



Thermo Scientific MaxQ Shakers








Reliability. Simplicity.
Flexibility.

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Thermo Scientific MaxQ Shaker Product Selector Guide

| Model | MaxQ 2000 Choice of 3 platform sizes | | | MaxQ 3000 Choice of 2 platform sizes | | MaxQ 2506/2508 Flexibility and choice | | | MaxQ 4450 Incubated temperatures in a compact footprint |
|--|--|--------------------------|---------------------------------------|--|------------------------|--|--------------------------|--------------------------|--|
| Benchtop, floor or stackable | Benchtop | | | Benchtop | | Benchtop | | | Benchtop |
| Motion | Orbital | | | Orbital | | 2506: reciprocating 2508: orbital/reciprocating | | | 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) ¹ | 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) | 24 x 18 (60.9 x 45.7) | 13 x 11 (33 x 28) |
| 250 ml flask capacity dedicated* platform | 12 | 25 | N/A | 40 | 70 | 10 | 25 | 24 | 10 |
| 250 ml flask capacity universal* platform | 9 | 16 | 24 | 24 | 40 | 9 | 16 | 24 | 9 |
| Maximum capacity largest flask on a Platform | 1 x 6L | 2 x 6L | 3 x 6L | 3 x 6L | 6 x 6L | 1 x 6L | 2 x 6L | 3 x 6L | 4 x 1L |
| Orbit diameter reciprocating Motion Inches (cm) | 0.75 (1.9) | | | 1.0 (2.54) | | 2506: 0.5 to 1.5 (1.2 to 3.8) ³ 2508: 0.4 (1.2) ² | | | 0.75 (1.9) |
| RPM range | Analog: 40–400 ⁴ Digital: 15–500 | | | Analog: 40–400 ⁴ Digital: 15–500 | | 2506 Analog: 10–250 2508 Analog: 40–400 ⁴ | | | Analog: 40–400 ⁴ Digital: 15–500 |
| Temperature range °C (T _A =ambient temperature) | N/A | | | N/A | | N/A | | | T _A +5°C to 80°C |
| Maximum load lb. (kg) | 35 (15.9) | | | 50 (22.7) | | 15 (6.8) | | | 35 (15.9) |
| Refrigeration | | | | | | | | | |
| Gassing manifold | | | | | | | | | |
| Page | 8–10 | | | 8–10 | | 11–12 | | | 13–14 |

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

| Model | MaxQ 4000 Spacious chamber holds 6 x 2L flasks | | | MaxQ 5000 Large capacity applications | | MaxQ 6000 Stackable, space-savings | | MaxQ 8000 Maximum flexibility, stackable design | | MaxQ 7000 Excellent temperature uniformity | |
|--|---|------------------------------|------------------------------|---|------------------------------|---|------------------------------|---|-------------------------------------|---|--|
| |  | | |  | |  | |  | |  | |
| Benchtop, floor or stackable | Benchtop | | | Floor | | Stackable | | Stackable | | Benchtop | |
| Motion | Orbital | | | Orbital | | Orbital | | Orbital | | Orbital | |
| Platform size inches (cm) | 18 x 18 (45.7 x 45.7) | | | 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 | 25 | | | 40 | | 25 | | 30 | | 9 | |
| 250 ml flask capacity universal* platform | 16 | | | 24 | | 16 | | 30 | | 9 | |
| Maximum capacity largest flask on a platform | 6 x 2L | | | 4 x 6L | | 2 x 6L | | 12 x 2L | | 1 x 6L | |
| Orbit diameter reciprocating motion inches (cm) | 0.75 (1.9) | | | 1.0 (2.54) | | 0.75 (1.9) | | 1.0 (2.54) | | 0.5 (1.27) | |
| RPM range | Analog: 40–400 ⁴ Digital: 15–500 | | | Analog: 40–400 ⁴ Digital: 15–500 | | Digital: 15–500 | | Digital: 25–400 | | Analog: 40–400 ⁴ Digital: 15–500 | |
| Temperature range °C (T _A =ambient temperature) | T _A +10°C to 60°C | T _A +10°C to 80°C | T _A -15°C to 60°C | T _A +10°C to 60°C | T _A -15°C to 60°C | T _A +10°C to 80°C | T _A -15°C to 80°C | T _A +10°C to 60°C | T _A -5°C or 20°C to 60°C | T _A +5°C to 65°C | |
| Maximum load lb. (kg) | 50 (22.7) | | | 75 (34) | | 35 (15.9) | | 71 (32) | | 35 (15.9) | |
| Refrigeration | ● | | | ● | | ● | | ● | | | |
| Gassing manifold | ● | | | ● | | | | | | | |
| Page | 15–16 | | | 17–18 | | 19–20 | | 22–24 | | 25–26 | |

*See page 7 for a complete description of platform types ⁴Achievable 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 _A =ambient temperature) | N/A | | N/A | | T _A +5°C to 80°C | T _A +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.

