

VWR[®]

Laboratory Equipment

VWR[®] SMALL LAB EQUIPMENT 5-YEAR WARRANTY



Competitive advantages of VWR®

- 5-year warranty on parts and labor for all products
- Assembled in the U.S.
- All products are CE marked, 50/60 Hz and tested for safety and electrical by TÜV
- Competitive pricing
- Custom manufacturing
- All digital models include a timer



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VWR® STANDARD 3500 ORBITAL SHAKER

- Microprocessor controls
- Continuous or timed operation
- 16 kg weight capacity

The VWR Standard 3500 Orbital Shaker is designed for a wide range of applications that require basic shaking control, providing reproducible motion that is evenly distributed throughout the entire surface of the tray.

OPERATING FEATURES

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit automatically restarts after a power interruption.

Triple-eccentric drive: Permanently lubricated ball bearings and maintenance-free, brushless DC motor provide reliable service and continuous-duty operation.

Adjustment knobs: Basic speed and time knobs with dial settings from 1 to 10.

SAFETY FEATURES

Speed ramping feature: Slowly increases speed to desired set point to avoid splashing.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms, incubators and CO₂ environments at 0 to 40 °C, maximum 80% relative humidity.

Applications: Bacterial suspensions, staining/destaining and general mixing.

ORDERING INFORMATION

Includes: Unit includes a (234 cm) detachable three-wire cord. Unit is also supplied with a 27.9 × 33 cm nonskid rubber mat. 5-year limited warranty on parts and labor.



Shaker with optional platform 444-7087 and flask clamps 444-7044 and 444-7030

Specifications

Speed range	25 to 500 rpm
Timer	1 to 120 min
Orbit	19 mm
Maximum weight capacity	16 kg
Tray material	Aluminum
Tray dimensions (L × W)	27.9 × 33 cm
Overall dimensions (L × W × H)	41.3 × 35.6 × 14.6 cm
Ship weight	22.2 kg

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Standard 3500 Orbital Shaker	EU	230 V 2.5 A 75 W	444-2903
Standard 3500 Orbital Shaker	UK	230 V 2.5 A 75 W	444-2904
Standard 3500 Orbital Shaker	CH	230 V 2.5 A 75 W	444-2905

VWR® ADVANCED 3500 ORBITAL SHAKER

- LED screens to display speed and time
- Accu-Drive Shaking System
- Calibration mode for speed

The VWR Advanced 3500 Orbital Shaker is designed for a wide range of applications, including cell cultures that require accurate and repeatable results. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

OPERATING FEATURES

Accu-Drive Shaking System: The exclusive Accu-Drive Shaking System delivers exceptional speed control, accuracy and durability. The shaking system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set to below 100 rpm, speed accuracy is ± 1 rpm.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit displays the last set point and restarts if power is interrupted.

Triple-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

RS-232 interface: Provides two-way communication for data logging and unit control.

Speed calibration mode: Allows user to automatically recalibrate speed display.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed to protect samples.

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.



Shaker with optional platform 444-2938

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has an optional mute function that can be set from the touchpad control.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies and extraction procedures.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. Unit is also supplied with a 27.9 × 33 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Specifications

Speed range	15 to 500 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Orbit	19 mm
Maximum weight capacity	16 kg
Tray material	Aluminum
Tray dimensions (L × W)	27.9 × 33 cm
Overall dimensions (L × W × H)	41.3 × 35.6 × 14.6 cm
Ship weight	22.2 kg

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Advanced 3500 Orbital Shaker	EU	230 V 2.5 A 75 W	444-2906
Advanced 3500 Orbital Shaker	UK	230 V 2.5 A 75 W	444-2907
Advanced 3500 Orbital Shaker	CH	230 V 2.5 A 75 W	444-2908

VWR® ADVANCED 3750 RECIPROCATING SHAKER

- LED screens for speed and time
- Exceptional speed control, accuracy and durability
- Calibration mode for speed

The VWR Advanced 3750 Reciprocating Shaker is designed for a wide range of applications, including cell cultures that require accurate and repeatable results. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

OPERATING FEATURES

Continuous shaking system: The shaking system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set to below 100 rpm, speed accuracy is ± 1 rpm.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit displays the last set point and restarts if power is interrupted.

Single-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

RS-232 interface: Provides two-way communication for data logging and unit control.

Speed calibration mode: Allows user to automatically recalibrate speed display.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed to protect samples.

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.



Shaker with optional platform 444-2953

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has an optional mute function that can be set from the touchpad control.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies and extraction procedures.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. Unit is also supplied with a 27.9 × 33 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Advanced 3750 Reciprocating Shaker	EU	230 V 2.5 A 40 W	444-2909
Advanced 3750 Reciprocating Shaker	UK	230 V 2.5 A 40 W	444-2910
Advanced 3750 Reciprocating Shaker	CH	230 V 2.5 A 40 W	444-2911

Specifications

Speed range	20 to 300 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Stroke	19 mm
Maximum weight capacity	6.8 kg
Tray material	Aluminum
Tray dimensions (L × W)	27.9 × 33 cm
Overall dimensions (L × W × H)	41.3 × 35.6 × 14.6 cm
Ship weight	22.2 kg



Shaker with optional platform 444-2939

VWR® STANDARD 5000 ORBITAL SHAKER

- Microprocessor controls
- Continuous or timed operation
- 23 kg weight capacity

The VWR Standard 5000 Orbital Shaker is designed for applications with heavy-duty loads, providing reproducible motion that is evenly distributed throughout the entire surface of the tray.

OPERATING FEATURES

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit automatically restarts after a power interruption.

Triple-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous-duty operation.

Adjustment knobs: Basic speed and time knobs with dial settings from 1 to 10.

Specifications

Speed range	25 to 500 rpm
Timer	1 to 120 min
Orbit	25 mm
Maximum weight capacity	23 kg
Tray material	Aluminum
Tray dimensions (L × W)	45.7 × 61 cm
Overall dimensions (L × W × H)	59.7 × 67.8 × 15.2 cm
Ship weight	49.5 kg

SAFETY FEATURES

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from 0 to 40 °C, maximum 80% relative humidity.

