







**Thermo Scientific MaxQ Shakers**







**Reliability. Simplicity.**  
**Flexibility.**

**Thermo**  
SCIENTIFIC

# Thermo Scientific MaxQ Shaker Product Selector Guide

Model	MaxQ 2000 Choice of 3 platform sizes			MaxQ 3000 Choice of 2 platform sizes		MaxQ 4450 Incubated temperatures in a compact footprint	MaxQ 4000 Spacious chamber holds 6 x 2L flasks		
									
Benchtop, floor or stackable	Benchtop			Benchtop		Benchtop	Benchtop		
Motion	Orbital			Orbital		Orbital	Orbital		
Platform size inches (cm)	13 x 11 (33 x 28)	18 x 18 (45.7 x 45.7)	24 x 18 (60.9 x 45.7) <sup>1</sup>	30 x 18 (76 x 45.7)	36 x 24 (91 x 60.9)	13 x 11 (33 x 28)	18 x 18 (45.7 x 45.7)		
250 ml flask capacity dedicated* platform	12	25	N/A	40	70	10	25		
250 ml flask capacity universal* platform	9	16	24	24	40	9	16		
Maximum capacity largest flask on a Platform	1 x 6L	2 x 6L	3 x 6L	3 x 6L	6 x 6L	4 x 1L	6 x 2L		
Orbit diameter reciprocating Motion Inches (cm)	0.75 (1.9)			1.0 (2.54)		0.75 (1.9)	0.75 (1.9)		
RPM range	Digital: 15–500			Digital: 15–500		Digital: 15–500	Digital: 15–500		
Temperature range °C (T <sub>A</sub> =ambient temperature)	N/A			N/A		T <sub>A</sub> +5°C to 80°C	T <sub>A</sub> +10°C to 60°C	T <sub>A</sub> +10°C to 80°C	T <sub>A</sub> -15°C to 60°C
Maximum load lb. (kg)	35 (15.9)			50 (22.7)		35 (15.9)	50 (22.7)		
Refrigeration							●		
Gassing manifold							●		
Page	8–10			8–10		13–14	15–16		

\*See page 7 for a complete description of platform types <sup>1</sup>Universal platform only; <sup>2</sup>Fixed reciprocating stroke length and orbital motion; <sup>3</sup>Adjustable reciprocating stroke length; <sup>4</sup>Achievable maximum speeds may be dependent on load

Model	<b>MaxQ 5000</b> Large capacity applications 		<b>MaxQ 6000</b> Stackable, space-savings 		<b>MaxQ 8000</b> Maximum flexibility, stackable design 		<b>MaxQ 7000</b> Excellent temperature uniformity 	
Benchtop, floor or stackable	Floor		Stackable		Stackable		Benchtop	
Motion	Orbital		Orbital		Orbital		Orbital	
Platform size inches (cm)	30 x 18 (76 x 45.7)		18 x 18 (45.7 x 45.7)		29.5 x 18 (74.9 x 45.7)		13 x 11 (33 x 28)	
250 ml flask capacity dedicated* platform	40		25		30		9	
250 ml flask capacity universal* platform	24		16		30		9	
Maximum capacity largest flask on a platform	4 x 6L		2 x 6L		12 x 2L		1 x 6L	
Orbit diameter reciprocating Motion inches (cm)	1.0 (2.54)		0.75 (1.9)		1.0 (2.54)		0.5 (1.27)	
RPM range	Digital: 15–500		Digital: 15–500		Digital: 25–400		Digital: 15–500	
Temperature range °C (T <sub>A</sub> =ambient temperature)	T <sub>A</sub> +10°C to 60°C   T <sub>A</sub> -15°C to 60°C		T <sub>A</sub> +10°C to 80°C   T <sub>A</sub> -15°C to 80°C		T <sub>A</sub> +10°C to 60°C   T <sub>A</sub> -5°C or 20°C to 60°C		T <sub>A</sub> +5°C to 65°C	
Maximum load lb. (kg)	75 (34)		35 (15.9)		71 (32)		35 (15.9)	
Refrigeration	●		●		●			
Gassing manifold	●							
Page	17–18		19–20		22–24		25–26	

\*See page 7 for a complete description of platform types    †Achievable maximum speeds may be dependent on load

Model	MaxQ 416 HP Maximize capacity with platform options		MaxQ 430 HP Maximum capacity with platform options		MaxQ 420 HP Large benchtop, excellent temperature uniformity	MaxQ 435 (436) HP Incubated	MaxQ 480 (481) HP Refrigerated
Benchtop or floor	Benchtop		Benchtop		Benchtop	Floor	
Motion	Orbital		Orbital		Orbital	Orbital	
Platform size inches (cm)	18 x 18 (45.7 x 45.7)	24 x 18 (60.9 x 45.7)	29.5 x 18 (74.9 x 45.7)	36 x 24 (91.4 x 60.9)	18 x 18 (45.7 x 45.7)	29.5 x 18 (74.9 x 45.7)	
250 ml flask capacity dedicated* platform	25	35	40	70	25	40	
250 ml flask capacity universal* platform	18	25	30	55	18	30	
Maximum capacity largest flask on a platform	2 x 6L	4 x 6L	4 x 6L	8 x 6L	6 x 2L	4 x 6L	
Orbit diameter inches (cm)	1.0 (2.54)		1.0 (2.54)		1.0 (2.54)	1.0 (2.54)	
RPM range	25–525		25–525		25–525	25–525	
Temperature Range °C (T <sub>A</sub> =ambient temperature)	N/A		N/A		T <sub>A</sub> +5°C to 80°C	T <sub>A</sub> +5°C to 60°C	4°C to 60°C
Maximum load lb. (kg)	71 (32)		71 (32)		71 (32)	71 (32)	
Refrigeration							●
Incubation					●	●	
Page	28–29		28–29		30–31	32–33	

\*See page 7 for a complete description of platform types



# Trust your samples to an outstanding, reliable shaker

You invest a lot into the preparation of your samples from growing cultures that produce DNA or proteins to staining gels and much more. Thermo Scientific™ MaxQ™ shakers deliver outstanding performance, accuracy and reproducible results year after year.

Our orbital shaker designs provide reliable around-the-clock operation ideally suited to keep your cells alive and flourishing within your working environment. Delivering reliability, simplicity and flexibility, our orbital shakers are easy to operate, offer a wide range of options that can grow with you, and will be a partner in your lab for many years — allowing you to spend more time pursuing your objectives and less time managing your shakers.



## Reliability

Our outstanding drive mechanisms provide continuous 24-hour operation and allow you to shake large and uneven loads, smoothly and uniformly. These innovative designs are available on all Thermo Scientific orbital shakers and both designs come with a 10-year warranty on drive mechanisms.



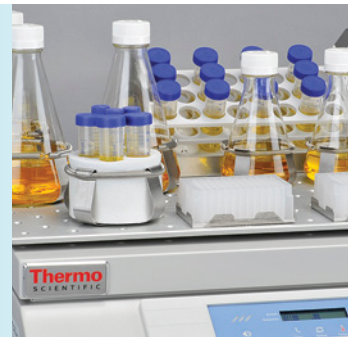
## Simplicity

Easy-to-use controls are designed to precisely adjust individual displays for temperature, speed and time. View all parameters simultaneously to prevent risk of error while establishing running conditions.



## Flexibility

Benchtop, floor and stackable models are available fully equipped with incubation, refrigeration and water bath options to accommodate any application and budget. Customizable solutions allow you to choose your platform for maximum flexibility and capacity. Platforms allow the addition and interchangeability of clamps that hold various sizes of Thermo Scientific™ Nalgene™ Erlenmeyer flasks, beakers, test tube racks, separatory funnels and Thermo Scientific™ Nunc™ microwell plates.



<sup>1</sup>Achievable maximum speeds may be dependent on load

## Thermo Scientific MaxQ Digital Shakers

Our MaxQ digital shakers contain a triple eccentric drive mechanism to accommodate heavier loads, provide uniform shaking, designed to ensure 24/7 operation and feature a maintenance-free brushless DC motor.

- 15 to 500 rpm speed range
- View temperature, speed and time simultaneously on three individual LED displays
- Continuous timed operation from 0.1 hour to 999 hours or 0.1 minute to 999 minutes
- Audible/visual alarms protect cultures from temperature and speed deviations

## Thermo Scientific MaxQ Digital HP Shakers

When you require a reliable solution for sensitive cell cultures needing protection from contamination, choose from our MaxQ high performance line of shakers.

