Thermo Scientific
MaxQ 8000 Shakers

Maximized shaker capacity for space restricted labs

Thermo
S C I E N T I F I C

Our MaxQ™ 8000 shaker product line includes stackable models in both refrigerated and incubated configurations. Incubated Model SHKE8000 (SHKE8000-1CE) and Refrigerated Model SHKE8000-7 (SHKE8000-8CE) are specially designed for laboratory professionals seeking high capacity shakers but lacking the floor space to accommodate multiple large floor models. All models feature an insulated, fold-down door with wide-view window for high visibility.

All stackable shakers may be stacked up to three units high for three times the capacity of a floor shaker in nearly the same footprint.

Models SHKE8000 (SHKE8000-1CE)

Models SHKE8000-7 (SHKE8000-8CE)

Robust, functional, convenient and unique design

- Electronic components and HEPA filter are easily accessed from the front of the unit, eliminating the need to move the shaker during regular maintenance or service. HEPA filter ensures that air inside the unit remains clean and reduces cross contamination so culturing conditions are improved.

- Fold-down door with ergonomically designed door handle, large quick-release base (included), and dedicated or universal slide-out shaker platform provide convenient access to your product, regardless of its position on the 29.5" x 18" (74.9cm x 45.7cm) platform. Universal and dedicated platforms are ordered separately.
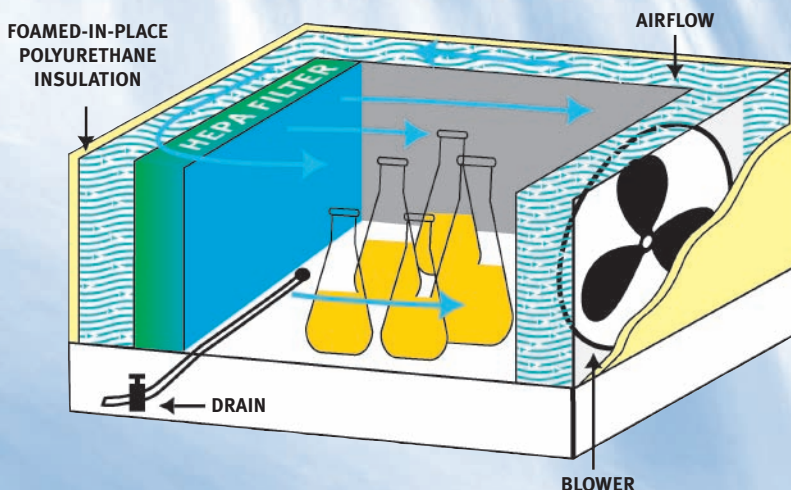
- Flip-down handle/latch on the quick-release base prevents the shaker from running if the universal or dedicated platform is not secured.

- Easy-to-clean platforms are constructed of ⁵⁄₁₆", heavy-duty, brushed anodized aluminum, which does not chip or rust.

- Heavy-gauge cold-rolled steel exterior is designed to safely support units stacked three high.

- Top platform height is under 61.0" (154.9cm) when units are stacked three high, ensuring ease-of-use and convenient accessibility.

- Crevice-free Type 304 stainless steel chamber with coved corners and built-in drain keeps spills within the work area and promotes easy cleaning. Chamber is tall enough to hold 2 liter Erlenmeyer flasks.

- Chamber xenon light with switch improves visibility.

- Shaker door features a magnetic gasket for a tight seal, pneumatic dampers for smooth controlled opening, and hinges with counterbalance springs to ease door closing.

- World's most durable and dynamically balanced orbital shaker mechanism ensures smooth operation for optimum oxygenation and nutrient mixing, reduced cell clumping, and prevention of splashing and flask wetting.

- Triple counterbalanced mechanism provides optimum handling of full or unbalanced loads, regardless of flask placement.

- Heavy-duty, eccentric drive mechanism allows extended speed ranges from 25 to 400 RPM, ±1 RPM with minimal vibration, even when shakers are stacked three-high.

- Slide-out platform features a large mounting surface area and is secured to ensure a smooth, stable motion. Platform motion is continuously monitored independently of motor operation for added protection.

