Benchmark Scientific

2017-2018 Product Catalog

- Centrifuges
- Shakers, Mixers and Rockers
- Homogenizers
- Autoclaves and Sterilizers
- Temperature Control Equipment
- ACCURiS™ Instruments

Hotplate Stirrer

Hot!

650

50.0

Stir On/Off

Heat On/Off

Speed Control

Temp. Control

Push:Start/Stop

Benchmark

Benchmark Scientific

Benchmark Scientific, Inc. is pleased to present our 2017-2018 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.

Centrifuges

Pg. 4
myFuge™ Mini **Microcentrifuge**

Pg. 5
myFuge™ 12 **Microcentrifuge**

Pg. 6
StripSpin™ 12 and myFuge™ 5 **Microcentrifuges**

Pg. 7
PlateFuge™ **Microcentrifuge**

Pg. 8
MC12™ **High Speed Microcentrifuge**
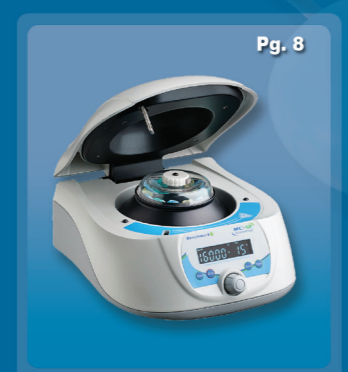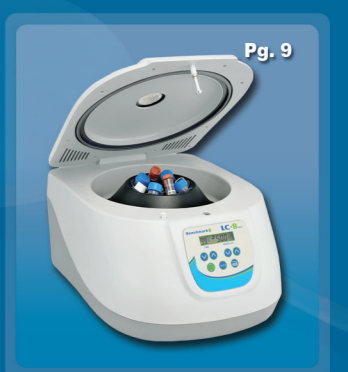
Pg. 9
LC-8™ Series **Centrifuges**

2000 RCF

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**
+ **Rotor for 4 PCR strips**

Storage compartment   Includes both rotors

The myFuge™ Mini centrifuge 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, 50W
Warranty:	1 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.

2000 RCF

myFUGE™ 12

CE

+ **COMBI-Rotor™ for tubes and strips**
+ **Twice the capacity of most mini centrifuges**
+ **Near silent operation**
+ **Starts & stops with closing/opening of the lid**
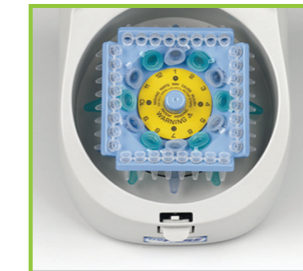
Unique COMBI-Rotor   Compact, low profile design

Unlike traditional mini centrifuges, the new 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:	1 Year

Ordering Information:

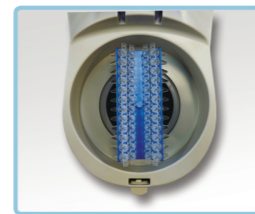| Item No.	Description:
C1012*	myFuge 12 Microcentrifuge with Combi-Rotor
C1008-A5-6	Adapter pack, 0.5ml 6/pk.
C1008-A2-6	Adapter pack, 0.2ml 6/pk.

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

2000 RCF

For labs using 12 position PCR strips

Rotor holds 12 position PCR strips

For technical data, please see model C1012

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

Ordering Information:

Item No.	Description:
C1248*	StripSpin 12 Mini Microcentrifuge with 4 x 12 strip rotor
C1008-ROT	Optional rotor, 8 x 1.5/2.0ml
C1008-A5-8	Optional adapter pack for C1008-ROT, 0.5ml, 8/pk.

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

myFuge™ 5 **Microcentrifuge**

2000 RCF

Rotor for 5ml microtubes

+ **For quick spin downs of 5ml centrifuge tubes**
+ **Includes adapters for 5ml blood tubes**
+ **Starts and stops with closing/opening of the lid**
+ **Optional adapters for centrifuging cryovials**

C E

The myFuge™ 5 microcentrifuge includes a four position rotor for compatibilty with a variety of 5ml test tubes, including 5ml snap cap centrifuge tubes.   In addition, this combination rotor has four additional slots for centrifuging standard microtubes (1.5/2.0ml). Simply close the lid and the centrifuge quickly accelerates to the fixed speed of 5,500rpm. Open the lid, and the rotor decelerates to a stop for removing samples.

The 5ml rotor positions accept 5ml centrifuge tubes directly, while 5ml blood and culture tubes (12x75mm) are accepted with the included adapters. The microtube positions are designed to accept 0.5 and 0.2ml tubes with the use of optional adapters.

Technical Data:

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

Ordering Information:

Item No.	Description:
C1005*	myFuge 5 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.

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

PLATEFUGE™
### MICROPLATE MICROCENTRIFUGE

C E

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

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 (9x10 in.), the PlateFuge™ includes a uniquely designed, swing out rotor (patented) 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 horizontal position. Any droplets on the walls of the plate, quickly concentrate into the well bottoms.

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.
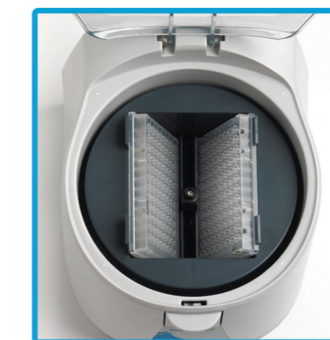
Before & after centrifugation (angled position)

During centrifugation (horizontal position)

Technical Data:

Speed:	2550 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: 1500rpm)

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

16,100 RCF

- 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)

16,100 xg

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. All aspects of microcentrifuge performance were taken into consideration and no compromises were made. In addition to its unsurpassed 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:	200 to 15,500 rpm (up to 16,100xg)
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 15cm
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-A5-6	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).

8

3070 RCF

- 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 are 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 - 3,500rpm (1500xg)	400 - 5,000rpm (3070xg)
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: 3,500rpm / 1,500xg)
C3200	LC-8 Plus Centrifuge with 8 x 15ml rotor (maximum speed: 5,000rpm / 3,070xg)
C3201-ADP	Optional adapters for 5ml & 7ml 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).

9

Shakers, Mixers and Rockers

Pg. 12
Vornado™ **Mini Vortexer**

Pg. 13
BenchMixer™ **Vortex Mixers**

Pg. 14
Mortexer™ **Vortex Mixer**

Pg. 15
BenchMixer™ XL **Vortex Mixer**

Pg. 16
TubeRocker and BenchBlotter™
Fixed Speed Rocker

Pg. 17
BenchRocker™ 2D **Variable Rocker**

Pg. 17
Everlast™ 247 **Variable Rocker**

Pg. 18
BlotBoy™ & BioMixer™
Fixed Speed 3D Rockers

Pg. 20
BenchWaver™ **3D (Undulating) Rocker**

Pg. 21
Orbi-Blotter™ **Low Speed Orbital Shaker**

Pg. 22-23
Orbi-Shaker™ **Orbital Shakers**

Pg. 23
Orbi-Shaker™ MP **Microplate Shaker**

Pg. 24
Orbi-Shaker™ CO2 **Remote Shakers**

Pg. 26
RotoBot™ **Programmable Rotators**

Pg. 27
Benchmark™ **Rotating Mixer**

Pg. 28
Tube Roller **Tube and Bottle Rollers**

4 mm

VORNADO™
MINIATURE VORTEX MIXER

⊹ **Powerful vortexing, for tubes up to 50ml**

⊹ **Insta-Touch™ pressure activated operation**

⊹ **"Mini" sized, less than 4" wide**

3.7"

CE

Insta-Touch™ pressure activation   Extremely compact

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

Technical Data:

Speed:	**2,800rpm (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 (0.4kg)**
Electrical:	**Universal Voltage 100 to 240V, 50-60Hz, 50W**
Warranty:	**2 Years**

BV101   BV101-B

BV101-G   BV101-P   BV101-R

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).

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3 mm

BenchMixer™ V2

⊹ **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**

Flip Over
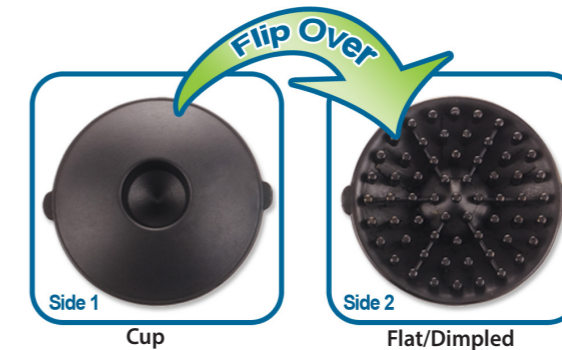
Side 1   Side 2
Cup   Flat/Dimpled

Video Demonstration

Flat/Dimpled
Cup
Reversible Top

CE

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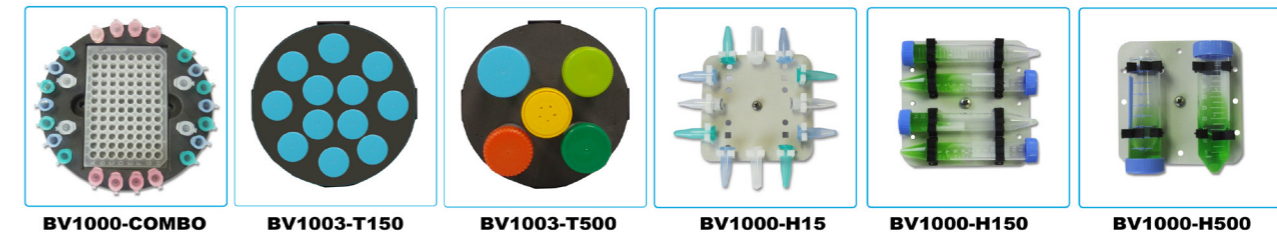
BV1000-COMBO   BV1003-T150   BV1003-T500   BV1000-H15   BV1000-H150   BV1000-H500

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 (3.8kg)**
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 (38x1.5/2.0ml & 28 x 0.5ml or one microplate)
BV1003-T150	Optional head for 12 x 15ml tubes (BV1003 only)
BV1005-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

BV1003

BV1000

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

3 mm

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 (3.8kg)
Electrical:	115V, 60Hz or 230V, 50Hz*, 180W
Warranty:	2 Years

*230V, 60Hz available upon request

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 (-E). For 230V/60Hz with EU plug, please add (-E2).
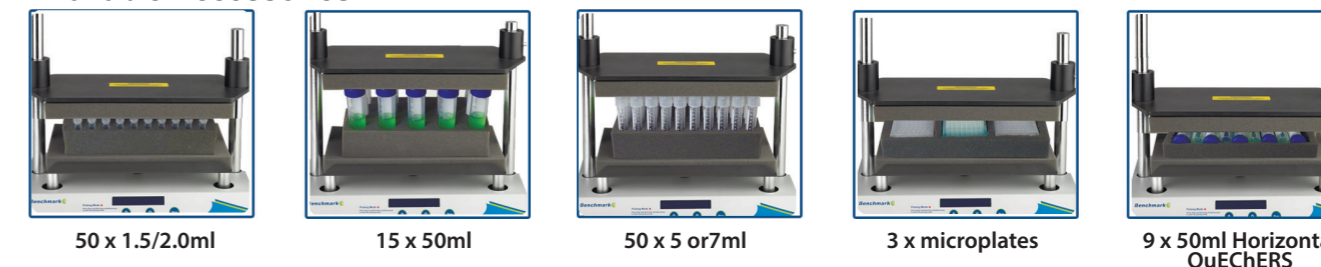
14

BENCHMIXER™ XL
Multi-Tube Vortexer

- ┼ Hands free, high capacity vortexing
- ┼ Up to 2500rpm, a true vortex in every tube
- ┼ Pulsing function for interval vortexing
- ┼ Wide assortment of accessories for a variety of tubes and plates

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 2,500rpm 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 2500 rpm
Orbit:	3.6mm
Timer	1 min. to 99hr 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 (13kg)
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
BV1010-05	Tube Rack (PP*), 96 x 0.5ml (Ø8mm)
BV1010-1520	Tube Rack (EVA*), 50 x 1.5/2.0ml (Ø10mm)
BV1010-12	Tube Rack (EVA*), 50 x 12mm (included)
BV1010-13	Tube Rack (EVA*), 50 x 13mm
BV1010-150	Tube Rack (EVA*), 50 x 15ml (Ø16.5mm)
BV1010-500	Tube Rack (EVA*), 15 x 50ml (Ø29mm)
BV1010-25	Tube Rack (EVA*), 15 x 25mm
BV1010-50H	Tube Rack (PP*), 9 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.)

