



# Thermo Scientific MaxQ 4000 Large Incubated and Refrigerated Shakers

### Combines Incubated/ Refrigerated Temperatures in an Orbital Shaker with a Spacious Chamber

- Spacious chamber holds six 2L flasks.
- View speed, time and temperature simultaneously.
- Choose from three temperature ranges.
- 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 ±0.1°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 ±1°C of set point.
- Shaker shuts down and visual/audible alarms signal if unit operates ±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

Shaker Options	Speed Range	Orbit Diameter	Max. Load	Temperature Range and Accuracy	Ov	erall Dimension		Shipping Weight	Model No. 120V, 50/60 Hz	Model No. 240V, 50/60 Hz
	(rpm)	In. (cm)	Lb. (kg)		L	W	H	Lb. (kg)		
MaxQ 4000 – Large	Incubated Bench	n-Top Shakeı	r							
Analog	40-400	0.75 (1.9)	50 (22.7)	10°C above ambient to 60°C	32 (81.3)	22.5 (57.2)	22 (55.9)	167 (75.8)	SHKA4000	SHKA4000-1CE
				±0.1°C at 37°C in flask						
Digital	15-500 ±1	0.75 (1.9)	50 (22.7)	10°C above ambient to 60°C	32 (81.3)	22.5 (57.2)	22 (55.9)	167 (75.8)	SHKE4000	SHKE4000-1CE
				±0.1°C at 37°C in flask						
MaxQ 4000 – Large Incubated High Temperature Bench-Top Shaker										
Analog	40-400	0.75 (1.9)	50 (22.7)	10°C above ambient to 80°C	32 (81.3)	22.5 (57.2)	22 (55.9)	167 (75.8)	SHKA4000-5	SHKA4000-6CE
				±0.1°C at 37°C in flask						
Digital	15-500 ±1	0.75 (1.9)	50 (22.7)	10°C above ambient to 80°C	32 (81.3)	22.5 (57.2)	22 (55.9)	167 (75.8)	SHKE4000-5	SHKE4000-6CE
				±0.1°C at 37°C in flask						
MaxQ 4000 – Large Incubated and Refrigerated Bench-Top Shaker										
Analog	40-400	0.75 (1.9)	50 (22.7)	15°C below ambient to 60°C	34 (86.4)	22.5 (57.2)	22 (55.9)	212 (96.2)	SHKA4000-7	SHKA4000-8CE
				±0.1°C at 37°C in flask						
Digital	15-500 ±1	0.75 (1.9)	50 (22.7)	15°C below ambient to 60°C	34 (86.4)	22.5 (57.2)	22 (55.9)	212 (96.2)	SHKE4000-7	SHKE4000-8CE
				±0.1°C at 37°C in flask						

### **REQUIRED ACCESORIES**

MaxQ 4000	Model No.			
Platforms	Universal Platforms – Maximum flexibility for using a mix	18 x 18" (45.7 x 45.7 cm)	Platform without Clamps	30110
Choose the platform	of different size labware on a single platform. See Universal			
that best fits your	Clamp Guide for clamp capacities. Purchase clamps separately.			
needs.	Dedicated Platforms	18 x 18" (45.7 x 45.7 cm)	Platform with Clamps	See Dedicated Platforms below
	Clamps come installed to provide maximum capacity.			
Clamps	Mix and match clamps for your Universal Platform.			See Universal Clamp Guide below

### **UNIVERSAL CLAMP GUIDE**

Universal Platform Clamps	Clamp Capacity Guide		
Mix and match to customize the Universal Platfo	Max. clamp capacity of vessels		
for your unique needs. Clamps sold as individual	for the Universal Platform		
Clamp	Model No.	MaxQ 4000	
		18 x 18" (45.7 x 45.7 cm)	
Flask Clamp Starter Kit, includes	30129		
(1) microplate clamp, (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps,			
(2) 1L flask clamps, (2) 2L flask clamps			
Microplate/Deep-well plate	30175	10	
10 ml Erlenmeyer Flask	30150BI	113	
25 ml Erlenmeyer Flask	30151	64	
50 ml Erlenmeyer Flask	30152BI	32	
125 ml Erlenmeyer Flask	30153	32	
250 ml Erlenmeyer Flask	30154BI	16	
300 ml Erlenmeyer Flask	30155	16	
500 ml Erlenmeyer Flask	30156BI	16	
1L Erlenmeyer Flask	30157BI	9	
2L Erlenmeyer Flask	30158	6	
2500 ml Low Form Culture Flask	30161	1	
2800 ml Fernbach Flask	30162	4	
Adhesive Flask Mat, 9 x 9" (23 x 23cm)	300349 <sup>3</sup>	_	
Test Tube Racks – Full Size			
10-13 mm, red, 6 x 12 array	30180BI	6	
14-16 mm, orange, 6 x 12 array	30182 <sup>1</sup>	4	
17-20 mm, white, 4 x 10 array	30184	5	
21-25 mm, blue, 4 x 10 array	30186	3	
26-30 mm, green, 3 x 8 array	30188 <sup>2</sup>	4	
Microcentrifuge, 1.5 ml, blue, 8 x 12 array	30190	5	
Test Tube Racks – Half Size			
10-13 mm, red, 6 x 6 array	30181	12	
14-16 mm, orange, 6 x 6 array	30183¹	6	
17-20 mm, white, 4 x 5 array	30185	8	
21-25 mm, blue, 4 x 4 array	30187	6	
26-30 mm, green, 3 x 3 array	30189 <sup>2</sup>	9	
Microcentrifuge, 1.5 ml, blue, 4 x 6 array	30191	8	
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## **DEDICATED PLATFORMS WITH CLAMPS**

Clamps come installed to provide maximum capacity				
Platform Size	Description	Capacity	Model No.	
18 x 18"	10 ml Erlenmeyer Flask	113	3524-1	
(45.7 x 45.7 cm)	25 ml Erlenmeyer Flask	64	3524-2	
	50 ml Erlenmeyer Flask	64	3524-3	
	125 ml Erlenmeyer Flask	32	3524-4	
	250 ml Erlenmeyer Flask	25	3524-5	
	300 ml Erlenmeyer Flask	16	3524-6	
	500 ml Erlenmeyer Flask	16	3524-7	
	1L Erlenmeyer Flask	9	3524-8	
	2L Erlenmeyer Flask	5	3524-9	
	10 ml Beaker	152	3524-35	
	20 ml Beaker	104	3524-36	
	30 ml Beaker	104	3524-37	
	100 ml Beaker	44	3524-38	
	250 ml Beaker	25	3524-39	
	400 ml Beaker	25	3524-40	
	600 ml Beaker	16	3524-41	
	Utility Tray	-	3524-46	
	18" x 18" Adjustable Vessel Platform	-	3524-60	

## **MISCELLANEOUS ACCESSORIES**

MaxQ 4000	Model No.
Gassing manifold with 8 outlets (factory installed)	SHK4000-8GM

Note: Optional gassing manifold enables direct gassing into flasks for anaerobic cultures.



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