Applications: Bacterial suspensions, staining/destaining and general mixing.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. Units are also supplied with a 45.7 × 61 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Standard 5000 Orbital Shaker	EU	230 V 2.5 A 75 W	444-2912
Standard 5000 Orbital Shaker	UK	230 V 2.5 A 75 W	444-2913
Standard 5000 Orbital Shaker	CH	230 V 2.5 A 75 W	444-2914

VWR® ADVANCED 5000 ORBITAL SHAKER

- LED screens for speed and time
- Accu-Drive Shaking System
- 23 kg weight capacity

The VWR Advanced 5000 Orbital Shaker is designed for a wide range of applications with larger or heavier loads that require accurate and repeatable results.

OPERATING FEATURES

Accu-Drive Shaking System: The exclusive Accu-Drive Shaking System delivers exceptional speed control, accuracy and durability. The shaking system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set to below 100 rpm, speed accuracy is ± 1 rpm.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit displays the last set point and restarts if power is interrupted.

Triple-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

RS-232 interface: Provides two-way communication for data logging and unit control.

Speed calibration mode: Allows user to automatically recalibrate speed display.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed to protect samples.

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Specifications

Speed range	20 to 500 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Orbit	25 mm
Maximum weight capacity	23 kg
Tray material	Aluminum
Tray dimensions (L x W)	45.7 x 61 cm
Overall dimensions (L x W x H)	59.9 x 67.8 x 15.2 cm
Ship weight	49.5 kg



Shaker with optional platform 444-2932 and PVC flask clamps

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has an optional mute function that can be set from the touchpad control.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies and extraction procedures.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. Units are also supplied with a 45.7 x 61 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Advanced 5000 Orbital Shaker	EU	230 V 2.5 A 75 W	444-2915
Advanced 5000 Orbital Shaker	UK	230 V 2.5 A 75 W	444-2916
Advanced 5000 Orbital Shaker	CH	230 V 2.5 A 75 W	444-2917

VWR® ADVANCED 10000 ORBITAL SHAKERS

- Accu-Drive Shaking System
- 45 kg weight capacity
- Available with an either 25 or 51 mm orbit

VWR Advanced 10000-1 and 10000-2 Orbital Shakers are large-capacity shakers with a more powerful drive mechanism and larger orbits for the optimal shaking of large vessels.

OPERATING FEATURES

Accu-Drive Shaking System: The exclusive Accu-Drive Shaking System delivers exceptional speed control, accuracy and durability. The system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set to below 100 rpm, speed accuracy is ± 1 rpm.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Units display the last set point and restart if power is interrupted.

Triple-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

RS-232 interface: Provides two-way communication for data logging and unit control.

Speed calibration mode: Allows user to automatically recalibrate speed display.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed to protect samples.

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.



Advanced 10000 Orbital Shaker

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has an optional mute function that can be set from the touchpad control.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Units can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies and extraction procedures.

ORDERING INFORMATION

Units include a 234 cm detachable three-wire cord. Units are also supplied with a 61 × 61 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Specifications

Speed range	100000-1: 15 to 500 rpm 100000-2: 15 to 300 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Orbit	100000-1: 25 mm 100000-2: 51 mm
Maximum weight capacity	45 kg
Tray material	Aluminum
Tray dimensions (L × W)	61 × 61 cm
Overall dimensions (L × W × H)	71.8 × 67.8 × 17.8 cm
Ship weight	90.8 kg

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Advanced 10000-1 Orbital Shaker	EU	230 V 2.5 A 80 W	444-2918
Advanced 10000-1 Orbital Shaker	UK	230 V 2.5 A 80 W	444-2919
Advanced 10000-1 Orbital Shaker	CH	230 V 2.5 A 80 W	444-2920
Advanced 10000-2 Orbital Shaker	EU	230 V 2.5 A 80 W	444-2921
Advanced 10000-2 Orbital Shaker	UK	230 V 2.5 A 80 W	444-2922
Advanced 10000-2 Orbital Shaker	CH	230 V 2.5 A 80 W	444-2923

VWR® ADVANCED 15000 ORBITAL SHAKERS

- Accu-Drive Shaking System
- Available with an either 25 or 51 mm orbit
- Calibration mode for speed

VWR Advanced 15000-1 and 15000-2 Orbital Shakers are the largest-capacity shakers designed for the heaviest of loads. They have the most powerful drive mechanism of all the shakers and large orbits for the optimal shaking of larger vessels.

OPERATING FEATURES

Accu-Drive Shaking System: The exclusive Accu-Drive Shaking System delivers exceptional speed control, accuracy and durability. The system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set to below 100 rpm, speed accuracy is ± 1 rpm.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Units display the last set point and restart if power is interrupted.

Triple-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous-duty operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

RS-232 interface: Provides two-way communication for data logging and unit control.

Speed calibration mode: Allows user to automatically recalibrate speed display.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed to protect samples.

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Specifications

Speed range	15000-1: 15 to 500 rpm 15000-2: 15 to 300 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Orbit	15000-1: 25 mm 15000-2: 51 mm
Maximum weight capacity	68 kg
Tray material	Aluminum
Tray dimensions (L x W)	61 x 91 cm
Overall dimensions (L x W x H)	71.8 x 67.8 x 17.8 cm
Ship weight	104.4 kg



Shaker with optional platform 444-2935 and PVC flask clamps

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has an optional mute function that can be set from the touchpad control.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Units can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies and extraction procedures.

ORDERING INFORMATION

Units include a 234 cm detachable three-wire cord. Units are also supplied with a 61 x 91 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Advanced 15000-1 Orbital Shaker	EU	230 V 2.5 A 80 W	444-2924
Advanced 15000-1 Orbital Shaker	UK	230 V 2.5 A 80 W	444-2925
Advanced 15000-1 Orbital Shaker	CH	230 V 2.5 A 80 W	444-2926
Advanced 15000-2 Orbital Shaker	EU	230 V 2.5 A 80 W	444-2927
Advanced 15000-2 Orbital Shaker	UK	230 V 2.5 A 80 W	444-2928
Advanced 15000-2 Orbital Shaker	CH	230 V 2.5 A 80 W	444-2929

VWR® MINI SHAKER AND MINI SHAKER 20

The VWR Mini Shaker and Mini Shaker 20 are ideal for a wide variety of shaking applications. The included tray has a nonskid mat that can be removed to mount a variety of optional accessories.