- Heavy-duty, permanently lubricated bearings provide long life. Cool running, brushless, ⅓ HP, DC motor ensures continuous maintenance-free operation.

Airflow

Forced air circulation system and built-in High Efficiency Particulate Air (HEPA) filter for temperature uniformity and reduced risk of cross contamination make these shakers ideal for eukaryotic cell culture.

HEPA filter is rated a minimum 95% efficient at 0.3 microns for entrapment of extraneous airborne particulates.

FOAMED-IN-PLACE POLYURETHANE INSULATION

AIRFLOW

HEPA FILTER

DRAIN

BLOWER

Microprocessor Control/Monitoring System for easy use
Run points and Set points are displayed simultaneously

Audible/Visual Alarm Indicator
Audible/visual over and under-temperature tracking alarms ensure product protection. A separate adjustable over-temperature safety alarm with independent probe provides additional backup on heated units. Refrigerated units also feature an under-temperature safety alarm.
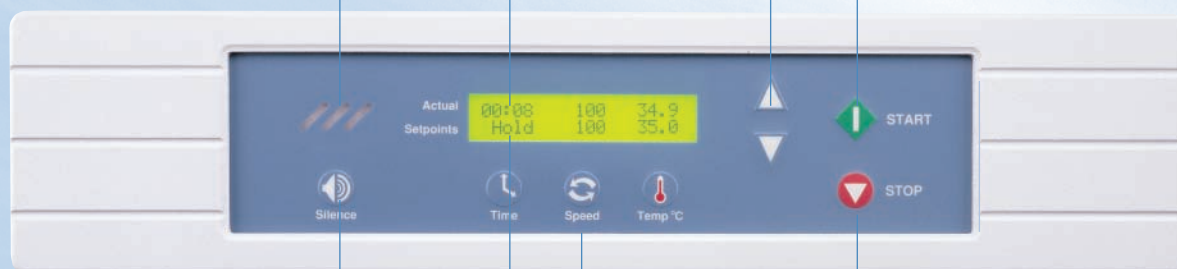
Backlit Display
Two-line, 40 character, LCD, alphanumeric display is a complete message/information center for actual (run) and setpoint parameters, and alarm condition messages. Provides message visibility in low and bright light conditions.

Up and Down Arrow Keys
During programming, these keys increase and decrease the time, speed, and temperature values.

Start
Starts the shaker's operation

Alarm Silence

Run points and Set points
Both are displayed simultaneously

Time, Speed, and Temp C
Icons/buttons allow easy programming of set parameters.
• Time: Counts upward, showing total operating hours and minutes for the run
• Speed: Displays the actual platform speed (RPM)
• Temp C: Displays the actual temperature inside the chamber

Stop
Causes the shaker to stop operating

• All microprocessor functions can be calibrated easily through the keypad. Sealed control panel minimizes concern about accidental spills.

• Audible/visual, high/low RPM tracking alarms alert you if speed deviations occur. Alarms can be silenced temporarily and ring back as a reminder of unresolved alarm conditions.

• Non-volatile memory saves settings during a power outage and automatically restarts the unit after power is restored.

• Microprocessor tracks total accumulated time on motor and drive systems.

• Controlled acceleration circuitry provides smooth start-up and stopping to eliminate splashing and wetting of flask closures.

• RS232 port is standard and permits computer interface and monitoring of time, temperature and speed.

• For long-term documentation an optional free standing chart recorder is available.

• Standard remote alarm contacts allow convenient monitoring of alarm conditions from another location.

