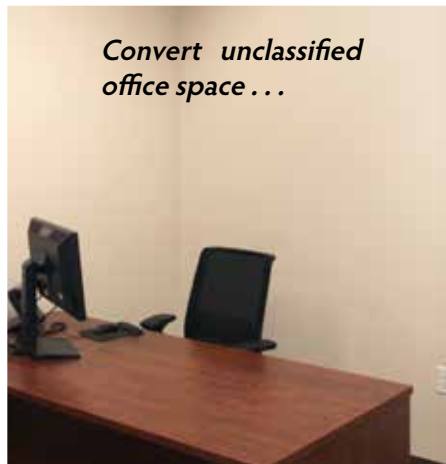


Equipment for
LIFE SCIENCES



Low-Cost Solutions for High Technology

BIOSAFE® CLEANROOM CONVERSION SYSTEM



Convert unclassified office space . . .



. . . into an ISO 5 – 8 cleanroom!

The Biosafe Cleanroom Conversion System is an ideal solution for universities, government laboratories and other facilities looking to convert a standard office or other unclassified space into an ISO 5 – 8 cleanroom. Models are custom quoted according to your specification.

Unique Three-Part System Includes:

- Modular ceiling grid
- BioSafe Cleanroom Wall System (FRP or C-PVC panels)
- Various flooring and other options to meet your cleanliness requirements

Ceiling Grids: Rigid, all-steel interlocking and self-supporting meets ISO 5 – 8 requirements. Mounts directly to existing wall or rest on top of walls with no ceiling. Extends up to 20 feet without the need for internal support columns or ceiling suspension wires.

Cleanroom Wall System: Made of FRP or C-PVC. Mounts to any wall type (also accommodates USP-797 Compounding Cleanrooms) See details on page 2.

Room-Side Replaceable Fan/Filter Unit: Available with HEPA and ULPA filters.

Cleanroom Lighting: Available in LED strips or fluorescent ceiling modules.

Pass-Throughs and Air Showers: Reduces cross contamination.

Cleanroom Doors: Available in Aluminum Frame Swing Door, Aluminum Frame Sliding Door and Stainless Steel Swing Doors.

Service Outlets: For installation of electrical and vacuum/gas utility outlets.

Terra provides complete pre-sale and after-sale support. Call Terra for complete quotations including drawings (if applicable) and manufacturing time.

Installation:

Terra can also install your BioSafe Cleanroom Conversion System and perform a seismic analysis, or provide installation support for local contractors.



Easy to clean and sterilize contamination-free processing environment for bio-pharmaceutical and other operations.



Economical design maintains ISO 5 – 8 conditions.

BIOSAFE FRP/C-PVC MODULAR CLEANROOMS

Features HEPA or ULPA fan/filter units; status indicator lights, ceiling panels in choice of polypropylene, acrylic or fire-safe steel, fluorescent or LED lights, display panel, choice of swing door or infrared-activated fast-response sliding doors, choice of internal wall panels (FM-approved FRP or C-PVC: see page 2 for details), all-steel ceiling grid with welded or interlocking BioSafe design. Free-standing structure requires no external bracing or ceiling suspension.

HYBRID CLEANROOM

This cleanroom combines several design features of Terra's other models. Like standard hardwall cleanrooms, it features ceiling HEPA fan/filter units that meet ISO 5-8 cleanliness standards and maintains internal positive pressure that prevent particle influx. Its anti-static vinyl panels form a smooth interior, like those of a BioSafe Cleanroom, that can be wiped clean and sterilized, making it suitable for bio/pharmaceutical applications. And, like Terra's softwall rooms, it provides cleanroom performance at low cost. Call to discuss your application.

Compounding ISO 5
Laminar Flow Hood
(Primary Engineering
Control) #1695-41

Compounding Aseptic
Isolator #2900-46C

Modular Compounding Cleanrooms

- Turnkey systems designed for USP-797 compliance
- FM-approved FRP or C-PVC panels
- Includes ISO 8 anteroom, ISO 7 buffer room
- Shown: Custom Size (10' x 10' buffer room)

Terra's USP-797 Compounding Cleanrooms exceed the ISO 7 requirements of USP-797, making them ideal for compounding sterile injectables and other critical operations. Select between standard floor plans, or specify a custom dimension. All models feature entry doors and internal partitions that separate the antechamber for personnel gowning or product staging. Models are available with FRP or C-PVC panel options.

- Includes three HEPA filter/fan units that provide a total of 1950 CFM (3315 m³/hr.) of 99.99% particle-free air (measured at 0.3 μm diameter)
- Powder-coated steel support frame creates a sturdy and rigid structure that needs no external bracing or ceiling support
- BioSafe® interior Fiberglass-Reinforced Plastic (FRP) or C-PVC panels resist damage from physical contact and stand up to IPA and other sterilizing agents
- **Class C FRP** panels meet ISO 7 (Class 10,000) standards
- **Class A FRP** panels perform to ISO 5 (Class 100) cleanliness requirements, and are Factory Mutual (FM) approved
- **C-PVC** panels meet ISO 5 requirements and are FM approved
- Turnkey system controls submicron particles for a contamination-free compounding environment
- Separate gowning ante-room meets USP-797 regulations
- Standard dimensions easily accommodate glove boxes or ISO 5 hood (Primary Engineering Control)

USP-797 Compounding Cleanrooms do not include floors; they are designed for installation on a flat, sealed, non-particulating, crevice-free surface, which can be caulked to the clean room frame to form a seal.

Dual Magnehelic® pressure gauges, located on the outer control panel, monitor the cascading pressure levels in the anteroom and main room, simplifying USP-797 certification.



Stainless Steel Window

Stainless Steel Door

Fan Filter Status Light

USP-797 Compounding Cleanrooms*		7-ft Ceiling Height		8-ft Ceiling Height	
Panel Type	Dimensions L x W nominal ft.	Cat. #	S/Each	Cat. #	S/Each
BioSafe Class C FRP Panels	8 x 6	2900-52C	13,300.00	2900-71	13,650.00
BioSafe Class C FRP Panels	10 x 6	2900-53C	14,200.00	2900-72	14,600.00
BioSafe Class A FRP Panels* Certified ISO 5 compatible	8 x 6	2900-54C	13,950.00	2900-73	14,300.00
BioSafe Class A FRP Panels* Certified ISO 5 compatible	10 x 6	2900-55C	15,000.00	2900-74	15,400.00
BioSafe C-PVC Panels Certified ISO 5 compatible	8 x 6	2900-81	14,420.00	2900-83	15,640.00
BioSafe C-PVC Panels Certified ISO 5 compatible	10 x 6	2900-82	14,770.00	2900-84	16,040.00

* Includes (3) filter/fan units, (1) fluorescent light, (2) Magnehelic® gauges, air speed gauge, internal swing door, 115V/60Hz duplex outlet, and external swing door



Class A FRP and C-PVC panels are Factory Mutual (FM) approved.



Contact Terra at 714-578-6100 about USP 800-compliant custom cleanrooms for processing of hazardous drugs.



Unique design hugs the wall to eliminate dusty surfaces!

CLEANSEAM+™ 304 STAINLESS STEEL PASS-THROUGH CHAMBERS

The CleanSeam+ Pass-Through provides the optimal transfer chamber for the broadest range of critical applications, including cleanliness requirements to ISO 4 and bio/pharmaceutical operations that require frequent cleaning and sterilization.

- Mounts to any wall thicker than 2" without special hardware—installs in under three minutes!
- Integral clean-side bracket seals flush to wall without fasteners or caulking
- Unique folded design features 12 rounded corners with no cracks; ideal for strict cleaning protocol
- Electropolished 304/316 chamber and hardware eliminate surface contaminants and irregularities
- Interlock prevents cross-contamination—rated for millions of operations
- Stainless steel-reinforced, double-wall static-dissipative PVC viewing windows

Models available with isolated interlocks for optimal cleanliness.



Items in blue

Why is Electropolishing Critical?

- Removes iron and other surface impurities that cause corrosion
- Draws chromium and nickel to form a hard, protective finish
- Removes irregularities (pits and burrs) for an ultra-smooth surface that's easy to clean

Resources for Architects and Builders



Visit TerraUniversal.com for 3-part specs and BIM objects.

CleanSeam 304 Stainless Steel Pass-Throughs*

Mount Type	Dimensions* W" x D" x H"	Electropolished 304 SS**		Electropolished 316 SS**	
		Cat. #	\$/Each	Cat. #	\$/Each
Wall	12 x 12 x 12	2636-01E-2	3,691.00	2636-01E-2-316	4,303.00
	12 x 12 x 24	2636-02E-2	5,075.00	2636-02E-2-316	5,895.00
	18 x 18 x 16	2636-03E-2	5,445.00	2636-03E-2-316	6,380.00
	18 x 18 x 24	2636-04E-2	6,043.00	2636-04E-2-316	7,099.00
	24 x 24 x 16	2636-05E-2	6,662.00	2636-05E-2-316	7,827.00
	24 x 24 x 24	2636-06E-2	7,141.00	2636-06E-2-316	8,401.00
	24 x 36 x 24	2636-07E-2	8,095.00	2636-07E-2-316	9,516.00
	36 x 36 x 24	2636-08E-2	10,524.00	2636-08E-2-316	12,432.00
	24 x 24 x 36	2636-09E-2	8,443.00	2636-09E-2-316	9,965.00
	24 x 24 x 48	2636-16E-2	9,542.00	2636-16E-2-316	10,973.00
	36 x 36 x 36	2636-10E-2	11,411.00	2636-10E-2-316	13,101.00
36 x 36 x 48	2636-11E-2	12,279.00	2636-11E-2-316	14,530.00	
Floor	24 x 24 x 36	2636-12E-2	9,904.00	2636-12E-2-316	11,405.00
	36 x 36 x 36	2636-13E-2	11,996.00	2636-13E-2-316	15,241.00
	36 x 36 x 48	2636-14E-2	13,734.00	2636-14E-2-316	16,276.00

*Add .5" to W x H for cut-out ** Windows are dissipative PVC

OTHER PASS-THROUGH SOLUTIONS



A



B



C

Dozens more at TerraUniversal.com

A. BioSafe+® double-wall chambers with isolated interlocks

Shown: No. 2636-64C

B. Fire-Rated Pass-Throughs

Shown: No. 2641-12

C. Refrigerated Pass-Throughs

Shown: No. 6705-75A

D. Roll-Up Door Pass-Throughs

Shown: No. 6705-10B

E. Convenience Window: Sliding Door

Shown: 1702-82

F. Convenience Window: Swing Door

Shown: No. 1702-72



D



E

Sliding Door Model



F

Swing Door Model

PUREDRY™ CLEANROOM HAND AND GLOVE DRYER

- Microfilters capture sub-micron particles to reduce contamination and germs that can spread infection
- Also ideal for drying tools, bottles, microelectronic components and other small particle-sensitive materials

- ULPA (Ultra Low Penetration Air) filter—ISO 5 compatible
- Insulation and motor isolation reduce noise
- Brushless motor eliminates carbon contaminants for ultra-clean operation



Germ-Free Recirculating Model (No. 3333-33)

Recirculation minimizes particle load and germ accumulation.

PureDry Hand/Glove Dryer Recirculating Model		
Description	Cat. #	S/Each
120VAC/60Hz	3333-33	2,638.00
220VAC/50Hz	3333-33-220	2,638.00
Replacement ULPA Filter 99.999% efficient@ 0.12 micron	3333-35	200.00



Single-Pass Model (No. 3333-00)

Space-saving, wall-mount unit features an easy-access ULPA filter.

PureDry Hand/Glove Single Pass Model		
Description	Cat. #	S/Each
120VAC/60Hz	3333-00	1,906.00
220VAC/50Hz	3333-00-220	1,906.00
Replacement ULPA Filter 99.999% efficient@ 0.12 micron	3333-39	180.00

LAVATORY SINKS



Foot Valve
(electronic-eye
sensor model
available)

Feature a marine edge and gooseneck spout faucet, soap dispenser and basket drain.

- 304 stainless steel
- Bowl Dimensions: 15.75"W x 19.75"D x 8.875"H
- Overall Dimensions: 23"W x 24.312"D
- Sump: 4.75" diameter
- Marine edge feature retards spillage
- Hands-free models meet USP 797 requirements

Lavatory Sinks with Marine Edge		
Spout Faucet Operation	Cat. #	S/Each
Foot Valve	1372-90	1,318.00
Electronic-Eye Sensor	1372-91	1,765.00

ULTRA-FILTERED WASHING/ DRYING STATIONS



For use in critical cleanroom and gowning room environments.

- Incorporates washing and ULPA-filtered drying modules in one cleanroom-compatible station
- Infrared (IR) beam activation for hands-free, operation
- Optional liquid soap dispenser
- Drying module incorporates an ULPA (ultra-low penetration air) filter rated 99.999% efficient @ 0.12µm particles

Hand/Glove Cleaning Station				
No. of Sinks	Electropolished 304 Stainless Steel			
	110VAC/60Hz		220VAC/50Hz	
	Cat. #	S/Each	Cat. #	S/Each
1	9600-05	6,877.00	9600-05-220	6,272.00
2	9600-06	12,230.00	9600-06-220	12,230.00
4	9600-07	23,041.00	9600-07-220	23,041.00
6	9600-08	34,854.00	9600-08-220	34,854.00



Purifier® Logic®+ Class II, Type A2 (BSC) 70% Air Recirculation/ 30% Exhaust

Applications: Used for containing substances generating hazardous airborne particulates such as antineoplastic drugs, genetic material, carcinogens, and allergens.

Airflow Pattern: Discharges 30% of air and recirculates approximately 70% of the HEPA-filtered air through the cabinet. Discharges HEPA-filtered exhaust air directly into lab or into exhaust system with an optional Canopy Connection.

Purifier Logic+ Class II Type A2 Bio Safety Cabinets by Labconco

Size	Dimensions W" x D" x H"	Cat. #	S/Each
4' with 10" sash opening, 115V**	54.3 x 31.2 x 89.2-95.2	3642-00	9,460.00
4' with 8" sash opening, 115V**	54.3 x 31.2 x 89.2-95.2	3642-06	9,460.00
4' with 8" sash opening, 115V*	54.3 x 31.2 x 89.2-95.2	3645-41A	8,940.00
6' with 10" sash opening, 115V**	78.3 x 31.2 x 89.2-95.2	3642-18	11,657.00
6' with 8" sash opening, 115V**	78.3 x 31.2 x 89.2-95.2	3642-22	11,657.00

* UV Light, Service Fixture, Vacu-Pass Portal (Base stand not included)

** UV Light, Service Fixture, Vacu-Pass Portal and Base Stand



Purifier Logic+ Class II, Type B2 (BSC) 100% Exhaust

Applications: Used for containing agents treated with volatile toxic chemicals and radionuclides; antineoplastic drugs, genetic material, asbestos and substances that generate hazardous airborne particulates.