- 25 to 525 rpm speed range
- Backlit display contains run points and set points of temperature, speed and time that can be viewed simultaneously
- Continuous operation or timed operation from 1 minute up to 199 hours and 59 minutes
- Audible/visual alarms protect cultures from temperature and speed deviations
- HEPA filter for maximum protection from contamination
- Directed airflow system for optimum temperature uniformity and ideal growth conditions even when the units are full

	Feature	MaxQ Digital Shakers	MaxQ Digital High Performance Shakers
<b>Performance</b>	Drive mechanism	Triple eccentric	Triple counter-balanced
	Motor	Brushless	Brushless, low-heat 24V DC with moisture resistant electronics
	Temperature controller	PID controller, $\pm 0.1^{\circ}\text{C}$ over entire temperature range	PID controller, $\pm 0.1^{\circ}\text{C}$ over entire temperature range
	Speed, display and range	Push button LED, 15 to 500 rpm	Push button LED, 25 to 525 rpm
	Temperature, display and range	Push button LED, $10^{\circ}\text{C}$ to $80^{\circ}\text{C}$	Push button LED, $4^{\circ}\text{C}$ to $80^{\circ}\text{C}$
	Time display	Push button LED, 0.1 min – 999 hours or continuous operation	Push button LED, 1 min – 199 hours and 59 min or continuous operation
	Temperature user calibration	Standard	Standard
	Speed user calibration	Standard	Standard
	Soft start	Standard	Standard
	Set point retention	Standard	Standard
<b>Alarms</b>	Speed	Audible/visual, $\pm 10\%$ of set speed	Audible/visual, $\pm 5$ rpm
	Temperature	User adjustable over/under temperature thermostat controls the heat/refrigeration	User adjustable over/under temp thermostat with independent probe controls heat/refrigeration
	Temperature set point	Audible/visual, over/under temperature tracking adjustable within $\pm 1^{\circ}\text{C}$	Audible/visual, over/under temperature tracking adjustable within $\pm 1^{\circ}\text{C}$
	Temperature limits	Audible/visual, over/under temperature tracking adjustable within $\pm 1^{\circ}\text{C}$	Audible/visual, over/under temperature tracking adjustable within $\pm 1^{\circ}\text{C}$
	Unbalanced load warning	Auto platform stop	Auto platform stop
	Lid open	Auto platform stop	Auto platform stop
<b>Data Management</b>	RS232 interface	Standard	Standard
	Recorder output	Standard	Standard
<b>Other</b>	Certifications	UL, cUL, CE	UL, cUL, CE
	Warranty	2 years labor, 5 years parts, 10 years drive mechanism parts	2 years labor, 5 years parts, 10 years drive mechanism parts

# MaxQ 2000 & 3000 Open Air Platform Shakers

## Increase shaking capacity in a small footprint

Choose from several platform sizes to increase capacity by simply changing the platform

- Small shaker footprint saves valuable bench space
- Units operate in temperature range of 0°C to +40°C and humidity conditions from 20 to 80% non-condensing enabling them to be used in a variety of environments
- Triple eccentric drives handle heavy platform loads (MaxQ 2000: 35 lbs, MaxQ 3000: 50 lbs)

### Digital CO<sub>2</sub> resistant option

- Electrical and mechanical components have been treated to protect from up to 10% CO<sub>2</sub> and 90% humidity conditions non-condensing
- Prevents humidity and CO<sub>2</sub> from reacting with electrical components and forming carbonic acid in a CO<sub>2</sub>\* environment

\*Some CO<sub>2</sub> incubators may require cooling. Please consult your manufacturer.

### Applications

- Cell culture
- Solubility studies
- Extraction procedures
- Diagnostic tests
- General mixing
- Bacterial suspensions
- Staining and destaining
- Washing procedures
- Hybridization





# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ 2000 and MaxQ 3000 Shaker

Shaker options	Speed range (rpm)	Orbit diameter In. (cm)	Max. load lb. (kg)	Overall dimensions inches (cm)			Shipping weight lb. (kg)	Model No. 120V, 50/60 Hz	Model No. 240V, 50/60 Hz
				L	W	H			
<b>MaxQ 2000 – small open air shakers</b>									
Digital	15–500 ±1	0.75 (1.9)	35 (15.9)	17.4 (44.2)	13.5 (34.3)	6.4 (16.3)	47 (21.3)	SHKE2000	SHKE2000-1CE
Digital, CO <sub>2</sub> Resistant	15–500 ±1	0.75 (1.9)	35 (15.9)	17.4 (44.2)	13.5 (34.3)	6.4 (16.3)	47 (21.3)	SHKE2000C02	SHKE2000C02-1CE
<b>MaxQ 3000 – large open air shakers</b>									
Digital	15–500 ±1	1.0 (2.54)	50 (22.7)	25.8 (65.5)	29.4 (74.4)	9.7 (24.6)	207 (93.9)	SHKE3000	SHKE3000-1CE

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 2000				Model No.
Platforms	Universal platforms Choose the platform that best fits your needs. Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	13 x 11" (33 x 28 cm)	Platform without clamps	30100 <sup>1</sup>
		13 x 11" (33 x 28 cm)	Dual stacked platform without clamps	30125
		18 x 18" (45.7 x 45.7 cm)	Platform without clamps	30110 <sup>1</sup>
		18 x 18" (45.7 x 45.7 cm)	Dual stacked platform without clamps	30128
		24 x 18" (60.9 x 45.7 cm)	Platform without clamps	30106
		13 x 11" (33 x 28 cm)	Platform with clamps	See dedicated platforms on p. 10
Dedicated platforms	Clamps come installed to provide maximum capacity.	18 x 18" (45.7 x 45.7 cm)	Platform with clamps	See dedicated platforms on p. 10
				See universal clamp guide below
Clamps	Mix and match clamps for your universal platform.			See universal clamp guide below
Misc. accessories	Adapter set for stacking two platforms (models 30100 and 30110 only)			3522-3
MaxQ 3000				Model No.
Platforms	Universal platforms Choose the platform that best fits your needs. Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	30 x 18" (76 x 45.7 cm)	Platform without clamps	30115BI
		30 x 18" (76 x 45.7 cm)	Dual stacked platform without clamps	30124
		36 x 24" (91 x 60.9 cm)	Platform without clamps	30120BI
		30 x 18" (76 x 45.7 cm)	Platform with clamps	See dedicated platforms on p. 10
		36 x 24" (91 x 60.9 cm)	Platform with clamps	See dedicated platforms on p. 10
Clamps	Mix and match clamps for your universal platform.			See universal clamp guide below

<sup>1</sup>Stackable, purchase of two platforms and adapter set required for stacking

## Universal clamp guide

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide				
		Maximum clamp capacity of vessels for the universal platform				
		MaxQ 2000		MaxQ 3000		
		13 x 11" (33 x 28 cm)	18 x 18" (45.7 x 45.7 cm)	24 x 18" (60.9 x 45.7 cm)	30 x 18" (76 x 45.7 cm)	36 x 24" (91 x 60.9 cm)
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	30129					
Microplate/deep-well plate	30175	5	10	15	18	29
10 ml Erlenmeyer flask	30150BI	60	113	157	112	160
25 ml Erlenmeyer flask	30151	60	64	80	112	160
50 ml Erlenmeyer flask	30152BI	30	32	40	112	160
125 ml Erlenmeyer flask	30153	13	32	40	44	80
250 ml Erlenmeyer flask	30154BI	9	16	24	24	40
300 ml Erlenmeyer flask	30155	7	16	20	20	40
500 ml Erlenmeyer flask	30156BI	6	16	20	18	40
1L Erlenmeyer flask	30157BI	4	9	10	12	21
2L Erlenmeyer flask	30158	1	6	5	6	11
4L Erlenmeyer flask	30159	1	4	4	6	11
6L Erlenmeyer flask	30160	1	2	3	3	6
2500 ml low form culture flask	30161	1	1	2	3	6
2800 ml Fernbach flask	30162	1	4	4	5	8
Adhesive flask mat, 9 x 9" (23 x 23 cm)	300349 <sup>3</sup>	–	–	–	–	–
<b>Test tube racks – full size</b>						
10–13 mm, red, 6 x 12 array	30180BI	3	6	8	13	16
14–16 mm, orange, 6 x 12 array	30182 <sup>1</sup>	2	4	6	7	10
17–20 mm, white, 4 x 10 array	30184	3	5	6	9	14
21–25 mm, blue, 4 x 10 array	30186	2	3	4	7	7
26–30 mm, green, 3 x 8 array	30188 <sup>2</sup>	2	4	6	7	7
Microcentrifuge, 1.5 ml, blue, 8 x 12 array	30190	2	5	6	8	10
<b>Test tube racks – half size</b>						
10–13 mm, red, 6 x 6 array	30181	6	12	15	21	25
14–16 mm, orange, 6 x 6 array	30183 <sup>1</sup>	4	6	8	10	12
17–20 mm, white, 4 x 5 array	30185	4	8	13	18	20
21–25 mm, blue, 4 x 4 array	30187	4	6	9	10	15
26–30 mm, green, 3 x 3 array	30189 <sup>2</sup>	6	9	12	15	15
Microcentrifuge, 1.5 ml, blue, 4 x 6 array	30191	4	8	10	14	20

<sup>1</sup>Fits 15 ml centrifuge tubes <sup>2</sup>Fits 50 ml centrifuge tubes <sup>3</sup>Can be cut to fit, reusable



## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

### MaxQ 2000 / MaxQ 2508 / MaxQ 2506 Shakers

Clamps come installed to provide maximum capacity		
Platform size		Capacity Model No.
11 x 13" (28 x 33 cm)	10 ml Erlenmeyer flask	60 3523-1
	25 ml Erlenmeyer flask	30 3523-2
	50 ml Erlenmeyer flask	30 3523-3
	125 ml Erlenmeyer flask	15 3523-4
	250 ml Erlenmeyer flask	10 3523-5
	500 ml Erlenmeyer flask	6 3523-7
	1L Erlenmeyer flask	4 3523-8
	2L Erlenmeyer flask	4 3523-9
	Utility tray	– 3523-46
	11 x 13" adjustable vessel platform	– 3523-49
18 x 18" (45.7 x 45.7 cm)	5 Tier, holds platelet bags (10 x 10")	5 bags 3523-51
	10 ml Erlenmeyer flask	113 3524-1
	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
	Separatory funnel (500 ml to 2L)	3 3524-49
	Utility tray	– 3524-46
	18 x 18" adjustable vessel platform without bottom for MaxQ 4000 and 6000 series shakers	– 3524-60
	18 x 18" adjustable vessel platform with bottom for MaxQ 2000 shaker	– 3523-52
	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  
Model No. 3523-46



