

Benchmark

ORBi-SHAKER™

Orbital Shaker Series



MAGiC CLAMP™
Patent Pending



- + **Four versatile models covering a full range of applications**
- + **Powerful, brushless motor drive systems**
- + **Attach flask clamps in one second with unique *MAGiC Clamp™* platform**



9.5 x 8 in.

Technical Data:

Speed Range:	50 to 300 rpm
Speed Increment:	10 rpm
Orbit:	19mm (3/4 in.)
Maximum Capacity:	4 x 1L or 4 kg
Standard Platform Dims.	9.5x8 in. / 24x20 cm
Dimensions (WxDxH):	13.1x11.74x4.7 in. 33x30x12 cm
Weight:	12 lbs. / 5.5 kg
Operating Temp.:	4 to 65 °C
Electrical:	100 - 240V 50-60Hz

ORBI-SHAKER™ JR.

- + **Perfectly circular 19mm orbit for aeration and mixing**
- + **Digital speed control up to 300 rpm**
- + **Available with MAGIC Clamp™ Platform**

The Orbi-Shaker JR. is a space-saving shaker, complete with a 9.5 x 8 in. non slip, rubber coated platform that is ideal for tissue culture flasks, petri dishes and staining trays.

Additional platforms are also available for the Orbi-Shaker JR, including the convenient MAGIC Clamp™ platform (patent pending) 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.

Ordering Information:

BT302*	Orbi-Shaker JR with non-slip, rubber mat platform (9.5 x 8 in.)
H1000-MR	MAGic Clamp™ universal platform (9.5x11.5") for flasks & tube racks
H1000-MR-50	Clamp for Magic Clamp platform, 50ml (max. 20)
H1000-MR-125	Clamp for Magic Clamp platform, 125ml (max. 12)
H1000-MR-250	Clamp for Magic Clamp platform, 250ml (max. 8)
H1000-MR-500	Clamp for Magic Clamp platform, 500ml (max. 6)
H1000-MR-1000	Clamp for Magic Clamp platform, 1000ml (max. 4)
H1000-MR-1550	Tube rack for Magic Clamp platform, 12x50 and 21x15 ml conical tubes (max. 2)
BT300-RP	Rolling bar platform for uncommon vessels

*To order an item in 230V, add (-E) to item number.

ORBi-SHAKER™

- + **Large platform, up to 24 x 125ml, 14 x 250ml, 9 x 500ml, 5 x 1L or 2 x 2L**
- + **Digital speed control up to 300rpm**
- + **Available with the MAGIC Clamp™ Platform**

The powerful Orbi-Shaker is capable of mixing a 14lb load capacity up to speeds as high as 300 rpm. 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 (patent pending) 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:

Speed Range:	30 to 300 rpm
Speed Increment:	1 rpm
Orbit:	19mm (3/4 in.)
Maximum Capacity:	2 x 2L or 6 kg
Standard Platform Dims.	13x12 in. / 33x30 cm
Dimensions (WxDxH):	11 x 13 x 3 in. 28 x 33 x 7.5 cm
Weight:	25 lbs. / 11.25 kg
Operating Temp.:	4 to 65°C
Electrical:	120V or 230V, 50-60Hz

Ordering Information:

BT3000*	Orbi-Shaker™ Orbital Shaker with non-slip rubber mat platform (13 x 12 in.)
BT3000-MR	MAGic Clamp™ universal platform (14x12") for flasks & tube racks
H1000-MR-50	Clamp for MAGIC Clamp platform, 50ml (max. 30)
H1000-MR-125	Clamp for MAGIC Clamp platform, 125ml (max. 24)
H1000-MR-250	Clamp for MAGIC Clamp platform, 250ml (max. 14)
H1000-MR-500	Clamp for MAGIC Clamp platform, 500ml (max. 9)
H1000-MR-1000	Clamp for MAGIC Clamp platform, 1000ml (max. 5)
H1000-MR-2000	Clamp for MAGIC Clamp platform, 2000ml (max. 2)
H1000-MR-1550	Tube rack for MAGIC Clamp platform, 12x50 and 21x15 ml conical tubes (max. 2)
H1000-P-MP	Dedicated platform, 4 x microplates (standard or deepwell)
H1000-P-SP	Spring rack platform, for uncommon vessels and containers

*To order an item in 230V, add (-E) to item number.

