Benchmark Scientific

2024-2025 Product Catalog















Benchmark Scientific

Benchmark Scientific, Inc. is pleased to present our 2024-2025 research products catalog. Since our inception, we have been providing research laboratories with innovative, cost effective products and solutions designed to improve laboratory efficiency, safety and results.

Our emphasis on next generation technology, quality and value has served our customers and our company well. As a result of recent growth, we have expanded our facilities, our staff and our product lines to serve you better. We welcome your questions, suggestions and comments.

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Centrifugation





myFuge™ Mini **Microcentrifuge**



myFuge™12 **Microcentrifuge**



myFuge 12" Plus **Microcentrifuge**



Stratopan 120 & myFuge™ 50 **Microcentrifuges**



PlateFuge™ **Microcentrifuge**



MC12™ **High Speed Microcentrifuge**



MC24 Touch™ **High Speed Microcentrifuge**



MC-24R™ **Refrigerated Microcentrifuge**



LC-6™ Series **Centrifuges**



Heraeus **Refrigerated Microcentrifuge**



Heraeus **Large Capacity Centrifuges**



Sorvall™ Series **Centrifuges**

myFuge™ Mini **Microcentrifuge**



myFUGE™ Mini

- Clik-n-Lok™ instant rotor attachment
- Eight position microtube rotor
- Storage compartment for PCR rotor and 0.5ml adapters
- Decelerates in just 1 second
- Includes rotor for 4 PCR strips



Storage compartment



Includes both rotors

The myFuge™ Mini Microcentrifuge is a personal centrifuge that virtually fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, the myFuge is extremely easy to use. Simply close the lid and the rotor instantly reaches 6,000 rpm. Open the lid, and the improved braking system quickly and smoothly decelerates the rotor to a complete stop in just one second.

An eight-position microtube rotor is included and comes installed. Also included is a second rotor with increased capacity for four 0.2ml PCR strips (or 32 x 0.2ml tubes) which is stored in a convenient compartment on the bottom of the centrifuge. This compartment is also used for securing the included tube adapters for 0.5ml tubes.

A new ***Clik-n-Lok™*** rotor attachment system eliminates the requirement for set screws and tools during rotor exchange. Simply remove and attach rotors by hand, pulling or pressing the rotor onto the motor shaft.



Available in 5 colors

Technical Data:

Speed:	6,000 rpm / 2,000 xg
Capacity:	8 x 1.5/2.0ml tubes 32 x 0.2ml PCR tubes 4 x PCR strips (8 x 0.2ml)
Dimensions: (W x D x H)	5.7 x 6.9 x 4.5 in. 14.5 x 17.8 x 11.4 cm
Weight:	2.2 lbs. / 1 kg
Electrical:	Universal Voltage 100-240V, 50-60 Hz, 20W
Warranty:	2 Year

Ordering Information:

Item No.	Description:
C1008-C*	MyFuge Mini Microcentrifuge, clear lid
C1008-B*	MyFuge Mini Microcentrifuge, blue lid
C1008-G*	MyFuge Mini Microcentrifuge, green lid
C1008-P*	MyFuge Mini Microcentrifuge, purple lid
C1008-R*	MyFuge Mini Microcentrifuge, red lid
C1008-A5-8	Replacement adapter pack, 0.5ml 8/pk.
C1008-A2-8	Replacement adapter pack, 0.2ml 8/pk.

*Includes US plug. For EU plug, please add (E).
All models include microtube rotor, PCR rotor and 0.5ml adapters.

MyFuge™ 12 **Microcentrifuge**



myFUGE™ 12

- **COMBI-Rotor™ for tubes and strips**
- **Twice the capacity of most mini centrifuges**
- **Near silent operation**
- **Starts & stops with closing/opening of the lid**



Unique COMBI-Rotor



Compact, low profile design

Unlike traditional mini centrifuges, the myFuge™ 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor™ is all that is required for running 12 microtubes and/or 4 (eight position) PCR strips.

With a fixed speed that produces 2,000 xg, this centrifuge is perfect for quick spin downs. Simply close the lid and the unit accelerates to 5,500 rpm. Open the lid, and the rotor quickly decelerates for removal of samples.

At just 5.5 inches wide and less than 4.5 inches tall, the myFuge 12 truly is a personal centrifuge with unmatched capacity and flexibiilty.

Technical Data:

Speed:	5,500 rpm / 2,000 xg
Capacity:	12 x 1.5/2.0ml tubes 32 x 0.2ml PCR tubes 4 x PCR strips (8 x 0.2ml)
Dimensions: (W x D x H)	5.5 x 7.9 x 4.4 in. 14 x 20 x 11.2 cm
Weight:	2.2 lbs. / 1 kg
Electrical:	Universal Voltage 100-240V, 50-60 Hz, 50W
Warranty:	2 Year

Ordering Information:

Item No.	Description:
C1012*	myFuge 12 Microcentrifuge with Combi-Rotor
C1008-AS-6	Adapter pack, 0.5ml 6/pk.
C1008-A2-6	Adapter pack, 0.2ml 6/pk.

*Includes US plug. For EU plug, please add (-EI.

myFUGE™ 12 Plus



- COMBI-Rotor for tubes and strips
- Digital control up to 7,000 rpm / 2,739 xg
- Twice the capacity of traditional mini centrifuges
- Near silent operation
- Timer up to 99 mins.

CE



Unique COMBI-Rotor



Digital Display and Control

The unique rotor design of the new myFuge 12 Plus eliminates the need to switch rotors (or use a separate centrifuge) when changing between microtubes and PCR strips. The included, COMBI-Rotor allows for simultaneous centrifugation of up to 12 microtubes and/or 4 PCR strips.

In addition, the myFuge 12 Plus features a large digital display with adjustable speed (up to 7,000 rpm) and a digital timer. With built in rcf conversion, speed can be set/displayed in rpm or rcf.

The myFuge 12 Plus combines power with intuitive functionality making it the perfect companion in any laboratory.

Technical Data:

Speed:	**7,000 rpm / 2,739 xg**
Capacity:	**12 x 1.5/2.0ml tubes** **32 x 0.2ml PCR tubes** **4 x PCR strips (8 x 0.2ml)**
Dimensions (W x D x H)	**7.6 x 9 x 4.72 in.** **19.4 x 23 x 12 cm**
Weight:	**4.4 lbs. / 2 kg**
Electrical:	**Universal Voltage** **100-240V, 50-60 Hz, 45W**
Warranty:	**2 Year**

Ordering Information:

Item No.	Description:
C2212*	myFuge 12 Plus Digital Microcentrifuge with Combi-Rotor
C1008-A5-6	Adapter pack, 0.5ml 6/pk.
C1008-A2-6	Adapter pack, 0.2ml 6/pk.

*Includes US plug. For EU plug, please add (-E).

StripSpin™ 12D Digital **Microcentrifuge**

StripSpin™ 12D



For technical data, please see model C2205

For labs using 12 position PCR strips



Holds up to 4 x PCR strips or 48 x 0.2ml tubes

Ordering Information:

Item No.	Description:
C2248*	StripSpin 12D Mini Microcentrifuge with 4 x 12 strip rotor

*Includes US plug. For EU plug, please add (-E).

myFuge™ 5D Digital **Microcentrifuge**

myFUGE™ 5D



- Includes rotor for all common centrifuge tubes up to 5ml
- Digital control up to 5,500 rpm / 1,690 xg
- Conserves valuable bench space
- Includes adapters for common blood tubes (12 x 75 mm)
- Timer up to 99 mins.

The myFuge™ 5D digital mini centrifuge includes a four position rotor that accepts a variety of 5ml tubes (including 5ml snap-cap and screw-cap centrifuge tubes, as well as 5ml blood collection tubes). In addition, the rotor has four positions for standard microtubes (1.5/2.0ml) and offers optional adapters for 2ml cryotubes, 0.2ml PCR tubes, and 0.5ml microtubes, making it one of the most versatile and compact centrifuges in its class.

The myFuge 5D offers digital speed control (up to 5,500 rpm). Timer is also controlled (up to 99 min.) with a safety interlock to stop the centrifuge if the lid is opened during operation. With built in rcf conversion, speed can be set/displayed in rpm or rcf.

Technical Data:

Speed:	5,500 rpm / 1,690 xg
Capacity:	4 x 5ml tubes & 4 x 1.5/2.0ml
Dimensions: (W x D x H)	7.6 x 9 x 4.72 in. 19.4 x 23 x 12 cm
Weight:	4.4 lbs. / 2 kg
Electrical:	Universal Voltage 100-240V, 50-60 Hz, 45W
Warranty:	2 Year

Ordering Information:

Item No.	Description:
C2205*	myFuge 5D Mini Centrifuge with combination rotor, 4 x 5ml & 4 x 1.5/2.0ml
C1005-AC2	Adapter pack, for cryovials (0.5 to 2.0ml) and 1.5/2.0ml HPLC vials, 4/pk.
C1008-A5-6	Adapter pack, 0.5ml, 6/pk.
C1008-A2-6	Adapter pack, 0.2ml, 6/pk.

PlateFuge™ Microplate Centrifuge



PLATEFUGE™
MICROPLATE MICROCENTRIFUGE

- Quickly spins down droplets in PCR plates
- Unique, patented rotor design prevents sample spillage
- Accepts all popular PCR plates (skirted, semi and non) and most microtiter plates
- Less than half the size of traditional centrifuges

CE

Benchmark's PlateFuge™ is the first "mini" sized centrifuge with a swing out rotor for microplates. Centrifugation of plates before PCR ensures all reactants are in the bottom of the wells for optimized concentrations and improved yields.

In spite of its remarkably small footprint (9 x 10 in.), the PlateFuge™ includes a uniquely designed, patented swing out rotor capable of securing two microplates. The easily accessible rotor chamber includes two plate carriers that rest at a 75° angle. This allows plates to be inserted confidently without sealing tapes or caps. Upon closing the lid of the centrifuge, the rotor accelerates and the centrifugal force "swings" the plates into a vertical position. Any droplets on the walls of the plate quickly concentrate into the well bottoms.



Before & after centrifugation (angled position)



During centrifugation (horizontal position)

With a g-force of 600 xg, most samples can be spun down in less than 20 seconds. To end a run, simply open the lid and the automatic, electronic brake brings the rotor to a quick, smooth stop in about 4 seconds. Plates can then be easily removed from the rotor.

Technical Data:

Speed:	2,550 rpm / 600 xg
Capacity:	2 x 2 PCR plates* 2 x microtiter plates (up to 25mm) 24 x 0.2ml PCR strips
Deceleration:	4 seconds
Dimensions: (W x D x H)	9.2 x 10.2 x 7.75 in. 23 x 26 x 19.7 cm
Weight:	9 lbs. / 4.1 kg
Electrical:	115 or 230V, 50-60 Hz, 250W
Warranty:	2 Years

*When stacking skirted PCR plates, max. capacity is 4 plates.

Ordering Information:

Item No.	Description:
C2000*	PlateFuge Microplate Centrifuge with rotor and plate carriers
C2000-A02	Tube adapter, holds 96 x 0.2ml or 8 and 12 position PCR strips, 2/pk.
C2000-DWMP	Optional rotor with carriers for deep well plates up to 35mm tall (speed: 1,500 rpm)

*115V with US plug. For 230V (EU plug), please add (-E).

MC-12™ High Speed Microcentrifuge



MC-12™
High Speed Microcentrifuge

- Less than 9 inches wide
- Large LCD with rcf conversion
- Whisper quiet operation
- Decelerates in just 10 seconds
- 12 tube capacity (1.5/2.0ml)

CE



High speed range


Large LCD controls

Benchmark's MC-12 is the first and only compact microcentrifuge capable of achieving centrifugal speeds up to the critical threshold of 16,000 xg, often held as the standard for many molecular biology/DNA protocols. A brushless, maintenance free drive system makes it powerful, yet compact enough to allow each work station to be fully equipped with a personal centrifuge.

The MC-12 defines a new class of microcentrifuge: compact, quick, powerful and affordable. In addition to its high speed, the MC-12 also delivers shortened acceleration/deceleration times, whisper quiet operation and a computer-designed airflow pattern to minimize sample temperature increases during longer runs at high speeds.

All operating parameters are set using a single, conveniently located control knob. The large, bright LCD provides a clear indication of time and rpm or g-force. A separate momentary spin button permits instant spin downs, without setting or disturbing any preset parameters. The aircraft grade aluminum rotor accepts 1.5 to 2.0ml tubes directly, as well as 0.5 and 0.2ml tubes with optional adapters. For applications requiring sub-ambient temperatures, the MC-12 is cold room safe.

Technical Data:

Speed Range:	500 to 15,500 rpm (up to 16,100 xg)
Capacity:	12 x 1.5/2.0ml
Deceleration:	10 seconds
Acceleration:	12 seconds
Speed Increment:	100 rpm or 100 rcf
Timer:	20 sec. to 99 min. / cont.
Momentary:	Yes
Dimensions: (W x D x H)	8.7 x 10.6 x 5.9 in. 22 x 27 x 15 cm
Weight:	10.5 lbs / 4.8 kg
Electrical:	115 or 230V, 50-60 Hz, 100W
Warranty:	2 years

Ordering Information:

Item No.	Description
C1612*	MC-12 High Speed Microcentrifuge with 12 position rotor
C1008-AS-6	Optional adapter pack, 0.5ml 6/pk.
C1008-A2-6	Optional adapter pack, 0.2ml 6/pk.

*115V with US plug. For 230V (EU plug), please add (-E).

MC-24 Touch™ High Speed Microcentrifuge



MC-24™ Touch
High Speed Microcentrifuge

- Full color touch screen
- mySpin™ 1 button program recall
- COMBI-Rotor™ accepts tubes and strips
- Compact design, 9 x 12 x 7.75 in.
- Unique air-flow system, keeps samples cool





Unique COMBI-Rotor™
Accepts tubes and strips
(includes lid)



Full-color Touch Screen

Benchmark's MC-24 Touch is the first microcentrifuge in its class with the convenience of touch pad control. In addition, this model comes complete with a unique COMBI-Rotor™ that accepts both standard microtubes and PCR strips, making this the ideal microcentrifuge for any microbiology laboratory.

The large, color touch screen shows actual speed (in rpm or rcf) along with set and remaining time. Up to 9 speed/time profiles can be stored in memory. The home screen displays a "mySpin" icon for instant recall of a designated favorite profile.

Supplied with Benchmark's unique COMBI-Rotor™, the MC-24 Touch will accept 24x1.5/2.0ml tubes and 2 strips of 0.2ml tubes (16x0.2ml) without requiring separate adapters. Samples are kept cool, even during extended runs at the maximum speed setting by a proprietary air flow system that moves air evenly and quietly throughout the chamber.

The MC-24 Touch is cold room safe.

Technical Data:

Speed Range:	200 to13,500 rpm (up to16,800 xg)
Capacity:	24 x 1.5/2.0ml 2 x PCR Strips (16 x 0.2ml)
Speed Increment:	100 rpm or 100 rcf
Timer:	20 sec. to 99 min. / cont.
Momentary:	Yes
Dimensions: (W x D x H)	9 x 12 x 7.75 in. 23 x 30.5 x 19.7 cm
Weight:	14 lbs / 6.4 kg
Electrical:	115 or 230V, 50-60 Hz, 250W
Warranty:	2 years

Ordering Information:

Item No.	Description:
C2417*	MC-24 Touch Microcentrifuge with 24 place COMBI-Rotor
C1008-A5-6	Optional adapters for 0.5ml tubes in standard rotor, 6/pk
C2417-R5	Optional rotor, 8 x 5ml (13,500rpm)
C2417-R5-ADP2	Optional adapters for 2ml cryovials in 8 x 5ml rotor, 8/pk

*115V with US plug. For 230V (EU plug), please add (-E)

MC-24R™ Refrigerated High Speed Microcentrifuge



MC-24R™
Refrigerated Microcentrifuge

- Included COMBI-Rotor™ accepts tubes and strips
- Powerful refrigeration, as low as -20°C
- Touch operation
- Up to 16,800 xg
- Status indicator light





Unique COMBI-Rotor™
Accepts tubes and strips
(includes lid)



Status Indicator Light

Benchmark's flagship MC-24R refrigerated microcentrifuge features a next generation touch control panel, high speed centrifugation (up to 13,500 rpm / 16,800 xg) and a unique COMBI-Rotor™ that accepts both standard microtubes (1.5/2.0 ml) and PCR tubes/strips (0.2 ml), eliminating the need for a dedicated PCR strip/tube rotor. These features combine to make this the perfect partner for any molecular biology laboratory.

The MC-24R features adjustable acceleration/decelerations rates, real time rpm and rcf conversion, storage for up to 99 programs, and a unique status indicator light. The status indicator light informs the user if the unit is running, in standby, or has completed a run. The MC-24R is a compact and convenient refrigerated centrifuge perfectly suited to be the workhorse for any lab.

Technical Data:

Speed Range:	200 to13,500 rpm (up to16,800 xg)
Capacity:	24 x 1.5/2.0ml 2x PCR Strips (16 x 0.2ml)
Speed Increment:	10 rpm or 10 rcf
Temperature Range:	-20°C to +40°C
Timer:	20 sec. to 99 hrs. 59 min. / cont.
Momentary:	Yes
Dimensions (W x D x H):	11 x 21.6 x 11.6 in. 28 x 55 x 29 cm
Weight:	73 lbs / 33 kg
Electrical:	115 or 230V, 50-60 Hz, 350W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
C2417-R*	MC-24R Refrigerated Microcentrifuge with 24-place COMBI-Rotor and snap-on lid
C2417-R-NR*	MC-24R Refrigerated Microcentrifuge, no rotor
C2417-2420H	Optional 24 x 1.5/2ml hermetically sealed rotor
C2417-3202	Optional 4 x PCR strip rotor
C2417-RCMB	Optional COMBI-Rotor holds 24 x 1.5/2.0ml and 2 x PCR strips

*115V with US plug. For 230V (EU plug), please add (-E).

LC-8™ Series Centrifuges



- Digital speed control with rcf conversion
- Safety lid-lock prevents opening the lid until the rotor stops
- Unique air flow design limits increase in sample temperature
- Eight position rotor accepts tubes ranging from 5ml to 15ml
- Ideal for PPP and PRP blood separations



15ml Conical Centrifuge Tubes



15ml Blood Collection Tubes



10ml Blood Collection Tubes



5-7ml Blood Collection Tubes (requires adapter)

Benchmark's LC-8 Series of laboratory centrifuges is uniquely designed to meet a wide range of applications in both the clinical and research laboratory. An eight position rotor is included and designed to directly accept 10ml and 15ml test-tubes (conical or round bottom), while optional adapters are also available for use with all popular sizes of blood collection and culture tubes. Unlike most compact centrifuges in this class, the rotor can be easily removed from the chamber for cleaning.

The back-lit, liquid crystal display provides full control over the set run time and rotational speed. The rotational speed can be set/viewed in rpm or rcf and acceleration/deceleration levels can be easily adjusted in the advanced settings mode.

To ensure safety, the digital microprocessor ensures that the lid has been closed and that the safety lid lock is engaged prior to starting a centrifugation cycle. In addition, an advanced imbalance detection system constantly monitors the balance and vibration, automatically bringing the rotor to a stop if an imbalance is detected.

Technical Data:

	LC-8	LC-8 Plus
Speed Range:	400 - 3,500 rpm (1500 xg)	400 - 5,000 rpm (3070 xg)
Capacity:	8 x 15ml	8 x 15ml
Accel/Decel:	9 sec. / 25 sec.	19 sec. / 39 sec.
Increment:	100 rpm increments	
Timer:	20 sec. to 99 min.	
Momentary:	Yes	
Dimensions: (W x D x H)	11.6 x 14.4 x 8.3 in. 29.5 x 36.5 x 21 cm	
Weight:	15 lbs / 6.8 kg	
Electrical:	115 or 230V, 50-60 Hz, 150W	
Warranty:	2 years	

Ordering Information:

Item No.	Description:
C3100*	LC-8 Centrifuge with 8 x 15ml rotor (maximum speed: 3,500 rpm / 1,500 xg)
C3200*	LC-8 Plus Centrifuge with 8 x 15ml rotor (maximum speed: 5,000 rpm / 3,070 xg)
C3100-ADP	Optional adapters for 5ml & 7ml blood collection/culture tubes, 8/pk
C3100-130RS	Optional adapters for 130mm tall blood collection/culture tubes, 8/pk
C2570	Optional adapters for 5ml centrifuge tubes, 4/pk

*115V with US plug. For 230V (EU plug), please add (-E).

HERMLE™
Z216-M Series **High Speed Microcentrifuges**



HERMLE
Benchmark

- **Unique 44 place micro rotor**
- **High speed, up to 21,379 xg**
- **Available with refrigeration**
- **Multiple rotor options for microtubes, PCR strips and 5ml tubes**



44 X 1.5/2.0ml
Z216-4420



12 X 5ml conical
Z216-1205



COMBI-Rotor™
24 x 1.5/2ml and 4 x PCR
Z216-2420S



Holds both 1.5/2.0ml and PCR tubes

Compact, quiet, and powerful are just a few of the features found on the Z216 Series Microcentrifuges. Add to this, the versatility of nine available rotor options, and the result is the ideal microcentrifuge for the modern molecular biology laboratory.

All common microtubes (0.2ml, 0.5ml, 1.5ml, 2.0ml) can be accepted as well as PCR strips, hematocrit tubes, and even 5.0ml centrifuge tubes. Advanced microprocessor controls allow for setting/displaying of the rotational speed in either rpm or rcf. In addition to retrieving saved programs, the easy to use front panel can adjust accel/decel rates, and change the end of run alarm tone.

Despite a remarkably small footprint, the Z216 series offers high output with a uniquely designed 44 x 1.5ml dual row rotor, nearly doubling the capacity when compared to traditional microcentrifuges. A unique COMBI-Rotor™ for 24 x 1.5/2.0ml and 4 x PCR strips is also available, featuring our new Quick-Seal™ biocontainment lid that opens and locks with only a quarter turn.

In the Z216-MK model, a powerful, compressor driven cooling system maintains temperatures as low as -20°C and is designed to reach 4°C (from room temperature) in less than 10 minutes.

Technical Data:

Speed Range:	200 to 15,000 rpm (up to 21,631 xg)
Max. Capacity:	44 x 1.5/2.0ml 4 x PCR Strips (32 x 0.2ml)
Speed Increment:	10 rpm or 10 rcf
Timer:	10 sec. to 99 hrs. 99 min. / cont.
Temp. Range:	-20°C to 40°C (Z216-MK)
Momentary:	Yes
Dimensions: (W x D x H):	11 x 15.3 x 11.4 in. 11 x 21.6 x 11.4 in. (Z216-MK)
Weight:	37.4 lbs / 17 kg 77 lbs / 35 kg (Z216-MK)
Electrical:	115 or 230V, 50-60 Hz, 280W (Z216-MK: 560W)
Warranty:	5 years

Ordering Information:

Item No.	Description:
Z216-M*	Z216-M High Speed Microcentrifuge
Z216-MK*	Z216-MK Refrigerated High Speed Microcentrifuge
Z216-2420	Rotor, 24 x 1.5/2.0ml, hermetically sealed
Z216-2420S	COMBI-rotor with Quick-Seal biocontainment lid for 24 x 1.5/2.0ml and 4 x PCR Strips
Z216-4420	Rotor, 44 x 1.5/2.0ml
Z216-3020H	Rotor, 30 x 1.5/2.0ml with hermetically sealed lid
Z216-3202	Rotor, 4 x PCR Strips (32 x 0.2ml tubes)
Z216-24SC	Rotor, 24 x Spin columns
Z216-1205	Rotor, 12 x 5ml centrifuge tubes
Z216-24HEM	Rotor, hematocrit, 24 x capillary
More rotors available	Visit www.hermleusa.com for a complete listing

*115V with US plug. For 230V (EU plug), please add (-E).

HERMLE™
Z446 Series **High Capacity Universal Centrifuges**



CE

HERMLE **Benchmark**

- **High capacity,** 4 x 750ml accepts 28 x 50ml or 68 x 15ml
- **Advanced programming** with auto rotor recognition
- **Available with refrigeration**
- **Ideal for tissue culture laboratories**



Z446-750
Swing out rotor with round buckets



Z446-750-MP
Microplate carriers for swing out rotor



Z446-MP-BUK
Sealable microplate bucket for swing out rotor

Inserts: (for round buckets)	Tube/Bottle	qty/ insert	qty./ rotor
Z446-750-A500	500ml conical	1	4
Z446-750-A250	250ml bottle	1	4
Z446-750-A250F	250ml conical	1	4
Z446-750-A225	175/225ml conical	1	4
Z446-750-A50	50ml conical	7	***28***
Z446-750-A15	15ml conical	17	***68***
Z446-750-A10	10ml	18	72
Z446-750-A57	5/7ml	27	108

The Z446 Universal Centrifuge Series offers the highest capacity of any benchtop Hermle-Benchmark model. With aircraft grade, premium alloy construction, the 4 x 750ml swing out rotor can withstand centrifugal forces upwards of 4,000 xg with full loads of up to 28 x 50ml or 68 x 15ml tubes.

Advanced microprocessor controls allow for instant rotor identification, which automatically converts the rotational speed to the relevant g-force (rcf), preventing the user from setting a speed above the capabilities of the installed rotor. In addition to retrieving saved programs, the easy to use front panel can adjust accel/decel rates, and change the end of run alarm tone.

Rotor exchange is simple and requires less than one minute with the included rotor wrench. As soon as the rotor is placed on the motor shaft, the identification process activates and the installed rotor code is displayed on the backlit LCD display.

From the micro to the macro, the Z446 series has the capabilities to handle all your centrifugation needs small and big.

Technical Data:

Speed Range:	200 to 16,000 rpm (up to 24,325 xg)
Capacity:	4 x 750ml 28 x 50ml 68 x 15ml
Speed Increment:	10 rpm or 10 rcf
Timer:	10 sec. to 99 hrs. 99 min. / cont.
Temp. Range	-20°C to 40°C (Z446-K)
Momentary:	Yes
Dimensions: (W x D x H)	21.3 x 26.4 x 15.4 in. 28.7 x 26.4 x 15.4 in. (Z446-K)
Weight:	174 lbs / 79 kg 244 lbs / 111 kg (Z446-K)
Electrical:	115 or 230V, 50-60 Hz, 640W (Z446-K: 1630W)
Warranty:	5 years

Ordering Information:

Item No.	Description:
Z446*	Z446 Large Capacity Universal Centrifuge
Z446-K*	Z446-K Refrigerated Large Capacity Universal Centrifuge
Z446-750	4 x 750ml swing out rotor with round buckets
Z446-750-MP	Microplate carriers for Z446-750-AC rotor, 2/pk
Z446-MP-BUK	Rectangular microplate buckets for Z446-750-AC rotor, 2/pk
Z446-04500	Rotor, 4 x 500ml bottle
Z366-06250	Rotor, 6 x 250ml bottle
Z326-0685	Rotor, 6 x 85ml
Z326-1050	Rotor, 10 x 50ml conical
Z326-2010	Rotor, 20 x 10ml
More rotors available	Visit www.hermleusa.com for a complete listing

*115V with US plug. For 230V (EU plug), please add (-E).

also available from Hermle...



Z206-A
Compact Centrifuge

- Accepts tubes 0.2ml up to 50ml
- Compact, 11 x 14.5 inch footprint
- Suitable for urine and blood separations
- Options for blood collection tubes
- Up to 6000 rpm



Z287-A
Microcentrifuge PLUS

- Multipurpose, 11 available rotor options
- Up to 14,000 rpm and 16,058 xg
- Swing out rotor options for tubes and plates
- Indicator Light, easily view cycle status
- Unique EZ-Scroll™ touch pad



Z327-K
Refrigerated Universal Centrifuge

- Swing out rotors accept up to 4 x 200 ml (16 x 15 ml or 8 x 50 ml)
- Swing out plate rotor accepts deepwell plates
- Extremely versatile, 17 rotor options
- Refrigerated model available (Z327-K)
- High speed rotors (up to 23,542 xg)



Z496-K
Floor Standing Centrifuge

- HIGH CAPACITY, (4 x 1000ml, 98 x 15ml or 40 x 50ml)
- Accepts 500ml or 750ml blood bags
- Two models
  - Floor-standing, with storage drawer
  - Underbench (27.5" height)



Z36-HK
"Super Speed" Universal Centrifuge

- Super-Speed capability, up to 65,395 xg
- Rotor options for tubes 1.5ml to 250ml
- Benchtop design, floor model speed/power
- Swing out rotors, for plates and tubes up to 250 ml

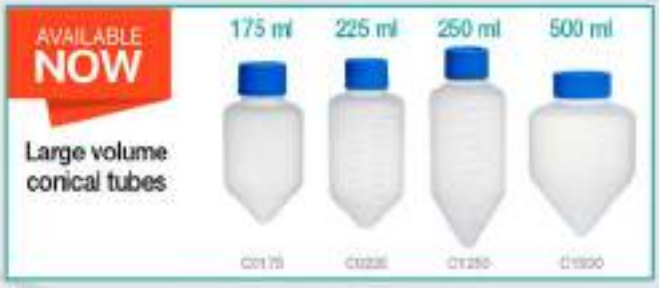


SIEVA
Benchtop Filtration Centrfuge

- High-speed, up to 10,000 rpm
- Transparent lid
- Stainless steel housing, chamber and parts
- Perforated and non perforated basket available
- Optional connection for external temperature control

HERMLE
Benchmark

For a complete listing of all centrifuges and accessories please visit www.hermleusa.com



Sprint™ 6H and Sprint™ 6H PLUS **Clinical Centrfuges**





Sprint™ 6H

- Includes 6 place swing out rotor
- Accepts blood tubes up to 10ml
- Ideal for Coag, PPP and urinalysis
- Locking lid and digital timer

The Sprint™ 6H and 6H PLUS are compact clinical centrifuges that include a six position, swing-out rotor. Prior to centrifugation, tubes are loaded vertically. Once the centrifuge starts, tubes swing to a horizontal position, providing the flat-line separation that is commonly preferred for further analysis.

The Sprint 6H centrifuge is designed for use with 10ml blood collection tubes (16x100mm), while smaller tubes (12 x 75/100mm) can be centrifuged with the use of optional adapters. The Sprint 6H PLUS model features a larger chamber/rotor and has the added capability of centrifuging tubes up to 15ml.

Technical Data (Sprint 6H):

Speed Range:	3,400 rpm / 1,600 xg
Capacity:	6 x 10ml 6 x 5-7ml (13mm)
Speed Increment:	Fixed
Timer:	30 mins. (1 min increments)
Dimensions: (W x D x H)	12.8 x 11.5 x 9 in.
Weight:	17.6 lbs / 8 kg
Electrical:	115 or 230V, 50-60 Hz
Warranty:	2 years





Sprint™ 6H Plus

- Increased speed up to 4,000 rpm / 2504 xg
- Includes 6 place swing out rotor
- Adjustable speed control in rpm or rcf
- Safety imbalance detection system
- Optional 12 x 15ml fixed angle rotor (conical or round bottom)

Technical Data (Sprint 6H Plus):

Speed Range:	200 to 4,000 rpm / 2,504 xg
Capacity:	6 x 15ml 6 x 5-7ml (13mm) 12 x 15ml (fixed angle)
Speed Increment:	100 rpm
Timer:	10 sec. to 99 hrs. 99 min. / cont.
Momentary:	Yes
Dimensions: (W x D x H)	12 x 16 x 10.5 in.
Weight:	21 lbs / 9.5 kg
Electrical:	115 or 230V, 50-60 Hz
Warranty:	2 Years

Ordering Information:

Item No.	Description:
C5000-6H*	Sprint™ 6H centrifuge with 6 x 10ml swing out rotor
C5000-6H-PT*	Sprint™ 6H portable kit, w/12V car adapter, leveling legs
C3303-6HP*	Sprint™ 6H PLUS centrifuge with 6 x 15ml swing out rotor
C3303-1215	Optional 12 x 15ml fixed angle rotor (for C5000-6HP only)
C5000-ADP	Optional adapters for 5ml & 7ml blood collection/culture tubes, 8/pk (Sprint 6H and 8)
C3100-ADP	Optional adapters for 5ml & 7ml blood collection/culture tubes, 8/pk (Sprint 6H Plus)

*115V with US plug. For 230V (EU plug), please add (-E).

Sprint™ 8 and Sprint™ 8 PLUS **Clinical Centrfuges**



Sprint™ 8

- **Includes 8 place fixed angle rotor**
- **Accepts blood tubes up to 15ml**
- **Ideal for Coag, PPP and urinalysis**
- **Locking Lid and digital timer**

The Sprint™ 8 and 8 PLUS are compact clinical centrifuges with eight position, fixed angle rotors for centrifuging tubes up to 15ml. The standard Sprint™ 8 provides a fixed speed of 3,400 rpm / 1,600xg. The PLUS model greatly reduces spin times, with adjustable speed up to 6,800 rpm / 4,445 xg.

With intuitive controls and displays, these centrifuges are ideal for a variety of applications, inlcuding coag, PPP, PRP, and urinalysis.

Technical Data (Sprint 8) :

Speed Range:	3,400 rpm / 1,600 xg
Capacity:	8 x 15ml conical or round 8 x 5-7ml (13mm)
Speed Increment:	Fixed
Timer:	30 mins. (1 min increments)
Dimensions: (W x D x H)	12.8 x 11.5 x 9 in.
Weight:	17.6 lbs / 8kg
Electrical:	115 or 230V, 50-60 Hz
Warranty:	2 years

Sprint™ 8 Plus



- **Increased speed up to 6,800 rpm / 4,445 xg**
- **High capacity rotor, 8 tubes up to 15ml**
- **Unique EZ-Scroll™ touch pad**
- **99 program memory storage**
- **Control of speed in in both rpm and rcf**
- **Safety imbalance detection system**

Technical Data (Sprint 8 Plus):

Speed Range:	200 to 6,800 rpm / 4,445 xg
Capacity:	8 x 15ml (4 x 15ml conical) 8 x 5-7ml (13mm)
Speed Increment:	10 rpm / 10 rcf
Timer:	10 sec. to 99h 99 min. / cont.
Momentary:	Yes
Dimensions: (W x D x H)	11 x 13.7 x 9.5 in.
Weight:	17.6 lbs / 8 kg
Electrical:	115 or 230V, 50-60 Hz
Warranty:	5 Years

Ordering Information:

Item No.	Description:
C5000-8*	Sprint™ 8 centrifuge with 8 x 15ml rotor
C5000-8-PT*	Sprint™ 8 portable kit, w/12V car adapter, leveling legs
Z207-A*	Sprint™ 8 PLUS centrifuge with 8 x 15ml rotor
C5000-ADP	Optional adapters for 5ml & 7ml blood collection/culture tubes, 8/pk (Sprint 6H and 8)
Z326-15-A5	Optional adapters for 5ml, 2/pk (Sprint 8 PLUS)
Z326-15-A7	Optional adapters for 7ml, 2/pk (Sprint 8 PLUS)

*115V with US plug. For 230V (EU plug), please add (-E).