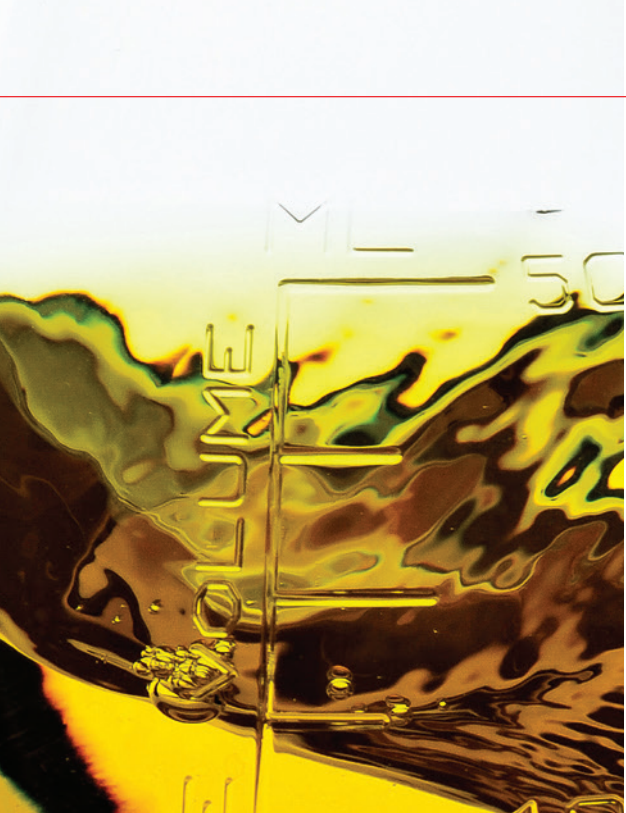


Flexibility

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.



¹Achievable maximum speeds may be dependent on load



With a wide range of shaker options including analog or digital, incubated or refrigerated and benchtop or floor model, we make it easy to choose the right shaker solution for your laboratory.

Thermo Scientific MaxQ Analog Shakers

If you prefer analog designs, our MaxQ analog shakers are offered at an economical price and include a triple eccentric drive mechanism providing 24-hour operation and allowing shaking of large and uneven loads.

- 40 to 400 rpm speed range; monitored by analog tachometer
- Easy to read LED temperature display
- 1 to 60 minute timer or continuous operation

| Feature | MaxQ Analog Shakers | |
|------------------------|--------------------------------|---|
| Performance | Drive mechanism | Triple eccentric |
| | Motor | Brushed |
| | Temperature controller | PID controller, $\pm 0.1^{\circ}\text{C}$ over entire temperature range |
| | Speed, display and range | Analog tachometer, 40 to 400 rpm ¹ |
| | Temperature, display and range | Push button LED, 10°C to 80°C |
| | Time display | Analog timer, 1–60 min timer or continuous operation ¹ |
| | Temperature user calibration | Standard |
| | Speed user calibration | No |
| | Soft start | No |
| | Set point retention | Standard |
| Alarms | Speed | No |
| | Temperature | User adjustable over/under temperature thermostat controls the heat/refrigeration |
| | Temperature set point | Audible/visual, over/under temperature tracking adjustable within $\pm 1^{\circ}\text{C}$ |
| | Temperature limits | Audible/visual, over/under temperature tracking adjustable within $\pm 1^{\circ}\text{C}$ |
| | Unbalanced load | No |
| | Lid open | Auto platform stop |
| Data management | RS232 interface | No |
| | Recorder output | No |
| Other | Certifications | UL, cUL |
| | Warranty | One year labor, 5 year parts, 10 years drive mechanism parts |

¹Achievable 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 |
|------------------------|--------------------------------|---|---|
| Performance | 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°C to 80°C | Push button LED, 4°C to 80°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 |
| Alarms | Speed | Audible/visual, $\pm 10\%$ of set speed | Audible/visual, ± 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 |
| Data Management | RS232 interface | Standard | Standard |
| | Recorder output | Standard | Standard |
| Other | 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 |

Customize your shaker solution

On the following pages, you'll find selection guides to help you build the optimal shaker for your lab and application. No matter which solution you choose, you'll find that our ordering process allows you to customize your platform for maximum flexibility and capacity.

1 Select the shaker for your application:

- A** Select a **temperature range***
- B** Check the **exterior dimensions** to fit your space
- C** Determine the **vessel type** and capacity on the platform
- D** Choose **analog** or **digital system**

*temperature range not applicable on open air models

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) |
|--|-------------------|-------------------------|--------------------|---|-------------------------|---|-----------------------------|-----------------------------|--------------------------|
| | | | | | | L | W | H | |
| MaxQ 4450 – incubated shaker | | | | | | | | | |
| Analog | 40–400 | 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) |
| 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) |
| MaxQ 4450 – incubated shaker with cooling coil (requires chiller) | | | | | | | | | |
| Analog | 40–400 | 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) |
| 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) |

Platforms

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

| MaxQ 4450 | | | | Model. No. |
|--|---|-----------------------|-------------------------|---------------------------------|
| Platforms | Universal platforms | 11 x 13" (28 x 33 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 | 11 x 13" (28 x 33 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 |

2 Choose your platform based on your needs:

Universal platforms – Choose the size platform you need appropriate to your selected shaker. With a universal platform you can maximize flexibility by selecting a mixture of different size clamps from the [Universal clamp guide](#).

Dedicated platforms – Select the platform with pre-installed shaker clamps appropriate to your selected shaker. If using a single-vessel size only, such as a flask, these platforms provide maximum capacity.

Platforms

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

| MaxQ 4450 | | | | Model. No. |
|--|---|-----------------------|-------------------------|---------------------------------|
| Platforms | Universal platforms | 11 x 13" (28 x 33 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 | 11 x 13" (28 x 33 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

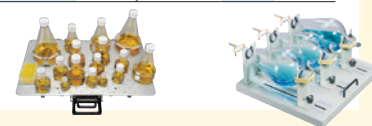
Mix and match to customize the universal platform for your unique needs. Clamps sold as individual units.

| Clamp | Model No. | Clamp capacity guide |
|---|-----------|---|
| | | Max. clamp capacity of vessels for the universal platform |
| | | MaxQ 4450 |
| | | 11 x 13" (28 x 33 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 |

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. |
| 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 |



3 Customize your platform with universal clamps (available only with universal platforms)

Select the clamps you need from a wide selection available as seen in the [Universal clamp guide](#).

