

# Shaking & Rotating





# **Boekel Heat/ Cool Thermal Mixer FEATURES**

- Digital microprocesor control
- Adjustable speed provides gentle or vigorous mixing action
- Temperature range from 18° below Ambient to 99° C for great functionality in the life science lab
- Four thermal block configurations accommodate MC tubes, standard/deep-well plates and PCR strip/ plates
- Temperature calibration

- Programmable control for standard operation, on/ off mixing function, and on/ off mixing function with heat/ cool programmability, including up to ten programmable settings per set function
- Supplied with platform 270690
- Power pac is UL, CSA and CE approved
- CE marked
- 2 year warranty

#### **ACCESSORIES**

Catalog No.	Interchangeable Platforms
270690	20-place 1.5/ 2.0ml tube block
270691	20-place .5ml tube block
270692	96 Pos. PCR tube block
270693	Standard/ Deep-well MTP block

#### **Boekel Heat/ Cool Thermal Mixer**

Catalog No.	270600
Speed	250 to 1400 rpm
Orbit	2 mm
Heat-up time	5° C per min.
Cool-down time	2 - 3° C between 99 C and ambient, 0.5 - 1° C between ambient
Timer (with auto shut off)	Completely programmable including on/ off mix function
Thermal block capacity	20 .5ml MCT, 20 1.5/ 2.0ml MCT, 1 96 well PCR plate or PCR strip tubes, 1 standard or deep well micro-plate
Product Dimensions W x D x H	175 mm x 185 mm x 90 mm (7" x 7.25" x 3.5")
Power	19.4 V dc, 4.74 via 100/ 240 AC adapter
Shipping Weight	7.25 kgs. (16 lbs.)



### Boekel Microtube Thermoshaker

#### **FEATURES**

- Benchtop shaker/incubator
- Compact benchtop incubator, without shaking
- Microtube shaker without temperature control, also suitable for cold room operation
- Temperature calibration

- Block not supplied
- Rapid heat up
- Continuous or timed operation
- Programmable timer
- Power pac is UL, CSA and CE approved
- CE marked
- 2 year warranty

#### **ACCESSORIES**

Catalog No.	Interchangeable Platforms
270590	20 x 1.5/2.0mL microtubes
270591	20 x 0.5 mL and 12 x 1.5 mL microtubes

#### **Microtube Thermoshaker**

Catalog No.	270500
Speed	250 to 1400 rpm
Orbit	2mm
Uniformity	±0.2°C
Timer (with auto shut off)	1 min to 96 hrs
Time setting resolution	1 min
Temperature range	Ambient +5 to 100°C
Product Dimensions W x D x H	205 mm x 230 mm x 130 mm (8" x 9" x 5")
Power	12 V dc, 0.5 A via 115/230 V AC adapter
Shipping Weight	6.35 kgs. (14 lbs.)



# 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
- CE marked
- 2 year warranty

	Jitterbug-2 - 2 Plate Capacity	Jitterbug-4 - 4 Plate Capacity
Catalog No.	270400	270440
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	265 mm x 270 mm x 145 mm (10.5" x 10.6" x 6")	385 mm x 270 mm x 140 mm (15.5" x 15.5" x 6")
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	7.25 kgs. (16 lbs.)	7.25 kgs. (16 lbs.)

#### **Boekel Mini Tube Rocker**

#### **FEATURES**

- Provides gentle rocking action for mixing of specimens
- Low profile and small footprint minimizes bench space
- Fixed speed 18 rpm
- Fixed tilt angle 35°
- Maximum capacity 8 tube tray
- Supplied with non-slip autoclavable tube pad (silicon rubber)
- Power pac is CSA, CE and PSE approved
- 2 year warranty



Catalog No. 260450	Tube Rocker
Speed	18 RPM's fixed speed
Tilt Angle	35° fixed angle
Tube Capacity	Up to 8 tubes maximum 120 mm long
Load Capacity	.8 kg (1.8 lbs.)
Operatinf Temperature	+4°C to +40°C)
Product Dimensions W x D x H	218 mm x 120 mm x 127 mm (8.6" x 4.7" x 5")
Power	12 V dc, 0.5 A via 100/ 240 V AC adapter
Shipping Weight	2.26 kg (5 lbs.)

