



MaxQ 4000 Shaker
Cat. No. SHKE4000



Thermo Scientific MaxQ 4000 Incubated and Refrigerated Shakers

Combines Incubated/Refrigerated Temperatures with Orbital Shaker

- View speed, time and temperature simultaneously.
- Choose from three temperature ranges.
- Spacious chamber holds six two-liter flasks.
- Clear lid allows sample viewing without disturbing chamber atmosphere.
- Choice of analog or digital operating systems.
- Five year warranty on parts, one year labor and *LIFETIME* on mechanism.

Operation

- Triple eccentric drive handles heavy loads, provides uniform agitation and continuous 24-hour operation, even at high speeds.
- Monitor and control chamber temperature range with $\pm 0.1^\circ\text{C}$ accuracy at 37°C .

Analog Operating System

- Variable speed control from 40 to 400 rpm, controlled by a rotary dial.
- Integrated tachometer monitors and displays speed in rpm to guarantee an accurate setting.
- Easy-to-read LED digital temperature display.
- Operate shaker in continuous mode or set timer from 1 to 60 minutes.

Digital Operating System

- Variable speed control from 15 to 500 rpm.
- Continuous/timed operation from 0.1 hour to 999 hours or 0.1 minute to 999 minutes.

- View speed, operating time and temperature simultaneously on three individual LED displays.
- Visual/audible alarms alert you to temperature deviations. Heat turns off if temperature deviates $\pm 1^\circ\text{C}$ of set point.
- Shaker shuts down and visual/audible alarms signal if unit operates $\pm 10\%$ of set speed, preventing shaker from walking.
- User-adjustable speed calibration can be performed using a digital handheld tachometer, where verification is required and protocols can be standardized.
- Unbalanced load sensor stops platform motion when excess vibration is detected and visual/audible alarms signal until condition is corrected.
- Soft start feature eliminates sudden starts and stops, splashing of vessel contents or wetting of flask closure.
- Retains parameters during power failure and restarts automatically after power is restored.

Safety

- Over-temperature safety feature with independent thermostat provides additional backup by controlling heat if main temperature controller fails.
- Safety interlock stops platform motion when lid is opened.

Applications

- Cell culture
- Extraction procedures
- General mixing
- Staining and destaining
- Hybridizations
- Solubility studies
- Plasmid purification
- Bacterial suspensions
- Washing procedures
- Protein expression