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 4450 |
| | | 11 x 13" (28 x 33 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 | 15 |



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 CO₂ resistant option

- Electrical and mechanical components have been treated to protect from up to 10% CO₂ and 90% humidity conditions non-condensing
- Prevents humidity and CO₂ from reacting with electrical components and forming carbonic acid in a CO₂* environment

*Some CO₂ 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 | | | |
| MaxQ 2000 – small open air shakers | | | | | | | | | |
| Analog ¹ | 40–400 | 0.75 (1.9) | 35 (15.9) | 17.4 (44.2) | 13.5 (34.3) | 6.4 (16.3) | 47 (21.3) | SHKA2000 | |
| 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 ₂ 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 |
| MaxQ 3000 – large open air shakers | | | | | | | | | |
| Analog ¹ | 40–400 | 1.0 (2.54) | 50 (22.7) | 25.8 (65.5) | 29.4 (74.4) | 9.7 (24.6) | 207 (93.9) | SHKA3000 | |
| 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 |

¹Achievable maximum speeds may be dependent on load

Platforms

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

| MaxQ 2000 | | | | 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 | 30100 ¹ |
| | | 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 ¹ |
| | | 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 | |
| | 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 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. | 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. |

¹Stackable, 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 ³ | – | – | – | – | – |
| Test tube racks – full size | | | | | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | 3 | 6 | 8 | 13 | 16 |
| 14–16 mm, orange, 6 x 12 array | 30182 ¹ | 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 ² | 2 | 4 | 6 | 7 | 7 |
| Microcentrifuge, 1.5 ml, blue, 8 x 12 array | 30190 | 2 | 5 | 6 | 8 | 10 |
| Test tube racks – half size | | | | | | |
| 10–13 mm, red, 6 x 6 array | 30181 | 6 | 12 | 15 | 21 | 25 |
| 14–16 mm, orange, 6 x 6 array | 30183 ¹ | 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 ² | 6 | 9 | 12 | 15 | 15 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | 4 | 8 | 10 | 14 | 20 |

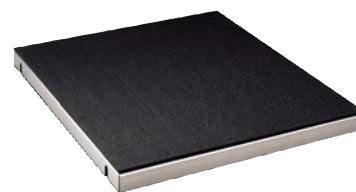
¹Fits 15 ml centrifuge tubes ²Fits 50 ml centrifuge tubes ³Can be cut to fit, reusable

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)

Dual Action Orbital and Reciprocating Open Air Platform Shakers

Increased flexibility with choice of reciprocating or orbital shakers

- Analog operating system is affordably priced
- Interchangeable 13 x 11", 18 x 18" and 24 x 18" platforms are available to accommodate a variety of labware
- On dual action models, control lever changes shaking motion while unit is stationary or in operation
- Provides back-and-forth motion or circular orbital motion for a variety of applications
- Operates in temperature ranges of 4 to 40° and humidity conditions of 20–80% non-condensing for use in standard incubators, warm rooms, environmental chambers and refrigerators

Applications

- Extractions
- Mixing blood samples
- Silver staining of polyacrylamide gels
- Growth of bacteria
- Dissolution studies
- Staining of electrophoresis gels



Ordering Information

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

Thermo Scientific Dual-Action Orbital and Reciprocating Shakers

| Shaker options | Speed range (rpm) | Orbit diameter inch (cm) | Max. load lb. (kg) | Overall dimensions inches (cm) | | | Shipping weight lb. (kg) | Model No. 120V, 50/60 Hz |
|--|-------------------|---|--------------------|--------------------------------|-------------|----------|--------------------------|--------------------------|
| | | | | L | W | H | | |
| MaxQ 2508 – dual action orbital and reciprocating shakers | | | | | | | | |
| Analog ¹ | 40–400 | 0.4 (1.2) | 15 (6.8) | 17.4 (44.2) | 13.5 (34.3) | 7 (17.8) | 44 (20) | SHKA2508 |
| MaxQ 2506 – reciprocating shakers | | | | | | | | |
| Analog ¹ | 10–250 | Adjustable from 0.5 to 1.5 (1.2 to 3.8) | 15 (6.8) | 17.4 (44.2) | 13.5 (34.3) | 7 (17.8) | 31 (14) | SHKA2506 |

¹Achievable maximum speeds may be dependent on load

Platforms

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

| MaxQ 2508 and 2506 series | | 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 | 30100 ¹ |
| | | 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 ¹ |
| | | 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 |
| | | 24 x 18" (60.9 x 45.7 cm) Platform without clamps | 30106 |
| Dedicated platforms Clamps come installed to provide maximum capacity. | 13 x 11" (33 x 28 cm) Platform with clamps | See dedicated platforms on p. 10 | |
| | 18 x 18" (45.7 x 45.7 cm) Platform with clamps | See dedicated platforms on p. 10 | |
| Clamps | Mix and match clamps for your universal platform. | See universal clamp guide below | |