MAGIC CLAMP
Patent Pending



13 x 12 in.

ORBi-SHAKER™ MP



- + **3mm orbit, optimized for thorough mixing in microplates**
- + **Digital speed control up to 1500 rpm**
- + **Holds up to four microplates**

Technical Data:

Speed Range:	200 to 1500 rpm
Speed Increment:	10 rpm
Orbit:	3mm
Maximum Capacity:	4 microplates
Dimensions (WxDxH):	13.1x11.74x4.7 in. 33x30x12 cm
Weight:	12 lbs. / 5.5 kg
Operating Temp.:	4 to 65°C
Electrical:	100-240V, 50-60 Hz

This vortexer is designed with a 3mm mixing orbit, providing thorough mixing of microplates and/or PCR plates. Up to four plates (standard or deepwell) can be placed on the included platform and they are instantly secured without the use of any springs, clamps or tools.

A digital microprocessor ensures accurate speed control over the brushless, maintenance free motor drive and both speed and time can be viewed simultaneously on the large LED display.

Ordering Information:

BT1502*	Orbi-Shaker MP with platform for 4 microplates
BT1500-A1520	Microtube Adapter (for H6004 only) For 1.5/2.0mL microtubes
BT1500-A05	Microtube Adapter (for H6004 only) For 0.5mL microtubes

*To order an item in 230V, add (-E) to item number.

ORBi-Blotter™

- + **Low speed, 3 to 70rpm**
- + **Gentle, orbital motion for sensitive gels/blots**
- + **Incubator and cold room safe**



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. platform is included along with a non-slip rubber mat for holding trays, dishes, plates, flasks and other flat bottomed vessels. An optional stacking platform is also available for protocols requiring an increased work surface.

Technical Data:

Speed Range:	3 to 70 rpm
Orbit:	19mm (3/4 in.)
Platform Dims.:	14x12 in. / 35x30 cm
Dimensions (WxDxH):	14 x 12 x 8 in. 35 x 30 x 20 cm
Weight:	12 lbs. / 5.5 kg
Operating Temp.:	4°C to 45°C
Electrical:	120V or 230V, 50-60Hz

Ordering Information:

BT30*	Orbi-Blotter™ low speed Orbital Shaker with non-slip rubber mat
BR2000-STACK	Stacking Platform, 14 x 12 in. (clearance 2.75 in.)
STACK-PLUS	Platform extension set, increase platform clearance by 1.25 in.

*To order an item in 230V, add (-E) to item number.

ORBi-SHAKER™ Selection Guide

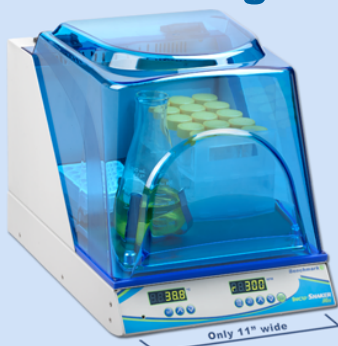


Model:	Orbi-Shaker JR	Orbi-Shaker	Orbi-Shaker MP	Orbi-Blotter
Max. Speed	300 rpm	300 rpm	1500 rpm	70 rpm
Min. Speed	50 rpm	30 rpm	200 rpm	3 rpm
Orbit Size	19mm	19 mm	3 mm	19 mm
Flask Capacity (125ml)	12	24	N/A	24*
Flask Capacity (250ml)	8	14	N/A	14*
Flask Capacity (500ml)	6	9	N/A	9*
Flask Capacity (1L)	4	5	N/A	5*
Flask Capacity (2L)	N/A	2	N/A	3*
Microplate Capacity	N/A	4	4	N/A
Control	Digital	Digital	Digital	Analog

*For low speed applications (not requiring clamps) only.