Airflow Pattern: A dedicated exhaust system and remote blower discharge 100% of the filtered exhaust air from the laboratory. Models are designed to be hard-ducted to the outside.

Purifier Logic+ Class II Type B2 with 8" sash, 115V by Labconco

Description	4' Nominal Width 54.3W x 31.2D x 72.6H inches		6' Nominal Width 78.3W x 31.2D x 72.6H inches	
	Cat. #	S/Each	Cat. #	S/Each
Standard	3651-60-220	11,834.00	3651-64	13,768.00
Base Stand	3651-61	12,334.00	3651-65	14,292.00
UV Light, Service Fixtures, Vacu-Pass Portal	3651-62	12,326.00	3651-66	14,259.00
UV Light, Service Fixtures, Vacu-Pass Portal, Base Stand	3651-63	12,825.00	3651-67-220	14,783.00

Features of Labconco's Purifier Logic+ Class II, Type A2 and Type B2 Biosafety Cabinets

Ergonomically designed for operator comfort and safety, Purifier Logic+ Class II, Type A2 and B2 biosafety cabinets protect users, products and environments from hazardous agents that require Biosafety Level 1, 2 or 3 containment.

Performance: The Electronically Commutated Motor (ECM) and the Constant Airflow Profile (CAP) Technology in the Purifier Logic+ create an intelligent and accurate BSC able to maintain proper airflow. The ECM uses 60% less energy, generates less heat, is 50% quieter and has greater torque compared to conventional motors. CAP Technology eliminates the need for airflow sensors and manual adjustment by working with the ECM for precise control of airflow.

Safety: Units meet or exceed all minimum requirements set by NSF International including 99.99% efficient HEPA filters and nominal inflow of 105 fpm. The line of sight LCD, in constant communication with the ECM,

monitors and displays cabinet performance. The LCD has easy readability and an easy to understand full sentence feedback that eliminates guesswork. The "Filter Remaining" bar graph alerts when filter level is down to 20%. Visual and audible alarms alert users in the event of cabinet errors. The durable UV-opaque safety glass and stainless steel is easy to clean and decontaminate.

Comfort: Models are ergonomically designed with ADA compliant touchpad controls and service fixtures. The angled sash, curved inlet grille, flush-mounted electrical duplex covers promote easy clean-up and accessibility. Users have over 27" of viewing height, and the bright, glare-free fluorescent lighting exceeds NSD requirements.

Sustainable Design: Contributes to satisfying EA Credit 1 under LEED, MR Credit 4 with 8.5% pre-consumer and 54.5% post-consumer recycled content.



Washes and dries general purpose labware



Washes and dries narrow-neck and general purpose labware

SteamScrubber® Glassware Washers

The SteamScrubber meets the modern laboratory's demand for cleaning of general purpose labware. Units are made of stainless steel top and bottom racks with basket inserts able to accommodate beakers and other wide-mouth glassware including BOD bottles, Petri dishes, culture tubes and small utensils. ADA compliant models are also available.

- Material 304 Stainless Steel door, tank, upper and lower wash arms
- Upper rack features additional wash arm and side release latches
- Water temperature for 115V: 93°C
- LCD information center for customizing cycles and monitoring operation
- Water recirculation rates of 96 gal/min for 115V models
- Dual pumps for washing and draining
- Built-in purified water pump for bringing in non-pressurized or pressurized purified water into tank for up to six pure water rinses
- Built-in steam generator produces hot vapor for penetrating and removing dried residue on glassware
- Manual-fill detergent dispenser for powder or liquid detergent; manual-fill rinse aid solution dispenser
- Built-in forced air drying up to 99 minutes and programmable from 38 – 70°C
- 115 V models have seven programs: Rinse Only, Plastic, Glass, Glass Plus, Scientific, Scientific Plus and Dry Only.
- Alarms with display and user-set delayed start (up to 8 hours)
- Compliance: CAN/CSA C22.2, CE, ETL, UL (select models)

SteamScrubber					
Dimensions W" x D" x H"	Type	Power (V)	Window & Light	Cat.#	S/Each
24.1 x 27.4 x 34.1	Undercounter	115	No	6921-08A	6,681.00
24.1 x 27.4 x 34.1	Undercounter	115	Yes	6921-45	7,337.00
24.2 x 27.5 x 34.2	Freestanding	115	No	6921-10A	7,057.00
24.2 x 27.5 x 34.2	Freestanding	115	Yes	6921-47	7,713.00
24.1 x 27.4 x 32.9-34.9	ADA-Compliant	115	No	6921-70	6,681.00
24.1 x 27.4 x 32.9-34.9	ADA-Compliant	115	Yes	6921-71	7,337.00

FlaskScrubber® Glassware Washers

Designed to wash and dry narrow-neck and general purpose labware, these units are also available in ADA compliant models. The FlaskScrubber features a lower spindle rack that holds up to 36 pieces of narrow-neck glassware such as volumetric flasks.

- Material: 304 Stainless steel
- Water temperature reaches 82°C for 115 V models
- LCD information center customizes cycles and monitors operation including internal water temperature
- Water recirculation rates of 96 gal/min for 115 V models
- Dual pumps for washing and for draining reduces cross contamination
- Built-in purified water pump for non-pressurized or pressurized purified water into tank for up to six pure water rinses
- Built-in steam generator produces hot vapor for penetrating and removing dried residue
- Built-in forced air drying into tank up to 250 minutes and programmable from 38 – 70°C
- Manual-fill detergent dispenser for powder or liquid detergent
- Manual-fill rinse aid solution dispenser
- One-piece, stainless steel, fine mesh particle drain filter traps debris in tank
- Compliance: UL 61010-1, CAN/CSA C22.2 No. 61010.1, ETL listed (select models)

FlaskScrubber					
Dimensions W" x D" x H"	Type	Power (V)	Window & Light	Cat.#	S/Each
24.1 x 27.4 x 34.1	Undercounter	115	No	6921-02A	8,645.00
24.1 x 27.4 x 34.1	Undercounter	115	Yes	6921-41	9,293.00
24.2 x 27.5 x 34.2	Freestanding	115	No	6921-04A	9,017.00
24.2 x 27.5 x 34.2	Freestanding	115	Yes	6921-43	9,673.00
24.1 x 27.4 x 32.9-34.9	ADA-Compliant	115	No	6921-72	8,645.00
24.1 x 27.4 x 32.9-34.9	ADA-Compliant	115	Yes	6921-73	9,293.00



A. Basic Laboratory Hoods

These basic lab hoods are ideal for labs requiring light duty applications. The by-pass airflow maintains stable face velocity and vapor-proof or explosion-proof blower models provide safe ventilation. Various system options are available in 47" and 70" widths. Model shown: 3646-05 (70" width).

B. Fiberglass 30 Laboratory Hoods

Made with chemical resistant one-piece fiberglass interior and an epoxy-coated steel exterior, these compact by-pass models maintain stable face velocity, and the pivoting air foil maximizes containment. Select models are available with an integral exhaust blower. Model shown: 3646-49 (30" width).

A. Basic 47 Laboratory Hoods: 47"W x 25"D x 53"H*						Work Surface†				
Incandescent Lamp	Blower Motor	Equivalent Resistance		Shipping Weight	115VAC, 60Hz		220VAC, 50Hz***			
		10" dia	12" dia.		Cat. #	\$/Each	Cat. #	\$/Each		
Vapor Proof	1/3 HP	100'	250'	370/168	3646-00	4,199.00	3646-00-220	4,199.00	3646-02	990.00
Explosion-Proof**	1/2 HP, EP	100'	250'	375/170	3646-01	4,949.00	3646-01-220	4,949.00	3646-02	990.00

Basic 70 Laboratory Hoods: 70"W x 25"D x 53"H						Work Surface†				
Incandescent Lamp	Blower Motor	Equivalent Resistance		Shipping Weight	115VAC, 60Hz		220VAC, 50Hz***			
		10" dia	12" dia.		Cat. #	\$/Each	Cat. #	\$/Each		
Vapor Proof	3/4 HP	45'	100'	450/204	3646-05	5,421.00	3646-05-220	5,530.00	3646-07	1,474.00
Explosion-Proof**	3/4 HP EP	45'	100'	455/206	3646-06	5,946.00	3646-06-220	6,036.00	3646-07	1,474.00

* Maximum length of straight duct to achieve 100 fpm face velocity. ** Bulb not included on explosion-proof models. *** International electrical configuration. †48"/72"W x 30"D x 1.25" thick black epoxy-coated steel

B. Fiberglass 30 Laboratory Hoods: 30"W x 30.16"D x 48"H*						Work Surface†			
Blower Motor	Equivalent Resistance**		Shipping Weight	115VAC, 60Hz		220VAC, 50Hz***			
	6" dia	8" dia.		Cat. #	\$/Each	Cat. #	\$/Each		
Yes††	20'	80'	230/104	3646-48	3,828.00	3646-48-220	3,921.00	3646-50	644.00
None	—	—	210/95	3646-49	3,509.00	3646-49-220	3,614.00	3646-50	644.00

* Model 3646-48-220 is 54"H
 ** Maximum length of straight duct to achieve 100 fpm face velocity
 *** International electrical configuration.
 † 48"/72"W x 30"D x 1.25" thick black epoxy-coated steel
 †† 1/10 HP (120V); 1/3 HP (220V)



C. Protector® XStream® Laboratory Hoods

These high-performance, low-volume benchtop by-pass models provide maximum containment and energy savings. The patented features significantly reduce contaminants near the user's breathing and behind the sash opening. The Protector XStream meets SEFA-1 low velocity hood standards when subjected to ASHRAE 110 test protocol and they yield the lowest required CFM. By-pass models are available in 4-, 5-, 6- and 8-foot widths. Model shown: (5' width).

Applications: Ideal for facilities without central air-handling systems performing general chemistry applications.

- **Upper Dilution Air Supply** bathes sash interior with clean air
- **Rear Downflow Dual Baffle System:** primary and secondary baffles
- **Clean-Sweep™ Sash Handle** directs chemical fumes away from user's breathing zone; **Opti-Zone™** lowers standard face velocity variations in comparison with other baffles; **Eco-Foil™ Air Foil** lower energy usage by 7 – 10% compared to flat air foils; **Cord-Keeper™** Slots located on left and right side of air foil
- **Material:** Powder-coated stainless steel interior with glacier white powder-coated steel exterior

C. Protector XStream Laboratory Hoods

Nominal Width Dim (WxDxH)	Cat. #	\$/Each
4' (48.0" x 37.7" x 59.0")	1538-30	6,985.00
5' (60.0" x 37.7" x 59.0")	1538-34	7,016.00
6' (72.0" x 37.7" x 59.0")	1538-38	7,765.00
8' (96.0" x 37.7" x 59.0")	1538-42	11,060.00

D. Protector Premier® Laboratory Hoods

As the only high performance hood in the market available with a built-in blower, these benchtop models have excellent containment enhancing features. Unit dimensions match standard lab casework, base cabinets and stands. The Protector Premier is energy efficient, meets SEFA-1 regulations and operates at a face velocity as low as 60 fpm. By-pass models are available in 4-, 5-, 6- and 8-foot widths. Model shown: (4' width).

Applications: General chemistry applications for effective containment of toxic, noxious and other harmful fumes.

- Sleek interior made with an easy to clean seamless one-piece fiberglass liner that is corrosion and chemical resistant
- **Eco-Foil Air Foil** saves energy by 7-10% with aerodynamic curve of air sweeping through work surface; **Clean-Sweep** airflow openings promote non-turbulent air streams
- Pre-set baffle(s) with flame spread less than 25 per ASTM E-84.
- 37.5" (95.3 cm) high sightline from the work surface and header panel
- Removable front and side panels, and front service access panels for plumbing and electrical wiring
- **Material:** glacier white powder-coated steel exterior

D. Protector Premier Laboratory Hoods

Nominal Width Dim (WxDxH)	Cat. #	\$/Each
4' (48.0" x 31.7" x 59.0")	3649-00*	5,658.00
5' (60.0" x 31.7" x 59.0")	3649-13	6,338.00
6' (72.0" x 31.7" x 59.0")	3649-24	7,011.00
8' (96.0" x 31.7" x 59.0")	3649-36	9,748.00

* With built-in blower

All models: 100-115 V models listed meet UL standards. 208 – 230 V (CE Listed) models also available. Models with optional service fixtures, electrical duplex, and built-in exhaust blower also available. Explosion proof model available with Protector XStream. Contact Terra for details about optional and required accessories.



Performs maximum containment under adverse conditions



Sleek corrosion and fire resistant interior

VALULINE™ WHISPERFLOW™ POLYPROPYLENE LAMINAR FLOW HOODS

Terra's versatile laminar flow hoods provide a particle-free work environment on any available work surface.

- Portable, economical system converts any benchtop surface into a vertical or horizontal laminar flow station (select 36" or 48" width)
- Air flow speed exceeds 90 feet/minutes (measured with HEPA filter)
- Quiet operation: 54 dBA measured 30" from filter face
- Polypropylene hood construction resists a wide range of chemicals, including alcohol and other biocides
- Includes built-in polypropylene bottom with spill tray and coved seams for easy cleaning

Units consist of two modules:

1. Fan/Filter unit (FFU) for quiet, reliable operation

The FFU houses a HEPA filter, rated 99.99% efficient with 0.3 micron particles. Internal baffle system ensures uniform face velocity, and its 54 dBA noise rating ensures quiet operation. The low vibration level ensures minimal disruption of high-precision assembly or test procedures performed inside the hood. ULPA FFUs, rated 99.999% efficient @ 0.12µm particles, along with ionization units are also available.

2. Polypropylene frame for chemical resistance

The 0.5" (13 mm)-thick polypropylene construction offers excellent chemical compatibility, durability, and cleanliness. A hinged front access shield, made of static-dissipative PVC, restricts the air exit and enhances laminar flow. Continuous seams and coved corners simplify cleaning.

Complete line of optional accessories available, including tables and ionizers.