Shakers, Mixers and Rockers



Vomado™ **Mini Vortexer**



BenchMixer™ **Vortex Mixers**



Mortexer™ **Vortex Mixer**



BenchMixer™ XL **Vortex Mixer**



TubeRocker and BenchBlotter™
Fixed Speed Rocker



BenchRocker™ 2D and Everlast 247™
Variable Speed Rockers



QuadRocker™
Adjustable Tiered Rocker



BlotBoy™ & BioMixer™
Fixed Speed 3D Rockers

NEW! www.BenchMotion.com

Visit BenchMotion.com for a video representation of all of Benchmark's available shaking motions.



BenchWaver™ **3D (Undulating) Rocker**



Orbi-Shaker™ **Orbital Shakers**



Orbi-Shaker™ CO_2 **Remote Shakers**



Orbi-Blotter™ **Low Speed Orbital Shaker**



Benchmark™ **Tube Rollers**



Roto-Mini™ and RotoTherm™ **Rotator Series**



Benchmark™ **Rotating Mixers**



Benchmark™ **Overhead Stirrers**

Vornado™ **Miniature Vortex Mixer**



CE

VORNADO™
MINIATURE VORTEX MIXER

- Powerful vortexing, for tubes up to 50ml
- Insta-Touch™ pressure activated operation
- "Mini" sized, less than 4" wide


Insta-Touch™ pressure activation


Extremely compact

Powerful is the best word to describe this ***mini*** vortexer. With a 4mm orbit and fixed speed of 2,800 rpm, the Vornado instantly vortexes even the largest samples, including nearly full 50ml tubes. Despite its powerful motor, the Vornado has a footprint of less than 4x4 inches, allowing it to fit on the most crowded bench.

Insta-Touch operation means that the motor is automatically activated with slight pressure on the center of the cup head. Operation is smooth, quiet and efficient. When pressure is removed, operation of the motor ceases.

The Vornado's unique head design prevents liquids from entering the housing, prolonging motor life. The unit is available with five different color cup heads.

Technical Data:

Speed:	2,800 rpm (fixed)
Motor Activation:	Touch
Orbit:	4mm
Dimensions (W x D x H)	3.7 x 3.9 x 2.6 in. 9.4 x 9.9 x 6.6 cm
Operating Temp. Range:	+4°C to +45°C
Weight:	1 lb / 0.4 kg
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BV101*	Vornado Miniature Vortex Mixer, gray cup head
BV101-B*	Vornado Miniature Vortex Mixer, blue cup head
BV101-G*	Vornado Miniature Vortex Mixer, green cup head
BV101-P*	Vornado Miniature Vortex Mixer, purple cup head
BV101-R*	Vornado Miniature Vortex Mixer, red cup head

*Includes US plug. For EU plug, please add (-E).


BV101


BV101-B


BV101-G


BV101-P


BV101-R

BenchMixer™ V2



Reversible Top

- Reversible top: Use "Cup" or "Flat/Dimpled" surface
- Powerful motor for INSTANT vortexing
- Q-Drive™ dynamic balancing system
- Variable speed with touch or continuous operation



The BenchMixer™ V2 utilizes a smooth and powerful mixing technology similar to the original BenchMixer, with the advantage of a uniquely designed reversible rubber head that can be attached to the mixer in two orientations. For the vortexing of single tubes, the cupped surface would generally be preferred. However, for applications requiring a flat/dimpled surface for mixing uniquely shaped vessels (or a handful of multiple test-tubes), the head can easily be flipped over and reattached in reverse orientation.

Like the original BenchMixer, the drive system is balanced with Q-Drive™ technology, providing a smooth vortexing action, while minimizing noise and excessive vibration. This results in quieter, more efficient and longer lasting operation. With a maximum speed up to 3,200 rpm, the mixer provides an instant vortex of even the largest sample sizes, including full 50ml tubes.

Available Accessories:



BV1000-COMBO | BV1003-T150 | BV1003-T500 | BV1000-H15 | BV1000-H150 | BV1000-H500

Technical Data:

Speed Range:	200 to 3,200 rpm
Operating Modes:	Touch or continuous
Orbit:	3mm
Operating Temp Range:	+4°C to +45°C
Dimensions: (W x D x H)	5 x 6.3 x 6.7 in.* 13 x 16 x 17 cm
Weight:	8.4 lbs / 3.8 kg
Electrical:	115V, 60Hz or 230V, 50Hz/60Hz, 180W
Warranty:	2 Years

*Dimensions of BV1000 model: 5.2 x 6.7 x 6.7 in. / 13 x 17 x 17 cm

Ordering Information:

Item No.	Description:
BV1003*	BenchMixer V2 Vortexer (with reversible head)
BV1000*	BenchMixer Vortexer (original) with standard cup head
BV1000-FLAT	Optional 3 in. flat head attachment (for BV1000 only)
BV1000-COMBO	Optional combination head for tubes and microplates (38 x 1.5/2.0ml & 28 x 0.5ml or one microplate)
BV1003-T150	Optional head for 12 x 15ml tubes (BV1003 only)
BV1003-T500	Optional head for 5 x 50ml tubes (BV1003 only)
BV1000-H15	Optional head for 12 x 1.5/2.0ml, horizontal
BV1000-H150	Optional head for 4 x 15ml tubes, horizontal
BV1000-H500	Optional head for 2 x 50ml tubes, horizontal





*115V with US plug. For 230V/50Hz with EU plug, please add (-E). For 230V/60Hz with EU plug, please add (-E2).

Mortexer™ Vortex Mixer



MORTEXER™
MORE Power, MORE Flexibility... MORE Vortexer!

- The only vortexer available with *Multi-Head™*
- Powerful motor for INSTANT vortexing
- Q-Drive™ dynamic balancing system
- Variable speed from 200 to 3,200 rpm





Unique Multi-Head allows for standard vortexing, **PLUS** holds up to 8 microtubes

Available Accessories:


BV1000-FLAT


BV1000-COMBO


BV1000-H500


BV1000-H150


BV1000-H15

The Mortexer™ is MORE than your standard vortex mixer. The unique design of the Multi-Head™ (included) features a traditional cup head for general purpose mixing, plus holds up to eight microcentrifuge tubes. The drive system is balanced with Q-Drive™ technology, providing a smooth vortexing action, while minimizing noise and excessive vibration. This results in quieter, more efficient and longer lasting operation.

Other features include: "no-walk" suction feet, cold room/incubator compatibility and spill-proof electronic controls.

Technical Data:

Speed Range:	200 to 3,200 rpm
Operating Modes:	Touch or continuous
Orbit:	3mm
Operating Temp. Range:	+4°C to +45°C
Dimensions: (W x D x H)	5 x 6.3 x 6.7 in. 13 x 16 x 17 cm
Weight:	8.4 lbs / 3.8 kg
Electrical:	115V, 60Hz or 230V, 50Hz, 180W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BV1005*	Mortexer Vortex Mixer (with Multi-Head)
BV1000-FLAT	Optional 3 inch flat head attachment
BV1000-COMBO	Optional combination head for tubes and microplates (38x1.5/2.0ml & 28 x 0.5ml or one microplate)
BV1000-H15	Optional head for 12 x 1.5/2.0ml, horizontal
BV1000-H150	Optional head for 4 x 15ml tubes, horizontal
BV1000-H500	Optional head for 2 x 50ml tubes, horizontal

*115V with US plug. For 230V/50Hz with EU plug, please add I-E1. For 230V/60Hz with EU plug, please add I-E2).

BenchMixer™ XL Multi-Tube Vortex Mixer



BENCHMIXER™ XL
MULTI-TUBE VORTEXER

- Hands free, high capacity vortexing
- Up to 2,500 rpm, a true vortex in every tube
- Pulsing function for interval vortexing
- Wide assortment of accessories for a variety of tubes and plates
- Suitable for use with QuEChERS

CE

Available Accessories:


50 x 1.5/2.0ml


15 x 50ml


50 x 5 or7ml


3 x microplates


9 x 50ml Horizontal QuEChERS

The BenchMixer™ XL is a heavy duty vortex mixer designed for hands-free mixing in tubes, flasks, vials or cylinders. It is ideal for the QuEChERS pesticide analysis method and is instantly adaptable to an exceptionally broad range of vessels, racks and applications (horizontal or vertical). The precisely balanced drive system includes an oversized motor that delivers accurate, reproducible speeds up to 2,500 rpm with rattle-free operation and minimal vibration. The programmable pulsing function allows for time specific interval mixing, increasing agitation.

The 7x12 inch platform accommodates a wide variety of standard, pre-drilled tube racks (a complete listing can be found in the ordering information section below). Additionally, BenchMixer XL can easily be adapted to almost any type of vessel commonly found in the laboratory.

Using BenchMixer XL is easy; after loading the sample rack and tightening the locking knobs, select the desired speed and run time on the large digital control panel. Then, simply press "Start" and the BenchMixer XL will perform unattended mixing for up to 100 hours.

BenchMixer XL's large capacity and adaptability make it an ideal choice for the medium to high throughput laboratory.

Technical Data:

Speed Range:	500 to 2,500 rpm
Orbit:	3.6mm
Timer:	1 min. to 99 hrs. 59 min.
Platform Dimensions:	12 x 7 in. / 30 x 17.8 cm
Dimensions: (W x D x H)	15 x 9.2 x 16.5 in. 38.5 x 23.5 x 42 cm
Weight:	29 lbs / 13 kg
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 60W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BV1010**	BenchMixer XL Multi-Tube Vortexer, includes 50 x 12mm tube rack
BV1010-TST**	BenchMixer XLQ QuEChERS Shaker/Vortexer with racks for 7 x 50ml tubes held horizontally, 50 x 15ml and 50 x 1.5/2.0ml tubes (vertical)
BV1010-05	Tube Rack (PP*), 96 x 0.5ml (Ø8mm)
BV1010-1520	Tube Rack (PU*), 50 x 1.5/2.0ml (Ø10mm)
BV1010-12	Tube Rack (PU*), 50 x 12mm (included)
BV1010-13	Tube Rack (PU*), 50 x 13mm
BV1010-150	Tube Rack (PU*), 50 x 15ml (Ø16.5mm)
BV1010-500	Tube Rack (PU*), 15 x 50ml (Ø29mm)
BV1010-25	Tube Rack (PU*), 15 x 25mm
BV1010-50HQ	Tube Rack (PU*), 7 x 50ml Horizontal (QuEChERS)
BV1010-MP	Rack (PP*) for up to 3 plates or 96 well microtube racks
BV1010-MP02	Carrier for above, 96 x 0.2ml tubes or strips (3pk.)

*PU: Polyurethane / PP: Polypropylene
**Includes US plug. For EU plug, please add (-E).

TubeRocker™ Fixed Speed Rocker (2D)



- Ideal for tube sizes 1.5ml to 50ml
- Grooved mat properly secures tubes without the need for any tools, clamps or hardware









Technical Data:

Speed Range:	Fixed, 24 rpm (230V: 20 rpm)
Tilt Angle:	±30°
Platform Size:	12 x 4.5 in. / 30 x 11.4 cm
Load Capacity:	5 lbs (2.3kg)
Operating Temp. Range:	+4°C to +45°C
Dimensions: (W x D x H)	13.3 x 5.5 x 4 in. / 33.6 x 13.5 x 10 cm
Weight:	4 lbs / 1.8 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
M2100*	TubeRocker with grooved mat

*115V with US plug. For 230V (EU plug), please add (-E).

BenchBlotter™ Fixed Speed Rocker (2D)



BR1000 with BR1000-STACK

- Gentle mixing for blot washing and gel staining
- Optional dual platform doubles work surface

Technical Data:

Speed Range:	Fixed, 12 rpm Fixed, 10 rpm (230V)
Tilt Angle:	±8°
Platform Size:	12 x 12 in. / 30 x 30 cm
Load Capacity:	5 lbs (2.3 kg)
Operating Temp. Range:	+4°C to +45°C
Dimensions: (W x D x H)	13.5 x 12 x 4.7 in. 34 x 30 x 12 cm
Stacking Clearance:	3 in. / 7.6 cm
Weight:	6.5 lbs / 3 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BR1000*	BenchBlotter Platform Rocker with flat mat
BR1000-STACK	Optional stacking platform with flat mat
BR1000-DIMPLED	Optional dimpled mat
B0718	Bungee cord, used for securing vessels, pack of 4

*115V with US plug. For 230V (EU plug), please add (-E).

0 to 30°

BenchRocker™ 2D **Variable Speed Rocker (2D)**



- **Adjustable tilt & speed for a wide range of applications**
- **Large 14x12" work surface**
- **Safe for incubator or cold room use**

The BenchRocker 2D is designed to provide the precise speeds and tilt angles required for a broad range of molecular and biological mixing applications. The user can adjust both parameters to match the vessel size and the volume of liquid being mixed, yielding optimum results.

Technical Data:

Speed Range:	Variable, 2 to 30 rpm
Tilt Angle:	Variable, 0° to ± 30°
Platform Size:	14 x 12 in. / 35 x 30 cm
Load Capacity:	8 lbs (3.6 kg)
Operating Temp. Range:	+4°C to +45°C
Dimensions: (W x D x H)	14 x 12 x 8 in. 35 x 30 x 20 cm
Stacking Clearance:	3 in. / 7.6 cm
Weight:	7.5 lbs / 3.4 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

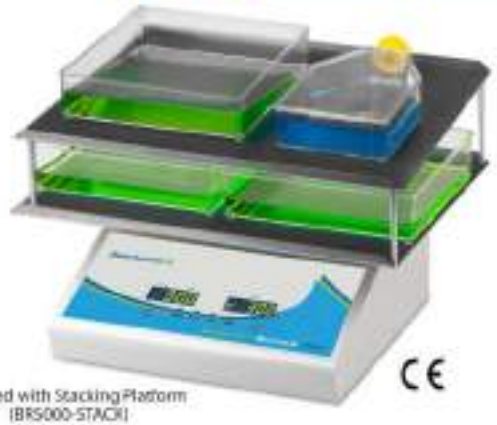
Ordering Information:

Item No.	Description:
BR2000*	BenchRocker™ 2D Rocker with flat mat
BR2000-STACK	Optional stacking platform (3") with flat mat
BR1000-DIMPLED	Optional dimpled mat
B0718	Bungee cord, used for securing vessels, pack of 4
BR2000-SP	STACK-PLUS Extender set, adds 1.25" clearance to stacking platform

*115V with US plug. For 230V (EU plug), please add (-E).

6 to 22°

Everlast™ 247 **Heavy Duty - Variable Speed Rocker (2D)**



Pictured with Stacking Platform (BRS000-STACK)

- **Everlast™ 5 year warranty**
- **Extra-large, 16 x 12" surface**
- **12 lb load capacity**
- **Safe for incubator or cold room use**

With an unprecedented 5 year limited warranty, Benchmark's Everlast 247 Rocker is built to last. Twenty four hours a day, seven days a week . . . No problem! The powerful motor and heavy-duty drive system remain reliable and consistent, even under constant usage in a cold room or incubator.

The rocking speed and tilt angle can easily be adjusted to vary between gentle and aggressive agitation. An optional stacking platform is available for doubling the work surface.

Technical Data:

Speed Range:	Variable, 5 to 80 rpm
Tilt Angle:	Adjustable, 6° to ± 22°
Timer:	1 min. to 100 hrs., increments by 1 min. or continuous
Platform Size:	16 x 12 in. / 40.5 x 30 cm
Load Capacity:	12 lbs (5.45 kg)
Operating Temp. Range:	+0°C to +50°C
Dimensions: (W x D x H)	16 x 13.5 x 8 in. 34.2 x 40.6 x 20.3 cm
Stacking Clearance:	3.5 in. / 8.9cm
Weight:	20 lbs / 9 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	5 Years

Ordering Information:

Item No.	Description:
BRS000*	Everlast™ 247 Rocker with flat mat
BRS000-STACK	Optional stacking platform with flat mat with 3.5" clearance
B0718	Bungee cord, used for securing vessels, pack of 4

*115V with US plug. For 230V (EU plug), please add (-E).

QuadRocker™ **Adjustable Tiered Rocker (2D)**

6 to 22°



QUADROCKER™

- High capacity rocker, accepts up to 4 tiers
- User-adjustable platform configuration
- Adjustable rocking speed and tilt angle
- Incubator and cold room safe
- Includes four large (16 x 12 in.) platforms



Add/remove platforms to create the ideal capacity and spacing for your application (up to 8¼ in. clearance)

Benchmark's QuadRocker features a unique tiered attachement system that accepts up to four platforms. Unlike traditional single platform rockers, the QuadRocker includes a base level as well as three additional stacking platforms, providing a total work-surface of over 750 sq. in.

For most gel blotting, washing, and staining applications, the rocker can be installed with all four rocking platforms. For applications requiring larger vessels, the quantity and height of the platforms can easily be customized to provide a maximum clearance of up to 8 ¼ in (21 cm). The QuadRocker's versatility is further enhanced by digital speed and timer control, as well as user-adjustable tilt angle.

The compact footprint and unmatched capacity of the QuadRocker make it the efficient way to rock!

Technical Data:

Speed Range:	**Variable, 5 to 80 rpm**
Tilt Angle:	**Adjustable, 6° to ± 22°**
Timer:	**1 min. to 100 hrs., increments by 1 min. or continuous**
Platform Size:	**16 x 12 in. / 40.5 x 30 cm**
Load Capacity:	**12 lbs (5.45 kg)**
Operating Temp. Range:	**+0° C to +50° Cw**
Dimensions: (W x D x H)	**16 x 13.5 x 8 in. 40.6 x 34.2 x 20.3 cm**
Stacking Clearance:	**Max. with 2 platform 8 1/4" Max with 4 platforms 2 1/4"**
Weight:	**27 lbs / 9 kg**
Electrical:	**115 or 230V, 50-60Hz, 50W**
Warranty:	**2 Years**

Ordering Information:

Item No.	Description
BR5404*	QuadRocker™ with four non-slip rubber mat platforms (16 x 12 in.)

*115V with US plug. For 230V (EU plug), please add (-E).

BlotBoy™ Low Speed Gyratory Rockers (3D)



- Optimized speed & tilt for blotting, washing and staining
- Tri-directional motion for thorough, gentle mixing
- Cold room and incubator safe

Modeled after our popular BioMixer™ series of "nutating" shakers, these platform rockers provide the perfect 3-dimensional motion for all blot related applications. Their tilt angle and speed have been optimally set for gentle, but thorough mixing in gel trays, boxes and other flat vessels.

Technical Data:

Speed Range:	Fixed, 12 rpm (230V: 10rpm)
Tilt Angle:	Fixed, ±8°
Platform Size (B3D1008):	10.5 x 7.5 in. / 27 x 19 cm
Platform Size (B3D1308):	12 x 12 in. / 30 x 30 cm
Load Capacity:	4 lbs (1.8kg)
Operating Temp. Range:	+4° C to +50° C
Dimensions: (W x D x H)	10.5 x 7.5 x 8 in. / 27 x 19 x 20 cm 12 x 12 x 8 in. / 30 x 30 x20 cm
Weight:	4.4 lbs / 2 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
B3D1008*	Mini BlotBoy with flat mat (10.5 x 7.5")*
B3D1308*	BlotBoy with flat mat (12 x 12")*
B3D-DIMPLED	Dimpled mat (10.5 x 7.5") for B3D1008
BR1000-DIMPLED	Dimpled mat (12 x 12") for B3D1308
B0718	Bungee cord, used for securing vessels, pack of 4

*115V with US plug. For 230V (EU plug), please add (-E).

BioMixer™ Nutating Mixer (3D)



- Includes dimpled mat; perfect for for mixing blood & centrifuge tubes
- Tri-directional motion for thorough, uniform mixing

These multi-functional shakers provide a 3-dimensional "nutating" motion for thorough, foam-free mixing in blood and centrifuge tubes, as well as in a variety of flat vessels.

Technical Data:

Speed Range:	Fixed, 24 rpm (230V: 20 rpm)
Tilt Angle:	Fixed, ±20°
Platform Size (B3D1020):	10.5 x 7.5 in. / 27 x 19 cm
Platform Size (B3D1320):	12 x 12 in. / 30 x 30 cm
Load Capacity:	4 lbs (1.8kg)
Operating Temp. Range:	+4 °C to +50°C
Dimensions (W x D x H) Mini BioMixer BioMixer	 10.5 x 7.5 x 8 in. / 27 x 19 x 20 cm 12 x 12 x 8 in. / 30 x 30 x20 cm
Weight:	4.4 lbs / 2 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
B3D1020*	Mini BioMixer with dimpled mat (10.5x7.5")
B3D1320*	BioMixer with dimpled mat (12x12")
B3D-FLAT	Flat mat (10.5 x 7.5") for B3D1020
BR1000-FLAT	Flat mat (12 x 12") for B3D1320
B0718	Bungee cord, used for securing vessels, pack of 4

BenchRocker™ 3D **Gyratory Rocker (3D)**



WITH INSTA TILT™

- Adjustable speed & tilt for a wide range of applications
- Large 12x12" work surface
- Insta-TILT™ technology for instant adjustment of tilt angle
- Cold room and incubator safe

The BenchRocker 3D is designed to provide the precise speeds and tilt angles required for a broad range of molecular and biological mixing applications. The user can adjust both parameters to match the vessel size and the volume of liquid being mixed, yielding optimum results. Proprietary Insta-Tilt™ technology means no tools, no disassembly. ***Simply grip the platform with two hands and move to the desired position.***

This model includes both flat and dimpled (autoclavable) mats for mixing a wide variety of tubes and other vessels. A stacking platforms can be purchased as an accessory, effectively doubling the usable surface area.

BenchRocker 3D features a maintenance free, brushless motor, capable of loads up to 5 lbs and is safe for use in cold rooms and incubators.

Technical Data:

Speed Range:	**Variable, 2 to 30 rpm**
Tilt Angle:	**Variable, 0 to ± 30°**
Platform Size:	**12 x 12 in. / 30 x 30 cm**
Load Capacity:	**5 lbs (2.3 kg)**
Operating Temp. Range:	**+4°C to +45°C**
Dimensions: (W x D x H)	**12 x 12 x 8 in. 30 x 30 x 20 cm**
Stacking Clearance:	**3 in. / 7.6 cm**
Weight:	**7.5 lbs / 3.4 kg**
Electrical:	**115 or 230V, 50-60Hz, 50W**
Warranty:	**2 Years**

Ordering Information:

Item No.	Description:
B3D2300*	**BenchRocker 3D with flat and dimpled mats (12x12")**
BR1000-STACK	Stacking platform (3" clearance) with flat mat (12x12")
BR1000-STACK-D	Stacking platform (3" clearance) with dimpled mat (12x12")
B0718	Bungee cord, used for securing vessels, pack of 4
BR2000-SP	STACK-PLUS Extender set, adds 1.25" clearance to stacking platform

*115V with US plug. For 230V (EU plug), please add (-E).

BenchWaver™ Undulating Rocker (3D)



BENCHWAVER™

- Undulating, 3-dimensional motion
- Adjustable speed and tilt
- Large, 13 inch platform
- Ideal for staining, washing and general mixing



B3D5000 with B3D5000-STK



B3D5000 with B3D5000-DMP

The BenchWaver™ combines the basic rocking motion of traditional platform rockers with the circular motion of an orbital shaker. This combination is ideal for generating the optimum 3-dimensional "undulating" motion commonly preferred for molecular biology applications.

The tilt angle is instantly adjustable (no tools or disassembly required) from 0 to 10° and the mixing speed can be adjusted from 5 to 105 rpm, using the large, user-friendly LCD control panel. Combined control of both parameters (tilt and speed) makes the BenchWaver a versatile workhorse that can provide anything from gentle, slow moving waves to a rapid, more vigorous motion. Additionally, time of operation can be selected from1minute up to 99 hours or for continuous operation.

The large 13.5 x 13 inch platform is supplied complete with a non-slip, rubber mat. An optional stacking platform is available for users requiring additional mixing capacity. The BenchWaver is a reliable and versatile instrument and can be used in refrigerated or incubated environments from 2° to 60°C.

Technical Data:

Speed Range:	Variable, 5 to 105 rpm
Tilt Angle:	Variable, 0 to ± 10°
Platform Size:	13.5 x 13 in. / 34 x 33 cm
Load Capacity:	20 lbs (9 kg)
Operating Temp. Range:	+4°C to +60°C
Dimensions: W x D x H	13 x 13.5 x 9.75 in. 33 x 34 x 24.75 cm
Stacking Clearance:	4.5 in. / 7.6 cm
Weight:	12 lbs / 5.5 kg
Electrical:	Universal Voltage: 100 to 240V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
B3D5000*	BenchWaver with platform and flat mat
B3D5000-STK	Optional stacking platform (4.5" clearance) with flat mat (13.3x13")
B3D5000-DMP	Optional dimpled mat (13.5x13")

*Includes US plug. For EU plug, please add (-E).

Orbi-Shaker™ JR. **Orbital Shaker**



- Horizontally circular 19mm orbit for aeration and mixing
- Extremely compact, perfect for low to medium capacity applications
- Instantly exchange flask clamps with MAGic Clamp™ accessories

CE



BT300-RB

Ordering Information:

Item No.	Description:
BT302*	Orbi-Shaker JR. with flat mat platform (9.5 x 8 in.)
H1000-MP**	MAGic Clamp™ universal platform for flasks and tubes
BT300-RB	Adjustable spring bar platform for unique vessel types

*Includes US plug. For EU plug, please add (-E).
**Flask clamps and tube racks sold separately, see pg. 34 for a complete listing.

Technical Data:

Speed Range:	Variable, 50 to 300 rpm
Speed Increment:	10 rpm
Motion / Orbit:	Orbital / 19mm
Load Capacity:	4 x 1L or 9 lbs (4 kg)
Platform Size:	
Standard (included):	9.5 x 8 in. / 24 x 20 cm
MAGic Clamp (universal):	11.5 x 9.5 in. / 29 x 24 cm
Operating Temp. Range:	+4°C to +65°C
Timer:	1 min. to 99 hrs. 59 min. / continuous
Dimensions: (W x D x H)	13.1 x 11.7 x 4.7 in. / 33.3 x 29.8 x 12 cm
Weight:	12 lbs / 5.5 kg
Electrical:	Universal Voltage 100–240V, 50-60Hz, 250W
Warranty:	2 Years

Orbi-Shaker™ **Orbital Shaker**



- High capacity, 9 x 500ml, 5 x 1L or 2 x 2L
- Circular 19mm orbit for aeration and mixing
- Instantly exchange flask clamps with MAGic Clamp™ accessories

CE

Technical Data:

Speed Range:	Variable, 30 to 300 rpm
Speed Increment:	1 rpm
Motion / Orbit:	Orbital / 19mm
Load Capacity:	5x1L or 14 lbs (6.4 kg)
Timer:	1 min. to 99 hrs. / continuous
Platform Size: (W x D x H)	
Standard (included):	13 x 12 in. / 33 x 30 cm
MAGic Clamp (universal):	14 x 12 in. / 35 x 30 cm
Operating Temp. Range:	+4°C to +65°C
Dimensions: (W x D x H)	11 x 16.2 x 3 in. / 28 x 41 x 7.5 cm
Weight:	25 lbs / 11.5 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT3001*	Orbi-Shaker with flat mat platform (13 x 12 in.)
BT3000-MP**	MAGic Clamp™ universal platform for flasks and tubes
H1000-P-SP	Universal spring platform for unique vessel types
H1000-P-MP	Dedicated platform for 4 x microplates

*115V with US plug. For 230v (EU plug), please add (-E).
**Flask clamps and tube racks sold separately, see pg. 34 for a complete listing.

Orbi-Shaker™ XL **High Capacity Orbital Shaker**



- High capacity, benchtop model
- Circular 19mm orbit for aeration and mixing
- Instantly exchange flask clamps with MAGic Clamp™ accessories

Technical Data:

Speed Range:	Variable, 30 to 300 rpm
Speed Increment:	1 rpm
Motion / Orbit:	Orbital / 19mm
Load Capacity:	5 x 2L or 9 x 1L / 65lbs (30 kg)
Platform Size:	18 x 18 in. / 45 x 45 cm
Timer:	1 min. to 99 hrs. / continuous
Operating Temp. Range:	+4°C to +65°C
Dimensions (W x D x H):	18.5 x 21.25 x 5 in. / 47 x 54 x 12.5 cm
Weight:	64 lbs / 29 kg
Electrical:	120 or 230V, 50-60Hz
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT1011*	Orbi-Shaker XL with flat mat platform (18 x 18 in.)
H1010-MP**	MAGic Clamp™ platform for flasks & tubes (18 x 18 in.)
H1010-P-SP	Universal spring platform for unique vessel types
H1010-P-MP	Dedicated platform for 6 x microplates

*115V with US plug. For 230v (EU plug), please add (-E).
**Flask clamps and tube racks sold separately, see page 34 for a complete listing.

Orbi-Shaker™ MP **Microplate Shaker**



- Digital speed control up to 1,500rpm
- 3mm orbit for thorough mixing in microplates
- Includes platform for up to four microplates
- Mix up to 80 microtubes with optional adapter

Technical Data:

Speed Range:	200 to 1,500 rpm
Orbit:	3mm
Max. Capacity:	Up to 4 microplates
Operating Temp. Range:	+4 °C to +65°C
Dimensions: (W x D x H)	13.1 x 11.7 x 4.7 in. 33.3 x 29.8 x 12 cm
Timer:	1 min. to 99 hrs. / continuous
Weight:	12 lbs / 5.5 kg
Electrical:	Universal Voltage 100-240V, 50-60Hz, 25W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT1502*	Orbi-Shaker™ MP microplate shaker, includes platform for 4 microplates
BT1500-A1520	Optional adapter, 20 x 1.5/2.0ml for microplate shakers
BT1500-A05	Optional adapter, 20 x 0.5ml for microplate shakers

*Includes US plug. For EU plug, please add (-E).



ORBI-SHAKER™ CO_2

Remote Controlled, All Environment Shakers

- Designed to fit and maximize capacity in most CO_2 incubators and chambers
- Remote controlled, adjust settings without disturbing the CO_2 environment
- Instantly exchange flask clamps with MAGic Clamp™ accessories



Remote controller adjusts shaker settings from outside of the chamber and magnetically attaches to most incubators

The new Orbi-Shaker CO_2 series is designed for shaking, mixing & aeration applications in extreme environments, including CO_2 incubators. It can withstand temperatures from 0° to 65°C and humidity levels up to 100%.

To avoid contamination, unintentional release of gas or deviations from protocol, all settings are adjusted via the included remote control module. This module can be stored outside of the chamber and connects to the shaker via a flat (1mm thickness) cable, that easily passes through a port or underneath an incubator door without compromising the seal. This allows for user adjustment of run time or mixing speed without opening the chamber door(s).

The instrument is supplied with a non-slip rubber mat platform. In addition, convenient MAGic Clamp™ platforms (of multiple sizes) are also available for use with Erlenmeyer flasks and test tube racks. The unique magnetic attachment method has been widely recognized as the easiest way to instantly change between flask clamps of different sizes.

Compatibility Chart:	SureTherm™ CO_2 45L	SureTherm™ CO_2 180L	New Brunswick™ Galaxy® 54%	New Brunswick™ Galaxy® 170	Shel Lab® 142L & 167L	Thermo® HeraCell™ 150	Thermo® HeraCell™ 240	Fisher® IsoTemp™ 184	VWR® Symphony™ 8.3A	VWR® Symphony™ 8.6A
Orbi-Shaker CO_2 (14 x 12" platform)	*	○	○	○	○	○	○	○	○	○
Orbi-Shaker CO_2 XL (16 x 16.5" platform)	N/A	○	N/A	○	○	○	○	○	○	○
Orbi-Shaker CO_2 XL (18 x 18 platform)	N/A	N/A	N/A	N/A	○	N/A	○	○	N/A	○

* Compatible 9.5 x 11.5" (Item: H1000-MR) available

N/A Not Compatible ○ Compatible ○ Compatible, Maximizes Capacity

Speed Range:	Variable, 30 to 300 rpm
Speed Increment:	1 rpm
Motion / Orbit:	Orbital / 19mm
Max. Capacity (BT4001):	1 x 2L or 5 x 1L
Max. Capacity (BT4011):	5 x 2L or 9 x 1L
Timer:	1 min. to 99 hrs. / continuous
Platform Dimensions:	
BT4001 (included):	13 x 12 in. / 33 x 30 cm
BT4011 (included):	16 x 16.5 in. / 40 x 42.5 cm
Operating Temp Range:	0°C to +65°C
Dimensions W x D x H	
BT4001 Shaker:	11.9 x 13.4 x 3.5 in. / 30 x 34 x 9 cm
BT4011 Shaker:	17 x 18 x 5 in. / 43 x 45.75 x 12.7 cm
Weight (BT4001):	25 lbs / 11.5 kg
Weight (BT4011):	50lbs / 23 kg
Cord Length:	60.5 in. / 154 cm
Electrical:	115 or 230V, 50-60Hz
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT4001*	Orbi-Shaker CO_2 w/ flat mat platform (13 x 12 in.)
BT4011*	Orbi-Shaker CO_2 XL w/ flat mat platform (16 x 16.5 in.)
MAGic™ Clamp Universal Platforms for flask clamps & tube racks**	
BT3000-MR	MAGic Clamp™ platform (14x12 in.) for BT4001
BT4010-MR	MAGic Clamp™ platform (16x16.5 in.) for BT4011
H1010-MR	MAGic Clamp™ platform (18x18 in.) for BT4011
Additional Platforms:	
H1000-P-SP	Universal spring platform for unique vessel types
H1000-P-MP	Dedicated platform for 4 x microplates

*115V with US plug. For 230v (EU plug), please add (-E).
**Flask clamps and tube racks sold separately, see page 34 for a complete listing.

