



MaxQ 4450 Shaker  
Cat. No. SHKE4450



## Thermo Scientific MaxQ 4450 Compact Bench Top Incubated Shakers

### Small footprint that combines incubated/ refrigerated temperature with an orbital shaker

- Holds up to four one liter flasks.
- Requires minimal bench space.
- Affordably priced.
- Five year warranty on parts, one year labor and *LIFETIME* on drive mechanism.

### Product Description

- Choose between two temperature ranges, 5°C above ambient to 80°C or 5°C below ambient to 80°C.
- Clear lid lets you view samples without disturbing internal temperature.

### New Operating Chiller for Plasmid Purification and Protein Expression in Bacteria

- Achieve temperature ranges from 20°C to 30°C.
- Provides a refrigerated atmosphere.

### 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 and  $\pm 0.5^\circ\text{C}$  uniformity 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.
- Soft start feature eliminates sudden starts and stops, splashing of vessel contents or wetting of flask closure.
- Retains parameters during power failure and restarts unit 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 in bacteria

# Thermo Scientific MaxQ 4450

## Ordering information

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

Cat. No.	Speed Range (rpm)	Orbit Diameter In. (cm)	Maximum Load Lb. (kg)	Temperature Range and Accuracy	Overall Dimensions			Power	Shipping Weight Lb. (kg)
					In. (cm) Length	Width	Height		
<b>Bench Top Incubated Shaker—Analog</b>									
SHKA4450 <sup>1,2</sup>	40–400	0.75 (1.9)	35 (15.9)	5°C Above Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	120V, 50/60 Hz	77 (35)
SHKA4450-1CE <sup>1,2,3</sup>	40–400	0.75 (1.9)	35 (15.9)	5°C Above Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	240V, 50/60 Hz	77 (35)
<b>Bench Top Incubated Shaker—Digital</b>									
SHKE4450 <sup>1,2</sup>	15–500 ±1 rpm	0.75 (1.9)	35 (15.9)	5°C Above Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	120V, 50/60 Hz	77 (35)
SHKE4450-1CE <sup>1,2,3</sup>	15–500 ±1 rpm	0.75 (1.9)	35 (15.9)	5°C Above Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	240V, 50/60 Hz	77 (35)
<b>Bench Top Shaker with Cooling Coil—Analog</b>									
SHKA4450CC <sup>1,3</sup>	40–400	0.75 (1.9)	35 (15.9)	5°C Below Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	120V, 50/60 Hz	77 (35)
SHKA4450CC-1CE <sup>1,2,3</sup>	40–400	0.75 (1.9)	35 (15.9)	5°C Below Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	240V, 50/60 Hz	77 (35)
<b>Bench Top Shaker with Cooling Coil—Digital</b>									
SHKE4450CC <sup>1,3</sup>	15–500 ±1 rpm	0.75 (1.9)	35 (15.9)	5°C Below Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	120V, 50/60 Hz	77 (35)
SHKE4450CC-1CE <sup>1,2,3</sup>	15–500 ±1 rpm	0.75 (1.9)	35 (15.9)	5°C Below Ambient to 80°C; ±0.1°C in Flask	27.2 (69.1)	14.1 (35.8)	15.8 (40.1)	240V, 50/60 Hz	77 (35)

<sup>1</sup> CUL, <sup>2</sup> CE, <sup>3</sup> UL

## Accessories

Cat. No.	Description
30100	Universal 11" x 13" (27.9 x 33 cm) Platform with Handles
SHK4450CH	Upright Chiller, 6-L Reservoir, Required to Achieve Temperatures from 20°C–30°C, 120V
SHK4450CH-1CE	Upright Chiller, 6-L Reservoir, Required to Achieve Temperatures from 20°C–30°C, 240V

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 11 x 13 in. (27.9 x 33 cm)
30175	Microplate/Deep Well Plate	5
30150BI	10-ml Flask	60
30151	25-ml Flask	60
30152BI	50-ml Flask	30
30153	125-ml Flask	13
30154BI	250-ml Flask	9
30155	300-ml Flask	7
30156BI	500-ml Flask	6
30157BI	1-L Flask	4
30161	2500-ml Low Form Culture Flask	1

### TEST-TUBE RACKS—FULL SIZE

Cat. No.	Vessel Size	No. of Racks per Platform 11 x 13 in. (27.9 x 33 cm)
30180BI	10–13 mm, Red, 6 x 12 Array	3
30182 <sup>1</sup>	14–16 mm, Orange, 6 x 12 Array	2
30184	17–20 mm, White, 4 x 10 Array	3
30186	21–25 mm, Blue, 4 x 10 Array	2
30188 <sup>2</sup>	26–30 mm Green, 3 x 8 Array	2
30190	Microcentrifuge, 1.5 ml, Blue, 8 x 12 Array	2

<sup>1</sup> Fits 15-ml centrifuge tubes. <sup>2</sup> Fits 50-ml centrifuge tubes

### TEST-TUBE RACKS—HALF SIZE

Cat. No.	Vessel Size	No. of Racks per Platform 11 x 13 in. (27.9 x 33 cm)
30181	10–13 mm, Red, 6 x 6 Array	6
30183 <sup>1</sup>	14–16 mm, Red, 6 x 6 Array	4
30185	17–20 mm, White, 4 x 5 Array	4
30187	21–25 mm, Blue 4 x 4 Array	4
30189 <sup>2</sup>	26–30 mm, Green, 3 x 3 Array	6
30191	Microcentrifuge, 1.5 ml, White, 4 x 6 Array	4

<sup>1</sup> Fits 15-ml centrifuge tubes. <sup>2</sup> Fits 50-ml centrifuge tubes.