*EVA: Ethyl Vinyl Acetate / PP: Polypropylene
**Includes US plug. For EU plug, please add (-E).

15

TubeRocker™ Fixed Speed Rocker (2D)

30°

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

8 x 50ml

15 x 15ml

15 x Blood Collection Tubes
(5ml, 7ml, 10ml or 15ml)

30 x 1.5/2.0ml

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 (1.8kg)**
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)

8°
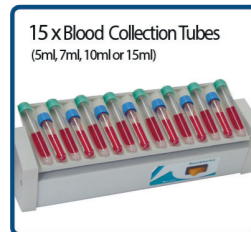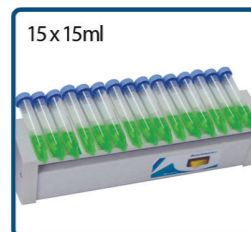
- **Gentle mixing for blot washing and gel staining**
- **Optional dual platform doubles work surface**

BR1000 with BR1000-STACK

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).

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 (2.3kg)**
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 (3kg)**
Electrical:	**115 or 230V, 50-60Hz, 50W**
Warranty:	**2 Years**

BenchRocker™ 2D Variable Speed Rocker (2D)

0 to 30°

Optional Stacking Platform (clearance: 3")

- **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 (3.6kg)**
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 lb s (3.4kg)**
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).

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

0 to 20°
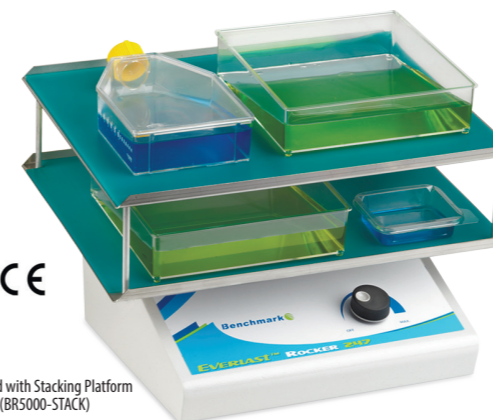
Pictured with Stacking Platform
(BR5000-STACK)

- **Everlast™ 5 year warranty**
- **Extra-large, stainless steel 16x12" 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 (min. 0°C) or incubator (max. 65°C).

Technical Data:

Speed Range:	**Variable, 3 to 80 rpm**
Tilt Angle:	**Variable, 0° to ± 20°**
Platform Size:	**16 x 12 in. / 40.5 x 30 cm**
Load Capacity:	**12 lbs (5.45kg)**
Operating Temp. Range:	**+0° C to +65° C**
Dimensions: (W x D x H)	**16 x 13 x 6 in.** **40.5 x 33 x 15.25 cm**
Stacking Clearance:	**3.5 in. / 8.9cm**
Weight:	**20 lbs (9kg)**
Electrical:	**115 or 230V, 50-60Hz, 50W**
Warranty:	**5 Years**

Ordering Information:

Item No.	Description:
BR5000*	**Everlast™ 247 Rocker with flat mat**
BR5000-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).

BlotBoy™ Low Speed Gyratory Rockers (3D)
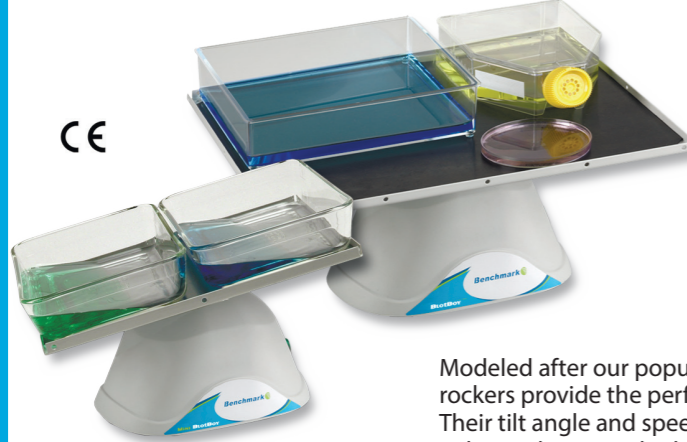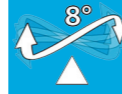
+ **Optimized speed & tilt for blotting, washing and staining**

+ **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 +65° 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 lb s (2kg)
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: 20rpm)
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 +65°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 lb s (2kg)
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™

Optional Stacking Platform (clearance: 3")

+ **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 (2.3kg)
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 lb s (3.4kg)
Electrical:	115 or 230V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

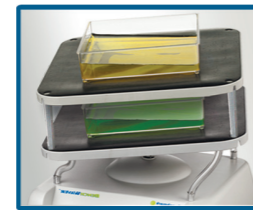| Item No.	Description:
B3D2300*	BenchRocker 3D with flat and dimpled mats (12x12")
BR1000-STACK	Stacking platform (3" clearance) with flat mat (12x12")
BR1000-STACK-D	Stacking platform (3" clearance) with dimpled mat (12x12")
B0718	Bungee cord, used for securing vessels, pack of 4
BR2000-SP	STACK-PLUS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

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

0 to 10°

BENCH**WAVER**™

- 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-DIMP

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. 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 (9kg)
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 (5.5kg)
Electrical:	Universal Voltage: 100 to 240V, 50-60Hz, 50W
Warranty:	2 Years

Ordering Information:

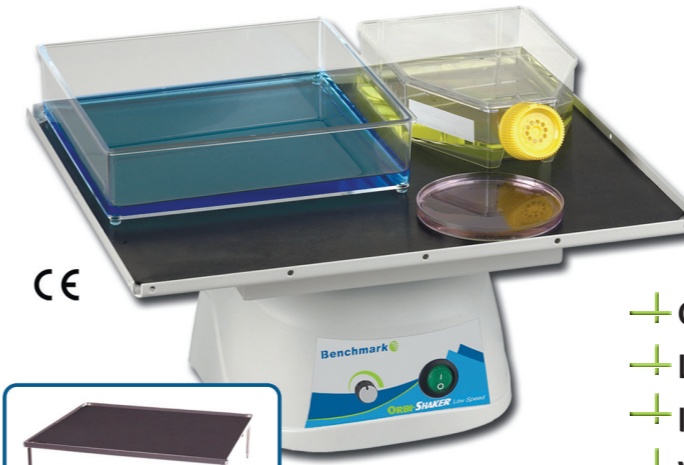| Item No.	Description:
B3D5000*	BenchWaver with platform and flat mat
B3D5000-STK	Optional stacking platform (4.5" clearance) with flat mat (13.5x13")
B3D5000-DIMP	Optional dimpled mat (13.5x13")

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

20

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i9mm

ORBi-BLOTTER™

Optional Stacking Platform (Clearance 3")

- 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 little 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 (4kg)
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 (3.4kg)
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).

Shaking Incubators

INCU-SHAKER™ Series

- Exceptional temperature uniformity
- Three models,
  Incu-Shaker Mini: Up to 5 x 500ml (or 2 x 1L)
  Incu-Shaker 10L: Up to 5 x 2L
  Incu-Shaker 10LR: Up to 5 x 2L (with cooling)
- Exchange flask clamps in one second with MAGic Clamp™ magnetic system

21

Orbi-Shaker™ JR. **Orbital Shaker**

19 mm

WiTH **MAGiC CLAMP**™ PATENTED

✛ **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**

BT300-RP

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 (4kg)
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 99hr, 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 (5.5kg)
Electrical:	Universal Voltage 100 - 240V, 50-60Hz, 250W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT302*	Orbi-Shaker JR. with flat mat platform (9.5 x 8 in.)
H1000-MR**	MAGic Clamp™ universal platform for flasks and tubes
BT300-RP	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. 25 for a complete listing.

Orbi-Shaker™ **Orbital Shaker**

19 mm

WiTH **MAGiC CLAMP**™ PATENTED

✛ **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**

Technical Data:

Speed Range:	Variable, 30 to 300 rpm
Speed Increment:	1 rpm
Motion / Orbit:	Orbital / 19mm
Load Capacity:	5x1L or 14 lbs (6.4kg)
Timer:	1 min. to 48 hr / 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 13 x 3 in. / 28 x 33 x 7.5 cm
Weight:	25 lbs (11.5kg)
Electrical:	115 or 230V, 50-60Hz, 600W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT3000*	Orbi-Shaker with flat mat platform (13 x 12 in.)
BT3000-MR**	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. 25 for a complete listing.

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

19 mm

WiTH **MAGiC CLAMP**™ PATENTED

✛ **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 / 65 lbs (30kg)
Platform Size:	18 x 18 in. / 45 x 45 cm
Timer:	1 min. to 48 hr / 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 (29kg)
Electrical:	120 or 230V, 50-60Hz
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT1010*	Orbi-Shaker XL with flat mat platform (18 x 18 in.)
H1010-MR**	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 25 for a complete listing.

Orbi-Shaker™ MP **Microplate Shaker**

3 mm

✛ **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 hour / cont.
Weight:	12 lbs (5.5kg)
Electrical:	Universal Voltage 100-240V, 50-60Hz, 250W
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**

Item: BT4000

CE

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%.

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

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:

Compatibility Chart:	Thermo® HeraCell™ 150	240	New Brunswick™ Galaxy® S41i	Galaxy® 170	Shel Lab® 142L & 167L	Nuaire™ 4750, 4850, 4950, 5800	Fisher® IsoTemp™ 184	VWR® Symphony™ 5.3A	8.6A
Orbi-Shaker CO2 (14 x 12" platform)	●	●	●	●	●	●	●	●	●
Orbi-Shaker CO2 XL (16 x 16.5" platform)	●	●	N/A	●	●	●	●	●	●
Orbi-Shaker CO2 XL (18 x 18 platform)	N/A	●	N/A	N/A	●	●	●	N/A	●

N/A Not Compatible
● Compatible
● Compatible Maximizes Capacity

Technical Data:

Speed Range:	Variable, 30 to 300 rpm
Speed Increment:	1 rpm
Motion / Orbit:	Orbital / 19mm
Max. Capacity (BT4000):	1 x 2L or 5 x 1L
Max. Capacity (BT4010):	5 x 2L or 9 x 1L
Timer:	1 min. to 48 hr / Continuous
Platform Dimensions:	
BT4000 (included):	13 x 12 in. / 33 x 30 cm
BT4010 (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	
BT4000 Shaker:	11.9 x 13.4 x 3.5 in. / 30 x 34 x 9 cm
BT4010 Shaker:	17 x 18 x 5 in. / 43 x 45.75 x 12.7 cm
Weight (BT4000)	25 lbs, (11.5kg)
Weight (BT4010):	50lbs (23kg)
Cord Length:	60.5 in. / 154 cm
Electrical:	120 or 230V, 50-60Hz, 600W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
BT4000*	Orbi-Shaker CO$_2$ w/ flat mat platform (13 x 12 in.)
BT4010*	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 BT4000
BT4010-MR	MAGic Clamp™ platform (16x16.5 in.) for BT4010
H1010-MR	MAGic Clamp™ platform (18x18 in.) for BT4010

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 25 for a complete listing.