¹Stackable, 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 | | |
|---|---------------------|---|------------------------------|------------------------------|
| | | Max. clamp capacity of vessels for the universal platform | | |
| | | MaxQ 2508 and 2506 | | |
| | | 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) |
| 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 |
| 10 ml Erlenmeyer flask | 30150BI | 60 | 113 | 157 |
| 25 ml Erlenmeyer flask | 30151 | 60 | 64 | 80 |
| 50 ml Erlenmeyer flask | 30152BI | 30 | 32 | 40 |
| 125 ml Erlenmeyer flask | 30153 | 13 | 32 | 40 |
| 250 ml Erlenmeyer flask | 30154BI | 9 | 16 | 24 |
| 300 ml Erlenmeyer flask | 30155 | 7 | 16 | 20 |
| 500 ml Erlenmeyer flask | 30156BI | 6 | 16 | 20 |
| 1L Erlenmeyer flask | 30157BI | 4 | 9 | 10 |
| 2L Erlenmeyer flask | 30158 | 1 | 6 | 5 |
| 4L Erlenmeyer flask | 30159 | 1 | 4 | 4 |
| 6L Erlenmeyer flask | 30160 | 1 | 2 | 3 |
| 2500 ml low form culture flask | 30161 | 1 | 1 | 2 |
| 2800 ml Fernbach flask | 30162 | 1 | 4 | 4 |
| Adhesive flask mat, 9 x 9" (23 x 23 cm) | 300349 ³ | – | – | – |
| Test tube racks – full size | | | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | 3 | 6 | 8 |
| 14–16 mm, orange, 6 x 12 array | 30182 ¹ | 2 | 4 | 6 |
| 17–20 mm, white, 4 x 10 array | 30184 | 3 | 5 | 6 |
| 21–25 mm, blue, 4 x 10 array | 30186 | 2 | 3 | 4 |
| 26–30 mm, green, 3 x 8 array | 30188 ² | 2 | 4 | 6 |
| Microcentrifuge, 1.5 ml, blue, 8 x 12 array | 30190 | 2 | 5 | 6 |
| Test tube racks – half size | | | | |
| 10–13 mm, red, 6 x 6 array | 30181 | 6 | 12 | 15 |
| 14–16 mm, orange, 6 x 6 array | 30183 ¹ | 4 | 6 | 8 |
| 17–20 mm, white, 4 x 5 array | 30185 | 4 | 8 | 13 |
| 21–25 mm, blue, 4 x 4 array | 30187 | 4 | 6 | 9 |
| 26–30 mm, green, 3 x 3 array | 30189 ² | 6 | 9 | 12 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | 4 | 8 | 10 |

¹Fits 15 ml centrifuge tubes ²Fits 50 ml centrifuges tubes ³Can be cut to fit, reusable

Miscellaneous accessories

| MaxQ 2508 and 2506 series | Model No. |
|--|-----------|
| Adapter set for stacking two platforms (models 30100 and 30110 only) | 3522-3 |



Five-tier blood bag platform
Model No. 3523-51

- 5 tier aluminum platform measures 13L x 11W x 14H in. (33 x 27.9 x 35.6 cm)
- Distance between platforms is 3.25" (8.26 cm)
- Each of the five platforms is equipped with a white vinyl ribbed mat
- Mix contents of 10 x 10 in (25.4 x 25.4 cm) bags of platlets used in platlet phoresis applications

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 | | | |
| MaxQ 4450 – Incubated shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA4450 | |
| 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 |
| MaxQ 4450 – Incubated shaker with cooling coil (requires chiller) | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA4450CC | |
| 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 |

¹Achievable maximum speeds may be dependent on load

Platforms

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

| MaxQ 4450 | | | | 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 | 30100 |
| | | 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 4450 | | |
| 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 ³ | – |
| Test tube racks – full size | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | 3 |
| 14–16 mm, orange, 6 x 12 array | 30182 ¹ | 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 ² | 2 |
| Microcentrifuge, 1.5 ml, blue, 8 x 12 array | 30190 | 2 |
| Test tube racks – half size | | |
| 10–13 mm, red, 6 x 6 array | 30181 | 6 |
| 14–16 mm, orange, 6 x 6 array | 30183 ¹ | 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 ² | 6 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | 4 |

¹Fits 15 ml centrifuge tubes

²Fits 50 ml centrifuge tubes

³Can 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 | | | |
| MaxQ 4000 – Large incubated benchtop shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA4000 | |
| 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 |
| MaxQ 4000 – Large incubated high temperature benchtop shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA4000-5 | |
| 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 |
| MaxQ 4000 – Large incubated and refrigerated benchtop shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA4000-7 | |
| 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 |

¹Achievable maximum speeds may be dependent on load

Platforms

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

| MaxQ 4000 | | | 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 |
| | Dedicated platforms Clamps come installed to provide maximum capacity. | 18 x 18" (45.7 x 45.7 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 4000 | | |
| 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 ³ | – |
| Test tube racks – full size | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | 6 |
| 14–16 mm, orange, 6 x 12 array | 30182 ¹ | 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 ² | 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 | 30183 ¹ | 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 ² | 9 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | 8 |

¹Fits 15 ml centrifuge tubes ²Fits 50 ml centrifuge tubes ³Can 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, 50/60 Hz | Model No. 240V, 50/60 Hz |
|--|-------------------|-------------------------|--------------------|--|-------------------------|--|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | | L | W | H | | | |
| MaxQ 5000 – large incubated floor shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA5000 | |
| 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 |
| MaxQ 5000 – large incubated and refrigerated floor shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA5000-7 | |
| 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 |

