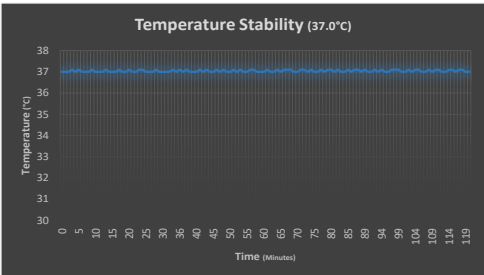


Incu-Shaker™ Mini CO₂ Shaking Incubator



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



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

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



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

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



Technical Data:

Temperature Range:	Ambient +5° to 60°C (Increments: 0.1 °C)
Temperature Accuracy / Uniformity / Stability	±0.5°C / ±0.5°C / 0.1°C (at 37°C)
Speed Range:	30 to 300 rpm (Increments: 1rpm)
Mixing Orbit:	19mm (3/4 in.)
CO ₂ Range:	0 to 20% (Increment: 0.1%)
CO ₂ 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.kg)
Electrical:	120V or 230V, 50-60Hz, 350W
Warranty:	2 Years

Maximum Capacity:

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

Ordering Information:

Item No.	Description:
H3501*	Incu-Shaker CO ₂ Mini, with non-slip rubber mat platform
H2300-REG	Optional CO ₂ Gas Regulator
	MAGic Clamp Accessories
H1000-MR	MAGic Clamp Universal Platform, 9.5 x 11.5 inch
H1000-MR-CMB	MAGic Clamp Adjustable Flask Clamp, for 125, 250 & 500ml Erlenmeyer flasks (max. 12 x 125ml, 8 x 250ml or 5 x 500ml)
H1000-MR-50	MAGic Clamp Flask Clamp, for 50ml Erlenmeyer flask (max. 20)
H1000-MR-125	MAGic Clamp Flask Clamp, for 125ml Erlenmeyer flask (max. 12)
H1000-MR-250	MAGic Clamp Flask Clamp, for 250ml Erlenmeyer flask (max. 8)
H1000-MR-500	MAGic Clamp Flask Clamp, for 500ml Erlenmeyer flask (max. 5)
H1000-MR-1000	MAGic Clamp Flask Clamp, for 1L Erlenmeyer flask (max. 4)
H1000-MR-MP	MAGic Clamp Flask Clamp, for microplates (max. 4)
H1000-MR-T15	MAGic Clamp Tube Rack, 32 x 15ml (max. 2)
H1000-MR-T50	MAGic Clamp Tube Rack, 15 x 50ml (max. 2)
H1000-MR-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).



Roto-Therm™ Incubated Rotator



Roto-THERM™

Roto-THERM™ PLUS

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

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

For applications requiring temperature control, the Roto-Therm series can be digitally programmed to maintain chamber temperatures of ambient +5°C to 60°C and include an "in-lab" calibration function for ensuring accurate temperature control. For applications where temperaure control is not required, the economical Roto-Mini models are available (pg. 30).

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

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

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

Technical Data:

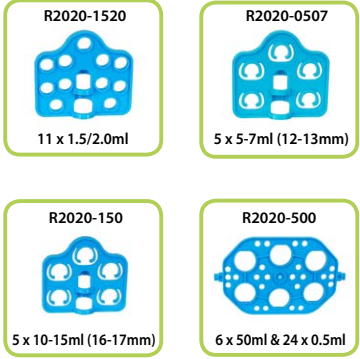
Speed Range: H2020:	24rpm
H2024:	5 to 70rpm
Mixing Modes: H2020:	N/A
H2024:	Mix, Pause & Rock
Temperature:	Ambient +5° to 60°C
Max Capacity:	1.5ml/2.0ml: 44 15ml:16 50ml: 6
Dimensions:	11.6 x 8.5 x 9 in / 29.5 x 21.6 x 22.9 cm
Weight:	9 lbs / 4kg (H2020) / 10 lbs / 4.5kg (H2024)
Electrical:	115 or 230V, 50-60Hz, 0.5A
Warranty:	2 Years

Ordering Information:

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

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

Included Tube Holders:



Optional Tube Holders:

