



BOEKL

Boekel Scientific

# Shaking & Rotating



## Boekel Thermal Mixer II

The Thermal Mixer II has a large intuitive touch screen, interchangeable auto-recognized blocks to fit most laboratory consumables, multiple modes for increased process performance and a large and accurate temperature and mixing range.

### FEATURES

- Large Color Touch Screen
- Programmable heating, cooling, and mixing sequences
- Intuitive navigation and programming
- 11 Interchangeable, auto-recognized blocks
- Up to five independent programmable steps
- Super accurate 4 point calibration
- Steps can be repeated in the Repeat Mode
- Easy to remove blocks
- 270810 Block included

### ACCESSORIES

#### Catalog No. Interchangeable Platforms

270810	Block, 24 x 0.5ml Tubes
270811	Block, 24 x 1.5ml Tubes
270812	Block, 24 x 2.0ml Tubes
270813	Block, 8 x 5.0ml Tubes
270814	Block, 24 12mm Tubes
270815	Block, 24 Cryo Tubes
270816	Block, 8 x 15ml Conical Tubes
270817	Block, 4 x 50ml Conical Tubes
270818	Block, Standard and Deepwell Microplate
270819	Block, 96 Well PCR Plate
270820	Block, 384 Well PCR Plate



	Heat Cool Thermal Mixer II	Heat ONLY Thermal Mixer II
Model #	270800	270900
Block Included with Unit	0.5ml x 24 tubes	0.5ml x 24 tubes
Unit Dimensions W x D x H (in)	9 x 13 x 5.3	9 x 13 x 5.3
Unit Dimensions W x D x H (cm)	23 x 33 x 13.5	23 x 33 x 13.5
Speed Range (rpm)	0, 250 to 3000	0, 250 to 3000
Speed Setting Increments (rpm)	50	50
Timer	0 - 99 Hours 59 Min 59 seconds / ∞	0 - 99 Hours 59 Min 59 seconds / ∞
Operation Temperature Range	10°C to 30°C	10°C to 30°C
Temperature Range	15°C below ambient to 100°C	5°C above ambient to 100°C
Heat Up Rate (Selectable)	5°C/Min, 2°C/Min, 1°C/Min	5°C/Min, 2°C/Min, 1°C/Min
Cooling Rate (Fixed) Above Ambient - Below Ambient	3°C/Min - 5°C/Min	N/A
Temperature Accuracy 20°C to 40°C < 20°C & > 40°C	+/- 0.2°C +/- 0.5°C	+/- 0.2°C +/- 0.5°C
Temperature Uniformity 20°C to 40°C	±0.3°C	±0.3°C
Temperature Setting	±0.1°C / 1.0°C to 99°C	±0.1°C / 1.0°C to 99°C
Electrical Approval	Power pack UL, cUL, and CE approved	Power pack UL, cUL, and CE approved
Shipping Weight	25 lbs. / 11.34 kgs.	25 lbs. / 11.34 kgs.



## Boekel Jitterbug-2/Jitterbug-4 Microplate Thermoshaker

### FEATURES

- Accommodates two or four standard microplates or strip trays
- Independently set temperature, shaking speed and mixing duration
- Chamber in a chamber design for excellent stability
- Smooth, quiet operation
- Temperature calibration
- Heated lid to provide greater uniformity
- Accommodates Std. 96, 384, and 536 Plates
- Power pac is UL, CSA and CE approved
- Unit is CE marked

	Jitterbug-2 - 2 Plate Capacity	Jitterbug-4 - 4 Plate Capacity
<b>Catalog No.</b>	<b>270400</b>	<b>270440</b>
Speed	250 to 1200 rpm	250 to 1200 rpm
Orbit	2 mm	2 mm
Stability	±0.1°C	±0.1°C
Uniformity	±0.2°C	±0.2°C
Timer (with auto shut off)	1 min to 96 hrs	1 min to 96 hrs
Time setting resolution	1 min	1 min
Temperature range	Ambient +5 to 60°C	Ambient +5 to 60°C
Product Dimensions W x D x H	10.5" x 10.6" x 6" (26.6 cm x 26.7 cm x 14.5 cm)	15.5" x 15.5" x 6" (38.5 cm x 27 cm x 14 cm)
Power	12 V DC, 4.5 A via 115/ 230 V AC adapter	12 V DC, 5.0 A via 115/ 230 V AC adapter
Shipping Weight	16 lbs. / 7.25 kgs.	16 lbs. / 7.25 kgs.