¹Achievable maximum speeds may be dependent on load

Platforms

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

| MaxQ 5000 | | | 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. | 30 x 18" (76 x 45.7 cm) | Platform without clamps 30115BI |
| | Dedicated platforms Clamps come installed to provide maximum capacity. | 30 x 18" (76 x 45.7 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 5000 |
| | | 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 ³ | – |
| Test tube racks – full size | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | 13 |
| 14–16 mm, orange, 6 x 12 array | 30182 ¹ | 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 ² | 7 |
| Microcentrifuge, 1.5 ml, blue, 8 x 12 array | 30190 | 8 |
| Test tube racks – half size | | |
| 10–13 mm, red, 6 x 6 array | 30181 | 21 |
| 14–16 mm, orange, 6 x 6 array | 30183 ¹ | 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 ² | 15 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | 14 |

¹Fits 15 ml centrifuge tubes ²Fits 50 ml centrifuge tubes ³Can 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 | | | |
| MaxQ 6000 – large stackable incubated floor shaker | | | | | | | | | | | |
| 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) | | | |
| MaxQ 6000 – large stackable incubated and refrigerated floor shaker | | | | | | | | | | | |
| 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 |
| | | | Dual stacked platform without clamps | 30128 |
| | | Dedicated platforms Clamps come installed to provide maximum capacity. | 18 x 18" (45.7 x 45.7 cm) | Platform with clamps |
| Clamps | Mix and match clamps for your universal platform. | | | See universal clamp guide below |

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 Max. clamp capacity of vessels for the universal platform |
|---|---------------------|---|
| MaxQ 6000 | | |
| 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 [†] | – |
| Test tube rack – full size | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | 6 |
| 14–16 mm, orange, 6 x 12 array | 30182 [‡] | 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 [‡] | 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 | 30183 [‡] | 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 [‡] | 9 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | 8 |

[†]Fits 15 ml centrifuge tubes [‡]Fits 50 ml centrifuge tubes [‡]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 |



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, 50/60 Hz | Model No. 240V, 50/60 Hz |
|--|-------------------|-------------------------|--------------------|---|-------------------------|--|---------------------------|----------------------|--------------------------|--------------------------|--------------------------|
| | | | | | | L | W | H | | | |
| MaxQ 8000 – stackable incubated shaker | | | | | | | | | | | |
| 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 |
| MaxQ 8000 – stackable incubated and refrigerated shaker | | | | | | | | | | | |
| 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 |

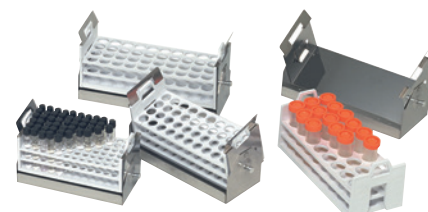
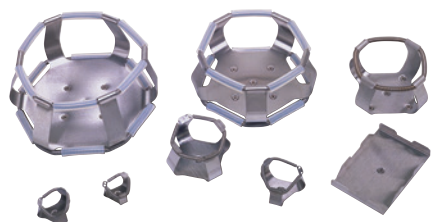


Universal clamp guide

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 ³ | – |
| 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 | |
| Universal test tube rack with holder (must purchase desired test tube rack in addition to holder) | | |
| Universal adjustable angle test tube rack holder | 600088 | – |
| Test tube rack, 72 places, 10–13 mm (3–7 ml) tubes | 950040 ² | 5 angled |
| Test tube rack, 40 places, 16–20 mm (10–20 ml) tubes | 950060 ² | 4 angled |
| Test tube rack, 40 places, 21–25 mm (30 ml) tubes | 600074 ² | 4 angled |
| Test tube rack, 24 places, 26–30 mm (50 ml) tubes | 600075 ² | 4 angled |
| Adjustable test tube racks with holder (includes one test tube rack) | | |
| Adjustable angle test tube rack holder with test tube rack, 72 places, 10–13 mm (3–7 ml) tubes | 600076 ⁴ | 5 angled |
| Adjustable angle test tube rack holder with test tube rack, 40 places, 16–20 mm (10–20 ml) tubes | 600077 ⁴ | 4 angled |
| Adjustable angle test tube rack holder with test tube rack, 40 places, 21–25 mm (30 ml) tubes | 600078 ⁴ | 4 angled |
| Adjustable angle test tube rack holder with test tube rack, 24 places, 26–30 mm (50 ml) tubes | 600079 ⁴ | 4 angled |
| Vial/tube inserts | | |
| 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 |
| Microplate rack inserts | | |
| 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 ¹ | 5 racks, 30 plates |
| Replacement screws | | |
| Replacement screws (50) #10-24 x 5/16" countersink Phillips headscrews for mounting tube holders to platform | 194024 | – |

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



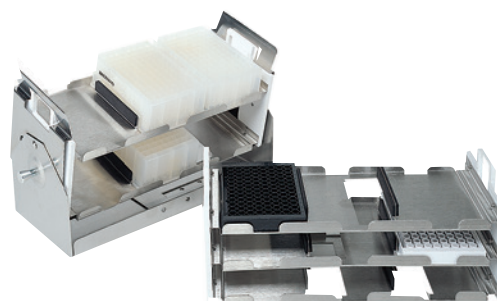
The universal test tube rack holder can be adjusted to fit any of the four available test tube rack sizes. Universal design requires the separate purchase of a test tube rack.

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.