- 5-year warranty
- 3 or 20 mm orbit
- LCD screen displays speed and time
- Includes tray/platform and mat, ready to mount a variety of optional accessories

OPERATING FEATURES

Microprocessor control: VWR shakers feature variable-speed microprocessor control, providing reliable, uniform mixing action. Units display the most recently used settings and restart if power is interrupted.

LCD screen: The LCD screen displays speed and time for repeatable and accurate results. Easy-to-use control knobs allow for effortless input of settings and rapid access to the menu options. Speed is controllable within ± 1 rpm. Timer displays the elapsed time or, when the unit is programmed to run for a user-defined duration (up to 99 h, 59 min), counts down to zero, at which point an alarm sounds and the unit automatically shuts off.

Recall feature: This feature allows the user to recall the last five settings used.

Triple-eccentric drive: The triple-eccentric drive system and maintenance-free brushless DC motor allow for continuous operation and a long, reliable service life.

Communications: An RS-232 interface provides two-way communication for data logging and unit control.

SAFETY FEATURES

Speed ramping: Speed slowly increases to a user-set point to protect against splashing.

Low-profile design: These mini shakers take up less space and easily fit within most hoods and incubators. The durable base is easy to clean and resists corrosion.

Overload protection: Audible and visual signals activate when the system detects an obstruction or overloading.

OPERATING CONDITIONS

Units can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 40 °C, maximum 80% relative humidity.

APPLICATIONS

Cell cultures, immunoassays, extraction procedures, diagnostic testing, general mixing, hybridization, bacterial suspensions, staining/destaining, washing procedures, solubility analyses and genetics and protein research.

ORDERING INFORMATION

Units include a nonslip mat, a 234 cm detachable three-wire cord and plug (230 V units are supplied with Euro- and UK-type plugs with CH adapter).



444-1422 with optional flask clamps 444-7044

Specifications

Speed range	Mini Shaker: 100 to 1,200 rpm Mini Shaker 20: 50 to 300 rpm
Speed accuracy	Above 100 rpm, ±2% of set speed Below 100 rpm, ±2 rpm
Timer	Up to 99 h, 59 min
Orbit	Mini Shaker: 3 mm Mini Shaker 20: 20 mm
Maximum weight capacity	4 kg
Tray material	Aluminum
Tray dimensions (L × W)	30 × 22.2 cm
Overall dimensions (L × W × H)	43 × 26 × 12 cm
Ingress Protection rating	IP21
Ship weight	9.9 kg

Description	Speed range	Platform WxD	Orbit	Power supply	Cat. No.
Mini Shaker	100–1,200 rpm	300 × 222 mm	3 mm	24 V DC	444-1418
Mini Shaker 20	50–300 rpm	300 × 222 mm	20 mm	24 V DC	444-1422

VWR® MICROPLATE SHAKER

The VWR Microplate Shaker features variable-speed microprocessor control, providing reliable, uniform mixing action. Ideal for immunoassays and general microplate shaking and includes a platform to accommodate up to four plates.

- 5-year warranty
- 3 mm orbit for optimal microplate mixing
- LCD screen displays speed and time
- Includes platform ready to secure 2–4 microplates or deep-well plates or 2 microtube racks

OPERATING FEATURES

Microprocessor control: VWR shakers feature variable-speed microprocessor control, providing reliable, uniform mixing action. Unit displays the most recently used settings and restarts if power is interrupted.

LCD screen: The LCD screen displays speed and time for repeatable and accurate results. Easy-to-use control knobs allow for effortless input of settings and rapid access to the menu options. Speed is controllable within ± 1 rpm. Timer displays the elapsed time or, when the unit is programmed to run for a user-defined duration (up to 99 h, 59 min), counts down to zero, at which point an alarm sounds and the unit automatically shuts off.

Recall feature: This feature allows the user to recall the last five settings used.

Triple-eccentric drive: The triple-eccentric drive system and maintenance-free brushless DC motor allow for continuous operation and a long, reliable service life.

Communications: An RS-232 interface provides two-way communication for data logging and unit control.

SAFETY FEATURES

Speed ramping: Speed slowly increases to a user-set point to protect against splashing.

Low-profile design: These microplate shakers take up less space and easily fit within most hoods and incubators. The durable base is easy to clean and resists corrosion.

Overload protection: Audible and visual signals activate when the system detects an obstruction or overloading.

OPERATING CONDITIONS

Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 40 °C, maximum 80% relative humidity.

APPLICATIONS

ELISAs, immunoassays, general mixing, hybridization, bacterial suspensions and genetics research.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and plug (230 V unit is supplied with Euro- and UK-type plugs with CH adapter).



Specifications

Speed range	100 to 1,200 rpm
Timer	Up to 99 h, 59 min
Orbit	3 mm
Maximum capacity	4 plates or 2 microtube racks
Tray material	Aluminum
Tray dimensions (L x W)	30 x 22.2 cm
Overall dimensions (L x W x H)	43 x 26 x 12 cm
Ingress Protection rating	IP21
Ship weight	9.9 kg

Description	Power supply	Cat. No.
Microplate Shaker, 230 V	24 V DC	444-1423

VWR® ROCKING PLATFORM SHAKER

- Electronic tilt adjustment from 0 to 15° while unit is operating
- Displays for speed, tilt angle and time
- Timer with audible alarm

The VWR Rocking Platform Shaker is ideal for cell culture work and is designed to be used in a variety of environmental conditions.

OPERATING FEATURES

Low-profile design: Takes up less space and easily fits into most hoods and incubators. Cast aluminum base offers durability and added stability.

Microprocessor control: The microprocessor control provides electronic tilt-angle adjustment, which allows the user to easily adjust the rocking angle from 0 to 15° during operation. Precise speed control provides smooth, low-speed rocking motion down to 1 rpm.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed, tilt angle and time allow the operator to view all settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

SAFETY FEATURES

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Specifications

Speed range	1 to 50 rpm*
Speed accuracy	±1 rpm
Tilt angle	0 to 15°*
Timer	1 to 160 h
Maximum weight capacity	4.5 kg**
Tray material	Aluminum
Tray dimensions (L × W)	32.4 × 25.4 cm
Overall dimensions (L × W × H)	43.2 × 27.9 × 12.7 cm
Ship weight	7 kg

* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

** Centered on tray.



Applications: Staining and destaining gels, hybridization procedures, hematology and blotting techniques.