WITH MAGIC CLAMP™
PATENTED

Video Demonstration

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
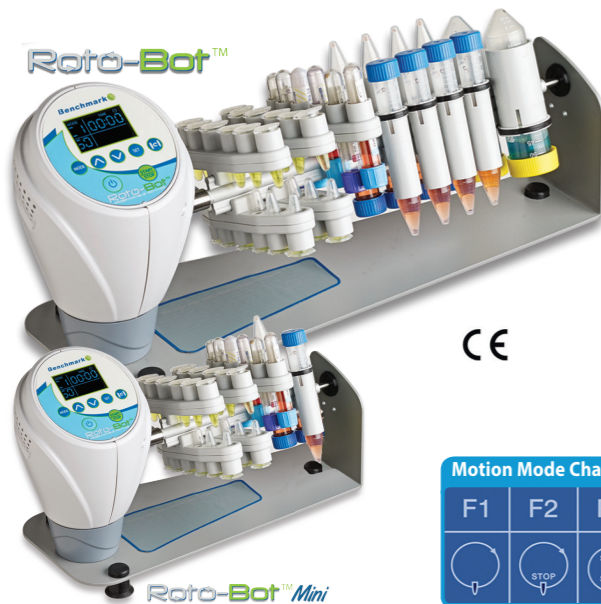
Roto-Bot™ PROGRAMMABLE ROTATOR

- **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**

CE

Roto-Bot™ Mini

Motion Mode Chart:

F1	F2	F3	F4	F5	F6	F7	F8	F9	— —	C1 C2	PP*	Key:
	STOP	STOP STOP	STOP	STOP		STOP STOP STOP	STOP STOP			Custom Mode	Platform Rocking Mode	Pause Mix

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 RotoBot can be selected to perform a wide variety of rotating, mixing and vibrating actions. In addition, these actions can be combined in succession using the C1 and C2 "Custom Modes", providing the user with a nearly infinite level of programming.

The Roto-Bot and Roto-Bot Mini each inlcude an assortment of 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 80rpm
Capacity (R4040):	6 x 50ml, 10 x 15ml or 60 x 1.5ml
Capacity (R4045):	12 x 50ml, 22 x 15ml or 84 x 1.5ml
Timer:	1 sec. to 99 hours 59 min. / Cont.
Dimensions (R4040)	11.4.x 5.4 x 7.8 in / 29 x 13.7 x 19.9cm
W x D x H (R4045)	16.1.x 5.4 x 7.8 in / 41 x 13.7 x 19.9cm
Operating Temp. Range:	+2°C to +70°C
Weight:	4 lbs/1.8 kg (R4040) / 5 lbs/2.27kg (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 x5.5 in
R4045-RP2	Rocking Platform (w/ flat mat) for R4040, 6 x10 in.

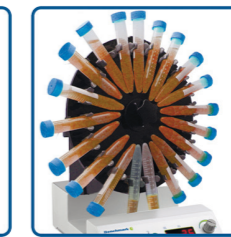*Includes US plug.   For EU plug, please add (-E).

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

CE

Included Rotisseries:

48 x 1.5/2.0ml (48 x 10-14Ømm tubes)	20 x 15ml (20 x 15-20Ømm tubes)	12 x 50ml (12 x 25-35Ømm 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 40rpm
Tilt Angle:	0 to 90° (vertical to horizontal)
Capacity:	12x50ml, 20x15ml or 48x2.0ml
Timer:	1 sec. to 9 hrs or 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 (3.2kg)
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 25W
Warranty:	2 Years

Ordering Information:

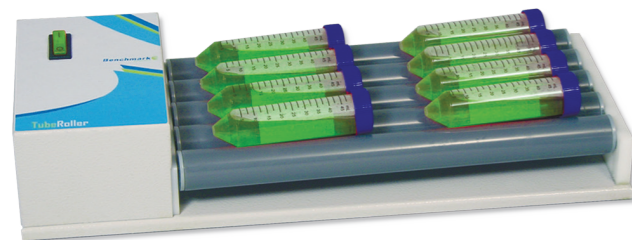| Item No.	Description:
R5010*	Benchmark Rotating Mixer, Includes three rotisserie tube holders for 1.5/2.0, 15 and 50ml tubes

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

R3010

CE
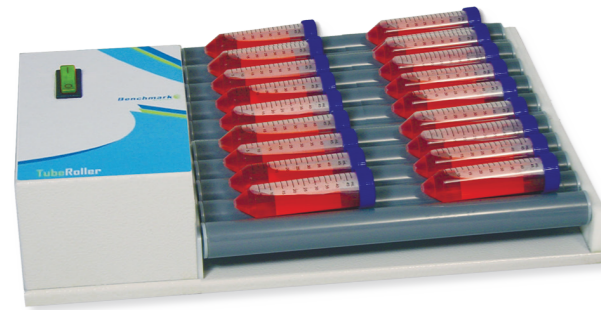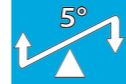
Gentle rolling motion

Smooth 5° tilting motion

Accepts tubes and bottles from 8mm to 200mm

R3005

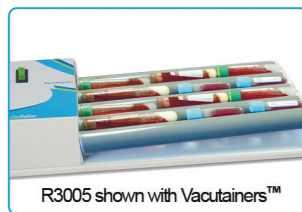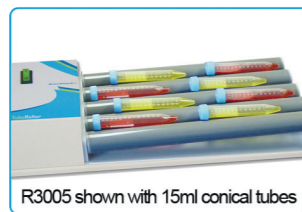R3005 shown with Vacutainers™   R3005 shown with 15ml conical tubes

Benchmark TubeRollers are designed for the gentle, thorough mixing of a variety of containers, including Vacutainers™, bottles, test tubes, centrifuge tubes and roller bottles. Both models (5 roller and 10 roller) operate at a constant 38rpm, chosen as the optimum speed for the broadest range of mixing requirements.

As the roller mechanism rotates through each complete revolution, the right side of each roller is gently elevated approximately 0.5 in (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:	Fixed, 38 rpm (±10%)	
Motion:	Simultaneous roll & tilt (±5°)	
Operating Temp:	4°C to 40°C	
Individual Roller Dims:	1.2 x 12.5 in. / 3 x 32cm	
Vessels Accepted:	8mm to 200mm diameter	
Roller Spacing:	5mm, on 35mm centers	
Electrical:	115 or 230V, 50-60Hz, 50W	
Warranty:	2 Years	
	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 (5kg)	17.6 lbs (8kg)

Typical Sample Load Capacity:

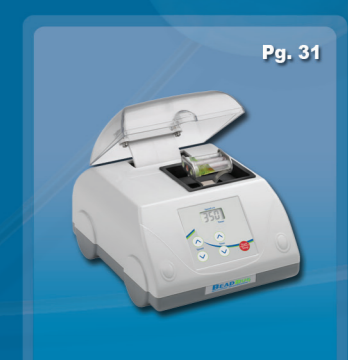| Vessel	R3005	R3010
12 x 75mm tubes	12	26
16 x 100mm tubes	8	18
16 x 125mm tubes	8	18
15ml screw cap tubes	8	18
50ml screw cap tubes	8	18
850cm² roller bottles	1	2

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).

Homogenizers

Pg. 30
D1000 **Handheld Homogenizer**

Pg. 31
BeadBug™ 3 **Microtube Homogenizer**

Pg. 31
BeadBug™ 6 **Microtube Homogenizer**

Pg. 32
BeadBlaster™ 24 **Microtube Homogenizer**

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

Benchmark's new 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 adjustable in six steps 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 is ideal for use with 15 and 50ml tubes and 14mm x 130 mm, 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.
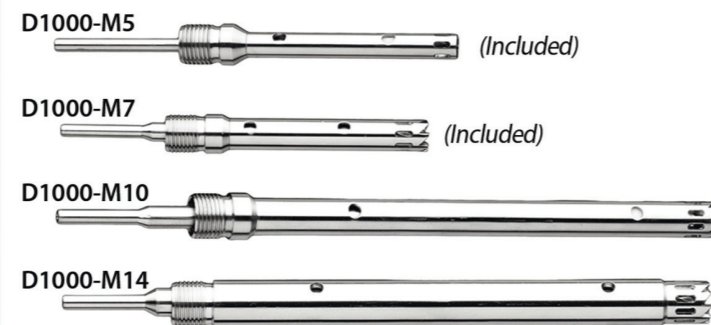
Ergonomic, "Slim-line" handle design

Available Generator Heads

D1000-M5	*(Included)*
D1000-M7	*(Included)*
D1000-M10	
D1000-M14	

Technical Data:

Speed Range:	8,500 to 30,000rpm
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 (0.6kg)
Electrical:	115 or 230V, 50-60Hz, 130W
Warranty:	2 Years

Ordering Information:

Item No.	Description:
D1000	D1000 Hand-Held Homogenizer ncludes 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, 5 pk.
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).

30

+ **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 impact 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 provides a convenient and economical alternative to larger and more expensive homogenizers on the market today. With compact footrpints (as small as 7 x 8", in the 3 poaition 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-A5	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, ØD 0.1mm, 50pk.
D1031-05	Standard glass beads, ØD 0.5mm, 50pk.
D1031-10	Standard glass beads, ØD 1.0mm, 50pk.
D1032-01	Triple-Pure™, high impact zirconium beads, ØD 0.1mm, 50pk.
D1032-05	Triple-Pure,™ high impact zirconium beads, ØD 0.5mm, 50pk.
D1032-10	Triple-Pure™, high impact zirconium beads, ØD 1.0mm, 50pk.
D1032-15	Triple-Pure™, high impact zirconium beads, ØD 1.5mm, 50pk.
D1032-30	Triple-Pure™, high impact zirconium beads, ØD 3.0mm, 50pk.
D1032-60	One ceria zirconium oxide satellite, <dia> 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.
D1031-T20	Empty tubes (2.0ml) pack of 1000
D1031-RF	Reinforced empty tubes (2.0ml) pack of 500
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

*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 4,000rpm (D1030) 2,500 to 4,350 (D1036)
Max. Capacity:	3 x 2.0ml (non-skirted) 6 x 2.0ml (skirted or non-skirted) or 2 x 5ml
Timer:	3 sec. to 3 min. (D1030) 1 sec to 90 sec. with up to 10 cycles (D1036)
Operating Temp.	+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 (2.2kg) / 20lbs (9kg)
Electrical:	115 or 230V, 50-60Hz, 50W (D1030) 100 to 240V, 50-60Hz, 145W (D1036)
Warranty:	2 Years

31

BeadBlaster™ 24 Microtube Homogenizer

⊹ **Fast, efficient homogenization, usually in 35 seconds or less**

⊹ **For all sample types, from soft tissue to bone**

⊹ **High throughput, up to 24 samples**

⊹ **Sealed 2.0ml tubes, no cross contamination**

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. To protect heat sensitive samples, the unit can be digitally programmed to operate in shortened consecutive cycles with a rest period in between.