Orbi-Shaker™ CO_2 Microplate Shaker



- Designed to fit and maximize capacity in most CO_2 incubators and chambers
- Remote controlled, adjust settings without disturbing the CO_2 environment
- Includes 6 position microplate platform

Technical Data:

Speed Range:	200 to 1,200 rpm
Speed Increment:	1 rpm
Orbit:	3mm
Max Capacity:	6 x microplates
Operating Temp:	0° to 65°C
Max. Humidity:	100%
Weight:	24.5 lbs / 11.1 kg
Dimensions: Remote Control: Cord Length:	11.8 x 13.5 x 3.5 in. / 30 x 34 x 9cm 7.2 x 6.7 x 3.5 in. / 18 x 17 x 9cm 60.5 in / 154cm
Electrical:	115 or 230V, 50-60Hz, 600W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT4500*	Orbi-Shaker™ CO_2-MP Microplate Shaker with platform for 6 microplates

*115V with US plug. For 230v (EU plug), please add (-E).

Orbi-Blotter™ Low Speed Orbital Shaker

ORBI-BLOTTER™



- Gentle orbital motion for gel applications
- Large 14 x 12 in. work surface
- Incubator and cold room safe
- Variable speed control, 3 to 70 rpm

The Orbi-Blotter™ features a gentle orbital motion with speed control down to as low as 3 rpm, making it the ideal orbital choice for low speed applications, such as blotting, washing, staining/destaining, etc. A large 14x12 in. work surface is included along with a non-slip rubber mat for holding trays, dishes, plates and other flat vessels.

An optional stacking platform can be purchased as an accessory, effectively doubling the usable work surface. The maintenance free, brushless motor is capable of loads up to 4kg and is safe for use in cold rooms and incubators.

Technical Data:

Speed Range:	Variable, 3 to 70 rpm
Motion / Orbit:	Orbital / 19mm
Load Capacity:	3 x 2L or 9 lbs (4 kg)
Platform Size:	14 x 12 in. / 35 x 30 cm
Operating Temp. Range:	+4°C to +45°C
Dimensions: (W x D x H)	14 x 12 x 8 in. 35.5 x 30.5 x 20 cm
Stacking Clearance:	3 in. / 7.6 cm
Weight:	7.5 lbs / 3.4 kg
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT30*	Orbi-Blotter™ Low Speed Orbital Shaker
BR2000-STACK	Stacking platform with 14 x 12" flat mat (3" clearance)
BR2000-SP	STACK-PLUS Extender set, adds 1.25" clearance to stacking platform

*115V with US plug. For 230v (EU plug), please add (-E).

Orbi-Shaker™ Series **MAGic Clamp™ Accessories**



H1000-MR-CMB Adjustable flask clamp, accepts 125ml, 250ml and 500ml Erlenmeyer flasks.
(For a video demonstration, scan the QR code above.)



Maximum Flask Capacity with MAGic Clamp Platforms

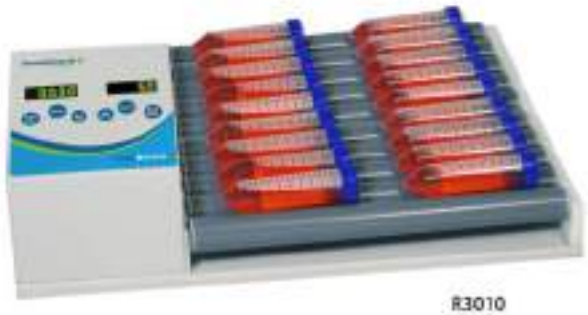
Item No.	Description:	Platform H1000-MR	Platform BT3000-MR	Platform H1010-MR
		Available For Orbi-Shaker JR.	Available For Models Orbi-Shaker & Orbi-Shaker CO_2	Available For Orbi-Shaker XL (CO_2)
H1000-MR-CMB	**NEW! Adjustable flask clamp, accepts 125, 250 & 500ml Erlenmeyer flasks**	12 / 8 / 5	20 / 14 / 9	36 / 25 / 16
H1000-MR-50	Flask clamp, 50ml Erlenmeyer flask	20	30	49
H1000-MR-125	Flask clamp, 125ml Erlenmeyer flask	12	20	36
H1000-MR-250	Flask clamp, 250ml Erlenmeyer flask	8	14	25
H1000-MR-500	Flask clamp, 500ml Erlenmeyer flask	5	9	16
H1000-MR-1000	Flask clamp, 1L Erlenmeyer flask	4	5	9
H1000-MR-2000	Flask clamp, 2L Erlenmeyer flask	1	2	5
H1000-MR-3000	Flask clamp, 3L (or 2.8L) Fernbach flask	N/A	1	4

Maximum Capacity for MAGic Clamp Platforms (Test Tube / Microplate Racks)

Item No.	Description:	Platform H1000-MR	Platform BT3000-MR	Platform H1010-MR
		Available For Orbi-Shaker JR.	Available For Models Orbi-Shaker & Orbi-Shaker CO_2	Available For Orbi-Shaker XL (CO_2)
H1000-MR-T15	Tube Rack, 15ml conical tubes, 32 x 15ml	2	3	8
H1000-MR-T50	Tube Rack, 50ml conical tubes, 15 x 50ml	2	3	8
H1000-MR-1550	Combi-Tube Rack, 30 x 15ml & 20 x 50ml tubes	2	2	4
H1000-MR-T600	Tube/Bottle Rack, 4 x 500/600ml conical bottles	1	2	4
H1000-MR-T15H	Tube rack, 12 x 1.5/2.0ml tubes, horizontal	2	4	6
H1000-MR-T150H	Tube rack, 4 x 15ml tubes, horizontal	4	6	8
H1000-MR-T500H	Tube rack, 2 x 50ml tubes, horizontal	4	6	8
H1000-MR-MP	Plate rack, holds one microplate	4	6	8
H1000-MR-TSR	Angled tube rack holder (with adjustable tilt)	2	6	8

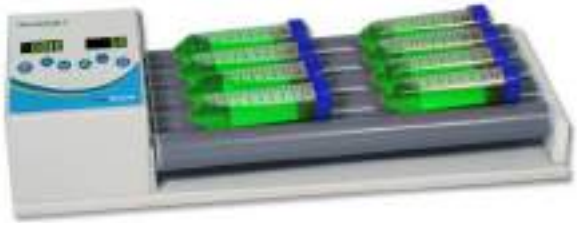
TubeRoller **Tilting Tube & Bottle Roller**

- Gentle rolling motion
- Smooth 5° tilting motion
- Accepts tubes and bottles from 8mm to 200mm



R3010

CE



R3005





Benchmark TubeRollers are designed for the gentle, thorough mixing of a variety of containers, including Vacutainers™, bottles, test tubes, centrifuge tubes and roller bottles. Both models (5 roller and 10 roller) provide adjustable speed control up to 80 rpm, for a broad range of mixing applications.

As the roller mechanism rotates through each complete revolution, the right side of each roller is gently elevated approximately 0.5 in (13mm) and returns to the horizontal starting position. This additional, gentle up/down motion provides a "wave" effect and guarantees that the entire sample is subjected to complete, thorough mixing, end to end. This built in tilt feature provides a level of homogeneous mixing uniformity that can not be matched by any stationary roller apparatus.

From blood collection tubes to roller bottles, Benchmark TubeRollers are the ideal choice for research, clinical laboratories and doctors' offices.

Technical Data:

Speed:	Variable, 2 to 80 rpm	
Motion:	Simultaneous roll & tilt (±5°)	
Operating Temps:	4°C to 40°C	
Individual Roller Dims:	1.2 x 12.5 in. / 3 x 32 cm	
Vessels Accepted:	8mm to 200mm diameter	
Roller Spacing:	5mm, on 35mm centers	
Electrical:	115 or 230V, 50-60Hz, 50W	
Load Capacity:	2 kg	4 kg
	R3005	R3010
Number of Rollers:	5	10
Dimensions (W x D x H):	18 x 7 x 3.5 in. 45 x 18 x 9 cm	18 x 14 x 3.5 in. 45 x 36 x 9 cm
Weight:	11 lbs / 5 kg	17.6 lbs / 8 kg
Warranty:	2 years	2 years

Typical Sample Load Capacity:

Vessel	R3005	R3010
12 x 75mm tubes	12	26
16 x 100mm tubes	8	16
16 x 125mm tubes	8	16
15ml screw cap tubes	8	16
50ml screw cap tubes	8	16
850cm² roller bottles	1	2

Ordering Information:

Item No.	Description:
R3005*	TubeRoller with 5 rollers
R3010*	TubeRoller with 10 rollers

*115V with US plug. For 230V (EU plug), please add (-E).

Roto-Mini™ Rotating Mixers





Roto-Mini

- Includes tube holders for common tube sizes
- Available with variable speed control and advanced shaking/mixing modes:
  - Mix (Oscillating)
  - Pause
  - Rock
- Also offered with incubation (See Page 37)

Included Tube Holders:



Optional Tube Holders:



Benchmark's new Roto-Mini series of rotating mixers provides a wide range of mixing capabilities, suitable for an array of laboratory applications including resuspension, protein binding, nucleic acid purification, histochemistry, hybridization etc. The mixers include interchangeable tube holders for accommodating all common tube sizes from 0.5ml to 50ml. The motion can be adjusted from vertical (end over end) mixing, to horizontal (rolling or hybridization style) mixing.

Roto-Mini rotators are available in the "Plus" configuration. The Plus models provide the following additional features:

Variable speed:	5 to 70rpm
"Mix" function:	Rotating in combination w/ oscillations (increased mixing)
"Pause" function:	Rotating with intermittent "stops" during rotation
"Rock" function:	Back and forth, gentle rocking motion (see-saw)

The Plus models also offer an additional rocking platform (4.5 x 3 in.), as well as a 96 x 0.2ml tube/strip/plate holder for mixing PCR vessels in the "Mix" (oscillating) mode.

Technical Data:

Speed Range: R2020:	24rpm (230V: 20rpm)
R2024:	5 to 70 rpm
Mixing Modes: R2020:	N/A
R2024:	Mix, Pause & Rock
Max Capacity: (R2020/R2024)	1.5/2.0ml: 44 7ml: 5 15ml: 20 50ml: 6
Dimensions (R2020/R2024)	10.8 x 6 x 6.5 in / 41 x 13.7 x 19.9cm
Weight:	3 lbs / 1.4 kg
Electrical: R2020 R2024	115 or 230V, 50-60Hz, 0.5A Universal Voltage 100 to 240V, 50-60Hz, 0.5A
Warranty:	2 Years

Ordering Information:

Item No.	Description:
R2020*	Roto-Mini Rotator with tube holders
R2024*	Roto-Mini Plus, Variable Speed Rotator with tube holders
Tube Holder Accessories	
R2020-1520	Tube holder, 11 x 1.5/2.0ml, 2/pk (1 pack included)
R2020-0507	Tube holder, 5 x 5-7ml, 2/pk (1 pack included)
R2020-150	Tube holder, 5 x 10-15ml, 2/pk (1 pack included)
R2020-500	Tube holder, 6 x 50ml, 1 each (included)
R2020-PCR	Tube holder, 96 x 0.2ml, 12 x PCR strips or one PCR plate**
R2020-RP	Mini rocking platform with rubber mat, 4.5 x 3 in.**

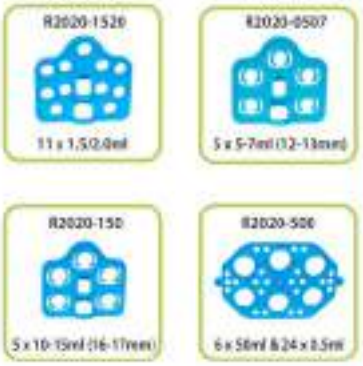
*115V with US plug. For 230v (EU plug), please add (-E).
**Accessories are recommended for "Plus" models (R2024) only

Roto-Therm™ Incubated Rotator



- Rotated mixing with temperature control
- Includes tube holders for common tube sizes
- Available with variable speed control and advanced shaking/mixing modes:
  - Mix (oscillating)
  - Pause
  - Rock

Included Tube Holders:



Optional Tube Holders:



Benchmark's new Roto-Therm series of rotating mixers provides a wide range of mixing capabilities. Suitable for an array of laboratory applications including resuspension, protein binding, nucleic acid purification, histochemistry, hybridization, etc, the mixers include interchangeable tube holders for accomomodating all common tube sizes from 0.5ml to 50ml. The motion can be adjusted from vertical (end over end) mixing, to horizontal (rolling or hybridization style) mixing.

For applications requiring temperature control, the Roto-Therm series can be digitally programmed to maintain chamber temperatures of ambient +5°C to 60°C and include an "in-lab" calibration function for ensuring accurate temperature control. For applications where temperaure control is not required, the economical Roto-Mini models are available (pg. 36).

Roto-Therm rotators are available in the "Plus" configuration. The Plus models provide the following additional features:

Variable speed:	5 to 70rpm
"Mix" function:	Rotating in combination with oscillations (increased mixing)
"Pause" function:	Rotating with intermittent "stops" during rotation
"Rock" function:	Back and forth, gentle rocking motion (see-saw)

The Plus models also offer an additional rocking platform (4.5 x 3 in.), as well as a 96 x 0.2ml tube/strip/plate holder for mixing PCR vessels in the "Mix" (oscillating) mode.

Technical Data:

Speed Range: H2020:	24rpm (230V: 20 rpm)
H2024:	5 to 70 rpm
Mixing Modes: H2020:	N/A
H2024:	Mix, Pause & Rock
Temperature:	Ambient +5° to 60°C
Max Capacity:	1.5ml/2.0ml: 44 15ml:16 50ml: 6
Dimensions:	11.6 x 8.5 x 9 in / 29.5 x 21.6 x 22.9 cm
Weight:	9 lbs / 4 kg (H2020) / 10 lbs / 4.5 kg (H2024)
Electrical:	115 or 230V, 50-60Hz
Warranty:	2 Years

Ordering Information:

Item No.	Description:
H2020*	Roto-Therm Incubated Rotator with tube holders
H2024*	Roto-Therm Plus Incubated Rotator (variable speed) with tube holders
Tube Holder Accessories	
R2020-1520	Tube holder, 11 x 1.5/2.0ml, 2/pk (1 pack included)
R2020-0507	Tube holder, 5 x 5-7ml, 2/pk (1 pack included)
R2020-150	Tube holder, 4 x 10-15ml, 2/pk (1 pack included)
R2020-500	Tube holder, 6 x 50ml, 1 each (included)
R2020-PCR	Tube holder, 96 x 0.2ml, 12 x PCR strips or one PCR plate**
R2020-RP	Mini rocking platform with rubber mat, 4.5 x 3 in. **

*115V with US plug. For 230V (EU plug), please add (-E).
**Accessories are recommended for "Plus" models (H2024) only

Roto-Bot™ Programmable Rotating Mixers



Roto-Bot™ PROGRAMMABLE ROTATOR

- Advanced programming with a wide variety of rotational modes
- Set for full 360° rotation, or interrupt rotations with pausing and mixing intervals
- Slow rotating to vigorous mixing
- Accepts tubes from 1.5 to 50ml
- Optional rocking platform

Motion Mode Chart:

F1	F2	F3	F4	F5	F6	F7	F8	F9	— —	C1 C2	PP*	Key:
												

The Roto-Bot™ Rotating Mixers feature advanced programming options that far surpass that of the traditional laboratory rotator. With digital speed control and more than 10 operating modes, the Roto-Bot can perform a wide variety of rotating, mixing and vibrating actions. In addition, these actions can be combined in succession using the C1 and C2 "Custom Modes", providing the user with a nearly infinite level of programming.

The Roto-Bot and Roto-Bot Mini each inlcude an assortment of holders for vertical tube holders. The Mini model is supplied with holders for 12 x 1.5ml tubes, 2 x 15ml & 2 x 50ml tubes; the standard model, 30 x 1.5/2.0ml, 8 x 15ml & 2 x 50ml tubes. For higher capacity applications, more of these holders can be purchased as accessories. The unique, sliding attachment allows for quick and easy changing of tube holders. For rocking applications, a platform with a non-slip mat is available. Once attached, simply select the "PP" mode to activate the rocking mode.

Tube Holder Capacity & Ordering Information:					
Item Number:	R4040-1520	R4040-150	R4040-500	R4040-HZ15	R4040-HZ50
Description:	6 x 1.5ml	1 x 15ml	1 x 50ml	6 x 15ml	6 x 50ml
Tube Diameter:	10 to 13mm	16 to 17mm	28 to 30mm	16 to 17mm	28 to 30mm
Orientation:	Dual*	Vertical	Vertical	Horizontal	Horizontal
Holder Capacity (Mini/Standard):	10 / 16	10 / 22	6 / 12	1 / 2	1 / 2
Tube Capacity (Mini/Standard):	60 / 96	10 / 22	6 / 12	6 / 12	6 / 12
Package Unit:	Pack of 2	Pack of 2	Pack of 2	1 ea.	1 ea.

* The unique, dual attachment points of the 6 x 1.5ml holder allow for mixing in both the vertical and horizontal orientation.

Technical Data:

Speed Range:	1 to 80 rpm
Capacity (R4040):	6 x 50ml, 10 x 15ml or 60 x 1.5ml
Capacity (R4045):	12 x 50ml, 22 x 15ml or 96 x 1.5ml
Timer:	1 sec. to 99 hrs. 59 min. / continuous
Dimensions (R4040)	11.4 x 5.4 x 7.8 in / 29 x 13.7 x 19.9 cm
W x D x H (R4045)	16.1 x 5.4 x 7.8 in / 41 x 13.7 x 19.9 cm
Operating Temp. Range:	+2°C to +70°C
Weight:	4 lbs/1.8 kg (R4040) / 5 lbs/2.27 kg (R4045)
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 3A
Warranty:	2 Years

Ordering Information:

Item No.	Description:
R4040*	Roto-Bot Mini with tube holder starter set Includes 6x1.5ml holders (2ea.), 1x15ml holder (2ea.) & 1x50ml holder (2ea.)
R4045*	Roto-Bot with with tube holder starter set Includes 6x1.5ml holders (5ea.) 1x15ml holder (8ea.) & 1x50ml holder (2ea.)
R4040-RP	Rocking Platform (w/ flat mat) for R4040, 6 x 5.5 in
R4045-RP2	Rocking Platform (w/ flat mat) for R4045, 6 x 10 in.

*Includes US plug. For EU plug, please add (-E).

Benchmark™ Rotating Mixer



- Adjustable speed and tilt
- Reversing mode for increased agitation
- Cold room and incubator safe
- Includes three rotisseries for all common tube sizes

Included Rotisseries:



48 x 1.5/2.0ml
(48 x 10-14mm Ø tubes)



20 x 15ml
(20 x 15-20mm Ø tubes)



12 x 50ml
(12 x 25-35mm Ø tubes)

The Benchmark Rotating Mixer provides gentle to vigorous mixing of laboratory samples up to 50ml. With adjustable speed control and tilt angle, the Rotating Mixer is ideal for a variety of applications, from mixing blood samples to the preparation of homogenous dispersions.

Three rotisserie tube holders are included for mixing all common laboratory sample tubes and each individual tube holder is constructed of rubber coated steel to provide a secure grip, preventing any "wobble" or loosening during mixing at high speeds.

A unique reversing mode is selectable for more intense mixing. In reversing mode, the mixer rotates for up to 360° then stops and rotates in the reverse direction. This back and forth motion occurs repeatedly until the set time has expired.

With included accessories and unique mixing options, Benchmark's Rotating Mixer offers increased flexibility that is not commonly found with with traditional laboratory rotators.

Technical Data:

Speed:	1 to 40 rpm
Tilt Angle:	0 to 90° (vertical to horizontal)
Capacity:	12x50ml, 20x15ml or 48x2.0ml
Timer:	1 sec. to 99 hrs. 59 min. / continuous
Exterior Dimensions: (W x D x H)	8.25 x 10.5 x 12.5 in. 21 x 27 x 32 cm
Operating Temp. Range:	+4° to +65°C
Weight:	7 lbs / 3.4 kg
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 25W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
R5010*	Benchmark Rotating Mixer, includes three rotisserie tube holders for 1.5/2.0, 15 and 50ml tubes

*Includes US plug. For EU plug, please add (-E).

Benchmark™ Overhead Stirrers





- Digital speed control
- Includes stand assembly and 4 arm propeller (stainless steel)
- Compact and quiet
- Optional teflon propellers also available

Ordering Information:

Item No.	Description:
IPS2050-20*	Benchmark OS-20L Overhead Stirrer, 20L
PS2050-40*	Benchmark OS-40L Overhead Stirrer, 40L
IPS2050-P-S1	One line propeller, stainless steel
IPS2050-P-S2	Centrifugal impeller, stainless steel
IPS2050-P-S3	Paddle with flat holes, stainless steel
IPS2050-P-S4	4 arm propeller, stainless steel
IPS2050-P-T1	One line propeller, teflon
IPS2050-P-T2	Centrifugal impeller, teflon
IPS2050-P-T3	Paddle with flat holes, teflon
IPS2050-P-T4	4 arm propeller, teflon

*Includes US plug. For EU plug, please add (-E).

Technical Data:

Speed Range:	30 to 2,200 rpm	
Motor Type:	DC Brushless Motor	
Chuck Diameter Range:	0.5 - 10mm	
Exterior Dims.: (W x D x H)	7.3 x 3.3 x 8.7 in. / 18.6 x 8.3 x 22.0 cm	
Protection Mode:	IP42	
Operating Range:	Ambient 5 - 40°C	
Electrical:	115 or 230V, 50-60Hz	
Warranty:	2 Years	
	IPS2050-20	IPS2050-40
Mixing Capacity (H2O):	20L	40L
Maximum Torque:	40Ncm	60Ncm
Input Power:	60W	120W
Output Power:	50W	100W
Net Weight (Mixer):	2.6 kg	2.8 kg
Maximum Viscosity:	10000mPas	50000mPas

Benchmotion™ Shaker Selection App



Scan me

Simply download the app on your phone or mobile device, or visit www.benchmotion.com to view a video demonstration showing all of the shaking motions available from Benchmark Scientific. Once the preferred motion is identified, click or touch on the "see details" option to quickly navigate your way to the most appropriate model(s) for your application.

Homogenizers




Pg. 42

D1000 **Handheld Homogenizer**


Pg. 43

BeadBug™ 3 & 6
Microtube Homogenizers


Pg. 44

BeadBlaster™ 24 & 24R
Microtube Homogenizers


Pg. 45

BeadBlaster™ 96
Ball Mill Homogenizer


Pg. 46

Pulse™
Ultrasonic Homogenizers


Pg. 46

BenchMasher™ 400 **Paddle Blender**

D1000 **Homogenizer**



- **Quickly homogenizes samples (in under 30 seconds)**
- **For volumes 100µl to 250ml**
- **Supplied with two generator probes (5mm and 7mm)**

Benchmark's handheld homogenizer, the D1000, is designed to rapidly homogenize, emulsify, suspend and disrupt biological samples. Ideal for use with microtubes, the homogenizer works well with samples from 0.1ml to 250ml (depending upon the generator probe used).

The D1000 is a rotor stator homogenizer which works by drawing the sample, in liquid, into the generator probe with the variable speed rotor, and then forcing it out through the slots in the stator. This achieves mechanical shearing of the sample. As the sample is repeatedly drawn up and forced through the stator, additional shearing takes place.

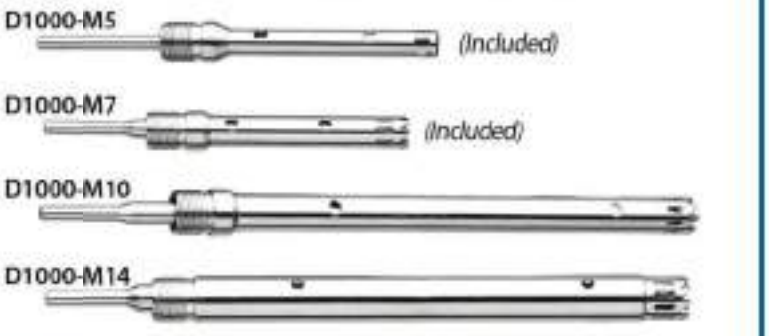
A powerful, 130W motor drives the rotor at speeds from 8,500 to 30,000 rpm. Speed is continuously adjustable to meet sample processing needs. A separate on/off switch allows the homogenizer to be left at the appropriate setting.

Generator probes are available in four sizes. The 5mm and 7mm diameter have a 50mm length for use with samples in microbtubes. The 10mm x 115mm probe is ideal for use with 15 and 50ml tubes and 14mm x 130mm probe, for 50ml tubes and vessels up to 250ml. The unit is supplied with one each of the 5mm and 7mm generator probes. All the generator probes are made of stainless steel and can be sterilized by autoclaving.



Ergonomic, "slim-line" handle design

Available Generator Heads



Technical Data:

Speed Range:	8,500 to 30,000 rpm
Capacity:	0.1 to 250ml
Noise Level:	<70db
Dimensions: (W x D x H): (without probe)	1.8 x 2.3 x 9 in. 4.5 x 5.8 x 22.5 cm
Weight:	1.35 lbs / 0.6 kg
Electrical:	115 or 230V, 50-60Hz, 130W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
D1000	D1000 Hand-Held Homogenizer Includes one 5mm (flat-bottom) generator probe and one 7mm (saw tooth) generator probe
Optional generator probes:	
D1000-M10	10mm x 115mm saw tooth, for 15 and 50ml tubes
D1000-M14	14mm x 130mm saw tooth, for 50ml - 250ml vessels
D1000-M5	5 x 50mm for microtubes, 5pk.
D1000-M7	7 x 50mm for microtubes, 5pk.
D1000-ST	Stand for D1000 Homogenizer

*115V with US plug. For 230V (EU plug), please add (-E).



BEADBUG
MICROTUBE HOMOGENIZERS

- Extremely powerful mixing action for lysis, grinding or homogenization
- Eliminates the cross contamination associated with hand-held homogenizers
- Faster & more effective than tissue grinders
- Process multiple tubes simultaneously

The BeadBugs™ are high energy benchtop homogenizers that set the performance standard for personal sized cell disruption and lysis instruments. Simultaneous homogenization of up to 6 samples takes place (often within 45 seconds) inside the disposable 2ml screw cap microtubes. The optimized mixing motion causes rapid cell disruption through constant high velocity impacts from the hardened micro-beads chosen specifically for your sample type.

Developed for samples too tough to be homogenized in a common lab vortexer, the BeadBugs provide a convenient and economical alternative to larger and more expensive homogenizers on the market today. With compact footprints (as small as 7 x 8", in the 3 position model), the BeadBugs are the the ideal homogenizing instruments for low to medium throughput laboratories.



BeadBug 3, accepts 3 x 2.0ml



BeadBug 6, accepts 6 x 2.0ml

Video Demonstration



Benchmark offers a wide range of homogenization beads (including glass, zirconium, stainless steel, etc.)

Ordering Information:

Item No.	Description:
D1030*	BeadBug™ 3, Three Position Microtube Homogenizer
D1036*	BeadBug™ 6, Six Position Microtube Homogenizer
D1036-AS	Optional tube holder 2 x 5ml screw cap tubes (for D1036 only)
Prefilled Tube Kits:	**Include 2.0ml non-skirted screw cap tubes with caps, sealing rings and beads as specified below:**
D1031-01	Standard glass beads, Ø 0.1mm, 50pk.
D1031-05	Standard glass beads, Ø 0.5mm, 50pk.
D1031-10	Standard glass beads, Ø 1.0mm, 50pk.
D1032-01	Triple-Pure™, high impact zirconium beads, Ø 0.1mm, 50pk.
D1032-05	Triple-Pure™ high impact zirconium beads, Ø 0.5mm, 50pk.
D1032-10	Triple-Pure™, high impact zirconium beads, Ø 1.0mm, 50pk.
D1032-15	Triple-Pure™, high impact zirconium beads, Ø 1.5mm, 50pk.
D1032-30	Triple-Pure™, high impact zirconium beads, Ø 3.0mm, 50pk.
D1032-60	One ceria zirconium oxide satellite, Ø 6.0mm, 50pk.
D1032-SK	Starter Kit, 10 ea. of Ø 0.1, 0.5, 1.0, 1.5 & 3.0 Triple-Pure™ zirconium
D1033-28	Stainless steel beads, Ø 2.8mm, 50pk.
D1033-30G	Garnet shards with 1 zirconium bead Ø 6.0mm, 50pk.
D1034-MX	Mixed format, 0.1mm silica, 1.4mm zirconium, 4mm silica, 50pk.
D1031-T20	Empty tubes (2.0ml) pack of 1000
D1031-RFS	Reinforced empty tubes (2.0ml) pack of 600 (not for D1030)

*115V with US plug. For 230V (EU plug), please add (-E)

Additional bead types are also available (in both bulk and prefilled kits).
Please contact Benchmark for a complete listing.

Technical Data:

Speed Range:	2,800 to 4,000 rpm (D1030) 2,500 to 4,350 rpm (D1036)
Max. Capacity:	3 x 2.0ml non-skirted (D1030) 6 x 2.0ml (skirted or non) or 2 x 5ml (D1036)
Timer:	3 sec. to 3 min. (D1030) 1 sec to 90 sec. with up to 10 cycles (D1036)
Operating Temp. Range:	+4°C to +45°C (ambient temp.)
Dimensions: (W x D x H)	6.9 x 8.3 x 5.3 in. / 17 x 21 x 13.5 cm (D1030) 8.6 x 14 x 8 in. / 22 x 35.5 x 20.5 cm (D1036)
Weight:	5 lbs / 2.2 kg D1030 20 lbs / 9 kg D1036
Electrical:	115 or 230V, 50-60Hz, 50W (D1030) 100 to 240V, 50-60Hz, 145W (D1036)
Warranty:	2 Years

BeadBlaster™ 24 and 24R **Microtube Homogenizers**



- **Fast, efficient homogenization, usually in 35 seconds or less**
- **For all sample types, from soft tissue to bone**
- **High throughput, up to 24 samples**
- **True refrigeration - no external connections, dry ice or liquid nitrogen (D2400-R model only)**

The BeadBlaster™ 24 completely lyses, grinds and homogenizes a broad variety of biological samples. Even the most difficult and resistant samples are fully homogenized, often in 35 seconds or less. The stainless steel tube carrier subjects up to 24 samples to an optimized, high speed, 3D motion, producing high energy impacts between the samples and micro-beads to release cellular contents. The BeadBlaster 24R features true, compressor based refrigeration to keep heat sensitive samples cool.

Benchmark offers an assortment of prefilled tube kits for a variety of sample types. The popular Triple-Pure™ kits include acid washed, heat treated, zirconium beads. The beads are tested to be free of nucleases, making them ideal for molecular biology applications. A convenient starter kit (D1032-SK) is available to accommodate a broad range of samples and optimize applications.



Stainless steel, 24 position tube carrier

Video Demonstration





Technical Data:

Speed:	4.00 to 7.00 m/s (2,430 to 4,260 rpm)
Speed Increments:	0.05 m/s
Capacity:	24 x 2.0ml tubes or 12 x 5ml tubes
Cycle Time:	1 to 90 sec. (1 sec. increments)
Pause Between Cycles:	0 to 2 min. (1 sec. increments)
Max Cycles Per Program:	10
Program Memory:	50
Accel/Decel:	<2 sec. / <2 sec., D2400 <4 sec. / <4 sec., D2400-R
Noise Level:	<68 db, D2400 <65 db, D2400-R
Cooling Method:	Compressor, D2400-R
Precool Ambient to 0°C:	<30 minutes, D2400-R
Operating Temp. Range:	+4 °C to +65°C
Temp. Range:	-10°C to ambient, D2400-R
Dimensions: (W x D x H)	11 x 14.2 x 15.2 in. / 28 x 36 x 38.5cm, D2400 12.6 x 20.1 x 16.2 in. / 32 x 51 x 41cm, D2400-R
Weight:	55 lbs / 25 kg D2400 88 lbs / 40 kg D2400-R
Electrical:	100V to 240V, 50-60Hz, 600W, D2400 120V or 230V, 50-60Hz, 1000W, D2400-R
Warranty:	2 Years

Additional bead types are also available (in both bulk and prefilled kits). Please contact Benchmark for a complete listing.

Ordering Information:

Item No.	Description:
D2400*	BeadBlaster™ 24 Microtube Homogenizer with 24 x 2.0ml tube holder
D2400-R*	BeadBlaster™ 24 Refrigerated Microtube Homogenizer with 24 x 2.0ml tube holder
D2400-RSV2	Optional tube holder, 12 x 5ml
Prefilled Tube Kits:	Include 2.0ml non-skirted screw cap tubes with caps, sealing rings and beads as specified below:
D1031-01	Standard glass beads, Ø 0.1mm, 50pk.
D1031-05	Standard glass beads, Ø 0.5mm, 50pk.
D1031-10	Standard glass beads, Ø 1.0mm, 50pk.
D1032-01	Triple-Pure™, high impact zirconium beads, Ø 0.1mm, 50pk.
D1032-05	Triple-Pure™, high impact zirconium beads, Ø 0.5mm, 50pk.
D1032-10	Triple-Pure™, high impact zirconium beads, Ø 1.0mm, 50pk.
D1032-15	Triple-Pure™, high impact zirconium beads, Ø 1.5mm, 50pk.
D1032-30	Triple-Pure™, high impact zirconium beads, Ø 3.0mm, 50pk.
D1032-SK	Starter Kit, 10 ea. of Ø 0.1, 0.5, 1.0, 1.5 & 3.0 Triple-Pure™, high impact zirconium
D1032-60	One ceria zirconium oxide satellite, Ø 6.0mm, 50pk.
D1033-28	Stainless steel beads, Ø 2.8mm, 50pk.
D1033-30G	Garnet shards with 1 zirconium bead Ø 6.0mm, 50pk.
D1034-MX	Mixed format, 0.1mm silica, 1.4mm zirconium, 4mm silica, 50pk.
D1031-T20	Empty tubes (2.0ml) pack of 1000
D1031-RFS	Reinforced empty tubes (2.0ml) pack of 600
D1034-28	5ml tubes with stainless beads, Ø 2.8mm, 50pk.

*Includes US plug. For EU plug, please add (E).