11 x 13" Adjustable vessel platform  
Model No. 3523-49



18 x 18", 50 ml Erlenmeyer flask platform  
Model No. 3524-3

### MaxQ 3000 Shaker

Clamps come installed to provide maximum capacity		
Platform size		Capacity Model No.
30 x 18" (76 x 45.7 cm)	10 ml Erlenmeyer flask	112 3599-1
	25 ml Erlenmeyer flask	112 3599-2
	50 ml Erlenmeyer flask	112 3599-3
	125 ml Erlenmeyer flask	56 3599-4
	250 ml Erlenmeyer flask	40 3599-5
	300 ml Erlenmeyer flask	24 3599-6
	500 ml Erlenmeyer flask	24 3599-7
	1L Erlenmeyer flask	12 3599-8
	2L Erlenmeyer flask	12 3599-9
	4L Erlenmeyer flask	6 3599-10
	6L Erlenmeyer flask	4 3599-11
	Separatory funnel (500 ml to 2L)	10 3599-49
	Utility tray	– 3599-46
	18 x 30" Adjustable vessel platform	– 3599-63
36 x 24" (91 x 60.9 cm)	2500 ml Low form culture flask	5 3599-12
	2800 ml Fernbach flask	6 3599-13
	50 ml Erlenmeyer flask	160 3599-52
	125 ml Erlenmeyer flask	80 3599-53
	250 ml Erlenmeyer flask	70 3599-54
	500 ml Erlenmeyer flask	40 3599-56
	1L Erlenmeyer flask	18 3599-57
	2L Erlenmeyer flask	15 3599-58
4L Erlenmeyer flask	8 3599-59	
6L Erlenmeyer flask	6 3599-60	
Separatory funnel (500 ml to 2L)	16 3599-96	
2800 ml Fernbach flask	8 3599-62	



Dedicated separatory funnel platform  
Model No. 3524-49



30 x 18" Dual tiered platforms  
Model No. 30124 (See accessories table on page 10)

# MaxQ 4450 Compact Benchtop Incubated Shakers

## Flexible shaking option for your applications at an affordable price

Combine incubated and refrigerated temperatures in  
an orbital shaker

- Space saving shaker designed for a small footprint
- Holds up to four one liter flasks
- Requires minimal bench space
- Clear lid lets you view samples without disturbing chamber atmosphere
- Achieve temperature ranges from 20°C to 30°C when connected to a circulating chiller

Models available with cooling coil providing refrigerated atmosphere for  
plasmid purification and protein expression in bacteria



### Applications

- Insect cell culture
- Extraction procedures
- General mixing
- Staining and destaining
- Hybridizations
- Solubility studies
- Bacterial suspensions
- Washing procedures
- Protein expression

# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## Thermo Scientific MaxQ 4450 Shaker

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max. load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/ chamber dimensions inches (cm)			Shipping weight lb. (kg)	Model No. 120V, 50/60 Hz	Model No. 240V, 50/60 Hz
						L	W	H			
<b>MaxQ 4450 – Incubated shaker</b>											
Digital	15–500 ±1	0.75 (1.9)	35 (15.9)	5°C above ambient to 80°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	27.2 (69.1)/ 17.3 (43.9)	14.1 (35.8)/ 13.3 (33.8)	17.8 (45.2)/ 10.7 (27.2)	77 (35)	SHKE4450	SHKE4450-1CE
<b>MaxQ 4450 – Incubated shaker with cooling coil (requires chiller)</b>											
Digital	15–500 ±1	0.75 (1.9)	35 (15.9)	5°C below ambient to 80°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	27.2 (69.1)/ 17.3 (43.9)	14.1 (35.8)/ 13.3 (33.8)	17.8 (45.2)/ 10.7 (27.2)	77 (35)	SHKE4450CC	SHKE4450CC-1CE

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 4450				Model No.
Platforms	Universal platforms	13 x 11" (33 x 28 cm)	Platform without clamps	30100
Choose the platform that best fits your needs.	Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.			
	Dedicated platforms	13 x 11" (33 x 28 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

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide Max. clamp capacity of vessels for the universal platform
<b>MaxQ 4450</b>		
13 x 11" (33 x 28 cm)		
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	30129	
Microplate/deep-well plate	30175	5
10 ml Erlenmeyer flask	30150BI	60
25 ml Erlenmeyer flask	30151	60
50 ml Erlenmeyer flask	30152BI	30
125 ml Erlenmeyer flask	30153	13
250 ml Erlenmeyer flask	30154BI	9
300 ml Erlenmeyer flask	30155	7
500 ml Erlenmeyer flask	30156BI	6
1L Erlenmeyer flask	30157BI	4
2500 ml Low form culture flask	30161	1
Adhesive flask mat, 9 x 9" (23 x 23 cm)	300349 <sup>3</sup>	–
<b>Test tube racks – full size</b>		
10–13 mm, red, 6 x 12 array	30180BI	3
14–16 mm, orange, 6 x 12 array	30182 <sup>1</sup>	2
17–20 mm, white, 4 x 10 array	30184	3
21–25 mm, blue, 4 x 10 array	30186	2
26–30 mm, green, 3 x 8 array	30188 <sup>2</sup>	2
Microcentrifuge, 1.5 ml, blue, 8 x 12 array	30190	2
<b>Test tube racks – half size</b>		
10–13 mm, red, 6 x 6 array	30181	6
14–16 mm, orange, 6 x 6 array	30183 <sup>1</sup>	4
17–20 mm, white, 4 x 5 array	30185	4
21–25 mm, blue, 4 x 4 array	30187	4
26–30 mm, green, 3 x 3 array	30189 <sup>2</sup>	6
Microcentrifuge, 1.5 ml, blue, 4 x 6 array	30191	4

<sup>1</sup>Fits 15 ml centrifuge tubes    <sup>2</sup>Fits 50 ml centrifuge tubes    <sup>3</sup>Can be cut to fit, reusable

## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity			
Platform size	Description	Capacity	Model No.
13 x 11" (33 x 28 cm)	10 ml Erlenmeyer flask	60	3523-1
	25 ml Erlenmeyer flask	30	3523-2
	50 ml Erlenmeyer flask	30	3523-3
	125 ml Erlenmeyer flask	15	3523-4
	250 ml Erlenmeyer flask	10	3523-5
	500 ml Erlenmeyer flask	6	3523-7
	1L Erlenmeyer flask	4	3523-8

## Miscellaneous accessories

MaxQ 4450	Model No.
Upright chiller, 6L reservoir, required to achieve temperatures from 20°C to 30°C, 120V	1525108
Upright chiller, 6L reservoir, required to achieve temperatures from 20°C to 30°C, 240V	1525101



Unwire test tube rack clamps



# MaxQ 4000 Large Benchtop Incubated and Refrigerated Shakers

## Spacious chamber in a footprint designed for the benchtop

Combines incubated and refrigerated temperatures in an orbital shaker with a spacious chamber

- Large chamber holds six 2L flasks
- Clear acrylic lid provides high visibility for sample harvesting
- Safety interlock protects operator by stopping platform motion when lid is lifted

### Applications

- Insect cell culture
- Extraction procedures
- General mixing
- Staining and destaining
- Hybridizations
- Solubility studies
- Plasmid production
- Bacterial suspensions
- Washing procedures
- Protein expression





# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ 4000 Shaker

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max. load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/ chamber dimensions inches (cm)			Shipping weight Lb. (kg)	Model No. 120V, 50/60 Hz	Model No. 240V, 50/60 Hz
						L	W	H			
<b>MaxQ 4000 – Large incubated benchtop shaker</b>											
Digital	15–500 ±1	0.75 (1.9)	50 (22.7)	10°C above ambient to 60°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	32 (81.3)/ 20 (50.8)	22.5 (57.2)/ 21 (53.3)	22 (55.9)/ 13 (33)	167 (75.8)	SHKE4000	SHKE4000-1CE
<b>MaxQ 4000 – Large incubated high temperature benchtop shaker</b>											
Digital	15–500 ±1	0.75 (1.9)	50 (22.7)	10°C above ambient to 80°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	32 (81.3)/ 20 (50.8)	22.5 (57.2)/ 21 (53.3)	22 (55.9)/ 13 (33)	167 (75.8)	SHKE4000-5	SHKE4000-6CE
<b>MaxQ 4000 – Large incubated and refrigerated benchtop shaker</b>											
Digital	15–500 ±1	0.75 (1.9)	50 (22.7)	15°C below ambient to 60°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	34 (86.4)/ 20 (50.8)	22.5 (57.2)/ 21 (53.3)	22 (55.9)/ 13 (33)	212 (96.2)	SHKE4000-7	SHKE4000-8CE*

\* 50 Hz only

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 4000				Model No.
Platforms	Universal platforms	18 x 18" (45.7 x 45.7 cm)	Platform without clamps	30110
Choose the platform that best fits your needs.	Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.			
	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

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide	
		Max. clamp capacity of vessels for the universal Platform	
		<b>MaxQ 4000</b>	
		18 x 18" (45.7 x 45.7 cm)	
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	30129		
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>a</sup>	–	
<b>Test tube racks – full size</b>			
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	
<b>Test tube racks – half size</b>			
10–13 mm, red, 6 x 6 array	30181	12	
14–16 mm, orange, 6 x 6 array	30183 <sup>3</sup>	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	

<sup>1</sup>Fits 15 ml centrifuge tubes <sup>2</sup>Fits 50 ml centrifuge tubes <sup>3</sup>Can be cut to fit, reusable

## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity			
Platform size	Description	Capacity	Model No.
18 x 18" (45.7 x 45.7 cm)	10 ml Erlenmeyer flask	113	3524-1
	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 without bottom	–	–	3524-60

## Miscellaneous accessories

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

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

# MaxQ 5000 Incubated and Refrigerated Floor Shakers

## Complete large capacity applications with ease

Combines incubated and refrigerated temperatures with an orbital shaker for large capacity applications

- Large chamber holds four 6L flasks
- Easy-access drain system with quick disconnect fitting permits easy clean up of spills
- Foot pedal opens lid for hands free operation
- Retractable foot casters allow easy positioning in the lab
- Observe contents through large viewing window
- Access ports in side walls for probes, thermocouples or sensors