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.
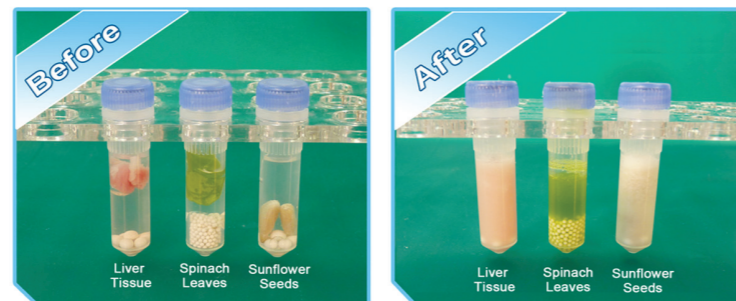
Video Demonstration

Before — Liver Tissue, Spinach Leaves, Sunflower Seeds

After — Liver Tissue, Spinach Leaves, Sunflower Seeds

Stainless steel, 24 position tube carrier

Technical Data:

Speed:	4.00 to 7.00 m/s
Speed Increments:	0.05 m/s
Capacity:	24 x 2.0ml tubes or 6 x 5ml
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.
Noise Level:	<68 db
Operating Temp. Range:	+4 °C to +65°C (ambient temp.)
Dimensions: (W x D x H)	11 x 14.2 x 15.2 in. 28 x 36 x 38.5cm
Weight:	55 lbs (25kg)
Electrical:	Universal Voltage 100V to 240V, 50-60Hz, 600W
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-R5	Optional tube holder, 6 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, ØD 0.1mm, 50pk.
D1032-05	Triple-Pure, high impact zirconium beads, ØD 0.5mm, 50pk.
D1032-10	Triple-Pure, high impact zirconium beads, ØD 1.0mm, 50pk.
D1032-15	Triple-Pure, high impact zirconium beads, ØD 1.5mm, 50pk.
D1032-30	Triple-Pure, high impact zirconium beads, ØD 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, <dia> 6.0mm, 50pk.
D1033-28	Stainless steel beads, ØD 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-RF	Reinforced empty tubes (2.0ml) pack of 500
D1034-28	5ml tubes (snap cap) with stainless beads, ØD 2.8mm, 50pk

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

Autoclaves and Sterilization

BactiZapper™ **MicroSterilizer**

MicroBead **Sterilizers**

BioClave™ 8 **Benchtop Autoclave**

BioClave™ 16 **Benchtop Autoclave**

6.5"

Bacti Zapper™

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

The BactiZapper™ uses well-proven technology to provide nearly instantaneous sterilization of platinum inoculating loops, needles, glass tube/pipette mouths and various metal and borosilicate glass instruments. The asbestos-free core element quickly heats to 815°C (1500°F) to provide complete sterilization of items in 5-7 seconds. A lower temperature setting (500°C) serves as a "standby" setting and extends usable life of the heating element.

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. It is compact and can be used in anaerobic and aerobic chambers.

Technical Data:

High Temperature Setting:	815°C / 1500°F
Low Temperature Setting:	500°C / 950°F
Sterilization Time:	5 - 7 seconds
Chamber Diameter:	0.55 in. / 14mm
Chamber Length:	6 in. / 153mm
External Dimensions: (W x D x H)	4 x 6 x 6.5 in. 10.2 x 15.2 x 16.5 cm
Weight:	2.9 lbs. (1.3 kg)
Electrical Data:	115 or 230V, 50-60Hz 170 Watts
Warranty:	1 Year*

*Excludes heating element

Ordering Information:

Item No.	Description:
B1000*	Benchmark BactiZapper sterilizer
B1000-01	Loop holder attachment
B1000-03	Slide dryer attachment, 3 slides
B1000-RA	Replacement heating element, 115V
B1000-RAE	Replacement heating element, 230V

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

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 300C)
Chamber Diameter:	40mm
Chamber Height:	80mm (B1201) / 140mm (B1202)
Bead Capacity:	150g (B1201) / 300g (B1202)
External Dimensions: (W x D x H)	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) / 5.5lbs (2.5kg)
Electrical :	115 or 230V, 50-60Hz 120 W (B1201) / 250W (B1202)
Warranty:	1 Year*

*Excludes heating element

BioClave™

B4000-16

CE

B4000-M

+ **Fully automatic; just press start**
+ **Rapid, complete sterilization**
+ **Extremely compact**
+ **Built in water tank, does not require connection to an external water supply**
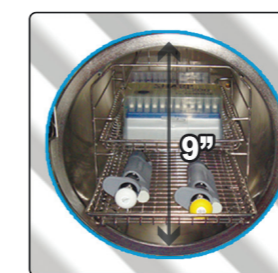
Despite the space-saving exterior dimensions of the BioClaves, the stainless steel sterilization chambers are surprisingly large, accommodating a variety of liquids, media, instruments, glassware, plasticware and other common laboratory items. Both of these benchtop models include a mechanical and electrical 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 three cycle options (standard programs), which are preset for the sterilization of liquids, wrapped instruments or unwrapped instruments/plasticware. A fourth 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.

6.7"   9"

BioClave Mini   BioClave 16

Bottle/Flask Capacity	B4000-M	B4000-16
100ml Media Bottle	8	15
250ml Media Bottle	4	8
500l 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)
B4000-16*	BioClave Autoclave (16L)
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:	4.75 x 9.75 in. / 12 x 24.8 cm
Exterior Dimensions: (W x D x H)	20 x 13.5 x 12.9 in. 51 x 34 x 33 cm
Weight:	74 lbs (33 kg)
Electrical:	115 or 230V, 50-60Hz, 950W
Warranty:	1 Year
B4000-16 (BioClave)	
Chamber Volume:	16L
Max. Pressure:	29 PSI / 2 Bar
Chamber Dimensions:	9 x 13.75 in. / 23 x 35 cm
Tray Dimensions:	6.5 x 10.75 in. / 16.5 x 27 cm
Exterior Dimensions: (W x D x H)	22 x 17.5 x 15.7 in. 56 x 44.5 x 40 cm
Weight:	89 lbs (40 kg)
Electrical:	115 or 230V, 50-60Hz, 1600W
Warranty:	1 Year

Temperature Control Equipment

Pg. 38

Benchmark™ **Hotplates & Stirrers**

Pg. 39

myTemp™ **Mini Incubators**

Pg. 46

myBath™ **Water Baths**

Pg. 47

SB-12L **Shaking Water Bath**

Pg. 40

myTemp™ **Mini CO₂ Incubator**

Pg. 41

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

Pg. 48
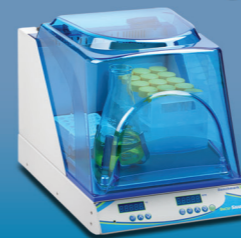
Incu-Shaker™ Mini **Shaking Incubator**

Pg. 49
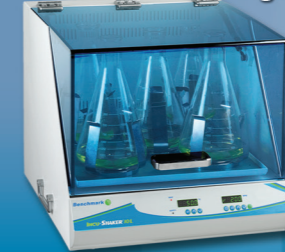
IncuShaker™ 10L **Shaking Incubators**

Pg. 42

SureTemp™
Bi-Convection Incubators

Pg. 43

myBlock™ Mini
Heating/Cooling Dry Baths

Pg. 50

IncuShaker™ Mini CO₂
Shaking Incubator

Pg. 51

MultiTherm™ **Heating/Cooling Vortexers**

Pg. 44

myBlock™ **Dry Baths**

Pg. 45

isoBlock™ 247 **Dry Baths**

Pg. 52

TC-32™ **Mini Thermal Cycler**

Pg. 52

TC-9639™ **Thermal Cycler**

+ **Large, backlit LCD display**
+ **Safety LED indicates hot surface**
+ **White ceramic top plate**
+ **Control actual sample temperature (with optional probe)**

H3760-H   H3760-S   H3760-HS

Benchmark hotplates, stirrers and hotplate-stirrers feature an exceptionally durable, chemical resistant, white ceramic work surface. The space-efficient design (7 X 10.5 in. footprint) makes them ideal for use on crowded benchtops, biological safety cabinets and in bio-hoods. Advanced microprocessor controls allow quick, precise adjustment of speed and temperature. The large, backlit LCD display provides constant visualization of the speed and temperature while a safety LED indicates when the top plate is above 50°C. In addition, an optional probe is available for applications that require precise tempera-ture contol. 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 6.5 in. work surface, all models are compatible with a wide variety of popular sizes of borosilicate glass beakers, flasks, bottles and other vessels. An optional support rod (H3760-ROD) is available for mounting thermometers, temperature probes, etc.

Technical Data:

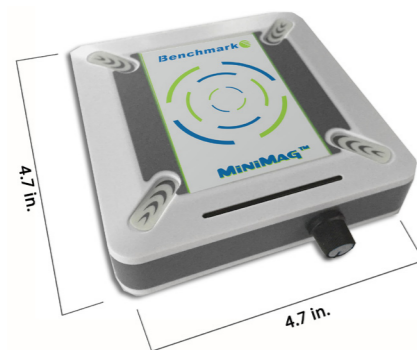| Speed Range:	200 to 1500 rpm*
Temp. Range:	Ambient +5°C to 380°C*
Platform:	6.5 x 6.5 in. / 16.5 x 16.5 cm
Max Stirring Capacity:	2.5L
Dimensions: (W x D x H)	7 x 10.5 x 4 in. 18 x 26.7 x 10.1 cm
Weight:	4 lbs (1.8 kg)
Electrical:	115V or 230V, 50-60 Hz, 500W
Warranty:	2 Years

*Speed and temperature adjustments available only on relevant models.

Ordering Information:

Item No.	Description:
H3760-H*	Benchmark Digital Hotplate
H3760-S*	Benchmark Digital Magnetic Stirrer
H3760-HS*	Benchmark Digital Hotplate Stirrer
H3670-ROD	Optional support rod
H3760-TP	Optional temperature probe
H3760-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**

4.7 in.
4.7 in.

Technical Data:

Speed Range:	100 to 1500 rpm
Platform:	3.4 x 3.4 in. / 8.5 x 8.5 cm
Max Stirring Capacity:	1.5L
Dimensions: (W x D x H)	4.7 x 4.7 x 1.2 in. / 12 x 12 x 3 cm
Weight:	0.45 lbs (0.2 kg)
Electrical:	Universal Voltage 100V to 240V, 50-60 Hz, 2W
Warranty:	1 Year

Item No.	Description:
S1005*	MiniMag Magnetic Stirrer

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

### myTEMP™ Mini Digital Incubators

+ **Digital temperature control**
+ **Personal sized, 13 x 14.5 in. footprint**
+ **Two Models**
  - Heat only
  - Heat & cool

With digital temperature control, the myTemp incubators pro-vide 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 incuba-tors feature large internal chambers, capable of accepting flasks and bottles up to 2 liter.   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 an included internal power outlet.
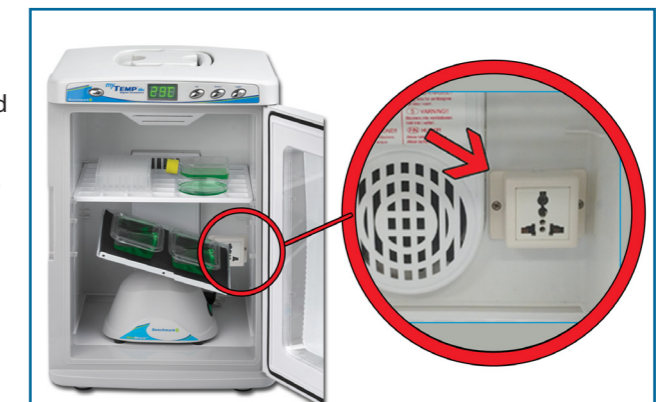
myTemp Mini shown with H3D1020
(Rocker plugs directly into the internal power outlet)

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 (6.8kg)
Electrical:	Universal Voltage 100 to 240V, 50-60Hz, 50W
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, 6x8" platform, 115V
H3D-1020-E	Mini nutating rocker, 6x8" platform, 230V
H2200-SH	Extra shelf, 10.5 x 8 in. plastic (not autoclavable)

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

my TEMP **Mini CO₂**

- ╬ **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 CO₂ percentage**

At only 13 inches wide, the myTemp Mini CO₂ is the smallest and most economical incubator for culturing cells in a CO₂ environment. Its small footprint makes the incubator ideal for use inside of biological safety cabinets, isolating sensitive cultures or for any laboratory simply trying to conserve bench space. 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 CO₂ 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 CO₂. 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 CO₂ level is constantly monitored using dual beam infrared sensing technology. In the event of a drop in CO₂, 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 CO₂ input port

Technical Data:

Temp. Range	**Ambient -10° to 55 °C**
Temp. Accuracy:	**± 0.25 (at 37°C)**
Temp. Increments:	**0.1°C**
Temp. Uniformity:	**± 0.25°C (at 37°C)**
Capacity:	**20L or 0.8 cu. ft.**
CO₂ Range:	**0 to 20%**
CO₂ Sensor:	**Dual beam IR**
CO₂ Accuracy:	**±0.1% at 5%**
Humidity:	**70 to 80%**
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 (6.8kg)**
Electrical:	**Universal Voltage 100 to 240V, 50-60Hz, 75W**
Warranty:	**2 Years**

Ordering Information:

| Item No.	Description:
H2300-HC2*	**myTemp CO₂ Mini Digital Incubator, includes 2 stainless shelves,**
H2300-REG	Optional CO₂ 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).