BeadBlaster™ 96 Ball Mill Homogenizer



- Rapid cell lysis for extraction of DNA, RNA and proteins in plates and microtubes
- Fine grinding of cannabis/hemp samples
- Able to homogenize bone, teeth and other hard samples
- Homogenize/blend powders and suspensions





Technical Data:

Speed:	180 to 1,800 rpm
Speed Increments:	100 rpm
Capacity:	2 microplates, 8 x 50ml tubes, 64 x 2ml tubes
Cycle Time:	1 sec. to 59 min.: 59 sec. (1 sec. increments)
Pause Between Cycles:	1 sec. to 59 min.: 59 sec. (1 sec. increments)
Max Cycles Per Program:	99
Program Memory:	20
Feed Size:	<10mm
Final Fineness*:	<5µm
Operating Temp. Range:	+4°C to +40°C (ambient temp.)
Dimensions (W x D x H)	13.2 x 19.7 x 14.4 in. / 33.5 x 50 x 36.6 cm
Weight:	141 lbs / 64 kg
Electrical:	120V or 230V, 50-60Hz, 150W, 1.5A
Warranty:	2 Years

*Dependent on sample material and grinding configuration

Additional bead types are also available (in both bulk and prefilled kits). Please contact Benchmark for a complete listing.

Ordering Information:

Item No.	Description:
IPD9600*	BeadBlaster™ 96 Ball Mill Homogenizer for plates, tubes and jars
Accessories:	All accessories ordered separately.
Microplates:	
IPD9600-96	Adapter for 96 well plates, set of 2, required for processing microplates
IPD1196-40	96 well plate, 2ml, prefilled w/4mm balls, with sealing mat, 10pk.
IPD1196-MP	96 well plate, 2ml, square well, 10pk.
IPD1196-CM	EVA cap mat for above plate, 10pk.
IPD9600-8D28	96 well ball dropper for 2.8mm balls
IPD9600-8D4	96 well ball dropper for 4mm balls
IPD9600-8D5	96 well ball dropper for 5mm balls
D1133-28	2.8mm stainless steel balls, 1000pk.
Microtubes:	
IPD9600-1520	Adapter for 32x2ml tubes, PTFE, set of 2, requires use of IPD9600-96
IPD9600-96A2	Rack for 20x2ml tubes, set of 2, requires use of IPD9600-96
IPD9600-96	Adapter for microplates and tube holders, set of 2
D1032-SK	Starter kit of TriplePure™ Prefilled Bead Tubes, 10 tubes each, prefilled with 0.1, 0.5, 1.0, 1.5 and 3.0mm diameter beads, certified nuclease and protease free
50mL Tubes:	
IPD9600-50T	Adapter for 4 x 15/50ml tubes, set of 2
IPD9600-3858-1	Ceramic homogenizers w/angled ends, 3/8" x 5/8", pk of 100
IPD9600-3878-1	Ceramic homogenizers w/angled ends, 3/8" x 7/8", pk of 100
Grinding Jars and Balls:	
IPD9600-25S	Stainless steel jar, 25ml, set of 2
IPD9600-10BS	Stainless steel grinding ball, 10mm, 500g
IPD9600-50BS	Stainless steel jar, 50ml, set of 2
IPD9600-25BS	Stainless steel grinding ball, 25mm, 500g
IPD9600-25TC	Tungsten carbide jar, 25ml, set of 2
IPD9600-10TCB	Tungsten carbide grinding ball, 10mm, each
IPD9600-35ZO	Zirconium oxide jar, 35mL, set of 2
IPD9600-15ZOB	Zirconium oxide grinding ball, 15mm, each
IPD9600-35PTFE	PTFE grinding jar, 35ml, set of 2
IPD9600-15PTFB	PTFE grinding ball, steel core,15mm, each
IPD9600-CK	Cryo Kit, includes bucket, gloves, goggles and tongs, for use with liquid nitrogen

*Includes US plug. For EU plug, please add (-E).

Pulse Series™ Ultrasonic Homogenizers



- Ultrasonic homogenizers for cell disruption, homogenization, emulsification and more
- Large touch screen with total control over operating parameters
- Supplied complete with controller, 6mm horn, temperature probe and soundproof enclosure
- UV-C sterilization and lighted interior of sound-proof box (Pulse 650 only)

The Pulse 150™ and Pulse 650™ utilize ultrasonic waves and cavitation to disrupt cells, shear DNA and create emulsions. With 150 or 650 watts of power, they can process samples up to 150ml or 500ml (dependent upon horn).

Both units feature large touch screens for controlling operation. Alarms alert users to over temperature, over/no load and expiration of time. Everything needed for operation is included - controller, transducer, soundproof enclosure, 6mm horn and temperature probe. The Pulse 150 has an adjustable height sample holder, while the Pulse 650 features a motorized lift and stackable design. In addition, the Pulse 650 features interior chamber lighting and UV-C sterilization.

Technical Data:

Power:	1.5-150W DP0150 6.5-650W DP0650
Frequency:	20 - 25kHz
Cycle Time (pulse on/off):	0.1 - 99.9 sec.
Timer:	1 sec. - 99 hrs.: 59 min., 59 sec.
Duty Cycle:	0.1 - 99.9%
Volume*:	0.1 - 150ml
Program Memory:	20 programs
Display/Control:	Color touch screen, 4.3 in. DP0150, 7 in. DP0650
Horn:	6mm titanium (others available)
Alarms:	no load, over load, end of run, over temp.
Controller: (W x D x H)	12 x 18.5 x 16.9 in. DP0150 13.4 x 16.5 x 6.6 in. DP0650
Controller Weight:	35.3 lbs / 16 kg DP0150 24.2lb / 11 kg DP0650
Soundproof Enclosure: (W x D x H)	13.8 x 13.8 x 21.7 in. DP0150 13 x 13 x 20.5 in. DP0650
Soundproof Enclosure weight:	22 lbs / 10 kg DP0150 28.6lbs /13 kg DP0650
Electrical:	120V or 230V, 50-60 Hz
Warranty:	2 years

*Volume dependent upon the installed horn. Supplied with 6mm horn for volumes 10-100ml.

Ordering Information:

Item No.	Description:
DP0150*	Pulse 150 Ultrasonic Homogenizer, complete with controller, transducer, 6mm horn and soundproof enclosure
DP0650*	650 Ultrasonic Homogenizer with controller, transducer, 6mm horn and soundproof enclosure
DP0150-2	Horn, 2mm diameter, for 0.1 - 5ml
DP0150-3	Horn, 3mm diameter, for 3 - 10ml
DP0150-6	Horn, 6mm diameter, for 10 - 100ml (included)
DP0150-8	Horn, 8mm diameter, for 25 - 150ml
DP0150-10	Horn, 10 diameter, 30-300ml samples, Pulse 650 only
DP0150-12	Horn, 12mm diameter, 50-500mL Pulse 650 only

*120V with US plug. For EU plug, please add -E to cat no.

BenchMasher™ 400



- Contamination free homogenization of large samples
- Adjustable stroke length
- Built in UV light for chamber decontamination
- Touch screen control with variable mixing speed and temperature up to 65°C
- Ideal for recovery of intact microorgansims in food and environmental samples



Ordering Information:

Item No.	Description:
IPD4400*	BenchMasher™ 400 Paddle Blender
IPD4400-B400	Bags, 400ml x 60µm, 300 x 180mm, 500pk.
IPD4400-B400F1	Bags, 400ml x 70µm with lateral (side) nylon filter, 300 x 190mm, 500pk.
IPD4400-B400F2	bags, 400ml x 70µm with full nylon filter, 300 x 190mm, 500pk.

*115V with US plug. For EU plug, please add -E to cat no.

Autoclaves and Sterilization





MicroBead **Sterilizers**



UV Clave™ **Ultraviolet Chamber**



BactiZapper™ **MicroSterilizer Series**



BioClave™ 8 & 18 **Benchtop Autoclaves**



BioClave™ 25 **Benchtop Autoclave**

MicroBead **Bead Sterilizer**



- Digital control up to 300°C
- Quickly sterilizes forceps, needles & other laboratory tools
- Eliminates the danger associated with open flames

Ordering Information:

Item No.	Description:
B1201*	MicroBead Sterilizer with beads (150g)
B1202	MicroBead Sterilizer TALL with Beads (300g)
B1201-BEAD	Extra glass beads, 1000g

*115V with US plug. For 230V (EU plug), please add (-E).

Technical Data:

Temperature Range:	100°C to 300°C
Preheat Time:	Approx. 25 min. (to 300°C)
Chamber Diameter:	40mm
Chamber Height:	80mm (B1201) / 140mm (B1202)
Bead Capacity:	150g (B1201) / 300g (B1202)
External Dimensions (WxDxH)	5.5 x 5.7 x 6.1 in. / 14.5 x 15.5 x 15.5 cm 5.5 x 5.7 x 8.5 in. / 14.5 x 15.5 x 21.5 cm
Weight:	4.4 lbs (2 kg) / 5.5 lbs (2.5 kg)
Electrical:	115 or 230V, 50-60Hz 120W (B1201) / 250W (B1202)
Warranty:	1 Year*

*Excludes heating element

UV Clave™ **Ultraviolet Chamber**



- Improves quality of PCR research by reducing potential contaminants
- Multiple lamps and reflective chamber walls provide true 360° irradiation
- Proprietary UV-C transparent shelf, eliminates potential for missed coverage (blind spots)
- Inactivates DNA, RNA, viruses & bacteria on PCR vessels



Technical Data:

UV Bulbs:	6 x 4W
UV Wavelength:	254nm
UV Intensity:	+500µW/cm² (center of chamber)
UV Dosage:	600mJ/cm2 (20 min cycle)
UV Timer:	5-20 min. (5 min. increments)
Heater Time:	30-120 min. (30 min. increments)
Heater Temp.:	55°C
Internal Dims.:	8.5x10.1x12.2 in. / 21.6x25.6x31.8 cm
External Dims.:	11.5x10.5x15.7 in. / 29.2x26.7x40 cm
Max. Height:	30cm
Shelf Dims.:	10 x 8 in. / 25.4 x 20.3 cm
Shelf Material:	2 Stainless steel wire / 1 UV-C transparent
Weight:	11 lbs / 5 kg
Electrical:	120V 60Hz or 230V 50Hz - 110W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
B1450*	UV Clave™ Ultraviolet chamber
B1450-IC	UV-C indicator card (double sided), 25/pk.
B1450-ISS	UV-C indicator stickers (0.5 x 0.5 in.), 40/pk.
B1450-SH	Optional wire shelf
B1450-SH-UV	Optional UVC transparent shelf

*115V with US plug. For 230V (EU plug), please add (-E).

BactiZapper™ MicroSterilizer Series



- Complete sterilization in 5-7 seconds
- Safe, convenient and no spatter
- Ideal for platinum loops, needles and glass tube mouths

The BactiZapper™ Classic has an asbestos-free core element to produce ultra high temperatures (815°C /1500°F), sterilizing laboratory tools within 5-7 seconds. Well-proven technology provides instant sterilization of platinum inoculating loops, needles, pipette mouths and various metal & borosilicate glass instruments used in quality control and research.

The ceramic heating element is safely enclosed in a perforated stainless steel guard chamber, protecting users from accidental contact with the extreme temperatures of the core area. Compact and convenient, the BactiZapper can be used in anaerobic and aerobic chambers.

The BactiZapper™ TILT Series utilizes the same well-proven technology of our original BactiZapper Classic, but with a unique, adjustable head angle that allows for more convenient sterilization. The "XL" model offers an increased chamber diameter of 35mm, making this product more suitable for the sterilization of larger objects.

Bacti-Zapper Tilt

- Adjustable tilt angle, for more ergonomic use (reduces hand fatigue)
- Same convenient operation as popular "Classic" model
- Available as "XL", with wide chamber for sterilizing large vessels (tubes, flask mouths, etc.)



Ordering Information:

Item No.	Description:
B1000*	BactiZapper™ Classic MicroSterilizer
B1001*	BactiZapper™ TILT MicroSterilizer with adjustable tilt angle
B1001-XL*	BactiZapper™ TILT XL MicroSterilizer, 35mm chamber & adjust tilt angle
B1000-01	Loop holder attachment (B1001 only)
B1000-03	Slide dryer attachment, 3 slides (B1001 only)
B1000-RA*	Replacement heating element
B1001-RA*	Replacement heating element
B1001-XL-RA*	Replacement heating element

*115V with US plug. For 230V (EU plug), please add (-E).

Technical Data:

Model:	Bacti-Zapper Classic	Bacti-Zapper TILT	Bacti-Zapper TILT XL
Max Temperature:	815°C / 1500°F	815°C / 1500°F	815°C / 1500°F
Sterilization Time:	5-7 seconds	5-7 seconds	5-7 seconds
Chamber Diameter:	0.55 in./14mm	0.55 in./14mm	1.38 in./35mm
Chamber Length:	6 in./153mm	6.2 in./157mm	3.95 in./100mm
External Dimensions: (W x D x H)	4 x 6 x 6.5 in. 10.2 x 15.2 x 16.5 cm	4 x 6 x 10 in. 10.2 x 15.2 x 26 cm	4 x 6 x 11 in. 10.2 x 15.2 x 28 cm
Electrical Data:	120V or 230V, 50-60 Hz	120V or 230V, 50-60 Hz	120V or 230V, 50-60 Hz
Weight:	2.9 lbs / 1.3 kg	3.4 lbs / 1.5 kg	3.5 lbs / 1.6 kg
Warranty:	1 Year*	1 Year*	1 Year*

*Excludes heating element



BioClave™ Research Autoclaves



BioClave Series

- Fully automatic, just press *"start"*
- Rapid, complete sterilization
- Internal memory for retrieving cycle date
- Extremely compact

Despite the space-saving exterior dimensions of the BioClaves, the stainless steel sterilization chambers are surprisingly large, accommodating a variety of liquids, media, instruments, glassware, plasticware and other common laboratory items. Both of these benchtop models include a mechanical and electrical safety interlock that prevents the door from being opened until the pressure has been released.

With large digital displays and fully automatic operation, all segments of the sterilization cycle (fill, sterilize, exhaust and dry) commence and run to completion by simply pressing the start button. An optional thermal mini-printer is also available for providing a record of sterilization parameters. In addition, a built in USB port allows for transfer of these parameters to a computer for printing or storage of cycle data.

Both BioClaves offer five cycle options (standard programs), which are preset for the sterilization of liquids, agar, wrapped instruments, unwrapped instruments/ plasticware and textiles. A sixth option "Dry Only" is also available for additional drying time to be added to the end of a cycle. For special applications requiring variations in cycle parameters, all settings on the BioClaves are fully adjustable.



Bottle/Flask Capacity	B4000-M	B4000-18
100ml Media Bottle	8	15
250ml Media Bottle	4	8
500ml Media Bottle	N/A	3
125ml Erlenmeyer Flask	4	8
250ml Erlenmeyer Flask	2	6
500ml Erlenmeyer Flask	N/A	3

Ordering Information:

Item No.	Description:
B4000-M*	BioClave Mini Autoclave (8L)
B4000-18*	BioClave Autoclave (18L)
B4000-P*	Printer for BioClave series
B4000-PA	Extra roll of paper for B4000-P

*115V with US plug. For 230V (EU plug), please add (-E).
This product is intended for research use only.

Technical Data:

B4000-M (BioClave Mini)	
Chamber Volume:	8L
Max. Pressure:	29 PSI / 2 Bar
Chamber Dimensions:	6.7 x 12.5 in. / 17 x 31cm
Tray Dimensions:	5.11 x 10.43 in. / 13 x 26.5cm
Exterior Dimensions: (WxDxH)	20.6 x 16.5 x 14.6 in. 52.5 x 42 x 37 cm
Weight:	77 lbs (35 kg)
Electrical:	115 or 230V, 50-60Hz, 1600W
Warranty:	1 Year
B4000-18 (BioClave 18)	
Chamber Volume:	18L
Max. Pressure:	29 PSI / 2 Bar
Chamber Dimensions:	9.8 x 13.77 in. / 24.8 x 35 cm
Tray Dimensions:	7.5 x 11.2 in. / 19 x 28.4 cm
Exterior Dimensions: (WxDxH)	23.6 x 19.3 x 17.9 in. 60 x 49 x 45. cm
Weight:	99 lbs / 45 kg
Electrical:	115 or 230V, 50-60Hz, 1600W
Warranty:	1 Year

BioClave™ 28 Research Autoclave



BioClave™ 28
Research Autoclave

- Accepts bottles/flasks up to 2L
- Fully automatic, just press start
- Adjustable sterilization times
- USB port for digital documentation of records
- Built in water tank, does not require connection to an external water supply

CE

With similar operation to the BioClave Mini and BioClave 18, the 28 liter model features an increased chamber size with a diameter of 32cm. With this larger internal chamber, the BioClave 28 capable of sterilizing 1 and 2 liter flasks and bottles.

Despite the increased chamber size, the unit is still relatively compact, suitable for benchtop use. Operation is fully automatic, meaning all segments of operation (fill, sterilize, exhaust and dry) commence and run to completion by simply pressing "Start". An optional thermal mini-printer is available for providing a record of sterilization parameters. In addition, a built in USB port allows for transfer of these parameters to a computer for printing or storage of cycle data.

All BioClaves offer five cycle options (standard programs), which are preset for the sterilization of liquids, agar, wrapped instruments, unwrapped instruments/plasticware and textiles. A "Dry Only" option is also available for additional drying time to be added to the end of a cycle. For special applications requiring variations in cycle parameters, the cycle times are fully adjustable.



Bottle/Flask Capacity	B4000-28
100ml Media Bottle	42
250ml Media Bottle	11
500ml Media Bottle	8
1L Media Bottle	6
2L Media Bottle	2
125ml Erlenmeyer Flask	30
250ml Erlenmeyer Flask	8
500ml Erlenmeyer Flask	6
1L Erlenmeyer Flask	3
2L Erlenmeyer Flask	2

Ordering Information:

Item No.	Description:
B4000-28-120	BioClave Autoclave (28L), 120V
B4000-28-220	BioClave Autoclave (28L), 220V
B4000-P	Printer for BioClave series
B4000-PA	Extra roll of paper for B4000-P, 3/pk.

This product is intended for research use only.

Technical Data:

B4000-28 (BioClave)	
Chamber Volume:	28L
Max Pressure:	30.5 PSI / 2 Bar
Chamber Dimensions:	12.6 x 16.4 in. 32 x 41.7 cm
Exterior Dimensions: (W x D x H)	25 x 25 x 22 in. 63.5 x 63.5 x 55.9 cm
Weight:	209 lbs / 95 kg
Electrical:	115V, 50-60Hz, 15A 230V, 50-60Hz, 10A (Accepts 208 to 240V)
Warranty:	1 Year

Temperature Control Equipment





Pg. 54-56

Benchmark™ **Hotplates & Stirrers**



Pg. 57

myTemp™ **Mini Incubators**



Pg. 58

SureTemp™
Bi-Convection Incubators



Pg. 59

myTemp™ 65HC **Incubator** (heating & cooling)



Pg. 60

myTemp™ **Mini CO_2 Incubator**



Pg. 61

ST-Series & ST-Series PLUS
CO_2 Incubators



Pg. 62-64

myBlock™ and isoBlock™
Dry Baths



Pg. 65

myBath™ **Water Baths**



Pg. 66

BeadBath Duo™ **Digital Bead Baths**



Pg. 67

SB-12L **Shaking Water Bath**



Pg. 68-69

IncuShaker™ Mini and 10L
Shaking Incubators



Pg. 70

IncuShaker™ 20LR **Shaking Incubators**



Pg. 71

IncuShaker™ Mini CO_2
Shaking Incubator



Pg. 72-73

MultiTherm™ Heating/Cooling Vortexers



Pg. 74

IncuMixer™ **Heated Microplate Vortexers**



Pg. 75-76

Thermal Cycler Series



Digital Hotplates, Stirrers & Hotplate Stirrers



- Chemically resistant, white ceramic top plate
- Safety LED indicates hot surface
- Stir speeds up to 1,500 rpm
- Control actual sample temperature (with optional probe)


H3770-S


H3770-H


H3770-HS

Benchmark hotplates, stirrers and hotplate-stirrers feature an exeptionally durable, chemical resistant, white ceramic work surface. The space-efficient design (7.5 x 11.5 in. footprint) makes them ideal for use on crowded benchtops, biologicial safety cabinets and in bio-hoods. Advanced microprocessor controls allow quick, precise adjustments of speed and temperature. The display provides constant visualization of the speed and temperature while a safety LED indicates when the top plate is above 50°C. In addition, an optional probe is available for applications that require precise temperature control. When connected, the probe provides direct feedback to the microprocessor, which continuously adjusts and maintains the selected temperature in the sample within ±1°C.

With a square 7 in. work surface, all models are compatible with a wide varierty of popular sizes of borosilicate glass beakers, flasks, bottles, and other vessels. An optional support rod (H3770-ROD) is available for mounting thermometers, temperature probes, etc.

Technical Data:

Speed Range:	150 to 1,500 rpm*
Temp. Range:	Ambient +5° to 400 °C*
Warranty:	2 Years
H3770 (7 x 7)	
Platform:	7 x 7 in. / 17.8 x 17.8 cm
Max Stir Capacity:	5L
Dimensions (W x D x H):	7.5 x 11.5 x 4 in. / 18 x 27.9 x 10.1 cm
Weight:	8 lbs / 3.6 kg
Electrical:	115V or 230V, 50-60 Hz, 850W

* Speed and temperature adjustments available only on relevant models

Ordering Information:

Item No.	Description:
H3770-H*	Benchmark Digital Hotplate, 7 x 7"
H3770-S*	Benchmark Digital Magnetic Stirrer, 7 x 7"
H3770-HS*	Benchmark Digital Hotplate Stirrer, 7 x 7"
H3770-ROD	Optional support rod
H3770-TP	Optional temperature probe
H3770-CS	Clamp assembly with support rod and clamps for securing thermometers/probes

*115V with US plug. For 230V (EU plug), please add (-E).

MiniMag™ Mini Magnetic Stirrer



- Mini sized, less than 5 in. wide
- Adjustable speed control, 100 to 1500rpm
- Effectively mixes volumes up to 1.5L

Technical Data:

Speed Range:	100 to 1,500 rpm
Platform Dimensions:	3.4 x 3.4 in. / 8.5 x 8.5 cm
Operating Temp. Range:	+4 to +45°C
Max. Stir Bar:	4.7 x 4.7 x 1.2 in. 12 x 12 x 3 cm
Weight:	0.45 lbs / 0.20 kg
Electrical:	100 to 240VAC, 50-60Hz 2W (5V DC power supply)
Warranty:	2 Years

Ordering Information:

Item No.	Description:
S100S*	MiniMag™ Mini Magnetic Stirrer

*115V with US plug. For 230V (EU plug), please add (-E).

Digital Hotplates, Stirrers & Hotplate Stirrers (10 in.)



- Large, 10 x 10 in. white ceramic top plate
- Safety LED indicates hot surface
- Stir capacity up to 15L
- Control actual sample temperature (with optional probe)


H3710-S


H3710-H


H3710-HS

Benchmark Scientific 10 x 10 inch Hotplates and Stirrers allow for heating stirring of larger volumes, up to 15L. All models (heat only, stir only and heating with stirring) features durable, chemically resistant, white ceramic top plates and advanced microprocessor controls. The constant monitoring system provides precise control of temperature with rapid heating and faster boiling times (heating models only). In addition, the powerful motor drive system of the magnetic stirrer ensures efficient mixing in larger vessels and more viscous samples.

Temperature and/or mixing speed can be viewed at all times on the large digital display and a safety LED illuminates when the top plate temperature exceeds 50°C. An optional external temperature probe can be used for applications that require precise temperature control. The probe provides direct feedback to the microprocessor with adjustments for maintaining the selected sample temperature within ±1°C. An optional clamp assembly (H3770-CS) is available for mounting thermometers, temperature probes, etc.

Technical Data:

Speed Range:	150 to 1,500 rpm*
Temp. Range:	Ambient +5° to 400 °C*
Warranty:	2 Years
H3710 (10 x 10)	
Platform:	10 x 10 in. / 25.4 x 25.4 cm
Max Stir Capacity:	15L
Dimensions: (W x D x H):	11.6 x 16.7 x 4.5 in. / 29.5 x 42.4 x 11.4 cm
Weight:	14 lbs / 6.4 kg
Electrical:	115V or 230V, 50-60 Hz, 1500W

* Speed and temperature adjustments available only on relevant models

Ordering Information:

Item No.	Description:
H3710-H*	Benchmark Digital Hotplate, 10 x 10"
H3710-S*	Benchmark Digital Magnetic Stirrer, 10 x 10"
H3710-HS*	Benchmark Digital Hotplate Stirrer, 10 x 10"
H3770-ROD	Optional support rod
H3770-TP	Optional temperature probe
H3770-CS	Clamp assembly with support rod and clamps for securing thermometers/probes

*115V with US plug. For 230V (EU plug), please add (-E).

MHS Series **Multi-Position Hotplate Stirrers**



- 3, 5, or 10-postion models
- Simultaneous heating and stirring
- White ceramic top surface
- Accepts bottles up to 1L

The Benchmark Multi-Position Hotplate Stirrers provide simultaneous heating and stirring of multiple samples. The large top-plates feature a durable, chemically resistant, white-ceramic coating that provides exceptionally uniform temperature control up to 120°C. Each stirring position is driven by an independent motor, providing efficient mixing of samples in bottles up to 1L.

Ordering Information:

Item No.	Description:
IPS7000-3*	Benchmark MHS-5 Multi-Position Hotplate Stirrer, 3 position
IPS7000-5*	Benchmark MHS-5 Multi-Position Hotplate Stirrer, 5 position
IPS7000-10	Benchmark MHS-5 Multi-Position Hotplate Stirrer, 10 position
Accessories	
H4000-BAR	Stir bar, 1 inch, 1 each
H4000-BAR-10	Stir bar, 1 inch, pack of 10

*115V with US plug. For 230V (EU plug), please add (-E)

Technical Data:

Model:	MHS-3	MHS-5	MHS-10
Speed Increments:	1 rpm		
Speed Range:	150-2,000 rpm		
Maximum Stir Capacity:	1 liter per position		
Temperature Range:	35°C - 120°C		
Temperature Increments:	1°C		
Platform Dimensions:	100 mm x 100 mm per position		
Weight:	8.4 lbs / 4 kg	10.1 lbs / 4.5 kg	17 lbs / 8 kg
Exterior Dimensions:	17.6 x 5.3 x 3.3 in. / 45 x 13 x 8 cm	25.4 x 5.3 x 3.3 in. / 65 x 13 x 8 cm	25.4 x 9.6 x 3.3 in. / 65 x 24 x 8 cm
Power Consumption:	20W	30W	80W
Electrical:	120 or 230V, 50-60 Hz		
Warranty:	2 Years		

High Capacity Stirrers



- High capacity, up to 150L
- Chemically resistant white ceramic top surface
- Powerful motor drive, for large scale applications

Benchmark's HCS Series of magnetic stirrers are suitable for high volume, batch mixing of sample sizes up to 150 liters. Two models are available, each designed for large-scale stirring applications.

Ordering Information:

Item No.	Description:
IPS7101-50*	Benchmark HCS-50, High Capacity Magnetic Stirrer, 50L
IPS7101-150*	Benchmark HCS-50, High Capacity Magnetic Stirrer, 150L
Accessories	
IPS7101-BAR100	Stir bar, 1 each, 100mm
IPS7101-BAR150	Stir bar, 1 each, 150mm

*115V with US plug. For 230V (EU plug), please add (-E).

Technical Data:

Model:	HCS-50L	HCS-150L
Speed Increments:	1 rpm	
Speed Range:	50-1,500 rpm	50-1,200 rpm
Maximum Stir Capacity:	50 Liter	150 Liter
Stir Bar Max Length:	100 mm	150 mm
Platform Dimensions:	11.8 x 11.8 in.	19.7 x 19.7 in
External Dimensions:	16.7 x 11.8 x 3.5 in. 42 x 30 x 9 cm	24.4 x 19.7 x 6.5 in. 62 x 50 x 16.5 cm
Weight:	11 lbs / 5 kg	30.9 lbs / 14 kg
Power Consumption:	30W	80W
Timer Range:	1 second to 9 hrs. ; continuous	
Electrical:	120 or 230V, 50-60 Hz	
Warranty:	2 Years	

myTemp™ Mini **Digital Incubators (20L)**

myTEMP™ Mini
Digital Incubators



- Digital temperature control, with in-lab calibration
- Personal sized, 13 x 14.5 in. footprint
- Two models
  - Heat only
  - Heat & cool

With digital temperature control, the myTemp incubators provide convenient "set and walk away" operation, eliminating the need for external thermometers and repetitive "fine tuning" of an analog control knob. Simply choose the desired temperature and the incubators quickly begin to heat (or cool in the -HC model only). Throughout the incubation, the chamber temperature is constantly monitored and displayed in real time on the large LED control panel.

Despite a modest footprint of 14.5 x 13", the myTemp incubators feature large internal chambers, capable of accepting flasks and bottles up to 2 liters. The chamber temperature is accurately maintained with a unique airflow design that utilizes multiple internal fans, resulting in a high level of uniformity.

The incubators include two adjustable/removable shelves for increased capacity. A mini nutating rocker (supplied with both flat and dimpled mats) is also available for agitation of samples during incubation and can plug directly into the included internal power outlet.



myTemp Mini shown with H3D1020
(Rocker plugs directly into the internal power outlet)

Technical Data:

Temp. Range:	
H2200-H:	Ambient +5° to 60°C
H2200-HC:	Ambient -15° to 60°C
Temp. Accuracy:	± 0.5°C (at 37°C)
Temp. Increments:	1°C
Temp. Uniformity:	± 1.5°C (at 37°C)
Capacity:	20L or 0.8 cu. ft.
Dimensions: (W x D x H)	
Interior:	10.3 x 9.3 x 12.9 in. / 26 x 23.5 x 33 cm
Exterior:	13.2 x 14.5 x 18.7 in. / 33.5 x 37 x 48 cm
Weight:	15 lbs / 6.8 kg
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 70W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
H2200-H*	myTemp Mini Digital Incubator, includes 2 shelves, (heat only, ambient +5° to 60°C)
H2200-HC*	myTemp Mini Digital Incubator, includes 2 shelves, (heat & cool, ambient -15° to 60°C)
H3D-1020	Mini nutating rocker, 6 x 8" platform, 115V
H3D-1020-E	Mini nutating rocker, 6 x 8" platform, 230V
H2200-SH	Extra shelf, 10.5 x 8" plastic (not autoclavable)

*Includes US plug. For EU plug, please add (-E).

SureTemp™ Precision Incubators (40L, 70L and 130L)



SURETEMP™

Dual-Convection Incubators with *SureCheck*™ Data Logging

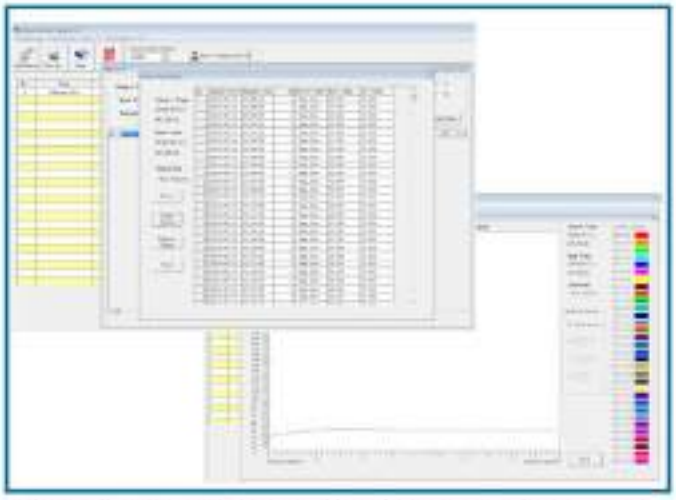
- Precision temperature control up to 75°C
- Dual-Convection- user adjustable to gravity or mechanical convection
- Stainless steel internal chamber
- Internal power outlet for shakers, mixers, etc.
- SureCheck™ data logging port and software

CE

The new SureTemp Incubator series provides the highest level of temperature control with uniformity and stability levels that are unmatched by competitive models in the same price class.

Each incubator is equipped with the SureCheck™ data logging system for verification of chamber temperature. The SureCheck system records temperature data points as often as every 60 seconds and stores this information on a flash drive. The data can then be viewed and saved using the included the SureCheck software. The recorded data can also be used to draw a temperature graph or exported to excel for further analysis or manipulation.

Unlike the vast majority of laboratory incubators, the SureTemp series offers "Dual-Convection" technology, allowing users to choose between mechanical convection mode (for exceptional uniformity) or gravity convection mode (for longer incubations where drying of plates may be an issue). Heating elements are strategically located on all sides of the chamber. Contents can be viewed with the separate inner glass door without disrupting the temperature environment.



Included SureCheck™ Software: View/save recorded temperatures

Technical Data:

Temp. Range:	**Ambient +5°C to 75°C**
Temp. Accuracy:	**±0.25°C***
Temp. Uniformity:	**±0.25 °C***
Temp. Stability:	**±0.1°C***
Temp. Increments:	**0.1°C**
Dimensions: (WxDxH)	**Exterior**
H2505-40 H2505-70 H2505-130	**22.4 x 23.3 x 22.8 in. / 57 x 59.2 x 58 cm** **26.4 x 23.3 x 26.8 in. / 67 x 59.2 x 68 cm** **30.3 x 27.2 x 30.7 in. / 77 x 69.2 x 78 cm**
	Interior
H2505-40 (40L) H2505-70 (70L) H2505-130 (130L)	**13.7 x 13.7 x 13.7 in. / 35 x 35 x 35 cm** **17.7 x 13.7 x 17.7 in. / 45 x 35 x 45 cm** **21.7 x 17.7 x 21.7 in. / 55 x 45 x 55 cm**
Weight:	**93 lbs / 42 kg** **137 lbs / 62 kg** **154 lbs / 70 kg**
Electrical:	**120V, 60Hz or 230V, 50Hz (420W, 520W, 670W)**
Warranty:	**2 years**

* Specification provided with a set temperature of 37°C



SureCheck data logging port



Internal power outlet

Ordering Information:

Item No.	Description:
H2505-40*	SureTemp Dual-Convection Incubator with SureCheck data logging software, 40L
H2505-70*	SureTemp Dual-Convection Incubator with SureCheck data logging software, 70L
H2505-130*	SureTemp Dual-convection Incubator with SureCheck data logging software, 130L
H2505-40SH	Extra shelf, stainless steel for H2505-40
H2505-70SH	Extra shelf, stainless steel for H2505-70
H2505-130SH	Extra shelf, stainless steel for H2505-130

* 120V with US plug. For 230V (EU plug), please add (-E).

myTEMP™ 65HC

Precision, Heating & Cooling Incubator



- Accurate temperature control from 0°C to 60°C
- Powerful compressor, maintains 0°C
- Stainless steel chamber
- Internal power outlet for shakers, mixers, etc.
- Sized for floor standing use or on bench-tops less than 32" high

Stainless steel chamber with internal outlet & light

The myTemp 65HC Incubator is designed to provide accurate and uniform temperature control from 0° to 60°C. The broad temperature range of the instrument expands the use of this incubator to both heating and cooling applications.