### Applications

- General cell culture
- Solubility studies
- Extraction procedures
- General mixing
- Protein production
- Bacteria, yeast culture
- Plasmid production



# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ 5000 Shaker

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max. load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/ chamber dimensions inches (cm)			Shipping weight lb. (kg)	Model No. 120V	Model No. 240V
						L	W	H			
<b>MaxQ 5000 – large incubated floor shaker</b>											
Digital	15–500 ±1	1.0 (2.54)	75 (34)	10°C above ambient to 60°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	32 (81.3)/ 21.9 (55.6)	41 (104.1)/ 34.2 (86.9)	41 (104.1)/ 21.2 (53.8)	476 (215.9)	SHKE5000	SHKE5000-1CE
<b>MaxQ 5000 – large incubated and refrigerated floor shaker</b>											
Digital	15–500 ±1	1.0 (2.54)	75 (34)	15°C below ambient to 60°C ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	32 (81.3)/ 21.9 (55.6)	41 (104.1)/ 34.2 (86.9)	41 (104.1)/ 21.2 (53.8)	512 (232.2)	SHKE5000-7	SHKE5000-8CE

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 5000				Model No.
Platforms	Universal platforms	30 x 18" (76 x 45.7 cm)	Platform without clamps	30115BI
Choose the platform that best fits your needs.	Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.			
	Dedicated platforms	30 x 18" (76 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

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide
		Max. clamp capacity of vessels for the universal platform
<b>MaxQ 5000</b>		
30 x 18" (76 x 45.7 cm)		
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	30129	
Microplate/deep-well plate	30175	18
10 ml Erlenmeyer flask	30150BI	112
25 ml Erlenmeyer flask	30151	112
50 ml Erlenmeyer flask	30152BI	112
125 ml Erlenmeyer flask	30153	44
250 ml Erlenmeyer flask	30154BI	24
300 ml Erlenmeyer flask	30155	20
500 ml Erlenmeyer flask	30156BI	18
1L Erlenmeyer flask	30157BI	12
2L Erlenmeyer flask	30158	6
4L Erlenmeyer flask	30159	6
6L Erlenmeyer flask	30160	3
2500 ml low form culture flask	30161	3
2800 ml Fernbach flask	30162	5
Adhesive flask mat, 9 x 9" (23 x 23 cm)	300349 <sup>3</sup>	–
<b>Test tube racks – full size</b>		
10–13 mm, red, 6 x 12 array	30180BI	13
14–16 mm, orange, 6 x 12 array	30182 <sup>1</sup>	7
17–20 mm, white, 4 x 10 array	30184	9
21–25 mm, blue, 4 x 10 array	30186	7
26–30 mm, green, 3 x 8 array	30188 <sup>2</sup>	7
Microcentrifuge, 1.5 ml, blue, 8 x 12 array	30190	8
<b>Test tube racks – half size</b>		
10–13 mm, red, 6 x 6 array	30181	21
14–16 mm, orange, 6 x 6 array	30183 <sup>1</sup>	10
17–20 mm, white, 4 x 5 array	30185	18
21–25 mm, blue, 4 x 4 array	30187	10
26–30 mm, green, 3 x 3 array	30189 <sup>2</sup>	15
Microcentrifuge, 1.5 ml, blue, 4 x 6 array	30191	14

<sup>1</sup>Fits 15 ml centrifuge tubes

<sup>2</sup>Fits 50 ml centrifuge tubes

<sup>3</sup>Can be cut to fit, reusable

## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity			
Platform size		Capacity	Model No.
30 x 18" (76 x 45.7 cm)	10 ml Erlenmeyer flask	112	3599-1
	25 ml Erlenmeyer flask	112	3599-2
	50 ml Erlenmeyer flask	112	3599-3
	125 ml Erlenmeyer flask	56	3599-4
	250 ml Erlenmeyer flask	40	3599-5
	300 ml Erlenmeyer flask	24	3599-6
	500 ml Erlenmeyer flask	24	3599-7
	1L Erlenmeyer flask	12	3599-8
	2L Erlenmeyer flask	12	3599-9
	4L Erlenmeyer flask	6	3599-10
	6L Erlenmeyer flask	4	3599-11
	2500 ml low form culture flask	5	3599-12
	2800 ml Fernbach flask	6	3599-13
	Utility tray	–	3599-46
Adjustable vessel platform	–	3599-63	

## Miscellaneous accessories

MaxQ 5000	Model No.
Stainless steel shelf for chamber L x W 33.25 x 4.0" (84.5 x 10.2 cm)	SHK5000-6
Gassing manifold with 8 outlets (customer installed)	SHK5000-8GM
Gassing manifold with 16 outlets (customer installed)	SHK5000-16GM

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



Easy-access drain system offers convenience in draining and disinfecting the system.



Retractable foot casters allow easy manipulation in lab.



# MaxQ 6000 Incubated and Refrigerated Stackable Shakers

## Save valuable lab space with stackable shakers

Combines orbital shaking with general purpose incubation for added versatility

- Units can be stacked two high on the floor to save valuable bench space
- Two adjustable-height shelves provide added storage
- Large viewing window and internal light offer sample visibility
- Door can be hinged from the right or left by the user for convenient placement in the lab
- In-chamber electrical outlet provides power for operating stirrers or rotators
- Spacious stainless steel chamber permits stacking an 18 x 18" platform to double the shaking capacity

### Applications

- Bacteria and yeast culture
- Solubility studies
- Extraction procedures
- General mixing
- Staining and destaining
- Hybridizations
- Diagnostic tests
- Washing procedures
- Protein production
- Plasmid production





# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ 6000 Shaker

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max. load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/ chamber dimensions inches (cm)			Shipping weight Lb. (kg)	Model No. 120V	Model No. 240V
						L	W	H			
<b>MaxQ 6000 – large stackable incubated floor shaker</b>											
Digital	15–500 ±1 (unstacked)	0.75 (1.9)	35 (15.9)	10°C above ambient to 80°C, ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	33 (83.8)	27 (69.9)	40.5 (102.9)	330 (150)	SHKE6000 (60 Hz)	SHKE6000-1CE (50/60 Hz)
	15–300 ±1 (stacked)					21 (53.3)	22 (55.9)	27 (68.6)			
<b>MaxQ 6000 – large stackable incubated and refrigerated floor shaker</b>											
Digital	15–500 ±1 (unstacked)	0.75 (1.9)	35 (15.9)	15°C below ambient to 80°C, ±0.1°C at 37°C in flask	±0.5°C at 37°C in flask	33 (83.8)	27 (69.9)	40.5 (102.9)	430 (195)	SHKE6000-7 (60 Hz)	SHKE6000-8CE (50 Hz)
	15–300 ±1 (stacked)					21 (53.3)	22 (55.9)	27 (68.6)			

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 6000				Model No.
Platforms Choose the platform that best fits your needs.	Universal platforms Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	18 x 18" (45.7 x 45.7 cm)	Platform without clamps	30110
		18 x 18" (45.7 x 45.7 cm)	Dual stacked platform without clamps	30128
		18 x 18" (45.7 x 45.7 cm)	Platform with clamps	See dedicated platforms below
Dedicated platforms Clamps come installed to provide maximum capacity.				See dedicated platforms below
Clamps	Mix and match clamps for your universal platform.			See universal clamp guide below

## Universal clamp guide

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide Max. clamp capacity of vessels for the universal platform
<b>MaxQ 6000</b>		
18 x 18" (45.7 x 45.7 cm)		
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	30129	
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
4L Erlenmeyer flask	30159	4
6L Erlenmeyer flask	30160	2
2500 ml low form culture flask	30161	1
2800 ml Fernbach flask	30162	4
Adhesive flask mat, 9 x 9" (23 x 23 cm)	300349 <sup>†</sup>	–
<b>Test tube rack – full size</b>		
10–13 mm, red, 6 x 12 array	30180BI	6
14–16 mm, orange, 6 x 12 array	30182 <sup>†</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>‡</sup>	4
Microcentrifuge, 1.5 ml, blue, 8 x 12 array	30190	5
<b>Test tube racks – half size</b>		
10–13 mm, red, 6 x 6 array	30181	12
14–16 mm, orange, 6 x 6 array	30183 <sup>†</sup>	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>‡</sup>	9
Microcentrifuge, 1.5 ml, blue, 4 x 6 array	30191	8

<sup>†</sup>Fits 15 ml centrifuge tubes <sup>‡</sup>Fits 50 ml centrifuge tubes <sup>‡</sup>Can be cut to fit, reusable

## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity			
Platform size		Capacity	Model No.
18 x 18" (45.7 x 45.7 cm)	10 ml Erlenmeyer flask	113	3524-1
	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	
Adjustable vessel platform without bottom	–	3524-60	

## Optional accessories

MaxQ 6000	Model No.
Adapter set for stacking two platforms	3522-3



Thermo  
SCIENTIFIC

Thermo  
SCIENTIFIC

# MaxQ 8000 Incubated and Refrigerated Stackable Shakers

## Maximizes flexibility and production capability in a convenient stackable design

- Units can be stacked two to three high for space savings with a speed range of 25 to 400 rpm  $\pm$ 1 rpm
- HEPA filter evenly distributes air inside the chamber and reduces cross contamination improving culturing conditions; rated at 95% efficient at 0.3 microns for entrapment of airborne particles
- Ergonomically designed fold down door and a platform that slides out 100% with a maximum platform height of 61" (154.9 cm) when stacked three units high improves sample handling
- Stacking kit is FREE with every unit
- User interface displays both set and actual run conditions to simplify programming and prevent entry error
- Crevice-free stainless steel interior with covered corners and built-in drain keeps spills within work area and promotes easy cleaning
- All maintenance can be handled from the front of the unit without having to move or unstack the shakers
- Chamber is tall enough to accommodate 2L Erlenmeyer flasks
- Standard remote alarm contacts allow convenient monitoring of alarm conditions from another location