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my TEMP **65HC**
Precision, Heating & Cooling Incubator

One model for
HEATING &
COOLING

- ╬ **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**
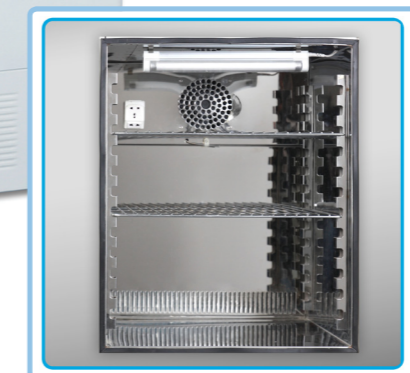
Stainless steel chamber with internal outlet & light

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.

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

With an exterior height of 39 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°C 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 99hr 59 min.**
Capacity:	**65L or 2.3 cubic feet**
Weight:	**117 lbs (53kg)**
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).

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**

The new Sure-Temp 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.
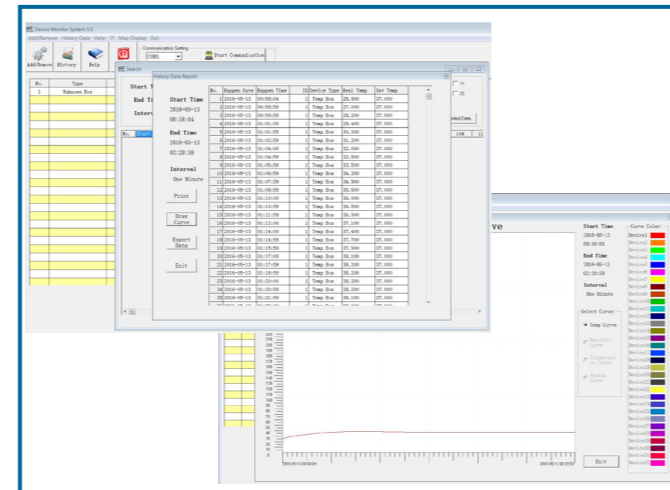
Each incubator is equipped with the SureCheck™ data logging system for verification of chamber temperature. The SureCheck system records temperature data points as often as every 60 seconds and stores this information on a flash drive. The data can then be viewed and saved using the included the Sure-Check 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 Sure-Temp 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 and contents can be viewed with the separate inner glass door without disrupting the temperature environment.

Included Sure-Check™ Software: View/save recorded temperatures

Technical Data:

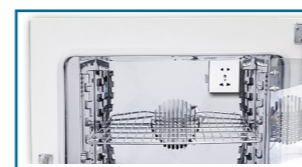| Temp. Range:	**Ambient +5°C to 75°C**
Temp. Accuracy:	**± 0.25°C***
Temp. Uniformity:	**± 0.25.°C***
Temp. Stability:	**± 0.1°C***
Temp. Increments:	**0.1°C**
Dimensions: (WxDxH)	**Exterior**
H2505-40 H2505-70 H2505-130	**22.4 x 23.3 x 22.8 in. / 57 x 59.2 x 58 cm 26.4 x 23.3 x 26.8 in. / 67 x 59.2 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:	**H2505-40: 42kg, -70: 62kg, -130: 70kg**
Electrical:	**120V, 60Hz or 230V, 50Hz (420W, 520W, 670W)**
Warranty:	**2 years**

SureCheck data logging port   Internal power outlet

Ordering Information:

Item No.	Description:
H2505-40*	**SureTemp Dual-Convection Incubator with SureCheck data logging software, 40L, 115V**
H2505-70*	**SureTemp Dual-Convection Incubator with SureCheck data logging software, 70L, 115V**
H2505-130*	**SureTemp Dual-convection Incubator with SureCheck data logging software, 130L, 115V**
H2505-40SH	Extra shelf, stainless steel for H2505-40
H2505-70SH	Extra shelf, stainless steel for H2505-70
H2505-130SH	Extra shelf, stainless steel fo H2505-130

42

* Specification provided with a set temperature of 37°C

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

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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**

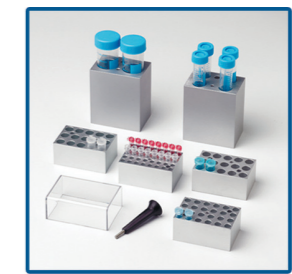+ **Link 2 consecutive temperature steps** (cooling model only)

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:	**2lbs (1kg)**	**2lbs (1kg)**
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

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

Temp Accuracy: ± 0.3°C

Ordering Information:

Item No.	Description:
BSH200-HL*	**myBlock 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).

The new 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.

43

my **BLOCK** ™

myBlock II
(dual chamber dry bath)

myBlock I (single chamber dry bath) CE

✛ **Hinged cover improves uniformity and conserves energy**

✛ **Optional external temperature probe for control of actual sample temperature**

✛ **Unique Quick-Flip™ universal micro-block**

Patent Pending

Available with:

Quick-Flip ™
Flip Over
universal micro-block

All purpose blocks for:
- ☑ **0.5ml tubes**
- ☑ **1.5ml tubes**
- ☑ **2.0ml tubes**
- ☑ **0.2ml tubes**
- ☑ **0.2ml strips**
- ☑ **PCR Plate**

Item: BSH5002-2B

Three possible block configurations in dual model:

Side 1 & Side 1	Side 1 & Side 2	Side 2 & Side 2

48 x 1.5/2.0ml
28 x 0.5ml

24 x 1.5/2.0ml
14 x 0.5ml
48 x 0.2ml

96 x 0.2ml or
One PCR Plate*

* Single block chamber in myBlock I prevents compatability with PCR plates.

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**
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:	**± 0.1°C**
Temp. Increments:	**0.1°C**
Temp. Uniformity:	**± 0.2°C**
Timer:	**1min. to 99 hr & 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**

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iSO **BLOCK** ™
Two independent block chambers

CE

✛ **Two isolated chambers**

✛ **Independent time & temperature control**

✛ **Hinged cover improves uniformity and conserves energy**

✛ **Unique Quick-Flip™ Universal micro-block**

Video
Demonstration

IsoBlock shown with lid open

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, accomodates 0.2ml tubes or PCR strips.

Technical Data:

Temp. Range:	**Ambient +5° to 105°C**
Temp. Accuracy:	**+/- 0.1°C**
Temp. Increments:	**0.1°C**
Temp. Uniformity:	**+/- 0.2°C**
Timer:	**1min. to 99 hr & 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**
BSWCMB	Block, Quick-Flip, 24 x 1.5/2.0ml, 14 x 0.5ml and 6 x PCR strips / 48 x 0.2ml
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 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
BSW1516	Block, 12 x 15-16mm (or 12 x 10ml)**
BSW02	Block, 48 x 0.2ml tubes or 6 PCR tube strips
BSWPCR1	Block, 1 x 96-well PCR Plate
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 lid from closing, temperature accuracy may be affected.

my BATH™ 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!

48 x 1.5/2.0ml   41 x 15ml   15 x 50ml

Accessory Tube Racks:
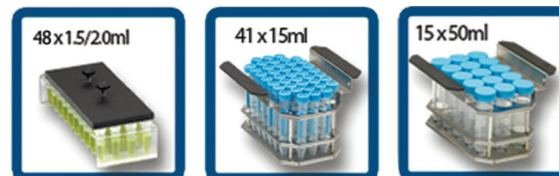
Cat. Number	Description:	Rack Capacity	
		4 Liter	8/12 Liter
B2000-4-T5	Tube rack for 40 x 0.5ml tubes	1	2
B2000-4-T1520	Tube rack for 48 x 1.5/2.0ml tubes	1 (Included)	2
B2000-4-T150	Tube rack for 41 x 15ml tubes	1 (Included)	0
B2000-4-T500	Tube rack for 15 x 50ml tubes	1 (Included)	0
B2000-8-T150	Tube 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.	10.5 x 17.5 x 12.4 in.	10.7 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.	10.4 x 12.8 x 5.9 in.	10.4 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			

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 monitor 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-designed 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 200rpm
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 hours / continuous
Weight:	31 lbs. (14 kg)
Electrical:	115 or 230V, 50-60Hz, 300W
Warranty:	2 Years
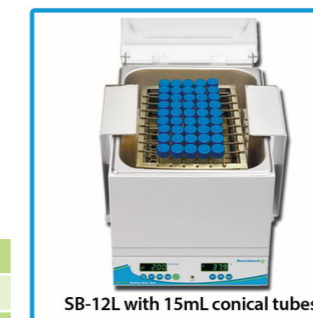
SB-12L with 15mL conical tubes   SB-12L with 50mL conical tubes

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

+ **Domed lid accepts flasks up to 1L (NEW!)**
+ **Exceptional temperature uniformity**
+ **Extremely compact: just 11" wide**
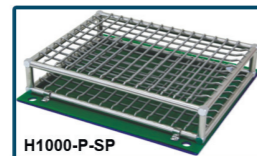+ **Exchange flask clamps in one second with MAGic Clamp™ magnetic system**

Only 11" wide

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, tube and other common vessels. The standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flasks, Petri dishes and staining trays.