ORDERING INFORMATION

Units include a 234 cm detachable three-wire cord. Units are also supplied with a 32.4 × 25.4 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Rocking Platform Shaker	EU	230 V 5 A 25 W	444-0756
Rocking Platform Shaker	UK	230 V 5 A 25 W	444-0757
Rocking Platform Shaker	CH	230 V 5 A 25 W	444-0758

VWR® 3D ROTATOR WAYER

- Electronic tilt adjustment from 0 to 20° while unit is operating
- Displays for speed, tilt angle and time
- Timer with audible alarm

The VWR 3D Rotator Waver provides precise speed control and a smooth, low-foaming, three-dimensional "wave" motion. Ideal for use in a wide range of laboratory applications and designed to be used in a variety of environmental conditions. Tray includes a nonskid rubber mat that is suitable for holding Petri dishes.

OPERATING FEATURES

Low-profile design: Takes up less space and easily fits into most hoods and incubators. Cast aluminum base offers durability and added stability.

Microprocessor control: The microprocessor control provides electronic tilt-angle adjustment, which allows the user to easily adjust the waving angle from 0 to 20° during operation. Precise speed control provides smooth, low-speed waving motion down to 1 rpm.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed, tilt angle and time allow the operator to view all settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last settings, even after power has been turned off.

SAFETY FEATURES

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

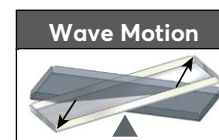
Audible alarm: In timed mode, the alarm will sound when the time reaches zero.

Spill-resistant design: Channels fluids away from internal components.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms, incubators and CO₂ environments from -10 to 60 °C, maximum 80% relative humidity.

Applications: Blood samples, DNA extractions, blotting techniques and general mixing of various-size tubes.



ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. Units are also supplied with a 29.9 × 22.2 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Plug Version	Electrical (50/60 Hz)	Cat. No.
3D Rotator Waver	EU	230 V 5 A 25 W	444-0759
3D Rotator Waver	UK	230 V 5 A 25 W	444-0760
3D Rotator Waver	CH	230 V 5 A 25 W	444-0761

Specifications

Speed range	1 to 30 rpm*
Speed accuracy	±1 rpm
Tilt angle	0° to 20°**
Timer	1 to 160 h
Maximum weight capacity	2.3 kg**
Tray material	Aluminum
Tray dimensions (L × W)	29.9 × 22.2 cm
Overall dimensions (L × W × H)	43.2 × 27.9 × 15.2 cm
Ship weight	7.3 kg

* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

** Centered on tray.



444-7016

VWR® ADVANCED HIGH-SPEED MICROPLATE SHAKER

- Programmable pulse feature
- Shakes traditional or deep-well microplates
- Shakes up to 48 microplates at one time

The VWR Advanced High-Speed Microplate Shaker handles shaking for difficult applications. This shaker operates at up to 2,500 rpm while holding deep-well blocks and small-diameter test tubes no taller than (12.7 cm), with variable speed control from 600 to 2,500 rpm.

OPERATING FEATURES

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

Programmable “pulsing” feature: Enhances shaking action and allows user to program the unit to stop and start in a wide range of intervals.

RS-232 interface: Provides two-way communication for data logging and unit control.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing cold rooms and incubators from 4 to 40 °C, 20% to 80% relative humidity.

Applications: Emulsifications and cell lysing.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. EU- and UK-type plugs and with Swiss adapter. 5-year limited warranty on parts and labor.

Description	Electrical (50/60 Hz)	Cat. No.
Advanced High-Speed Microplate Shaker	230 V 1 A 120 W	444-7016

Specifications

Speed range	600 to 2,500 rpm
Timer	1 to 160 h
Orbit	3.6 mm
Maximum capacity	48 microplates or up to 3.2 kg
Tray material	Aluminum
Tray dimensions (L × W)	31.1 × 27.9 cm
Overall dimensions (L × W × H)	39.4 × 30.5 × 32.5 cm
Ship weight	22.7 kg

VWR® THERMAL SHAKE TOUCH

- Intuitive 10.9 cm color LCD touchscreen
- Ability for rapid heating and high-speed shaking
- Internal memory stores five separate five-step programs
- Supplied with 1.5 ml block

The VWR Thermal Shake Touch is designed for applications that require consistent and precise results. With heating and shaking capabilities, this unit uses interchangeable blocks to accommodate a wide variety of tubes and microplates. The easy-to-use 10.9 cm color LCD touchscreen allows the user to save and visibly track progress through the live status bar for five user-defined programs, each with five individual steps. The unit's enhanced electronics and temperature sensor provide accurate, dependable temperature settings across the operating range.

OPERATING FEATURES

Low-profile design: The low-profile design minimizes the unit's footprint on the bench.

LCD touchscreen: Enables faster setting of temperature, speed and time, which can all be viewed at once. Display features on-screen help topics with operational tips available in six languages. Touchscreen is compatible with rubber gloves used in labs. USB port can be used to transfer information to a flash drive for data logging, program storage and software updates.

Program control: Program control capabilities allow user-programmable operation for automated use and memory. Storage for five separate five-step programs, or use an unlimited number of programs via the USB port.

Temperature ramp rate: Adjustable temperature ramp rate feature separately defines the heating rate in increments of 0.5 °C/min.

Single-point calibration mode: For maximum temperature accuracy, single-point calibration allows the user to calibrate up to six different user-defined temperatures.

Pulse mode feature: The unit is equipped with a pulse mode feature ideal for quick vortex applications.

SAFETY FEATURES

Cool-touch housing: Constructed from a high-quality heat- and chemical-resistant polymer, the unit's housing remains cool to touch throughout normal operating temperatures.

Maximum temperature limit: Ensures the temperature will not exceed user-defined limits, providing the user control of temperature-sensitive samples.

Specifications

Temperature range	Ambient +4 to 100 °C
Temperature accuracy	±1 °C between 20 and 45 °C ±2 °C above 45 °C
Speed range	300 to 3,000 rpm
Speed accuracy	±2%
Timer	1 min to 99 h, 59 min
Orbit	3 mm
Heating rate	5 °C/min
Overall dimensions (L × W × H)	26 × 24.8 × 13.2 cm
Ship weight	7.7 kg



460-0202

Heat caution indicator: A hot-symbol warning light will illuminate when the temperature reaches 40 °C and will remain lit until the unit is sufficiently cooled.