### Applications

- Growth of bacteria or yeast
- Dissolution studies
- Extractions
- Protein production
- Growth of insect cells
- Hybridizations
- DNA production





# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ 8000 Shaker

Shaker options	Speed range (rpm)	Orbit diameter In. (cm)	Max. load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/ chamber dimensions inches (cm)			Shipping weight Lb. (kg)	Model No. 120V	Model No. 240V
						L	W	H			
<b>MaxQ 8000 – stackable incubated shaker</b>											
Digital	25–400 ±1	1.0 (2.54)	71 (32)	10°C above ambient to 60°C ±0.15°C at 37°C in flask	±0.3°C at 37°C in flask	33.3 (84.6)/ 23.8 (60.5)	46.5 (118.1)/ 33.4 (84.8)	25 (63.5)/ 11.8 (30)	658 (298.5)	SHKE8000	SHKE8000-1CE
<b>MaxQ 8000 – stackable incubated and refrigerated shaker</b>											
Digital	25–400 ±1	1.0 (2.54)	71 (32)	Ambient -5° or 20° to 60°C ±0.15°C at 37°C in flask	±0.3°C at 37°C in flask	33.3 (84.6)/ 23.8 (60.5)	56.5 (143.5)/ 33.4 (84.8)	25 (63.5)/ 11.8 (30)	723 (328)	SHKE8000-7	SHKE8000-8CE

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 8000				Model No.
Platforms Choose the platform that best fits your needs.	Universal platforms Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	29.5 x 18" (74.9 x 45.7 cm)	Platform without clamps	238061
	Dedicated platforms Clamps come installed to provide maximum capacity.	29.5 x 18" (74.9 x 45.7 cm)	Platform with clamps	See dedicated platforms on p. 24
Clamps	Mix and match clamps for your universal platform.			See universal clamp guide below

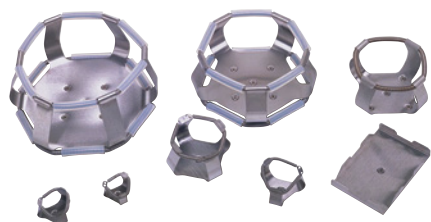


## Universal clamp guide

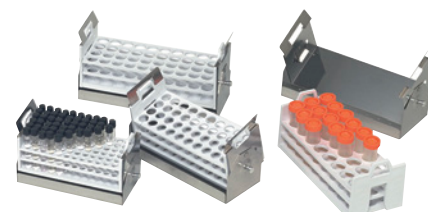
Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide Max. clamp capacity of vessels for the universal platform
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	236099	–
Microplate	236025	18
25 ml Erlenmeyer flask	236010	91
50 ml Erlenmeyer flask	236011	91
125 ml Erlenmeyer flask	236012	39
250/300 ml Erlenmeyer flask	236013	30
500 ml Erlenmeyer flask	236014	24
1L Erlenmeyer flask	236015	12
2L Erlenmeyer flask	236016	11
2800 ml Fernbach flask	236019	6
Adhesive flask mat, 9 x 9" (23 x 23 cm)	300349 <sup>3</sup>	–
Replacement screws: (50) #10-24 x 5/16" countersink Phillips head screws for clamps and (6) 1/4-20 x 3/4" countersink flat head socket for platforms and (2) 1/4"-20 x 1-1/2" hex socket set screws	194046	–
<b>Universal test tube rack with holder (must purchase desired test tube rack in addition to holder)</b>		
Universal adjustable angle test tube rack holder	600088	–
Test tube rack, 72 places, 10–13 mm (3–7 ml) tubes	950040 <sup>2</sup>	5 angled
Test tube rack, 40 places, 16–20 mm (10–20 ml) tubes	950060 <sup>2</sup>	4 angled
Test tube rack, 40 places, 21–25 mm (30 ml) tubes	600074 <sup>2</sup>	4 angled
Test tube rack, 24 places, 26–30 mm (50 ml) tubes	600075 <sup>2</sup>	4 angled
<b>Adjustable test tube racks with holder (includes one test tube rack)</b>		
Adjustable angle test tube rack holder with test tube rack, 72 places, 10–13 mm (3–7 ml) tubes	600076 <sup>4</sup>	5 angled
Adjustable angle test tube rack holder with test tube rack, 40 places, 16–20 mm (10–20 ml) tubes	600077 <sup>4</sup>	4 angled
Adjustable angle test tube rack holder with test tube rack, 40 places, 21–25 mm (30 ml) tubes	600078 <sup>4</sup>	4 angled
Adjustable angle test tube rack holder with test tube rack, 24 places, 26–30 mm (50 ml) tubes	600079 <sup>4</sup>	4 angled
<b>Vial/tube inserts</b>		
Pack of 5 vial/tube inserts, perforated for (3) 50 ml tubes, (3) 20 ml tubes, and (8) 1.5–2 ml vials (Requires 1L Erlenmeyer flask clamp 236015)	161033	3 x 50 ml tubes, 3 x 20 ml tubes and 8 x 1.5/2.0 ml vials
<b>Microplate rack inserts</b>		
Microplate rack insert for standard plates, 3 shelves (Requires universal adjustable angle test tube rack holder)	600090	7 racks, 63 plates
Microplate rack insert for deep-well plates, 2 shelves (Requires universal adjustable angle test tube rack holder)	600089 <sup>1</sup>	5 racks, 30 plates
<b>Replacement screws</b>		
Replacement screws (50) #10-24 x 5/16" countersink Phillips headscrews for mounting tube holders to platform	194024	–

<sup>1</sup>Shaken at a 15 degree angle <sup>2</sup>Requires 11-676-039 or a dedicated adjustable angle test tube rack holder of the corresponding size <sup>3</sup>Can be cut to fit, reusable <sup>4</sup>Includes rack holder



The universal test tube rack holder can be adjusted to fit any of the four available test tube rack sizes. Universal design requires the separate purchase of a test tube rack.



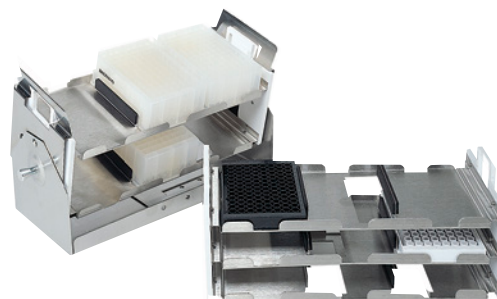
Adjustable test tube rack holders can be used only with their corresponding rack size. This design includes one test tube rack each.



## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity			
Platform size	Description	Capacity	Model No.
29.5 x 18" (74.9 x 45.7 cm)	25 ml Erlenmeyer flask	91	238066
	50 ml Erlenmeyer flask	91	238067
	125 ml Erlenmeyer flask	61	238068
	250/300 ml Erlenmeyer flask	30	238069
	250/300 ml Erlenmeyer flask	40	238070
	500 ml Erlenmeyer flask	24	238071
	1L Erlenmeyer flask	15	238072
	2L Erlenmeyer flask	12	238073
	2800 ml Fernbach flask	6	238074



## Optional accessories

MaxQ 8000		Model No.
Stand for one stackable shaker 45.5"W x 29.6"H x 35.3"D (115.6 x 75.2 x 89.7 cm); 30.6" (77.7 cm) max. height with leveling feet extended		194222
Stand for two stackable shakers 45.5"W x 11.8"H x 30.5"D (115.6 x 30.0 x 77.5 cm); 12.8" (32.5 cm) max. height with leveling feet extended		194223
Door glass cover prevents light from entering through window		194224
7 day recorder 0–100°C, 6"	115V, 50/60 Hz	201126
	220V, 50/60 Hz	201127
Sensaphone™ telephone dialing system alarm system that will notify user via the telephone	Four channel, 120V/60 Hz	400047
	Eight channel, 120V/60 Hz	400134

### Microplate rack inserts

Our microplate rack inserts are available for the dedicated adjustable angle test tube rack holder (50 ml)-No. 600079 and the universal adjustable angle test tube rack holder-No. 600088. You can increase your microplate shaking capacity, shake deepwell format plates at an angle, and remove many plates from the shaker at once for quick and easy transport to your benchtop.



### Stands for stackable shakers

The single and dual shaker stands place the stackable shakers at a convenient working height. No stand is required for units stacked three high.



### Vial/tube inserts for 1 liter flask clamps

Flexible, reusable, closed-cell foam Vial/tube Inserts are ideal for shaking a mix of tube and vial sizes in temperature ranges up to 70°C (158°F). The insert fits snugly into a 1 liter flask clamp, repels spills, and is easy to clean.