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

H1000-MR-1550   H1000-P-SP

Video Demonstration

The *INSTANT* flask attachment system

Technical Data:

Temperature Range:	**Ambient +5° to 70°C**
Temperature Increments:	**0.1°C**
Temperature Uniformity	**± 0.25 °C**
Temperature Accuracy:	**±0.1 °C**
Shaking Speed Range:	**30 to 300rpm**
Speed Increments:	**1rpm**
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 hours / continuous**
Weight:	**25 lbs. (11.5 kg)**
Electrical:	**115 or 230V, 50-60Hz, 300W**
Warranty:	**2 Years**

Ordering Information:

Item No.	Description:
H1000-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.**

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:	
H1010:	**Ambient +5° to 60°C**
H1012:	**Ambient -15° to 60°C**
Temperature Increments:	**0.1°C**
Temperature Uniformity:	**± 0.25%**
Temperature Accuracy:	**±0.1°C**
Shaking Speed Range:	**30 to 300rpm**
Speed Increments:	**1rpm**
Shaking Orbit:	**19mm (3/4")**
Platform Dimensions:	**17.8 x 17.8 in. / 45 x 45 cm**
Exterior Dimensions:	
H1010 (W x D x H):	**20 x 26 x 19 in. / 51 x 65 x 47 cm**
H1012 (W x D x H):	**20 x 31 x 22 in. / 51 x 79 x 56 cm**
Height (lid open):	**38 in. / 96.5 cm**
Timer	**1 min. to 48 hours or continuous**
Weight (H1010):	**120 lbs (55 kg)**
Weight (H1012):	**170 lbs (78 kg)**
Electrical (H1010):	**120 or 230V, 50-60Hz, 450W**
Electrical (H1012):	**120 or 230V, 50-60Hz, 950W**
Warranty:	**2 Years**

Ordering Information:

| Item No.	Description:
H1010*	**Incu-Shaker 10L with non-slip rubber mat**
H1012*	**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. 1)

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

Heat • Shake • CO₂
The ONLY CO₂ 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 CO₂%**

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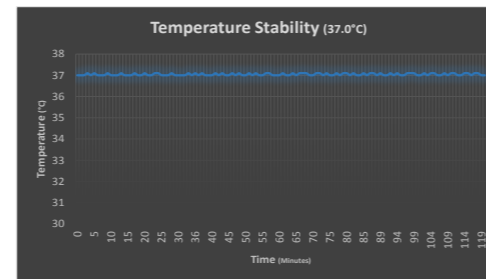
Temperature Stability Chart: Chamber temperature for a 2 hour duration following stabilization (within 0.1°C) at 37.0°C.

MAGic Clamp™ Platform
Optional MAGic Clamp accessories (Patented) are available for attaching erlenmeyer flasks, micro-plates, 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 temperaure 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 / Stabiilty	±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 hours (or continuous)
Platform Dimensions:	9.5 x 11.5 in. (23.5 x 29 cm)
Chamber Dimensions:	13.2 x 10.25 x 15.4 in. / 33.5 x 26 x 39.2 cm (46L)
Exterior Dimensions:	16.5 x 18.3 x 21.8 in. / 42 x 46.5 x 55.3 cm
Weight:	90 lbs (40.1kg)
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 CO₂ Mini, with non-slip rubber mat platform**
H2300-REG	Optional CO₂ 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-1550	MAGic Clamp Tube Rack, 32 x 15ml (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).

╉ **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™ shaker 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 and 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 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:	± 1.0°C
Speed Range:	200 to 1500 rpm, or "off"
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:	18lb. (8kg)
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 (200-1200rpm / Amb.-10° to 100°C)
H5000-150	Block, 12 x 15ml (200-750rpm / Amb.-10° to 100°C)
H5000-500	Block, 6 x 50ml (200-750rpm / Amb.-10° to 100°C)
H5000-MP	Block, 1 x microplate (Amb. -10 to 60°C)
H5000-1232	Block, 24 x 2ml HPLC / Autosampler vials (12x32mm)
H5000-5MT	Block, 12 x 5ml centrifuge tubes (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).

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**

Vortex mixing motion, up to 1200rpm

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
BT1500-A05	Optional adapter, 20 x 0.5ml for microplate shakers

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

─┼─ **Intuitive touchscreen control**

─┼─ **Program Wizard for quick & easy protocol entry**

─┼─ **Fast, reliable results**

─┼─ **Fully adjustable heated lid**

─┼─ **Full sized and "mini" model available**

CE

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 unique format of the block in the TC-9639 accepts 0.2ml tubes, strips and PCR plates as well as 0.5ml tubes. 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.
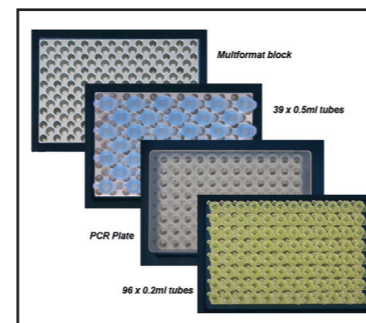
Touchscreen control

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

Multiformat block
39 x 0.5ml tubes
PCR Plate
96 x 0.2ml tubes

Unique block format (TC-9639)

Technical Data:

Capacity:	
TC-32 Mini:	**32 x 0.2ml or 4 PCR Strips**
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**
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 25cm**
Dimensions (TC-32):	**9.1 x 7.1 x 6.2 in / 23 x 18 x 15.7 cm**
Weight:	**16 lbs. (7.3kg) / 7 lbs (3.2kg)**
Electrical:	**Universal Voltage 100 to 240V, 50-60 Hz**
Warranty:	**2 Years**

Ordering Information:

Item No.	Description:
T5000-3205*	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 (-E).

Also Available from Benchmark

EZ Pack Agarose™
0.5g Agarose Tablets 200 Tablets
Item: A2501 Molecular Biology Grade

Pg. 54

CoolCube™
Microtube/PCR Plate Cooler

Pg. 54

Hybex™ **Media Storage Bottles**

Pg. 55

Benchmark™ **Agarose Powder**

Pg. 55

Benchmark™ **Agarose Tablets**

CoolCube™ Microtube and PCR Plate Cooler
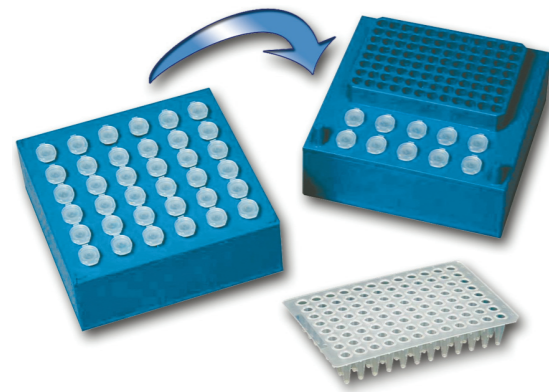
CoolCube™

+ **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.

Ordering Information:

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

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

hybex™ Media Storage Bottles

hybex™

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

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, 10/pk.
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).

Technical Data:

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

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**

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

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 (-mr):	0.13
Moisture Content:	≤ 7%
Sulfate:	≤ 0.2%
RNase / DNase:	None detected
Protease/Endonuclease:	None detected
Storage Conditions:	Room temperature

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**

Ordering Information:

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

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 (-mr):	0.13
Moisture Content:	≤ 7%
Sulfate:	≤ 0.2%
RNase / DNase:	None detected
Protease/Endonuclease:	None detected
Storage Conditions:	Room temperature

Accuris™ Instruments

Pg. 58

Accuris™ **Mini Balances**

Pg. 58

Accuris™ **Calibration Weights**
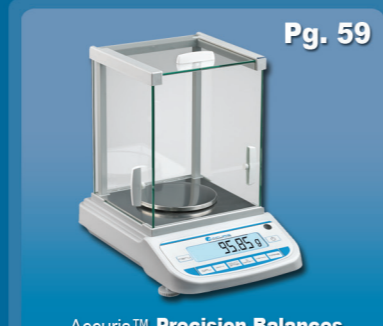
Pg. 59

Accuris™ **Compact Balances**

Pg. 59

Accuris™ **Precision Balances**

Pg. 60

Accuris™ **Analytical Balances**

Pg. 61

NextPette™ **Variable Volume Pipettes**

Pg. 61

Aspire™ **Laboratory Aspirator**

Pg. 62

myGel™ **Electrophoresis System**

Pg. 63

SmartBlue™ **Transilluminator**

Pg. 63

E4000™ UV **Transilluminator**

Pg. 64

SmartDoc™ V2 **Imaging Enclosures**

Pg. 64

SmartGlow™ Safe **Nucleic Acid Stain**

Pg. 65

myVolt™ Mini **Power Supply**

Pg. 65

myVolt™ Touch **Power Supply**

Pg. 66

Accuris™ **PCR Reagents**

Pg. 67

qMAX™ **Real Time PCR Reagents**

Accuris™ Mini Balances

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

2.6''

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, these Mini Balances offer exceptional accuracy and linearity through their full weighing ranges.

Available with either a 100g or 500g capacity, these digital balances feature an an easy to read, backlit, liquid crystal display. Buttons for ON/OFF, MODE & TARE are located on the front for easy access. The software includes a calibration function for in-lab calibration with a 100g or 500g calibration weight (available separately)

Accuris Mini Balances are powered by 2 AAA batteries (included). After one minute sitting idle, the power shuts off to conserve battery life. Ideal for lab or field use, each balance includes a snap on, protective cover with instructions conveniently printed on the underside.

Optional in-lab calibration weights

Protective cover, included

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)

Model	Mini 100g	Mini 500g
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™ Calibration Weights

- Various individual and weight sets available
- Choose E2, F1, or M1 OIML class depending on requirements
- Weight sets supplied in convenient protective cases

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.

M1 Class: Ideal for basic (compact) 0.1 to 0.01g readability balances
F1 Class: Suitable for precision 0.01 to 0.001g readability balances
E2 Class: Recommended for analytical 0.0001g readability balances

Individual weights come in a protective case. Weight sets include a protective carrying case with foam liner.

Ordering Information:

W1000-100	Accuris™ Calibration Weight (F1 grade) 100g
W1000-200	Accuris™ Calibration Weight (F1 grade) 200g
W1000-500	Accuris™ Calibration Weight (F1 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
W1101-6-100	Calibration set for Analytical Balances (Class E2) 6 pcs: 1x100mg, 1x10g, 2x20g, 1x50g, 1x100g, incl. protective case, tweezers & cleaning cloth
W1100-200	Calibration set for Precision Balances (Class F1) 23 pcs, 1mg to 200g, includes protective case, tweezers, dust brush and cleaning cloth
W1105-9-1000	Economy calibration set for compact balances (Class M1), 9 pcs: 1x10g, 2x20g, 1x50g, 1x100g, 2x200g, 1x500g, 1x1kg, includes protective case

Accuris™ Compact & Precision Balances

Variable capacitance technology offers reliability, precision and fast stabilization

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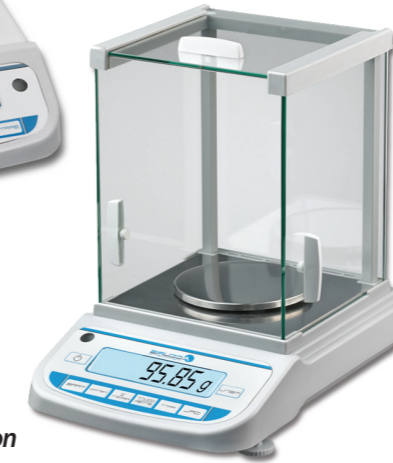
- Large, user-friendly interface
- Easy, in-lab calibration
- RS232 port for data output and printing
- Multiple program options (standard weighing, count mode, percent, etc.)

Precision

Accuris *Compact* and *Precision* balances quickly and accurately display sample mass measurements on a large, backlit 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.

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)	11.5cm / 4.5 in.			16cm / 6.3 in.	18cm / 7 in.	18cm / 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 8 cm 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)	11.5cm / 4.5 in.			16cm / 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 31cm 8 x 13.75 x 12.25 in.			20.5 x 35 x 8cm 8 x 13.75 x 3.1 in.		

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

ACCURIS
INSTRUMENTS

┼ **Readable to 0.0001g (0.1 mg)**

┼ **Available with Quick-Cal™ internal calibration option**

┼ **RS232 port for data output**

┼ **Multiple program options (standard weighing, count mode & percent)**

CE

Available with Quick-Cal™ auto calibration

Extended base, limits vibration & improves stability

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).

All models feature advanced adjustable feet and a leveling bubble indicator. A tare key is conveniently located on either side of the control panel, providing convenience and comfortable use for both right and left handed users. 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. While standard models (Items W3100-120 & W3100-210) include a 100g calibration weight for external user-calibration.

All Accuris Analytical Balances feature a glass enclosure (draft shield) with 3 sliding doors, "right, left, and top" to isolate the weighing area from the ambient environment.