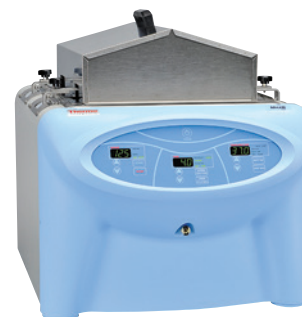
MaxQ 7000 Water Bath Shakers

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 | | | |
| MaxQ 7000 – water bath shaker | | | | | | | | | | | |
| Analog ¹ | 40–400 | 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) | SHKA7000 |
| 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 |

¹Achievable maximum speeds may be dependent on load

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 |
| Test tube racks – full size | | | |
| 10–13 mm, red, 6 x 12 array | 30180BI | | 3 |
| 14–16 mm, orange, 6 x 12 array | 30182 ¹ | | 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 ² | | 2 |
| Microcentrifuge, 1.5 ml, blue, 8 x 12 array | 30190 | | 2 |
| Test tube racks – half size | | | |
| 10–13 mm, red, 6 x 6 array | 30181 | | 6 |
| 14–16 mm, orange, 6 x 6 array | 30183 ¹ | | 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 ² | | 6 |
| Microcentrifuge, 1.5 ml, blue, 4 x 6 array | 30191 | | 4 |

¹Fits 15 ml centrifuge tubes ²Fits 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 ¹ |
| 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 |

¹This 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 | | | |
| MaxQ 416 HP - mid-size open air shaker | | | | | | | | | |
| Digital | 25–525 ±1 | 1.0 (2.5) | 71 (32) | 26 (66) | 24.3 (61.7) | 7.8 (19.8) | 234 (106) | SHKE416HP | SHKE416HP-1CE |
| MaxQ 430 HP - large open air shaker | | | | | | | | | |
| Digital | 25–525 ±1 | 1.0 (2.5) | 71 (32) | 26 (66) | 30.5 (77.5) | 7.8 (19.8) | 234 (106) | SHKE430HP | SHKE430HP-1CE |

Platforms

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

| MaxQ 416 HP | | 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 238000 |
| | | 24" x 18" (60.9 x 45.7 cm) Platform without clamps 238008 |
| | Dedicated platforms Clamps come installed to provide maximum capacity. | 18" x 18" (45.7 x 45.7 cm) Platform with clamps See dedicated platforms below |
| | | 24" x 18" (60.9 x 45.7 cm) Platform with clamps See dedicated platforms below |
| Clamps | Mix and match clamps for your universal platform | See universal clamp guide below |
| MaxQ 430 HP | | 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 238001 |
| | | 36" x 24" (91.4 x 60.9 cm) Platform without clamps 238002 |
| | 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 below |
| | | 36" x 24" (91.4 x 60.9 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 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 | 236099 | | | | |
| Microplate / deepwell plate | 236025 | 10 | 16 | 18 | 31 |
| 25 ml Erlenmeyer flask | 236010 | 49 | 80 | 91 | 150 |
| 50 ml Erlenmeyer flask | 236011 | 49 | 80 | 91 | 150 |
| 125 ml Erlenmeyer flask | 236012 | 25 | 40 | 39 | 75 |
| 250/300 ml Erlenmeyer flask | 236013 | 18 | 25 | 30 | 55 |
| 500 ml Erlenmeyer flask | 236014 | 16 | 20 | 24 | 30 |
| 1L Erlenmeyer flask | 236015 | 8 | 12 | 12 | 24 |
| 2L Erlenmeyer flask | 236016 | 6 | 8 | 11 | 15 |
| 4L Erlenmeyer flask | 236017 | 4 | 5 | 6 | 11 |
| 5L Erlenmeyer flask | 236028 | 4 | 4 | 6 | 8 |
| 6L Erlenmeyer flask | 236018 | 2 | 4 | 4 | 8 |
| 2800 ml Fernbach flask | 236019 | 4 | 5 | 6 | 11 |
| Adhesive flask mat | 300349 | – | – | – | – |
| Adjustable test tube racks with holder (includes one test tube rack) | | | | | |
| 10–13 mm - 3–7 ml tube rack - 72 place | 600076 | 4 | 6 | 8 | 16 |
| 16–20 mm - 10–20 ml tube rack - 40 place | 600077 | 4 | 6 | 7 | 16 |
| 21–25 mm - 30 ml tube rack - 40 place | 600078 | 3 | 5 | 6 | 9 |
| 26–30 mm - 50 ml tube rack - 24 place | 600079 | 3 | 5 | 6 | 9 |
| Universal test tube rack with holder (must purchase desired test tube rack in addition to holder) | | | | | |
| Universal adjustable angle test tube rack holder | 600088 | – | – | – | – |
| 10–13 mm - 3–7 ml tube rack - 72 place | 950040 | 3 | 4 | 5 | 9 |
| 16–20 mm - 10–20 ml tube rack - 40 place | 950060 | 3 | 4 | 5 | 9 |
| 21–25 mm - 30 ml tube rack - 40 place | 600074 | 2 | 3 | 4 | 7 |
| 26–30 mm - 50 ml tube rack - 24 place | 600075 | 2 | 3 | 4 | 7 |
| Microplate racks and vial/tube inserts | | | | | |
| Microplate rack for standard plates | 600090 ¹ | 4 racks, 36 plates | 5 racks, 45 plates | 7 racks, 63 plates | 8 racks, 72 plates |
| Microplate rack for deepwell plates | 600089 ² | 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 | 161033 [*] | 8 | 12 | 12 | 24 |
| Universal utility trays | | | | | |
| 9" x 18" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad | 236026 | 1 | 2 | 3 | 3 |
| 18" x 18" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad | 236027 | 1 | 1 | 1 | 2 |