# MaxQ 7000 Water Bath Shakers

## Maintain outstanding temperature uniformity for water bath shaker applications

- Easy access drain with quick disconnect located in the front of the cabinet for convenience in draining and disinfecting
- Alarm alerts operator in case of low water level
- Prevent heat loss and minimize evaporation with use of optional covers
- Minimize splashing and turbulence with twin baffles
- Optional cooling coil available for near ambient temperatures and below

### Applications

- Cell culture
- Solubility studies
- Extraction procedures
- Diagnostic tests
- General mixing
- Growth of bacteria or yeast
- Staining and destaining
- Washing procedures
- Hybridization
- Protein production
- DNA production
- Insect cell culture



MaxQ 7000 with stainless-steel gable cover  
Model No. SHK7000-30 (See optional accessories, page 27)



MaxQ 7000 with Plexiglas™ gable cover  
Model No. SHK7000-32 (See optional accessories, page 27)

# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ 7000 Shaker

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max. load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/ chamber dimensions inches (cm)			Chamber capacity gallons (L)	Shipping weight lb. (kg)	Model No. 120V, 50/60 Hz
						L	W	H			
<b>MaxQ 7000 – water bath shaker</b>											
Digital	15–500 ±1	0.50 (1.27)	35 (15.9)	5°C above ambient to 65°C ±0.2°C at 37°C in flask	±0.1°C at 37°C in flask	25 (63.5)/16 (41)	21.5 (54.6)/14 (36)	18 (45.7)/8 (20.3)	7.7 (29.4)	107 (48.5)	SHKE7000

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 7000				Model No.
Platforms Choose the platform that best fits your needs.	Universal platforms Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	13 x 11" (33 x 28 cm)	Platform without clamps	30105
	Dedicated platforms Clamps come installed to provide maximum capacity.	13 x 11" (33 x 28 cm)	Platform with clamps	See dedicated platforms below
Clamps	Mix and match clamps for your universal platform.			See universal clamp guide below

## Universal clamp guide

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide Max. clamp capacity of vessels for the universal platform	
		MaxQ 7000 13 x 11" (33 x 28 cm)	
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	30129		
Microplate/deep-well plate	30175		5
10 ml Erlenmeyer flask	30150BI		60
25 ml Erlenmeyer flask	30151		60
50 ml Erlenmeyer flask	30152BI		30
125 ml Erlenmeyer flask	30153		13
250 ml Erlenmeyer flask	30154BI		9
300 ml Erlenmeyer flask	30155		7
500 ml Erlenmeyer flask	30156BI		6
1L Erlenmeyer flask	30157BI		4
2L Erlenmeyer flask	30158		1
4L Erlenmeyer flask	30159		1
6L Erlenmeyer flask	30160		1
2500 ml low form culture flask	30161		1
2800 ml Fernbach flask	30162		1
<b>Test tube racks – full size</b>			
10–13 mm, red, 6 x 12 array	30180BI		3
14–16 mm, orange, 6 x 12 array	30182 <sup>1</sup>		2
17–20 mm, white, 4 x 10 array	30184		3
21–25 mm, blue, 4 x 10 array	30186		2
26–30 mm, green, 3 x 8 array	30188 <sup>2</sup>		2
Microcentrifuge, 1.5 ml, blue, 8 x 12 array	30190		2
<b>Test tube racks – half size</b>			
10–13 mm, red, 6 x 6 array	30181		6
14–16 mm, orange, 6 x 6 array	30183 <sup>1</sup>		4
17–20 mm, white, 4 x 5 array	30185		4
21–25 mm, blue, 4 x 4 array	30187		4
26–30 mm, green, 3 x 3 array	30189 <sup>2</sup>		6
Microcentrifuge, 1.5 ml, blue, 4 x 6 array	30191		4

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



## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity			
Platform size		Capacity	Model No.
13 x 11" (33 x 28 cm)	10 ml Erlenmeyer flask	63	3540-0
	25 ml Erlenmeyer flask	32	3540-2
	50 ml Erlenmeyer flask	32	3540-3
	125 ml Erlenmeyer flask	16	3540-4
	250 ml Erlenmeyer flask	9	3540-5
	300 ml Erlenmeyer flask	8	3540-6
	500 ml Erlenmeyer flask	6	3540-7
	1L Erlenmeyer flask	4	3540-8
	2L Erlenmeyer flask	2	3540-9
	10 ml beaker	76	3540-35
	20 ml beaker	52	3540-36
30 ml beaker	52	3540-37	
100 ml beaker	22	3540-38	
Utility tray	–	–	3540-46

## Optional accessories

MaxQ 7000	Model No.
Cooling coil, customer installed Needed for near-ambient temperature and below	SHK7000-37 <sup>1</sup>
Gable cover, stainless-steel For temperatures up to 90°C	SHK7000-30
Gable cover, Plexiglas® For temperatures up to 65°C	SHK7000-32
Auxiliary platform suspension arms Used for rapid platform changes	SHK7000-40
Movable dolly For under lab bench operation	SHK7000-45
Mobile cart	SHK7000-48

<sup>1</sup>This accessory requires a circulating chiller



# Thermo Scientific MaxQ High Performance Shakers

Optimized growth with  
proven technologies



## Your cultures need to be protected.

That's why our MaxQ high performance shakers feature set point security which restricts unauthorized or inadvertent changes to key functions. To ensure the safety of your samples, our shakers are equipped with alarm contacts allowing them to be connected to remote alarms making you aware of how the shaker is performing at all times, safeguarding both the shaker and contents.

## Your cultures require optimum growth.

Even when the shaker is fully loaded with samples, outstanding temperature uniformity is provided due to laminar airflow and a HEPA filtration system. Low end temperature of 4°C is achieved efficiently and effectively by the filtered front to back refrigeration system airflow. This design outperforms side-to-back and back-to-back airflow designs even in high ambients.

## Your sample monitoring just got easier.

Our MaxQ high performance shakers feature a backlit display that can be viewed in bright or dimly lit conditions. It contains both run points and set points of temperature, speed and time which can be viewed simultaneously, preventing toggling from one display to another.



# MaxQ High Performance 416 and 430 Open Air Platform Shakers

## Choice of two platform sizes maximizes capacity

- Low heat 24V DC motor with moisture resistant electronics provides continuous maintenance-free operation on the benchtop or in a chamber
- Triple counter-balanced mechanism for optimum handling of full or unbalanced loads regardless of vessel placement and completely eliminates walking
- Units operate in temperature range of 4°C to +40°C and humidity conditions from 50 to 80% non-condensing enabling them to be used in a variety of environments
- Oversized, adjustable suction cup feet minimize vibration

### Applications

- General cell culture
- Solubility studies
- Extraction procedures
- Diagnostic tests
- General mixing
- Staining
- Destaining
- Washing procedures
- Hybridizations



# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ High Performance 416 and 430 Shakers

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max load lb. (kg)	Overall dimensions inches (cm)			Shipping weight lb. (kg)	Model No. 115V/230V, 50/60Hz (dual voltage)	Model No. 230V, 50/60Hz
				L	W	H			
<b>MaxQ 416 HP - mid-size open air shaker</b>									
Digital	25-525 ±1	1.0 (2.5)	71 (32)	26 (66)	24.3 (61.7)	7.8 (19.8)	234 (106)	<b>SHKE416HP</b>	<b>SHKE416HP-1CE</b>
<b>MaxQ 430 HP - large open air shaker</b>									
Digital	25-525 ±1	1.0 (2.5)	71 (32)	26 (66)	30.5 (77.5)	7.8 (19.8)	234 (106)	<b>SHKE430HP</b>	<b>SHKE430HP-1CE</b>

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 416 HP		Model No.	
<b>Platforms</b>	Universal platforms maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	18" x 18" (45.7 x 45.7 cm)	Platform without clamps
Choose the platform that best fits your needs.	Dedicated platforms	24" x 18" (60.9 x 45.7 cm)	Platform without clamps
	Clamps come installed to provide maximum capacity.	18" x 18" (45.7 x 45.7 cm)	Platform with clamps
		24" x 18" (60.9 x 45.7 cm)	Platform with clamps
<b>Clamps</b>	Mix and match clamps for your universal platform		See universal clamp guide below
<b>MaxQ 430 HP</b>		<b>Model No.</b>	
<b>Platforms</b>	Universal platforms maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	29.5" x 18" (74.9 x 45.7 cm)	Platform without clamps
Choose the platform that best fits your needs.*	Dedicated platforms	36" x 24" (91.4 x 60.9 cm)	Platform without clamps
	Clamps come installed to provide maximum capacity.	29.5" x 18" (74.9 x 45.7 cm)	Platform with clamps
		36" x 24" (91.4 x 60.9 cm)	Platform with clamps
<b>Clamps</b>	Mix and match clamps for your universal platform		See universal clamp guide below

\*When using a 24" X 36" platform, a 194012 counterweight kit must be installed on Orbital Shaker model 430. This must be done as a FACTORY INSTALLATION or by a QUALIFIED INSTALLER in the field.

## Universal clamp guide

Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide			
		Maximum clamp capacity of vessels for the universal platform.			
		MaxQ 416 HP		MaxQ 430 HP	
		18" x 18" (45.7 x 45.7 cm)	24" x 18" (60.9 x 45.7 cm)	29.5" x 18" (74.9 x 45.7 cm)	36" x 24" (91.4 x 60.9 cm)
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	<b>236099</b>				
Microplate / deepwell plate	<b>236025</b>	10	16	18	31
25 ml Erlenmeyer flask	<b>236010</b>	49	80	91	150
50 ml Erlenmeyer flask	<b>236011</b>	49	80	91	150
125 ml Erlenmeyer flask	<b>236012</b>	25	40	39	75
250/300 ml Erlenmeyer flask	<b>236013</b>	18	25	30	55
500 ml Erlenmeyer flask	<b>236014</b>	16	20	24	30
1L Erlenmeyer flask	<b>236015</b>	8	12	12	24
2L Erlenmeyer flask	<b>236016</b>	6	8	11	15
4L Erlenmeyer flask	<b>236017</b>	4	5	6	11
5L Erlenmeyer flask	<b>236028</b>	4	4	6	8
6L Erlenmeyer flask	<b>236018</b>	2	4	4	8
2800 ml Fernbach flask	<b>236019</b>	4	5	6	11
Adhesive flask mat	<b>300349</b>	-	-	-	-
<b>Adjustable test tube racks with holder (includes one test tube rack)</b>					
10-13 mm - 3-7 ml tube rack - 72 place	<b>600076</b>	4	6	8	16
16-20 mm - 10-20 ml tube rack - 40 place	<b>600077</b>	4	6	7	16
21-25 mm - 30 ml tube rack - 40 place	<b>600078</b>	3	5	6	9
26-30 mm - 50 ml tube rack - 24 place	<b>600079</b>	3	5	6	9
<b>Universal test tube rack with holder (must purchase desired test tube rack in addition to holder)</b>					
Universal adjustable angle test tube rack holder	<b>600088</b>	-	-	-	-
10-13 mm - 3-7 ml tube rack - 72 place	<b>950040</b>	3	4	5	9
16-20 mm - 10-20 ml tube rack - 40 place	<b>950060</b>	3	4	5	9
21-25 mm - 30 ml tube rack - 40 place	<b>600074</b>	2	3	4	7
26-30 mm - 50 ml tube rack - 24 place	<b>600075</b>	2	3	4	7
<b>Microplate racks and vial/tube inserts</b>					
Microplate rack for standard plates	<b>600090</b> <sup>1</sup>	4 racks, 36 plates	5 racks, 45 plates	7 racks, 63 plates	8 racks, 72 plates
Microplate rack for deepwell plates	<b>600089</b> <sup>2</sup>	3 racks, 18 plates	4 racks, 24 plates	5 racks, 30 plates	7 racks, 42 plates
Pack of 5 vial/tube inserts for use in 1L flask clamps	<b>161033</b> <sup>*</sup>	8	12	12	24
<b>Universal utility trays</b>					
9" x 18" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad	<b>236026</b>	1	2	3	3
18" x 18" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad	<b>236027</b>	1	1	1	2

