Disinfection Module with "exposure switch" to protect users from harmful UV light
- Fully-enclosed environment keeps UV energy safely contained during sterilization
- · Samples and equipment introduced via large front sash
- Full-length front access shield enhances laminar flow when closed and gives users complete access to samples and equipment when open.
 It is held open, or safely closed during UV decontamination, with magnetic latches

PCR Workstations			
PCR Hood Material	Dimensions W" x D" x H"	Cat. #	\$/Each
Acrylic	36 x 24 x 30.25	1692-90	3,723.00
Acrylic	48 x 24 x 30.25	1692-91	3,986.00
Static-dissipative PVC	36 x 24 x 30.25	1692-93	4,466.00
Static-dissipative PVC	48 x 24 x 30.25	1692-94	4,779.00
Tempered Glass	36 x 24 x 30.25	1692-95	3,406.00
Tempered Glass	48 x 24 x 30.25	1692-96	3,645.00





Material	Cat. #	\$/Each
Acrylic	1692-99	162.00
Polypropylene	1692-98	162.00



mLINE® Pipette Multipacks by Sartorius Ultra-Violet C Sanitizing Lamp

Multipacks	Cat. #	\$/Each
Pipette 3-pack 10	PP03-20	776.00
Pipette 3-pack 20	PP03-21	776.00
Pipette 4-pack	PP03-22	975.00
Pipette 3+1 pack	PP03-23	1,287.00
Pipette 5-pack	PP03-24	1,209.00



Ultra-Violet C Sanitizing Lamp 99+% kill rate for common bacteria and viruses within 2 minutes!

Length	Cat. #	\$/Each
21"	3305-90	426.00
33"	3305-91	471.00
61"	3305-92	594.00

THERMAL CYCLER by Benchmark Scientific



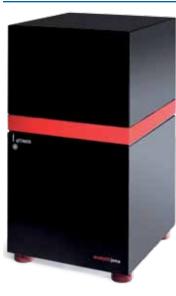
TC9639 Thermal Cycler

Ideal for medium- to high-throughput laboratories, the **TC9639** Thermal Cycler makes it quick and easy for users to set up programs and protocols. The large, **full-color touch screen** allows the creation of icons for most-used programs. The **program wizard** guides users through protocol set-up in a single screen and allows for program edits and alphanumeric naming of programs and folders. Condensation and evaporation of samples are prevented by the **fully adjustable heated lid**. Units also feature programmable lid temperature and the lid automatically shuts off when the block temperature is below 35°C. A proprietary algorithm with tight tolerances accurately controls heating and cooling of the block. The **multi-format block** of the TC9639 eliminates the expense and need for multiple interchangeable blocks and the model accepts 96 x 0.29ml tubes, a 96-well plate or 39 x 0.5 ml tubes. For high-throughput labs, the **T5000-384** with 384-well block is available.

	Cat. #	\$/Each
TC9639 US plug	BR19-43	4,214.00
TC9639 EU plug	BR19-44	4,214.00
T5000-384 US plug	BR19-46	4,496.00
T5000-384 EU plug	BR19-47	4,496.00

Provides consistent and reliable results with unlimited program storage capability

THERMAL CYCLERS by Analytik Jena



Sample Volume/Capacity 5 – 20 µL/96 in parallel

qTOWER Real-Time Quantitative rapidPCR Thermal Cycler

Units perform quantitative PCR runs in less than 25 minutes compared to 90 minutes for standard thermal cycles. Amplifies reaction volumes of just 5 µL. View the online product page to see additional models.

- Up to 10x faster than conventional cyclers
- qPCR with up to 96 samples in less than 25 minutes
- · Adjustable ramping rates from 0.1°C/sec up to 12°C/sec
- · Fiber-optic system for high signal intensities
- •75% savings on reagents; reduces reaction volumes down to $5~\mu L$
- ·RoHS compliant and provides sample protection with thermal block

\$/Fach 1011-08 22,817.00



aTOWER 2.0. 115 V

gTOWER 2.0/2.2 Standard Real-Time PCR Thermal Cycler

Models with an open-platform design accept individual reactions. Different assays can be optimized with minimum effort if combined with the gradient function. View the online product page for details.

- Use with 0.2 ml tubes, 8 well strips or 96-well microplates
- Optimized for volumes of 10 60 μl; Ramping rates of up to 5.5°C/sec
- · Patented high-performance optical system with 10 years warranty
- · Individual configuration with up to 6 different wavelength channels
- · Selection of 12 high-resolution, retrofitable color or FRET modules
- · High-speed scan: 6 sec. for a 96well microplate

Cat # S/Fach 21.680.00 1011-69 qTOWER 2.2, 115 V, with gradient function (max. 40°C) 1011-70 22,822.00



SpeedCycler2

Ultra High-Performance PCR Thermal Cycler

As the fastest available thermal cycler in the world, these compact, modular units deliver extraordinary high heating (15°C/sec) and cooling (10°C/sec) rates. Available in: LPR, LP, SPR and SO.

- rapidPCR in less than 8 minutes
- Self-Adapting-Container delivers outstanding heat transfer
- Optimized for low reagent consumption (reduces running cost)
- Thermal blocks made of sterling silver w/ gold layer
- Portable user-interface HID-Pro 320; Reduced primer mismatching
- Accommodates standard PCR and low-profile PCR consumables
- · View the online product page for complete product listing

\$/Each 96 LPR (96 x 20 μl), universal voltage (100-240 V model) 1011-27 7,421.00

Blue Prices: items usually ship in 1–3 days. Order: 714-578-6100



FlexCycler2 PCR Thermal Cycler

Models have a large VGA Display and twin block modules with two independently controllable blocks and heat lids. The multi-block modules allow two different protocols to run at the same time.

- · Quick-X-Change block system adapts to different requirements
- Maximum heating and cooling rate: 4.5°C/sec
- · Automatic block recognition and multi-block start and stop function
- · 96-well and 48-well twin-block option with gradient function
- · High Performance Smart Lid for continuous optimal contact pressure
- USB A and B port; GLP-compliant documentation of PCR runs
- · View the online product page to see available Block Modules

Cat # \$/Each 1011-63 Base Unit with Block 96 Call TUI



Biowave DNA UV/Vis Spectrophotometer

Specifically designed for life science applications, this powerful tool determines nucleic acid purity and concentration, protein concentrations or cell density measurements. It uses Gifford Optics for high energy throughout, a Xenon light source for long lamp life and a large graphical display for ease of use and data interpretation. Compatible with low-volume cuvettes. View the online product page.

	Cat. #	\$/Each
Biowave DNA	5300-15	4,824.00
Biowave DNA with printer	5300-16	5,348.00



LAMBA™ Bio+ Spectrophotometer by Perkin Elmer

Designed for life-science laboratories, these compact units offer a full suite of stored methods including DNA, RNA and Oligonucleotide calculations, protein assays such as direct UV measurement, BCA, Biuret, Bradford and Lowry. These spectrophotometers measure absorbance or concentration at any wavelength. Results may be printed to an integrated high-quality printer or stored and printed via SD flash memory card. <u>View</u> the online product page.

Cat. #	\$/Each	
LAMBDA Bio+ with printer	5102-02	5,997.00
LAMBDA Bio+ with SD Card	5102-03	5,902.00



S800/S1200 Spectrawave Visible Diode Array Spectrophotometers

These compact, lightweight, easy-to-use instruments measure absorbance, % transmission, absorbance ratio and concentration. The large backlit graphical display of the \$1200 enables viewing of wavelength scans, kinetic assays (including slope calculation) and standard curves. Both models accept standard 10mm pathlength glass or plastic cuvettes; an adapter is available for 10, 12, and 16mm test tubes. View the online product page.

	Cat. #	\$/Each
S800 UV/Vis	5300-09	1,977.00
S1200 UV/Vis	5300-10	2,418.00



LAMBDA XLS+ Spectrophotometer by Perkin Elmer

The LAMBDA XLS+ is designed for academic and industrial laboratories that require dedicated instrument with a small footprint and extreme reliability and sensitivity. It includes an easy-to-read display and comprehensive suite of built-in application software; measurement modes include single- and multi-wavelength modes, scanning kenetics, and concentration, with the ability to store up to 90 methods for easy access. <u>View</u> the online product page.

	Cat. #	\$/Each
LAMBDA XLS+ with printer	5102-00	5,712.00
LAMBDA XLS+ with SD card	5102-01	5,617.00



CO 8000 Biowave Personal Cell Density Meter (Colorimeter) by Biochrom®

This small, portable colorimeter measures the density of *E. coli* and yeast cells in suspension at 600 nm and provides readings comparable to spectrophotometers. Ideal for use in research labs where cultures may be grown in 200 ml to 5L-volume conical flasks, units also accept 10mm pathlength cuvettes or tubes and may be used with Erlenmeyer side-arm flasks. Smooth front surface resists spills and is easy to sterilize. Stores up to 99 results. <u>View</u> the online product page.

Cat. # \$/Each 5300-06 921.00



CO 7500 Colorwave Educational Colorimeter by Biochrom

Designed with student use in mind, these models are ergonomic, rugged, portable, and easy to operate. Models include a rotating filter-selection wheel. Used in kenetics mode to study rates of reaction, the CO 7500 takes readings every second for output and they accommodate standard 102 mm pathlength cuvettes (min 400 μ l required) or 16 mm dia. test tubes. Other tube adapters and printers are available. View the online product page.