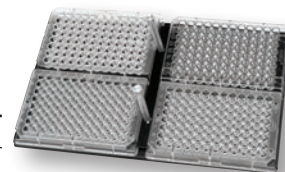
## Boekel Microplate Shakers

### FEATURES

- Compact with low profile and small footprint
- Reliable, regulated shaking for two or four microplates
- Simple screw attachments allow quick and easy fitting of any standard depth 96- or 384-well plates, holding the plates securely in place
- LCD Display
- Power pac is UL, CSA and CE approved
- Unit is CE marked

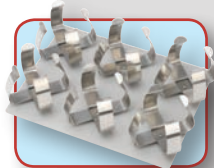
### ACCESSORIES

Catalog No.	Interchangeable Platforms
270390	Platform for four microplates

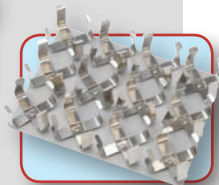


	2 Plate Capacity	4 Plate Capacity
<b>Catalog No.</b>	<b>270300</b>	<b>270340</b>
Speed	250 to 1000 rpm	250 to 1000 rpm
Orbit	2 mm	2 mm
Timer (with auto shut off)	1 min to 96 hrs	1 min to 96 hrs
Time setting resolution	10 sec	10 sec
Product Dimensions W x D x H	7" x 7.25" x 3.5" (17.5 cm x 18.5 cm x 9 cm)	7" x 7.25" x 3.5" (17.5 cm x 18.5 cm x 9 cm)
Power	12 V dc, 0.5 A via 115/ 230 V AC adapter	12 V dc, 0.5 A via 115/ 230 V AC adapter
Shipping Weight	10 lbs. / 4.5 kgs.	10 lbs. / 4.5 kgs.

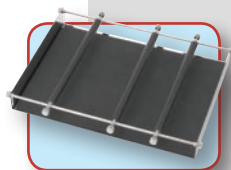




270290



270291



270292



270293

## Boekel Orbital Shaker

### FEATURES

- Compact with low profile and small footprint
- Smooth horizontal orbital motion for mixing in bottles, flasks, and beakers
- Soft start and noise-free operation
- Can be used in an incubator 4°C to 40°C
- Platform not supplied. See interchangeable platforms listed below.
- Power pac is UL, CSA and CE approved
- Unit is CE marked

### ACCESSORIES

Catalog No.	Interchangeable Platforms
270290	6 x 250 mL flasks/400 mL beakers
270291	12 x 100 mL flasks/150 mL beakers
270292	Universal platform with adjustable bars
270293	Flat platform with rubber mat

### Orbital Shaker

Catalog No.	270200
Speed	50 to 300 rpm
Orbit	18 mm
Load Limit	5.5 lbs. / 2.5 kgs.
Timer (with auto shut off)	User defined up to 99 hours
Time setting resolution	1 min
Tray Dimensions W x D	10" x 8" (25.4 cm x 20.3 cm)
Product Dimensions W x D x H	10.5" x 11" x 4" (26.7 cm x 28 cm x 10 cm)
Power	12 V dc, 0.5 A via 115/ 230 V AC adapter
Shipping Weight	13 lbs. / 5.8 kgs.



## Orbitron V™ Platform Rotator

### FEATURES

- 3D gyrating motion
- 12" square aluminum tray with flat mat (standard)
- 8" square or 12" square double stacking tray (optional)
- Easy to adjust angle, no tools required
- Dimpled rubber mat (optional)
- Supplied with flat mat
- Unit is UL/CSA & CE marked

### ACCESSORIES

Catalog No.	Description
260288	Optional 8 inch Tray (Includes Platform, 1 each, flat and dimpled mat)
C 2202208	Dimpled rubber mat 12"
C 2202162	Flat rubber mat 12"
C 2202774	Dimpled rubber mat 8"
C 2202775	Flat rubber mat 8"
260312	Stacking tray 12"

### Orbitron V (115 VAC)

### Orbitron V (230 VAC)

Catalog No.	281111	281111-2
Variable speed	5-120 rpm orbits/min	5-120 rpm orbits/min
Variable tilt angle	0° - 12°	0° - 12°
Operating Temperature	Can operate at 4°C to 40°C	Can operate at 4°C to 40°C
Timer	Adjustable up to 12 hours	Adjustable up to 12 hours
Product Dimensions W x D x H	14" x 12" x 11" (35.5 cm x 30.4 cm x 27.9 cm)	14" x 12" x 11" (35.5 cm x 30.4 cm x 27.9 cm)
Load Limit	20 lbs. / 9 kgs.	20 lbs. / 9 kgs.
Power	115 VAC; 50/60Hz, 6 watts, 0.6 amps	230VAC; 50/60Hz, 60 Watts, 0.7 amps CE marked
Shipping Weight	25 lbs. / 11.4 kgs.	25 lbs. / 11.4 kgs.



## Mini Orbitron™ Platform Rotators

### FEATURES

- Provides gentle, continuous mixing of specimens
- Extremely quiet
- Auto reverse
- Low profile and small footprint minimizes bench space
- Accommodates a variety of blood tubes, Centrifuge tubes, glass vials, or plates
- Supplied non-slip mats can be cleaned with soap and water and autoclaved too.