\*Holds 3 x 50 ml tubes, 3 x 20 ml tubes, and 8 x 1.5/2.0 ml vials <sup>1</sup>3 shelves <sup>2</sup>2 shelves

## Miscellaneous accessories

MaxQ HP 416, 430	Model No.
9.0" x 18.0" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad	<b>236026</b>
18.0" x 18.0" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad	<b>236027</b>
Quick change platform adapter	<b>194040</b>
MagNote wipe-off magnet and pen kit (benchtop models only)	<b>194140</b>
Four channel Sensaphone telephone dialing system	<b>400047</b>
Eight channel Sensaphone telephone dialing system	<b>400134</b>
Replacement screws: (50) #10-24 x 3/8" pan head Phillips screws for mounting test tube holders to platform	<b>194024</b>
Replacement screws: (50) #10-24 x 5/16" countersink Phillips head screws for clamps and (12) 1/4-20 x 3/4" countersink flat head socket screws for platforms	<b>194046</b>

## Dedicated platforms with clamps

Maximize capacity by choosing your platform with pre-installed clamps.

Clamps come installed to provide maximum capacity				
Platform size	Description	Capacity	Model No.	
<b>MaxQ 416 HP</b>				
18" x 18" (45.7 x 45.7 cm)	25 ml Erlenmeyer flask	49	<b>238010</b>	
	50 ml Erlenmeyer flask	49	<b>238011</b>	
	125 ml Erlenmeyer flask	25	<b>238012</b>	
	125 ml Erlenmeyer flask*	36	<b>238049</b>	
	250/300 ml Erlenmeyer flask	18	<b>238013</b>	
	250/300 ml Erlenmeyer flask*	25	<b>238050</b>	
	500ml Erlenmeyer flask	16	<b>238014</b>	
	1L Erlenmeyer flask	8	<b>238015</b>	
	2L Erlenmeyer flask	6	<b>238016</b>	
	4L Erlenmeyer flask	4	<b>238046</b>	
24" x 18" (60.9 x 45.7 cm)	5L Erlenmeyer flask	4	<b>238053</b>	
	6L Erlenmeyer flask	2	<b>238047</b>	
	2800ml Fernbach flask	4	<b>238048</b>	
	25 ml Erlenmeyer flask	80	<b>238036</b>	
	50 ml Erlenmeyer flask	80	<b>238037</b>	
	125 ml Erlenmeyer flask	40	<b>238038</b>	
	250/300 ml Erlenmeyer flask	25	<b>238052</b>	
	250/300 ml Erlenmeyer flask*	35	<b>238039</b>	
	500 ml Erlenmeyer flask	20	<b>238040</b>	
	1L Erlenmeyer flask	12	<b>238041</b>	
MaxQ 430 HP	2L Erlenmeyer flask	8	<b>238042</b>	
	4L Erlenmeyer flask	5	<b>238043</b>	
	5L Erlenmeyer flask	4	<b>238055</b>	
	6L Erlenmeyer flask	4	<b>238044</b>	
	2800 ml Fernbach flask	5	<b>238045</b>	
	29.5" x 18" (74.9 x 45.7 cm)	25 ml Erlenmeyer flask	91	<b>238017</b>
		50 ml Erlenmeyer flask	91	<b>238018</b>
		125 ml Erlenmeyer flask	61	<b>238019</b>
		250/300 ml Erlenmeyer flask	30	<b>238051</b>
		250/300 ml Erlenmeyer flask*	40	<b>238020</b>
500 ml Erlenmeyer flask		24	<b>238021</b>	
1L Erlenmeyer flask		15	<b>238022</b>	
2L Erlenmeyer flask		12	<b>238023</b>	
4L Erlenmeyer flask		6	<b>238024</b>	
5L Erlenmeyer flask		6	<b>238054</b>	
36" x 24" (91.4 x 60.9 cm)	6L Erlenmeyer flask	4	<b>238025</b>	
	2800 ml Fernbach flask	6	<b>238026</b>	
	25 ml Erlenmeyer flask	150	<b>238057</b>	
	50 ml Erlenmeyer flask	150	<b>238058</b>	
	125 ml Erlenmeyer flask	96	<b>238027</b>	
	250/300 ml Erlenmeyer flask*	70	<b>238028</b>	
	500 ml Erlenmeyer flask	30	<b>238029</b>	
	1L Erlenmeyer flask	24	<b>238030</b>	
	2L Erlenmeyer flask	15	<b>238031</b>	
	4L Erlenmeyer flask	11	<b>238032</b>	
	5L Erlenmeyer flask	8	<b>238056</b>	
	6L Erlenmeyer flask	8	<b>238033</b>	
	2800 ml Fernbach flask	11	<b>238034</b>	

\*Increased capacity design does not allow the use of flasks larger than 500 ml.



# MaxQ High Performance 420 Large Benchtop Incubated Shakers

## Outstanding temperature uniformity improves product yields

Double-wall, insulated chamber contributes to optimum growth

- Twin blowers and gasketed lid ensure temperature uniformity of  $\pm 0.3^{\circ}\text{C}$  (in flask) creating an ideal environment for temperature sensitive cultures
- Triple counter-balanced mechanism
- Microprocessor functions are calibrated through keypad
- Platform easily accommodates 6 x 2L flasks
- Clear acrylic lid withstands years of use without cracking or discoloration
- Audible/visual over and under-temperature alarms ensure sample protection
- Innovative design ensures system protection in case of spills

### Applications

- Cell culture
- DNA fingerprinting
- Solubility studies
- Extraction procedures
- Protein expressions
- Bacterial suspensions
- Washing procedures
- Staining and destaining





# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ High Performance 420 Shakers

Shaker options	Speed range (rpm)	Orbit diameter In. (cm)	Max load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/chamber dimensions in (cm)			Shipping weight Lb. (kg)	Model No. 115V/230V, 50/60Hz (dual voltage)	Model No. 230V, 50/60Hz
						L	W	H			
<b>MaxQ 420 HP - incubated benchtop shaker</b>											
Digital	25–525 ±1	1.0 (2.5)	71 (32)	5°C above ambient to 80°C, ±0.1°C	±0.3°C at 37°C in flask	29 (73.7)/ 21.2 (53.8)	24.3 (61.7)/ 21.4 (54.4)	20.9 (53.1)/ 12.6 (32)	250 (113.4)	SHKE420HP	SHKE420HP-1CE

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 420 HP				Model No.
<b>Platforms</b>	<b>Universal platforms</b> maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.	18" x 18" (45.7 x 45.7 cm)	Platform without clamps	<b>238000</b>
Choose the platform that best fits your needs.	<b>Dedicated platforms</b> Clamps come installed to provide maximum capacity.	18" x 18" (45.7 x 45.7 cm)	Platform with clamps	<b>See dedicated platforms below</b>
<b>Clamps</b>	Mix and match clamps for your universal platform			<b>See universal clamp guide below</b>

## Universal clamp guide

Max and match to customize the universal platform for your unique needs. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide Maximum clamp capacity of vessels for the universal platform.
<b>MaxQ 420 HP</b>		
<b>18" x 18" (45.7 x 45.7 cm)</b>		
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	<b>236099</b>	
Microplate / deepwell plate	<b>236025</b>	10
25 ml Erlenmeyer flask	<b>236010</b>	49
50 ml Erlenmeyer flask	<b>236011</b>	49
125 ml Erlenmeyer flask	<b>236012</b>	25
250/300 ml Erlenmeyer flask	<b>236013</b>	18
500 ml Erlenmeyer flask	<b>236014</b>	16
1L Erlenmeyer flask	<b>236015</b>	8
2L Erlenmeyer flask	<b>236016</b>	6
2800 ml Fernbach flask	<b>236019</b>	4
Adhesive flask mat	<b>300349</b>	–
<b>Adjustable test tube racks with holder (includes one test tube rack)</b>		
10–13 mm - 3–7 ml tube rack - 72 place	<b>600076</b>	4
16–20 mm - 10–20 ml tube rack - 40 place	<b>600077</b>	4
21–25 mm - 30 ml tube rack - 40 place	<b>600078</b>	3
26–30 mm - 50 ml tube rack - 24 place	<b>600079</b>	3
<b>Universal test tube racks with holder (must purchase desired test tube rack in addition to holder)</b>		
Universal adjustable tube rack holder	<b>600088</b>	–
10–13 mm - 3–7 ml tube rack - 72 place	<b>950040</b>	3
16–20 mm - 10–20 ml tube rack - 40 place	<b>950060</b>	3
21–25 mm - 30 ml tube rack - 40 place	<b>600074</b>	2
26–30 mm - 50 ml tube rack - 24 place	<b>600075</b>	2
<b>Microplate racks and vial/tube inserts</b>		
Microplate rack for standard plates (3 shelves)	<b>600090</b>	4 racks, 36 plates
Microplate rack for deepwell plates (2 shelves)	<b>600089</b>	3 racks, 18 plates
Pack of 5 vial/tube inserts for use in 1L flask clamps	<b>161033*</b>	8
<b>Universal utility trays</b>		
9" x 18" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad	<b>236026</b>	1
18" x 18" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad	<b>236027</b>	1