*Holds 3 x 50 ml tubes, 3 x 20 ml tubes, and 8 x 1.5/2.0 ml vials ¹3 shelves ²2 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 | 236026 |
| 18.0" x 18.0" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad | 236027 |
| Quick change platform adapter | 194040 |
| MagNote wipe-off magnet and pen kit (benchtop models only) | 194140 |
| Four channel Sensaphone telephone dialing system | 400047 |
| Eight channel Sensaphone telephone dialing system | 400134 |
| Replacement screws: (50) #10-24 x 3/8" pan head Phillips screws for mounting test tube holders to platform | 194024 |
| 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 | 194046 |

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. | |
| MaxQ 416 HP | | | | |
| 18" x 18" (45.7 x 45.7 cm) | 25 ml Erlenmeyer flask | 49 | 238010 | |
| | 50 ml Erlenmeyer flask | 49 | 238011 | |
| | 125 ml Erlenmeyer flask | 25 | 238012 | |
| | 125 ml Erlenmeyer flask* | 36 | 238049 | |
| | 250/300 ml Erlenmeyer flask | 18 | 238013 | |
| | 250/300 ml Erlenmeyer flask* | 25 | 238050 | |
| | 500ml Erlenmeyer flask | 16 | 238014 | |
| | 1L Erlenmeyer flask | 8 | 238015 | |
| | 2L Erlenmeyer flask | 6 | 238016 | |
| | 4L Erlenmeyer flask | 4 | 238046 | |
| | 5L Erlenmeyer flask | 4 | 238053 | |
| | 6L Erlenmeyer flask | 2 | 238047 | |
| | 2800ml Fernbach flask | 4 | 238048 | |
| | 24" x 18" (60.9 x 45.7 cm) | 25 ml Erlenmeyer flask | 80 | 238036 |
| 50 ml Erlenmeyer flask | | 80 | 238037 | |
| 125 ml Erlenmeyer flask | | 40 | 238038 | |
| 250/300 ml Erlenmeyer flask | | 25 | 238052 | |
| 250/300 ml Erlenmeyer flask* | | 35 | 238039 | |
| 500 ml Erlenmeyer flask | | 20 | 238040 | |
| 1L Erlenmeyer flask | | 12 | 238041 | |
| 2L Erlenmeyer flask | | 8 | 238042 | |
| 4L Erlenmeyer flask | | 5 | 238043 | |
| 5L Erlenmeyer flask | | 4 | 238055 | |
| 6L Erlenmeyer flask | | 4 | 238044 | |
| 2800 ml Fernbach flask | | 5 | 238045 | |
| MaxQ 430 HP | | | | |
| 29.5" x 18" (74.9 x 45.7 cm) | | 25 ml Erlenmeyer flask | 91 | 238017 |
| | 50 ml Erlenmeyer flask | 91 | 238018 | |
| | 125 ml Erlenmeyer flask | 61 | 238019 | |
| | 250/300 ml Erlenmeyer flask | 30 | 238051 | |
| | 250/300 ml Erlenmeyer flask* | 40 | 238020 | |
| | 500 ml Erlenmeyer flask | 24 | 238021 | |
| | 1L Erlenmeyer flask | 15 | 238022 | |
| | 2L Erlenmeyer flask | 12 | 238023 | |
| | 4L Erlenmeyer flask | 6 | 238024 | |
| | 5L Erlenmeyer flask | 6 | 238054 | |
| | 6L Erlenmeyer flask | 4 | 238025 | |
| | 2800 ml Fernbach flask | 6 | 238026 | |
| | 36" x 24" (91.4 x 60.9 cm) | 25 ml Erlenmeyer flask | 150 | 238057 |
| | | 50 ml Erlenmeyer flask | 150 | 238058 |
| 125 ml Erlenmeyer flask | | 96 | 238027 | |
| 250/300 ml Erlenmeyer flask* | | 70 | 238028 | |
| 500 ml Erlenmeyer flask | | 30 | 238029 | |
| 1L Erlenmeyer flask | | 24 | 238030 | |
| 2L Erlenmeyer flask | | 15 | 238031 | |
| 4L Erlenmeyer flask | | 11 | 238032 | |
| 5L Erlenmeyer flask | | 8 | 238056 | |
| 6L Erlenmeyer flask | | 8 | 238033 | |
| 2800 ml Fernbach flask | | 11 | 238034 | |

*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 | | | |
| MaxQ 420 HP - incubated benchtop shaker | | | | | | | | | | | |
| 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. |
|--|--|----------------------------|-------------------------|---------------------------------|
| 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 | 238000 |
| | Dedicated platforms Clamps come installed to provide maximum capacity. | 18" x 18" (45.7 x 45.7 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