Items in blue

No. 1688-40, Vertical Laminar Flow Hood

No. 1688-42, Horizontal Flow Hood

ValuLine Whisper Flow Polypropylene Laminar Flow Hoods

Outside Dimensions (inches)	Power	Vertical Flow ValuLine WhisperFlow Hood		Horizontal Flow ValuLine WhisperFlow Hood		Corresponding HEPA Fan/Filter Unit*	
		Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each
48.75 x 24.75 x 39, 42. with FFU	120VAC, 60Hz	1688-40	1,618.00	1688-42	1,466.00	6601-24-H	740.00
	220VAC, 50/60Hz	1688-40-220	1,618.00	1688-42-220	1,466.00	6601-24-H-220	845.00
36.75 x 24.75 x 39, 42.5 with FFU	120VAC, 60Hz	1688-41	1,452.00	1688-43	1,642.00	6601-23-H	740.00
	220VAC, 50/60Hz	1688-41-220	1,452.00	1688-43-220	1,642.00	6601-23-H-220	845.00

* ULPA models available

SPECIALTY HOODS

A. HEPA-Filtered Ventilation Hood

Perfect for containing contaminants produced during benchtop operations, including powders and dust. Reverse-flow fan/filter unit micro-filters air for safe indoor release.

B. Explosion-Proof Hood

Motor, fan and LED light classified for use in Class I, Division 1 hazardous locations, per NEC code, making this enclosure suitable for use around potentially flammable or explosive substances.



COMPOUNDING ASEPTIC ISOLATOR

Helps meet USP<797> requirements

- Low-noise, low-vibration filter/fan unit provides continuous vertical flow of 99.99% particle-free air to meet Class 100 (ISO 5) cleanliness standards
- 304 Stainless steel enclosure is easy to clean and disinfect
- Large, ergonomically sloped static-dissipative PVC viewing window tilts open to allow insertion of filling machines or other large process equipment
- Antechamber features swing door for easy insertion/removal of IV bags and other small items
- Magnehelic® gauge monitors internal positive pressure inside the enclosure that prevents infiltration of contaminants
- Includes IV rod and externally mounted fluorescent illuminator
- Waste port available for disposing of materials through glovebox floor or side



Swing-up access door and isolated antechamber



Sliding glass door isolates antechamber

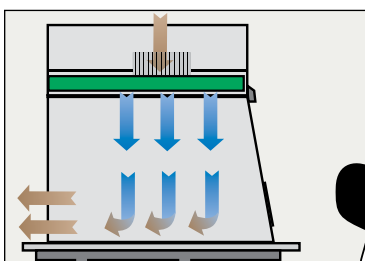


ValueLine™ Isolator provides a USP <797>-compliant isolator at a lower cost! Polypropylene construction is easy to clean and resists biocides

This laminar flow glovebox provides an easy-to-clean environment for performing sterile pharmaceutical preparations. Its HEPA filtration module provides a positive pressure of 99.99% particle-free air inside the work area to meet ISO 5 requirements. A separate antechamber allows introduction of materials without contaminating the main work area. Includes polyurethane exit filter (HEPA exit filter available). Select gloves for 10"-diameter ports. Material: 304 stainless steel with tempered glass window and polypropylene dividing wall. Dimensions: 50"W x 30"D x 51"H.

Compounding Aseptic Isolators and Stands

Material	30" Chamber Depth		Space-Saver 24" Chamber Depth	
	Cat. #	\$/Each	Cat. #	\$/Each
304 SS	2900-46C	7,906.00	2900-56	8,052.00
Polypropylene	2900-62	6,194.00	2900-58	6,340.00
Stand	1694-81	776.00	1694-82	679.00



Single-pass flow-through design



Includes IV rod



Space-Saver Model: 22" depth allows easy cleaning of back wall; rear baffle plate is removable without rear access to allow easy cleaning and sterilization



Rear Baffle removes for cleaning



Sliding door



GERMFREE LFGI LAMINAR FLOW GLOVE BOX/ISOLATOR for Biohazard Containment

Germfree's LFGI Laminar Flow Glove Box/Isolator is designed with positive and negative configuration options. Units meet NIOSH recommendations and USP-797 requirements for a Compounding Aseptic Containment Isolator (CACI) and USP-797 regulations for a Compounding Aseptic Isolator (CAI). The ergonomic glove ports and the HEPA filters provide users the highest level of comfort and protection from microbiological particulates, dust, powders and aerosols.

- Units configured to positive or negative pressure operation; can be adjusted by a certifier
- Antechamber and waste and sharps removal tubes can be installed on either side of unit
- Three exhaust options can be factory-set or changed by a certifier when the unit is in-place
- Protects operator and product in the event of a containment breach with Inward/outward face velocity of 95 – 100 linear feet per minute at glove port opening
- 10" range variance of hydraulic-assist, height-adjusting stands allow operators to sit or stand comfortably for extended time periods
- Oval glove ports for maximum range of motion

Specifications

Electrical:	115 volt, 15 amp, 60 Hz (220/50-60 Hz also available)
Amperage Rating:	15
Antechamber Dimensions:	Sealed two-door airtlock 16" W x 13.5" D x 14.25" H
Configuration Options:	Positive and negative pressure operation
Lighting:	T8 fluorescent light externally mounted for optimum lighting and minimal heat build-up; ON/OFF lighted indicator switches for blower and lighting

- Full framed, standard-size minipleat HEPA filters provide 100% filtering of inlet and exhaust air from both the work area and the antechamber for a fully contained environment
- 4" diameter trash tube (flanged for waste bag/container connection) and straight 2.5" diameter sharps tube (for quick and easy drop of large syringes) include easy to remove seal/stopper to maintain work area containment
- Meets or exceeds ISO 14644-1 for Class 5 air quality
- Two-year manufacturer warranty for parts and labor from original purchase date
- **Safety features:** lock-out handle with key, low pressure alarm and digital pressure readout, glove change without breaking containment, standard locking casters
- **Ergonomic features:** two part sleeve/glove system fits various commercially available glove types and sizes; extra-large oval gloveports provides range of movement and accommodates many body types; 3" arm rest of gloveports promotes comfort and reduces fatigue; large viewing panel minimizes glare and strain; integrated footrest
- Construction allows optional outside venting of exhaust air
- Clean air plenum external to work area; sealed outlet in work area; includes 10 ft. hospital grade power cord with molded grounded plug
- Waste and sharps disposal system for CACI also available

LFGI Laminar Flow Glove Box/Isolator

Overall Dimensions W" x D" x H"	Work Area Dimensions W" x D" x H"	Glove Ports	Cat #	\$/Each
54 x 32 x 80 (39" wide at base)	34.5 x 24.5 x 29	2	5607-15	19,945.00
66 x 32 x 80 (50" wide at base)	46.5 x 24.5 x 29	3	5607-16	21,241.00
90 x 32 x 80 (74" wide at base)	70.5 x 24.5 x 29	4	5607-17	26,342.00

Call Terra Universal at 714-578-6100 and speak to a product expert about available accessories.

VERSAFLOW LAMINAR FLOW COMPOUNDING ASEPTIC ISOLATOR

Germfree designed the VersaFlow for applications such as IV compounding in hospital pharmacies and cleanroom environments. Fan units bathe the work area with unidirectional HEPA-filtered air with minimal turbulence for a sterile work environment.

- Meets USP-797 regulations and provides ISO Class 5/Class 100 HEPA filtered unidirectional vertical (laminar) airflow for positive pressure (non-hazardous) compounding
- Units can be converted to a Vertical Laminar Flow Workstation
- **HEPA** filter removes organisms and particulates 0.3 microns in size with 99.99% efficiency
- Straight sides and back optimize work area to fit various shapes and types of pharmacy equipment and automated compounders
- **Waste Removal:** 4" diameter trash tube and seal/stopper; 3" diameter sharps tube for syringe disposal; adjustable sharps container shelf
- **Filtration:** Standard-size minipleat HEPA filters; full framed; filters 100% of inlet and exhaust air from work area and antechamber; full coverage and front-loading HEPA filters
- **Safety:** Inward/outward face velocity of 95 – 100 linear ft. per min.; includes lock-out handle and key and standard integrated stainless steel stand; digital pressure readout; glove changes without breaking containment
- **Ergonomics:** Two part sleeve/glove system fits various commercially available glove types and sizes; extra-large oval glove ports with 3" arm rest promotes wide range of movement; angled large viewing panel minimizes glare and strain
- Two-year manufacturer warranty



Meets all requirements for USP-797 compliance. 100% stainless steel construction. Unidirectional vertical laminar airflow system maintains ISO Class 5/Class 100 air quality under dynamic conditions.

VersaFlow Laminar Flow Compounding Aseptic Isolator

Dimensions W" x D" x H"			Glove Ports	Running Amperage	Cat #	\$/Each
Overall	Work Area	Ante-chamber				
63 x 32 x 79.5	33 x 27.5 x 32	14 x 27.5 x 32	2	6	5607-19	12,252.00
88 x 32 x 79.5	49 x 27.5 x 32	22 x 27 x 32	3	6	5607-20	14,280.00
92 x 32 x 79.5	55 x 27.5 x 32	19 x 27.5 x 32	4	7	5607-21	14,900.00

SEA-III CLASS III BIOSAFETY CABINETS (BSC)

The **SEA-III BSC by Germfree** is an ergonomically designed standard sized cabinet ideal for modern microbiology labs tasked with handling a wider range of hazardous biological materials.

- Features HEPA filtered air and double HEPA filtered exhaust air
- Boosts preparedness of lab when working with emergency response networks for containing higher risk biological agents
- Cost-effective stainless steel models with ergonomic design promotes natural arm position, extends reach and reduces fatigue
- Exhaust system requirements: 50 cfm @ 2" H₂O (8.5 m³/hr. @ 500 Pa)

Construction:

- All welded 12-gauge type 316L (2.46 mm thick ISO 3406 Type A4) stainless steel, interior coved corners and radius bends
- 180-grit pharmaceutical grade (#4) finish facilitates cleaning and decontamination

Contact a Terra product expert at 714-578-6100



Safe, affordable, and ergonomic. Ideal for integrating Class III BSC into complex lab environments

SEA-III Glove Boxes

Glove Model	Interior Dims W" x D" x H"	Overall Dims. with 36" stand W" x D" x H"	Cat #	\$/Each
2	41.25 x 22 x 29.25	60.25 x 24.75 x 76.375	5607-25	48,332.00
3	54 x 22 x 29.25	72.25 x 24.75 x 76.375	5607-26	51,612.00
4	78.125 x 22 x 29.25	95.125 x 24.75 x 76.375	5607-27	61,677.00

LFGI RADIOPHARMACY ISOLATORS



34" work area. Compounding Aseptic Containment Isolator (CACI) completely shields users from radioactive material

The Germfree Compounding Aseptic Containment Isolator (CACI) with .25" lead shielding provides advanced user and product protection when compounding sterile radiopharmaceuticals. These barrier isolators provide cleanroom conditions within a contained workspace and are ideal for use in clinics, and hospital and pharmacies.

- Meets USP-797 compliance without expense for pharmacy ventilation renovations
- ISO Class 5/Class 100 Isolator eliminates requirement for an ISO Class 8 cleanroom
- .25" lead shielding (located in back, sides, bottom and front of work area) protects while compounding sterile radiopharmaceuticals
- Fits Atmlab and other dose calibrators
- Provides fully controlled environment with 100% HEPA filtration of supply and exhaust air from work area and antechamber
- Stainless steel construction inside and outside encapsulates lead between interior and exterior panels
- **Safety Features:** Key accessed lock-out handle for work area; digital pressure gauge with audible and visual low pressure alarm; operator/product protection in event of glove loss with inward face velocity of 95 – 100 linear feet per minute at gloveport opening; glove change without breaking containment; standard locking casters; undergoes extensive physical testing for assurance that each unit meets performed requirements; independent certification required prior to use.
- **Sharps and Waste Disposal:** sharps container surrounded by individual .25" lead shields located under isolator; 2.5" diameter sharps tube for quick drop of large syringes; includes easy to remove shielded seals/stoppers to maintain work area containment.

LFGI Series Radiopharmacy Isolator

Dimensions		Cat #	\$/Each
Overall W" x D" x H"	Work Area W" x D"		
36 x 34 x 79.5	34 x 24	5607-22	42,687.00
Exhaust Transition		5607-23	651.00



Protects user, product and environment



CLASS II TYPE A/A2 BIOSAFETY CABINETS

Germfree's **RADIOSAFE Series** Class II, Type A or A2 Biological Safety Hoods are 100% stainless steel units designed to compound sterile radiopharmaceuticals. Units continuously bathe the work area with positive pressure ISO Class 5/Class 100 HEPA filtered air and negative inward airflow to protect product from contamination and promote user safety from hazardous samples.

- Meets all requirements for USP-797 compliance
- Provides positive pressure ISO Class 5/Class 100 HEPA filtered air and negative inward airflow
- Includes 37" tall all-welded stainless steel stand
- **Lead Shielding:** 2" thick lead-lined dose calibrator housing; dose calibrator monitor arm; lead on sides, back and bottom (3/4" thick); 37" tall all-welded heavy duty stainless steel stand
- **Performance Data:** Passes Biological Tracer Containment Tests of the National Institutes of Health (NIH), the National Cancer Institute (NCI); NRTL listed with MET Labs to comply with UL 1262
- HEPA filter life extended by high capacity motor/blower with speed control
- Externally mounted fluorescent lights minimize heat build-up
- IV. bar in work area includes 12 stainless steel hooks

Compliance

- Class III Biological Safety Cabinet as defined by the CDC/NIH publication "Biosafety in Microbiological and Biomedical Laboratories" 5th Edition (BMBL)
- System complies with standard EN 12469-2000

RADIOSAFE Series Radiopharmacy Hoods

Overall Dims. w/ Stand W" x D" x H"	Overall Dims. w/o Stand W" x D" x H"	Work Area Dimensions W" x D" x H"	Cat #	\$/Each
50 x 27 x 94	50 x 27 x 57.5	48 x 22 x 29		



BIOSAFE® ASEPTIC PROCESSING ISOLATORS

- Smooth, ultra-clean surfaces eliminate germ traps, simplify cleaning
- Tempered glass or polycarbonate viewing windows allow full view of chamber
- Includes fluorescent illuminator (UV sterilization bulbs available)
- Optional access panel available for equipment transfer
- Custom configurations available—call to discuss your requirements!