\*Holds 3 x 50 ml tubes, 3 x 20 ml tubes and 8 x 1.5/2.0 ml vials

## Miscellaneous accessories

MaxQ HP 420	Model No.
Dual-stack benchtop shaker kit, includes kneewell side mount and orbital shaker stand	<b>452000</b>
Kneewell slide mount, shaker slides out on rails for easy access: 26.6" W x 22.2" H x 33" D (67.6 cm x 56.4 cm x 83.8 cm)	<b>452002</b>
Orbital shaker stand, uses 33.5" W x 37.3" H x 35.3" D of floor space (85.1 cm x 94.7 cm x 89.7 cm)	<b>452001</b>
Four drawer assembly, dimensions: 9.0" W x 18.0" H x 21.5" D (22.9 cm x 45.7 cm x 54.6 cm)	<b>191494</b>
Roller base for drawer assembly, adds 3" (7.6 cm) to height: 9.4" W x 3.6" H x 21.9" D (23.9 cm x 9.1 cm x 55.6 cm)	<b>191591</b>
Gassing manifold (one gas)	<b>194045</b>
Free-standing 0–100°C, 6", seven day chart recorder, 115V, 60 Hz	<b>201126</b>
Free-standing 0–100°C, 6", seven day chart recorder, 220V, 50 Hz	<b>201127</b>
Replacement chart paper, 50 per box	<b>197075</b>
9.0" x 18.0" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad	<b>236026</b>
18.0" x 18.0" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad	<b>236027</b>
Quick change platform adapter	<b>194040</b>
MagNote wipe-off magnet and pen kit (benchtop models only)	<b>194140</b>
Four channel Sensaphone telephone dialing system	<b>400047</b>
Eight channel Sensaphone telephone dialing system	<b>400134</b>
Replacement screws: (50) #10-24 x 3/8" pan head Phillips screws for mounting test tube holders to platform	<b>194024</b>
Replacement screws: (50) #10-24 x 5/16" countersink Phillips head screws for clamps and (12) 1/4-20 x 3/4" countersink flat head socket screws for platforms	<b>194046</b>

# MaxQ High Performance Incubated and Refrigerated Floor Shakers Models 435 (436) and 480 (481)

## Solutions for high capacity requirements

- HEPA filtration for maximum protection from contamination
- Drain system with valve makes it easy to eliminate liquid, reducing the risk of water borne contamination
- Directed laminar airflow system for optimum temperature uniformity
- Crevice-free, stainless steel interior with coved corners for easy cleaning
- Viewing window offers sample visibility
- Access port in rear of cabinet allows insertion of probes, CO<sub>2</sub> gassing manifolds or other equipment
- Foot pedal opens lid for hands free operation
- Floor models meet specified performance of 4°C to 60°C even in high ambient temperatures
- Low end temperature is achieved by the filtered front to back refrigeration air flow system

### Applications

- Insect, bacteria, yeast culture
- Extractions
- Plasmid production
- Solubility studies
- Hybridizations
- Staining and destaining
- Protein production



# Ordering Information

Select the right shaker for your needs and customize by selecting either a universal platform or a dedicated platform.

## MaxQ High Performance 435 (436) and 480 (481) Shakers

Shaker options	Speed range (rpm)	Orbit diameter in. (cm)	Max load lb. (kg)	Temperature range and accuracy	Temperature uniformity	Overall dimensions/chamber dimensions in (cm)			Shipping weight Lb. (kg)	Model No. 120V, 60Hz	Model No. 230V, 50/60Hz
						L	W	H			
<b>MaxQ 435 / 436 HP - large incubated floor shaker</b>											
Digital	25–525 ±1	1.0 (2.5)	71 (32)	5°C above ambient to 60°C, ±0.1°C	±0.2°C at 37°C in flask	30 (76.2)/ 21.1 (53.6)	45 (114.3)/ 34.3 (87.1)	40.4 (102.6)/ 18.5 (47)	610 (277)	SHKE435HP	SHKE436HP
<b>MaxQ 480 / 481 HP - large incubated and refrigerated floor shaker</b>											
Digital	25–525 ±1	1.0 (2.5)	71 (32)	4°C to 60°C, ±0.1°C	±0.2°C at 37°C in flask	30 (76.2)/ 21.1 (53.6)	45 (114.3)/ 34.3 (87.1)	40.4 (102.6)/ 18.5 (47)	665 (302)	SHKE480HP	SHKE481HP

## Platforms

Maximize flexibility by choosing your platform and selecting a mixture of clamps.

MaxQ 435 / 436 / 480 / 481 HP								Model No.	
<b>Platforms</b>	<b>Universal platforms</b> Maximum flexibility for using a mix of different size labware on a single platform. See universal clamp guide for clamp capacities. Purchase clamps separately.						29.5" x 18" (74.9 x 45.7 cm)	Platform without clamps	<b>238001</b>
Choose the platform that best fits your needs.	<b>Dedicated platforms</b> Clamps come installed to provide maximum capacity.						29.5" x 18" (74.9 x 45.7 cm)	Platform with clamps	<b>See dedicated platforms below</b>
<b>Clamps</b>	Mix and match clamps for your universal platform								<b>See universal clamp guide below</b>

## Universal clamp guide

Maximize flexibility by choosing your platform and selecting a mixture of clamps. Clamps sold as individual units.

Clamp	Model No.	Clamp capacity guide	
		Maximum clamp capacity of vessels for the universal platform.	MaxQ 435 / 436 / 480 / 481 HP
		29.5" x 18" (74.9 x 45.7 cm)	
Flask clamp starter kit, includes (2) 125 ml flask clamps, (4) 250 ml flask clamps, (4) 500 ml flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	<b>236099</b>		
Microplate / deepwell plate	<b>236025</b>		18
25 ml Erlenmeyer flask	<b>236010</b>		91
50 ml Erlenmeyer flask	<b>236011</b>		91
125 ml Erlenmeyer flask	<b>236012</b>		39
250/300 ml Erlenmeyer flask	<b>236013</b>		30
500 ml Erlenmeyer flask	<b>236014</b>		24
1L Erlenmeyer flask	<b>236015</b>		12
2L Erlenmeyer flask	<b>236016</b>		11
4L Erlenmeyer flask	<b>236017</b>		6
5L Erlenmeyer flask	<b>236028</b>		6
6L Erlenmeyer flask	<b>236018</b>		4
2800 ml Fernbach flask	<b>236019</b>		6
Adhesive flask mat	<b>300349</b>		–
<b>Adjustable test tube racks with holder (includes one test tube rack)</b>			
10–13 mm - 3–7 ml tube rack - 72 place	<b>600076</b>		4
16–20 mm - 10–20 ml tube rack - 40 place	<b>600077</b>		4
21–25 mm - 30 ml tube rack - 40 place	<b>600078</b>		3
26–30 mm - 50 ml tube rack - 24 place	<b>600079</b>		3
<b>Universal test tube racks with holder (must purchase desired test tube rack in addition to holder)</b>			
Universal adjustable tube rack holder	<b>600088</b>		–
10–13 mm - 3–7 ml tube rack - 72 place	<b>950040</b>		3
16–20 mm - 10–20 ml tube rack - 40 place	<b>950060</b>		3
21–25 mm - 30 ml tube rack - 40 place	<b>600074</b>		2
26–30 mm - 50 ml tube rack - 24 place	<b>600075</b>		2
<b>Microplate racks and vial/tube inserts</b>			
Microplate rack for standard plates (3 shelves)	<b>600090</b>		7 racks, 63 plates
Microplate rack for deepwell plates (2 shelves)	<b>600089</b>		5 racks, 30 plates
Pack of 5 vial/tube inserts for use in 1L flask clamps	<b>161033*</b>		12
<b>Universal utility trays</b>			
9" x 18" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad	<b>236026</b>		1
18" x 18" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad	<b>236027</b>		1

\*Holds 3 x 5 0 ml tubes, 3 x 20 ml tubes and 8 x 1.5/2.0 ml vials

## Miscellaneous accessories

MaxQ HP 435, 436, 480, 481	Model No.
Removable shelf	<b>194033</b>
Gassing manifold (one gas)	<b>194045</b>
0°C to 60°C, seven day chart recorder, 115V, 50/60 Hz	<b>201113</b>
Replacement chart paper, 50 per box	<b>180006</b>
HEPA filter replacement	<b>760164</b>
9.0" x 18.0" (22.9 x 45.7 cm) Utility tray with 0.5" (1.3 cm) thick rubber pad	<b>236026</b>
18.0" x 18.0" (45.7 x 45.7 cm) Utility tray with 0.5" (1.3 cm) thick rubber pad	<b>236027</b>
Quick change platform adapter	<b>194040</b>
MagNote wipe-off magnet and pen kit (floor models only)	<b>194139</b>
Four channel Sensaphone telephone dialing system	<b>400047</b>
Eight channel Sensaphone telephone dialing system	<b>400134</b>
Replacement screws: (50) #10-24 x 3/8" pan head Phillips screws for mounting test tube holders to platform	<b>194024</b>
Replacement screws: (50) #10-24 x 5/16" countersink Phillips head screws for clamps and (12) 1/4-20 x 3/4" countersink flat head socket screws for platforms	<b>194046</b>



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Plasmid production  
Protein production  
Solubility studies  
Staining and destaining  
Washing procedures

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