Analytical Balances

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 (Round)	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.	

Accuris Calibration Weights available on page 58.   *Includes US plug. For EU plug, please add (-E).

Glass draft shield opens from the left, right, and top for easy access to the weighing pan

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ACCURIS
INSTRUMENTS

NEXTPETTE™

Fully Autoclavable

┼ **Market leading accuracy and precision**

┼ **One-handed volume adjustment (Easy-to-turn thumb wheel)**

┼ **Volume lock**

┼ **Easily visible volume display**

┼ **Ceramic pistons (on 20, 100, 200 and 1000µl models)**

Large, 4 digit volume display faces the user

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%	10 µl
P7700-10	NextPette™	variable volume pipette 0.5 to 10 µl	± 3.8 to 0.5%	± 4 to 0.5%	10 µl
P7700-20	NextPette™	variable volume pipette 2 to 20 µl	± 3 to 0.8%	± 3 to 0.8%	200 µl
P7700-100	NextPette™	variable volume pipette 10 to 100 µl	± 1.5 to 0.8%	± 1.5 to 0.8%	200 µl
P7700-200	NextPette™	variable volume pipette 20 to 200 µl	± 1.2 to 0.6%	± 1.0 to 0.6%	200 µl
P7700-1000	NextPette™	variable volume pipette 100 to 1000 µl	± 1.5 to 0.6%	± 1.0 to 0.6%	1000 µl
P7700-5M	NextPette™	variable volume pipette 1ml to 5ml*	± 0.6 to 0.5%	± 0.6 to 0.5%	5 ml
P7700-10M	NextPette™	variable volume pipette 1ml to 10ml**	± 2.5 to 0.5%	± 2.0 to 0.5%	10 ml
P7700-CAR	NextPette™	carousel stand holds 6 NextPette Pipettes			

*Order P7700-T5M tips   ** Order P7700-T10M tips

ASPIRE™ Laboratory Aspirator

┼ **Compact design**

┼ **Built-in vacuum pump**

┼ **Adjustable vacuum control**

┼ **Hydrophobic filter**

Quietly and safely aspirate liquid waste from plates/vessels

Comes complete with:

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

Included   Optional

A   B C   D   E   F
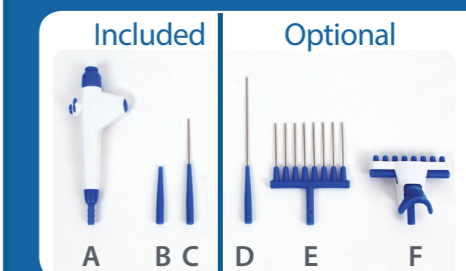
Ordering Information:

Item No.	Description:
V0020*	**ASPIRE™ Laboratory Aspirator, 115V** 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, X-long (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)
V0020-F1	Hydrophobic filter (1 included)
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 (2.2kg)**
Electrical:	**115V, or 230V, 50Hz to 60Hz**
Warranty:	**2 years**

ACCURIS
INSTRUMENTS

my**GEL**™ 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.

Set parameters 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 6 cm and 5 x 6 cm gels are included with the myGel Mini system, as are double sided combs. The smaller tooth combs are compatible with multichannel pipettes. 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.
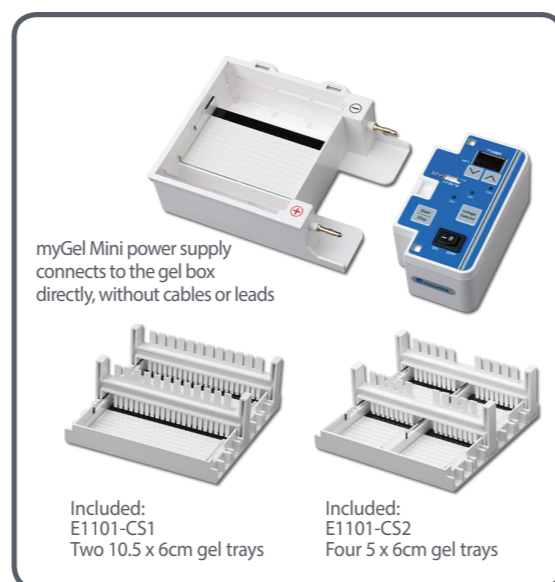
myGel Mini power supply connects to the gel box directly, without cables or leads

Included:
E1101-CS1
Two 10.5 x 6cm gel trays

Included:
E1101-CS2
Four 5 x 6cm gel trays

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 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 (.45kg)
Electrical:	115V, 60Hz or 230V, 50Hz
Warranty:	2 years

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 casting set, 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)

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

62

ACCURIS
INSTRUMENTS
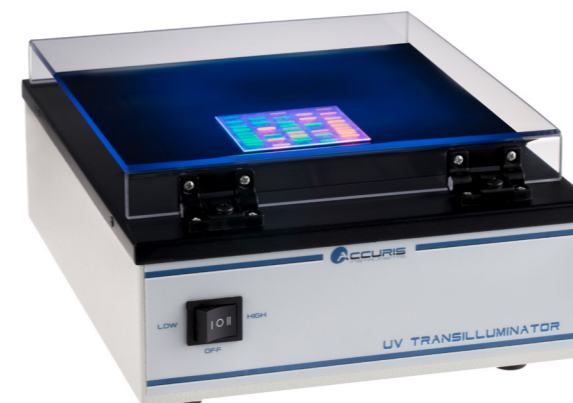
UV TRANSILLUMINATOR
For Viewing DNA and Protein in Electrophoresis Gels

+ **Optimal for the excitation of EtBr**
+ **Dual intensity settings, (50% or 100%)**
+ **Hinged UV safety cover**
+ **Use with SmartDoc™ enclosure for gel imaging with a smart phone (pg.64)**
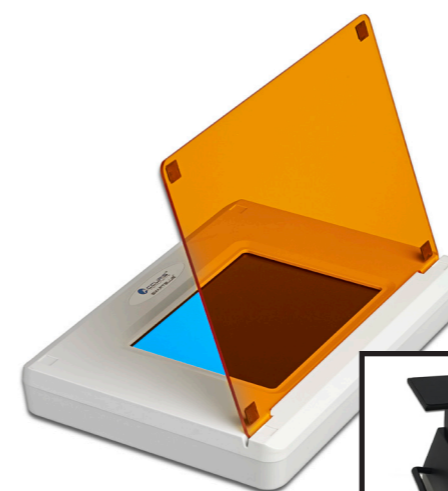
Ordering Information:

Item No.	Description:
E3000*	Accuris UV Transilluminator
E5001-SD	SmartDoc Imaging Enclosure
E5001-590	SmartDoc photo filter, 590nm for imaging EtBr on UV
E5001-535	SmartDoc photo filter, 535nm for imaging green stains on UV

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

Technical Data:

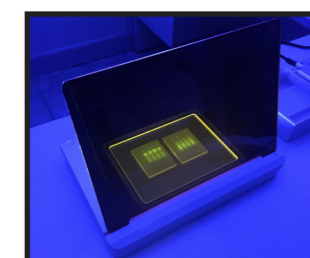| Light Source:	UV
Wavelength:	302nm
Gel Viewing Surface:	16 x 19cm
Dimensions: (W x D x H)	10.5 x 13 x 5.5 in. 26.5x 32.5x 14 cm
Weight:	12 lbs (5.5kg)
Electrical:	115V or 230V, 50Hz to 60Hz
Warranty:	2 years

SmartBlue™ **Transilluminator**

+ **Safe blue light does not damage nucleic acid**
+ **Uniform Illumination (UI) provides even lighting**
+ **465nm wavelength, optimal for green stains**
+ **Two position amber cover is also removable**

SMARTBLUE™

Compatible with SmartDoc (E5001-SD)

Markers stained with SmartGlow™ shown on SmartBlue

Amber cover in flat position for gel viewing / imaging

Technical Data:

Light Source:	High Intensity LED
Wavelength:	Peak at 465nm
Gel Viewing Surface:	17 x 12cm
Filter Cover	Amber, filters blue light
Dimensions: (W x D x H)	12.8 x 8.5 x 1.9 in. 30.5x 21.5x 5 cm
Weight:	2.6 lbs (1.2kg)
Electrical:	115V or 230V, 50Hz to 60Hz
Warranty:	2 years

Ordering Information:

Item No.	Description:
E4000*	SmartBlue, blue light transilluminator
E5001-SD	SmartDoc Imaging Enclosure

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

63

SMARTDOC™ 2.0
### *Gel Visualization and Smart Phone Imaging System*

E5001-SDB

➕ **Quality imaging with any smart phone**

➕ **Ideal for common safe stains (SmartGlow™, SYBR® Green, Gel Green, 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. (Smartphones 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 (1.2kg)
Electrical:	115V or 230V, 50Hz to 60Hz
Warranty:	2 years
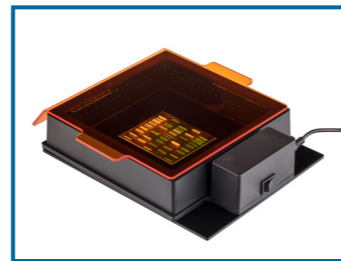
Standalone blue light illumination base (Inlcuded with E5001-SDB)
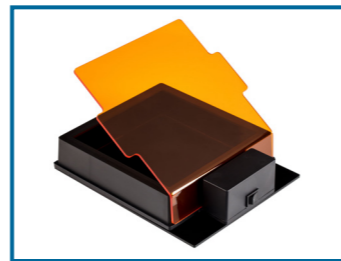
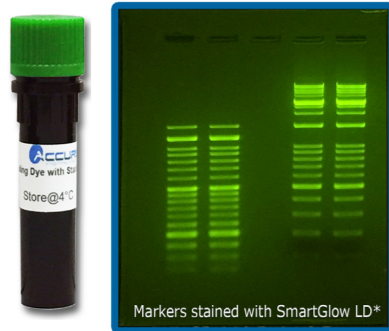Included orange cover can be tilted for gel access

Ordering Information:

Item No.	Description:
E5001-SDB*	SmartDoc Gel Imaging System with blue light illumination
E5001-SD	SmartDoc Gel Imaging Enclosure (for use on existing transilluminators)
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
E5001-ORANGE	Orange photo filter (included with E5001-SDB and E5001-SD)

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

E5001-SD Enclosure 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)**

Markers stained with SmartGlow LD*

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

Ordering Information:

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

➕ **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 2.25in. / 16 x 11.5 x 5.7 cm
Weight:	0.9lbs (0.4kg)
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**

➕ **Touchscreen control**

➕ **Dual orientation, auto-rotating display (fits anywhere in a crowded lab)**

➕ **Intuitive programming**

➕ **Control voltage or amperage**

Dual Orientation, Auto-Rotating Display

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 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:	80W
Timer:	1 min. to 99 hours 59 min.
Output Terminals:	4 pairs (wired in parallel)
Safety:	No load, load change, overload detection
Display: (W x D x H)	2 x 2in. touchscreen LCD
Dimensions:	8.5 x 6.3 x 4.0in. / 21.5 x 15.5 x 9.75 cm
Weight:	6.5lbs (2.9kg)
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:
E2300*	myVolt™ Touch Power Supply, 1 to 300V max, 400mA

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

Accuris™ Taq DNA Polymerase and Master Mix

- For routine PCR, genotyping, colony PCR and fast PCR
- Proprietary buffer optimized for a variety of assay conditions
- Supplied with 5x buffer or as a convenient master mix