BioSafe Glove Box — All models are 120VAC; 220VAC models available

Position	Window Material	304 Stainless Steel				316 Stainless Steel			
		Single 37.5"W x 29"/24"D x 39"H		Twin 69"W x 29"/24"D x 39"H		Single 37.5"W x 29"/24"D x 39"H		Twin 69"W x 29"/24"D x 39"H	
		Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each
Glove Box with Right-Side Air Lock	Polycarbonate	9670-16C	19,702.00	9670-19C	24,938.00	9670-48B	27,738.00	9670-51B	35,172.00
	Safety Glass	9670-17C	20,897.00	9670-20C	26,137.00	9670-49B	29,468.00	9670-52B	36,813.00
Glove Box with Left-Side Air Lock	Polycarbonate	9670-22C	19,672.00	9670-25C	24,974.00	9670-54B	27,738.00	9670-57B	35,172.00
	Safety Glass	9670-23C	21,114.00	9670-26C	26,137.00	9670-55B	29,468.00	9670-58B	36,813.00
Glove Box with Dual-Side Air Locks	Polycarbonate	9670-28C	24,670.00	9670-31C	30,147.00	9670-60B	34,952.00	9670-63B	42,431.00
	Safety Glass	9670-29C	25,896.00	9670-32C	31,310.00	9670-61B	36,683.00	9670-64B	44,028.00

OTHER ISOLATOR DESIGNS



A. Smart Glovebox

Economical turnkey system with onboard nitrogen control system maintains low-%RH set point automatically. Available in stainless steel, acrylic, polycarbonate or polypropylene. Model shown: No. 3305-34A.



B. Series 100 Glovebox

Many sizes and application-specific materials, including static-dissipative PVC, chemical-resistant polypropylene and economical acrylic. Model shown: No. 1680-81B dissipative PVC isolator with ULPA filtration module and antechamber.



A *BACTRON300 17.6 cu. ft. work space with a 300 Petri-plate capacity incubator*



All BACTRON,
BACTRONEZ and
BACTROX models



B *BACTRON600 17.6 cu. ft. work space and 600-plate capacity with a rotating shelf and two rear mounted shelves*



C *BACTRON900 17.6 cu. ft. work space and 900-plate capacity with a two-tier rotating shelf and an added rear wall incubator with an independent temperature control*

Features of BACTRON300, 600, 900, and BACTRONEZ:

- Agency Approval: TUV-CUE; Meets EN61010, UL61010 and Can/CSA61010 standards
- Operates as a one-gas (Anaerobic Mixed Gas [AMG]) or two-gas (AMG and nitrogen) system
- Gloveless design with patented cuffs for efficient bare hand manipulation of samples
- Ergonomic arm port door provides flat resting area for user's arm, enhances comfort during extended periods of operation, simplifies access and maintains a strict anaerobic environment
- User-friendly control panel and microprocessor controls with pre-programmed sequence
- Automatic pressure controls provide positive pressure at approximately 3" of water column and shows pressure level
- Airtight construction of heavy duty stainless steel and rigid Plexiglas
- **Gas supply must be purchased separately**
- Two-year manufacturer limited warranty

Shel Lab® manufactures anaerobic chambers in various Petri-plate capacities and cubic foot work spaces. Models are designed for microbiology and cell biology sample processes, inoculation, incubation, inspection and recovery applications. Units purchased in the United States include installation and operator training workshops.

A. BACTRON300

The BACTRON300 continues to be one of the most popular anaerobic chamber models for its size and capacity. Models include standard accessories for easy set-up and optimum productivity. The ample work area still sustains a compact footprint.

Includes: vacuum pump, AMG Regulator, interior electrical outlet, sleeve assembly with medium cuff and 8 Petri racks, installation and training workshop (for USA orders only).

BACTRON300 Anaerobic Chamber

Description	Cat. #	S/Each
110V	3900-82	19,923.00
220V	3900-82-220	19,923.00

B – C. BACTRON600 and BACTRON900

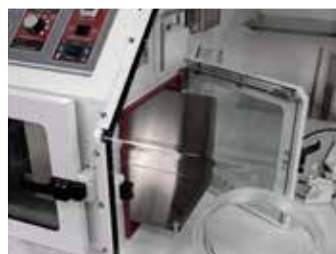
BACTRON600 and BACTRON900 Include: vacuum pump, AMG Regulator, interior electrical outlet, sleeve assembly with medium cuff and 10 Petri racks.

BACTRON600

Description	Cat. #	S/Each
110-120V/60Hz	3900-85	23,020.00
220-240V/50Hz	3900-85-220	23,020.00

BACTRON900

Description	Cat. #	S/Each
110-120V/60Hz	3900-84	24,149.00
220-240V/50Hz	3900-84-220	24,149.00



Manual or automatic airlock with sliding shelves



Gloveless Design

D. BACTRONEZ

Modular and economical BACTRONEZ anaerobic chambers can be configured to your specific application requirements. The patented cuffs enable glove-free handling and inspection of samples within a consistent, oxygen-free environment. These anaerobic chambers provide a faster sample turnaround compared to vacuum jars and bags. Units are ideal for research and clinical laboratories handling small volumes of anaerobic samples.

Includes: Sleeve assembly with medium cuff and interior electrical outlet

BACTRONEZ 13.7 cu. ft., 300 plate

Description	Cat. #	S/Each
13.7 cu. ft., 110V	3901-00	10,626.00
13.7 cu. ft., 220V	3901-00-220	10,626.00

See Essential Accessories Kit



D Modular unit with 13.7 cu. ft. work space and a 300-Petri plate capacity

E. BACTROX Hypoxia Chamber

The Bactrox Hypoxia Chamber provides precise control of oxygen and carbon dioxide from a range of 1% to 20% and in increments of 1/10th of a percent.

- Advanced atmospheric PID controller
- Independent incubator (5°C above ambient to 70°C)
- Ultra-fast extra large pass box, vacuum-less sleeve entry
- Vibrant LED exam lights; stainless steel construction
- Independent gas and condensation control
- RSS232; Condensation control; PC calibration of oxygen sensor; independent gas controls

BACTROX Hypoxia Chamber, 13.7 cu. ft.

Description	Cat. #	S/Each
13.7 cu. ft., 110V	3900-87	20,269.00
13.7 cu. ft., 220V	3900-87-220	20,269.00



E 13.7 cu. ft. and 300-plate capacity unit provides precise control of oxygen and carbon dioxide

Accessories

F. BACTRONEZ Essential Accessories Kit

Includes: vacuum pump, foot pedal assembly, AMG regulator, ergonomic grip catalyst holder, exterior LED light, Petri plate racks (2 x 11)

Description	Cat. #	S/Each
115V	3901-25	2,828.00
220V	3901-25-220	2,828.00



F Includes all the most used accessories for the BACTRONEZ

G. BACTRON Sleeve Assembly

For BACTRON and BACTROX chambers. Includes sleeves, cuffs and O-rings.

Cuff Size	Arm Port Door	Cat. #	S/Each
Large	Ergonomic	3901-02	469.00
Medium	Ergonomic	3901-04	469.00
Small	Ergonomic	3901-06	469.00



G

H. Anaerobic Chamber Start-Up Kit

Includes: spare gasket, anatox, chamber cleaner, scratch remover, acrylic cleaner, 10 anaerobic indicator strips, 2 sets of spare latex cuffs and spare O-ring.

For use with	Cat. #	S/Each
BACTRONEZ	3901-01	464.00
BACTRON300, 600, 900	3900-93	527.00



H

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.

- 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. #	S/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.

- 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. #	S/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.

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

* Isolates effects of hydration during photostability testing



33 cu. ft.

25 cu. ft.



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

5757-27
Transportable w/
heavy-duty casters

5757-26
Stackable w/ leveling
feet



Heated and Humidified Incubators by Caron

These energy-efficient benchtop and floor-standing models provide consistent and precise controlled conditions in research processes. .

- 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. #	S/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)



33 cu. ft.

25 cu. ft.

10 cu. ft.

Midi™ 40 Small Capacity CO₂ Incubator by Thermo Scientific

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.

- Exterior Dimension: 18.5"W x 23.5"D x 18"H
- Interior Dimension: 12.2"W x 14"D x 14"H
- Material: stainless steel
- Advanced IntrlLogic™ 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. #	S/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.

- 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. #	S/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



Five Chamber Clear Acrylic Model #3949-04



ValuLine Desiccators

Ideal for low-frequency access to storage, the ValuLine systems provide a controlled flow of nitrogen for moisture-sensitive samples and components.

- 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 Chambers	Inside Dims. W" x D"	Clear Acrylic		Static-Dissipative PVC	
		Cat. #	S/Each	Cat. #	S/Each
1	9.75 x 9.25	3949-00A	290.00	3949-10A	401.00
2	14.25 x 14.5	3949-01A	690.00	3949-11A	1,123.00
3	14.25 x 14.5	3949-02A	1,120.00	3949-12A	1,587.00
4	14.25 x 14.5	3949-03A	1,192.00	3949-13A	2,036.00
5	14.25 x 14.5	3949-04A	1,441.00	3949-14A	2,500.00
6	14.25 x 14.5	3949-05A	2,017.00	3949-15A	2,083.00
8	14.25 x 14.5	3949-06A	2,051.00	3949-16A	3,776.00
10	14.25 x 14.5	3949-07A	2,470.00	3949-17A	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.

- 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

Acrylic (left) and Static-Dissipative PVC (right) Models



ValuLine ES Desiccator					
No. of Chambers	Inside Dims. W" x D"	Clear Acrylic		Static-Dissipative PVC	
		Cat. #	S/Each	Cat. #	S/Each
1	14.25 x 14.5	3949-25	287.00	3949-30	429.00
2	14.25 x 14.5	3949-26	547.00	3949-31	818.00
3	14.25 x 14.5	3949-27	967.00	3949-32	1,216.00
4	14.25 x 14.5	3949-28	1,078.00	3949-33	1,612.00
5	14.25 x 14.5	3949-29	1,304.00	3949-34	1,979.00

Accessories for ValuLine and ValuLine ES

Automatic RB (Relief/Bleed) Valve	Cat. # 1600-60B	S/Each 99.00	Solid 304 EP SS Shelf*	Cat. # 1976-05	S/Each 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	359.00
Perforated EP 304 SS Shelf	1976-02	133.00	Casters (set of 4)	1700-44	246.00

* Shelves individually polybagged and sealed to prevent surface contaminants.

See specifications/ordering chart below.

A. High-Capacity Chamber (see chart below)

Ideal for degassing large assemblies. Powder-coated steel chamber with 1"-thick aluminum door. Includes 1"-thick polycarbonate viewing window, piping, fittings and solenoid valve for convenient control (order pump and vacuum controller separately). 18"W x 48"L stainless steel shelf creates a convenient platform 4.5" above chamber floor.

Powder-Coated Steel Stand Cat. # S/Each
 Raises chamber shelf to 34.6" above floor level **3404-04 1,189.00**

B. Stainless Steel Chamber (see chart below)

Double-wall construction; includes 8" x 8" tempered glass viewing window and dual metering valves and 0-30" vacuum gauge.

C. Stainless Steel TrinosLine Medium Vacuum Chamber (see chart below)

Includes acrylic swing access door with left hinge and five vacuum ports to accommodate multiple vacuum lines: 2x KF16, 2x KF25, 1x KF40. Leak rate: 1×10^{-8} mbar l/s. High-vacuum models also available.

D. Full-View Acrylic Chamber (see chart below)

Made of 1/2"-thick cylindrical acrylic. Designed for continuous pump operation with safety relief valve.

E – J. Acrylic Chambers

See chart below.

Ideal for degassing and transporting small parts. Designed for continuous pump operation (order below).



Shown with optional stand, vacuum pump and controller



Vacuum Chamber Accessories

Metering Valves (installed) Cat. # S/Each
5235-09 168.00
 Two required for direct connection to pump, or one if connecting Vacuum Controller.

Vacuum Gauge (installed) Cat. # S/Each
5235-10 206.00
 Required if selected pump does not include metering kit.

Vacuum Controller

Recommended for all continuous vacuum applications. For Full Vacuum (to 29.9" Hg). Select appropriate Turnkey Connection Kit below.

120VAC, 60Hz Cat. # S/Each
1681-75 2,741.00
 220VAC, 50Hz **1681-75-220 2,741.00**

Connection Kit

Includes all connections, vacuum, solenoid, turnkey installation and testing charges.

For Type A–C Chambers Cat. # S/Each
5400-25 1,524.00
 For Type D–J Chambers **5400-24 1,524.00**

Complete line of pumps at TerraUniversal.com

Vacuum Chambers				Factory Tested*				
Type	Dimensions (W" x D" x H" excluding hardware)		Max. Vacuum	Cat. #	S/Each	Max. Vacuum	Cat. #	S/Each
	Outside	Inside						
A	49L x 30 dia.	48L x 26 dia.	29.9" Hg	3404-03	23,032.00	—	—	—
B	13 x 15 x 14	8 x 12 x 8	29.9" Hg	3404-00	3,316.00	—	—	—
C	Varies with flange size		20 x 20 x 20	5235-25	11,852.00	—	—	—
D	12"-dia. x 14.5	11"-dia. x 13.5	29.8" Hg	5235-08	2,349.00	—	—	—
E	17 x 11 x 12.5	14 x 8 x 9.5	27.0" Hg	5235-00A	2,202.00	29.9" Hg	5235-16	3,202.00
F	13 x 13 x 7.5	10.5 x 10.5 x 4.5	27.0" Hg	5235-01A	1,658.00	29.9" Hg	5235-17	2,658.00
G	9 x 9 x 9.5	6 x 6 x 6.5	27.0" Hg	5235-02A	1,439.00	29.9" Hg	5235-18	2,439.00
H	13 x 13 x 10.5	10 x 10 x 7.5	27.0" Hg	5235-03A	1,931.00	29.9" Hg	5235-19	2,931.00
I	17 x 17 x 13.5	15 x 15 x 11.5	27.0" Hg	5235-04A	2,276.00	29.9" Hg	5235-20	3,276.00
J	26.5 x 11 x 12.5	11 x 8 x 9.5	27.0" Hg	5235-06A	2,490.00	29.9" Hg	5235-21	3,490.00

* These models are individually factory leak tested and guaranteed to hold specified vacuum level for a minimum of 30 days.



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 turbulence.

- 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

	Type	Range	Cat. #	\$/Each
A	Gravity, 120 V, 66 L	50° to 250°C	3700-87	1,585.00
	Mechanical, 120 V, 66 L		3700-90	1,849.00
B	Gravity, 120 V, 61 L	50° to 330°C	3700-93	2,025.00
	Mechanical, 120 V, 61 L		3700-96	2,467.00
C	Gravity, 120 V, 61 L	50° to 330°C	3616-40	2,114.00
	Mechanical, 120 V, 61 L		3616-49	2,658.00



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.

- 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.

- 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 Filter	3700-70	9,596.00
28 cu ft./six shelves	w/out HEPA Filter	3700-15	7,649.00



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.

- 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.



Capacity	Interior Dimensions	Controller	Cat. #	S/Each
17 L	11"W x 10.5"D x 9"H	Digital/1 setpoint	1617-22	20,127.00
17 L	11"W x 10.5"D x 9"H	Multisegment/multiprogram	1617-24	21,018.00
17 L	11"W x 10.5"D x 9"H	Multisegment/multiprogram/communications	1617-26	25,175.00
25.5 L	11"W x 15.5"D x 9"H	Digital/1 setpoint	1617-28	23,624.00
25.5 L	11"W x 15.5"D x 9"H	Multisegment/multiprogram	1617-30	28,475.00
25.5 L	11"W x 15.5"D x 9"H	Multisegment/multiprogram/communications	1617-32	27,946.00



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

Available in two controller modes, these double-walled furnace models minimize exterior temperature.

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

120V	Cat. #	S/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.

- 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. #	S/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.

- 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. #	S/Each
Digital Single Setpoint	4003-01	6,994.00
Digital Programmable	4003-04	7,846.00



No. 1536-14



No. 1536-13



No. 1536-25



No. 1620-39

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.

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

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.

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.

	Type	Cryo Box Cap.*	Exterior Dimensions H" x W" x D"	Temp Range (°C)	Capacity (cu. ft.)	Power**	Cat. #	S/Each
A	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
	CxF Ultra Low	396	96 x 33.4 x 40.5	-10° to -40°	20	115V	1536-13	7,539.00
	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
B	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
	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							
C	Pharmacy Refrigerator	5	24 x 29.5 x 73.6	1° to 8°C	11.5	115V	1620-27	3,974.00
	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

* Using 2" Box Rack. ** Other voltages available.



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.

No. of Doors	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.

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.

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 shelves.

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.

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.

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

STAINLESS STEEL LAB and CLEANROOM TABLES



Optional shelf, drawer, keyboard tray and monitor arms

Designed for modular use, these easy to assemble stainless steel tables allow users to add and/or change components as need arises. The smooth surface and rounded corners allow easy cleaning and the tapered sleeve design and the double-sided tape are ideal for affixing various top materials.

- Load rated at 50 lbs. per sq. foot and up to 600 lbs. maximum
- All-stainless steel shelves and high-temperature casters allow cart wash and enable autoclave applications
- Casters and accessories sold separately

A. Stainless Steel Lab Table

A. Stainless Steel Lab Tables and 3-Sided Frame

Dimensions L" x W" x H"	Weight lbs.	Cat. #	S/Each
29.75 x 30 x 35.375*	58	1533-82	875.00
35.75 x 30 x 35.375	70	1533-83	975.00
47.75 x 30 x 35.375	91	1533-84	989.00
59.75 x 30 x 35.375	119	1533-85	1,112.00

*Tray and drawer are not available for #1533-82



Three-sided frame with backsplash and optional wire shelf

With backsplash and shelf

B/C. Stainless Steel Tables with Backsplash

Models are equipped with a backsplash to protect on-top instruments, equipment and testing items.

B. Stainless Steel Lab Tables and 3-Sided Frame

Dimensions L" x W" x H"	Cat. #	S/Each
29.75 x 30 x 35.188*	1533-70	924.00
35.75 x 30 x 35.188	1533-71	1,027.00
47.75 x 30 x 35.188	1533-72	1,044.00
59.75 x 30 x 35.188	1533-73	1,112.00

*Tray and drawer are not available for #1533-70 and #1533-66

C. Stainless Steel Worktable with Backsplash and Shelf

Dimensions L" x W" x H"	Cat. #	S/Each
29.75 x 30 x 39.5*	1533-66	781.00
35.75 x 30 x 39.5	1533-67	816.00
47.75 x 30 x 39.5	1533-68	860.00
59.75 x 30 x 39.5	1533-69	895.00

*Tray and drawer are not available for #1533-70 and #1533-66

D. – F. Designed for ISO 7 or Class 10,000 cleanliness, these cleanroom or lab tables have a seamless 304 stainless steel work surface supported by 11-gauge nickel/chrome-plated channel supports.



Stainless Steel Bottom Shelf



Stainless Steel Bottom 3-sided Frame



Stainless Steel Bottom H-Frame

Cleanroom/Lab Tables

Type	Length inches	Post Material	Width 30 Inches		Width 36 Inches		Width 44 Inches	
			Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each
D	60	SS	1305-00	956.00	1305-18	1,098.00	1305-54	1,238.00
	72	SS	1305-01	1,033.00	1305-19	1,178.00	1305-55	1,321.00
	96	SS	1305-02	1,261.00	1305-20	1,418.00	1305-56	1,569.00
E	60	SS	1305-06	792.00	1305-24	924.00	1305-60	1,060.00
	72	SS	1305-07	863.00	1305-25	1,039.00	1305-61	1,136.00
	96	SS	1305-08	1,029.00	1305-26	1,217.00	1305-62	1,318.00
F	60	SS	1305-12	792.00	1305-30	959.00	1305-66	1,060.00
	72	SS	1305-13	863.00	1305-31	1,039.00	1305-67	1,136.00
	96	SS	1305-14	1,029.00	1305-32	1,217.00	1305-68	1,318.00



Stainless steel clipboard—see page 38

Stainless steel C-Base bench (No. 1521-55) and optional drawer unit



Items in blue



Static-dissipative C-Base Bench No. 1521-32, with No. 1524-50 uprights, 1700-76 light, 1700-90 shelf and 1740-07 drawer.

Stainless Steel Tops

- Stainless steel work surface meets Class 100 particle requirements
- Choice of adjustable "A" base or nonadjustable "C" base available in either finished steel or stainless steel
- Ground terminals and wrist-strap pin connectors allow easy grounding of ionizing guns, wrist straps, and other static protection equipment

Laminate Tops

- Sealed laminate top design meets Class 100 particle requirements
- Static-dissipative laminate safely dissipates charges to reduce possibility of electro-static discharge (meets MIL-B-81705-B)
- Optional modular overhead fluorescent light fixture provides shadow-free viewing anywhere on benchtop surface

Benchtop Dimens. (W" x D")	304 Stainless Steel Top w/ Finished Steel Base*						Laminate Tops					
	Solid Top			Perforated Top (.75" ID Hole)**			Nonconductive Tops			Static Dissipative Tops		
	"A" Base Design (telescoping legs)	"C" Base Design (recessed legs)	S/Each	"A" Base Design (telescoping legs)	"C" Base Design (recessed legs)	S/Each	"A" Base Design (telescoping legs)	"C" Base Design (recessed legs)	S/Each	"A" Base Design (telescoping legs)	"C" Base Design (recessed legs)	S/Each
48 x 30	1521-45	1521-54	1,230.00	1522-56	1522-66	1,256.00	1722-00	1521-09	663.00	1728-00	1521-31	974.00
60 x 30	1751-00	1521-55	1,183.00	1522-57	1522-67	1,343.00	1724-00	1000-00	737.00	1730-00	1521-32	899.00
72 x 30	1752-00	1521-56	1,235.00	1522-58	1522-68	1,519.00	1726-00	1000-01	726.00	1732-00	1521-33	1,016.00
84 x 30	1521-46	1521-57	1,081.00	1522-59	1522-69	1,665.00	1521-01	1000-02	826.00	1521-23	1521-34	938.00
96 x 30	1753-00	1521-58	1,393.00	1522-60	1522-70	1,890.00	2402-00	1000-03	903.00	2400-00	1521-35	1,155.00
48 x 34	1521-49	1521-61	1,085.00	1522-61	1522-71	1,168.00	1723-00	1521-16	649.00	1700-29	1521-38	908.00
60 x 34	1700-65	1521-62	1,161.00	1522-62	1522-72	1,471.00	1725-00	1521-17	672.00	1731-00	1521-39	929.00
72 x 34	1700-66	1521-63	1,195.00	1522-63	1522-73	1,595.00	1727-00	1521-18	708.00	1733-00	1521-40	973.00
84 x 34	1521-50	1521-64	1,252.00	1522-64	1522-74	1,833.00	1521-05	1521-19	764.00	1521-27	1521-41	1,060.00
96 x 34	1521-51	1521-65	1,390.00	1522-65	1522-75	2,147.00	1521-06	1521-20	899.00	1521-28	1521-42	1,190.00

* Stainless Steel Scuff Guards included on finished C-Base benches; order separately for A-Bases. Nonadjustable (one piece) legs also available with "A" Base design at no additional cost (specify when ordering). Finish is white powder coat.

** For .25" diameter perforations, add \$32/ft. of width to the standard pricing.



One size fits all!

ErgoHeight™ Work Stations

- Eliminates back stress and injury, enhances productivity
- Provides up to four programmable height settings
- Smooth bench motion—suitable for microscopes and delicate process equipment

Benchtop Dimensions (W" x D")	Nonconductive Top		Stainless Steel Top	
	Cat. #	S/Each	Cat. #	S/Each
48 x 30	3504-17	2,698.00	3504-05	3,139.00
60 x 30	3504-18	2,889.00	3504-06	3,301.00
72 x 30	3504-19	3,002.00	3504-07	3,413.00
36 x 34	3504-20	2,691.00	3504-08	3,102.00
48 x 34	3504-21	2,758.00	3504-09	3,169.00
60 x 34	3504-22	2,920.00	3504-10	3,330.00
72 x 34	3504-23	3,032.00	3504-11	3,442.00

Other sizes and materials available including stainless steel bases.



A *Three-Shelf Cart (No. 1532-53A)
Microban® Antimicrobial
Formulation Available!*



B *Three-Shelf Deep-Ledge Cart
(No. 1532-57)
Microban® Antimicrobial
Formulation Available!*

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. Two-tier and three-tier models are available in blue, black and gray. Load capacity: 150-500 lbs.

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



C *Series 100 – Two stainless steel solid shelves (see chart below)*



D *Series 200 – Three stainless steel solid shelves (see chart below)*

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!



E *Series 400 – Two chrome wire shelves and one stainless steel solid shelf.*



F *Series 600 – Two wire shelves, chrome or stainless steel.*



G *Series 700 – Shown with optional bin. Three wire shelves, in a choice of chrome or stainless steel.*

Ordering Information		C. Series 100		D. Series 200		E Series 400		F. Series 600		G. Series 700	
Dimensions W" x L" x H"	Caster Dia.	Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each	Stainless Steel Wire Shelves		Stainless Steel Wire 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	569.00	1401-48	755.00	1401-58	381.00	1402-47	556.00	1402-64	738.00



Modular, mobile and highly adaptive to the changing needs of your laboratory.

Starsys systems are ideal units for improving space efficiency and lab productivity. Models are easy to install and can be customized to your specifications. The modular design is easily reconfigured as your laboratory operations change. The advanced polymer shell construction resists denting,

chipping, rusting flaking and corroding. The rigid aluminum coated metal substructure adds strength and durability. Choose from an array of models with flexible door, drawer and cabinet designs. ALL MODELS come with 5" polymer casters with lock plate. Pricing at TerraUniversal.com

HOSPITAL COMPUTER CARTS



VHRC Series Monitor and Keyboard

- Height: 64.5" (adjustment range: 16")
- Slide-out keyboard mount with rest
- Left/right accessory compartments
- Integrated VHRC channel accepts all GCX channel mounting components
- Foot pedal for variable height adjustment
- Negative/positive tilt with tilt lock out
- Vertically adjustable channel
- Key locking enclosure with flip-up top
- Integrated adjustable cable management
- Base: 18" x 18" with 5" diameter casters

Cat. # S/Each
9600-77 1,228.00



VHRC Series Dual Monitor and Keyboard

- The bracket attaches to a support arm (M-Series, or VHM Variable Height Arm) allowing (2) flat panel displays to be mounted side-by-side
- Height adjustment range: 16"
- Slide-out keyboard mount, padded wrist rest
- Left/right accessory compartments
- Integrated VHRC channel accepts all GCX channel mounting components
- Foot pedal for variable height adjustment
- Key locking enclosure with flip-up top and vented storage with rear opening for cables
- Negative/positive tilt with tilt lock out

Cat. # S/Each
9600-81 1,114.00



VHRS Workstation for Motion C5 Tablet with Docking Station

- Power supply mount (universal holster securely mounts variety of power supply units)
- Height adjustment range: 11"
- Height from floor to keyboard tray: Min: 30.3"/ Max: 41.3
- Keyboard tray with left/right slide-out mouse trays
- Short mounting bracket with folding keyboard
- Roll stand handle
- Cable management cleat
- Utility basket (storage for cables and accessories)

Cat. # S/Each
9600-82 656.00

ValuLine™ WASTE RECEPTACLES

All include removable liner and comply with OSHA requirements



- No-spring foot pedal design for hands-free disposal
- Suitable for use in cleanroom environments
- Made with 304 non-magnetic stainless steel
- Tight-fitting gasketed lid eliminates particle outflow

- Bottom legs raise receptacles 0.75" to minimize particle accumulation
- All models comply with OSHA requirements; all models are Factory Mutual Systems (FM) approved and UL listed except #1456-00

ValuLine™ Waste Receptacles				Corresponding Rigid Liner		
Type	Capacity Gallons	Dimensions W" x D" x H"	Cat. #	S/Each	Cat. #	S/Each
A	3.5	11 dia. x 17	1456-00	334.00	1456-05	56.00
B	7	12 x 12 x 17	1456-01	518.00	1456-06	60.00
C	12	12 x 12 x 23	1456-02	611.00	1456-07	73.00
D	24	15 x 15 x 30	1456-03	823.00	1456-08	80.00
E	40	19 x 19 x 30	1456-04	1,058.00	1456-09	102.00

Each item comes with one rigid plastic liner; replacement liners are packaged one per carton



Rigid Liners

Reusable plastic liners made of polypropylene or low-density polyethylene; liners treated with EPA-registered compound.

BIOSAFE® WASTE RECEPTACLES

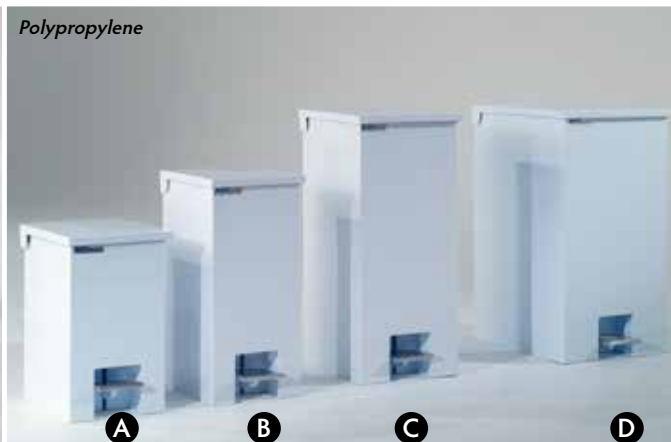
Advanced Features for critical cleanroom requirements!