Thermo Scientific MaxQ Shaker

Cat. No.	SHKE8000	SHKE8000-1CE	SHKE8000-7	SHKE8000-8CE
Description	Incubated 120V	Incubated 230V	Incubated/Refrigerated 120V	Incubated/Refrigerated 230V
Speed Range	25-400 RPM	25-400 RPM	25-400 RPM	25-400 RPM
Accuracy	±1 RPM	±1 RPM	±1 RPM	±1 RPM
Orbital Size	1.0 inch (2.5cm)	1.0 inch (2.5cm)	1.0 inch (2.5cm)	1.0 inch (2.5cm)
LCD Indicator	1 RPM increments	1 RPM increments	1 RPM increments	1 RPM increments
Time				
Range	Continuous operation (hold) or timed operation from 1 minute up to 199 hours and 59 min			
LCD Indicator	Readable in 1 min increments, counts up for continuous operation (hold) or counts down for timed operation			
Temperature				
Range	10°C above ambient to 60°C (140°F)	10°C above ambient to 60°C (140°F)	5°C or 20°C below ambient to 60°C	5°C or 20°C below ambient to 60°C
Control	±0.15°C	±0.15°C	±0.15°C	±0.15°C
Uniformity	±0.3°C (in flask)	±0.3°C (in flask)	±0.3°C (in flask)	±0.3°C (in flask)
LCD Indicator	Readable in 0.1°C increments	Readable in 0.1°C increments	Readable in 0.1°C increments	Readable in 0.1°C increments
Dimensions				
Platform Sizes	29.5 x 18 inch	29.5 x 18 inch	29.5 x 18 inch	29.5 x 18 inch
	74.9 x 45.7cm	74.9 x 45.7cm	74.9 x 45.7cm	74.9 x 45.7cm
Exterior Dimensions D x W x H	33.3 x 46.5 x 25.0 inch	33.3 x 56.5 x 25.0 inch	33.3 x 56.5 x 25.0 inch	33.3 x 56.5 x 25.0 inch
D x W x H	84.6 x 118.1 x 63.5cm	84.6 x 143.5 x 63.5cm	84.6 x 143.5 x 63.5cm	84.6 x 143.5 x 63.5cm
Interior Dimensions D x W x H	23.8 x 33.4 x 11.8 inch	23.8 x 33.4 x 11.8 inch	23.8 x 33.4 x 11.8 inch	23.8 x 33.4 x 11.8 inch
D x W x H	60.5 x 84.6 x 30.0cm	60.5 x 84.6 x 30.0cm	60.5 x 84.6 x 30.0cm	60.5 x 84.6 x 30.0cm
Electrical				
120V	60 Hz, 6.4 Amps.	60 Hz, 6.4 Amps.	60 Hz, 9.0 Amps.	60 Hz, 9.0 Amps.
230V	50 Hz, 3.0 Amps.	50 Hz, 3.0 Amps.	50 Hz, 4.5 Amps.	50 Hz, 4.5 Amps
Operating Range	SHKE8000 = 108-132V	SHKE8000 = 108-132V	SHKE8000-7 = 108-132V	SHKE8000-7 = 108-132V
	SHKE8000-1CE = 207-253V	SHKE8000-1CE = 207-253V	SHKE8000-8CE = 207-253V	SHKE8000-8CE = 207-253V
Plug	SHKE8000 = 115V: NEMA 5-15P	SHKE8000 = 115V: NEMA 5-15P	SHKE8000-7 = 115V: NEMA 5-15P	SHKE8000-7 = 115V: NEMA 5-15P
	SHKE8000-1CE = 230V: CEE 7/7	SHKE8000-1CE = 230V: CEE 7/7	SHKE8000-8CE = 230V: CEE 7/7	SHKE8000-8CE = 230V: CEE 7/7
Weight*				
Net	545 lbs (247.2kg)	545 lbs (247.2kg)	610 lbs (276.7kg)	610 lbs (276.7kg)
Shipping (Motor)	658 lbs (298.5kg)	658 lbs (298.5kg)	723 lbs (328kg)	723 lbs (328kg)

Specifications are based on nominal voltages of 120V or 230V in ambients of 22°C to 25°C (71.6°F to 77°F). Performance is plus or minus the least significant digit unless specified otherwise. All units are UL listed to United States, Mexico and Canadian requirements and bear the CE mark.

*Inside delivery is recommended when ordering the MaxQ 8000 stackable shakers. Please contact your distribution partner for further details.

Our Adhesive Flask Mat is an alternative to flask clamps for securing odd shaped objects such as bottles, volumetric flasks and test tube racks to a shaker platform. Simply place the 9" x 9" (23 x 23cm) Adhesive Flask Mat on an anodized aluminum or stainless steel shaker platform and secure the vessel to it.