Audible alarm: In timed mode, an alarm will sound when the time reaches zero or the set point temperature is reached. Additionally, the heater will automatically shut off if the unit recognizes an internal issue.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 5 to 35 °C, maximum 80% relative humidity.

Applications: Cell cultures, DNA, RNA, hybridization and protein studies.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord with country-specific plug. Unit is also supplied with a 1.5 ml block, clear rack and cover. 5-year limited warranty on parts and labor. Compatible with Eppendorf® Thermomixer R® blocks.

Provided with an optional NIST-traceable ISO/IEC 17025-accredited calibration certificate from Troemner, which includes multiple data points within the speed range and time function with the associated uncertainties. Troemner is accredited by NVLAP under Laboratory Code 105013-0 to perform ISO/IEC 17025 calibrations.

Description	Electrical (50/60 Hz)	Cat. No.
Thermal Shake Touch (EU)	230 V 0.9 A 210 W	460-0202
Thermal Shake Touch (EU), with NIST-traceable certificate	230 V 0.9 A 210 W	460-0203
Thermal Shake Touch (UK)	230 V 0.9 A 210 W	460-0204
Thermal Shake Touch (UK), with NIST-traceable certificate	230 V 0.9 A 210 W	460-0205
Thermal Shake Touch (CH)	230 V 0.9 A 210 W	460-0206
Thermal Shake Touch (CH), with NIST-traceable certificate	230 V 0.9 A 210 W	460-0207

VWR® COOLING THERMAL SHAKE TOUCH

- Intuitive 4.3" color LCD touchscreen
- Ability for rapid heating and cooling and high-speed shaking
- Internal memory stores five separate five-step programs
- Supplied with 1.5 ml block

The VWR Cooling Thermal Shake Touch is designed for applications that require consistent and precise results. With heating, cooling and shaking capabilities, this unit uses interchangeable blocks to accommodate a wide variety of tubes and microplates. The easy-to-use 4.3" color LCD touchscreen allows the user to save and visibly track progress through the live status bar for five user-defined programs, each with five individual steps. The unit's enhanced electronics and dual-temperature sensors provide accurate, dependable temperature settings across the operating range.

OPERATING FEATURES

Low-profile design: The low-profile design minimizes the unit's footprint on the bench.

LCD touchscreen: Enables faster setting of temperature, speed and time, which can all be viewed at once. Display features on-screen help topics with operational tips available in six languages. Touchscreen is compatible with rubber gloves used in labs. USB port can be used to transfer information to a flash drive for data logging, program storage and software updates.

Program control: Program control capabilities allow user-programmable operation for automated use and memory. Storage for five separate five-step programs, or use an unlimited number of programs via the USB port.

Temperature ramp rate: Adjustable temperature ramp rate feature separately defines the heating and cooling rates in increments of 0.5 °C/min.

Single-point calibration mode: For maximum temperature accuracy, single-point calibration allows the user to calibrate up to six different user-defined temperatures.

Pulse mode feature: The unit is equipped with a pulse mode feature ideal for quick vortex applications.

SAFETY FEATURES

Cool-touch housing: Constructed from a high-quality heat- and chemical-resistant polymer, the unit's housing remains cool to touch throughout normal operating temperatures.

Maximum temperature limit: Ensures the temperature will not exceed user-defined limits, providing the user control of temperature-sensitive samples.

Specifications

Temperature range	Ambient -17 to 100 °C
Temperature accuracy	±0.5 °C between 20 and 45 °C ±2 °C below 20 °C and above 45 °C
Speed range	300 to 3,000 rpm
Speed accuracy	±2%
Timer	1 min to 99 h, 59 min
Orbit	3 mm
Heating rate	5 °C/min
Cooling rate	Above ambient: 2 to 3 °C/min Below ambient: 0.5 to 1.0 °C/min
Overall dimensions (L x W x H)	26 x 24.8 x 13.2 cm
Ship weight	5.4 kg



460-0196 with 1.5 ml block

Heat caution indicator: A hot-symbol warning will illuminate when the temperature reaches 40 °C and will remain lit until the unit is sufficiently cooled.

Audible alarm: In timed mode, an alarm will sound when the time reaches zero or the set point temperature is reached. Additionally, the heater will automatically shut off if the unit recognizes an internal issue.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 5 to 35 °C maximum 80% relative humidity.

Applications: Cell cultures, DNA, RNA, hybridization and protein studies.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord with country-specific plug. Unit is also supplied with a 1.5 ml block, rack and cover. 5-year limited warranty on parts and labor. Compatible with Eppendorf® Thermomixer R® blocks.

Provided with an optional NIST-traceable ISO/IEC 17025-accredited calibration certificate from Troemner, which includes multiple data points within the speed range and time function with the associated uncertainties. Troemner is accredited by NVLAP under Laboratory Code 105013-0 to perform ISO/IEC 17025 calibrations.

Description	Electrical (50/60 Hz)	Cat. No.
Cooling Thermal Shake Touch (EU)	230 V 0.9 A 210 W	460-0196
Cooling Thermal Shake Touch (EU), with NIST-traceable certificate	230 V 0.9 A 210 W	460-0197
Cooling Thermal Shake Touch (UK)	230 V 0.9 A 210 W	460-0198
Cooling Thermal Shake Touch (UK), with NIST-traceable certificate	230 V 0.9 A 210 W	460-0199
Cooling Thermal Shake Touch (CH)	230 V 0.9 A 210 W	460-0200
Cooling Thermal Shake Touch (CH), with NIST-traceable certificate	230 V 0.9 A 210 W	460-0201



VWR® THERMAL SHAKE TOUCH MODULAR BLOCKS

MICROPLATE BLOCKS

Block type	No. of wells	Well size	Well depth	Dimensions	Cat. No.
Microplate thermal block with lid	1	7.87 × 12.95 cm	2.3 cm	11.9 × 16.3 × 7.6 cm	460-0208
384-Well plate thermal block with lid	384	0.4 cm	0.81 cm	11.9 × 16.3 × 7.6 cm	460-0331
0.2 ml PCR plate thermal block with lid	96	0.64 cm	1.27 cm	11.9 × 16.3 × 7.6 cm	460-0330