Thermo Scientific MaxQ 4000

Ordering information

For a complete system order: 1. Shaker 2. Platform 3. Clamps

	Speed Range (rpm)	Orbit Diameter In. (cm)	Maximum Load Lb. (kg)	Temperature Range and Accuracy	Overall Dimensions				Shipping Weight Lb. (kg)
Cat. No.					In. (cm) Length	Width	Height	Power	
Bench Top Incubated Shaker—Analog									
SHKA4000 ^{1,3}	40–400	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 60°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	120V, 50/60 Hz	167 (75.8)
SHKA4000-1CE ^{1,2,3}	40–400	0.75 (1.9)	50 (22.7)	10°C above Ambient to 60°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	240V, 50/60 Hz	167 (75.8)
Bench Top High Temperature Incubated Shaker—Analog									
SHKA4000-5 ^{1,3}	40–400	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 80°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	120V, 50/60 Hz	167 (75.8)
SHKA4000-6CE ^{1,2,3}	40–400	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 80°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	240V, 50/60 Hz	167 (75.8)
Bench Top Refrigerated Shaker—Analog									
SHKA4000-7 ^{1,3}	40–400	0.75 (1.9)	50 (22.7)	15°C Below Ambient to 60°C; ±0.1°C at 37°C in Flask	34 (86.4)	22.5 (57.2)	22 (55.9)	120V, 50/60 Hz	212 (96.2)
SHKA4000-8CE ²	40–400	0.75 (1.9)	50 (22.7)	15°C Below Ambient to 60°C; ±0.1°C at 37°C in Flask	34(86.4)	22.5 (57.2)	22 (55.9)	240V, 50/60 Hz	212 (96.2)
Bench Top Incubated Shaker—Digital									
SHKE4000 ^{1,3}	15–500 ±1 rpm	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 60°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	120V, 50/60 Hz	167 (75.8)
SHKE4000-1CE ^{1,2,3}	15–500 ±1 rpm	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 60°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	240V, 50/60 Hz	167 (75.8)
Bench Top High Temperature Incubated Shaker—Digital									
SHKE4000-5 ^{1,3}	15–500 ±1 rpm	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 80°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	120V, 50/60 Hz	167 (75.8)
SHKE4000-6CE ^{1,2,3}	15–500 ±1 rpm	0.75 (1.9)	50 (22.7)	10°C Above Ambient to 80°C; ±0.1°C at 37°C in Flask	32 (81.3)	22.5 (57.2)	22 (55.9)	240V, 50/60 Hz	167 (75.8)
Bench Top Refrigerated Shaker—Digital									
SHKE4000-7 ^{1,3}	15–500 ±1 rpm	0.75 (1.9)	50 (22.7)	15°C Below Ambient to 60°C; ±0.1°C at 37°C in Flask	34 (86.4)	22.5 (57.2)	22 (55.9)	120V, 50/60 Hz	212 (96.2)
SHKE4000-8CE ²	15–500 +1 rpm	0.75 (1.9)	50 (22.7)	15°C Below Ambient to 60°C; ±0.1°C at 37°C in Flask	34 (86.4)	22.5 (57.2)	22 (55.9)	240V, 50/60 Hz	212 (96.2)

¹ CUL, ² CE, ³ UL

Accessories

UNIVERSAL PLATFORM

Cat. No.	Description
30110	18" x 18" (45.7 x 45.7 cm)

Note: Optional gassing manifold enables direct gassing into flasks for anaerobic cultures. Contact customer service at 800-553-0039 for more information.

CLAMPS FOR UNIVERSAL PLATFORM

Cat. No.	Vessel Size	Maximum No. of Vessels per Platform 18 x 18 in. (45.7 x 45.7 cm)
30175	Microplate/Deep Well Plate	10
30150BI	10-ml Flask	113
30151	25-ml Flask	64
30152BI	50-ml Flask	32
30153	125-ml Flask	32
30154BI	250-ml Flask	16
30155	300-ml Flask	16
30156BI	500-ml Flask	16
30157BI	1-L Flask	9
30158	2-L Flask	6

TEST-TUBE RACKS—FULL SIZE

Cat. No.	Vessel Size	No. of Racks per Platform 18x18 in. (45.7 x 45.7 cm)
30180BI	10–13 mm, Red, 6 x 12 Array	6
30182 ¹	14–16 mm, Orange, 6 x 12 Array	4
30184	17–20 mm, White, 4 x 10 Array	5
30186	21–25 mm, Blue, 4 x 10 Array	3
30188 ²	26–30 mm, Green, 3 x 8 Array	4
30190	Microcentrifuge, 1.5-ml, Blue, 8 x 12 Array	5

¹ Fits 15-ml centrifuge tubes. ² Fits 50-ml centrifuge tubes.

TEST-TUBE RACKS—HALF SIZE

Cat. No.	Vessel Size	No. of Racks per Platform 18x18 in. (45.7 x 45.7 cm)
30181	10–13 mm, Red, 6 x 6 Array	12
30183 ¹	14–16 mm, Red, 6 x 6 Array	6
30185	17–20 mm, White, 4 x 5 Array	8
30187	21–25 mm, Blue, 4 x 4 Array	6
30189 ²	26–30 mm, Green, 3 x 3 Array	9
30191	Microcentrifuge, 1.5-ml, White, 4 x 6 Array	8

¹ Fits 15-ml centrifuge tubes. ² Fits 50-ml centrifuge tubes.