Available in 304 or 316 Electropolished Stainless Steel



Polypropylene



Terra's BioSafe Waste Receptacles have a soft-close quiet mechanism and an easy-open foot-pedal for hands-free dispensing. The contoured tight-fitting lid ensures safe and clean disposal. Models come with rigid, durable plastic liner for easy cleaning. Wheeled Cleanroom Waste Receptacles with Foot Pedal also available.

Type	Capacity (Gallons)	Dimensions W" x D" x H"	Electropolished 304 Stainless Steel		Electropolished 316 Stainless Steel		Polypropylene	
			Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each
A	7	12 x 12 x 17	1456-16B	782.00	1456-16B-316	807.00	1456-25A	629.00
B	12	12 x 12 x 23	1456-17B	1,006.00	1456-17B-316	1,237.00	1456-26A	767.00
C	24	15 x 15 x 30	1456-18B	1,162.00	1456-18B-316	1,429.00	1456-27A	879.00
D	40	19 x 19 x 30	1456-19B	1,623.00	1456-19B-316	1,909.00	1456-28A	1,047.00



For vapor removal, see ventilation module on facing page.

No. 2820-00A and No. 2800-00A

Sure-Grip® EX Safety Can Storage Cabinets

Designed to meet OSHA and NFPA standards, these cabinets are sturdily constructed of all-welded, 18-gauge, double-walled steel with 1.5" of insulating air space for fire resistance. They include spill-slope safety shelves adjustable on 3" centers and dual vents with built-in arresters. All models shut and latch automatically when fusible links melt at 165°F (74°C) under fire conditions. Patented, concealed closing mechanism in self-close style maximizes available shelf space and minimizes risk of damage to the mechanism.

U-Loc™ padlockable paddle handle with slip resistant grip offers easy fingertip operation and reduces dangerous "catches" from passing traffic. Haz-Alert™ reflective labeling bursts with high visibility when illuminated by a flashlight beam, ensuring visibility of hazardous warning message. Sturdy galvanized steel SpillSlope™ shelves safely direct incidental spills to the back and bottom of the leak-proof sump. Includes leveling feet, grounding connector, and hazard warning in three languages. Backed by a 10-year warranty.

Capacity (gal.)	Dimensions (W x D x H)	Approval Listing*	Doors/Type	Cat. #	\$/Each
30	43" x 18" X 44"	FM, N, O	2 / manual	2800-00A	530.00
30	43" x 18" X 44"	FM, N, O, U	2 / self-closing	2820-00A	602.00
45	43" x 18" X 65"	FM, N, O	2 / manual	2820-02A	665.00
45	43" x 18" X 65"	FM, N, O, U	2 / self-closing	2820-03A	736.94
60	34" x 34" X 65"	FM, N, O	2 / manual	2820-05A	802.00
60	34" x 34" X 65"	FM, N, O, U	2 / self-closing	2820-06A	872.00

* See Approval Key



Corrosive Storage Cabinets

These steel cabinets feature a two-part enamel coating which has been tested successfully with widely used acids, caustics, and alkalines, such as hydrochloric acid 37%, sulfuric acid 33%, and sodium hydroxide. This surface will not allow absorption that could cause subsequent problems. The 22-gallon model is an Under-the-Counter Cabinet, with polypropylene-lined bottom and top, and a .75-inch tray top, which can completely contain a 5-pint spill. The other three models, which are floor-mounted, feature corrosive-resistant polyethylene trays, to contain spills, on the bottom and on the shelves.

Approval Key

- FM Factory Mutual tested and approved
- N National Fire Protection Association (NFPA) code 30
- O Complies with OSHA regulations
- U Complies with Uniform Fire Code

Capacity (gal.)	Dimensions (W x D x H)	Approval Listing*	Doors/Type	Cat. #	\$/Each
30	43" x 18" X 44"	FM, N, O	2 / manual	2820-09A	627.00
45	43" x 18" X 65"	FM, N, O	2 / manual	2820-10A	741.00
45	43" x 18" X 65"	FM, N, O, U	2 / self-closing	2820-11A	830.00
22	35" x 22" x 35"	FM, N, O	2 / manual	2820-12A	600.00

* See Approval Key



MEDICAL WASTE CONTAINERS



Complete lines, with specs and pricing, at TerraUniversal.com



Brute Medical Waste Rollout Container

VACUUM CLEANERS



Nilfisk Cleanroom Vacuum Cleaner With ULPA Filtration

A four-stage filtration system, which includes a final ULPA filter, rated 99.999% efficient @ 0.12µm particles, and quiet operation (59 dBA at 6.5 feet) make this vacuum ideal for cleanroom use. Includes filter set and tool kit with two 22" stainless steel tubes, 3" round brush, combination 12" floor nozzle, 6'6" conductive plastic hose, trolley, 30' power cord, conductive crevice nozzle and 5" utility nozzle. Tank capacity: 3.25 gallons.

	Cat. #	S/Each
120VAC	1764-00	1,134.00
240VAC	1764-00-220	1,156.00



Minuteman® CRV Vacuum

Ideal for Class 1-100,000 facilities, this CRV features an electromagnetic/radio frequency interference filtration (RFI/EMI) for more stringent applications. The unit has a three-stage filtration system with a dual layer disposable paper bag, a non-woven cloth filter and a standard ULPA filter. The quiet motor supplies powerful suction at a constant airflow with a noise level of 65 dba. The unit comes with a stainless steel four-wheel carriage for strength and mobility. Tank capacity: 4 gallons.

	Cat. #	S/Each
115VAC	1001-65	1,369.00



Nilfisk SS Cleanroom Vacuum with Safe-Pak

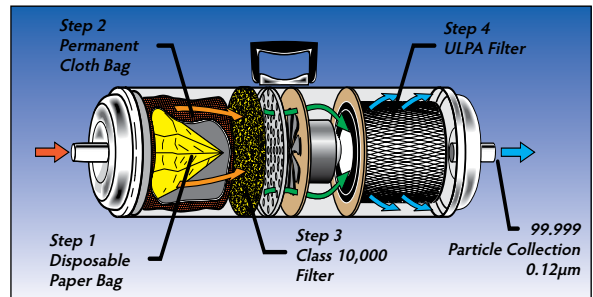
Designed for cleanroom environments down to ISO 4 (Class 10), this compact and quiet cleanroom vacuum has the Safe-Pak function that effectively contains and disposes of hazardous materials. The multi-stage HEPA filtration system removes particles down to 0.12 microns at 99.999% efficiency. Safe-Pak can be interchanged with standard vacuum collection containers. Lightweight units are constructed with pharmaceutical standard AISI 316 stainless steel. Vacuum is easy to clean with autoclavable parts. Tank capacity: 3.25 gallons.

	Cat. #	S/Each
110/120V	1764-37	2,029.00
Safe-Pak Replacement Collection Container	1764-43	354.00



Compact, Versatile MicroVac™ — Vacuum or Clear Air Blower

- Includes 99.999% efficient ULPA filter to capture sub-micron particulates
- Four-stage filtering system
- Ideal for cleaning up hazardous powders, pharmaceutical spills
- Ventilates bio cabinets, glove boxes and other small enclosures
- Provides burst of particle-free air to clean keyboards, PCBs and other delicate surfaces
- Mini-tool kit pinpoints small surface features



Triple-Duty Cleaning —

- Cleans up dust and chemical spills
- Clean air blower pinpoints ULPA-filtered air
- Ventilates glove box or other enclosure

MicroVac	Cat. #	S/Each
110VAC/60Hz	5100-00	1,161.00
220VAC/50Hz	5100-00-220	1,282.00
MicroVac Tool Kit	5100-05	33.00
Replacement Filters		
Stage 1 Disposable Paper Bag	5100-01	89.00
Stage 3 Class 10,000 Filter	5100-02A	16.00
Stage 4 Class Replacement ULPA Filter	5100-04	173.00

CLEANROOM MIRRORS

Framed and Frameless Mirrors

Terra's cleanroom mirrors mount flush to the wall to eliminate gaps where microbes can form. Easy to install, they offer a convenient way for operators to conduct a visual self-check to ensure compliance with cleanroom gowning protocol.

Wall mounted mirrors save floor space and come in two designs:

Framed Mounting supports various mirror sizes. The mirrors takes only minutes to install. A sloped stainless steel frame is easy to clean.

Frameless Mounting eliminates germ traps and cracks for easy cleaning. These units are ideal for aseptic facilities. Recessed mounting brackets hold mirror tight against the wall to eliminate gaps.

Size W" x H"	With Frame		Frameless	
	Cat. #	\$/Each	Cat. #	\$/Each
36 x 72	5252-52A	1,388.00	5252-58B	1,217.00
24 x 36	5252-53	937.00	5252-61B	859.00
18 x 24	5252-54	638.00	5252-60B	558.00
24 x 72	5252-55	1,144.00	5252-59B	1,001.00
24 x 48	5252-56	1,072.00	5252-63B	979.00
18 x 36	5252-57	844.00	5252-62B	807.00



No. 5252-54



No. 5252-60B



Frameless Wall-Mount No. 5252-58B

GOWNING ROOM BENCHES

- Terra's fully passivated electropolished 304 stainless steel finish meets the most stringent cleanliness requirements—certified Class 1 compatible!
- Optional bootie racks provide convenient storage slots
- Variety of frame and top configurations to suit every preference
- Free-standing benches have leveling glides

.375" Rod Top Cylinder Frame

L" x W" x H"	304 Stainless Steel		316 Stainless Steel	
	Cat. #	\$/Each	Cat. #	\$/Each
36 x 16 x 18	9602-96	1,270.00	9602-96-316	1,482.00
48 x 16 x 18	9602-97	1,452.00	9602-97-316	1,855.00
72 x 16 x 18	9602-99	1,822.00	9602-99-316	2,225.00
84 x 16 x 18	9600-02	2,454.00	9600-02-316	3,007.00



0.375 Rod Top Cylinder Frame

Solid Top Square Tube Frame

L" x W" x H"	304 Stainless Steel		316 Stainless Steel	
	Cat. #	\$/Each	Cat. #	\$/Each
36 x 16 x 18	1530-25-2	922.00	1530-25-2-316	1,121.00
48 x 16 x 18	1530-26-2	1,017.00	1530-26-2-316	1,292.00
60 x 16 x 18	1530-27-2	1,188.00	1530-27-2-316	1,321.00
72 x 16 x 18	1530-28-2	1,268.00	1530-28-2-316	1,411.00
84 x 16 x 18	1530-29-2	1,181.00	1530-29-2-316	1,497.00



Fixed-Mount
Solid Top



Free-Standing Solid Top

Tubular Top Square Tube Frame

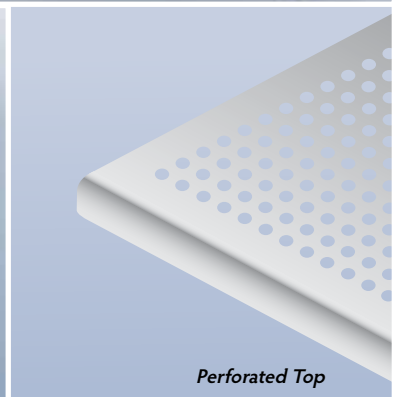
L" x W" x H"	304 Stainless Steel		316 Stainless Steel	
	Cat. #	\$/Each	Cat. #	\$/Each
48 x 16 x 18	1530-11-2	1,801.00	1530-11-2-316	2,015.00
84 x 16 x 18	1530-14-2	2,462.00	1530-14-2-316	2,886.00

25" Rod Top Square Tube Frame

L" x W" x H"	304 Stainless Steel		316 Stainless Steel	
	Cat. #	\$/Each	Cat. #	\$/Each
48 x 16 x 18	1560-11-2	1,681.00	1560-11-2-316	1,959.00



Free-Standing Rod Top



Perforated Top

CLEANROOM GARMENT STORAGE



Top component fits filter/blower or can be used as storage

Terra's versatile cleanroom storage cabinets house a variety of garments, booties, supplies, tools and process equipment. Select models are available with HEPA filter/blower that removes 99.99% of all contaminants 0.3 microns and larger. The chrome-plate hardware, nonshedding materials ensure cleanroom compatibility. Models have double doors with self-closing hinges that require minimum clearance and provide easy access to stored items. Type A cabinets accommodate up to 30 garments.

Cabinet doors can be ordered in clear acrylic or SD-PVC. All models include a 6"H (152 mm) stand with leveling feet.

Models are also available in 220V. Acrylic is damaged by alcohol and other cleaning agents.