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. |
|---|----------------|---|
| MaxQ 420 HP | | |
| 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 | 236099 | |
| Microplate / deepwell plate | 236025 | 10 |
| 25 ml Erlenmeyer flask | 236010 | 49 |
| 50 ml Erlenmeyer flask | 236011 | 49 |
| 125 ml Erlenmeyer flask | 236012 | 25 |
| 250/300 ml Erlenmeyer flask | 236013 | 18 |
| 500 ml Erlenmeyer flask | 236014 | 16 |
| 1L Erlenmeyer flask | 236015 | 8 |
| 2L Erlenmeyer flask | 236016 | 6 |
| 2800 ml Fernbach flask | 236019 | 4 |
| Adhesive flask mat | 300349 | – |
| Adjustable test tube racks with holder (includes one test tube rack) | | |
| 10–13 mm - 3–7 ml tube rack - 72 place | 600076 | 4 |
| 16–20 mm - 10–20 ml tube rack - 40 place | 600077 | 4 |
| 21–25 mm - 30 ml tube rack - 40 place | 600078 | 3 |
| 26–30 mm - 50 ml tube rack - 24 place | 600079 | 3 |
| Universal test tube racks with holder (must purchase desired test tube rack in addition to holder) | | |
| Universal adjustable tube rack holder | 600088 | – |
| 10–13 mm - 3–7 ml tube rack - 72 place | 950040 | 3 |
| 16–20 mm - 10–20 ml tube rack - 40 place | 950060 | 3 |
| 21–25 mm - 30 ml tube rack - 40 place | 600074 | 2 |
| 26–30 mm - 50 ml tube rack - 24 place | 600075 | 2 |
| Microplate racks and vial/tube inserts | | |
| Microplate rack for standard plates (3 shelves) | 600090 | 4 racks, 36 plates |
| Microplate rack for deepwell plates (2 shelves) | 600089 | 3 racks, 18 plates |
| Pack of 5 vial/tube inserts for use in 1L flask clamps | 161033* | 8 |
| Universal utility trays | | |
| 9" x 18" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad | 236026 | 1 |
| 18" x 18" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad | 236027 | 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 | 452000 |
| 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) | 452002 |
| 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) | 452001 |
| 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) | 191494 |
| 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) | 191591 |
| Gassing manifold (one gas) | 194045 |
| Free-standing 0–100°C, 6", seven day chart recorder, 115V, 60 Hz | 201126 |
| Free-standing 0–100°C, 6", seven day chart recorder, 220V, 50 Hz | 201127 |
| Replacement chart paper, 50 per box | 197075 |
| 9.0" x 18.0" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad | 236026 |
| 18.0" x 18.0" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) thick rubber pad | 236027 |
| Quick change platform adapter | 194040 |
| MagNote wipe-off magnet and pen kit (benchtop models only) | 194140 |
| Four channel Sensaphone telephone dialing system | 400047 |
| Eight channel Sensaphone telephone dialing system | 400134 |
| Replacement screws: (50) #10-24 x 3/8" pan head Phillips screws for mounting test tube holders to platform | 194024 |
| 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 | 194046 |

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, CO₂ 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 | | | |
| MaxQ 435 / 436 HP - large incubated floor shaker | | | | | | | | | | | |
| 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 |
| MaxQ 480 / 481 HP - large incubated and refrigerated floor shaker | | | | | | | | | | | |
| 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. | |
|--|--|---|------------------------------|-------------------------|--|
| Platforms | 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 | 238001 |
| Choose the platform that best fits your needs. | 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 below |
| Clamps | Mix and match clamps for your universal platform | | | | See universal clamp guide below |

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 | 236099 | | |
| Microplate / deepwell plate | 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 |
| 4L Erlenmeyer flask | 236017 | | 6 |
| 5L Erlenmeyer flask | 236028 | | 6 |
| 6L Erlenmeyer flask | 236018 | | 4 |
| 2800 ml Fernbach flask | 236019 | | 6 |
| Adhesive flask mat | 300349 | | – |
| Adjustable test tube racks with holder (includes one test tube rack) | | | |
| 10–13 mm - 3–7 ml tube rack - 72 place | 600076 | | 4 |
| 16–20 mm - 10–20 ml tube rack - 40 place | 600077 | | 4 |
| 21–25 mm - 30 ml tube rack - 40 place | 600078 | | 3 |
| 26–30 mm - 50 ml tube rack - 24 place | 600079 | | 3 |
| Universal test tube racks with holder (must purchase desired test tube rack in addition to holder) | | | |
| Universal adjustable tube rack holder | 600088 | | – |
| 10–13 mm - 3–7 ml tube rack - 72 place | 950040 | | 3 |
| 16–20 mm - 10–20 ml tube rack - 40 place | 950060 | | 3 |
| 21–25 mm - 30 ml tube rack - 40 place | 600074 | | 2 |
| 26–30 mm - 50 ml tube rack - 24 place | 600075 | | 2 |
| Microplate racks and vial/tube inserts | | | |
| Microplate rack for standard plates (3 shelves) | 600090 | | 7 racks, 63 plates |
| Microplate rack for deepwell plates (2 shelves) | 600089 | | 5 racks, 30 plates |
| Pack of 5 vial/tube inserts for use in 1L flask clamps | 161033* | | 12 |
| Universal utility trays | | | |
| 9" x 18" (22.9 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad | 236026 | | 1 |
| 18" x 18" (45.7 x 45.7 cm) utility tray with 0.5" (1.3 cm) rubber pad | 236027 | | 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 | 194033 |
| Gassing manifold (one gas) | 194045 |
| 0°C to 60°C, seven day chart recorder, 115V, 50/60 Hz | 201113 |
| Replacement chart paper, 50 per box | 180006 |
| HEPA filter replacement | 760164 |
| 9.0" x 18.0" (22.9 x 45.7 cm) Utility tray with 0.5" (1.3 cm) thick rubber pad | 236026 |
| 18.0" x 18.0" (45.7 x 45.7 cm) Utility tray with 0.5" (1.3 cm) thick rubber pad | 236027 |
| Quick change platform adapter | 194040 |
| MagNote wipe-off magnet and pen kit (floor models only) | 194139 |
| Four channel Sensaphone telephone dialing system | 400047 |
| Eight channel Sensaphone telephone dialing system | 400134 |
| Replacement screws: (50) #10-24 x 3/8" pan head Phillips screws for mounting test tube holders to platform | 194024 |
| 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 | 194046 |

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