Also Available from
Benchmark

INCU-SHAKER™ Mini Orbital Shaking Incubator



- ⬇ Exceptional temperature uniformity
- ⬇ Extremely compact, just 11" wide
- ⬇ Exchange flask clamps in one second with the new MAGic Clamp magnetic system

ORBi-SHAKER™ CO₂ Remote Controlled, All Environment Shakers



- ⬇ Designed for use in CO₂ Incubators and other extreme environments
- ⬇ Remote control, adjust settings without exposing chamber
- ⬇ Exchange flask clamps in one second with MAGic Clamp™ platform.

Benchmark
Scientific

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ORBi-SHAKER™ XL

MAXIMUM CAPACITY, BENCHTOP MODEL



with **MAGIC CLAMP™**
Patent Pending

- + **High Capacity, benchtop model**
- + **Circular 19mm orbit for aeration and mixing**
- + **Exchange flask clamps in one second with MAGIC Clamp™ platform.**

Technical Data

Speed Range:	30 to 300 rpm
Speed Increment:	1 rpm
Orbit:	19mm (3/4")
Max. Capacity:	5 x 2L or 9 x 1L Flasks
Max. Load:	65 lbs (30kg)
Platform Dimensions:	17.8 x 17.8 in. / 45 x 45 cm (Included)
Timer:	1 min. to 48 hours / continuous
Weight:	65 lbs / 30 kg
Dimensions:	18.5 x 21.25 x 5 in. / 47 x 54 x 12.5 cm
Electrical:	120V or 230V, 50-60Hz

The Orbi-Shaker XL offers flask capacity that far exceeds most benchtop models. With a large 18 x 18 inch platform and a powerful, beltless motor drive, the Orbi-Shaker XL is capable of mixing up to five 2L flasks or nine 1L flasks simultaneously. The included, non-slip rubber mat platform is ideal for low speed applications, while the convenient MAGIC Clamp™ platform is also available for high speed mixing of Erlenmeyer flasks, tube racks or microplates. The MAGIC Clamp™ allows for instant flask clamp exchange without the use of tools, screws or any other hardware.

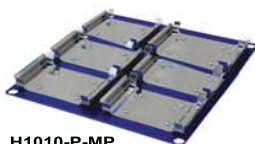
Ordering Information

BT1010* Orbi-Shaker XL, High capacity, benchtop shaker
Includes 18x18" platform with non-slip mat, 115V

Optional Platforms and Accessories:

H1010-MR	MAGic Clamp universal platform, (18x18")
H1000-MR-50	Flask Clamp, 50ml (max. 49)
H1000-MR-125	Flask Clamp, 125ml (max. 36)
H1000-MR-250	Flask Clamp, 250ml (max. 25)
H1000-MR-500	Flask Clamp, 500ml (max. 16)
H1000-MR-1000	Flask Clamp, 1000ml (max. 9)
H1000-MR-2000	Flask Clamp, 2000ml (max. 5)
H1000-MR-1550	Tube Rack, 20x50 & 30x15 ml tubes (max. 4)
H1000-MR-T15	Tube Rack, 32x15 tubes (max. 8)
H1000-MR-T50	Tube Rack, 15x50 tubes (max. 8)
H1000-MR-T600	Bottle Rack, 4x500/600ml conical bottles (max. 4)
H1000-MR-H15	Tube rack, 12 x 1.5/2.0ml horizontal (max. 6)
H1000-MR-H150	Tube Rack, 4 x 15ml horizontal (max.8)
H1000-MR-H500	Tube Rack, 2 x 50ml horizontal (max.8)
H1010-P-SP	Spring loaded platform, for uncommon vessels
H1010-P-MP	6 x microplate platform (standard or deepwell)

*To order item in 230V, add (-E) to item number.