A large, digital display allows for visualization of the chamber temperature and the remaining incubation time, while an internal light is included for improved visualization of the chamber. In addition, a built in, internal outlet can be used to provide power to small instruments, such as shakers, rockers, etc.

Forced air technology and stainless steel inner construction ensure uniform heat transfer throughout the chamber. When set for sub-ambient temperatures, the powerful compressor is activated, quickly cooling the chamber to the desired temperature.

With an exterior height of 39 inches (100cm), the incubator is designed to be floor-standing, yet is also compact enough for bench use.
(Not recommended for use on benchtops higher than 32"/81cm).
The instrument is supplied with two, adjustable height shelves, while additional shelves can also be purchased separately (item: H2265-SH).

Technical Data:

Temp. Range:	0° to 60°C (Ambient -25°C to 60°C)
Temp. Accuracy:	0.5°C (at 37°C)
Temp. Uniformity:	±1.0°C (at 37°C)
Temp. Increments:	0.1°C
Dimensions:	
Exterior:	21.25 x 21 x 39.35 in.
(W x D x H)	54 x 53.34 x 99.85 cm
Interior:	15.75 x 12.75 x 19.75 in.
(W x D x H)	40 x 32.4 x 50.2 cm
Timer:	1 min. to 99 hrs.: 59 min.
Capacity:	65L or 2.3 cubic feet
Weight:	117 lbs / 53 kg
Electrical:	115V, 60Hz or 230V, 50Hz, 385W
Warranty:	2 years

Ordering Information:

Item No.	Description:
H2265-HC*	myTemp 65 Heating and Cooling Incubator, includes two stainless steel shelves
H2265-SH	Extra shelf, stainless steel

*115V with US plug. For 230V (EU plug), please add (-E).

myTemp™ Mini CO_2 Digital Incubator (20L)



myTEMP Mini CO_2

- Ideal for cell culture
- Digital temperature control
- Personal sized, 13 x 14.5 in. footprint
- Dual beam IR sensor for fast response time and accurate control over CO_2 percentage



CE

At only 13 inches wide, the myTemp Mini CO_2 is the smallest and most economical incubator for culturing cells in a CO_2 environment. Its small footprint makes the incubator ideal for use inside of biological safety cabinets, isolating sensitive cultures or conserving bench space in the laboratory. With a thick layer of high efficiency insulation surrounding the chamber, the incubator is also ideal for transportation of cells. Once power has been disconnected, the incubator maintains temperature levels within 10% of the set parameter for up to 1 hour. In addition each model includes a 12V vehicle power adapter for operating the instrument in a car, boat, etc.

Both temperature and CO_2 percentage are digitally adjustable and displayed in real time on the large LED control panel. This panel also features a "Cal" function, for easy in-lab calibration of the temperature or CO_2. In addition, humidity (up to 80%) can be added to the chamber by inserting the included, stainless steel humidity reservoir.

To protect fragile samples, the CO_2 level is constantly monitored using dual beam infrared sensing technology. In the event of a drop in CO_2, audible and visual alarms are triggered, notifying the user of the error.

Despite its small size, the incubator features a relatively large 20L chamber with the capacity for flasks and bottles up to 2 liters. Two removable, stainless-steel shelves are included. The shelves are perforated to improve airflow within the chamber.



Optional gas regulator



Easy access CO_2 input port

Technical Data:

Temp. Range:	Ambient -10° to 55 °C
Temp. Accuracy:	± 0.25°C (at 37°C)
Temp. Increments:	0.1°C
Temp. Uniformity:	± 0.25°C (at 37°C)
Capacity:	20L or 0.8 cu. ft.
CO_2 Range:	0 to 20%
CO_2 Sensor:	Dual beam IR
CO_2 Accuracy:	±0.1% at 5%
Humidity:	70 to 80%
Gas Input:	4mm
Dimensions: (W x D x H):	
Interior:	10.3 x 9.3 x 12.9 in. / 26 x 23.5 x 33 cm
Exterior:	13.2 x 14.5 x 18.7 in. / 33.5 x 37 x 48 cm
Weight:	15 lbs / 6.8 kg
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 75W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
H2300-HC2*	myTemp CO_2 Mini Digital Incubator, includes 2 stainless shelves
H2300-REG	Optional CO_2 gas regulator (regulates pressure from the gas cylinder to the incubator)
H2300-SH	Extra shelf, 10.5 x 8 in. stainless steel (autoclavable)

*Includes US plug. For EU plug, please add (-E).

SureTherm™ Series CO_2 Incubators



- Precision temperature control, six-sided heating
- Available with IncuView LCI - Live Cell Imaging with wifi enabled, shelf mounted microscope
- Excellent accuracy and recovery with dual beam IR sensor for measuring CO_2
- Available with split inner door and digital control over oxygen percentage



Technical Data:

Temp. Range:	Ambient +5°C to 60°C
Temp. Accuracy:	±0.1°C*
Temp. Uniformity:	±0.4°C*
Temp. Stability:	±0.1°C*
Temp. Increments:	0.1°C
CO_2 Range:	0 to 20%
CO_2 Increment:	0.1°C
CO_2 Accuracy:	±0.1°C
CO_2 Sensor:	Dual Beam IR CO Sensor
Heat Decontamination	125°C (H3565-180HD series models only)
O_2 Range:	0.5 to 20% (H3565-180HDO2 model only)
Interior Dimensions:	(WxDxH)
H3565-45 H3565-180 H3565-180HD H3565-180HDO2	13.2 x 14.2 x 15.4 in. / 33.5 x 36.1 x 39.2 cm 18.7 x 20.8 x 28 in. / 47.3 x 52.8 x 71 cm 18.7 x 20.8 x 28 in. / 47.3 x 52.8 x 71 cm 18.7 x 20.8 x 28 in. / 47.3 x 52.8 x 71 cm
Chamber Volume:	45L & 180L
Split Inner Door:	6 compartments (H3565-180HDO2 only)
Chamber Material:	Stainless Steel 304
Exterior Dimensions:	(WxDxH)
H3565-45 (45L) H3565-180 (180L) H3565-180HD (180L) H3565-180HDO2 (180L)	16.5 x 18.3 x 21.8 in. / 42 x 46.5 x 55.3 cm 22 x 26.2 x 37.2 in. / 56 x 66.5 x 94.5 cm 22 x 26.2 x 37.2 in. / 56 x 66.5 x 94.5 cm 22 x 26.2 x 37.2 in. / 56 x 66.5 x 94.5 cm
Weight:	45L: 77 lbs / 35 kg, 180L: 172 lbs / 78 kg
Electrical:	120V or 230V, 50-60Hz (350W to 760W)
Warranty:	2 years

* At a set tempertaure of 37.0°C

Ordering Information:

Item No.	Description:
H3565-45*	SureTherm CO_2 Incubator, 45L, with 2 shelves
H3565-180*	SureTherm CO_2 Incubator, 180L, with 3 shelves
H3565-180HD*	SureTherm CO_2 Incubator, 180L, with High Heat Decontamination, 3 shelves
H3565-180HDO2*	Suretherm CO_2 Incubator, 180L, with 3 shelves Includes High Heat decontamination, O2 control and split inner door with 6 compartments
H3565-45-LCI	IncuView LCI Integrated Shelf (14x11.5 in.) with integrated wifi microscope (for 45 Liter incubator)
H3565-180-LCI	IncuView LCI Integrated Shelf (20x17 in.) with integrated wifi microscope (for 180 Liter incubator)
H3550-45-SH	Additional shelf for 45L incubator, 1 each
H3550-180-SH	Additional shelf for 180L incubator, 1 each
H3550-45-SK	Stacking kit for 45L incubator
H3550-180-SK	Stacking kit for 180L incubator (height of top display approximately 13.5cm)
H2300-REG	CO_2 regulator (optional), for CO_2 control
H3565-O2REG	Nitrogen regulator (optional), for O_2 control

* 115V with US plug. For 230V (EU plug), please add (-E).

myBlock™ Series **Digital Dry Baths**



CE

myBlock™

- Hinged cover improves uniformity and conserves energy
- Optional external temperature probe for control of actual sample temperature
- Unique Quick-Flip™ universal micro-block



Benchmark's myBlock™ series are the first digital dry baths to include advanced microprocessor controls, timed operation and a removable, hinged lid. In addition, an optional external temperature feedback probe can be positioned directly inside a sample tube, providing real-time control and monitoring of ***actual*** sample temperature.

Both the single and dual block models can be ordered in a configuration that includes our unique Quick-Flip™ blocks. These universal blocks accept tubes from 0.5 to 2.0ml and with just a quick flip to the other side, accommodate 0.2ml tubes, PCR strips or (in the dual block model only) a PCR plate. In addition, a wide variety of blocks are available for tubes up to 50ml.

Video Demonstration

Ordering Information:

Item No.	Description:
BSH5001-1B*	**myBlock I single chamber with 1 x BSWCMB**
BSH5002-2B*	**myBlock II dual chamber with 2 x BSWCMB**
BSH5001*	**myBlock I single chamber, without blocks**
BSH5002*	**myBlock II dual chamber, without blocks**
BSH-TP1	Optional external temperature sensor
BSWCMB	Block, Quick-Flip, 24 x 1.5/2.0ml, 14 x 0.5ml, 6 x PCR strips / 48 x 0.2ml (& in dual model only) one PCR plate
BSW1500	Block, 24 x 1.5ml
BSW1520	Block, 24 x 1.5/2.0ml
BSW05	Block, 24 x 0.5ml
BSW5MT	Block, 12 x 5.0ml snap cap centrifuge tubes
BSW15	Block, 12 x 15ml**
BSW50	Block, 5 x 50ml**
BSW10	Block, 20 x 10mm (or 20 x 2.0ml)
BSW13	Block, 20 x 13mm (Blood Collection Tubes)**
BSWBCT	Block, 12 x 13mm & 8 x 16mm (Blood Collection Combi-Block)**
BSW1516	Block, 12 x 15-16mm (or 12 x 10ml)
BSW02	Block, 48 x 0.2ml tubes or 6 PCR tube strips
BSWPCR2	Block, 1 x 96-well PCR Plate (2 block model only)
BSWPCR1	Block, 1 x 96-well PCR Plate (1 block model)
BSWMT	Block, 1 x Micro Plate (2 block model only)
BSWHEM	Block, 48 x Hematocrit tubes (1.9mm)
BSW01	Block, solid - for slides or custom machining

*115V with US plug. For 230V (EU plug), please add (-E).
**Tube height may prevent the transparent lid from closing.

Technical Data:

Temp. Range:	**Ambient +5° to 105°C**
Temp. Accuracy:	**± 0.25°C**
Temp. Increments:	**0.1°C**
Temp. Uniformity:	**± 0.2°C**
Timer:	**1 min. to 99 hrs. : 59 min.**
Dimensions (W x D x H):	
Single:	**7 x 10 x 5 in. / 18 x 25.5 x 13 cm**
Dual:	**6.3 x 14.5 x 5 in. / 16 x 36.5 x 13 cm**
Electrical:	**115V or 230V, 50-60 Hz, 120W (single) / 240W (dual)**
Warranty:	**2 Years**

isoBlock™ Digital Dry Bath



iSOBLOCK™
Two independent block chambers

- Two isolated chambers
- Independent time & temperature control
- Hinged cover improves uniformity and conserves energy
- Unique Quick-Flip™ Universal Micro-Block

Video Demonstration

The unique IsoBlock™ contains two isolated block chambers. Each chamber is controlled independently, allowing the dry bath to serve as two dry baths in one. The hinged (and removable) lid is designed with a dividing wall. When the lid is closed this dividing wall acts as a barrier, preventing air transfer between chambers.

The control panel features large digital displays of both time and temperature. At any point, either setting of a block can be adjusted, without affecting the settings of the other block.

A wide variety of blocks are available for accommodating nearly all popular tubes sizes. In addition, the unique Quick-Flip™ universal blocks accept tubes from 0.5 to 2.0ml and, with just a quick flip to the other side, accomodate 0.2ml tubes or PCR strips.



IsoBlock shown with lid open

Technical Data:

Temp. Range:	Ambient +5° to 105°C
Temp. Accuracy:	+/- 0.25°C
Temp. Increments:	0.1°C
Temp. Uniformity:	+/- 0.2°C
Timer:	1min. to 99 hrs : 59 min.
Dimensions (W x D x H):	6.3 x 14.5 x 5 in. 16 x 37 x 12.7 cm
Electrical:	115V or 230V, 50-60 Hz, 240W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BSH6000*	IsoBlock Dry Bath with two independent chambers
BSWCM8	Block, Quick-Flip, 24 x 1.5/2.0ml, 14 x 0.5ml and 6 x PCR strips / 48 x 0.2ml
BSW150	Block, 24 x 1.5ml
BSW152	Block, 24 x 1.5/2.0ml
BSW05	Block, 24 x 0.5ml
BSW5MT	Block, 12 x 5.0ml centrifuge tubes
BSW15	Block, 12 x 15ml **
BSW50	Block, 5 x 50ml**
BSW10	Block, 20 x 10mm (or 20 x 2.0ml)
BSW13	Block, 20 x 13mm (Blood Collection Tubes)**
BSWBCT	Block, 12 x 13mm & 8 x 16mm (Blood Collection Combi-Block)**
BSW1516	Block, 12 x 15-16mm (or 12 x 10ml)
BSW02	Block, 48 x 0.2ml tubes or 6 PCR tube strips
BSWPCRI	Block, 1 x 96-well PCR Plate
BSWHEM	Block, 48 x Hematocrit tubes (1.5mm)
BSW01	Block, solid - for slides or custom machining

* 115V with US plug. For 230V (EU plug), please add (-E).
** Tube height may prevent lid from closing, temperature accuracy may be affected.

myBlock™ Heating / Cooling **Mini Dry Baths**



myBlock Mini

- **Compact, fits on any crowded benchtop**
- **Available in heat only, or heat & cool versions**
- **Exchangeable blocks for 0.2 to 50ml tubes**
- **Clear cover improves temperature uniformity**
- **Link 2 consecutive temperature steps** (cooling model only)





With its compact construction, broad temperature range, and multiple block options, the myBlock Mini is the perfect tool for laboratory incubations. The simple touch pad controls and a digital display provide for "set and walk away" temperature selection and unrivaled accuracy.

While perfect for bench use, the optional 12V adapter expands the utility of the myBlock Mini to field use. At less than 4.3 inches wide, myBlock Mini is truly the first personal heat block.

Technical Data:

Model:	BSH200	BSH300
Temp. Range:	Amb. +5° to 100°C	Amb. -25° to 100°C
Min. Programmable Temperature:	20°C	0°C
Temp. Accuracy:	± 0.5°C	±0.5°C
Temp. Increments:	0.1°C	0.1°C
Temp. Uniformity:	+/- 0.2°C	+/- 0.2°C
Dimensions: (W x D x H)	4 x 6 x 4.5 in. 10.2 x 15 x 11.5 cm	4.3 x 6.4 x 5.5 in. 11 x 16.2 x 14 cm
Weight:	2 lbs / 1 kg	2 lbs / 1 kg
Electrical:	100-240V 50-60 Hz, 50W	100-240V 50-60 Hz, 50W
Warranty:	2 Years	2 Years

Ordering Information:

Item No.	Description:
BSH200*	myBlock Mini Digital Dry Bath
BSH300*	myBlock Mini Digital Dry Bath with cooling
BSH100-02	Block, 40 x 0.2ml or 5 PCR strips
BSH100-05	Block, 24 x 0.5ml
BSH100-15	Block, 15 x 1.5ml
BSH100-1520	Block, 15 x 1.5 or 2.0ml
BSH100-5MT	Block, 6 x 5ml conical (17mm diameter)**
BSH100-150	Block, 4 x 15ml**
BSH100-500	Block, 2 x 50ml**
BSH100-1232	Block, 15 x 2ml autosampler vials (12 x 32mm)
BSH100-1213	Block, 15 x 12-13mm diameter tubes & vacutainers**
BSH100-CV	Block, 8 x cuvettes
BSH100-CU	Block, solid (for custom machining)
BSH100-A12	12V vehicle power adapter

*Includes US plug. For EU plug, please add (-E)
**Block height may prevent lid from closing.



myBlock HL
With Heated Lid

Prevents evaporation and condensation

The myBlock™ HL is the first and only mini heat block featuring a heated lid for protecting samples against unwanted condensation and evaporation. Both the block and lid temperature can be selected independently, making this myBlock the ideal choice for the most temperature sensitive applications, including LAMP assays, immunoassays, enzyme reactions - anywhere reactant concentration is critical.

For technical data, please see above (myBlock Mini).

Temp Accuracy: ± 0.3°C

Ordering Information:

Item No.	Description:
BSH200-HL*	myBlock HL Mini Digital Dry Bath with heated lid
BSH100-02	Block, 40 x 0.2ml or 5 PCR strips
BSH100-05	Block, 24 x 0.5ml
BSH100-15HL	Block, 15 x 1.5ml

*Includes US plug. For EU plug, please add (-E).

myBath™ Digital Water Baths



myBATH SERIES
The complete family of water baths

- Digital accuracy and convenience
- Seamless, stainless steel chamber
- Quik-CAL™ user calibration function
- Hinged lid is also removable

The myBath series water baths are designed to guarantee superior accuracy and performance in a compact footprint. Easy to use controls allow the user to digitally select and monitor settings. Adjustable in 0.1 degree increments, the temperature is shown on a large, 3-digit display. The proprietary Quik-CAL™ feature allows for simple, in-lab calibration. High efficiency insulation maintains temperature stability and uniformity within the bath, while keeping the housing cool to the touch.

All myBath models feature seamless, stainless steel chambers for easy cleaning and long life. The chambers resist rust and have no corners to collect dirt or contamination. The larger 8L and 12L units have drains for hassle-free water changes.

The 4L, 8L, and 12L models include a see-through cover that can be removed, or flipped back on a rear hinge to conserve bench space. The lid's gabled design** will divert condensation to the front and back of the bath, away from samples. Racks are available to accommodate 1.5/2.0ml, 15ml and 50 ml tubes within the 4L, 8L and 12L baths. The myBath 4L is supplied with all three racks.

**The 2L model includes a flat, removable lid and adjustable temperature in increments of 1°C.

Ordering Information:

Item No.	Description
B2000-2*	myBath 2L Digital Water Bath
B2000-4*	myBath 4L Digital Water Bath, includes tube racks for 1.5/2.0, 15 and 50ml tubes
B2000-8*	myBath 8L Digital Water Bath
B2000-12*	myBath 12 L Digital Water Bath

*115V with US plug. For 230V (EU plug), please add (-E).

Tube racks *included* with myBath 4L!



Accessory Tube Racks:

Item Number	Description	Rack Capacity	
		4 Liter	8/12 Liter
B2000-4-T5	Tube rack for 40 x 0.5ml tubes	1	2
B2000-4-T1520	Tube rack for 48 x 1.5/2.0ml tubes	1 (Included)	2
B2000-4-T150	Tube rack for 41 x 15ml tubes	1 (Included)	0
B2000-4-T500	Tube rack for 15 x 50ml tubes	1 (Included)	0
B2000-8-T150	Tube rack for 76 x 15ml tubes	0	1
B2000-8-T500	Tube rack for 30 x 50ml tubes	0	1

Technical Data:

	2 Liter	4 Liter	8 Liter	12 Liter
Temperature Range:	Ambient +5° to 100°C			
Temp. Accuracy:	±0.2°C at 37°C		±0.5°C at 37°C	
Temp. Uniformity:	± 0.2°C at 37°C			
Exterior (W x D x H):	6.5 x 8 x 6 in.	7.7 x 13.9 x 9 in.	11.2 x 17.5 x 12.4 in.	11.2 x 17.5 x 16.2 in.
Interior (W x D x H):	5.5 x 6 x 4 in.	5.3 x 9.4 x 5.5 in.	9.5 x 12.8 x 5.9 in.	9.5 x 12.8 x 7.9 in.
Weight:	4.5 lbs / 2.4 kg	15 lbs / 6.8 kg	17 lbs / 7.7 kg	17 lbs / 7.7 kg
Electrical:	115 or 230V, 50-60Hz, 250W-700W			
Warranty:	2 Years			

BeadBath Duo™ Digital Bead Baths



BeadBath Duo™

The ONLY baths designed for Beads or Liquids

- Two separate modes for BEADS or WATER
- Quik-Cal™, simple in-lab calibration function
- Offers all of the advantages of a "Bead Bath"
  - Eliminates constant refills (burn-out protection)
  - Easy, accessory free securing of tubes and bottles
  - Allows angled incubations
  - Designed to be left on constantly (no wait for heat-up)

The BeadBath Duo series is the first line of laboratory baths designed for precision temperature control when used with water, or with the increasingly popular Lab Armor® thermal beads.

Unlike any other laboratory bath, they feature a "MODE" button that can be used to toggle between "Bead" or "Water" mode. Choosing the correct mode will regulate the internal heating system, automatically adjusting the operation and balance of the multiple internal heating elements to ensure optimal performance. The result is one combination bath that is suitable for accurate and uniform temperature control in either condition.

While the majority of research laboratories today are using water baths, many prefer the convenience of bead baths. The BeadBath Duo provides the best of both worlds, allowing conversion from one bath type to the other, with the simple press of a button.

Lab Armor is a registered trademark of Lab Armor, LLC.

Technical Data:

Temp. Range:	Water Mode: Ambient +5 to 80°C Bead Mode: Ambient +5 to 70°C
Capacity:	2L / 10L
Temp. Accuracy:	± 0.2°C
Temp. Increments:	1°C
Temp. Uniformity:	Water Mode: ±0.2°C Bead Mode: ±0.9°C
2L Model	(W x D x H)
Exterior Dims.:	6.5 x 8 x 6 in. / 16.5 x 20.3 x 15.2 cm
Chamber Dims.:	5.5 x 6 x 4 in. / 13.9 x 15.2 x 10.1 cm
Weight:	5 lbs. / 2.2 kg
Electrical:	115 or 230V, 50-60Hz, 150W
10L Model	(W x D x H)
Exterior Dims.:	10.8 x 16 x 12 in. / 27.4 x 40.6 x 30.5 cm
Chamber Dims.:	9.5 x 11.8 x 6.1 in. / 24.1 x 30 x 15.5 cm
Weight:	15 lbs. / 6.8 kg
Electrical:	115 or 230V, 50-60Hz, 550W
Warranty:	2 Years



Choose Bead or Water Mode

Ordering Information:

Item No.	Description:
82402*	BeadBath Duo™ 2L with lift-off lid
82410*	BeadBath Duo™ 10L with hinged lid

*115V with US plug. For 230V (EU plug), please add (-E).

SB-12L Shaking Water Bath



- Orbital shaking motion
- Included spring platform accepts tubes, bottles and flasks
- Compact design, conserves bench space
- Digital control and display of time, temperature, and speed

This compact shaking water bath utilizes the well proven, beltless motor drive system from the Benchmark Orbi-Shaker™ Series, with the addition of precision temperature control up to 80°C.

The seamless, stainless steel chamber has a 12 liter capacity. The unit is supplied complete with a universal spring platform for securing 15 & 50ml test tubes, as well as Erlenmeyer flasks and media bottles up to 1 liter. A hinged and removable lid is also included to reduce energy waste, prevent splashing and divert condensation away from samples.

Easy to use controls allow the user to digitally select and moniter time temperature and shaking speed, while a constant feedback system ensures accuracy over each parameter.

Optional test tube racks are available for microtubes and custom-desiged racks can also be made available by request.

Capacity Chart:

	Bottles/Tubes	Flasks
0.5ml	40	N/A
1.5/2.0ml	40	N/A
15ml	63	N/A
50ml	15/30	12
125ml	8	8
250ml	4	3
500ml*	2	2
1000ml*	2	1

*Height of vessel may limit ability to close included lid.

Technical Data:

Temperature Range:	Ambient +5° to 80°C
Temperature Increments:	0.1°C
Temperature Uniformity:	± 0.2°C (at 37°C)
Temperature Accuracy:	±0.3°C (at 37°C)
Shaking Speed Range:	30 to 200 rpm
Speed Increments:	1rpm
Shaking Orbit:	25mm (1")
Platform Dimensions:	6.5 x 8 in. / 16.5 x 20.5cm
Exterior Dimensions (W x D x H):	12.2 x 13.25 x 12 in. / 32 x 34 x 30 cm
Capacity:	12 Liter
Timer:	1 min. to 48 hrs. / continuous
Weight:	31 lbs / 14 kg
Electrical:	115 or 230V, 50-60Hz, 300W
Warranty:	2 Years



SB-12L with 15mL conical tubes



SB-12L with 50mL conical tubes

Ordering Information:

Item No.	Description:
SB0012*	SB-12L Shaking Water Bath with universal spring platform for tubes, bottles and flasks
SB0012-T1520	Optional rack for 1.5/2.0ml microtubes
SB0012-T5	Optional rack for 0.5ml microtubes

*115V with US plug. For 230V (EU plug), please add (-E).

Incu-Shaker™ Mini **Shaking Incubator**



INCU-SHAKER™ Mini

- Domed lid accepts flasks up to 1L
- Touch screen control panel
- Extremely compact: just 11" wide
- Exchange flask clamps in one second with MAGic Clamp™ magnetic system

The Incu-Shaker™ Mini is the most compact shaking incubator in its class. While this shaking incubator has a remarkably small footprint, the interior is spacious enough to accept a 9.5 x 11" platform as well as clamps for a variety of flasks, tubes and other common vessels. The standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flasks, Petri dishes and staining trays.

The convenient MAGic Clamp™ platform is also available for use with Erlenmeyer flasks and test tube racks. This unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.



The *INSTANT* flask attachment system



H1000-MR-1550



H1000-P-SP

Video Demonstration

MAGic CLAMP

Technical Data:

Temperature Range:	Ambient +5° to 70°C
Temperature Increments:	0.1°C
Temperature Uniformity:	± 0.5 °C
Temperature Accuracy:	±0.1 °C
Shaking Speed Range:	30 to 300 rpm
Speed Increments:	1 rpm
Shaking Orbit:	19mm (3/4")
Platform Dimensions:	9.5 x 11.5 in. / 23.5 x 29 cm
Exterior Dimensions (W x D x H):	11 x 16.2 x 13 in. / 28 x 41 x 33 cm
Height with Lid Open:	25 in. / 63 cm
Timer:	1 min. to 48 hrs. / continuous
Weight:	25 lbs / 11.5 kg
Electrical:	115 or 230V, 50-60Hz, 250W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
H1001-M*	Incu-Shaker Mini with non-slip rubber mat
H1000-MR	MAGic Clamp universal platform (for flasks/tubes)
H1000-P-MP	4 x microplate platform (standard or deepwell)
H1000-P-SP	Spring rack platform, for uncommon vessels
Accessories for H1000-MR MAGic Clamp Platform	
H1000-MR-CMB	NEW! Adjustable flask clamp for MAGic clamp platform, accepts 125ml (max. 12), 250ml (max. 8) or 500ml (max. 5)
H1000-MR-1000	Flask clamp for MAGic clamp platform, 1000ml (max. 2)
H1000-MR-500	Flask clamp for MAGic clamp platform, 500ml (max. 5)
H1000-MR-250	Flask clamp for MAGic Clamp platform, 250ml (max. 8)
H1000-MR-125	Flask clamp for MAGic Clamp platform, 125ml (max. 12)
H1000-MR-50	Flask clamp for MAGic Clamp platform, 50ml (max. 20)
H1000-MR-MP	MAGic clamp for 1 x microplate (max. 4)
H1000-MR-1550	Tube Rack, 30x15 & 20x50ml (max. 1)
H1000-MR-T15	Tube Rack, 32 x 15ml (max. 2)
H1000-MR-T50	Tube Rack, 15 x 50ml (max. 2)
H1000-MR-TSR	Angled tube rack holder, adjustable tilt (max. 1)

*115V with US plug. For 230V (EU plug), please add (-E).



INCU-SHAKER™ 10L

- Two models, heat only & heat/cool
- Exceptional temperature uniformity
- High capacity, up to 5 x 2L
- Exchange flask clamps in one second with MAGic Clamp™ magnetic system
- Optional shelf for Petri dishes, microplates, etc.

MAGic CLAMP™

Video Demonstration



The *INSTANT* flask attachment system

Incu-Shaker™ 10L is a heavy-duty performer, designed for high capacity loads and continuous use. Its outstanding temperature accuracy and uniformity are supported by proprietary heat distribution technology that ensures precisely maintained temperatures throughout the chamber. Inconsistencies due to stratification are reduced to negligible levels and the selected temperature is precisely maintained within 0.25%, even in the corners. In the Incu-Shaker 10LR model, a powerful compressor provides cooling as low as 15 degrees below ambient.

The powerful brushless induction drive is designed for years of trouble-free service, even under continuous use conditions with heavy loads. Noise and vibration are minimized by an advanced motor isolation system. Like other Incu-Shaker models, the 10L is built to last. A standard, rubber mat platform is included and is ideal for use with tissue culture flasks, Petri dishes, staining trays and other flat vessels. The convenient MAGic Clamp™ platform is also available for use with Erlenmeyer flasks and test tube racks. The unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

Technical Data:

Temperature Range:	
H2010:	Ambient +5° to 60°C
H2012:	Ambient -15° to 60°C
Temperature Increments:	0.1°C
Temperature Uniformity:	± 1.25%
Temperature Accuracy:	±0.1°C
Shaking Speed Range:	30 to 300 rpm
Speed Increments:	1 rpm
Shaking Orbit:	19mm (3/4")
Platform Dimensions:	17.8 x 17.8 in. / 45 x 45 cm
Chamber Height/Clearance:	12 in. / 30.5m
Exterior Dimensions:	
H2010 (W x D x H):	20 x 26 x 19 in. / 51 x 65 x 47 cm
H2012 (W x D x H):	20 x 31 x 22 in. / 51 x 79 x 56 cm
Height (lid open):	38 in. / 96.5cm
Timer:	1 min. to 48 hrs. or continuous
Weight (H2010):	120 lbs / 55 kg
Weight (H1012):	170 lbs / 78 kg
Electrical (H2010):	120 or 230V, 50-60Hz, 480W
Electrical (H1012):	120 or 230V, 50-60Hz, 1200W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
H2010*	Incu-Shaker 10L with non-slip rubber mat
H2012*	Incu-Shaker 10LR (refrigerated) w/ non-slip rubber mat
H1010-MR	MAGic Clamp Universal platform (for flasks/tubes)
H1010-P-SP	Spring rack platform, for uncommon vessels
H1010-SH	Shelf, 14 x 5.5" for Petri dishes, microplates, etc.
Accessories for H1010-MR MAGic Clamp Platform	
H1000-MR-CMB	*NEW!* Adjustable flask clamp for MAGic clamp platform, accepts 125ml (max. 36), 250ml (max. 25) or 500ml (max. 16)
H1000-MR-3000	Flask clamp for MAGic clamp platform, 3L (max. 4)
H1000-MR-2000	Flask clamp for MAGic clamp platform, 2L (max. 5)
H1000-MR-1000	Flask clamp for MAGic clamp platform, 1L (max. 9)
H1000-MR-500	Flask clamp for MAGic clamp platform, 500ml (max. 16)
H1000-MR-250	Flask clamp for MAGic Clamp platform, 250ml (max. 25)
H1000-MR-125	Flask clamp for MAGic Clamp platform, 125ml (max. 36)
H1000-MR-50	Flask clamp for MAGic clamp platform, 50ml (max. 49)
H1000-MR-MP	Clamp, 1 x microplate, for MAGic Clamp platform (max. 8)
H1000-MR-1550	Tube Rack, 30x15 & 20x50ml (max. 4)
H1000-MR-T15	Tube Rack, 32 x 15ml (max. 8)
H1000-MR-T50	Tube Rack, 15 x 50ml (max. 8)
H1000-MR-T600	Tube/Bottle Rack, 4 x 500/600ml conical bottle (max. 4)
H1000-MR-TSR	Angled tube rack holder, adjustable tilt (max. 4)

*115V with US plug. For 230V (EU plug), please add (-E).

INCU-SHAKER™ 20LR
STACKABLE SHAKING INCUBATOR



- Stackable design for high throughput culturing
- Touch screen control panel
- Adjustable shelf
- Stainless steel chamber delivers precise temperature uniformity

The Benchmark Incu-Shaker™ 20L and 20LR Stackable Shaking Incubators offer the highest capacity in the Incu-Shaker line. With a large shaking platform and a +22 inch chamber height, the 20L series is capable of high-throughput culture growth in flask sizes up to 5/6 liters. These shakers can be stacked (up to two units high), increasing the capacity while maximizing floor-space in the laboratory.

The internal chambers are constructed of high grade stainless-steel (304) and when combined with our proprietary heat distribution technology, the temperature is precisely maintained throughout the chamber. The powerful brushless induction motor drive is designed for years of trouble-free service, even under continuous use conditions with heavy loads. Noise and vibration are minimized by an advanced, computer designed motor isolation system that results in minimal vibration at all speed levels.

A convenient access port is included on the left side of both units, allowing for external temperature monitoring, or for power cables to run into the chamber without compromising the integrity of the environment. Additionally, each shaker includes an adjustable shelf that allows for static incubations to be performed simultaneously above the shaking platform.