Filters: 440, 470, 490, 520, 580, 590 and 680 nm

	Cat. #	J/Lacii
For AC power only	5300-00	782.00
With Rechargeable Battery	5300-01	864.00



IB53000B DNA Horizontal Electrophoresis Start-Up Kit by IBI Scientific

Contains the following quality IBI products: 70 mm x 165 mm x 305 mm horizontal electrophoresis system, 10X TAE buffer concentrate (1 L), 10X TBE buffer concentrate (1 L), 6X loading dye (5ml), and molecular biology-grade agarose (100 g). Gel size: 100 mm x 150 mm. View the online product page.

Cat. # \$/Each **EE00-00 435.00**



B57000B DNA Horizontal Electrophoresis Start-Up Kit by IBI Scientific

Contains the following qualify IBI products: an 83 mm x 267 mm x 394 mm horizontal electrophoresis system, 10X TAE buffer concentrate (1 L), 10X TBE buffer concentrate (1 L), 6X loading dye (5 ml), and molecular biologygrade agarose (100 g). Gel size: 250 mm x 250 mm. View the online product page.

Cat. # \$/Each **EE00-01 588.00**



C/Each

IB94000B MAGELIN Vertical Electrophoresis Start-Up Kit by IBI Scientific

Contains the following quality IBI products: a 170 mm x 170 mm x 180 mm MAGELIN Protein System, designed to run 10 x 10 cm cast-your-own polyacrylamide gels or other pre-cast gels in a dual running format. Includes 10X Tris-Glycine-SDS running buffer (1 L), 2X protein loading dye (5 ml), and Coomassie Blue stain (2 L). Gel size: 100 mm x 100 mm (hand cast). View the online product page.

Cat. # \$/Each **EE00-02 529.00**

SHAKERS and VORTEXERS by Thermo Scientific



MaxQ[™] 5000 Incubated & Refrigerated Floor Shakers

Foot pedal models for hands-free use

Incubated and refrigerated floor shakers have an easy-access drain, unbalanced load sensor and casters. <u>View</u> all analog and digital models.

- Dimensions: 41"W x 32"D x 41"H
- · Orbit Diameter: 1"; Maximum Load: 75 lbs.
- Temp. Analog: 10°C above ambient to 50°C
- Temp Digital: 15°C above ambient to 50°C

Floor Model, 120V	Cat. #	\$/Each
Incubated-Analog	5322-18	7,464.00
Incubated-Digital	5322-19	9,019.00
Refrigerated-Analog	5322-20	8,856.00
Refrigerated-Analog	5322-20	8,856.00
Incubated-Refrigerated	5322-21	10,255.00



MaxQ 4450 Incubated Orbital Shaker Chamber holds up to four 1 L flasks.

These compact, orbital shakers have an optional chiller to achieve temperature ranges from 20°C to 30°C. <u>View</u> all analog and digital models.

- Dimensions: 14.1"W x 27.2"D x 15.8"H
- Orbit Diameter: 0.75"
- Maximum Load: 35 lbs.
- Operating Temperature: 5°C above ambient to 80°C

Cat. #	\$/Each
5322-02	3,621.00
5322-03	3,590.00
5322-09	3,275.00
5322-10	3,754.00
	5322-02 5322-03 5322-09



MaxQ 4000 Incubated and Refrigerated Orbital Shakers Chamber holds up to six 2 L flasks

Units have three temperature ranges to fulfill various application needs. <u>View</u> online page for complete list of models.

- Dimensions: 22.5"W x 32"D x 22"H
- · Orbit Diameter: 0.75"
- · Maximum Load: 50 lbs.
- Operating temp: 10°C above amb. to 50°C

Model, 120V	Cat. #	\$/Each
Incubated-Analog	5322-04	4,507.00
Incubated-Digital	5322-05	5,565.00
Refrigerated-Analog	5322-06	5,906.00
Refrigerated-Digital	5322-07	6,382.00



MaxQ 2000 Open-Air Platform Shakers Accommodates 3 platform sizes

Compact units can be used in refrigerators, incubators and warm rooms. <u>View</u> all analog and digital models.

- Dimensions: 18.5"W x 17.4"D x 5.5"H
- Orbit Diameter: 0.75 in./Maximum Load: 35 lbs.
 Operating Temperature: 0 to 40°C, 20 to 80%
- RH, non-condensing

 120 V Models

 Cat. # 5/Each

120 V Models	Cat. #	\$/Each
Analog	5322-00	1, 4 88.00
Digital	5322-01	1,721.00



Compact Digital Mini Rotator Accommodates 50 ml to 2 L flasks

Compact models with smooth and quiet horizontal mixing can fit inside CO_2 incubators and refrigerators. View online product page.

- Dimensions: 10.9"W x 13"D x 5.1"H
- Platform Dimensions: 9.8"W x 9.8"D
- Orbit Diameter: 0.51"
- · Maximum Load: 8.81 lbs.

Model 120 V	Cat. #	\$/Ead
50 – 300 rpm	5322-62	832.0



Compact Digital Microplate Shaker Shakes four microplates in one run

For precise and accurate shaking of microplates, units can be placed inside incubators (non-CO₂) and refrigerators. View online product page.

- Dimensions: 9.8"W x 5"D x 13"H
- · Orbit Diameter: 0.12"/Maximum load: 8.8 lbs.
- Operating Temp: 0° to 40°C and humidity conditions from 20 to 80% non-condensing

 Speed Range
 Cat. #
 \$/Each

 40 - 1100 rpm
 5322-90
 693.00

SHAKERS, VORTEXERS AND ROCKERS by Benchmark Scientific



Orbi-Shaker™ MP Microplate Shaker Four microplate capacity

These cold room and incubator safe models are optimized for thorough mixing of microplates and PCR plates. <u>View</u> online product page.

115 – 240V Model	Cat. #	\$/Each
3 mm mixing orbit	BR09-13	704.00



Incu-Shaker™ Shaking Incubators 1 L and 10 L capacity

Ideal for cell cultures, units provide temperature accuracy and uniformity. <u>View</u> optional MAGic Clamp platforms and shelves.

115V Model	Cat. #	\$/Each
10 Liter	BR13-00	4,713.00
10 Liter (Refrigerated)	BR13-29	7,002.00
Mini (1 Liter)	BR13-02	2,412.00



Orbi-ShakerTM Orbital Shaker $5 \times 1 L$ capacity

Includes a standard platform with a non-slip rubbercoated surface. <u>View</u> online page for MAGic Clamp platforms and tube racks.

120 V Model	Cat. #	\$/ Each
19 mm Orbit	BR09-12	1,272.00
50 ml Flask Clamp	BR09-02	24.00
2 L Flask Clamp	BR13-07	54.00



Mortexer[™] Vortex Mixer Eight microcentrifuge tube capacity

Compact, quiet units with a Multi-Head $^{\text{m}}$ design and spill-proof feature are cold room and incubator compatible. <u>View</u> online product page.

I I5V Model	Cat. #	\$/ Each
200 – 3400 rpm	BR01-00	209.00



Multi-Therm[™] Vortexer 6 x 50 ml – 96 x 0.2 ml capacity

Temperature-controlled models used with interchangeable blocks hold a variety of tube sizes and vessels. <u>View</u> online product page.

115 V Model	Cat. #	\$/ Each
Heat/Cool (HC)	BR14-02	2,179.00
Heat (H)	BR14-00	1,633.00



Incu-Mixer™ MP Heated Microplate Vortexer

Accepts 40 mm-high microplate

Two or 4-plate units work as a multi-plate incubator or vortexer. The heated lid minimizes evaporation and condensation. <u>View</u> online product page.

115 V Model	Cat. #	S/ Each
4-Plate Capacity	BR15-05	1,814.00



BlotBoy[™] 3-D Rockers 3.5 Lb. load capacity; +/- 8° tilt angle

These incubator and cold room safe models provide gentle and thorough mixing of gel trays, boxes and other flat vessels. Models include autoclavable flat mat. <u>View</u> online product page.

15 V Model	Cat. #	\$/ Each
12" x 12" platform	BR02-01	343.00



BenchRocker[™] 3-D Variable-Speed Rocker 5 Lb. load capacity; 0° to ±30° variable

Incubator and cold room safe models with adjustable tilt angle and rocking speed are ideal for various biological and mixing applications. <u>View</u> online product page.

115 V Model	Cat. #	\$/ Each
12" x 12" platform	BR19-17	629.00



Everlast™ 247 Heavy-Duty, Variable-Speed Rocker

16 Lb. load capacity; 0° to ±20°, variable

Models have an adjustable speed and tilt angle, built-in platform, and optional platforms. <u>View</u> online product page for accessories.

115 V Model	Cat. #	\$/ Each
16" x 12" platform	BR13-19	814.00





Compact and rugged, these analog models produce reliable results. Units have constant horn amplitude at different energy levels with automatic amplitude compensation.

- Fully automatic tuning optimizes performance under varying conditions and stores frequency at end of each cycle
- · Power output control matches power to the application
- Continuous or timed (0 15 minutes) operation
- Pulsed mode minimizes heating of sensitive samples
- Process range from 1 ml to over 500 ml per sample
- Power output meter monitors power and permit reproducibility

Applications: Biological cell disruption / homogenization, emulsification, purification of genetic material, dispersion, fine mixing, degassing

Model	Tapered Horn	Cat. #	\$/Each
200 W	0.5"	2601-01	2,553.00
400 W	0.5"	2601-02	2,869.00



Digital Sonifier® Cell Disruptor

For precise process control and parameter measurement

Programmable, compact and rugged units feature self-diagnostics, multiple modes of operation, stored user programs and more. Amplitude of units is adjustable from 10-100%.

- Fully automatic tuning optimizes performance under varying conditions and stores frequency at end of each cycle
- Digital features: Multiple modes of operation; Digital parameter setting with valid parameter range checking; 20 user-programmed presets; 10-hour digital timer; User I/O offers remote start/stop control and viewing settings and values
- · Self-diagnostics on start-up; Automatic end-of-cycle shutoff

Applications: Cell disruption/ homogenization, nanoparticles, emulsification, chip assay, cell lysing, processing DNA and proteins, purification of genetic material, leaching and extraction, fine mixing, degassing

Model	Cat. #	\$/Each
200 W	2601-03	2,864.00
400 W	2601-04	3,159.00

Analog and Digital Models:

Includes: power supply, high-efficiency converter and standard 1/2" titanium horn suitable for many applications Dimensions: 7.8"W x 17.6"D x 9.6"H

View online product page: Analog Sonifier Cell Disruptor or Digital Sonifier Cell Disruptor

Accessories



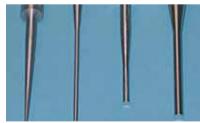
Cup Horn for Digital and Analog Models

Diam.	Cat. #	\$/Each
2"	2601-23	906.00
3"	2601-24	1,500.00



Microtips for Analog Sonifier

Double Step	ped Microtip		
Diam.	Intensity	Cat. #	\$/Each
1/8"	Very High	2601-36	463.00
Tapered Mid	rotips		
1/8"	Ultra High	2601-33	306.00
3/16"	Very High	2601-34	306.00
1/4"	Ĥigh	2601-35	306.00



Microtips for Digital Sonifier

Diam.	Cat. #	\$/Each
3/32"	2601-09	399.00
3/16"	2601-10	393.00
1/8"	2601-11	399.00
1/4"	2601-12	399.00



Q55 Sonicator

- Ideal for standard cell disruption and other small-volume applications
- Compact unit to fit any laboratory work space
- · Simple and effective operation
- · Two processing options: thumb switched activated or continuous processing

The Q.55 is a compact and cost-effective unit that can easily fit most bench top work spaces. Its simplified control system allows the user to choose between thumb switch or continuous operation. The 55-watt, 20 kHz unit effectively handles most small-volume applications including standard cell disruption, emulsions creations, DNA shearing and homogenization.

View online product page.

Q700

Q700

Q700

 $0.2 - 5 \, \text{ml}$

0.5 - 15 ml

 $5 - 50 \, ml$

1/16"

1/8"

1/4"

Note: Includes generator, converter, $^{1}\!/\epsilon"$ diameter probe, power cable and wrench set.



Q700 Sonicator

- Ideal for nanoparticle dispersion, creating emulsions, cell lysis and homogenization
- A large color LCD screen allows touch screen control and clearly displays all operating parameters and options
- · Operating parameters can be saved to memory and run with the touch of a button

The Q700 has features that enhance reproducibility and ensure sample-to-sample consistency. Its state-of-the-art touch screen interface allows intuitive control and a user-friendly experience. Full amplitude control from 1-100% enables greater control over the probe's intensity and provides the user with a high degree of resolution to pinpoint the most efficient settings for processing samples.

View online product page.

\$/Each

96.00

82.00

 Cat. #
 5/Each

 Q700 Sonica
 5323-00
 4,448.00

Accessories



5323-03

5323-04

5323-05

273.00

230.00

230.00



Sound Enclosure

Reduces noise level by 20 dBa Securely holds Qsonica probe or horn

Units compatible with accessories except the Microplate Horn (has own dedicated enclosure)

Includes internal support rod and converter mounting system

Two ports for coolant tubing or temperature monitoring

Interior walls line with waterresistant acoustical foam

5 .		
Dimensions	Cat. #	\$/Each
3.5"W x 13"D x 30.5"H	5323-06	542.00

5323-13

5323-07

Q55

Q700



myBath™ Digital Water Bath by Benchmark Scientific

These compact models are made with high-efficiency insulation, and they maintain temperature stability and uniformity for heating reagents and samples. <u>View</u> online product page.

- Temperature Range: Ambient +5 to 100°C
- 4 L model includes racks for 1.5/2.0, 15 & 50 ml tubes
- 8 L and 12 L models include drains
- 4 L, 8 L, and 12 L units have removable gable
- Digital controls to select and monitor water temperature
- 3-digit display shows temperature increments
- Quik-CAL[™] temperature calibration function (2 L models use traditional calibration)
- Seamless, rust-resistant stainless-steel chamber with rounded corners for easy cleaning

myBath Digital Water Bath Series, 115V			
Liter	Interior Dimensions W" x D" x H"	Cat.#	\$/Each
2 L	5.5 x 6 x 4	BR17-02	458.00
4 L	5.3 x 9.4 x 5.5	BR17-00	723.00
8 L	12.8 x 10.4 x 5.9	BR17-03	705.00
12 L	12.8 x 10.4 x 7.9	BR17-04	836.00



Refrigerated/Heating Circulator by IULABO

Working temperature: -20°C to 100°C

Models are used for external instrument integration and for temperature applications directly in the bath. <u>View</u> online product page for additional models.

- Circulating pump provides short heat-up and cool-down times
- LED temperature display, resolution 0.1°C
- Keypad switches automatically to the actual value; PID1 temperature control
- Adjustable high temperature cut-out / dryrunning protection
- Includes 2 barbed fittings and removable venting grill

Temperature Range Cat. # \$/Each
-20 to 100°C **2540-00 2,928.00**



Cryo-Compact Circulators BY JULABO Working temperature: -40°C to +200°C

Compact models are designed to be stored side-byside with other units or directly under a fume hood. View online product page for additional models

- Dimensions: 9.5"W x 18.1"D x 15.8"H
- · Ventilation air cooling
- Maximum ambient temperature of +40°C
- · Heating capacity of 2 kW
- Filling volume: 3.5 L
- · Wetted parts made of stainless steel or plastic

Temperature Range Cat. # \$/Each -30 to 150°C **2540-04 5,022.00**



Recirculating Coolers by JULABO Working temperature: -25°C to +130°C

Cost-efficient, energy-saving models are suited for any cooling requirement in labs or industrial environments. <u>View</u> online product page for additional models.

- · Cooling capacity up to 20 kW!
- · Splash-proof keypad; LED display
- Alarm output and RS232 (select models)
- · Filling-level indicator and pressure indicator
- Circulating pumps; Optional air or water cooling
- Easy fill and drain tap readily accessible
- All wetted parts made of stainless steel or high grade plastic(except FC-T models)

Temperature Range Cat. # \$/Each -20 to 40°C 2540-13 5,201.00

ECHOtherm™ IC20 Digital, Electronic

Compact and low-cost units chill and heat biological samples from -10°C to 100°C without sample blocks. <u>View</u> online page for product details.

- · Energy-efficient Peltier design
- Control at ambient
- · Count down timer (up to 30 days) with alarm and Auto-Off
- RS232 I/O port; built-in data logger; electronic calibration
- Control software available for use with computer
- · Operates when hooked up to a vehicle lighter jack
- 12-volt DC operation. Requires no agency safety approvals
- · External power supply provided
- · UL, CSA and CE approved

Applications: General molecular biology, PCR sample prep. hybridization

Temp. Range	No. of Blocks	Cat. #	\$/Each
-10°C to 100°C	1	5005-00	775.00
-20°C to 100°C	1	5005-01	828.00

ECHOtherm Model IC22 Two-Position Electronic

These dual-block models will chill, heat or freeze two separate sets of samples according to different temperature settings. <u>View</u> online page for product details.

- · 2 separate plates with 2 separate temperature protocols
- Sample blocks for 0.2, 0.5 and 1.5 ml centrifuge tubes, 96-well and 384-well assay plates, 2 ml vials
- Control at room temperature and electronic calibration
- Two 30-day countdown timers with alarm
- · UL, CSA and CE compliant
- Energy-efficient Peltier design

Applications: General molecular biology, PCR sample prep. hybridization

Temp. Range	No. of Blocks	Cat. #	\$/Each
-10°C to 100°C	2	5005-04	1,459.00
20°C to 100°C	2	5005-05	1,455.00

ECHOtherm Model SC25 Fully Programmable Orbital Mixing

Ideal for busy high-throughput labs, these programmable models are ideal for a broad range of applications. <u>View</u> online page for product details.

- Orbital mixing from 200 to 1000 rpm
- 5-program memory; automatic program repeat from 1 99 times
- Digital control to 1°C from -10°C to 100°C
- Control at room temperature; Electronic calibration
- 12-volt DC operation. Universal power supply provided
- · UL, CSA, and CE compliant
- · Energy-efficient Peltier design

Applications: Storing enzyme or DNA libraries at workstation, enzyme reactions and deactivations, unattended restriction digestions or ligations at elevated and reduced temperatures

Temp. Range	No. of Blocks	Cat. #	\$/Each
-10°C to 100°C	1	5005-08	1,701.00
20°C to 100°C	1	5005-09	1,777.00



IC20: Compact models can be plugged to vehicle lighter jack



IC22: 2 separate temperatures on separate plates—2 blocks



SC25: Stores 5 programs with a 10-step program capacity



General Purpose Aluminum-Top **Hot Plates**

For routine lab applications

These affordable and durable hot plates maintain uniform temperature with built-in thermostatic temperature control. View online product page.