H1010-P-MP



H1000-MR-T600



H1000-MR-T1550



H1010-P-SP

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Benchmark 

ORBi-SHAKER™ CO₂

Remote Controlled, All Environment Shakers

WITH
MAGiC
CLAMP™
PATENT PENDING

- + Designed to fit and maximize capacity in most CO₂ incubators and chambers
- + Remote control, adjust settings without disrupting the CO₂ environment
- + Exchange flask clamps in one second with MAGiC Clamp™ platform.



ORBi-SHAKER™ CO₂

Remote Controlled, All Environment Shakers

The new Orbi-Shaker CO₂ series is designed for shaking, mixing & aeration applications in extreme environments, including CO₂ incubators. It can withstand temperatures from 0 to 65°C and humidity levels up to 100%.

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

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



Item: BT4000

Compatibility Chart:	Thermo® HeraCell™		New Brunswick™		Shel Lab®	Nuaire™	Fisher®	VWR® Symphony™	
	150	240	Galaxy® S41i	Galaxy® 170				5.3A	8.5A
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	●



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

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

Technical Data

Speed Range:	30 to 300 rpm
Speed Increment:	1 rpm
Orbit:	19mm
Max. Capacity:	
BT4000	2 x 2L or 5 x 1L Flasks
BT4010	5 x 2L or 9 x 1L Flasks
Platform Dimensions:	
Included with BT4000:	13 x 12 in. / 33 x 30 cm
Included with BT4010:	16 x 16.5 in. / 40.5 x 42 cm
Ambient Operating Temp:	0° to 65°C
Weight:	
BT4000:	25 lbs / 11.3 kg
BT4010:	50 lbs / 22.7 kg
Dimensions:	
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
Cord Length:	60.5 in. / 154 cm
Electrical:	115V Or 230V, 50-60Hz*

Ordering Information

BT4000* Orbi-Shaker CO₂, Shaker with remote control, includes 13x12" non-slip platform, 115V

BT4010* Orbi-Shaker CO₂ XL, Shaker with remote control, includes 16x16.5" non-slip platform, 115V

*To order item in 230V, add (-E) to item number.

Optional - Universal Platforms

BT3000-MR	MAGic Clamp universal platform for BT4000 (14x12")
BT4010-MR	MAGic Clamp universal platform for BT4010 (16x16.5")
H1010-MR	MAGic Clamp universal platform for BT4010 (18x18")

Flask & Tube Rack Accessories for MAGic Clamp Platforms

H1000-MR-50	Flask Clamp, 50ml (BT4000: max. 30 / BT4010: max. 49*)
H1000-MR-125	Flask Clamp, 125ml (BT4000: max. 20 / BT4010: max. 36*)
H1000-MR-250	Flask Clamp, 250ml (BT4000: max. 14 / BT4010: max. 25*)
H1000-MR-500	Flask Clamp, 500ml (BT4000: max. 9 / BT4010: max. 16*)
H1000-MR-1000	Flask Clamp, 1000ml (BT4000: max. 5 / BT4010: max. 9*)
H1000-MR-2000	Flask Clamp, 2000ml (BT4000: max. 2 / BT4010: max. 5*)
H1000-MR-1550	Tube Rack, 12x50 & 21x15 ml tubes (BT4000: max. 2 / BT4010: max. 4*)
H1000-MR-T15	Tube Rack, 32x15 tubes (BT4000: max. 3 / BT4010: max. 8*)
H1000-MR-T50	Tube Rack, 15x50 tubes (BT4000: max. 3 / BT4010: max. 8*)
H1000-MR-T600	Bottle Rack, 4x500/600ml conical bottles (BT4000: max. 2 / BT4010: max. 4*)

*Maximum capacity listed for the BT4010 with the optional H1010-MR MAGic Clamp Platform.

Benchmark Scientific

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