Powder-Coated Steel

304 SS with steel door frames

Cleanroom Garment Storage Cabinets: Powder-Coated Steel

Specifications		Powder-Coated Steel				Powder-Coated Steel w/ Steel Door Frames				
Type	Dimensions W" x D" x H"	w/Acrylic Doors*		w/Dissp. PVC Doors		w/Acrylic Doors*		w/Dissp. PVC Doors		
		Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each	
A	Filter/Blower	40 x 26.5 x 94	4101-03C	2,419.00	4101-17C	2,615.00	4101-03C-HD	1,964.00	4101-17C-HD	2,394.00
	Blower	52 x 26.5 x 94	4101-01C	2,661.00	4101-15C	3,003.00	4101-01C-HD	2,156.00	4101-15C-HD	2,773.00
	Cabinet Only	40 x 26.5 x 94	4101-02C	1,692.00	4101-16C	2,034.00	4101-02C-HD	2,524.00	4101-16C-HD	3,129.00
	Only	52 x 26.5 x 94	4101-00C	1,928.00	4101-14C	2,270.00	4101-00C-HD	2,812.00	4101-14C-HD	3,312.00
B	Filter/Blower	40 x 26.5 x 94	4101-04C	2,563.00	4101-18C	2,905.00	4101-04C-HD	3,212.00	4101-18C-HD	3,713.00
	Blower	52 x 26.5 x 94	4101-06C	2,819.00	4101-20C	3,161.00	4101-06C-HD	2,962.00	4101-20C-HD	4,149.00
	Cabinet Only	40 x 26.5 x 94	4101-05C	1,792.00	4101-19C	2,134.00	4101-05C-HD	3,361.00	4101-19C-HD	3,645.00
	Only	52 x 26.5 x 94	4101-07C	2,043.00	4101-21C	2,385.00	4101-07C-HD	2,453.00	4101-21C-HD	2,987.00
C	Filter/Blower	40 x 26.5 x 94	4205-20C	2,385.00	4205-21C	2,782.00	4205-20C-HD	3,110.00	4205-21C-HD	2,805.00
	Blower	52 x 26.5 x 94	4205-22C	2,685.00	4205-23C	3,026.00	4205-22C-HD	3,100.00	4205-23C-HD	3,446.00
	Cabinet Only	40 x 26.5 x 94	4101-11C	1,706.00	4101-25C	2,048.00	4101-11C-HD	1,782.00	4101-25C-HD	2,262.00
	Only	52 x 26.5 x 94	4101-13C	1,945.00	4101-27C	2,537.00	4101-13C-HD	1,974.00	4101-27C-HD	2,368.00

Replacement HEPA Filter

For models with filter/blower unit. Rated 99.99% efficient @ 0.3µm particles

Cat. # 1681-02 \$/Each 363.00

Cleanroom Hangers

Electropolished SS Closed Loop

Cat. # 1530-30-2 \$/Each 14.00

Detachable

Cat. # 1530-31-2 \$/Each 14.00

Cleanroom Garment Storage Cabinets: 304 Stainless Steel

Specifications		304 Stainless Steel w/ shelves				304 Stainless Steel w/ SS Door Frames				
Type	Outside Dimensions W" x D" x H"	w/Acrylic Doors*		w/Dissp. PVC Doors		w/Acrylic Doors*		w/Dissp. PVC Doors		
		Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each	
A	Filter/Blower	40 x 26.5 x 94	4101-57B	4,781.00	4101-68B	5,123.00	4101-57B-HD	5,301.00	4101-68B-HD	5,643.00
	Blower	52 x 26.5 x 94	4101-59B	5,311.00	4101-70B	5,903.00	4101-59B-HD	5,831.00	4101-70B-HD	6,173.00
	Cabinet Only	40 x 26.5 x 94	4101-58B	3,898.00	4101-69B	4,240.00	4101-58B-HD	4,418.00	4101-69B-HD	4,760.00
	Only	52 x 26.5 x 94	4101-60B	4,516.00	4101-71B	5,108.00	4101-60B-HD	4,266.00	4101-71B-HD	5,378.00
B	Filter/Blower	40 x 26.5 x 94	4101-61B	4,925.00	4101-72B	5,267.00	4101-61B-HD	5,445.00	4101-72B-HD	6,037.00
	Blower	52 x 26.5 x 94	4101-63B	5,470.00	4101-74B	5,812.00	4101-63B-HD	5,990.00	4101-74B-HD	6,332.00
	Cabinet Only	40 x 26.5 x 94	4101-62B	4,018.00	4101-73B	4,360.00	4101-62B-HD	4,538.00	4101-73B-HD	4,880.00
	Only	52 x 26.5 x 94	4101-64B	4,653.00	4101-75B	4,995.00	4101-64B-HD	5,173.00	4101-75B-HD	5,515.00
C	Filter/Blower	40 x 26.5 x 94	4205-65B	4,802.00	4205-76B	5,144.00	4205-65B-HD	5,322.00	4205-76B-HD	5,664.00
	Blower	52 x 26.5 x 94	4205-67B	5,334.00	4205-78B	5,334.00	4205-67B-HD	5,854.00	4205-78B-HD	6,196.00
	Cabinet Only	40 x 26.5 x 94	4101-66B	3,915.00	4101-77B	4,257.00	4101-66B-HD	4,425.00	4101-77B-HD	4,777.00
	Only	52 x 26.5 x 94	4205-24C	4,536.00	4205-25C	4,878.00	4205-24C-HD	5,056.00	4205-25C-HD	5,398.00



* Acrylic is damaged by alcohol and strong cleaning agents



Item	Dimensions W" x D" x H"	Acrylic		Static Dissipative PVC		Polypropylene	
		Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each
A. Sneeze Guard	7.125 x 1.75 x 7.75	1601-50	16.00	1601-51	26.00	—	—
Sneeze Guard	11 x 1.625 x 11	1600-25	19.00	1602-75	29.00	—	—
B. Dispensing Bin	5 x 8 x 11.65	4950-12	149.00	4950-13	259.00	4952-06	258.00
C. Mini-Hood	20 x 12 x 16	4950-89	433.00	4950-90	693.00	4952-00	691.00
D. Balance Shield	12.25 x 13 x 12	4950-55	183.00	4950-56	277.00	—	—
E. Micro-Desiccator Storage Cabinet	9 x 11 x 8.5	4950-06	444.00	4950-08	705.00	4952-01	673.00
F. Tissue Box Holder	5.5 x 5.75 x 3.125	4950-41	19.00	4950-42	28.00	—	—
F. Tissue Box Holder	5 x 5.125 x 4.125	4005-53	28.00	4005-54	34.00	—	—
F. Tissue Box Holder	5.5 x 15 x 4.25	4950-43	40.00	4950-44	48.00	—	—
G. Pigeon Hole Organizer	16 x 16 x 7.5	4005-22	142.00	—	—	—	—
H. Small Parts Organizer	15.75 x 8 x 13	4005-51	379.00	4005-50	565.00	4952-07	593.00
I. Clip Board, Electropolished SS	12 x 9.5	1350-00A-2	59.00	—	—	—	—

STAINLESS STEEL GLOVE DISPENSERS



A Models for loose or packaged gloves



B



C



G



F

Stainless Steel Glove Dispensers –Electropolished 304 (316 SS available) by Terra

	Description	Dimensions W" x D" x H"	Cat. #	S/Each
A	Glove Dispenser Wall-mount	8 x 8 x 24 (1 Compt.)	4951-37-2	485.00
	Glove Dispenser Wall-mount	16 x 8 x 24 (2 Compt.)	4951-38-2	930.00
	Glove Dispenser Wall-mount	24 x 8 x 24 (3 Compt.)	4951-32-2	1,172.00
	Glove Dispenser Wall-mount	34.5 x 8 x 24 (4 Compt.)	4951-33-2	1,489.00
B	Bagged Gloves Dispenser Wall-mount	24.5 x 7.5 x 24 (2 Compt.)	4951-43-2	956.00
	Bagged Gloves Dispenser Wall-mount	34.5 x 7.25 x 24 (3 Compt.)	4951-44-2	1,187.00
	Bagged Gloves Dispenser Wall-mount	27 x 7 x 24 (3 Compt.)	4951-30-2	1,129.00
	Bagged Gloves Dispenser Wall-mount	34.5 x 8 x 24 (4 Compt.)	4951-31-2	1,489.00
	Bagged Gloves Dispenser Wall-mount	27 x 8.25 x 24 (4 Compt.)	4951-46-2	1,426.00
C	Glove Dispenser with Waste Bin	24 x 18.5 x 59 (3 Compt.)	4951-34-2	2,442.00
	Glove Dispenser with Waste Bin	31.5 x 18.5 x 63 (4 Compt.)	4951-39-2	2,962.00
D	Glove Dispenser (not shown)	12 x 6 x 6	4951-50-2	131.00
E	Glove Dispenser (not shown)	5.75 x 3.875 x 11 (1 box)	4951-53-2	60.00
F	Glove Dispenser	12 x 3.75 x 11 (2 boxes)	4951-54-2	66.00
G	Glove Dispenser	18 x 3.75 x 11 (3 boxes)	4951-55-2	84.00
H	Glove Dispenser (not shown)	5.75 x 3.875 x 22 (2 boxes)	4951-51-2	67.00
I	Glove Dispenser (not shown)	5.75 x 3.875 x 33 (3 boxes)	4951-52-2	74.00



Benchtop option for item A, No. 4951-90-2

PLASTIC GLOVE DISPENSERS



A Polypropylene



B



C



D Polypropylene

Acrylic, Static Dissipative PVC and Polypropylene Glove Dispensers by Terra

	Glove Dispenser	Dimensions W" x D" x H"	Acrylic		Static Dissipative PVC		Polypropylene	
			Cat. #	S/Each	Cat. #	S/Each	Cat. #	S/Each
A	Wall Mount (3 Chamber)	16 x 11.5 x 12	4005-56	286.00	4005-57	432.00	4952-03	471.00
B	Wall Mount	16.5 x 12.5 x 17	4950-72	257.00	4950-74	347.00	4952-02	382.00
C	Plastic Boxed Gloves Holder	5.125 x 11.5 x 4.88	4950-85	56.00	4950-86	93.00	—	—
D	Benchtop	12 x 6 x 6	4951-03	89.00	4951-04	134.00	4952-04	133.00



98 Capacity
#4951-05



#4951-57 Wall-Mount Safety Glasses Dispenser



Open bottom for easy cleaning!



#4952-10 Polypropylene

Safety Glasses Holders by Terra

Capacity	Dimensions W" x D" x H"	Acrylic		Static Dissipative PVC		Polypropylene	
		Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each
8	6.75 x 5.75 x 17	4950-45	282.00	4950-46	354.00	4952-10	372.00
12	9.75 x 5.75 x 17	4951-15	369.00	4951-16	438.00	—	—
16	6.69 x 5.45 x 26.42	4951-17	461.00	4951-18	607.00	—	—
16	13.25 x 5.5 x 17	4951-19	461.00	4951-20	607.00	—	—
24	9.75 x 5.75 x 28.25	4951-21	599.00	4951-22	788.00	—	—
24	19.5 x 5.75 x 17	4951-23	599.00	4951-24	978.00	—	—
32	13.25 x 5.5 x 29.25	4951-25	912.00	4951-26	1,092.00	—	—
48	19.5 x 5.75 x 28.25	4951-27	1,078.00	4951-28	1,510.00	—	—
98	23.75 x 5.70 x 46	4951-05	1,551.00	—	—	—	—

Wall-Mount Safety Glass Dispensers by Terra

	Dimensions W" x D" x H"	Cat. #	\$/Each
Electropolished 304 Stainless Steel	14.5 x 10 x 22	4951-57	455.00
Polypropylene	14.5 x 10 x 22	4951-58	336.00

CLEANROOM DISPENSERS



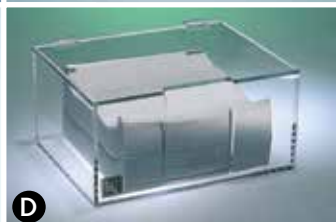
A



B



C



D



View Cleanroom Equipment and Supplies online: TerraUniversal.com.

Bootie, Hat, Wiper and Swab Dispensers by Terra

	Dispenser Type	Dimensions W" x D" x H"	Acrylic		Static Dissipative PVC		Polypropylene		304 Stainless Steel	
			Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each	Cat. #	\$/Each
A	Bootie	15 x 6 x 6	4950-97	71.00	4950-98	112.00	—	—	4951-45-2	166.00
B	Hat	12 W x 6 x 6	4950-99	86.00	4951-00	148.00	—	—	—	—
C	Wiper, Small	10.5 x 14.5 x 4	4950-93	69.00	4950-94	128.00	4952-09	69.00	—	—
	Wiper, Large	12.5 x 15 x 3.75	4950-95	81.00	4005-55	149.00	—	—	—	—
D	Enclosed Wiper	12 x 9 x 6	4951-01	97.00	4951-02	172.00	4952-08	191.00	—	—
E	Wiper, Large	12.5 x 9.5 x 6	—	—	—	—	—	—	4951-40-2	134.00
	Wiper, Small	9.5 x 9.5 x 6	—	—	—	—	—	—	4951-41-2	148.00
F	Swab	6 x 4 x 6	4950-87	43.00	4950-88	74.00	—	—	4951-35-2	65.00



BioClave 16 with three cycle options



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.

- 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.

- No splatter
- 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:	5°C to 40°C
Material:	Stainless steel and ceramic



Completely sterilizes in 5 to 7 seconds—NO splatter

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.

	Cat. #	\$/Each
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. B-Pure Cartridge Systems

Provides point-of-use deionization for laboratories and other facilities requiring pure water. The flexible design allows configuration to meet your water needs. Accepts most Thermo Scientific Barnstead cartridges and filters (ordering information at Laboratory-Equipment.com).

	Cat. #	\$/Each
Single Holder	3613-52	366.00

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.

	Cat. #	\$/Each
GenPure Water System	1714-32	5,049.00
GenPure UF Water System	1714-33	5,507.00

(Includes Ultra-Filtration; ideal for molecular biology, microbiology, PCR, IVR and monoclonal 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.

	Cat. #	\$/Each
GenPure xCAD Water System	1714-48	5,890.00
GenPure xCAD UF Water System	1714-49	6,214.00

(Includes Ultra-Filtration; ideal for molecular biology, microbiology, PCR, IVR and monoclonal 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.

	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 200 L/day) or Type 2 (up to 500 L/day) purified water. Includes high-performance RO module with Electrodeionization (EDI) technology. Integrated 100-liter tank recirculates Type 2 water to optimize purity.

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



A



B



C



D



D



E



F



Small, silent and powerful with an 8-position microtube rotor

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



CE Listed units available in five colors

Color	Cat. #	S/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

115V plug	Cat. # BR15-00	S/Each 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

115V plug	Cat. # BR19-25	S/Each 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)

6-Place Rotor Capacity	Cat. # 3615-71	S/Each 901.00
12-Place Rotor Capacity	3615-73	1,006.00

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.



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

Select models are UL, CE, or CSA certified

120V Models	Dimensions (W" x D" x H")	Cat. #	S/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



Heraeus Multifuge X1

1-Liter Capacity

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

120V Models	Cat. #	S/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

120V Models	Cat. #	S/Each
Ventilated	1716-01	2,155.00



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

120V Models	Cat. #	S/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 up-front level indicator. Dimensions: 8.5"W x 14.1"D x

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.

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.

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.

Weighing Capacity	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).

Weighing Capacity	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.

Weighing Capacity	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"W x 11.9"D x 13"H; weighing pan: 3.5" diam; weighing capacity: 60 g to 220 g.

Weighing Capacity	Cat. #	\$/Each
60g	5702-84	13,163.00



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 Laboratory-Equipment.com for complete ordering selection of pipettes!



eLINE® Electronic Pipettes

Autoclavable pipettes are designed with a comprehensive feature of pipetting modes that streamline work stages.