- · Material: Aluminum top
- Dimensions: 6.63"W x 7.63"D x 4.38"H
- Heating Surface: 6.25" x 6.25"
- Temp. Uniformity: ±2.4°C at 100°C
- Baffle-vented welded stainless steel case
- UL Listed

Temperature Range, 120V

°C S/Each 38 - 371 100 - 7004000-70 257 00



Explosion-Proof SAFE-T HP6 Hot Plates Class I/Group D atmospheres

These sturdy, corrosion-resistant units are designed with a sealed aluminum housing to contain and protect controls. View online product page.

- · Material: Cast aluminum top
- Dimensions: 7"W x 7.63"D x 3.25"H
- Heating Surface: 6.13" x 6.13"
- Maintains Temp.: ±5.5°C
- Thermostatic safety set at 243°C
- · Boils 600 mL in 60 mins.; UL/cUL listed

Temperature Range, 120V

Cat. # S/Each 1,090.00 38 - 220 100 - 428 4000-92



Remote Control Hot Plates Operates outside fume hoods

Available in two sizes, these chemical-resistant units have a remote unit that can be positioned up to five feet from the hot plate. View online product page.

- · Material: Porcelain-coated, stainless-steel top; stainless-steel case
- Temperature Range: 150°C to 371°C
- Temperature Stability: ±5°C
- Temperature Uniformity: ±10°C (at 150°C)
- · Isolated controls for operation in hazardous environments; infinite temperature selection
- Includes: Five-foot 3-wire cord and plug

120V	Heating Surface	Cat. #	\$/Each
Small	12" x 12"	4000-99	1,058.00
Large	12" x 24"	4001-02	1,345.00

Cimarec™ Aluminum Digital Hot Plates and **Ceramic Stirring Hot Plates**

by Thermo Scientific

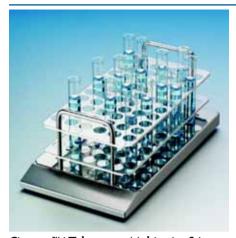
Cimarec Digital Hot Plates and Stirring Hot Plates deliver excellent temperature precision and uniformity. Units have a digital display and a large control knob for easy temperature settings and adjustments. The microprocessor controls provide repeatable temperature settings and the flat top and high-wattage provide excellent heat transfer and fast boiling times.

View the online product page for details on **Ceramic** or **Aluminum models**.

- Stirring Hot Plates: StirTrac[™] for smooth low-speed stirring, strong magnetic coupling and braking for quick flask removal; integrated ring stand holder Material: Cast aluminum base
- HOT TOP warning system prevents accidental burns
- Speed Range: 60 1200 rpm
- · Includes: Detachable line cord and plug

Aluminum Digital Hot Plates, 120 V				
Hot Plate	7.25" x 7.25"	4100-03	276.00	
	Ceramic Digital Stirring H	ot Plates, 120 V		
	Heating Surface	Cat. #	\$/Each	
Hot Plate	4.25" x 4.25".	4000-86	197.00	
Hot Plate	7.25" x 7.25"	4000-88	214.00	
Hot Plate	10.25" x 10.25"	4000-90	319.00	





Cimarec[™] i Telesystem Multipoint Stirrers by Thermo Scientific

Fully submersible in water baths up to 50°C

Designed for integration with incubators and controlled-climate chambers, these models come with i 20C or i 40C Telemoduls. <u>View</u> online product page to see additional models.

- Material: Stainless-steel (chemical-resistant)
- Dimensions: 9.4"W x 16.5"D x 1.4"H
- Operating conditions -10° to +56°C at 100%RH in air; 0° to 50°C in water
- Stirring Position: 60
- · Capacity: 0.1 to 50 mL per point
- Includes: Cord set and controller

Telemodul I 40C Models, 120 V

Speed Cat. # \$/Each 100 – 2000 rpm **3618-39 3,682.00**



Super-Nuova™ Digital Stirring Hot Plates by Thermo Scientific

User-friendly with superior safety features

These user-friendly models have a HOT TOP Warning System and StirTrac™ for slow-speed stirring, stronger magnetic coupling and consistent speed control. <u>View</u> online product page for other Nuova products.

- Material: Aluminum top-plate
- Dimensions: 8.2"W x 13"D x 3.9"H
- Heating Surface: 7.25" x 7.25"
- · Capacity 4 L; Stirring Position: 1
- Temperature Range: 1° to 370°C
- Includes: detachable line cord and plug, 6" type K probe, stir bar

50 – 1200	4100-07	927.00
Speed, 120 V	Cat #	S/Each



RT2 Advanced Digital Hot Plate Stirrers by Thermo Scientific

Ideal for temperature-sensitive procedures

Designed with user-selectable control modes, these compact models provide temperature accuracy, overheat prevention and a HOT TOP Warning Indicator. <u>View</u> online product page.

- · Material: Ceramic-coated aluminum
- Dimensions: 6.34"W x 11.42"D x 3.94"H
- · Heating Surface: 5.5" diameter
- Temp. Control: Optimal, Fast and Slow
- Maximum Load: 55.1 lbs., Capacity: 20 L
- Temp. Limit Setting: 2 user-selectable
- Includes: PT100 Temperature probe

 Speed, 120 V
 Mode
 Cat. #
 \$/Each

 30 - 2000 rpm
 Digital
 1538-25
 884.00



Compact and reliable models for general laboratory use

Hot Plates, Stirring Hot Plates, and Magnetic Stirrers

by Benchmark Scientific

These durable and compact units are a costefficient solution for crowded benchtops inside of bio safety cabinets. All models are compatible with a range of borosilicate glass, beakers, flasks, bottles and other vessels.

Units have a vibrant LCD display and a safety LED shows activation of unit and if the top plate reaches above 50°C. The advanced microprocessor control has an easy-to-turn knob for precise adjustment and maintenance of temperature and speed. <u>View</u> online product page for details.

- Material: Ceramic-coated stainless steel top; die cast aluminum body
- Dimension: 8"W x 9"D x 4.5"H
- Heating Surface: 7.5" x 7.5"
- Temperature Range: 80 to 380°C
- Operating Temperature Range: +4 to +65°C
- · Speed Range: 60 to 1500 rpm

115 V Models	Cat#	\$/Each
Hot Plate/ Magnetic Stirrer*	BR05-00	291.00
Hot Plate	BR05-01	182.00
Magnetic Stirrer	BR05-02	196.00

*Model #BR05-00 includes a support rod





5757-28 Transportable, 30% more space w/ heavy-duty casters

5757-27 Transportable w/ heavy-duty casters

5757-26 Stackable w/ leveling



Freeze and Thaw Environmental Chambers

Models provide accurate control of a wide range of thermal conditions. The automatic programmable cycling between setpoints enables continuous environmental simulation for rapid testing. The controller performs 4 programs, 40 steps, an infinite number of loops and a ramp based on any time or rate. <u>View</u> online product page for dimensions and more product details.

- Material: Cold Rolled Steel, Powder Coated (Exterior); Type 304, 2B Finish, Solid Stainless Steel (Interior)
- Temperature Range: -25°C to 70°C
- Temperature Control/Uniformity at 20°C: ±0.1°C/±0.3°C
- Humidity Range/Control: 20 to 98%/±3% RH
- Application: Pharma drug research, concrete and asphalt testing, coating and adhesive testing, outdoor weathering tests, stress testing

Model	Shelves Included/Max.	Capacity cu. ft.	208/230 V, 60 hz	
			Cat. #	\$/Each
Humidified*	4/25	25	5757-32	17,497.00
Standard	4/25	25	5757-33	14,650.00
Humidified*	5/31	33	5757-34	18,953.00
Standard	5/31	33	5757-35	16,041.00

^{*} Humidified models feature gVapor energy efficient delivery of controlled humidity vapor (as needed)

Insect Growth Chambers

Designed for insect rearing in various fields and disciplines, these energy efficient units come standard with corrosion-resistant phenolic coated coils that protect interior components and contribute to unit longevity. <u>View</u> online product page for dimensions and details.

- Temperature range/control: 5°C to 70°C/ ±0.1°C
- Temperature uniformity/sensor: ±0.3°C/ 3-wire RTD
- Humidity range/control: 20% to 98%/ ±2% RH
- gVapor[™] delivers controlled humidity vapor as needed
- **gROD™** for energy savings; high R, CFC-free foam insulation
- **gLux™** Fluorescent Lighting System simulates day/night conditions
- Includes adjustable, perforated stainless steel shelves
- Application: Insect growth studies in various fields and disciplines

Model	Shelves Included/Max	Capacity cu. ft.	115 V, 60 hz	
			Cat. #	\$/Each
Benchtop*	3/15	10	5757-26	12,237.00
Floor Model**	4/25	25	5757-27	13,879.00
Floor Model**	5/31	33	5757-28	15,454.00

^{*1} access port **2 access ports

Photostability Chambers

Specifically designed for operation near UV- and visual-light testing with fluorescent lamps, these benchtop units provide uniform light distribution and high-intensity levels for quick response to forced degradation and confirmatory processes. <u>View</u> online product page for details.

