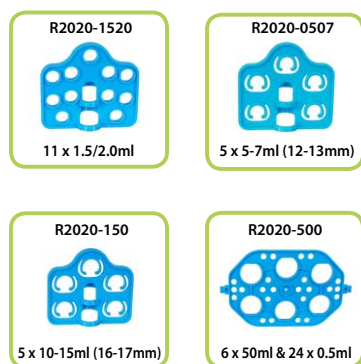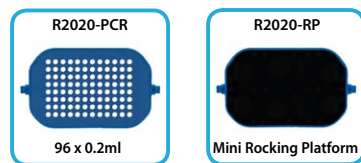# Roto-Mini

+ **Includes tube holders for common tube sizes**
+ **Available with variable speed control and advanced shaking/mixing modes:**
  + **Mix (Oscillating)**
  + **Pause**
  + **Rock**
+ **Also offered with incubation (See Page 65)**

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

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

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

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

Included Tube Holders:

R2020-1520	R2020-0507
11 x 1.5/2.0ml	5 x 5-7ml (12-13mm)

R2020-150	R2020-500
5 x 10-15ml (16-17mm)	6 x 50ml & 24 x 0.5ml

Optional Tube Holders:

R2020-PCR	R2020-RP
96 x 0.2ml	Mini Rocking Platform

Technical Data:

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

Ordering Information:

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

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

Roto-Bot
PROGRAMMABLE ROTATOR

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

Motion Mode Chart:

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

The Roto-Bot™ Rotating Mixers feature advanced programming options that far surpass that of the traditional laboratory rotator. With digital speed control and more than 10 operating modes, the Roto-Bot can 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 96 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 R4045, 6 x10 in.

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