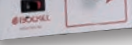
	Mini Orbitron (115 VAC)	Mini Orbitron (230 VAC)	Variable Speed Nutorator (115 VAC)	Variable Speed Nutorator (230 VAC)
Catalog No.	260100	260100-2	201100	201100-2
Speed	24 rpm Fixed		4-24 rpm Variable	
Tilt Angle	20° Fixed			
Load Capacity	0.8 kg (1.8 lbs)			
Operating Temperature	+4°C to 40°C			
Tray Size W x D	9.75" x 5.25" (24.3 cm x 13.1 cm)			
Product Dimensions W x D x H	7.5" x 5" x 5.5" (19 cm x 12.7 cm x 13.97 cm)		7.5" x 5" x 5.5" (18.7 cm x 12.5 cm x 13.7)	
Net Weight	2.21 lbs / 1 kg			
Power	115 VAC, 60 Hz, 0.2 amps	230 VAC, 50 Hz, 0.2 amps	115 VAC, 60 Hz, 0.2 amps	230 VAC, 50 Hz, 0.2 amps
Shipping Weight	3 lbs. / 1.3 kas.			



## Orbitron I™ & Orbitron II™ Platform Rotator

### FEATURES

- Gentle, low foaming agitation
- Small footprint
- Can be used in incubator or cold room
- Accepts many different sized tubes simultaneously with no need for unwieldy racks or clamps
- Thin power cord easily passes through incubator door gaskets
- Rugged steel platform has notches for bungee cords if necessary
- Fixed position platform at 23° angle
- Supplied with 12" x 12" tray and dimplid mat
- Power pac is UL, CSA and CE approved
- Unit is CE marked

	Orbitron I (115 VAC)	Orbitron I (230 VAC)	Orbitron II (115 VAC)	Orbitron II (230 VAC)
Catalog No.	260200	260200-2	260250	260250-2
Speed	Approx. 20 orbits/min Fixed		6-23 orbits/min Variable	
Tilt Angle	23° Fixed		0° - 23° Variable	
Load Limit	2.25 lbs. / 1 kgs.			
Operating Temperature	4°C to 40°C (in a cold room or incubator)			
Tray Dimensions W x D	12" x 12" (30.5 cm x 30.5 cm)			
Product Dimensions w/platform W x D x H	12" x 12" x 10" (30.5 cm x 30.5 cm x 25.4 cm)			
Shipping Weight	10 lbs. / 4.4 kgs.		12 lbs. / 5.5 kgs.	
Power	115 VAC; 50/60Hz, 6 watts, 0.5 amps	230VAC; 50/60Hz, 6 Watts, 0.5 amps	115 VAC; 50/60Hz, 6 Watts, 0.5 amps	230VAC; 50/60Hz, 6 Watts, 0.5 amps



## Boekel Mini Tube Rotator

### FEATURES

- A Variable Speed with LCD display
- Includes 260751 Carousel for 36 x 1.5/2.0ml tubes
- Provides complete 360° Rotation
- An adjustable 0-90° Mixing Angle
- Small footprint for your bench – we know you need all the space you can get!
- Interchangeable carousels for all common laboratory tubes
- Cold Room and Incubator compatible
- AC Adapter 115v to 240V with UL/CSA and CE markings

### Mini Tube Rotator

Catalog No.	260750
Speed	Variable 4-18 RPMs
Mixing Angle	Adjustable 0-90°
Load Capacity	1.75 lbs
Carousel Capacity	(36) 1.5/2.0 ml tubes, (10) 10/15 ml and (16) 5/7 ml tubes, (6) 50ml tubes
Operating Temperature	+4°C to 40°C
Product dimensions (W x D x H)	9" x 5" x 6" (22.8 cm x 12.7 cm x 15.2 cm)
Power Requirements	12v DC via 100-240 V AC Adapter
Shipping Weight	4.5 lbs. / 2.0 kgs.

### ACCESSORIES

Catalog No.	Interchangeable Platforms
260751	Carousel, 36 x 1.5/2.0 ml Tubes
260752	Carousel, 10 x 10/15ml Tubes and 16 x 5/7ml Tubes
260753	Carousel, 6 x 50 ml Tubes

## Boekel Tube Rotator

### FEATURES

- Digital microprocessor control
- Adjustable speed provides gentle or vigorous mixing action
- Adjustable angled head offers mixing angles from 90 to 180 degrees
- Five carousel options provide greater versatility for the most tube mixing needs
- Includes 260653 - 14 Place Tube Carousel for 50mL
- Power pac is UL, CSA and CE approved
- Unit is CE marked