- Dimensions: 37.6"W x 30.2"D x 46"H, with leveling feet.
- Shelf area dimensions: 19 x 23/Shelf capacity: 22 lbs. max
- · Capacity: 10.5 cu. ft.; Lamp type: UVA and VIS
- Material: Stainless Steel/Reflective specular aluminum
- Features manual and automatic mode, programmable alarms
- · Includes two access ports; two sliding shelves
- Application: Forced degradation studies and confirmatory studies in agriculture, pharmaceutical and biological industries

Model	Time Req. to reach ICH 200	115V, 6	60hz
	Rec.: W-hr/m2 Rec.:1.2 million lux-hr	Cat. #	S/Each
Standard	10 hrs. 60 hrs.	5757-42	24,637.00
Humidified*	8 hrs. 35 hrs.	5757-43	26,205.00

^{*} Isolates effects of hydration during photostability testing

Heated and Humidified Incubators by Caron

These energy-efficient benchtop and floor-standing models provide consistent and precise controlled conditions in research processes. <u>View</u> online product page for ordering details.

- · Material: Stainless steel
- Temperature range/control: 10°C above ambient to 70°C/ ±0.1°C
- Temperature uniformity: ±0.3°C/
- · gVapor™ delivers controlled humidity vapor as needed
- **gROD™** for energy savings; high R, CFC-free foam insulation
- gLux™ Fluorescent Lighting System simulates day/night conditions
- Application: General laboratory research, life science

Model	Shelves Included/Max	Capacity cu. ft.	115 V, 60 hz	
			Cat. #	\$/Each
Heated	3/15	10	5757-36	7,887.00
Humidified*	3/15	10	5757-37	10,071.00
Heated	4/25	25	5757-38	8,727.00
Humidified*	4/25	25	5757-39	10,799.00
Heated	5/31	33	5757-40	10,071.00
Humidified*	5/31	33	5757-41	12,255.00

^{*} Humidified models feature gVapor energy efficient delivery of controlled humidity vapor (as needed)



Midi™ 40 Small Capacity CO₂ Incubator by Thermo Scientific These compact and stackable units feature a comprehensive advanced micropy

These compact and stackable units feature a comprehensive advanced microprocessor system for safe and efficient operation. Designed for cell culture scientists, these models deliver what bigger incubators do at a cost-effective price point and in a space-saving footprint. View online product page for 230V models.

- Exterior Dimension: 18.5"W x 23.5"D x 18"H
- Interior Dimension: 122"W x 14"Dx 14"H
- Material: stainless steel
- Advanced IntrLogic™ II microprocessor
- · Factory calibration maintains accurate thermal gas performance
- Comprehensive alarm system
- Temperature range: 5°C above ambient to 60°C
- Temperature control ±0.1°C
- · Includes: four stainless steel removable shelves
- Application: cell culture

Capacity	Temp. Range	CO ₂ Concentration Range	Cat. #	\$/Each
1.4 cu. ft.	5° to 60°C	0 to 20%	3615-78	4,414.00



Stores up to 35 T75 culture flasks

myTemp™ Mini Digital Incubators by Benchmark Scientific

Easy to use and compact, these transportable digital incubators immediately begin to heat once desired temperature is set. The LED display shows the chamber temperature in real time. <u>View</u> online product page.

- Exterior Dimensions: 13.2"W x 14.5"D x 18.7"H
- Interior Dimensions: 10.3"W x 9.3"D x 12.8"H
- · Digital temperature control and large LED display
- Accepts bottles and flasks up to 2 L
- Transparent door
- · Convenient carrying handle
- · Includes two adjustable removable shelves

Universal Voltage with US plug				
myTemp	Temperature	Cat. #	\$/Each	
Heat Only	Ambient +1°C to 60°C	BR18-00	390.00	
Heat and Cool	Ambient -15°C to 60°C	BR18-01	548.00	







	Туре	Range	Cat. #	\$/Each
Δ	Gravity, 120 V, 66 L Mechanical, 120 V, 66 L	50° to 250°C	3700-87	1,585.00
\wedge	Mechanical, 120 V, 66 L	30 10 230 C	3700-90	1,849.00
R	Gravity, 120 V, 61 L	50° to 330°C	3700-93	2,025.00
Ъ	Mechanical, 120 V, 61 L	30 10 330 C	3700-96	2,467.00
	Gravity, 120 V, 61 L Mechanical, 120 V, 61 L	50° to 330°C	3616-40	2,114.00
C	Mechanical, 120 V, 61 L	50° to 330°C	3696-49	2,658.00

9

Large Capacity Forced-Air Multi-Purpose Ovens by Shel Lab

Ideal for glassware drying and high volume sample and production processes, these ovens have excellent temperature uniformity and fast recovery. View online product page for dimensions.

- Temperature Range: Ambient +15°C to 260°C
- Material: Stainless steel interior
- · Includes stainless steel shelves
- Exhaust port, digital timer, independent overtemperature safety, wrap-around insurable, high-temperature silicone door seal

Capacity, 240 V	Cat. #	\$/Each
14 cu ft./three shelves	3700-85	3,494.00
28 cu ft./six shelves	3700-86	4,920.00



Class 100 Cleanroom Ovens by Thermo Scientific

Used for cleanroom, semiconductor and electronics applications, these units provide excellent temperature control and uniform heating. <u>View</u> online product page for specs.

- Repeatable temperature settings from ambient +5° to 250°C
- · Material: Stainless steel interior
- Non-filtered models meet Class 100 requirements; HEPA-filtered models exceed Class 100 conditions
- Four program controller with 16 segments

Capacity	240 V	Cat. #	\$/Each
14 cu ft./ three shelves	With HEPA Filer	3700-70	9,596.00
28 cu ft./ six shelves	w/out HEPA Filter	3700-15	7,649.00

Heratherm™ General, Advanced Protocol and Advanced Security Protocol Ovens

by Thermo Scientific

Gravity and mechanical convection modes in benchtop or floor standing models are available in a wide range of sizes. **Mechanical convection** models provide fast sample drying and heating, superior temperature uniformity and quick temperature recovery. Gravity convection models provide gentle drying and heating with low air turbulences.

View the online product page for complete details

- · Stackable with adjustable shelves
- · Rounded inside corners for easy cleaning
- Microprocessor control
- Automatic overtemperature alarm
- Easy calibration routine
- RS232 interface

A. General Protocol Ovens Routine heating and drying up to 250°C

- Material: Stainless steel
- Manually controlled fresh air damper
- On/Off timer functions

B. Advanced Protocol Ovens Accurate and heating up to 330°C

- · Adjustable fan speed: 2-5
- Electronically controlled fresh air damper
- · Flexible timer functions; programmable features
- · Access port for data monitoring

C. Advanced Protocol Security Ovens Safety features protects samples

- · Adjustable fan speed: 5
- Undertemperature alarm, door alarm, lockable door, connection for optional sample temperature sensor
- · Optional stainless steel exterior



Vacuum Ovens by Thermo Scientific

Designed for desiccating, vacuum embedding, plating and electronic component processing applications, these models are available with two control and display options. <u>View</u> online product page for specs.

- Temperature Range: Ambient +10° to 220°C
- · Material: Stainless steel interior
- Independent vacuum and purge needle valves; radiant warm-wall heating

Capacity	120 V	Cat. #	\$/Each
14 cu ft./ three shelves	Dial Thermometer	3700-35	2,803.00
28 cu ft./ six shelves	LED Readout	3700-80	2,878.00

Lindberg/Blue M™ 1700°C Box Furnaces, Integral Control

Designed for high-temperature operation with minimal maintenance, these energy-efficient models are available in three controller modes. Units are ideal for composite research, precious- and exotic-metals treatment, high-temperature ceramic research and powder metallurgy.

Features:

- Fast heat-up and increased resistance to thermal shock with Moldatherm™ high-temperature ceramic fiber insulation
- · Molybdenum disilicide elements reduce maintenance
- · Side swing door for full and easy access to chamber
- Solid-state power module with ammeter, circuit breaker, transformer and front panel indicator lights

Digital Single Setpoint models have a microprocessor-based PID control with a single segment and setpoint and one ramp to setpoint. This mode also features an adjustable high limit over-temperature protection and LED display that shows actual temperature vs. setpoint.

Digital Multisegment/Multiprogram models have a microprocessor based PID control with up to 30 programs and up to 300 segments for ramp and dwell temperature control and up to 99 segments per program. The digital LED display shows actual temperature vs. setpoint in °C or °F Digital Single-Setpoint Controller

Digital Multisegment/Multiprogram/Communications models allow connection to a remote computer via an RS-485 data port to enable modification, interrogation and data transfer of instrument control and configuration parameters.

Optional: **Over-temperature Protection (OTP)** operates via signal from an independent thermocouple. The OTP protects unit and load in event of control circuit failure by overriding main controller and shutting off power if high limit is reached.

View online product page for details.



\$/Each	Cat. #	Controller	Interior Dimensions	Capacity
22 20,127.00	1617-22	Digital/1 setpoint	11"W x 10.5"D x 9"H	17 L
24 21,018.00	1617-24	Multisegment/ multiprogram	11"W x 10.5"D x 9"H	17 L
26 25,175.00	1617-26	Multisegment/ multiprogram/ communications	11"W x 10.5"D x 9"H	17 L
28 23,624.00	1617-28	Digital/1 setpoint	11"W x 15.5"D x 9"H	25.5 L
30 28,475.00	1617-30	Multisegment/ multiprogram	11"W x 15.5"D x 9"H	25.5 L
32 28,475.00	1617-32	Multisegment/ multiprogram/	11"W x 15.5"D x 9"H	25.5 L



Lindberg/Blue M Moldatherm™ Box Furnaces—100° to 1100°C

Available in two controller modes, these doublewalled furnace models minimize exterior temperature. View online page for additional capacities and specs.