Ordering Information:

Item No.	Description:
H3020*	**Incu-Shaker 20L with 18 x 18" non-slip rubber mat**
H3022*	**Incu-Shaker 20LR (refrigerated)with 18 x 18" non-slip rubber mat**
	MAGic Clamp Accessories
H1010-MB	MAGic Clamp Universal Platform, 18 x 18 inch
H1000-MB-DVR	MAGic Clamp Adjustable Flask Clamp, for 125, 250 & 500ml Erlenmeyer flasks
H1000-MB-50	Magic Clamp Flask Clamp, for 50ml Erlenmeyer flask (max. 49)
H1000-MB-125	Magic Clamp Flask Clamp, for 125ml Erlenmeyer flask (max. 36)
H1000-MB-250	Magic Clamp Flask Clamp, for 250ml Erlenmeyer flask (max. 25)
H1000-MB-500	Magic Clamp Flask Clamp, for 500ml Erlenmeyer flask (max. 16)
H1000-MB-1000	Magic Clamp Flask Clamp, for 1L Erlenmeyer flask (max. 9)
H1000-MB-2000	Magic Clamp Flask Clamp, for 2L Erlenmeyer flask (max. 5)
H1000-MB-3000	Magic Clamp Flask Clamp, for 3L Erlenmeyer flask or 2.8L Fernbach (max. 4)
H1000-MB-5000	Magic Clamp Flask Clamp, for 5L Erlenmeyer/Fernbach flask (max. 4)
H1000-MB-MP	Magic Clamp Microplate Clamp, for 1 microplate or deep-well plate (max. 8)
H1000-MB-T15	Magic Clamp Tube Rack, 32 x 15ml (max. 8)
H1000-MB-T50	Magic Clamp Tube Rack, 15 x 50ml (max. 8)
H1000-MB-T550	Magic Clamp Tube Rack combination rack, 30x50ml & 30x15ml (max. 4)
H1000-MB-T660	Magic Clamp Tube Rack, 4 x 500/600ml bottles (max. 4)
H1000-MB-TSE	Magic Clamp Slanted Tube Rack Holder, adjustable angle (max. 4)

*115V with US plug. For 230V (EU plug), please add (-E)

A standard, rubber mat platform is included and is ideal for use with tissue culture flasks, Petri dishes, staining trays and other flat vessels. The convenient MAGic Clamp™ platform is also available for use with Erlenmeyer flasks and test tube racks. The unique, magnetic attachment method (PATENTED) is the easiest way to instantly change between flask clamps of different sizes.

Maximum Capacity:

125ml Flasks	250ml Flasks	500ml Flasks	1000ml Flasks	2000ml Flasks	2.8L Fernbach	3000ml Flasks	5000ml Flasks
36	25	16	9	5	5	4	4

Technical Data:

Temperature Range:	Ambient +5° to 60°C (H3020) 4°C to 60°C (H3022)
Temperature Accuracy / Uniformity / Increments:	±0.1°C / ±0.5°C / 0.1°C (at 37°C)
Speed Range:	30 to 300 rpm (Increments: 1rpm)
Mixing Orbit:	19mm (3/4 in.)
Time Range:	1 min. to 48 hrs. or continuous
Platform Dimensions:	18 x 18 in. / 45 x 45cm
Chamber Material:	Stainless Steel, 304
Chamber Dimensions:	20 x 19.9 x 22.7 in. / 51 x 50.5 x 57.7cm)
Exterior Dimensions:	23.6 x 34.3 x 28.7 in. / 60 x 87 x 73 cm
Weight:	268 lbs / 122 kg 304 lbs / 138 kg
Electrical:	120V or 230V, 50-60Hz

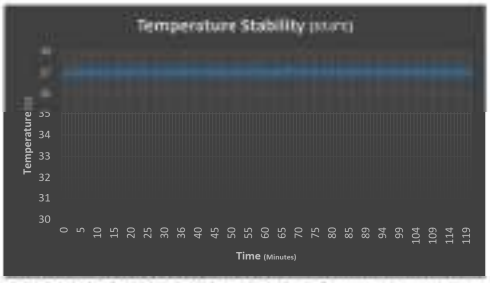
Incu-Shaker™ Mini CO_2 Shaking Incubator



Heat · Shake · CO_2

The ONLY CO_2 Incubator with a MAGic Clamp™ Shaker

- Integral orbital shaker, ideal for suspension cell culture
- Six side direct heating, provides uniform temperature
- Stainless steel chamber (SS316), with round corners for easy cleaning
- Dual beam IR sensor, fast response time for precise control over CO_2%



Temperature Stability Chart: Chamber temperature for a 2 hour duration following stabilization (within 0.1 °C) at 37.0°C.



MAGic Clamp™ Platform

Optional MAGic Clamp accessories (Patented) are available for attaching erlenmeyer flasks, microplates, test tube racks and other vessels to the shaking platform. This patented design allows for instant, magnetic attachment of clamps without the use of tools, screws and other hardware.

Sealed Inner Glass Door

The inner glass door is transparent, allowing visualization of samples without fully exposing the chamber to the ambient environment, improving performance and reducing energy waste.





Heated Door

The six sided, direct heating design provides the highest level of temperature uniformity (±0.5). In addition, the heated door prevents the forming of condensation on the inner glass door, for improved sample visualization.

Adjustable, pull out shelf

An included stainless steel shelf allows shaking of suspended cells while simultaneously incubating adherent cells. This static shelf can be pulled outward for easy loading/unloading and can be adjusted (or removed) for shaking taller vessels.



Technical Data:

Temperature Range:	Ambient +5° to 60°C (Increments: 0.1°C)
Temperature Accuracy / Uniformity / Stability	±0.5°C / ±0.5°C / 0.1°C (at 37°C)
Speed Range:	30 to 300 rpm (Increments: 1rpm)
Mixing Orbit:	19mm (3/4 in.)
CO2 Range:	0 to 20% (Increment: 0.1%)
CO2 Accuracy:	±0.1%
Time Range:	1 min. to 48 hrs. (or continuous)
Platform Dimensions:	9.5 x 11.5 in. (23.5 x 29cm)
Chamber Dimensions:	13.2 x 10.25 x 15.4 in. / 33.5 x 26 x 39.2cm (46L)
Exterior Dimensions:	16.5 x 18.3 x 21.8 in. / 42 x 46.5 x 55.3c m
Weight:	90 lbs / 40 kg
Electrical:	120V or 230V, 50-60Hz, 350W
Warranty:	2 Years

Maximum Capacity:

50ml Flasks	125ml Flasks	250ml Flasks	500ml Flasks	1000ml Flasks	Micro-plates	15ml Tubes	50ml Tubes
20	12	8	5	4	4	64	30

Ordering Information:

Item No.	Description:
H3501*	**Incu-Shaker CO_2 Mini, with non-slip rubber mat platform**
H2300-REG	Optional CO_2 Gas Regulator
	MAGic Clamp Accessories
H1000-MR	MAGic Clamp Universal Platform, 9.5 x 11.5 inch
H1000-MR-CMB	MAGic Clamp ***Adjustable*** Flask Clamp, for ***125, 250 & 500ml*** Erlenmeyer flasks (max. 12 x 125ml, 8 x 250ml or 5 x 500ml)
H1000-MR-50	MAGic Clamp Flask Clamp, for 50ml Erlenmeyer flask (max. 20)
H1000-MR-125	MAGic Clamp Flask Clamp, for 125ml Erlenmeyer flask (max. 12)
H1000-MR-250	MAGic Clamp Flask Clamp, for 250ml Erlenmeyer flask (max. 8)
H1000-MR-500	MAGic Clamp Flask Clamp, for 500ml Erlenmeyer flask (max. 5)
H1000-MR-1000	MAGic Clamp Flask Clamp, for 1L Erlenmeyer flask (max. 4)
H1000-MR-MP	MAGic Clamp Flask Clamp, for microplates (max. 4)
H1000-MR-T15	MAGic Clamp Tube Rack, 32 x 15ml (max. 2)
H1000-MR-T50	MAGic Clamp Tube Rack, 15 x 50ml (max. 2)
H1000-MR-15S50	MAGic Clamp Tube Rack, 30x15 & 20x50ml (max. 1)
H1000-MR-T600	MAGic Clamp Tube Rack, 4 x 500/600ml bottles
H1000-MR-TSR	Slanted Rack Holder, holds tube racks at an adjustable angle

*115V with US plug. For 230V (EU plug), please add (-E)

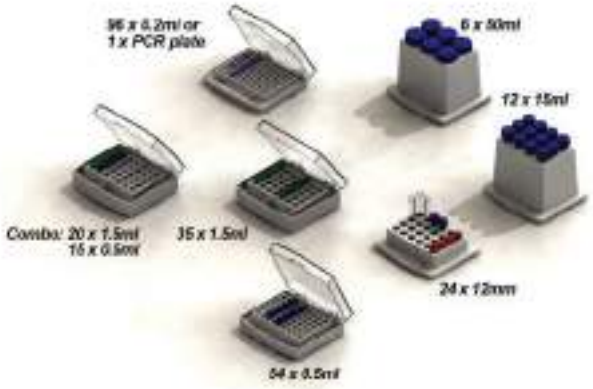
MultiTherm™ Heating/Cooling Vortexer

3mm

MULTI-THERM™
COOL – HEAT – SHAKE



- Temperature control from 0° to 100°C
- Exchangeable blocks, for tube sizes 0.2ml to 50ml
- Precision contoured wells for uniform thermal transfer
- Two models: Heat/Cool or Heat only
- Sequence link function for linking or repeating programs (HC model only)



The MultiTherm™ is a temperature controlled vortexer, useful for a variety of molecular biology applications, including:

- Denaturation of DNA, RNA & proteins
- Lipid extractions
- Yeast and bacteria cultivation
- Restriction digests
- Reverse transcription
- DNA/plasmid isolation
- Gentle thawing of biological materials

Despite its modest footprint, the MultiTherm accommodates all common laboratory tubes and plates, including as many as 6x50ml tubes. Speed, temperature and time are set digitally. Current as well as set values are continuously shown on the LCD. A heat only model, as well as a heat and cool model are available. The HC model includes a sequence link function for linking together temperature and shaking profiles. An integral over-temperature control ensures long life, safety and sample integrity. Blocks are sold separately.

Technical Data:

Temp. Range (HC):	Ambient -20° to 100°C
Temp. Range (H):	Ambient +5° to 100°C
Heating Ramp Rate:	5.0°C / min.
Cooling Ramp Rate:	2.5°C / min. (HC only)
Temp. Accuracy:	± 0.5°C
Speed Range:	200 to 1,500 rpm, or "off"
Timer:	1 min. to 99 hrs. 99 min. / continuous
Motion / Orbit:	Orbital / 3mm
Capacity:	Per selected block
Dimensions: (W x D x H)	8.25 x 11.5 x 8.25 in. 21 x 29 x 21 cm
Weight:	18 lbs / 8 kg
Electrical:	115V or 230V, 50-60Hz, 500W
Warranty:	2 Years

Ordering Information:

Item No.	Description
H5000-HC*	MultiTherm Shaker with heating and cooling
H5000-H*	MultiTherm Shaker with heating only
H5000-02	Block, 96 x 0.2ml or 1 PCR plate
H5000-05	Block, 54 x 0.5ml
H5000-CMB	Block, combination, 15x0.5ml & 20x1.5ml
H5000-15	Block, 35 x 1.5ml
H5000-20	Block, 35 x 2.0ml
H5000-12	Block 24 x 12mm (200-1,200 rpm)
H5000-150	Block, 15 x 15ml (200-750 rpm)
H5000-500	Block, 6 x 50ml (200-750 rpm)
H5000-MP	Block, 1 x microplate (200-1,200 rpm)
H5000-1232	Block, 24 x 2ml HPLC / Autosampler vials (12x32mm)
H5000-5MT	Block, 12 x 5ml centrifuge tubes (200-800 rpm) (conical)
H5000-DWMP	Block, 1 x deep well microplate (max. height, 54mm)
H5000-CU	Block, custom drilled, for tubes/vials up to 40mm tall
H5000-WB	Block for liquids, beads, etc. (chamber: 4 x 2.6 x 1")

*115V with US plug. For 230V (EU plug), please add (-E).

MultiTherm Touch™ Heating/Cooling Vortexer

MULTI-THERM™ Touch
COOL – HEAT – SHAKE



- Large touch screen for simple and easy programming and viewing of status
- Advanced programming features
- Tool-less block exchange
- Optional heated lid

Like the popular MultiTherm, the MultiTherm Touch features a broad temperature range to meet applications from denaturation of DNA to keeping samples cold (4°C) at the end of a protocol. An expanded speed range (to 3,000rpm), full color touch screen, greater flexibility in programming and heated lid option set this new unit apart.


H5100-HL

All operating parameters are easily entered and viewed on the large, full color, touch screen. Fifty programs can be stored, each including up to 5 steps. Programming features such as adjustable ramp rates, interval and directional mixing and preheat options can be set. A "short" button allows for immediate mixing at maximum speed.

Fifteen block choices accommodate samples from 0.2ml to 50ml as well as a variety of plates. Blocks are quickly and easily interchanged without the use of tools and are automatically recognized by the software. Insulation protects the users from hot surfaces and helps to maintain block temperature.

Condensation can have negative effects on delicate samples and reactions by changing the concentration of reactants. The heated lid option, available for use with tubes up to 5ml and microplates, protects samples by warming the air in the tube and preventing condensation. Easy to use and reliable in operation, the MultiTherm Touch is covered by a 2 year warranty. Blocks and heated lid are sold separately.



15 block options for tubes from 0.2ml to 50mL PCR plates, microplates and deep well plates

Technical Data:

Display/Control:	4.3 in. color touch screen with graphical interface
Speed Range:	200-3,000 rpm (block dependent)
Shaker Orbit:	3 mm
Temperature Range:	Ambient -20° to 105°C
Temperature Uniformity:	±0.5°C
Timer:	1 sec. to 99 hrs. 59 min. 56 sec. or continuous
Program Memory:	50 programs
Programming Features:	Adjustable ramp rate, mix mode, mix start, power failure restart, & heated lid temp.
Additional Features:	Quick button, pause, import/export data & programs, automatic block recognition
Dimensions: (W x D x H)	6.3 x 12.6 x 8.7 in. / 16 x 32 x 22 cm
Weight:	22 lbs / 10 kg
Electrical:	Universal voltage 100-240V, 50-60Hz
Warranty:	2 Years

Ordering Information:

Item No.	Description:
H5100-HCT*	MultiTherm Touch with heating and cooling
H5100-HL	Optional heated lid, adjustable height
H5100-05†§	Block, 24 x 0.5ml (2,000 rpm)
H5100-15†§	Block, 35 x 1.5ml (2,000 rpm)
H5100-20†§	Block, 35 x 2ml (2,000 rpm)
H5100-CMB†§	Block, 15 x 0.5 and 20 x 1.5ml (2,000 rpm)
H5100-5MT†	Block, 8 x 5ml (1,000 rpm)
H5100-12	Block, 24 x 12mm dia (2,000 rpm)
H5100-2CR	Block, 24 x 1.5/2ml cryovials (2,000 rpm)
H5100-15D	Block, 8 x 15ml (1,000 rpm)
H5100-50D	Block, 4 x 50ml (1,000 rpm)
H5100-MP†§	Block, Standard microplate (3,000 rpm)
H5100-2DWMP	Block, 2ml deep well plate (1,000 rpm)
H5100-02†§	Block, PCR plate/96 x 0.2ml (2,000 rpm)
H5100-384†§	Block, 384 well plate (3,000 rpm)
H5100-5DWMP†§	Block, 0.5ml deep well plate (1,600 rpm)
H5100-1DWMP†§	Block, 1ml deep well plate (1,600 rpm)

†Compatible with heated lid §Supplied with standard lid
Maximum speed reduced when using standard or heated lid

*Includes US plug. For 230V (EU plug), please add (-E).

INCU-MIXER™ MP
HEATED MICROPLATE VORTEXER

- Heated lid prevents condensation
- Accepts a variety of microplates
- Available in two-plate or four-plate format
- Temperature control up to 70°C
- Optimized for incubated mixing in microplates



CE



Vortex mixing motion, up to 1200rpm

The Incu-Mixer MP series by Benchmark Scientific is designed to provide an optimal method for vortexing and incubating microplates. Simultaneous heating from both the bottom surface and the lid provide temperature uniformity throughout the sample. Additionally, the heated lid minimizes evaporation and prevents condensation. A compact, 2mm orbit ensures thorough mixing in microplates without splashing. Speed, time and temperature are all displayed in real time on the large LCD screen while an internal validation system constantly monitors all parameters for accuracy.

Designed for application flexibility, the Incu-Mixer series is available in two and four-plate capacities. The four plate model features an increased chamber height for accepting plates up to 46mm high. Independent time, temperature and speed controls allow the mixer to function as 3 machines in one; a multi-plate incubator, vortexer, or a combination of the two. The Incu-Mixer MP series is ideal for a wide variety of molecular biology applications including immunochemical reactions, enzyme and protein analysis, and microarray analysis.

Technical Data:

Temp. Range (+RT):	Ambient +5 to 70°C
Temp. Accuracy:	±0.2°C
Heating Uniformity:	5.0°C
Shaking Speed:	100-1,500 rpm MP4 100-1,200 rpm MP2
Shaking Orbit:	2mm
Dimensions (W x D x H):	12.6 x 13.8 x 7.3 in. MP4 11 x 10.6 x 5.5 in. MP2
Weight:	19.7lbs / 9 kg MP4 15.4 lbs / 7 kg MP2
Electrical:	115V or 230V, 50-60Hz MP4 100 - 240V, 50-60Hz MP2
Warranty:	2 Years

Ordering Information:

Item No.	Description
H6002*	Incu-Mixer MP2, 2 position incubated plate vortexer
H6004*	Incu-Mixer MP4, 4 position incubated plate vortexer
BT1500-A1520	Optional adapter, 20 x 1.5/2.0ml for microplate shakers (H6004 only)
BT1500-A05	Optional adapter, 20 x 0.5ml for microplate shakers (H6004 only)

*115V with US plug. For 230V (EU plug), please add (-E).

Benchmark TC-32 and TC-9639 **Thermal Cyclers**



- **Intuitive touchscreen control**
- **Program wizard for quick & easy protocol entry**
- **Fast, reliable results**
- **Fully adjustable heated lid**
- **Full sized model with gradient option**
- **Mini version for low throughput labs**

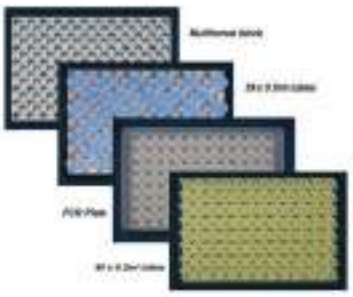
Fast, reliable cycling and ease of use make the Benchmark thermal cyclers the ideal choice for medium to high throughput laboratories as well as teaching facilities or those looking for a personal sized cycler.

Both the full-sized TC-9639 and mini TC-32 feature large, full color touchscreens with icon driven menus. A program wizard guides users through quick and easy entry of protocols with on board storage for over 100 typical programs. The TC-9639 offers true gradient capabilities for quick optimization of protocols.



Touchscreen control

The unique format of the block in the TC-9639 accepts 0.2ml tubes, strips and PCR plates as well as 0.2ml tubes, strips or partial plates. Wells in the block of the TC-32 are arranged in a 4x8 format compatible with 0.2ml tubes or strips. The blocks have a low thermal mass, allowing for exceptionally fast heating and cooling. This process is tightly controlled to maintain precision, accuracy, and uniformity both in the block and the samples. Heated lids maintain reactant concentrations. The height of the heated platen in the lid of the TC-9639 can be adjusted to fit snugly against the tops of tubes and plates.



Unique block format (TC-9639)

While the TC-32 has a smaller footprint and lower capacity than the TC-9639, it still maintains many of the same programming features including time and temperature increments/decrements, auto pause, auto restart after a power failure and the ability to maintain samples at 4°C after a run.

Technical Data:

Capacity: TC-32 Mini:	**32 x 0.2ml tubes, 4 PCR strips, or a 4 x 8 partial plate**
Capacity: TC-9639 Multiformat Block:	**96 x 0.2ml tubes/strip tubes or 39 x 0.5ml tubes or 1 nonskirted 96 well plate**
384 Well Block:	**1 x 384 well plate (TC-9639 only)**
In-situ Adapter:	**4 slides (fits multiformat block)**
Temp. Control Range:	**0° to 100°C**
Temperature Control:	**Simulated sample or block**
Accuracy/Uniformity:	**±0.2°C/±0.2°C (TC-9639) ±0.25°C/±0.25°C (TC-32)**
Max. Ramp Rate (Heat/Cool):	**5°C per sec. / 4°C per sec.**
Lid Temperature:	**30° to 112°C, user adjustable**
Gradient Range/Differential:	**30°-105°C left to right/ 1°-30°C (TC-9639)**
Program Memory:	**Up to 100 programs** (TC-9639 offers unlimited storage with a USB flash drive)
Increments/decrements:	**Yes, time and temperature**
Power Failure Restart:	**Yes**
Dimensions (TC-9639):	**10.2 x 14.2 x 9.9 in. / 26 x 36 x 25 cm**
Dimensions (TC-32):	**9.1 x 7.1 x 6.2 in / 23 x 18 x 15.7 cm**
Weight:	**16 lbs (7.3 kg) / 7 lbs (3.2 kg)**
Electrical:	**Universal Voltage 100 to 240V, 50-60 Hz**
Warranty:	**2 Years**

Ordering Information:

Item No.	Description:
T5005-3205*	TC-32 Mini Thermal Cycler, 32 x 0.2ml block
T5000-96*	TC-9639 Thermal Cycler, multiformat block (Accepts 1 PCR plate, 96 x 0.2ml tubes or 39 x 0.5ml tubes)
T5000-384*	TC-9639 Thermal Cycler, 384 well block
T5000-A-IS	In-situ adapter for 4 slides, fits T5000-96

*Includes US plug. For EU plug, please add [-EU]

Benchmark MultiCycler 332 & 248 **Thermal Cyclers**



MultiCycler™
Multi-Block Thermal Cyclers

- Dual or triple block format
- Intuitive touch screen control
- Program wizard
- Gradient capabilities



Designed for laboratories wanting flexibility in their applications, Benchmark's MultiCycler™ Thermal Cyclers offer multiple, independent cycling blocks in a single unit. Dual or triple block models are available, both offering extremely fast cycling profiles, large touch screen interfaces, self-adjusting heated lids, gradient capabilities, and an easy-to-use program wizard.

All programming features are accessed from the large, 10" full color touch screen. The screen can be angled towards the user when in use and then tucked away to save space. A program wizard guides users through the simple protocol set up process. Advanced programming features include gradient, adjustable ramp rates, and time increments and decrements. For multi-user labs, password protection prevents interference of an existing run. A USB provides for unlimited program storage and easy transfer of protocols between MultiCycler machines.

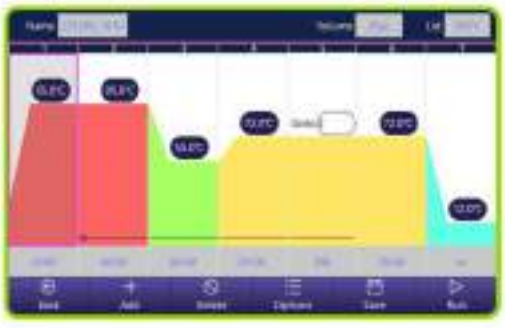


The auto-adjusting heated lid prevents condensation and evaporation of samples. Lid temperature can be programmed, and when the block temperature is below 35°C, the lid automatically shuts off. Peltier units allow for exceptionally fast heating and cooling of the blocks. Temperature change is precisely and accurately controlled within tight tolerances by a proprietary algorithm that simulates sample temperature, resulting in fast runs and reproducible results.

The wells are arranged in a 4x8 and 6x8 format, allowing for the use of PCR strip tubes and partial plates in both models. Each block is independently controlled.

Technical Data:

Capacity, T3-0332	3x32 well blocks
Capacity, T3-0248	2x48 well blocks All accept 0.2ml PCR tubes and strips, flat or dome caps and partial plates
Heating and Cooling:	Peltier elements
Display:	10" full color touch screen with adjustable angle
Block Temp. Range:	4°C - 99.9°C
Max. Heating Rate:	7.5°C/sec
Max. Cooling Rate:	6°C/sec
Temp. Uniformity:	±±0.2°C (at 90°C)
Temp. Accuracy:	±±0.2°C (at 90°C)
Ramp Rate Adjustments:	0.1-5.0°C
Gradient Functionality:	Yes, across 8 rows
Gradient Accuracy:	±0.1°C
Gradient Range:	30 - 99.9°C
Heated Lid:	Yes
Lid Temp. Range:	30-112°C
Dimensions:	14.75 x 10.5 x 10.5in / 37.5 x 27 x 27.7 cm
Weight:	16 lbs (7.3 kg) / 7 lbs (3.2 kg)
Electrical:	Universal Voltage 100 to 240V, 50-60 Hz
Warranty:	2 Years



Ordering Information:

Item No.	Description:
T3-0248G*	MultiCycler 248, Dual block gradient thermal cyler, 2x48 well blocks
T3-0332G*	MultiCycler 332, Triple block gradient thermal cyler, 3x32 well blocks

*Includes US plug. For 230V (EU plug), please add / E.

Also Available from Benchmark





Pg. 78

CoolCube™ & DryChill™
Tube and PCR Plate Coolers



Pg. 79

Benchmark™ **Agarose**



Pg. 80

Hybex™ **Media Storage Bottles**



Pg. 81

SureAir™ **PCR Workstation**

CoolCube™ Microtube and PCR Plate Cooler



CoolCube™

- Maintains 0°C for 4 hours
- Ideal for:
  1.5ml & 2.0ml microtubes
  0.2ml PCR tubes & strips
  96 well PCR plates
- Also for use as a PCR workstation

The CoolCube™ is designed to keep samples cold on the lab bench without the mess of a melting ice bucket. Simply place the CoolCube in a freezer overnight and it's ready for use, keeping samples cold, but not frozen. Maintains temperature at approximately 0° C for up to four hours.

Technical Data:

Temperature:	0°C for up to 4 hours
Capacity:	
Top Side:	36 x 1.5/2.0ml tubes
Bottom Side:	96 x 0.2ml tubes 12 x 0.2ml strips 1 x 96 well PCR plate 10x 1.5/2.0ml
Dimensions (W x D x H):	5.6x5.6x2.5 in. 14.3 x 14.3x 6.4 cm
Weight:	2 lbs / 1 kg
Warranty:	2 Years

Ordering Information:

Item No.	Description:
R1000	CoolCube Microtube and PCR Plate Cooler

DryChill™ Ice-free Cooling Blocks



- Ice-free, stable cooling for sample tubes
- Unique design reduces condensation
- Visual temperature indicator
- 4 sizes for various tubes up to 50 ml

The DryChill cooling blocks are designed to store samples safely on the lab-bench without sample degradation due to temperature increase or fluctuation. Unlike traditional ice buckets, these blocks do not require any ice and are uniquely designed to minimize condensation, resulting in a convenient, mess-free cooling.

Each DryChill Cooling Block utilizes a proprietary gel refrigerant, designed to maintain cold (but not freezing) temperatures for extended time periods. Once the block temperature begins to warm, the visual indicator alerts the user by changing from purple to pink.

Four blocks are available for accepting a wide variety of commonly used research tubes and plates.

Ordering Information:

Item No.	Description:
DC9602	96 x 0.2 ml tubes or 1 x PCR plate
DC4020	40 x 1.5/2.0 ml tubes
DC1215	12 x 15 ml tubes (16-17mm)
DC0650	6 x 50 ml tubes (29mm)

Benchmark™ Agarose



- Multi-purpose, high purity
- Green Choice, free from organic solvents
- Enhanced resolution and clarity
- Low EEO / increased electrophoretic mobility
- RNase, DNase and Protease free

Technical Data:

Gel Strength:	≥ 1200g/cm² (1%)
Gel Temperature:	36°C ±1.5°C (1.5%)
Melt Temperature:	88°C ±1.5°C (1.5%)
EEO (-m):	0.13
Moisture Content:	≤ 7%
Sulfate:	≤ 0.2%
RNase / DNase:	None detected
Protease/Endonuclease:	None detected
Storage Conditions:	Room temperature

Ordering Information:

Item No.	Description:
A1700	Benchmark Agarose LE, 25g
A1701	Benchmark Agarose LE, 100g
A1705	Benchmark Agarose LE , 500g

Also Available: Benchmark Specialty Agarose:	
A1801-LM*	Benchmark Agarose Low Melting Point, 100g
A1801-HR*	Benchmark Agarose Hi-Res (PCR grade) , 100g
A1801-31*	Benchmark Agarose 3:1, 100g

* For technical data, or any additional information, please visit www.BenchmarkScientific.com

Agarose LE: General purpose agarose, suitable for a range of applications and separations of DNA fragments from 150bp to 25kb.

Agarose LM: Ideal for DNA recovery after electrophoresis and for separations of fragments from 200bp to 25kb.

Agarose HR: Best choice for resolving small fragments from 20bp to 800bp.

Agarose 3:1: This blend of LE and Hi-Res agarose is designed of resolving fragments less than 1000bp.

EZ Pack™ Agarose Tablets (0.5g)



- Eliminates weighing
- Fast dissolving, just 2 minutes
- Convenient blister pack protects tablet integrity
- Consistent reproducible gels
- Low EEO, standard molecular biology grade
- Produced without the use of organic solvents
- Each tablet contains 0.5g of Agarose LE

Technical Data:

Gel Strength:	≥ 1200g/cm² (1%)
Gel Temperature:	36°C ±1.5°C (1.5%)
Melt Temperature:	88°C ±1.5°C (1.5%)
EEO (-m):	0.13
Moisture Content:	≤ 7%
Sulfate:	≤ 0.2%
RNase / DNase:	None detected
Protease/Endonuclease:	None detected
Storage Conditions:	Room temperature

Ordering Information:

Item No.	Description:
A2501	EZ Pack Agarose Tablets, 100g (200 tablets)
A2505	EZ Pack Agarose Tablets, 500g (1000 tablets)

hybex™ Media Storage Bottles

hybex™



B3000-Series

- Borosilicate 3.3 hybex™ glass
- Autoclavable caps (GL45) & drip rings
- Permanent enamel graduation markings
- Large area for bottle marking/identification
- Autoclavable, reuseable & breakage resistant

Technical Data:

Material:	**hybex borosilicate glass (3.3)**
Cap Thread Size:	**GL45**
Temperature Range:	**-70° to 500°C**
Sterilization:	**Autoclave**
Cap Material:	**Polypropylene (140°C)**
Cap Colors:	**Standard blue, green, purple, yellow, white or assorted**

Ordering Information:

Item No.	Description:
B3000-50-B	Bottle, 50ml with GL32 blue cap, 10/pk.
B3000-100-B*	Bottle, 100ml with standard (GL45) blue cap, 10/pk.
B3000-250-B*	Bottle, 250ml with standard (GL45) blue cap, 10/pk.
B3000-500-B*	Bottle, 500ml with standard (GL45) blue cap, 10/pk.
B3000-1000-B*	Bottle, 1L with standard (GL45) blue cap, 10/pk.
B3000-2000-B*	Bottle, 2L with standard (GL45) blue cap, 5/pk.
B3000-5L	Bottle, 5L with standard (GL45) blue cap, 1ea.
B3000-10L	Bottle, 10L with standard (GL45) blue cap, 1ea.
B3000-SP-B*	Bottle, Starter Pack with standard (GL45) blue cap, includes, 2x100ml, 3x250ml, 3x500ml and 2x1 L)
B3000-CAP-B*	Replacement cap, standard blue (GL45), 10/pk.
B3000-CAP2	Replacement cap, standard blue (GL32), 10/pk.
B3000-CAP-HTC	High temperature caps, red (GL45), up to 180°, 10/pk.

*Please replace (-B) with (-G) for green caps, (-P) for purple caps, (-Y) for yellow caps, (-W) for white caps or (-AS) for assorted caps (2 of each color).

hybex™ Erlenmeyer Flasks



B3220-Series



B3110-Series

Technical Data:

Material:	**hybex borosilicate glass (3.3)**
Cap Thread Size: (B3220 only)	**GL45**
Temperature Range:	**-70° to 500°C**
Sterilization:	**Autoclave**
Cap Material: (B3220 only)	**Blue Polypropylene (140°C)**

Ordering Information:

Item No.	Description:
Erlenmeyer Flasks	Borosilicate 3.3 glass (standard, no caps or threads)
B3110-50	50ml Erlenmeyer flask, 12/pk
B3110-125	125ml Erlenmeyer flask, 12/pk
B3110-250	250ml Erlenmeyer flask, 12/pk
B3110-500	500ml Erlenmeyer flask, 6/pk
B3110-1000	1000ml Erlenmeyer flask, 6/pk
B3110-2000	2000ml Erlenmeyer flask, 6/pk
Erlenmeyer Flasks	Borosilicate 3.3 glass (standard, with caps)
B3220-250	250ml Erlenmeyer flask with GL45 cap,12/pk
B3220-500	500ml Erlenmeyer flask with GL45 cap, 6/pk
B3220-1000	1000ml Erlenmeyer flask with GL45 cap, 6/pk
B3220-2000	2000ml Erlenmeyer flask with GL45 cap, 1/pk
B3000-CAP-B*	Replacement cap, standard blue (GL45), 10/pk.
B3000-CAP-HTC	High temperature caps, red (GL45), up to 180°, 10/pk.

SureAir™

PCR Workstation with UV and HEPA Filtration



- HEPA filter & UV light reduce cross-contamination during PCR prep
- Cable port allows easy use of instruments
- Includes pipette holder & shelf storage of pipettes & tips
- Provides clean air within chamber to ISO 5 standards

The Benchmark SureAir™ PCR workstation is a compact, convenient way to reduce contamination concerns and separate pre- and post-processing of PCR samples. The high-powered yet quiet internal fan produces laminar flow conditions without any installation into ductwork. The included HEPA filter purifies air within the chamber, meeting ISO 5 cleanliness standards, and filters 99.97% of particles 0.3 µm and larger. The double-hinged front panel provides ample workspace for convenient hand access, and can be opened fully to allow placement of equipment inside.

The SureAir is designed to keep your workspace clean, easy-to-use, and organized. An included germicidal UV-C light eliminates any stray DNA that may contaminate samples, and is programmed to automatically shut off after 15 minutes. To protect users, the UV-C light is only operational when the cover is closed, and will shut off upon opening the cover.

Ample lighting is provided by an energy efficient LED light source. Up to 3 standard size pipettes are accommodated by the pipette holder integrated within the storage shelf. Pipette tips and small instruments can also be stored away from the main workspace when not in use. Power cables can easily be routed through the access port on the right side of the chamber.