- **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 µl):

	Cat. #	\$/Each
Single-Channel	5703-05	558.00
50 – 1000 µl (5.0 µl increments)		
Test Volume	Inaccuracy	
1000	0.40%	
500	0.60%	
100	1.50%	
Eight-Channel	5703-10	889.00
50 – 1200 µl (5.0 µl increments)		
Test Volume	Inaccuracy	
1200	0.50%	
600	1.00%	
120	2.50%	
Twelve-Channel	5703-14	1,061.00
50 – 1200 µl (5.0 µl increments)		
Test Volume	Inaccuracy	
1200	0.50%	
600	1.00%	
120	2.50%	

Picus Electronic Pipettes

Extremely lightweight and ergonomic models with eight pipetting modes for handling various liquid-handling tasks.

- 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

Models shown (other sample ranges available from 0.1 – 1200 µl):

	Cat. #	\$/Each
Single-Channel	5702-45	751.00
50 – 1000 µl (0.50 µl increments)		
Test Volume	Inaccuracy	
1000	0.40%	
500	0.60%	
100	1.50%	
Eight-Channel	5702-51	1,247.00
50 – 1200 µl (50.0 µl increments)		
Test Volume	Inaccuracy	
1200	0.50%	
600	1.00%	
120	2.50%	
Twelve-Channel	5702-55	1,579.00
50 – 1200 µl (50.0 µl increments)		
Test Volume	Inaccuracy	
1200	0.90%	
600	1.00%	
120	2.50%	

mLINE® Mechanical Pipettes

Lightweight, autoclavable models prevent repetitive strain injury (RSI) and are easy to sterilize without disassembly.

- 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 shown (other sample ranges available from 0.1 µl – 10 ml):

	Cat. #	\$/Each
Single-Channel	PP03-04	254.00
20 – 200 µl (0.20 µl increments)		
Test Volume	Inaccuracy	
200	0.60%	
100	0.80%	
20	2.00%	
Eight-Channel	PP03-10	651.00
30 – 300 µl (0.20 µl increments)		
Test Volume	Inaccuracy	
300	0.60%	
150	1.00%	
30	2.00%	
Twelve-Channel	PP03-12	776.00
30 – 300 µl (10.0 µl increments)		
Test Volume	Inaccuracy	
300	0.60%	
150	1.00%	
50	2.00%	



PCR Workstation (No. 1692-90) on a polypropylene table (order separately)

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.

- 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. #	S/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



Pipette Shelf

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



mLINE® Pipette Multipacks by Sartorius

Multipacks	Cat. #	S/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. #	S/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 0.29 ml 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. #	S/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



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.

- 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 µL
- RoHS compliant and provides sample protection with thermal block

Cat. # S/Each
5 – 20 µL/96 in parallel

Sample Volume/Capacity
1011-08 22,817.00



qTOWER 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.

- 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 96-well microplate

	Cat. #	S/Each
qTOWER 2.0, 115 V	1011-69	21,680.00
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

Cat. # S/Each
96 LPR (96 x 20 µl), universal voltage (100-240 V model) **1011-27 7,421.00**



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

Base Unit with Block 96	Cat. #	S/Each
	1011-63	Call TUI

Additional models at Laboratory-Equipment.com



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.

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



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 S1200 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.

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



LAMBDA™ 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.

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



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 kinetics, and concentration, with the ability to store up to 90 methods for easy access.

	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 5 L-volume conical flasks, units also accept 10 mm 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.

Cat. # **5300-06** S/Each **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 kinetics 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 µl required) or 16 mm dia. test tubes. Other tube adapters and printers are available.

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

For AC power only **5300-00** S/Each **782.00**
With Rechargeable Battery **5300-01** S/Each **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 (5 ml), and molecular biology-grade agarose (100 g). Gel size: 100 mm x 150 mm.

Cat. # **EE00-00** S/Each **434.88**



B57000B DNA Horizontal Electrophoresis Start-Up Kit

by IBI Scientific

Contains the following quality 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 biology-grade agarose (100 g). Gel size: 250 mm x 250 mm.

Cat. # **EE00-01** S/Each **588.24**



myGel™ Mini Electrophoresis System by Benchmark Scientific

Units are ideal for use in small labs and classroom. The easy Pour, Load and Run design is convenient for users of all experience levels. Includes: gel box, safety lid, power supply, two 1.5 x 6 cm and four 5 x 6 cm gel trays, casting stands and two double sided combs.

Cat. # **BR20-00** S/Each **342.00**



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.

- 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-Digital	5322-19	9,019.00
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.

- 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

Incubated, 120V	Cat. #	\$/Each
Analog	5322-02	3,621.00
Digital	5322-03	3,590.00
Analog w/Cooling Coil	5322-09	3,275.00
Digital w/Cooling Coil	5322-10	3,754.00



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.

- 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.

- 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. #	\$/Each
Analog	5322-00	1,488.00
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 CO₂ incubators and refrigerators.

- 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. #	\$/Each
50 – 300 rpm	5322-62	832.00



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.

- 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



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.

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. Optional MAGIC Clamp platforms and shelves available at Laboratory-Equipment.com.

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-Shaker Orbital Shaker
5 x 1 L capacity

Includes a standard platform with a non-slip rubber-coated surface. MAGIC Clamp platforms and shelves available at Laboratory-Equipment.com.

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™ design and spill-proof feature are cold room and incubator compatible.

115V 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.

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.

115 V Model	Cat. #	\$/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.

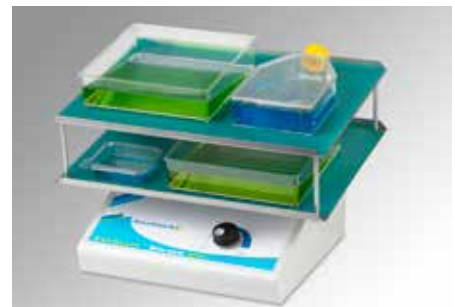
115 V Model	Cat. #	\$/Each
12" x 12" platform	BR02-01	343.00



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.

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.

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

CELL DISRUPTORS by QSonica



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

Note: Includes generator, converter, 1/8" diameter probe, power cable and wrench set.

Cat. # S/Each
5323-08 1,709.00



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

Cat. # S/Each
5323-00 4,448.00

CELL DISRUPTORS by Branson



Analog Model

Analog Sonifier® Cell Disruptor

Compact and rugged, these analog models 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

Applications: Biological cell disruption / homogenization, emulsification, purification of genetic material, dispersion, fine mixing, degassing. Includes power supply and 1/2" titanium horn; other horns and tips available.

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



Digital Sonifier® Cell Disruptor

Programmable, compact and rugged units feature self-diagnostics, multiple modes of operation, stored user programs and more.

- 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

Applications: Cell disruption/ homogenization, nanoparticles, emulsification, chip assay, cell lysing, processing DNA and proteins, purification of genetic material, leaching and extraction, fine mixing, degassing. Includes power supply and 1/2" titanium horn; other horns and tips available.

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



**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: ¼-HP refrigeration system, LCD display, CFC-free refrigeration system.

115V	Cat. #	S/Each
	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.

Cat. #	S/Each
3647-80	8,676.00



**FreeZone Plus 12 Liter Cascade
Console**

Designed for light to moderate sample loads with low eutectic points, units remove 6 liters of water in 24 hours and cool collector reaches to -84°.

Cat. #	S/Each
6922-20	13,525.00

Also available in 4.5 and 6 liter capacities



CentriVap® micro IR Vacuum Concentrators

Compact and portable, this concentrator is ideal for DNA samples and small throughput environments. The micro infrared (IR) strobe light speeds evaporation, reduces cross contamination, and allows user to view samples through the glass lid while the rotor is spinning. The magnetic induction drive achieves speeds up to 1700 rpm. Rotor (included) holds 24 small samples; select sample tubes separately at Laboratory-Equipment.com.

Cat. #	S/Each
3648-25	5,491.00



RapidVap® Vacuum Evaporation System

An alternative to traditional centrifugal evaporation systems, the RapidVap is ideal for preparation of samples in a variety of applications in drug discovery, agrichemistry, mycology testing, and environmental analysis. It uses microprocessor-controlled vacuum, heat, and vortex motion to speed evaporation rates, even with aggressive chemicals. Processes up to 110 samples up to 450 ml at a time. Model below features vortex motion; other available with lid heater and RS-232 link, and accessories include aluminum blocks. Details at Laboratory-Equipment.com.

Cat. #	S/Each
6922-60	9,747.00



**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.

- 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. #	S/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 JULABO**

Working temperature: -20°C to 100°C

Models are used for external instrument integration and for temperature applications directly in the bath.

- 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 / dry-running protection
- Includes 2 barbed fittings and removable venting grill

Temperature Range	Cat. #	S/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-by-side with other units or directly under a fume hood.

- 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. #	S/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.

- 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. #	S/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.

- 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	774.90
-20°C to 100°C	1	5005-01	827.82



IC20: Compact models can be plugged to vehicle lighter jack

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.

- 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



IC22: 2 separate temperatures on separate plates—2 blocks

ECHOtherm Model SC25 Fully Programmable Orbital Mixing

Ideal for busy high-throughput labs, these programmable models are ideal for a broad range of applications.

- 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	1,776.60



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.

- Material: Aluminum top
- Dimensions: 6.63"W x 7.63"D x 4.38"H
- Heating Surface: 6.25" x 6.25"
- Temp. Uniformity: $\pm 2.4^{\circ}\text{C}$ at 100°C
- Baffle-vented welded stainless steel case
- UL Listed

Temperature Range, 120V

$^{\circ}\text{C}$	$^{\circ}\text{F}$	Cat. #	S/Each
38 – 371	100 – 700	4000-70	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.

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

Temperature Range, 120V

$^{\circ}\text{C}$	$^{\circ}\text{F}$	Cat. #	S/Each
38 – 220	100 – 428	4000-92	1,090.00



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.

- Material: Porcelain-coated, stainless-steel top; stainless-steel case
- Temperature Range: 150°C to 371°C
- Temperature Stability: $\pm 5^{\circ}\text{C}$
- Temperature Uniformity: $\pm 10^{\circ}\text{C}$ (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. #	S/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

Units have a digital display and a large control knob for easy temperature settings and adjustments. The microprocessor controls provide repeatable temperature settings. 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.

Aluminum Digital Hot Plates, 120 V			
Hot Plate	7.25" x 7.25"	4100-03	276.00
Ceramic Digital Stirring Hot Plates, 120 V			
Heating Surface		Cat. #	S/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

Hot Plates, Stirring Hot Plates, and Magnetic Stirrers by Benchmark Scientific

These durable and compact units are a cost-efficient 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.

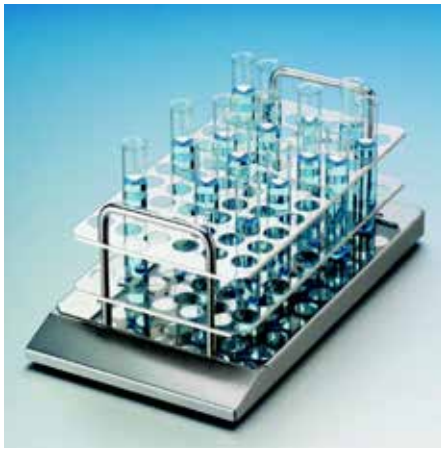
Units have a vibrant LCD display and a safety LED shows activation of unit and if the top plate reaches above 50°C . The advanced microprocessor control has an easy-to-turn knob for precise adjustment and maintenance of temperature and speed.

- 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 $+65^{\circ}\text{C}$
- Speed Range: 60 to 1500 rpm

115 V Models	Cat#	S/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



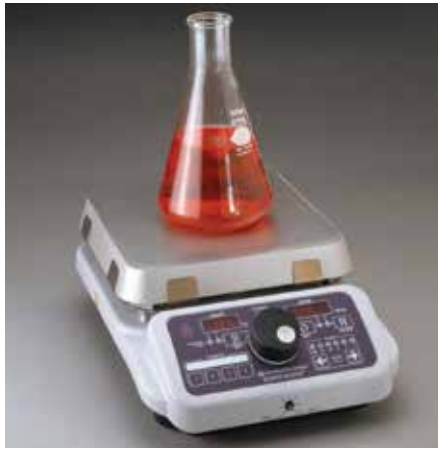


Cimarec™ i Telesystem Multipoint Stirrers by Thermo Scientific

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.

- 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. #	S/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.

- 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

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



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.

- 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. #	S/Each
30 – 2000 rpm	Digital	1538-25	884.00

COMPLETE LINE AT TERRAUNIVERSAL.COM

CRYOGENICS by Thermo Scientific



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 (LN₂). Capacity sizes: 20 L, 34 L, 47 L, and 70 L.

Bio-Cane 20	Cat. #	S/Each
	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.

B. Locator™ Jr. – LN₂ without Monitor

Vial Capacity	Cat. #	S/Each
1600	4901-00	3,071.00

C. Locator 8 – LN₂ without Monitor

Image shows a Locator 8 being filled with liquid nitrogen.

Vial Capacity	Cat. #	S/Each
1800	4901-02	3,997.00

D. Locator 4 with Level Monitor 120V – LN₂

Safeguards valuable samples with minimal liquid nitrogen evaporation and conduction.

Vial Capacity	Cat. #	S/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.

Thermo 5 L Capacity	Cat. #	S/Each
	4901-36	879.00



Level Monitor for Locator 4



Thousands of Products in Stock

Laboratory-Equipment.com and TerraUniversal.com offer popular life science equipment from trusted manufacturers such as Thermo Scientific, Labconco, Germfree, Terra Universal, InterMetro, Benchmark Scientific and many more.

Prices in BLUE represent in-stock items and products available for quick shipping.

Need it Soon? Built-to-order products are available for Fast Track 24/7. Contact Terra Universal at 714-578-6100.



Online Selection and Configuration Tools

Product Selector makes it easy for you find the exact product you need.

System Builder easily lets you configure your system with options and accessories



Order Online

Easy online ordering on thousands of ready-made products and pre-configured systems.

Online quote requests for made-to-order and custom products.



Low-Cost Domestic and International Shipping

Competitive quotes include customs brokerage and duties for door-to-door delivery



Hassle-Free Pricing

Web prices honored worldwide



Diverse, Compliant and Cost-Effective



Laboratory-Equipment.com offers a diverse range of laboratory products at competitive prices. Select products meet USP-797, ISO Class 5 – 8, CE, CA/CAN, TUV and many other compliance standards.



Global Network of Sales Representatives

Complete listing at TerraUniversal.com



Free-Shipping

On all products at Laboratory-Equipment.com shipped to the continental U.S.



All prices and specifications are subject to change without notice. Crating charges apply to selected items. Call for information.