- Self-tuning feature ideal for thermal process
- Digital OTP: single segment, single setpoint, one ramp setpoint

120V	Cat. #	\$/Each
Digital OTP 1.99 L	1722-10	2,196.00
Mult. Seg/1 Prog/OTP, 5.3 L	1722-16	2,899.00



Thermolyne™ Benchtop Muffle Furnaces—100°C to 1200°C

Ideal for general lab use in processes such as gravimetric analysis, sintering, quantitative analysis and heat treating, these energy-efficient models are available in 2 L and 5.9 L capacities. <u>View</u> online page to see additional capacities.

- · Open-coil heating on both sides of chamber
- · Door safety switch; Includes power cord
- Free-floating door prevents heat loss
- · Thermocouple break protection

120 V, 2 L Capacity	Cat. #	\$/Each
Single Set Point Control	1800-52	2,379.00
Prog. 4 Ramp & 4 Dwell	1800-54	2,993.00



Thermolyne Largest Tabletop Muffle Furnaces—100° to 1093°C

Designed to maximize space, these models are available in two temperature modes ideal for annealing glass, determination of volatiles, catalyst research and ashing samples. <u>View</u> online product page.

- CSA and CE approved (select models)
- Includes two refractory shelves
- 35A circuit breaker protect critical components and heating elements

240 V, 45 L Capacity	Cat. #	\$/Each
Digital Single Setpoint	4003-01	6,994.00
Digital Programmable	4003-04	7,846-00

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REFRIGERATORS and FREEZERS by Revco/Thermo Scientific





No. 1536-13





A. CxF Series -40°C and -86°C Chest Freezers by Revco

The CxF Series Chest Freezers are designed to provide versatile and reliable sample storage. An intuitive microprocessor control panel allows personnel to see set points, system status and alarm messages. A variety of sizes and temperature ranges are available to accommodate most application requirements. View online product page.

B. UxF Series -86°C Upright Freezers by Revco

O

The UxF Series freezers provide outstanding sample protection, while maintaining the highest standards in performance, energy efficiency and capacity per footprint. A dual-cascade system provides faster recovery after door openings, tighter uniformity, and reduces energy use. A variety of sizes and temperature ranges are available to accommodate most application requirements. View online product page.

C. Revco Pharmacy Refrigerators by Thermo Scientific

These high-performance pharmacy refrigerators provide stable temperature control over a range of +1°C to +8°C. Easily configured for accurate storage and retrieval of pharmacy products, these units also have full extension stainless steel roll-out drawers, safety glass, double-panel doors and a bright digital temperature display that simplifies operation. View online product page.

				product page.					
		Type	Cryo Box Cap.*	Exterior Dimensions H" x W" x D"	Temp Range (°C)	Capacity (cu. ft.)	Power**	Cat. #	\$/Each
		CxF Ultra Low	63	28.5 x 29.9 x 43.8	-10° to -40°	3	115V	1536-10	5,319.00
		CxF Ultra Low	252	72 x 33.4 x 40.5	-10° to -40°	12.7	115V	1536-11	6,523.00
		CxF Ultra Low	348	87.6 x 33.8 x 40.5	-10° to -40°	17	115V	1536-12	7,442.00
	Ą	CxF Ultra Low	396	96 x 33.4 x 40.5	-10° to -40°	20	115V	1536-13	7,539.00
1	٦,	CxF Ultra Low	63	28.5 x 29.9 x 43.8	-50° to -86°	3	115V	1536-14	7,799.00
		CxF Ultra Low	252	72 x 33.4 x 40.5	-50° to -86°	12.7	115V	1536-15	9,748.00
		CxF Ultra Low	348	87.6 x 33.8 x 40.5	-50° to -86°	17	115V	1536-16	10,480.00
		CxF Ultra Low	396	96 x 33.4 x 40.5	-50° to -86°	20	115V	1536-17	12,267.00
		UxF Ultra Low	300	17.78 x 28.29 x 51.23	-50° to -86°	14.9	115V	1536-24	10,715.00
		UxF Ultra Low	400	23.13 x 28.29 x 51.23	-50° to -86°	19.4	115V	1536-25	12,114.00
-	3	UxF Ultra Low	500	28.75 x 28.29 x 51.23	-50° to -86°	19.4	115V	1536-26	13,045.00
		UxF Ultra Low	600	34.38 x 28.29 x 51.23	-50° to -86°	19.4	115V	1536-27	13,977.00
		UxF Ultra Low	700	40.0 x 28.29 x 51.23	-50° to -86°	19.4	115V	1536-28	14,832.00
			No. of Drawers						
		Pharmacy Refrigerator	5	24 x 29.5 x 73.6	1° to 8°C	11.5	115V	1620-27	3,974.00
С	_	Pharmacy Refrigerator	6	28 x 36.4 x 79.2	1° to 8°C	23.3	115V	1620-31	5,969.00
	_	Pharmacy Refrigerator	6	34 x 36.4 x 79.2	1° to 8°C	29.2	115V	1620-35	6,860.00
		Pharmacy Refrigerator	12	56.5 x 36.4 x 79.2	1° to 8°C	51.1	115V	1620-39	7,961.00
	* 1 1	1: 2" D D 1 ** O.1	11.1.1						

^{*} Using 2" Box Rack. ** Other voltages available.

REFRIGERATORS and FREEZERS by Thermo Scientific



Jewett™ Pass-Through Refrigerators

Provides convenient multiple-point access for cold storage of non-critical materials in life science, clinical and industrial applications. UL and CE listed units keep uniform temperature and rapid recovery. Temperature range: 2° to 4°C. Models below are 120VAC; 220VAC available. Shown: 3515-09. View online product page.

	No. of Shelves	Capacity	Cat.#	\$/Each
2	5	24.8 cu. ft.	3615-09	6,488.00
4	10	55 cu. ft.	3615-11	9,398.00



General Lab Refrigerators/Freezers

Choose among undercounter (UC on chart below) and upright lab refrigerators, freezers, or refrigerator/freezers. Temperature range: 1° to 12°C (refrigerators), -12° to -20°C (freezers). Models below are 120VAC; 220VAC available. Shown: 1720-49B. View online product page.

			. 0
Model	Capacity	Cat. #	\$/Each
UC Ref.	5.6 cu. ft.	1720-43	1,535.00
UC Ref./Freezer	5.6 cu. ft.	1720-47	1,560.00
Upright Ref./Freez.	18.2 cu. ft.	1720-49B	2,416.00
UC Freezer	5.6 cu. ft.	1720-54	1,281.00
Upright Freezer	20 cu. ft.	1720-60	1,817.00



Flammable Material Refrigerators/ Freezers

Protects against explosions emanating from stored flammable materials at below-ambient temperatures or vapors in the surrounding area. Suitable for Class 1, Group C and D environments. Temperature range: 1° to 12°C (refrigerators), -12° to -20°C (freezers). Models below are 110VAC (220V available); shown: 1720-20. View online product page.

Model	Capacity	Cat. #	\$/Each
Lab Ref./Freezer	10.1 cu. ft.	1720-20	3,109.00
Undercounter Freez.	5.6 cu. ft.	1720-25	3,097.00
Upright Refrigerator	21 cu. ft.	1720-41	6,825.00
Upright Freezer	20 cu ft	1720-27	3.497.00

REFRIGERATORS and FREEZERS from Marvel Scientific



ADA-Compliant Refrigerator

Fits under 34" countertops and casework. Complies with American with Disabilities Act (ADA) for accessibility. UL and C-UL listed. Temperature range: 1° to 7°C. Model below is 120VAC; 220VAC available. Capacity: 5.4 cu. ft. Ext. dimensions: 23.875"W x 24.375"D x 31.5"H. Includes one stationary shelf and two pull-out selves. View online product page.

Cat. # \$/Each 2860-06A 961.00



Two-Drawer Undercounter Refrigerators

UL-listed for commercial lab use, these units feature extra-deep pull-out drawers for easy access to full storage area. Hidden touchpad controls include LED digital display. Temperature range: 0° to 7°C. Capacity: 5.6 cu. ft. Ext. dim.: 23.875"W x 24.25"D x 34"H. Models below are 120VAC. View online product page.

Drawer Finish	Cat. #	\$/Each
White powder-coat steel	2860-07A	1,539.00
Stainless steel	2860-08A	1,628.00



Hazardous Location Refrigerators

UL-listed for Class 1, Group C and D applications; complies with NEC code for Class 1, Division 1 and 2 hazardous locations. Features two adjustable wire shelves and adjustable microprocessor thermostat. Temperature range: 1° to 7°C. Model below is 110VAC. Capacity: 6.1 cu. ft. Ext. dim.: 23.875"W x 26"D x 34"H. View online product page.

Cat. # \$/Each 2860-04 1,686.00





A. Bio-Cane™ Cane and Canister Systems

Units are a cost-effective method of storing cells, tissues and other biological samples. Vessels hold samples up to seven months without replenishing liquid nitrogen (LN_2). Capacity sizes: 20 L, 34 L, 47 L, and 70 L. <u>View</u> online product page.