Accuris™ Taq DNA Polymerase
Supplied with 5x buffer or as a 2X Master Mix

Item No.	Description	Size
PR1000	Taq DNA Polymerase	500u (5u/µl)
PR1000-1000	Taq DNA Polymerase	1000u (5u/µl)
PR1000-6000	Taq DNA Polymerase	6000u (5u/µl)
PR1001-200	2x Taq Master Mix	200 x 50µl Reactions
PR1001-1000	2x Taq Master Mix	1000 x 50µl Reactions
PR1001-R-200	2x Taq Red Master Mix	200 x 50µl Reactions
PR1001-R-1000	2x Taq Red Master Mix	1000 x 50µl Reactions

Accuris™ Hot Start Taq DNA Polymerase and Master Mix

- Exceptional sensitivity for low copy PCR
- Ideal for multiplex PCR & amplification of GC-rich DNA
- Same enhanced features as Accuris Taq Polymerase
- Optimized for fast cycling and reproducibility

Accuris™ Hot Start Taq DNA Polymerase
Supplied with 5x buffer or as a 2X Master Mix

Item No.	Description	Size
PR1000-HS-500	Hot Start Taq DNA Polymerase	500u (5u/µl)
PR1000-HS-1000	Hot Start Taq DNA Polymerase	1000u (5u/µl)
PR1000-HS-6000	Hot Start Taq DNA Polymerase	6000u (5u/µl)
PR1001-HS-200	Hot Start 2x Taq Master Mix	200 x 50µl Reactions
PR1001-HS-1000	Hot Start 2x Taq Master Mix	1000 x 50µl Reactions
PR1001-HSR-200	Hot Start 2x Taq Red Master Mix	200 x 50µl Reactions
PR1001-HSR-1000	Hot Start 2x Taq Red Master Mix	1000 x 50µl Reactions
PR1000-CM-500	Hot Start ChemMod Taq	500u (5u/µl)
PR1000-CM-1000	Hot Start ChemMod Taq	1000u (5u/µl)
PR1000-CM-6000	Hot Start ChemMod Taq	6000u (5u/µl)

## Accuris™ Taq Plus DNA Polymerase & Master Mix
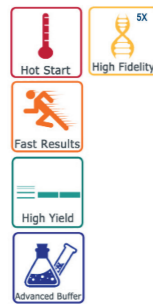
- Higher fidelity for long PCR amplicons, up to 35kb
- Ideal for problematic templates and TA cloning
- Better sensitivity and higher activity for low copy and long PCR

Accuris™ Taq Plus DNA Polymerase
Supplied with 5X buffer or as a 2X Master Mix

Item No.	Description	Volume
PR1000-TP-250	Taq Plus DNA Polymerase	250u (5u/µl)
PR1000-TP-500	Taq Plus DNA Polymerase	1000u (5u/µl)
PR1001-TP-200	2x Taq Plus Master Mix	200 x 50µl Reactions
PR1001-TP-1000	2x Taq Plus Master Mix	1000 x 50µl Reactions

Accuris™ High Fidelity DNA Polymerase
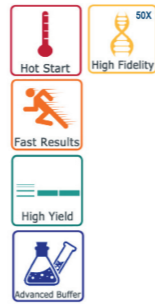
- 50X higher fidelity than Taq polymerase
- Works with crude DNA samples
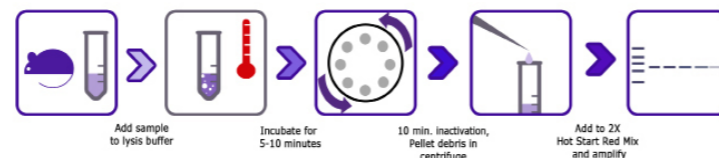- Ideal for cloning, mutagenesis & microarrays

Accuris™ High Fidelity DNA Polymerase
Supplied with 5X buffer

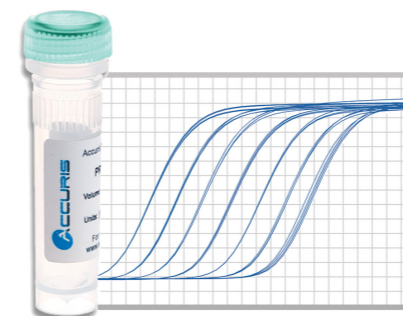| Item No.	Description	Size
PR1000-HF-200	High Fidelity DNA Polymerase	200u (2u/µl)
PR1000-HF-1000	High Fidelity DNA Polymerase	1000u (2u/µl)

Accuris™ 1 Hour Mammalian Genotyping Kit

- DNA extraction and amplification in one hour
- Proprietary lysis buffer optimized for ear punches, tail snips and other mammalian tissues
- Single tube process - no organic solvents or clean up procedures

Accuris™ 1 Hour Mammalian Genotyping Kit
Includes Hot Start Taq Master Mix

Add sample to lysis buffer → Incubate for 5-10 minutes → 10 min. inactivation, Pellet debris in centrifuge → Add to 2X Hot Start Red Mix and amplify

Item No.	Description	Reactions
PR1300-MG-80	Accuris 1 Hour Mammalian Genotyping Kit	80
PR1300-MG-400	Accuris 1 Hour Mammalian Genotyping Kit	400

Please visit www.accuris-usa.com for additional details on the Accuris PCR Reagents

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qMAX™ Green Real Time PCR Mix

- Superior sensitivity and fast cycling with exceptional results
- Includes Accuris Hot Start Taq for greater specificity & accuracy
- Early C_t values and detection across a broad dynamic range
- Ideal for low copy number templates

Accuris™ qMAX Green qPCR Mix
Excellent Consistency Across a Broad Dynamic Range
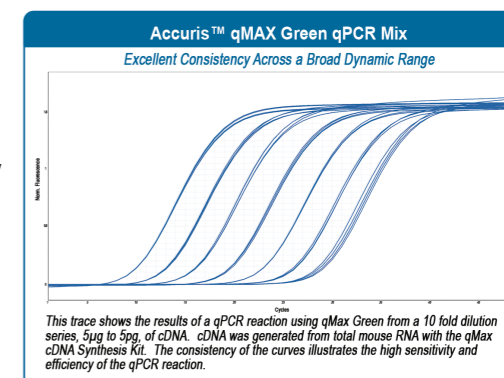
This trace shows the results of a qPCR reaction using qMax Green from a 10 fold dilution series, 5µg to 5pg, of cDNA. cDNA was generated from total mouse RNA with the qMax cDNA Synthesis Kit. The consistency of the curves illustrates the high sensitivity and efficiency of the qPCR reaction.

qMAX™ Probe Real Time PCR Mix
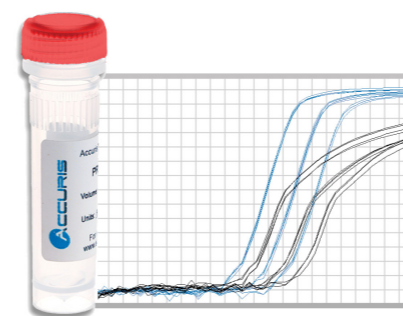
- Same high efficiency for multiplex and singleplex reactions
- Includes Accuris Hot Start Taq Polymerase for greater specificity and accuracy
- Compatible with popular hydrolysis and beacon probes
- Early C_t values and detection across a broad dynamic range

Accuris™ qMAX Probe qPCR Mix
Amplification Curves
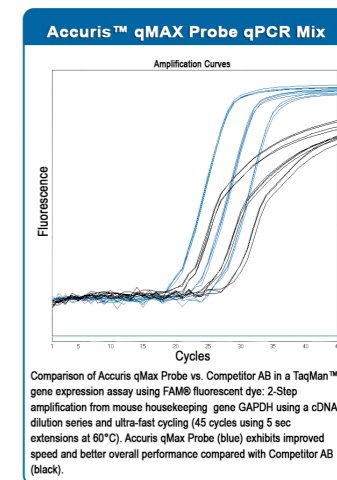
Comparison of Accuris qMax Probe vs. Competitor AB in a TaqMan™ gene expression assay using FAM® fluorescent dye. 2-Step amplification from mouse housekeeping gene GAPDH using a cDNA dilution series and ultra-fast cycling (45 cycles using 5 sec extensions at 60°C). Accuris qMax Probe (blue) exhibits improved speed and better overall performance compared with Competitor AB (black).

qMAX™ cDNA Synthesis Kit

- Rapidly generate high quality qPCR ready cDNA
- Unbiased, complete sequence representation
- Thermostable qMax RT with RNase inhibitor
- Optimized for use across a wide dynamic range
- Two tube format for easy reaction set up

Accuris™ qMAX cDNA Synthesis Kit
Amplification
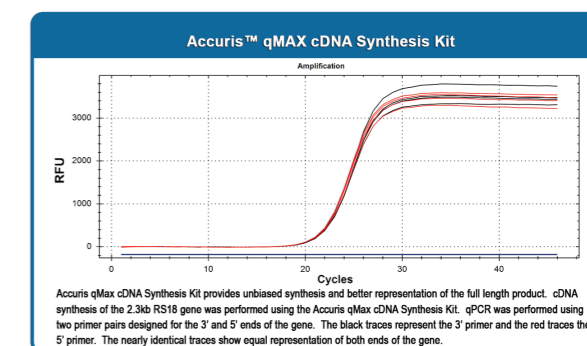
Accuris qMax cDNA Synthesis Kit provides unbiased synthesis and better representation of the full length product. cDNA synthesis of the 2.3kb RS18 gene was performed using the Accuris qMax cDNA Synthesis Kit. qPCR was performed using two primer pairs designed for the 3' and 5' ends of the gene. The black traces represent the 3' primer and the red traces the 5' primer. The nearly identical traces show equal representation of both ends of the gene.

Item No.	Description	Reactions (20µl volume)
PR2000-L-S	qMAX Green, Low Rox qPCR Mix	20
PR2000-L-100	qMAX Green, Low Rox qPCR Mix	100
PR2000-L-500	qMAX Green, Low Rox qPCR Mix	500
PR2000-L-1000	qMAX Green, Low Rox qPCR Mix	1000
PR2000-H-S	qMAX Green, High Rox qPCR Mix	20
PR2000-H-100	qMAX Green, High Rox qPCR Mix	100
PR2000-H-500	qMAX Green, High Rox qPCR Mix	500
PR2000-H-1000	qMAX Green, High Rox qPCR Mix	1000
PR2100-C-S	qMAX cDNA Synthesis Kit	5
PR2100-C-25	qMAX cDNA Synthesis Kit	25
PR2100-C-100	qMax cDNA Synthesis Kit	100
PR2100-C-250	qMAX cDNA Synthesis Kit	250

Item No.	Description	Reactions (20µl volume)
PR2001-N-S	qMAX Probe, No Rox qPCR Mix	20
PR2001-N-100	qMAX Probe, No Rox qPCR Mix	100
PR2001-N-500	qMAX Probe, No Rox qPCR Mix	500
PR2001-N-1000	qMAX Probe, No Rox qPCR Mix	1000
PR2001-L-S	qMAX Probe, Low Rox qPCR Mix	20
PR2001-L-100	qMAX Probe, Low Rox qPCR Mix	100
PR2001-L-500	qMAX Probe, Low Rox qPCR Mix	500
PR2001-L-1000	qMAX Probe, Low Rox qPCR Mix	1000
PR2001-H-S	qMAX Probe, High Rox qPCR Mix	20
PR2001-H-100	qMAX Probe, High Rox qPCR Mix	100
PR2001-H-500	qMAX Probe, High Rox qPCR Mix	500
PR2001-H-1000	qMAX Probe, High Rox qPCR Mix	1000

Benchmark Scientific

17-18
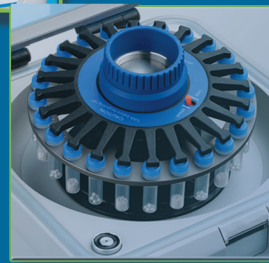
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