#### **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

- CE marked
- 2 year warranty



Catalog No. 270100	Vortex Mixer
Speed	300 to 6000 rpm/ continuous or burst
Orbit	2 mm
Tube Diameter (maximum)	20 mm
Operating Temperature	$+4^{\circ}\text{C}$ to $+40^{\circ}\text{C}$
Product Dimensions W x D x H	105 mm x 150 mm x 85 mm (4.13" x 5.9" x 3.35")
Power	12 V dc, 0.5 A via 115/ 230 V AC adapter
Shipping Weight	1.8 kgs. (4 lbs.)



### **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
- CE marked
- 2 year warranty



#### **ACCESSORIES**

Catalog No.	Interchangeable Platforms
270390	Platform for four microplates

	2 Plate Capacity	4 Plate Capacity
Catalog No.	270300	270340
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	175 mm x 185 mm x 90 mm (7" x 7.25" x 3.5")	175 mm x 185 mm x 90 mm (7" x 7.25" x 3.5")
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	4.5 kgs. (10 lbs.)	4.5 kgs. (10 lbs.)



### **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
- CE marked
- 2 year warranty

#### **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



Catalog No.	270200
Speed	50 to 300 rpm
Orbit	18 mm
Load Limit	2.5 kgs. (5.5 lbs.)
Timer (with auto shut off)	User defined up to 99 hours
Time setting resolution	1 min
Tray Dimensions W x D	254 mm x 203 mm (10" x 8")
Product Dimensions W x D x H	267 mm x 280 mm x 100 mm (10.5" x 11" x 4")
Power	12 V dc, 0.5 A via 115/ 230 V AC adapter
Shipping Weight	5.8 kgs. (13 lbs.)



270290

270293



#### **Boekel Mini Tube Rotator with Carousel**

#### **FEATURES**

- A Variable Speed with LCD display
- Includes 260751 Carousel for 36 1.5/2.0ml tubes
- Provides complete 360° Rotation
- An adustable 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
- 2 Year Warranty

#### **ACCESSORIES**

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

#### **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"	
Power Requirements	uirements 12v DC via 100-240 V AC Adapter	
Shipping Weight	4.5 lbs	



#### Mini Orbitron™ Platform Rotator

#### **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 with two white, non-slip mats, one dimpled and one flat.
   Rubber mats can be cleaned with soap and water and autoclaved too.
- 2 year warranty

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



### Variable Speed Nutator

#### **FEATURES**

- Variable speed from 4-24 rpm's
- Low profile and small footprint minimizes bench space
- Quiet operation
- Provides gentle, continuous mixing of specimens
- Accommodates a variety of blood tubes and centrifuge tubes
- Supplied with one rubber dimple pad. Can be washed with mild soap and water.
- 2 Year Warranty

	Variable Speed Nutator (115 VAC)	Variable Speed Nutator (230 VAC)
Catalog No.	201100	201100-2
Speed	Variable 4-24 rpm	Variable 4-24 rpm
Tilt Angle   Fixed	20°	20°
Load Capacity	0.8 kg (1.8 lb)	0.8 kg (1.8 lb)
Operating Temperature	+4°C to +40°C	+4°C to +40°C
Tray Size	24.3 cm (9 3/4") W x 13.1 cm (5 1/4")D	24.3 cm (9 3/4") W x 13.1 cm (5 1/4")D
Foot Print W x D x H	18.7 cm (7-1/2") x 12.5 cm (5") x 13.7 (5-1/2	2") 18.7 cm (7-1/2") x 12.5 cm (5") x 13.7 (5-1/2")



# **Boekel Tube Rotator FEATURES**

- Digital microprocesor 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
- Timer features offers time-down or time-up counting feature
- Includes 260653 14 Place Tube Carousel for 50mL
- Power pac is UL, CSA and CE approved
- CE marked
- 2 year warranty

#### **ACCESSORIES**

7100200011120		
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**

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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 9 - 11 mm tubes, 28 14 - 18 mm tubes, 14 27 - 34 mm tubes, 63 18.5 mm culture tubes (drum rotor) and 63 14 mm culture tubes (drum rotator)	
Operating Temperature	+4°C to +40°C	
Product Dimensions W x D x H	304 mm x 431 mm x 381 mm (12" x 17" x 15")	
Power	24.0 V dc, 2.70 A via 100 - 240 V AC adapter	
Shipping Weight	7.25 kgs. (16 lbs.)	