Cat. # \$/Each
Bio-Cane 20 **4901-08 1,200.00**

B. – D. Locator Cryogenic Rack and Box Systems

These compact systems are designed for long-term storage and easy retrieval of cell samples. Stores samples below -180°C even when less than 2" (51 mm) of liquid nitrogen remains. View online product page.

B. LocatorTM Jr. – LN_2 without Monitor

Vial Capacity Cat. # \$/Each 1600 **4901-00 3,071.00**

C. Locator 8 - LN, without Monitor

Image shows a Locator 8 being filled with liquid nitrogen.
Vial Capacity
Cat. # \$/Each
1800
4901-02
3,997.00

D. Locator 4 with Level Monitor 120V - LN,

Safeguards valuable samples with minimal liquid nitrogen evaporation and conduction.

Vial Capacity Cat # S/Fach

Vial Capacity Cat. # \$/Each 3600 **4901-04 4,791.00**

E. Liquid Nitrogen Transfer Vessels

Stores and dispenses liquid nitrogen to Locator Systems, these vessels are available in 5 L, 10 L, 20 L and 32 L capacities. Lightweight aluminum dewars assure low-static evaporation rates. View online product page.

Thermo 5 L Capacity 4901-36 879.00

FREEZE DRY SYSTEMS and VACUUM CONCENTRATORS by Labconco



FreeZone® 1 Liter Benchtop Freeze Dry Systems

Ideal for light aqueous sample loads, these units have an upright stainless steel collector coil (removes a max. of 1 L of water in 24 hrs.). Features: 1/4-HP refrigeration system, LCD display, CFC-free refrigeration system. View online product page.

Cat. # \$/Each 115V **6922-00 4,291.00**



FreeZone Plus 2.5 Liter Freeze Dry Systems

These units handle light sample loads and the upright stainless steel collector coil removes 1.8 L of water/24 hrs., and holds 2.5 L of ice before defrosting. <u>View</u> online product page.

Cat. # \$/Each 3647-80 8,676.00



CentriVap® micro IR Vacuum Concentrators

Compact and portable, this personal-sized concentrator is ideal for DNA samples and small throughput environments. The infrared (IR) glass lid speeds evaporation and reduces cross contamination. Included rotor holds 24 small samples. View online product page.

Cat. # \$/Each 3648-25 5,491.00

A. Barnstead™ MicroPure™ System

The compact units are ideal for producing ultrapure water for molecular biology, microbiology and analytical chemistry labs. They produce 15 liters/day of Type 1 water and are available with mix-and-match system option for UV, UF, UV/UF treatment. View online product page for more configurations and specifications.

Analytical and UV System 3614-91 3,375.00
UV-ST System 3614-96 3,531.00
(Includes integrated 6 L feed water tank)

B. Barnstead EASYpure™ RoDi System

The RoDi system produces 800ml/minute of Type I water from tap feed on demand. These portable systems provide a reservoir feed for reagent-grade water. Integrated pump is whisper-quiet. <u>View</u> online product page.

	Cat. #	\$/Each
EASYpure RoDi	3613-30	3,290.00
(Requires Start-Up Kit below)		
Start-Up Kit	3613-31	399.00

C. Barnstead GenPure™ Water Purification System

Able to mix and match UF, UV and TOC systems for user-specific water purity levels, the GenPure system produces up to 200 L/day of GLP-compliant Type 1 ultrapure water from a pretreated feed water supply. It is ideal for a broad range of life sciences and analytical chemistry processes. View online product page for more configurations and specifications.

	Cat. #	\$/Each
GenPure Water System	1714-32	5,049.00
GenPure UF Water System	1714-33	5,507.00
(Includes Ultra-Filtration; ideal	for molecula	r biology,
microbiology, PCR, IVR and mono	clonal antibody	processes)

D. GenPure xCAD Water Purification System

Includes all the features of the GenPure system above, plus remote dispensing, electronic dosing capabilities, and flexible mounting options. <u>View</u> online product page.

			Cat	. #	\$/Each
GenPure x	CAD Water System	n	17	14-48	5,360.00
GenPure x	CAD UF Water Sys	stem	17	14-49	5,818.00
(Includes	Ultra-Filtration;	ideal	for	molecular	biology
microbiolo	ogy, PCR, IVR and	d mono	clona	l antibody	processes)

E. LabTower™ TII Water Purification System

This system converts tap water into GLP-compliant Type 2 water; choose 20 L or 20 L/hr. models. This stand-alone unit with casters has an integrated 100 L tank that recirculates reservoir water to preserve purity even during periods of stagnation. Optional UV light eliminates bacteria. More configurations and specifications. View online product page.

	Cat. #	\$/Each
LabTower TII System, 20 L/hr.	1108-50	8,327.00
LabTower TII System, 40 L/hr.	1108-52	9,076.00

F. LabTower EDI Water Purification System

Two stand-alone systems in one. These models produce either Type 1 (up to 200L/day) or Type 2 (up to 500L/day) purified water. Includes high-performance RO module with Electrodeionization (EDI) technology. Integrated 100-liter tank recirculates Type 2 water to optimize purity. View online product page.

	Cat. #	\$/Each
LabTower EDI System, 15 L/hr.	1714-60	11,546.00
LabTower EDI System, 30 L/hr.	1 714-61	13,210.00















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AUTOCLAVES and STERILIZERS by Benchmark Scientific





BioClave Mini preprogrammed to meet basic sterilization needs



Thermal Mini-Printer (for BioClave 16 only) Includes printer cable, power cord and one roll of paper



BioClave[™] 16 and BioClave Mini Autoclaves

Specifically designed for use in research applications, BioClave 16 and BioClave Mini Autoclaves are compact benchtop units that accommodate various liquids, media, instruments, glassware, plasticware and other standard laboratory materials. <u>View</u> the online product page for full details and specifications on 120V models.

- · Fully automatic operation; large digital display
- All cycle segments (fill, sterilize, exhaust and dry) begin and finish by pressing the start button
- Mechanical and electrical safety interlock keeps door closed until pressure reaches zero PSI
- · Built-in water tank eliminates need for external water supply
- · Optional: Thermal Mini Printer (BioClave 16 only)

BioClave 16 features three standard preset cycle options for use with liquids, wrapped/unwrapped instruments and plasticware. A fourth option "Dry Only" is also available for additional drying time after the end of a cycle. Fully adjustable settings are ideal for applications requiring different parameter settings.

BioClave Mini has a preprogrammed sterilization time ideal for daily lab routines. Temperature can be selected at either 121°C or 134°C. Compact 8 L units are ideal for crowded benchtops.

120 V Models	Capacity	Cat. #	\$/Each
BioClave 16	16 Liters	BR12-00	4,181.00
BioClave Mini	8 Liters	BR19-07	3,090.00
Thermal Mini-Printer BioClave 16 only		BR19-14	236.00
3 Rolls Printer Paper		BR19-16	31.00

Specifications	BioClave 16	BioClave Mini
Chamber Dimensions:	9" x 13.75"	6.7" x 12.5"
Tray Dimension:	6.5" x 10.75"	4.75" x 9.75"
Exterior Dimensions:	22"W x 17.5"D x 15.7"H	20"W x 13.5"D x 12.9"H
Maximum Pressure:	29 PSI / 2 Bar	29 PSI / 2 Bar
Material:	Stainless Steel	Stainless Steel
Included Trays:	3 trays	2 trays
Operation:	Three standard preset cycle options	Preprogrammed sterilization time

BactiZapper™ Infrared MicroSterilizer

Compact enough for use in anaerobic and aerobic chambers, the BactiZapper completely sterilizes microorganisms in seconds. The design protects user by enclosing the asbestos-free heating element within the guard chamber.

View online product page.

- No spatter
- · Ideal for platinum loops, needles and tube mouths
- Ceramic heating element safely enclosed in perforated stainless steel guard chamber
- Asbestos-free core element uses infrared heat of 815°C
- Instantly sterilizes inoculating loops, needles, glass tube, borosilicate glass, pipette mouths and other instruments
- Lower temperature setting of 500°C allows unit to be used as a standby instrument

	Cat. #	\$/Each
BactiZapper, 115V	BR07-00	259.00
Replacement Heating Element	BR07-04	104.00

Specifications

Sterilization Time: 5 – 7 seconds
High Temperature Setting: 815°C
Low Temperature Setting: 500°C
Highest Core Temperature: 825°C ±50°C
Heating Time: 20 minutes
Chamber Diameter/Length: 0.55" diam./6.2" length
Overall Dimensions: 4"W x 6"D x 6.5"H

Temperature Range: 4 W X 6 D X 6.3 F

Material: Stainless steel and ceramic











A. Polymer Utility Carts with Adjustable Shelves

These carts by Metro will never corrode and the ergonomic handle provides more walking space between you and the cart during transport. The trays offer twice the amount of space and the ship's edge prevents items from sliding when cart is mobile. Twotier and three-tier models are available in blue, black and gray. Load capacity: 150-500 lbs. Color: blue.

W" x L"	Configuration	Cat. #	\$/Each
18 x 28	2-shelf	1532-12A	151.00
21.5 x 33.75	2-shelf	1532-47A	163.00
27 x 39.5	2-shelf	1532-13A	190.00
18 x 28	3-shelf	1532-14A	176.00
21.5 x 33.75	3-shelf	1532-53A	199.00
27 x 39.5	3-shelf	1532-15A	232.00

B. Polymer "Deep Ledge" Carts with Adjustable Shelves

Similar to models above, but with 2.75" (70mm)-deep shelf ledges for enhanced spill containment. All models are 41"H. Color: blue.