TUBE BLOCKS

Block type	No. of wells	Well size	Well depth	Dimensions	Cat. No.
0.5 ml Microtube block*	30	0.31" (0.79 cm)	0.97" (2.46 cm)	4.0 × 5.6 × 1.8" (10.2 × 14.2 × 4.6 cm)	460-0209
1.5 ml Microtube block*	24	0.44" (1.11 cm)	1.39" (3.53 cm)	4.0 × 5.6 × 2.1" (10.2 × 14.2 × 5.3 cm)	460-0210
2.0 ml Microtube block*	24	0.45" (1.15 cm)	1.39" (3.53 cm)	4.0 × 5.6 × 2.1" (10.2 × 14.2 × 5.3 cm)	460-0211

* Supplied with clear rack and cover.

CONICAL TUBE BLOCKS

Block type	No. of wells	Well size	Well depth	Dimensions	Cat. No.
5 ml Eppendorf tube block	9	0.66" (1.68 cm)	1.93" (4.9 cm)	4.2 × 5.8 × 5.0" (10.7 × 14.7 × 12.7 cm)	460-0329
15 ml Conical tube block	9	0.68" (1.73 cm)	4.11" (10.44 cm)	4.2 × 5.8 × 5.0" (10.7 × 14.7 × 12.7 cm)	460-0214
50 ml Conical tube block	4	1.18" (3.0 cm)	3.97" (10.09 cm)	4.0 × 5.7 × 4.8" (10.2 × 14.5 × 12.2 cm)	460-0215

VWR® INCUBATING 3500 ORBITAL SHAKER

The VWR Incubating 3500 Orbital Shaker offers exceptional temperature uniformity and is designed for a variety of shaking and incubating applications, such as cell culture.

OPERATING FEATURES

Accu-Drive Shaking System: The exclusive Accu-Drive Shaking System delivers exceptional speed control, accuracy and durability. The system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set to below 100 rpm, speed accuracy is ± 1 rpm.

Opti-Flow Forced Ventilation System: The exclusive Opti-Flow Forced Ventilation System uses twin induction fans and air deflectors to deliver exceptional temperature uniformity and stability.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit displays the last set point and restarts if power is interrupted.

PID temperature controller: Maintains precise temperature control from ambient +5 to 65 °C. Easy-to-use controls allow users to adjust temperature in 1 °C increments. Meets ASTM E1292 specifications for temperature uniformity.

Triple-eccentric drive: Permanently lubricated ball bearings and a maintenance-free, brushless DC motor provide reliable service and continuous operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for temperature, speed and time allow the operator to view all settings at once. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

Temperature calibration mode: Allows user to calibrate unit to an external temperature device.

Speed calibration mode: Allows user to automatically recalibrate speed display.

RS-232 interface: Provides two-way communication for data logging and unit control.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed to protect samples.

Specifications

Temperature range	Ambient +5 to 65 °C
Temperature uniformity	± 0.5 °C at 37 °C
Speed range	15 to 500 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Orbit	19 mm
Maximum weight capacity	15.9 kg
Tray material	Aluminum
Tray dimensions (L x W)	33 x 27.9 cm
Interior dimensions (L x W x H)	34 x 30.5 x 24.1 cm
Overall dimensions (L x W x H)	64.8 x 35.6 x 40.6 cm
Ship weight	37.7 kg



444-7084 with optional platform 444-7087 and flask clamps 444-7045



Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Overshoot protection: Audible and visual signals will activate if temperature deviates ± 1 °C from the set point.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has an optional mute function that can be set from the touchpad control.

Heat caution indicator: Symbol illuminates when the temperature of the air in the chamber reaches 40 °C and remains lit until temperature cools down.

Spill-resistant design: Channels fluids away from internal components.

Polycarbonate lid: Permits viewing of samples without disturbing internal temperature. When lid is opened, automatic shut-off of the circuit will stop the shaker tray to protect operator. Lid clearance when open is 78.7 cm.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 15 to 32 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies, bacterial suspensions and extraction procedures.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. EU- and UK-type plugs and with Swiss adapter. Unit is also supplied with a 33 x 27.9 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

Description	Electrical (50/60 Hz)	Cat. No.
Incubating 3500 Orbital Shaker	230 V 5 A 450 W	444-7084

VWR® INCUBATING 5000I ORBITAL SHAKER

- Opti-Flow Forced Ventilation System
- Accu-Drive Shaking System
- Calibration mode for temperature and speed

The VWR Incubating 5000I Orbital Shaker is designed for a variety of shaking and incubating applications, such as cell culture.

OPERATING FEATURES

Accu-Drive Shaking System: The exclusive Accu-Drive Shaking System delivers exceptional speed control, accuracy and durability. The system continuously monitors shaking speed and maintains the set point, even under changing loads. When the unit is set to a speed above 100 rpm, the speed accuracy is $\pm 1\%$ of the set speed. When set below 100 rpm, speed accuracy is ± 1 rpm.

Opti-Flow Forced Ventilation System: The exclusive Opti-Flow Forced Ventilation System uses twin induction fans and air deflectors to deliver exceptional temperature uniformity and stability.

Microprocessor control: The variable-speed microprocessor control provides consistent uniform shaking action. Unit displays the last set point and restarts if power is interrupted.

PID temperature controller: Maintains precise temperature control from ambient +5 to 65 °C. Easy-to-use controls allow user to adjust temperature in 1 °C increments.

Triple-eccentric drive: Permanently lubricated bearings and a maintenance-free, brushless DC motor provide reliable service and continuous operation.

LED screens: Touchpad controls with easy-to-read, independent LED screens for temperature, speed, and time allow the operator to view all settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. The timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last settings, even after power has been turned off.

Temperature calibration mode: Allows user to calibrate unit to an external temperature device.