### ACCESSORIES

Catalog No.	Interchangeable Carousel
260651	46 place tube carousel for 1.5/ 2.0 ml tubes
260652	28 place tube carousel for 15 mL tubes
260653	14 place tube carousel for 50 mL tubes
260654	63 place tube carousel for 18.5 mm cul. tubes
260655	63 place tube carousel for 14 mm cul. tubes

### Tube Rotator

Catalog No.	260650
Speed	4 - 80 rpm
Carousel angle	90 - 180 degrees
Timer (with auto shut off)	Up to 99 hrs and 59 minutes
Carousel capacity	46 x 9 - 11 mm tubes, 28 x 14 - 18 mm tubes, 14 x 27 - 34 mm tubes, 63 x 18.5 mm culture tubes (drum rotor) and 63 x 14 mm culture tubes (drum rotator)
Operating Temperature	+4°C to +40°C
Product Dimensions W x D x H	12" x 17" x 15" (30.4 cm x 43.1 cm x 38.1 cm)
Power	24.0 V DC, 2.70 A via 100 - 240 VAC adapter
Shipping Weight	16 lbs. / 7.25 kgs.





## Boekel Rocker II™

### FEATURES

- Ambient temperature range 4°C to 40°C
- Low voltage power is supplied by wall mount transformer
- Accepts a wide variety of flasks and plates and tubes
- Adjust tilt angle and speed without the need for tools
- Thin power cord easily passes through incubator door gaskets
- Supplied with flat non-skid mat
- Power pac is UL, CSA and CE approved
- Unit is CE marked

### ACCESSORIES

Catalog No.	Description
260355	Stacking Tray (Supplied with rubber non-skid mat)
C2202208	Dimpled Mat

	Rocker II (115 VAC)	Rocker II (230 VAC)
Catalog No.	260350	260350-2
Adjustable Speed	3 - 25 rpm	3 - 25 rpm
Tilt Angle	0° to 20°	0° to 20°
Load Limit	6 lbs. / 2.7 kgs.	6 lbs. / 2.7 kgs.
Operating Temperature	4°C to 40°C	4°C to 40°C
Stacking Tray Weight	1.5 lbs. / 0.7 kgs.	1.5 lbs. / 0.7 kgs.
Stacking Tray Clearance	2.5" (6.3 cm)	2.5" (6.3 cm)
Product Dimensions w/o platform W x D x H	7.5" x 7" x 5" (19.1 cm x 17.8 cm x 12.7 cm)	
Product Dimensions w/platform W x D x H	12" x 12" x 7" (30.5 cm x 30.5 cm x 17.8 cm)	
Power	12 V dc, 0.5 A via 115/ 230 V AC adapter CE marked	
Shipping Weight	13 lbs. / 5.9 kgs.	13 lbs. / 5.9 kgs.



282000

## Boekel Tube Rockers

### FEATURES

- Provides gentle rocking action for mixing of specimens
- Low profile and small footprint minimizes bench space
- Fixed tilt angle - 35°
- Supplied with non-slip autoclavable tube pad (silicon rubber)
- Power pac is CSA, CE and PSE approved



280150



260450

	Tube Rocker XL Variable Speed	Tube Rocker Mini Variable Speed	Tube Rocker Mini Fixed Speed
Catalog No.	282000	280150	260450
Speed	5 - 25 rpm	5 - 25 rpm	18 rpm
Tilt Angle	35° angle fixed		
Tube Capacity	Up to 19 tubes maximum 120 mm long	Up to 8 tubes maximum 120 mm long	
Load Capacity	2.8 lbs. / 1.3 kgs.	1.8 lbs. / 0.8 kgs.	
Product Dimensions W x D x H	16" x 4.7" x 5" (50 cm x 12 cm x 12.7 cm	8.6" x 4.7" x 5" (21.8 cm x 12 cm x 12.7 cm)	
Power	12 VDC, 0.5 A via 100/240 Volt AC adapter		
Shipping Weight	8 lbs. / 3.6 kgs.	5 lbs. / 2.26 kgs.	



## Boekel Mini Tube Vortex Mixer

### FEATURES

- Compact, with low profile and small footprint
- Pressure sensitive cup
- Continuous or touch operation
- Rubber suction pads prevent walking, absorb vibration
- Low voltage supply for safe cold room use
- Power pac is UL, CSA and CE approved
- Unit is CE marked

### Catalog No. 270100

### Vortex Mixer

Speed	300 to 6000 rpm/ continuous or burst
Orbit	2 mm
Tube Diameter (maximum)	20 mm
Operating Temperature	+4°C to +40°C
Product Dimensions W x D x H	4.13" x 5.9" x 3.35" (10.5 cm x 15 cm x 8.5 cm)
Power	12 V dc, 0.5 A via 115/ 230 VAC adapter
Shipping Weight	4 lbs. / 1.8 kgs.