W" x L"	Configuration	Cat. #	\$/Each
21.5 x 32.75	2-shelf	1532-56	170.00
21.5 x 32.75	3-shelf	1532-57	209.00
27 x 38.75	2-shelf	1532-58	199.00
27 x 38.75	3-shelf	1532-59	244.00

Dozens more at TerraUniversal.com!

View all Cleanroom and Lab Utility Carts







Ordering Information		C. Serie	s 100	D. Sei	ries 200	E Se	ries 400	F. Se	eries 600	G. Se	ries 700	
	Dimensions W" x L" x H"	Caster Dia.	Cat. #	\$/Each	Cat. #	\$/Each	Cat.#	\$/Each		less Steel e Shelves		ess Steel Shelves
	18 x 24 x 38	4"	1401-23	440.00	1401-44	589.00	1401-54	293.00	1402-39	413.00	1402-56	559.00
	18 x 30 x 38	4"	1401-24	498.00	1401-45	650.00	1401-55	332.00	1402-41	471.00	1402-58	619.00
	18 x 36 x 38	4"	1401-25	498.00	1401-46	650.00	1401-56	332.00	1402-43	471.00	1402-60	619.00
	21 x 36 x 39	5"	1401-26	539.00	1401-47	710.00	1401-57	362.00	1402-45	527.00	1402-62	696.00
	24 x 36 x 39	5"	1401-27	567.00	1401-48	755.00	1401-58	381.00	1402-47	556.00	1402-64	738.00

VALULINE™ DESICCATORS by Terra Universal



Acrylic (left) and Static-Dissipative PVC (right) Models No. 3949-27 No. 3949-32

ValuLine Desiccators

Ideal for low-frequency access to storage, the ValuLine systems provide a controlled flow of nitrogen for moisture-sensitive samples and components. <u>View</u> online product page for video and additional models

- Acrylic models provide strength and clear visibility that can be cleaned periodically with mild cleaning agents (do not use alcohol)
- Static-Dissipative PVC models are chemical-resistant; withstand frequent cleaning with alcohol and other cleaning agents; resist surface charges and protect against ESD and particle attractions; grounding terminal
- Standard parts for easy upgrade and replacement
- Included Features:
 - Flowmeter
 - Automatic RB® (Relief/Bleed) Valve
 - · Chrome-plated hinges and wire racks (adjustable)
 - Expansion latch (positive seal and prevents scraping)
 - Reinforced doors (for long service life)
 - Rear plenum chamber for uniform gas distribution
 - Grounding Terminal (SD-PVC models only)
- Options: Shelves (reinforced plastic or stainless steel), powder-coated stands

ValuLine Desiccator					
No. of	Inside Dims.	Clear Acrylic		Static-Dissipative PVC	
Chambers	W" x D"	Cat. #	\$/Each	Cat. #	\$/Each
1	9.75 x 9.25	3949-00	290.00	3949-10	401.00
2	14.25 x 14.5	3949-01	690.00	3949-11	1,123.00
3	14.25 x 14.5	3949-02	1,120.00	3949-12	1,587.00
4	14.25 x 14.5	3949-03	1,192.00	3949-13	2,036.00
5	14.25 x 14.5	3949-04	1,441.00	3949-14	2,500.00
6	14.25 x 14.5	3949-05	2,017.00	3949-15	2,083.00
8	14.25 x 14.5	3949-06	2,051.00	3949-16	3,776.00
10	14.25 x 14.5	3949-07	2,470.00	3949-17	6,884.00

ValuLine ES Desiccators Extended Storage Systems

These sturdy models are ideal for long-term storage of samples and applications that do not require rapid recovery of critical low-humidity setpoints. <u>View</u> online product page.

- Rounded corners are easy to clean and ideal for particle-sensitive materials
- Designed for use with nitrogen purge and/or desiccant or as a general purpose, dust-free cabinet
- Acrylic models provide strength and clear visibility that can be cleaned periodically with mild cleaning agents (do not use alcohol)
- **Static-Dissipative PVC** models are chemical-resistant; withstand frequent cleaning with alcohol and other cleaning agents; resist surface charges and protects against ESD and particle attractions; grounding terminal
- Included Features:
 - Chrome-plated hinges and wire racks (adjustable)
 - Expansion latch (positive seal and prevents scraping)
 - Reinforced doors (for long service life)
 - Grounding Terminal (SD-PVC models only)
- Options: Flowmeter, Shelves (reinforced plastic or stainless steel), Automatic RB (Relief/Bleed) Valve and powder-coated stands

ValuLine ES Desiccator							
No. of	Inside Dims.	Clear Acrylic		Static-Dissipative PVC			
Chambers	W" x D"	Cat. #	\$/Each	Cat. #	\$/Each		
1	14.25 x 14.5	3949-25	273.00	3949-30	409.00		
2	14.25 x 14.5	3949-26	547.00	3949-31	818.00		
3	14.25 x 14.5	3949-27	921.00	3949-32	1,158.00		
4	14.25 x 14.5	3949-28	1,027.00	3949-33	1,535.00		
5	14.25 x 14.5	3949-29	1,242.00	3949-34	1,885.00		

Accessories for ValuLine and ValuLine ES

	Cat. #	\$/Each		Cat. #	\$/Each
Automatic RB (Relief/Bleed) Valve	1600-60B	99.00	Solid 304 EP SS Shelf*	1976-05	133.00
Flowmeter (1-10 SCFH)	1600-31	118.00	Solid 304 EP SS Tray*	1976-04	133.00
Reinforced Acrylic Shelf	1976-01	44.00	Stand	1740-32	342.00
Perforated EP 304 SS Shelf	1976-02	133.00	Casters (set of 4)	1700-44	246.00
			* 61 1 . 1 1 11 11	1 1 1 1	

^{*} Shelves individually polybagged and sealed to prevent surface contaminants.

Secador® 1.0 and 2.0 Desiccators

These cost-effective units have a patented seal design for excellent moisture protection. Units are ideal for applications in pharmaceutical, R & D and life science industries. View the online product page for <u>Secador 1.0</u> and <u>Secador 2.0</u> models

- · Low footprint models available in standard and gas-purge
- Gas-purge models can be used with desiccants by closing stopcocks
- Amber color models reduce visible light penetration by 50%
- Portable, interchangeable and stackable up to 3 units high with interlocking ridges and built-in carrying handles
- Durastar® copolyester material blocks 99% of UV light; resists stains, chemicals and fine cracks

Color	Type	Secador 1.0		Secador 2.0	
		Cat. #	\$/Each	Cat. #	\$/Each
Clear/Blue Caps	Standard	1538-09	143.00	3618-54	285.00
Amber	Standard	1538-11	161.00	3618-56	300.00
Clear	Gas Ports	1538-12	186.00	3618-55	323.00
Amber	Gas Ports	1538-13	215.00	3618-57	327.00



Secador 2.0—two shelves 13.4"W x 16.3"D x 12.4"H

Space-Savers Vacuum and Non-Vacuum Models

Available in polycarbonate (Clear Base) and chemical-resistant polypropylene (White Base), these economical small-footprint models are ideal for use in classrooms and research laboratories. Select models can be used with high-heat desiccator plates or desiccant cartridges. <u>View</u> the online page to view all models and accessories.

Vacuum Models quickly dry samples, removes moist air from chamber and degasses; stores (without grease) full vacuum 29.9" Hg; includes stopcock; accepts ¼" I.D. vacuum tubing.

Non-Vacuum Models are ideal for thin layer chromatography (TLC) plates, dried materials and chemical standards.

Type	Capacity	Base	Cat. #	\$/Each
Vacuum	140 mm	White	1539-50	50.00
Vacuum	140 mm	Clear	1539-51	50.00
Vacuum	190 mm	White	1539-52	61.00
Vacuum	190 mm	Clear	1539-53	63.00
Vacuum	230 mm	White	1539-54	83.00
Vacuum	230 mm	Clear	1539-55	85.00
Non-Vacuum	140 mm	White	1539-56	30.00
Non-Vacuum	190 mm	White	1539-57	45.00
Non-Vacuum	230 mm	White	1539-58	63.00



140, 190 and 230 mm plate capacity (Vacuum Models Shown)

Techni-Dome® 360 Vacuum Desiccator

This lightweight and chemical-resistant unit stores precious samples under constant vacuum. Unit is designed for easy viewing of samples and able to fit more samples compared to standard plastic or glass vacuum desiccator units. View online product page.

- · Ideal for large-volume vacuum storage
- · Accommodates items up to 18" in height
- Holds a full vacuum (29" Hg, 737 mm) at room temperature for 24 hours and remain airtight even if not under vacuum
- Unit made of chemical-resistant polycarbonate
- Polypropylene stopcock accepts 6.4 mm (1/4") I.D. tubing
- Teflon® plug turns easily for slow turbulence-free air entrance
- · Includes 2 round polypropylene shelves and gasket
- · Interconnected side handles lock unit and prevent displacement of dome top
- · Built-in safety locator pins
- Desiccant sold separately

Dimensions	Shelves	Cat. #	\$/Each
22"W x 22"D x 22"H	14.5" and 9" diameter	3308-11	254.00



65 Liter Capacity—4x standard benchtop models

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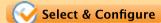
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