Specifications

Temperature range	Ambient +5 to 65°C
Temperature uniformity	± 0.5 °C at 37 °C
Speed range	15 to 500 rpm
Speed accuracy	Above 100 rpm, $\pm 1\%$ of set speed Below 100 rpm, ± 1 rpm
Timer	1 to 160 h
Orbit	25 mm
Maximum weight capacity	22.7 kg
Tray material	Aluminum
Tray dimensions (L x W)	45.7 x 45.7 cm
Interior dimensions (L x W x H)	52.3 x 62.9 x 43.18 cm
Overall dimensions (L x W x H)	81.5 x 67.5 x 59.6 cm
Ship weight	103.4 kg

Description	Electrical (50/60 Hz)	Cat. No.
Incubating 5000I Orbital Shaker	230 V 8 A 800 W	444-7109



444-7109



Speed calibration mode: Allows user to automatically recalibrate speed display.

RS-232 Interface: Provides two-way communication for data logging and unit control.

SAFETY FEATURES

Load sensor: A built-in load sensor detects unbalanced conditions and automatically reduces speed, or stops unit, to protect samples.

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Overshoot protection: Unit will shut off and activate audible and visual alarms if temperature deviates ± 1 °C from the set point.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero. Alarm has optional mute function that can be set from the touchpad control.

Polycarbonate lid: Permits viewing of samples without disturbing internal temperature. When lid is opened, automatic shut-off of the circuit will stop the shaker tray to protect operator.

Spill-resistant design: Channels fluids away from internal components.

Heat caution indicator: Symbol illuminates when the temperature of the air in the chamber reaches 40 °C and remains lit until temperature cools down.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 15 to 32 °C, maximum 80% relative humidity.

Applications: Cell cultures, solubility studies, bacterial suspensions and extraction procedures.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord. EU- and UK-type plugs and with Swiss adapter. Unit is also supplied with a 45.7 x 45.7 cm nonskid rubber mat. 5-year limited warranty on parts and labor.

VWR® INCUBATING MINI SHAKER

The VWR Incubating Mini Shaker features variable-speed microprocessor control, providing reliable, uniform mixing action with accurate temperature control you can trust.

- 5-year warranty
- LCD screen displays temperature, speed and time
- Includes integrated platform ready to mount a variety of optional accessories
- On-board programming for up to eight separate five-step programs

OPERATING FEATURES

Microprocessor control: VWR shakers feature variable-speed microprocessor control, providing reliable, uniform mixing action. Unit displays the most recently used settings and restarts if power is interrupted.

PID temperature controller: This feature maintains precise temperature control from +5 to 70 °C.

LCD screen: The LCD screen displays temperature, speed and time for repeatable and accurate results. Easy-to-use control knobs allow for effortless input of settings and rapid access to the menu options. Temperature is controllable within $\pm 0.1^\circ$, and speed is controllable within ± 1 rpm. Timer displays the elapsed time or, when the unit is programmed to run for a user-defined duration (up to 99 h, 59 min), counts down to zero, at which point an alarm sounds and the unit automatically shuts off.

On-board programming: Space for programming up to eight separate five-step programs.

Recall feature: This feature allows the user to recall the last five settings used.

Triple-eccentric drive: The triple-eccentric drive system and maintenance-free brushless DC motor allow for continuous operation and a long, reliable service life.

Temperature calibration: This feature allows for calibration to three separate user-defined temperature points using an external temperature device.



444-1424 with optional flask clamps 444-7043

Communications: An RS-232 interface provides two-way communication for data logging and unit control.

SAFETY FEATURES

Speed ramping: Speed slowly increases to a user-set point to protect against splashing.

Overload protection: Audible and visual signals activate when the system detects an obstruction or overloading; unit will continue to maintain temperature control.

Heat caution indicator: Symbols appear on the screen when temperatures reach 40 °C and remain visible until the temperature cools down.

Housing construction: The durable base is easy to clean and resists corrosion.

Polycarbonate lid: The clear lid allows samples to be observed without disruption to the internal temperature.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 5 to 40 °C, maximum 80% relative humidity.

Applications: Cell cultures, extraction procedures, diagnostic testing, general mixing, hybridization, bacterial suspensions, staining/destaining, washing procedures, solubility analyses and genetics research.

ORDERING INFORMATION:

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with Swiss adapter.

Specifications

Temperature range	Ambient +5 to 70 °C
Temperature uniformity	$\pm 0.5^\circ\text{C}$ at 37 °C
Speed range	100 to 1,200 rpm
Timer	Up to 99 h, 59 min
Orbit	3 mm
Maximum weight capacity	4 kg
Tray material	Aluminum
Tray dimensions (L x W)	28.0 x 19.7 cm
Interior dimensions (L x W x H)	27.9 x 19.7 x 15.3 cm
Overall dimensions (L x W x H)	43.2 x 26.2 x 29.0 cm
Ingress Protection rating	IP21
Ship weight	13.9 kg

Description	Electrical	Cat. No.
Incubating Mini Shaker, 230 V	50/60 Hz	444-1424

VWR® INCUBATING MICROPLATE SHAKER

The VWR Incubating Microplate Shaker features variable-speed microprocessor control, providing reliable, uniform mixing action with accurate temperature control you can trust.

- 5-year warranty
- 3 mm orbit for optimal microwell mixing
- LCD screen displays temperature, speed and time
- Includes platform ready to secure 2–4 microplates or deep well plates or 2 microtube racks
- Available with clear or opaque lid for photosensitive samples
- On-board programming for up to eight separate five-step programs

OPERATING FEATURES

Microprocessor control: VWR shakers feature variable-speed microprocessor control, providing reliable, uniform mixing action. Unit displays the most recently used settings and restarts if power is interrupted.

PID temperature controller: This feature maintains precise temperature control from an ambient +5 to 70 °C.

LCD screen: The LCD screen displays temperature, speed and time for repeatable and accurate results. Easy-to-use control knobs allow for effortless input of settings and rapid access to the menu options. Temperature is controllable within ±0.1°, and speed is controllable within ±1 rpm. Timer displays the elapsed time or, when the unit is programmed to run for a user-defined duration (up to 99 h, 59 min), counts down to zero, at which point an alarm sounds and the unit automatically shuts off.

Onboard programming: Space for programming up to eight separate five-step programs.

Recall feature: This feature allows the user to recall the last five settings used.

Triple-eccentric drive: The triple-eccentric drive system and maintenance-free brushless DC motor allow for continuous operation and a long, reliable service life.

Temperature calibration: This feature allows for calibration to three separate user-defined temperature points using an external temperature device.