Warranty

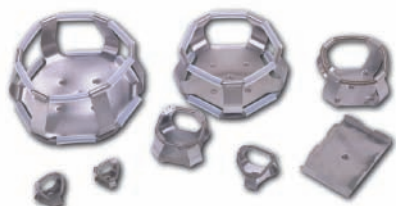Five years on parts, one year on labor and lifetime* on drive mechanism.**

* Lifetime = 10 years
**Extended warranties are dependent on the units being maintained regularly as stated in the operation and service manuals.

Universal Platform (without clamps)[1]

Cat. No.	Platform Size	25ml	50ml	125ml	250/300ml	500ml	1L	2L	2800ml	Microplate[2]
238061	29.5" x 18" (74.9 x 45.7cm)	91	91	39	30	24	12	11	6	18

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

Clamps for Universal Platform

Cat. No.	Description
236010	25ml Erlenmeyer flask clamp
236011	50ml Erlenmeyer flask clamp
236012	125ml Erlenmeyer flask clamp
236013	250/300ml Erlenmeyer flask clamp
236014	500ml Erlenmeyer flask clamp
236015	1L Erlenmeyer flask clamp
236016	2L Erlenmeyer flask clamp
236099	Flask clamp starter kit, includes (2) 236010, (2) 236011, (2) 236012, (4) 236013, (4) 236014, (2) 236015, (2) 236016, and (1) 194046
236019	2800ml Fernbach flask clamp
236025	Microplate clamp
300349	Adhesive flask clamp, 9" x 9" (23 x 23cm)
194046	Replacement screws. (50) #10-24 x 5/16" Countersink Phillips head screws for clamps; (12) 1/4-20 x 3/4" Countersink flat head socket for platforms

Dedicated Platforms (complete with clamps)[3]

Cat. No.	No. of Clamps	Size
238066	91	25ml Erlenmeyer flask clamp
238067	91	50ml Erlenmeyer flask clamp
238068	40	125ml Erlenmeyer flask clamp
238069	30	250/300ml Erlenmeyer flask clamp
238070	40	250/300ml Erlenmeyer flask clamp
238071	24	500ml Erlenmeyer flask clamp
238072	15	1L Erlenmeyer flask clamp
238073	12	2L Erlenmeyer flask clamp
238074	6	2800ml Fernbach flask clamp

[1] The platform also accomodates clamps and accessories from other manufacturers.
[2] Microplates can be stacked for greater capacity
[3] For models SHKE8000/SHKE8000-1CE/SHKE8000-7/SHKE8000-8CE plaform size 29.5" x 18.0" (74.9cm x 45.7cm)
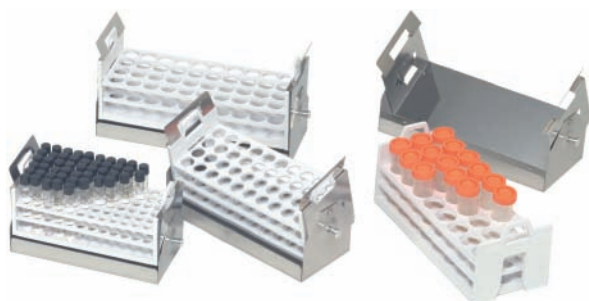
Universal Test Tube Rack Holder and Test Tube Racks

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.

Universal Test Tube Rack Holders and Test Tube Racks

Cat. No.	No of Test Tube Racks	Description
600088		Universal adjustable angle test tube rack holder
950040	5 angled	Test tube rack[1], 72 places, 10-13mm (3-7ml) tubes
950060	4 angled	Test tube rack[1], 40 places, 16-20mm (10-20ml) tubes
600074	4 angled	Test tube rack[1], 40 places, 21-25mm (30ml) tubes
600075	4 angled	Test tube rack[1], 24 places, 26-30mm (50ml) tubes
194024		Replacement screws (50) #10-24 x 3/8" pan head Phillips screws for mounting tube holders to platforms