Ordering Information:

Item No.	Description:
BS200*	SureAir™ PCR Workstation
Accessories:	
BS200-FIL	SureAir™ Replacement Filter
BS200-PRE	SureAir™ Replacement Pre-Filter
B1450-IC	UV-C Indicator Cards, 25 ct.
B1450-ISS	UV-C Indicator Stickers, 40 ct.

*115V with US plug. For 230V (EU plug), please add (-E).

Technical Data:

UV Light:	8W UV-C
UV Auto-Shut off Timer:	15 minutes
Materials:	UV-Resistant Polycarbonate
Outer Dimensions (WxDxH):	21.7 x 15.8 x 23.2 in. / 55 x 40 x 59 cm
Inner Dimensions (WxDxH):	19.7 x 15.4 x 15.8 in. / 50 x 39 x 40 cm
Hand Access Dimensions (WxH):	19.7 x 6.3 in. / 50 x 16 cm
Filter:	0.3 µm 99.97% HEPA
Air Velocity:	0.2 m/s
Electrical:	115V or 230V, 50-60Hz
Power Consumption:	70W
Weight:	44 lbs / 20 kg
Warranty:	2 Years

Accuris™ Instruments




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Dx & Tx Analytical Balances


Pg. 84
Pipette Calibration System


Pg. 85
Classic Analytical Balances


Pg. 86
Compact & Precision Balances


Pg. 87
Calibration Weights


Pg. 88
Liquid Handling


Pg. 89
Automated Cell Counter


Pg. 90-91
Microplate Readers and Washers

Pg. 92



Nano Spectrophotometers

Pg. 93



Nucleic Acid Purification Systems

Pg. 94



DNA Ladders & Protein Markers

Pg. 95-96



Electrophoresis

Pg. 97-98



Transilluminators

Pg. 99



SmartDoc™ Imaging System

Pg. 100



Power Supplies

Pg. 101-103



PCR & qPCR Reagents

Accuris™ Series Dx & Tx Analytical Balances





- Readable to 0.01mg (W3002A-120)
- Quick-Cal™ internal calibration
- RS232 port for printer connection
- Available with full color touch screen (series TX)

The Series Dx and Tx analytical balances are the most advanced in the Accuris line with a precision engineered Electromagnetic Force Restoration (EFR) weigh cell to accurately determine masses to sub milligram levels. Both series include internal calibration, ensuring that the balance is always calibrated and ready for use. Auto calibration can also be set to occur at specific time intervals depending on user preference. The Tx Series features a large, high resolution touch screen presenting the user with an icon-based menu system and allowing quick and intuitive access to a wide range of useful functions.

	Dx Series	Dx Series	Tx Series	Tx Series
Item No.*	W3101A-120	W3101A-220	W3002A-120	W3102A-220
Capacity	120 grams	220 grams	120 grams	220 grams
Readability	0.0001g (0.1mg)		62g x 0.01 mg 120g x 0.1mg	220g x 0.1mg
Linearity	± 0.2mg		± 0.08mg ± 0.2mg	± 0.2mg
Repeatability	± 0.1mg		± 0.03mg ± 0.1mg	± 0.1mg
Calibration	Internal Quick Cal™ and External			
Pan Size (round)	80mm			
Weighing Units	g, mg, carats, oz, lbs, dwt, t oz, gn			
Display Type	5.25 x 1.5 in. backlit LCD		4.25 x 2.5 in. color touch screen	
Exterior Dims. (W x D x H)	34.29 x 21.59 x 33.02 cm 13.5 x 8.5 x 13 in.			

*Includes US plug. For EU plug, please add (-E).



High resolution touch screen





RS232 & USB port* for Printer, PC & flash drive connections

*USB on TX models only

AccuCheck™ Pipette Calibration System



Accuris Tx Semi-Micro Balance with built-in Pipette Check software



Anti-Evaporation Trap (included)



Thermal Printer (optional)



The new AccuCheck System from Accuris Instruments gives your lab the freedom to calibrate pipettes quickly and when required. The system combines our popular Tx touch screen analytical balance with an anti evaporation trap accessory and built-in pipette calibration software. Together, this standalone pipette calibration system is easy for any lab tech to use for the ISO 8655 method of pipette calibration.

The user interface of the AccuCheck™ software is intuitive and requires no special training to use. Individual pipette details (brand, model, serial number) can be saved in the internal database for current and future calibrations. The software walks the user through all steps of the gravimetric method, allows input of water temp, air temp, pressure, and humidity. It saves the weight values, and then performs all calculations for accuracy and precision at 3 volume settings. The Anti Evaporation Trap greatly improves results when performing the gravimetric method by preventing unstable measurements due to evaporation loss.

Ordering Information:

Item No.	Description
W3002A-120ACS	AccuCheck Pipette Calibration System (W3002-120A Balance with integrated pipette calibration software and Anti-Evaporation Trap)
W3130	Serial Printer for Accuris Series Dx and Tx analytical balances

Removing the Anti-Evaporation Trap allows the Tx Semi-Micro balance to be used for general weighing applications. Offering a maximum capacity of 120g, readability of 62gx0.01mg / 120gx0.1mg, and automatic internal calibration, the Tx balance is a favorite for labs needing fast and accurate weight determinations.

Accuris™ Classic **Analytical Balances**



- **Readable to 0.0001g (0.1 mg)**
- **Available with Quick-Cal™ internal calibration option**
- **Multiple program options (standard weighing, count mode & percent)**

Accuris Analytical Balances provide accuracy and precision for the most demanding research applications. Two capacity options are available, each incorporating a highly precise, electromagnetic force restoration sensor to deliver unsurpassed accuracy & readability to 0.0001g (0.1mg). Although all models incorporate in-lab calibration firmware, they are also available with a unique Quick-Cal™ function (Items: W3100A-120 & W3100A-210) that provides fast, reliable internal calibration with the push of a button.



Shield opens from the left, right, and top for easy access



Extended base, limits vibration & improves stability

Item No.*	W3100-120	W3100-210	W3100A-120	W3100A-210
Calibration	External (100g cal weight included)		Internal Quick-Cal™	
Capacity	120 grams	210 grams	120 grams	210 grams
Readability	0.0001 grams		0.0001 grams	
Repeatability/ Linearity	0.0001 / 0.0002		0.0001 / 0.0002	
Pan Size	Stainless Steel: 3.5 in. Ø (9cm)		Stainless Steel: 3.5 in. Ø (9cm)	
Weighing Units	g, oz, lb, ct, pieces, %		g, oz, lb, ct, pieces, %	
Draft Shield	Yes, glass		Yes, glass	
Exterior Dims. (W x D x H)	32 x 47 x 28 cm 12.5 x 18.5 x 11 in.		32 x 47 x 28 cm 12.5 x 18.5 x 11 in.	

*Includes US plug. For EU plug, please add (-E).

Accuris™ Mini **Balances**



- **Super compact, less than 3" wide**
- **Easy to read, backlit LCD**
- **Calibration function**
- **Includes two AAA batteries**
- **Snap on, protective cover**



Optional in-lab calibration weights



Protective cover, included

Model	*W4000-100*	*W4000-500*
Max Capacity:	100 grams	500 grams
Readability:	0.01 g	0.1 g
Calibration:	External	
Pan Size:	2.1 x 2.25 in / 5.3 x 5.7 cm	
Weighing Units:	g, ct, dwt, gn	
Display:	backlit LCD	
Power:	2 AAA batteries	
Exterior Dims.:	2.6 x 3.9 x 0.75 in / 6.6 x 9.9 x 1.9 cm	

Accuris Mini Balances are extraordinarily compact, easy to use, and convenient for a variety of laboratory weighing applications. With a footprint of only 2.6 x 3.9 inches, they offer exceptional accuracy and linearity through their full range.

Available with a 100g or 500g capacity, these balances feature an easy to read, backlit, digital liquid crystal display and an in-lab calibration function (weights sold separately). ON/OFF, MODE & TARE buttons are easily accessed. Powered by 2 AAA batteries (included), power shuts off after 1 minute of sitting idle to conserve battery life. Ideal for lab or field use, each balance includes a snap on, protective cover with convenient, printed instructions.

Ordering Information:

Item No.	Description:
W4000-100	Accuris™ Mini Balance, 100g capacity (0.01g readability)
W4000-500	Accuris™ Mini Balance, 500g capacity (0.1g readability)

Accuris™ Compact & Precision **Balances**



Compact



Precision
(high capacity models do not include glass enclosure)

Variable capacitance technology offers reliability, precision and fast stabilization

- **Large, user-friendly interface**
- **Easy, in-lab calibration**
- **RS232 port for data output and printing**
- **Multiple program options**
  (standard weighing, count mode, percent, etc.)

Accuris ***Compact*** and ***Precision*** balances quickly and accurately display sample mass measurements on a large, back-lit LCD control panel. Utilizing a highly precise, gold plated ceramic capacitance sensor, these balances can provide reliable measurements to 0.001 grams (Precision models). All models feature multiple program options for standard weighing, count (or pieces) mode, as well as percent calculation. In addition, each balance incorporates firmware for easy and reliable, in-lab calibration.

The economical ***Compact*** balances are ideal for a wide range of ***general weighing*** applications. They are available with a readability of 0.01g or 0.1g. Six models cover a range of up to 10,000 grams. With enhanced shock resistance and overload protection, the ***Compact*** series is ideal for general purpose weighing at medium precision, in varying environments.

The ***Precision*** series balances are designed for more critical laboratory applications. Engineered for true ***research grade*** weighing capabilities, these balances offer higher levels of precision and readability (0.01g and 0.001g). They are useful for any laboratory application that does not require a dedicated analytical balance with sub-milligram readability. Advanced software ensures error-free weighing for various applications, including count weighing, percent calculation and inspection mode.



W3300-TP

Optional Thermal Printer Available

Compact Balances

Item No.*	W3300-120	W3300-300	W3300-500	W3300-1200	W3300-5K	W3300-10K
Capacity:	120 grams	300 grams	500 grams	1200 grams	5000 grams	10000 grams
Readability:	0.01 grams	0.01 grams	0.01 grams	0.1 grams	0.1 grams	0.1 grams
Pan Size (round):		11.5 cm / 4.5 in.		16 cm / 6.3 in.	18 cm / 7 in.	18 cm / 7 in.
Repeatability/Linearity:		0.01 / 0.02			0.1 / 0.2	
Draft Shield:		Yes, plastic ring			No	
Weighing Units:			g, oz, ct, pieces, %			
Calibration:			External			
Exterior Dims.: (W x D x H)			18.8 x 28 x 8cm 7.5 x 11 x 3.1 in.			

Precision Balances

Item No.*	W3200-120	W3200-320	W3200-500	W3200-1200	W3200-3200	W3200-5K
Capacity:	120 grams	320 grams	500 grams	1200 grams	3200 grams	5000 grams
Readability:	0.001 grams	0.001 grams	0.001 grams	0.01 grams	0.01 grams	0.01 grams
Pan Size (round):		11.5 cm / 4.5 in.			16 cm / 6.3 in.	
Repeatability/Linearity:		0.001 / 0.002			0.01 / 0.02	
Draft Shield:		Yes, 3-door glass enclosure			No	
Weighing Units:			g, oz, ct, pieces, %			
Calibration:			External			
Exterior Dims.: (W x D x H)		20.5 x 35 x 31 cm 8 x 13.75 x 12.25 in.			20.5 x 35 x 8 cm 8 x 13.75 x 3.1 in.	

*Includes US plug. For EU plug, please add (-E).

Accuris™ Calibration Weights



- Various individual and weight sets available
- Choose E2, F1, or M1 OIML class
- Includes Certificate of Verification

Accuris calibration weights are ideal for routine calibration of your Accuris (or any brand) lab balance. Single weights as well as complete weight sets are available in various tolerance classes: OIML class E2, F1, and M1.



F1 Class: Suitable for precision 0.01 to 0.001g readability balances



E2 Class: Recommended for analytical 0.0001g readability balances



M1 Class: Ideal for basic (compact) 0.1 to 0.01g readability balances



Individual weights come in a protective case. Weight sets include a protective carrying case with foam liner.
All weights are supplied with a certificate of verification.

Ordering Information:

Item No.	Description
W1000-100	Accuris™ Calibration Weight (F1 grade) 100g
W1000-200	Accuris™ Calibration Weight (F1 grade) 200g
W1000-500	Accuris™ Calibration Weight (F1 grade) 500g
W1000-1000	Accuris™ Calibration Weight (F1 grade) 1kg
W1005-1	Accuris™ Calibration Weight (M1 grade) 1g
W1005-2	Accuris™ Calibration Weight (M1 grade) 2g
W1005-5	Accuris™ Calibration Weight (M1 grade) 5g
W1005-10	Accuris™ Calibration Weight (M1 grade) 10g
W1005-20	Accuris™ Calibration Weight (M1 grade) 20g
W1005-50	Accuris™ Calibration Weight (M1 grade) 50g
W1005-100	Accuris™ Calibration Weight (M1 grade) 100g
W1005-200	Accuris™ Calibration Weight (M1 grade) 200g
W1005-500	Accuris™ Calibration Weight (M1 grade) 500g
W1005-1000	Accuris™ Calibration Weight (M1 grade) 1kg
W1005-2000	Accuris™ Calibration Weight (M1 grade) 2kg
W1000-TF	Tweezers, for handling calibration weights
W1100-200	Calibration set for Precision Balances (Class F1) 23 pcs, 1mg to 200g, includes protective case, tweezers, dust brush and cleaning cloth
W1101-6-100	Calibration set for Analytical Balances (Class E2) 6 pcs: 100mg, 10g, 2x20g, 50g, 100g, incl. protective case, tweezers & cleaning cloth
W1105-13-1000	Economy calibration set for compact balances (Class M1), 13 pcs: 1x1g, 2x2g, 1x5g, 1x10g 2x20g, 1x50g, 1x100g, 2x200g, 1x500g, 1x1kg, includes protective case

ASPIRE™ Laboratory **Aspirator**



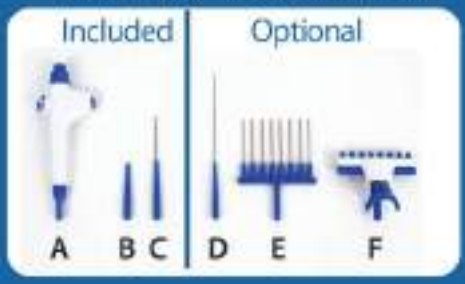
- Compact design
- Built-in vacuum pump
- Adjustable vacuum control
- Vacuum gauge
- Overflow protection
- Autoclavable



Quietly and safely aspirate liquids

Comes complete with:

Base with internal vacuum pump
2 Liter, polycarbonate collection bottle
Antibacterial / hydrophobic filter
Silicone tubing (1 meter)
Handheld vacuum controller (A)
Adapter for 200µl pipette tips (B)
Adapter, fine stainless steel, 40mm (C)



Ordering Information:

Item No.	Description:
V0020*	**ASPIRE™ Laboratory Aspirator** Includes base with internal vacuum pump, 2L polycarbonate bottle with lid, silicone tubing, handheld vacuum controller and single channel adapters
V1002-1SL	Optional single channel adapter (80mm) stainless steel (D)
V1002-S8	Optional eight channel adapter, fine tip stainless steel (E)
V1002-8	Optional 8 channel adapter, for use with 200µl pipette tips (F)
V1002	Handheld vacuum controller with single channel adapters (A, B, C / included), can be used with in house systems
V0020-F1	Hydrophobic filter, 1/pk (one included with V0020)
V0020-QD	Optional quick disconnect kit for collection bottle, includes 2 male/female attachments & silicone tubing
V0020-BOT	Graduated, PC collection bottle with lid (included)
V0020-TB	Extra vacuum tubing with connector, 1 meter

*115V with US plug. For 230V (EU plug), add (-E).

Technical Data:

Max. Aspiration Rate:	**14ml / sec.**
Max. Flow Rate:	**15L / min.**
Vacuum Range:	**-30mbar to -750mbar**
Noise Level:	**59.6 db**
Dimensions: (W x D x H)	**9.5 x 7.9 x 13.5 in.** **24 x 20 x 34 cm**
Weight:	**4.8lbs / 2.2 kg**
Electrical:	**115V, or 230V, 50Hz to 60Hz**
Warranty:	**2 years**

NextPette™ Precision **Pipettes**

- Market leading accuracy and precision
- One-handed, thumb wheel volume adjustment
- Volume lock
- Ceramic pistons (on 20, 100, 200 and 1000µl models)



Fully Autoclavable

Ordering Information & Technical Data:

Item No.*	Description:	Inaccuracy:	Imprecision:	Tip Size:
P7700-1	NextPette™ Variable Volume Pipette 0.1 to 1.0 µl	± 20 to 2%	± 12 to 1.2%	10µl
P7700-10	NextPette™ Variable Volume Pipette 0.5 to 10 µl	± 3.8 to 0.5%	± 4 to 0.5%	10µl
P7700-20	NextPette™ Variable Volume Pipettee 2 to 20 µl	± 3 to 0.8%	± 3 to 0.8%	200µl
P7700-100	NextPette™ Variable Volume Pipette 10 to 100 µl	± 1.5 to 0.8%	± 1.5 to 0.8%	200µl
P7700-200	NextPette™ Variable Volume Pipette 20 to 200 µl	± 1.2 to 0.6%	± 1.0 to 0.6%	200µl
P7700-1000	NextPette™ Variable Volume Pipette 100 to 1000 µl	± 1.5 to 0.6%	± 1.0 to 0.6%	1000µl
P7700-5M	NextPette™ Variable Volume Pipette 1ml to 5ml*	± 0.6 to 0.5%	± 0.6 to 0.5%	5ml*
P7700-10M	NextPette™ Variable Volume Pipette 1ml to 10ml**	± 2.5 to 0.5%	± 2.0 to 0.5%	10ml**
P7700-CAR2	NextPette™ Carousel stand holds 6 NextPette Pipettes			
P7700-S1	Micro NextPette™ Starter Set, includes 4 pipettes (P7700-10, P7700-20, P7700-200 and P7700-1000) and a carousel stand			
P7700-S2	Macro NextPette™ Starter Set, includes 4 pipettes (P7700-200, P7700-1000, P7700-5M*, P7700-10M**) and a carousel stand			
P7700-TSM	5ml Pipette Tips, fit 1ml to 5ml NextPette, (P7700-5M), 100 per pack			
P7700-T10M	10ml Pipette Tips, fit 1ml to 10ml NextPette (P7700-10M), 100 per pack			

*Requires pipette tip P7700-TSM **Requires pipette tip P7700-T10M



Large, 4 digit volume display faces the user

QuadCount™ Automated Cell Counter



- Compatible with most common mammalian cell lines
- Fast, accurate and reproducible results
- Intuitive software and touch-screen interface
- Convenient and cost-effective QuadSlides™
- Count sample volumes up to 3.6µl

With count speeds at fast as 20 seconds per sample, the Accuris QuadCount™ provides many advantages over the tedious and time consuming manual hemocytometry method. The advanced software eliminates human bias in dead/live determinations, reduces counting errors, saves time, and improves efficiency.



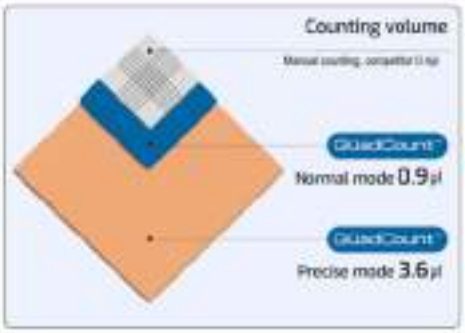
Four chambered QuadSlide™

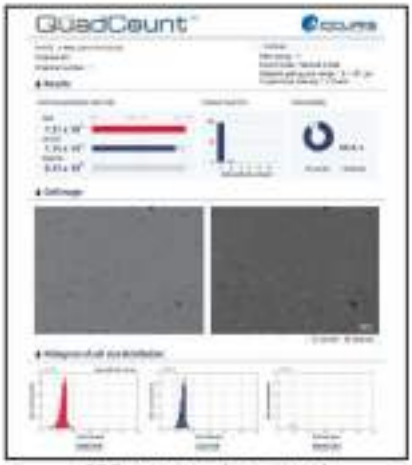
The QuadCount utilizes a unique 4-chambered disposable QuadSlide™. Four samples can be processed in one slide (twice the capacity of standard 2-chambered slides), decreasing consumable costs. Each chamber has a hydrophilic inner surface with an engraved grid pattern. High precision production and molding ensure that each QuadSlide meets the rigorous standards and dimensional tolerances required for optimal counting performance.

3 count modes available to analyze different sample volumes:

Quick Mode:	0.15µl / 20 seconds (1 image frame)
Normal Mode:	0.9µl / 30 seconds (6 image frames)
Precise Mode:	3.6µl / 100 seconds (24 image frames)

The QuadCount's ability to analyze larger sample volumes/multiple images, provides significantly better accuracy than other cell counters.





PDF reports can be exported

Ordering Information:

Item No.*	Description:
E7500*	QuadCount™ Automated Cell Counter
E7500-S1	QuadSlides, 50/pk.
E7500-STS1	Standard test slide for QuadCount™, 1/pk

*115V with US plug. For 230V (EU plug), add (-E).

Technical Data:

Optics:	High quality 4x objective lens
Pixel Resolution	2592 x 1944
Image Detection:	5 mega pixel CMOS sensor
Illumination:	Green LED (50,000 hour life)
Sample Volume:	20µl (4 samples per QuadSlide)
Max. Counting Volume:	3.6µl (24 image captures)
Consumable Slide:	QuadSlide, 4-chamber
Counting Modes/ Speeds:	Quick (20 sec.), Normal (30 sec.), Precise (100 sec.)
Dynamic Range:	1 x 10^4 to 1 x 10^7 cells per ml
Data Output:	USB drive for PDF report
Dimensions (W x D x H)	6.4 x 11.5 x 8.5 in. 16.3 x 29.3 x 21.6 cm
Weight:	11 lbs / 4.9 kg
Electrical:	115V or 230V, 50Hz to 60Hz
Warranty:	2 years

SmartReader™ 96 Microplate **Absorbance Reader**



- Intuitive, 7 inch, color touch screen control panel
- Filter based system, wavelength range from 340 to 750nm
- Stand alone system, with USB flash drive for data transfer
- Absorbance range: 0.0 to 4.000 Abs
- Integrated, multispeed plate shaker

Technical Data:

Control and Display:	7" touch screen
Light Source:	Quartz halogen lamp, 6V/10W
Wavelength Range:	340-750nm (405, 450, 492 and 630nm filters included, additional filters available)
Read Speed:	<6 sec. for 96 well plate
Temp. Control:	Ambient + 5° to 50°C / Accuracy ±0.5°C @ 37°C Uniformity ±0.5°C @ 37°C
Shaking:	3 modes: slow (3.5Hz), medium (4.7Hz), fast (7.0Hz)
Dimensions: (W x D x H)	11.6 x 17 x 8.75 in. 29.5 x 44 22.5 cm
Weight:	22 lbs / 10 kg
Electrical:	115V or 230V, 50Hz to 60Hz
Warranty:	2 years

Ordering Information:

Item No.*	Description:
MR9600*	SmartReader™ 96 Microplate Absorbance Reader for 96 well plates
MR9600-T*	SmartReader™ 96 Microplate Absorbance Reader, with Temp. Control, 115V
MR9600-PC	SmartReader™ PC Software for MR9600 and MR9600-T
MR9600-TP	Thermal Printer for SmartReader 96

*115V with US plug. For 230V (EU plug), add (-E).

SmartReader™ UV-Vis Microplate **Reader**



- Intuitive color touch screen control
- Accepts both 96 and 384-well plates
- Monochromator system, wavelength range 200-1000nm
- Stand-alone system with USB flash drive for data transfer
- Optional cuvette port available on model MR9611



SmartDrop™ Accessory Plate (MR9610-SDP) for checking nucleic acid & protein concentration/purity using low volume (0.5 - 2.0µL) droplets.

Technical Data:

Plates Accepted:	96-well and 384-well flat bottom, and SmartDrop™ plate
Control and Display:	10" touch screen
Light Source:	Xenon Flash Lamp
Wavelength Range:	200-1000nm with 1nm steps
Wavelength Selection:	Monochromator
Plate Shaking:	Linear; three options for speed
Incubation:	Ambient+ 5° to 45°C
Ports:	3 USB ports, for PC, printer and flash drive
Dimensions: (W x D x H)	12 x 19.5 x 11.5 in. 30.0 x 50.0 x 16.0 cm
Weight:	33 lbs / 15 kg
Electrical:	DC24V, 6.5A (100 to 240 VAC input)
Warranty:	2 years

Ordering Information:

Item No.*	Description:
MR9610*	SmartReader™ UV-Vis Microplate Reader, for 96 and 384 Well Plates
MR9611*	SmartReader™ UV-Vis Microplate Absorbance Reader with Cuvette Port, 115V
MR9610-SDP	SmartDrop Accessory Plate

*115V with US plug. For 230V (EU plug), add (-E).

SmartWasher™ 96 Microplate **Washer**



- Quick set up and easy programming
- Compatible with U, V, C, and flat bottom 96 well plates
- Flexible programming for full plate, partial plate, or strip washing
- Choose 8-channel or 12-channel wash head
- Individually controlled wash and rinse sources





8- and 12-channel manifolds, purchased separately, are available to accommodate different plate orientations

Technical Data:

Control and Display:	4.3-inch LCD display
Wash Heads:	8 channel or 12 channel
Compatible Microplates:	96 wells, standard SBS dimensions
Dispensing Volume Range:	50ul – 2000 µl
Wash Cycles:	1 - 99 cycles
Liquid Level Sensors:	Included in wash/rinse/waste bottles
Dimensions: (W x D x H)	13.5 x 18 x 8.5 in. 34.5 x 46 x 20 cm
Weight:	25.3 lbs / 11.5 kg
Electrical:	115V or 230V, 50Hz to 60Hz

Ordering Information:

Item No.	Description:
MW9600*	SmartWasher™ 96 for 96 Well Plates (manifolds sold separately)
MW9600-8CM	8 channel manifold
MW9600-12CM	12 channel manifold

*115V with US plug. For 230V (EU plug), add (-E).

SmartReader™ Multimode Plate **Reader**



- Intuitive, 10-inch color touch screen
- Stand-alone system with optional PC software (FDA CFR Part 11)
- Monochromator-based system for UV through visible absorbance
- Filter module system for fluorescence assays
- Optional automatic injection modules for flash luminescence



Technical Data:

Measurement Technologies:	UV-Vis Absorbance, Fluorescence, Luminescence (Glow & Flash)
Programming/Operation:	Built-in 10.0 inch touch screen
Plate Formats:	6-384 well plates
Shaking:	Linear, orbital, & double-orbital
Incubation Range:	RT + 4°C to 45°C
Dimensions:	16.5 x 21.7 x 15.2 in. / 42.0 x 55.0 x 38.6 cm
Weight:	72.8 lbs / 33 kg
Electrical:	115V or 230V, 50Hz to 60Hz

Ordering Information:

Item No.	Description:
MR9620*	SmartReader™ Multimode Plate Reader
MR9620-AIM1	Automatic Injection Module, set of 1
MR9620-AIM2	Automatic Injection Module, set of 2
MR9610-SDP	SmartDrop™ Accessory Plate for UV-Vis Microplate Readers
MR9620-PC	SmartReader™ Multimode PC Software (Research Version)
MR9620-CFR	SmartReader™ Multimode PC Security Software (FDA 21 CFR Part 11)

*115V with US plug. For 230V (EU plug), add (-E).

SmartDrop™ Nano Spectrophotometer



- Three models to meet various application requirements
- Quick, accurate, easy to use
- With color touch screen & built in printer
- Use 0.5-2.0µl sample droplets
- Ideal for DNA/RNA and Protein analysis
- Cuvette port for OD600 readings (bacteria concentration)

Accuris SmartDrop™ nano spectrophotometers are compact and easy-to-use instruments for quick and accurate readings using small volumes of sample. A droplet of sample is placed onto the sensor pedestal, the SmartDrop arm is lowered, and results are immediately displayed, saved, or printed using the on-board printer.

The user-friendly software allows for quick set-up and determination of nucleic acid concentration (260nm absorbance) and purity (260/280nm ratio). In addition to common nucleic acid applications, the SmartDrop™ can also be used for determining protein purity using 280nm absorbance results. The SmartDrop models X and XF can both perform measurements across a full wavelength range from 200 - 800nm. The Smartdrop™ XF includes fluorescence detection for accurate quantification of concentrations of nucleic acids, down to 0.5pg/ul. A separate cuvette port for 600nm absorption readings is built into each instrument, expanding the usage of the SmartDrop™ for bacteria concentration evaluation and growth assays.

Technical Data:

	NS1000 (SmartDrop™ L)	NS1010 (SmartDrop™ X)	NS1020 (SmartDrop™ XF)
Wavelength:	260, 280 nm	200-800nm	200-800nm
Sample Size:	1.0µl to 2.0µl	0.5µl to 2.0µl	0.5µl to 2.0µl
Path Length:	0.5mm	0.2 & 1.0mm	0.05, 0.2 & 1.0mm
Measurement Time:	< 6 sec.	< 5 sec.	< 6 sec.
Optical Detector:	UV Silicon Photocell	2048-Linear CCD array	2048-Linear CCD array
Light Source:	UV LED	Xenon Flash Lamp	Xenon Flash Lamp
Detection Range dsDNA:	10-2500ng/µl	2-4500ng/µl	2-15000ng/µl
Fluorescence DNA Quantitation	N/A	N/A	Yes
Dimensions:	8.2 x 11.0 x 7.3 in. 20.8 x 28.0 x 18.6cm	8.3 x 10.6 x 7.2 in. 21.0 x 26.8 x 18.1cm	8.2 x 12.6 x 7.3 in. 20.8 x 32.0 x 18.6cm
Weight:	7.9 lbs / 3.6 kg	6.2 lbs / 2.8 kg	7.9 lbs / 3.6 kg

Ordering Information:

Item No.	Description:
NS1000*	SmartDrop™ L Nano Spectrophotometer
NS1010*	SmartDrop™ X Nano Spectrophotometer
NS1020*	SmartDrop™ XF Nano Spectrophotometer

*115V with US plug. For 230V (EU plug), add (-E)

Smart-Q™ Fluorometers

The Accuris™ Smart-Q™ 100 & Smart-Q™ 800 Fluorometers are designed for the precise quantification of DNA, RNA, and protein samples. By utilizing well-established methodologies for fluorescence detection, the Smart-Q Fluorometers provide higher specificity and enhanced accuracy compared to the traditional method of UV-absorbance detection.

The Smart-Q Fluorometers are engineered to achieve optimal performance with Accuris' Fluorescent DN Quantification Kits and assay tubes; however, they also maintain compatibility with a range of kits offere by various other suppliers. The Smart-Q 100 is designed for single samples, while the Smart-Q 800 processes 8 samples for higher throughput.



Technical Data:

	Smart-Q™ 100 Fluorometer	Smart-Q™ 800 Fluorometer
Display:	7.0-inch, color touch screen	
Dynamic Range:	5 orders of magnitude	4 orders of magnitude
Excitation Wavelengths:	Blue: 460 ± 20nm and Red: 625 ± 20nm	
Emission Wavelengths:	Green: 525 – 570nm and Red: 670 – 725nm	
Stability:	≤ 1.5%	
Detector:	Photodiodes (300-1000nm)	
Measurement Speed:	≤ 5 seconds	≤ 6 seconds
Consumable Type:	0.5ml assay tubes	0.2ml assay tubes (single and 8-tube strip)
Weight:	3.5lbs / 1.6 kg	4.4lbs / 2 kg

Ordering Information:

Item No.	Description:
F1001*	Smart-Q™ 100 Fluorometer, single sample
F1008*	Smart-Q™ 800 Fluorometer, 8-channel
F1000-HS-100	High Sensitivity dsDNA Quantification Kit, 100 assays
F1000-BR-100	Broad Range dsDNA Quantification Kit, 100 assays
F1001-T	0.5mL Fluorescence Detection Tubes, pack of 250
F1008-T	0.2mL Smart-Q™ 800 Assay Tubes, pack of 1000
F1008-T-8	0.2mL Smart-Q™ 800 Assay Tube Strips, pack of 120

*115V with US plug. For 230V (EU plug), add (-E).

IsoPURE™ 96 & 24 **Nucleic Acid Purification Systems**



- Operates as a stand-alone system, or connect to PC for programming
- 8-position carousel for deep well sample plates
- Intuitive programming and operation on a user-friendly touch screen
- Reliable and automated processing of up to 96 or 24 samples
- Scripts available for all popular magnetic bead kits

The IsoPURE™ 96 and IsoPURE™ 24 from Accuris Instruments are high throughput automated purification systems that improve efficiency and reproducibility of magnetic bead extractions. Capable of processing up to 96 or 24 samples at one time, the instruments are easy to set up and program. Mixing, magnetic bead transfer, washing and elution steps are performed automatically, saving valuable hands-on time. The complete purification process can be finished in as little as 10 minutes (depending on the reagent kit and complexity of the program.) The IsoPURE 96 uses 96-deep well plates for processing sample volumes up to 1ml. The IsoPURE 24 allows for processing sample volumes up to 10ml, typically required for work with cell-free DNA (cfDNA) and FFPE samples.


AP1096-TC


AP1096-DWP

IsoPURE™ Mini **Purification System**

- Compact design takes up only 8 x 10 in. of bench space
- Intuitive programming on an Android® tablet
- Included hand-held scanner for quick script uploading
- Fast and reliable sample processing
- Scripts available for all popular magnetic bead kits



The IsoPURE™ Mini from Accuris Instruments is an extremely compact, automated purification system that improves efficiency and reproducibility of magnetic bead extractions. Capable of processing up to 16 samples at one time, the instrument is easy to set up and program. Mixing, magnetic bead transfer, washing and elution steps are performed automatically, saving valuable hands-on time. The complete purification process can be finished in as little as 10 minutes (depending on the reagent kit and complexity of the program.)