### Orbitron I™ 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 speed and position platform (approximately 20 orbits per minute @ 23° angle)
- Supplied with 12" x 12" tray and dimpled mat
- Power pac is UL, CSA and CE approved
- CE marked
- 2 year warranty

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



#### Orbitron II™ Platform Rotator

#### **FEATURES**

- Gentle, low foaming agitation
- Small footprint
- Can be used in cold room or incubator
- Accepts a wide variety of tubes, plates, dishes, 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

- Variable speed of 6-23 orbits per minute
- Supplied with two white, non-slip mats, one dimpled and one flat.
   Rubber mats can be cleaned with soap and water and autoclaved too.
- Power pac is UL, CSA and CE approved
- CE marked
  - 2 year warranty

<u></u>	Orbitron II (115 VAC)	Orbitron II (230 VAC)
Catalog No. 260250		260250-2
Variable Speed	6-23 orbits/min	6-23 orbits/min
Variable Tilt Angle	0° - 23°	0° - 23°
Load Limit	1 kg (2.25 lbs)	1 kg (2.25 lbs)
Operating Temperature	Can operate at 4°C to 40°C  Can operate at 4°C to 40°C	
Tray Dimensions W x D	30.5 cm x 30.5 cm (12" x 12")	30.5 cm x 30.5 cm (12" x 12")
Product Dimensions W x D x H	30.5 cm x 30.5 cm x 25.4 cm (12" x 12" x 10")	30.5 cm x 30.5 cm x 25.4 cm (12" x 12" x 10")
Shipping Weight	5.5 kg (12 lbs)	5.5 kg (12 lbs)
Power	115 VAC; 50/60Hz, 6 Watts, 0.5 amps	230VAC; 50/60Hz, 6 Watts, 0.5 amps CE marked



## Orbitron V<sup>™</sup> Platform Rotator FEATURES

- 3D gyrating motion
- 12" square aluminum tray with flat mat (standard)
- 8" square or 12" square double stacking tray (optional)
- Dimpled rubber mat (optional)
- Supplied with flat mat
- UL/CSA
- CE marked
- 2 year warranty

#### **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"	14" x 12" x 11"
Load Limit	9 kgs. (20 lbs.)	9 kgs. (20 lbs.)
Power	115 VAC; 50/60Hz, 6 watts, 0.6 amps	230VAC; 50/60Hz, 60 Watts, 0.7 amps CE marked
Shipping Weight	25 lbs.	25 lbs.



# Boekel Rocker II<sup>™</sup> 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
- Optional stacking tray and dimpled mat (for test tubes) also available
- Supplied with flat non-skid mat
- Power pac is UL, CSA and CE approved
- CE marked
- 2 year warranty

#### **ACCESSORIES**

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

	Rocker II (115 \	AC) 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	2.7 kg (6 lbs)	2.7 kg (6 lbs)
Operating Temperature	4°C to 40°C	4°C to 40°C
Stacking Tray Weight	0.7 kg (1.5 lbs)	0.7 kg (1.5 lbs)
Stacking Tray Clearance	6.3 cm (2.5")	6.3 cm (2.5")
Product Dimensions w/o platform W x D x H $$	x D x H 19.1 cm x 17.8 cm x 12.7 cm (7.5" x 7" x 5")	
Product Dimensions w/platform W x D x H	D x H 30.5 cm x 30.5 cm x 17.8 cm (12" x 12" x 7")	
Power	12 V dc, 0.5 A via 115/230 V AC adapter CE marked	
Shipping Weight	5.9 kg (13 lbs)	5.9 kg (13 lbs)



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