Dedicated Test Tube Rack Holders and Test Tube Racks

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

Dedicated Test Tube Rack Holders and Test Tube Racks

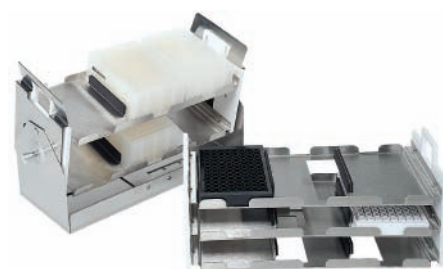| Cat. No.	No of Test Tube Racks	Description
600076	5 angled	Adjustable angle test tube rack holder with test tube rack, 72 places, 10-13mm (3-7ml) tubes
600077	4 angled	Adjustable angle test tube rack holder with test tube rack, 40 places, 16-20mm (10-20ml) tubes
600078	4 angled	Adjustable angle test tube rack holder with test tube rack, 40 places, 21-25mm (30ml) tubes
600079	4 angled	Adjustable angle test tube rack holder with test tube rack, 24 places, 26-30mm (50ml) tubes
194024		Replacement screws (50) #10-24 x 3/8" pan head Phillips screws for mounting tube holders to platforms

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.

Microplate Rack Inserts

Our Microplate Rack Inserts are available for the Dedicated Adjustable Angle Test Tube Rack Holder (50ml)-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.

Microplate Rack Inserts, Vial/Tube Inserts

Cat. No.	Description	29.5" x 18"
236025	Fixed angle microplate clamp (1 plate)	18 clamps, 18 plates[2]
600090	Microplate rack insert for standard plates (3 shelves)	7 racks, 63 plates
600089	Microplate rack insert for deep-well plates (2 shelves)	5 racks, 30 plates[3]
161033	Pack of 5 vial/tube inserts, perforated for three 50ml tubes, three 20ml tubes and eight 1.5-2ml vials	

[1] Requires the universal test tube rack holder or a dedicated adjustable angle test tube rack holder of the corresponding size.

[2] Shaken upright

[3] Shaken at a 15 degree angle

Utility Tray
Utility Trays attach to all platforms and provide a non-slip surface to hold petri-dishes, Pyrex dishes, microplates and smaller flasks at low RPM's.

Utility trays for Platforms

Cat. No.	Description
236026	9.0" x 18.0" (22.9 x 45.7cm) utility tray with 0.5" (1.3cm) thick rubber pad
236027	18.0" x 18.0" (45.7 x 45.7cm) utility tray with 0.5" (1.3cm) thick rubber pad

Miscellaneous Accessories

Cat. No.	Description
194222	Stand for one stackable shaker, 45.5"W x 29.6" H x 35.3"D (115.6cm x 75.2cm x 89.7cm) 30.6 " (77.7cm) maximum height with leveling feet extended
194223	Stand for two stackable shakers, 45.5"W x 11.8"H x 30.5"D (115.6cm x 30.0 cm x 77.5cm); 12.8" (32.5 cm) maximum height with leveling feet extended
194224	Door glass cover (prevents light from entering window)
201126	0-100C, 6", 7 day chart recorder, 115V, 60 Hz
201127	0-100C, 6", 7 day chart recorder, 220V, 50 Hz
197075	Replacement chart paper, 50/box
760440	Replacement HEPA filter
400047	Four channel Sensaphone telephone dialing system
400134	Eight channel Sensaphone telephone dialing system
1535	Model 1535 monitor/alarm system interfaces with as many as 24 products/channels monitoring conditions up to 2000 ft (609.6m) away

cGxP Protocols and on Site Validation Services[1]

Cat. No.	Description
IOQDOCE89003508	GLP Level Protocols (IQ OQ)
IOPQDOCE89003508	GMP Level Protocols (IQ OQ PQ)
IOQPCKE89003508	GLP Level (IQ OQ) Validation performed at the customer site (protocol included at no extra charge)
IOPQPCKE89003508	GMP Level (IQ OQ PQ) Validation performed at the customer site (protocol included at no extra charge)

[1] Specification sheets for protocol and field validations are available upon request by emailing presales at LPG.presales@thermofisher.com or calling 866-984-3766.

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