AP1016-6W
6-well sample strip


AP1016-ASR
Aluminum Sample Rack


AP1016-MC
8-place tip comb

Ordering Information:

Item No.	Description:
AP1096*	**IsoPURE™ 96, Automated Purification System**
AP1096-DWP	96 deep well plates for IsoPure™, 50/cs.
AP1096-TC	Tip Comb for IsoPure™ 96, 50/cs.
AP1024*	**IsoPURE™ 24, Automated Purification System**
AP1024-DWP	24 deep well plates for IsoPure™, pack of 50
AP1024-TC	Tip Comb for IsoPure™ 24, pack of 50
AP1016*	**IsoPURE™ Mini, Automated Purification System**
AP1096-DWP	96 deep well plates for IsoPure™, 50/cs.
AP1016-6W	6-well sample strips, 100/cs.
AP1016-MC	8-place magnetic tip comb for IsoPure Mini, 50/cs.
AP1016-TAB	Android tablet preloaded with IsoPure™ app

*115V with US plug. For 230V (EU plug), add (-E).

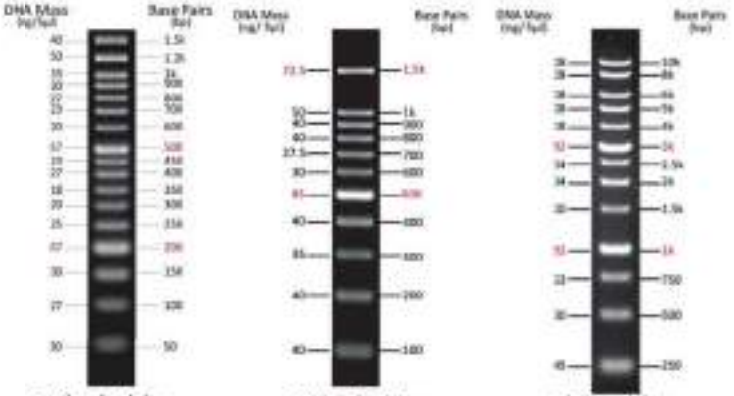
Technical Data:

	IsoPURE™ Mini	IsoPURE™ 96/24
Capacity / Sample Volume:	16 samples: 20µl to 1,000µl	96 samples: 20µl to 1,000µl 24 sample: 50µl to 10,000µl
Magnetic Bead Recovery Rate:	>95%	
Lysis Temperature Range:	Ambient to 120°C	
Elution Temperature Range:	Ambient to 120°C	
Display:	4.3 inch color screen	7.0 inch color screen
Programming Control:	Bluetooth, Android tablet	Touch screen/mouse, or PC connection
Program Memory:	100 programs	
Communication:	USB	
Internal Lighting:	LED	
Contamination Control:	UV Sterilization	
Electrical Input:	Universal 120 to 240V, 50 to 60Hz	
Dimensions: (W x D x H)	7.9 x 10.2 x 11.8 in. 20 x 26 x 30 cm	22 x 24.5 x 19.7 in. 15.7 x 20.5 x 17.7 cm
Weight:	15.4 lbs / 7 kg	119 lbs / 54 kg 66.1 lbs / 30 kg
Warranty:	2 years	

SmartCheck™ DNA **Ladders**



- Three size ranges: 50bp, 100bp and 1kb
- Ready to use formulation includes loading buffer and tracking dye
- Higher intensity reference bands
- Concentration of 1µg/µl - load 5µl/lane
- Ultra pure production allows for economical ambient shipping



2% agarose gel, 1X TAE, 5µl ladder/lane

Ordering Information:

Item No.	Description:
PR4005-100	SmartCheck™ 50bp ladder, 500µl, 100 lanes
PR4005-500	SmartCheck™ 50bp ladder, 5x500µl, 500 lanes
PR4010-100	SmartCheck™ 100bp ladder, 500µl, 100 lanes
PR4010-500	SmartCheck™ 100bp ladder, 5x500µl, 500 lanes
PR4100-100	SmartCheck™ 1kb ladder, 500µl, 100 lanes
PR4100-500	SmartCheck™ 1kb ladder, 5x500µl, 500 lanes

SmartCheck™ Protein **Marker**

SmartCheck markers are compatible with Tris Glycine, Bis-Tris (MOPS) and Bis-Tris (MES) and can be used for western blotting with minimal washout.

- Ready to use, just load and run
- Covers a broad range from 5-245 kDa*
- Enhanced bands provide quick reference points
- 500ul suitable for 100 lanes (5ul per lane)



SmartCheck Tri-Color Protein Marker separated by SDS-PAGE, Tris Glycine buffer

Ordering Information:

Item No.	Description:
PR5013-TC	SmartCheck™ Tri-color Extended Range Plus Protein Marker, 13 bands 9-245 kDA, 2x250µl

QuickSilver™ Powdered **Buffers**



Convient, premeasured packs



Just add pouch contents to water and stir to dissolve

- Premeasured pouches with quick dissolving powder
- Makes 1L of ready to use 1X solution
- No pH adjustment needed
- Economical shipping with long shelf life
- Guaranteed quality and consistency batch to batch

Ordering Information:

Item No.	Description:
EB1000	TAE Buffer Powder, each pouch makes 1L of 1X, 100 pouches
EB1100	Tris-Glycine-SDS Buffer Powder, each pouch makes 1L of 1X, 50 pouches
EB1200	PBS Buffer Powder, each pouch makes 1L of 1X, 100 pouches
EB1201	PBS-T Buffer Powder, each pouch makes 1L of 1X, 100 pouches
EB1202	TBS Buffer Powder, each pouch makes 1L of 1X, 100 pouches
EB1203	TBS-T Buffer Powder, each pouch makes 1L of 1X, 100 pouches

myGel Mini™ Electrophoresis System



MyGEL™ mini

- **Complete system**
  (Includes gel tank, power supply & casting accessories)
- **Quick and easy gel casting**
  (No spacers or clamps required)
- **Compact design, 7.5 x 5 in. footprint**

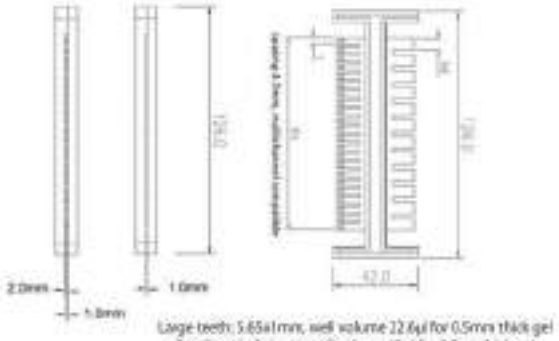


The Accuris myGel Mini Electrophoresis System includes all the equipment you need to get up and running - gel tank, power supply and 2 complete casting sets. Ideal for personal use, small laboratories, or the classroom, this gel box/power supply combination is compact and easy to use.

The myGel Mini power supply attaches directly to the gel box for a secure connection every time. Selectable parameters include 3 preset voltages - 35, 50 and 100V - and a 99 minute timer. Parameters are set using the membrane keypad. The safety lid is vented to dissipate heat generated during electrophoresis, and features a viewing area above the gel. Current will only run through the system when the lid is properly in place on top of the gel box.

Trays and casting stands for both 10.5 x 6cm and 5 x 6cm gels are included with the myGel Mini system, as are double sided combs. The smaller tooth combs are compatible with multichannel pipettes. An optional casting set is available for 10.5cm x 10cm gels. Casting is quick and easy - just place the tray in the casting stand and pour. The gel trays feature a dark contrast strip to help visualize wells while loading, and lines that fluoresce under UV and blue light to track the progress of the run.

Comb Dimensions (E1101-COMB1)



Large teeth: 5.65x1mm, well volume 22.6µl for 0.5mm thick gel
Small teeth: 3x1mm, well volume 12µl for 0.5cm thick gel
3mm wide teeth taper from 2mm to 1mm at tip

Ordering Information:

Item No.	Description:
E1101*	MyGel™ Mini Electrophoresis System, complete with E1101-CS1 and E1101-CS2, 115V
myGel Mini includes all of the below casting accessories:	
E1101-CS1	Extra casting set, for 10.5 x 6cm gels, includes two trays and two combs (22'/12 teeth)
E1101-COMB1	Extra double sided combs, 22'/12 teeth, for E1101-CS1 and E1200-CS1 casting sets, pk 2 (multi-channel compatible)
E1101-CS2	Extra casting set, for 5 x 6cm gels, includes four trays and two combs (18'/10 teeth)
E1101-COMB2	Extra double sided combs, 18'/10 teeth, for E1101-CS2 casting set, pk 2 (multi-channel compatible)
Additional casting set available:	
E1200-CS1	Casting set for 10.5 x 10cm gels, includes one tray and 2 combs (22'/12 teeth)

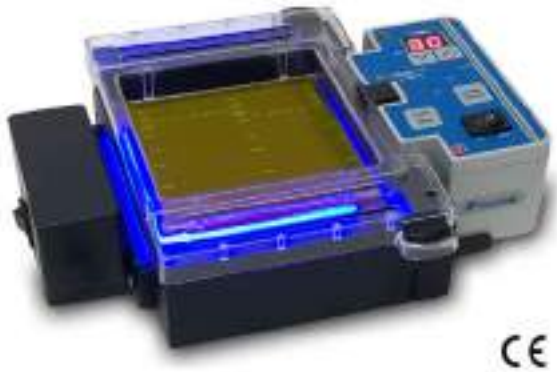
+Multi-channel compatible

*115V with US plug. For 230V (EU plug and step down transformer), add (-E)

Technical Data:

Output Voltage:	35V, 50V or 100V
Timer:	0-99 minute or continuous
Safety:	Magnetic and mechanical lid interlock
Max. Buffer Volume:	230 ml
Gel Capacity:	One 10.5 x 6cm, one 10.5x10cm or two 5 x 6cm
Dimensions: (W x D x H)	7.5 x 5.1 x 2.1 in. 19 x 13x 5.5 cm
Weight:	1 lbs / 0.5 kg
Electrical:	115V, 60Hz or 230V, 50Hz
Warranty:	2 years

myGel™ Mini InstaView™ Electrophoresis System



- Complete system to run, visualize *and* document mini gels
- Includes direct connect power supply, gel tank w/orange filter cover, casting set, blue light LED illuminator and smart phone imaging enclosure
- View DNA migration and separation at any time during a run
- Capture high resolution smart phone images without removing the gel from the tank

The Accuris myGel Mini InstaView Electrophoresis System is a revolutionary product that allows viewing DNA separation as it happens. No longer is it necessary to stop your electrophoresis, remove the gel, and place it on a transilluminator to check the progress of the run.

The system's gel running tank is designed with a clear bottom and shaped to mate with the included LED transilluminator. The transilluminator's bright 465nm wavelength provides optimal excitation for common green fluorescent DNA stains (such as Accuris SmartGlow™, SYBR™ Green, Gel Green, and many others). The safety cover with orange viewing filter fits onto the top of the tank, and the recessed filter contacts the top surface of the buffer. This eliminates the possibility of fogging, and allows clear visualization of stained DNA as it migrates and separates. Results can be documented with a smart phone camera using the included imaging enclosure.

Ordering Information:

Item No.	Description:
E1201*	MyGel™ InstaView™ Electrophoresis System, complete with gel tank, power supply, E1200-CS1 casting set, blue LED transilluminator and imaging enclosure, 115V
E1200-CS1	Extra casting set for 10.5x10cm and 10.5x6cm gels. Includes stand, trays, E1101-COMB1 double-sided combs
E1101-COMB1	Extra double sided combs, 22 /12 teeth, pack of 2
E1200-OC	Orange filter cover for mini LED transilluminator

*Multi-channel compatible
*115V with US plug. For 230V (EU plug and step down transformer), add (-E).

Technical Data:

Output Voltage:	35V, 50V or 100V
Timer:	0-99 minute or continuous
Safety:	Magnetic switch
Max. Buffer Volume:	250ml
Gel Capacity:	One 10.5x10cm gel, 0.5cm thick
Excitation Wavelength:	465nm
Dimensions with Enclosure: (W x D x H)	10x8.25x5.5 in/25.5x21x14 cm
Weight:	2.3 lbs / 1.04 kg
Electrical:	115V, 60Hz or 230V, 50Hz
Warranty:	2 years

InstaView™ Gel Tank

- View sample migration *during* electrophoresis
- Includes gel tank, blue LED transilluminator, orange filter cover and imaging enclosure
- Capture high resolution smart phone images without removing the gel from the tank
- Compatible with any basic power supply



Ordering Information:

Item No.	Description:
E1200*	InstaView™ Gel Tank, complete with tank, E1200-CS1 casting set, blue LED transilluminator and imaging enclosure (7.25x8.25x5.5 in/18.4x21x14cm with imaging enclosure), 115V
E2301*	myVolt™ Touch Power Supply, 1 to 300V, 400mA, 100W
E1200-CS1	Extra casting set for 10.5x10cm and 10.5x6cm gels. Includes stand, trays, E1101-COMB1 double-sided combs
E1101-COMB1	Extra double sided combs, 22 /12 teeth, pack of 2
E1200-OC	Orange filter cover for mini LED transilluminator

*Multi-channel compatible
*115V with US plug. For 230V add (-E).



UV TRANSILLUMINATORS

For Viewing DNA and Protein in Electrophoresis Gels

- 302nm midrange UV wavelength
- Optimal for EtBr, SmartGlow™, or SYBR™
- Adjustable intensity, (E3000 and E3200 models)
- Hinged UV safety cover
- Use with SmartDoc™ enclosure for gel imaging with a smart phone (E3000 & E3100)

Accuris offers three UV transilluminators to meet a range of requirements:

The Accuris™ **E3000** UV Transilluminator is a workhorse instrument featuring a robust metal housing, a space-saving design, with a width of only 10.5 inches. The 16 x 19 cm UV viewing surface is sized to accommodate large gels or multiple smaller gels. The dual intensity switch can be used to lower the UV intensity to 50% to reduce DNA damage during long exposure times, or switch to high intensity (100%) for viewing weak fluorescent signals or for photo documentation.

The **E3100** UV Transilluminator has a surprisingly small footprint (smaller than a standard piece of paper), and modern design. The viewing surface - 16.5 x 13.5 cm filter glass - is large enough to accommodate a mid-sized gel or multiple smaller gels. The E3100 is perfectly suited for use with our SmartDoc ™ Imaging Enclosure and filters (sold separately) for gel imaging with a smartphone. Use filter E5001-UVBLOCK for best results when imaging SmartGlow, SYBR or EtBr stained gels.

The model **E3200** UV Transilluminator offers a larger viewing surface of 21 x 26 cm to accommodate larger gels or multiple small gels. Higher powered, 14-Watt UV bulbs provide higher sensitivity, so the smallest bands of stained nucleic acids can be visualized. The E3200 also features a control knob for continuous adjustment of the UV intensity.

All 3 models use scratch-resistant, UV filter glass. Optimal emission of 302nm wavelength is ideal for excitation of gels stained with Ethidium Bromide, SmartGlow™, SYBR® Green and other common stains.

Acrylic UV blocking covers are included on all 3 models to allow safe viewing of samples, and two friction hinges on the front edge allow angling of the cover for gel access.



E3100 with Smartdoc Enclosure

Compatible DNA stains:

Ethidium Bromide
SmartGlow™ LD and PS
Gel Red™
Gel Green™
SYBR® Green
SYBR® Safe
Diamond™ Nucleic Acid Dye

Technical Data:

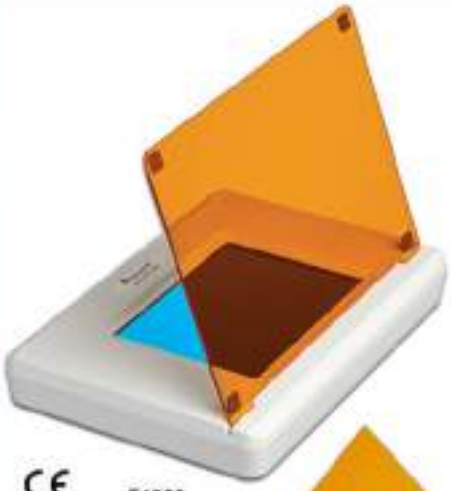
	E3000	E3100	E3200
Light Source:	4 x 8-Watt bulbs	4 x 6-Watt bulbs	4 x 14-Watt bulbs
Wavelength:	302nm		
Intensity Control:	Low (50%) or High (100%)	Fixed Intensity	Fully Variable Intensity
Viewing Surface:	16 x 19cm	16.5 x 13.5cm	21 x 26cm
Dimensions: W x D x H	10.5 x 13 x 5.5 in / 26.5 x 32.5 x 14 cm	10 x 8 x 2.75 in/ 25 x 20 x 7 cm	13.8 x 12 x 3.3 in / 35 x 30 x 8.5 cm
Electrical:	120V or 230V, 50-60Hz	Universal, 12V DC Power Supply included	Universal, 24V DC Power Supply included
Warranty:	2 years		

Ordering Information:

Item No.	Description:
E3000*	Accuris™ UV Transilluminator (16.5 x 13.5 cm viewing surface)
E3100*	Accuris™ Compact UV Transilluminator (16 x 19 cm viewing surface)
E3200*	Accuris™ UV Transilluminator (21 x 26 cm viewing surface)
E5001-5D	SmartDoc™ Imaging Enclosure with orange photo filter
E5001-535	SmartDoc photo filter, 535nm for imaging green stains on UV
E5001-590	SmartDoc photo filter, 590nm for imaging EtBr on UV
E5001-UVBLOCK	SmartDoc filter, blocks UV wavelength, optimized for use on E3100 transilluminator
E4000-VG1	SmartBlue Plus Viewing Glasses

*115V with US plug. For 230V (EU plug), add (-EI).

SmartBlue™ Transilluminators



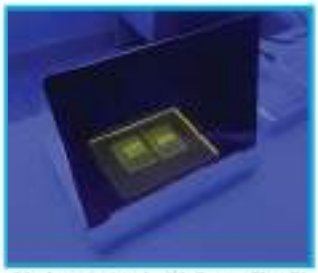
E4000



E4100

SMARTBLUE™

- Safe blue light does not damage nucleic acid
- Uniform Illumination (UI) provides even lighting
- 465nm wavelength, optimal for green stains
- Adjustable position amber cover



Markers stained with SmartGlow™ shown on SmartBlue



Optional viewing glasses

Safer for samples, safer for you: Accuris SmartBlue Transilluminators are the perfect partner for the most common safe DNA stains. These instruments emit blue light at a wavelength of 465nm, perfect for excitation of most green fluorophors, including our Accuris' SmartGlow™, SYBR™ Green, SYBR Safe, SYBR Gold, GelStar®, GelGreen®, to name a few. The SmartBlue can also work for excitation of EtBr (though fluorescence is not as bright as with UV), see our Technical Bulletin with sample images. Exposing DNA to blue wavelength does not cause molecular damage, and results in a much higher downstream cloning efficiency as compared to even short UV light exposures. In addition, the visible blue light is not damaging to the user's skin and is less harmful to the eyes.*

Two position filter cover: Both the E4100 and E4000 transilluminators come with emission filter covers. These amber covers, which rest above the viewing surface and gel, filter out the blue light, allowing the fluorescent DNA bands to be seen clearly. The covers are designed to fit flat for general gel viewing or to be placed at an angle to provide easy access to the gel for band excision. For documentation, the filter cover is easily removed or adjusted out of the way.

Optional amber viewing glasses: Our E4000-VG1 SmartBlue *Plus* Viewing Glasses offer efficient blocking of the blue light wavelength from the transilluminators, allowing clear visualization of the fluorescing DNA bands without the filter cover in place. These convenient glasses are recommended for users that are frequently excising DNA bands from gels. SmartBlue *Plus* glasses also block 100% of UV wavelength so they can also be used for viewing gels on a UV transilluminator.

* The SmartBlue products use high intensity LED lights. Although the visible blue wavelength is significantly safer than UV light, it is recommended to not stare directly at the viewing surface without the amber cover in place.

Technical Data:	E4000	E4100
Light Source:	High Intensity Blue LEDs	
Wavelength:	Peak at 465nm	
Viewing Surface:	17 x 12cm	10.5 x 10.5cm
Viewing Surface:	Amber, filters blue light	
Dimensions: (W x D x H)	12.8 x 8.5 x 1.9 in. / 30.5 x 21.5 x 5 cm	6.7 x 4.72 x 2 in./ 7 x 12 x 5 cm
Weight:	2.6 lbs / 1.2 kg	0.7 lbs / 0.3 kg
Electrical:	115V or 230V, 50Hz to 60Hz	
Warranty:	2 years	

Ordering Information:

Item No.	Description:
E4000*	SmartBlue™ Blue Light Transilluminator
E4100*	SmartBlue™ Mini Blue Light Transilluminator, includes amber cover
E5001-SD	SmartDoc™ Imaging Enclosure with orange photo filter
E4000-VG1	Orange viewing glasses for use with blue light, includes case

*115V with US plug. For 230V (EU plug), add (-E).

SmartDoc™ Gel **Imaging System**



E5001-SDB

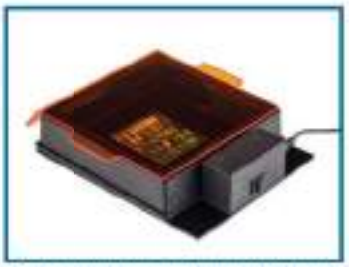
SMARTDOC™ 2.0

Gel Visualization and Smart Phone Imaging System

- Quality imaging with any smart phone
- Ideal for common safe stains (SmartGlow™, SYBR® Green, GelGreen®, etc.)
- Visible blue light will not damage DNA
- Gel access for DNA band cutting
- Imaging enclosure available individually and can be used on existing transilluminators

Technical Data:

Maximum gel size:	15 x 15cm
Excitation source:	High intensity blue LED
Photo filter:	Orange PMMA, 12mm aperture
Viewing cover:	Orange PMMA, 18cm x 18cm
Phone compatibility:	iPhone™, Android™, etc. (smart phones and tablets with a camera)
Dimensions (W x D x H):	9 x 7.5 x 8.6 in. / 23 x 19 x 22 cm
Weight:	2.6 lbs / 1.2 kg
Electrical:	115V or 230V, 50Hz to 60Hz
Warranty:	2 years



Standalone blue light illumination base (Included with E5001-SDB)



Included orange cover can be tilted for gel access

Ordering Information:

Item No.	Description:
E5001-SDB*	SmartDoc™ Gel Imaging System with blue light illumination and orange photo filter
E5001-SD	SmartDoc™ Gel Imaging Enclosure (use on existing transilluminator) w/orange photo filter
E5000-MAT	UV Blocking Mat
E5001-535	SmartDoc photo filter, 535nm for imaging green stains on UV
E5001-590	SmartDoc photo filter, 590nm for imaging EtBr on UV
E4000-VG1	Orange viewing glasses for use with blue light, includes case

*Includes US plug. For EU plug, please add (-E).



E5001-SD Endosure shown on E4000 UV Transilluminator

SmartGlow™ Safe **Nucleic Acid Stain**



- Replaces hazardous EtBr
- Excitation by UV or blue light
- Non-mutagenic, environmentally safe
- Two types: PS (Pre-Stain) LD (Loading Dye)

Ordering Information:

Item No.	Description:
E4500-PS	SmartGlow™ PS (Pre-Stain), 1ml (20,000X)
E4500-LD	SmartGlow™ LD (Loading Dye) with stain, 1ml (6X)



*Excitation with Accuris SmartBlue™ Transilluminator. Imaged using Accuris SmartDoc™ Blue with iPhone 6.

myVolt™ Mini **Power Supply**



- **Ideal for basic electrophoresis and compatible with standard electrophoresis gel tanks**
- **Compact and simple with 100V or 200V output**
- **Two pairs of output terminals**

Technical Data:

Voltage Output:	**100V or 200V constant**
Current Output:	**Max. 200mA**
Max Wattage:	**40W**
Output Terminals:	**2 pairs (wired in parallel)**
Dimensions:	**6.25 x 4.5 x 2.25 in. / 16 x 11.5 x 5.7cm**
Weight:	**0.9lbs / 0.4 kg**
Electrical:	**100 - 240V, 50 - 60Hz**
Warranty:	**2 years**

Ordering Information:

Item No.	Description:
E2100*	myVolt™ Mini Power Supply, 100V / 200V

*Includes US plug. For EU plug, please add (-E).

myVolt™ Touch **Power Supply**



Dual Orientation, Auto-Rotating Display



- **Touchscreen control**
- **Dual orientation, auto-rotating display (fits anywhere in a crowded lab)**
- **Intuitive programming**
- **Control voltage, amperage, and run time**

The Accuris myVolt Touch is a work horse electrophoresis power supply that includes all of the performance and specifications needed for efficient separation of nucleic acids and proteins. The perfect companion for both horizontal and mini vertical gel tanks, the myVolt Touch incorporates some very unique user-friendly features:

***Touch-screen* Control Panel:** Setting up an electrophoresis run with the myVolt Touch couldn't be easier... adjust voltage, current and time values, then touch "Start" to begin the run. Voltage, current and run time are all displayed.

Technical Data:

Output Settings:	**Constant voltage or constant current**
Voltage Output:	**10 - 300V (5V increments)**
Current Output:	**5 - 400mA (5mA increments)**
Max Wattage:	**100W**
Timer:	**1 min. to 20 hours or continuous**
Output Terminals:	**4 pairs (wired in parallel)**
Safety:	**No load, short circuit, overload detection, over power detection**
Display: (W x D x H)	**2 x 2in. touchscreen LCD**
Dimensions:	**8.5 x 6.3 x 4.0 in. / 21.5 x 15.5 x 9.75 cm**
Weight:	**2lbs / 0.9 kg**
Electrical:	**115V, 60Hz or 230V, 50Hz**
Warranty:	**2 years**

Dual Orientation, Auto-Rotating Display: The myVolt Touch packs plenty of power and features into a compact housing. But for those crowded lab benches, we've taken our design a step further. The myVolt can be oriented horizontally or vertically to fit the space available either on the lab bench or a shelf. When the power supply is tilted up vertically or back down horizontally, the display automatically rotates. Folding feet can be extended when the power supply is horizontal for convenient access and viewing of the touch screen. When set vertically, the touchscreen is also tilted up toward the user.

Ordering Information:

Item No.	Description:
E2301*	myVolt™ Touch Power Supply, 1 to 300V max, 400mA, 100W

*115V with US plug. For 230V (EU plug), please add (-E).

Taq 2X Master Mix

- Single-tube formulation: Ready to use 2X Master Mix.
- High performance with gDNA & GC-rich sequences



Each mix includes:

- Taq DNA Polymerase
- Buffer (PCR Enhancers, 2mM dNTPs, 6mM $MgCl_2$, optional inert red gel loading dye for direct gel loading)

Applications:

- Colony PCR
- High-throughput
- Fast PCR
- Routine PCR
- Genotyping

Ordering Information:

Item No.	Description:
PR1001-200*	Taq 2X Master Mix, 200 reactions (4 x 1.25ml)
PR1001-R-200*	Taq 2X Red Dye Master Mix, 200 reactions (4 x 1.25ml)

*Also available in 1000 reaction packets

Hot Start Taq 2X Master Mix

- Single-tube formulation: Ready to use 2X Master Mix.
- Allows for reaction set-up at room temperature without the risk of non-specific amplification
- High performance with gDNA & GC-rich sequences

Each mix includes:

- Taq DNA Polymerase
- Buffer (PCR Enhancers, 2mM dNTPs, 6mM $MgCl_2$, optional inert red gel loading dye for direct gel loading)

Applications:

- Colony PCR
- Fast PCR
- GC-rich DNA Amplification
- Low Copy PCR
- Multiplex PCR



Ordering Information:

Item No.	Description:
PR1001-HS-200*	Hot Start Taq 2X Master Mix, 200 reactions (4 x 1.25ml)
PR1001-HSR-200*	Hot Start Taq 2X Red Dye Master Mix, 200 reactions (4 x 1.25ml)

*Also available in 1000 reaction packets

High Fidelity 2X Master Mix

- Single-tube formulation: Ready to use 2X Master Mix.
- Ideal for blunt end cloning
- 100X the fidelity of wild-type Taq
- High Fidelity Hot-Start Master Mix available for TA cloning (10X fidelity of wild-type Taq)
- Exhibits 3'->5' proofreading activity

Each mix includes:

- High Fidelity Polymerase
- Buffer (PCR Enhancers, 2mM dNTPs, 6mM $MgCl_2$, optional hot-start antibodies)

Applications:

- Blunt End / TA Cloning Colony PCR
- Fast PCR
- GC- & AT-Rich DNA Amplification
- Low Copy PCR



Ordering Information:

Item No.	Description:
PR1001-HF-200	High Fidelity Master Mix, 200 reactions (2 x 1.25ml)
PR1001-HF-500	High Fidelity Master Mix, 500 reactions (5 x 1.25ml)
PR1001-HFHS-200	High Fidelity Hot Start Master Mix, 200 reactions (2 x 1.25ml)
PR1001-HFHS-500	High Fidelity Hot Start Master Mix, 500 reactions (5 x 1.25ml)

qMAX™ Green qPCR Mix



- Single-tube formulation: Ready to use 2X Master Mix (Includes Hot Start Taq DNA Polymerase)
- Proprietary intercalating green fluorescent dye for minimal PCR inhibition & optimal fluorescence
- Inert blue tracking dye to assist in visualization during pipetting
- Early Ct values and detection across a broad dynamic range



Each mix includes:

- Accuris Hot Start Taq DNA Polymerase
- qMAX Green (proprietary fluorescent dye)
- Inert blue tracking dye
- dNTPs included
- Optimized buffer for maximum efficiency & sensitivity

Applications:

- Gene Expression Analysis
- Fluorescent Detection of DNA/cDNA

Ordering Information:

Item No.	Description:
PR2000-N*-100	qMAX™ Green qPCR mix with blue tracking dye, No ROX, 100 reactions (1 x 1.0mL)

* To specify ROX levels when ordering: Use -N for No ROX, -L for Low ROX, & -H for High ROX
Bulk packaging available upon request

qMAX™ Probe qPCR Mix



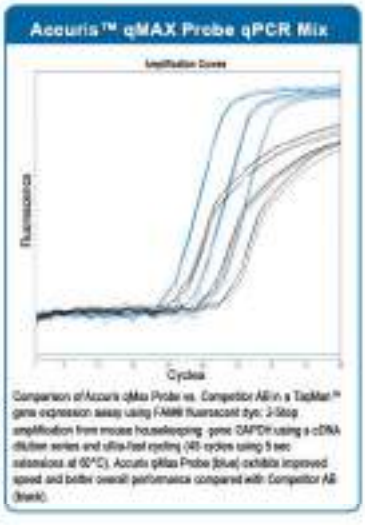
- Single-tube formulation: Ready to use 2X Master Mix (Includes Hot Start Taq DNA Polymerase)
- Compatible with popular hydrolysis & beacon probes
- Ideal for cDNA, gDNA, & low-copy number templates
- Compatible with standard/fast cycling protocols.

Each mix includes:

- Accuris Hot Start Taq DNA Polymerase
- dNTPs
- Optimized buffer for maximum efficiency & sensitivity

Applications:

- Multiplex RT-qPCR
- Probe-based detection of DNA/cDNA
- Gene Expression Analysis



Ordering Information:

Item No.	Description:
PR2001-N*-100	qMAX™ Probe qPCR Mix, No ROX, 100 reactions (1 x 1.0ml)
PR2001-N*-500	qMAX™ Probe qPCR Mix, No ROX, 500 reactions (5 x 1.0ml)
PR2001-N*-1000	qMAX™ Probe qPCR Mix, No ROX, 1000 reactions (10 x 1.0ml)

* To specify ROX levels when ordering: Use -N for No ROX, -L for Low ROX, & -H for High ROX
Bulk packaging available upon request

qMAX™ Probe One-Step RT-qPCR Kits

- Starting Material: RNA
- Two-tube formulation: 2X Probe One-Step Mix & 20X RTase Blend (Includes Hot Start Taq Polymerase)
- Convenient cDNA synthesis and subsequent qPCR in a single tube
- Ideal for gene expression analysis & single pathogen detection

Each 100 reaction kit includes:

- 1 tube of 20X thermostable MMLV derived RTase (RNase inhibitor included)
- 1 tube of 2X Probe One-Step Mix

Applications:

- Single Pathogen Detection
- Gene Expression Analysis





Ordering Information:

Item No.	Description:
PR2121-R*-100/500/1000	qMAX™ Probe One-Step RT-qPCR Kit, No ROX 100/500/1,000 reactions
PR2122-R*-100/500/1000	qMAX™ Probe One-Step Multiplex RT-qPCR Kit, No ROX 100/500/1,000 reactions

cDNA Synthesis Kit

Standard Kit

- Starting Material: **RNA**
- Two-tube formulation: 20X RTase & 5X Buffer
- Ideal for 4pg - 0.5µg of input RNA

Each 25 reaction kit includes:

- 1 tube of 20X RTase (10 U/µL; potent RNase inhibitor included)
- 1 tube of 5X buffer (oligo dT primers & random hexamers included)



Applications:

- cDNA Library Generation
- Microarrays
- Gene Expression Analysis
- 2-Step RT-PCR/RT-qPCR

Ordering Information:

Item No.	Description:
PR2100-C-25/100/250	qMAX™ cDNA Synthesis Kit, 25/100/250 reactions
PR2110-50/200	qMAX™ First Strand cDNA Synthesis Flex Kit, 50/200 reactions

First Strand cDNA Synthesis Flex Kit

- Starting Material: **RNA**
- Four-tube formulation for greater flexibility in assay design
- Ideal for 10pg - 2.0µg of input RNA

Each 50 reaction kit includes:

- 1 tube of RTase (200 U/µL; Potent RNase inhibitor included)
- 1 tube of 5X buffer (5mM dNTPs, 15mM $MgCl_2$, stabilizers, and enhancers)
- 1 tube of random hexaprimers
- 1 tube of oligo dT primers



1 Hour Mammalian Genotyping Kit

- Three-tube formulation: Lysis buffer, Protease buffer, & Hot Start Taq Red Dye Master Mix
- DNA extraction & amplification in as little as 1 hour

Each 50 reaction kit includes:

- 1 tube of 5X Lysis Buffer
- 1 tube of 10X Protease Buffer
- 2 tubes of Hot Start Taq 2X Red Dye Master Mix





Ordering Information:

Item No.	Description:
PR1300-MG-80	1 Hour Mammalian Genotyping Kit, 80 reactions
PR1300-MG-400	1 Hour Mammalian Genotyping Kit, 400 reactions

Benchmark Scientific

Centrifuges ■ Shakers/Mixers ■ Homogenizers
Sterilizers ■ Temperature Control ■ Accuris Instruments

24-25

Benchmark Scientific

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