Communications: An RS-232 interface provides two-way communication for data logging and unit control.

SAFETY FEATURES

Speed ramping: Speed slowly increases to a user-set point to protect against splashing.

Overload protection: Audible and visual signals activate when the system detects an obstruction or overloading; unit will continue to maintain temperature control.

Heat caution indicator: Symbols appear on the screen when temperatures reach 40 °C and remain visible until the temperature cools down.

Housing construction: The durable base is easy to clean and resists corrosion.

Polycarbonate lid: The clear lid allows samples to be observed without disruption to the internal temperature. The opaque lid prevents light exposure for photosensitive samples.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 5 to 40 °C, maximum 80% relative humidity.

Applications: Cell cultures, immunoassays, hybridization, bacterial suspensions and genetics research.

ORDERING INFORMATION:

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with Swiss adapter.

Specifications

Temperature	Ambient +5 to 70 °C	
Temperature uniformity	±0.5 °C at 37 °C	
Speed range	100 to 1,200 rpm	
Timer	Up to 99 h, 59 min	
Orbit	3 mm	
Maximum weight capacity	4 kg	
Tray material	Aluminum	
Tray dimensions (L × W)	28.0 × 19.7 cm	
Overall dimensions (L × W × H)	43.2 × 26.2 × 20.8 cm	
Ingress Protection rating	IP21	
Ship weight	13.9 kg	

Description	Electrical	Cat. No.
Incubating Microplate Shaker, 230 V	50/60 Hz	444-1426
Incubating Microplate Shaker, 230 V, with opaque lid	50/60 Hz	444-1419



444-1419 and 444-1426

VWR® INCUBATING ROCKING PLATFORM SHAKER

- Electronic tilt-angle adjustment from 0 to 15° while unit is operating
- LED screens for temperature, speed, tilt angle and time
- Timer with audible alarm

The VWR Incubating Rocking Platform Shaker combines a smooth rocking motion and general-purpose incubation in one compact benchtop unit.

OPERATING FEATURES

Microprocessor control: The microprocessor control provides electronic tilt-angle adjustment, which allows the user to easily adjust the rocking angle from 0 to 15° during operation. Precise speed control provides smooth, low-speed rocking motion down to 1 rpm.

PID temperature controller: Maintains precise temperature control from ambient +5 to 65 °C. Easy-to-use controls allow users to adjust temperature in 1 °C increments.

LED screens: Touchpad controls with easy-to-read, independent LED screens for temperature, speed, tilt angle and time allow the operator to view all settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

SAFETY FEATURES

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero.

Heat caution indicator: Symbol illuminates when the temperature of the air in the chamber reaches 40 °C and remains lit until temperature cools down.

Spill-resistant design: Channels fluids away from internal components.

Polycarbonate lid: Permits viewing of samples without disturbing internal temperature.



444-0762

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 5 to 40 °C, maximum 80% relative humidity.

Applications: Cell cultures, staining and destaining gels, hybridization procedures and blotting techniques.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with Swiss adapter. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Incubating Rocking Platform Shaker	EU	230 V 5 A 450 W	444-0762
Incubating Rocking Platform Shaker	UK	230 V 5 A 450 W	444-0763
Incubating Rocking Platform Shaker	CH	230 V 5 A 450 W	444-0764

Specifications

Temperature range	Ambient +5 to 65 °C
Temperature uniformity	±0.5 °C at 37 °C
Speed range	1 to 50 rpm*
Speed accuracy	±1 rpm
Tilt angle	0 to 15**
Timer	1 to 160 h
Maximum weight capacity	4.5 kg**
Tray material	Aluminum
Tray dimensions (L x W)	25.4 x 19.1 cm
Interior dimensions (L x W x H)	27.3 x 19.7 x 9.7 cm
Overall dimensions (L x W x H)	43.2 x 27.9 x 26.7 cm
Ship weight	10 kg

* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

** Centered on tray.

VWR® INCUBATING 3D ROTATOR WAYER

- Electronic tilt-angle adjustment from 0 to 20° while unit is operating
- LED screens for temperature, speed, tilt angle and time
- Timer with audible alarm

The VWR Incubating 3D Rotator Waver combines a unique vertical and horizontal “wave” motion with general-purpose incubation in one compact benchtop unit.

OPERATING FEATURES

Microprocessor control: The microprocessor control provides electronic tilt-angle adjustment, which allows the user to easily adjust the waving angle from 0 to 20° during operation. Precise speed control provides smooth, low-speed waving motion down to 1 rpm.

PID temperature controller: Maintains precise temperature control from ambient +5 to 65 °C. Easy-to-use controls allow users to adjust temperature in 1 °C increments.

LED screens: Touchpad controls with easy-to-read, independent LED screens for temperature, speed, tilt angle and time allow the operator to view all settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

SAFETY FEATURES

Overload protection: Audible and visual signals will activate when system detects an obstruction or overload of the tray.

Speed ramping feature: Slowly increases speed to the desired set point to avoid splashing.

Audible alarm: In timed mode, the alarm will sound when the time reaches zero.

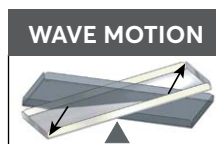
Heat caution indicator: Symbol illuminates when the temperature of the air in the chamber reaches 40 °C and remains lit until temperature cools down.

Specifications

Temperature range	Ambient +5 to 65 °C
Temperature uniformity	±0.5 °C at 37 °C
Speed range	1 to 30 rpm*
Speed accuracy	±1 rpm
Tilt angle	0 to 20°*
Timer	1 to 160 h
Maximum weight capacity	2.3 kg**
Tray material	Aluminum
Tray dimensions (L x W)	23.5 x 18.4 cm
Interior dimensions (L x W x H)	27.3 x 19.7 x 8.6 cm
Overall dimensions (L x W x H)	43.2 x 27.9 x 26.7 cm
Ship weight	10 kg

* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

** Centered on tray.



444-0765 with optional dimpled mat 444-0770

Spill-resistant design: Channels fluids away from internal components.

Polycarbonate lid: Permits viewing of samples without disturbing internal temperature.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 5 to 40 °C, maximum 80% relative humidity.

Applications: Cell cultures, hybridization procedures and blotting techniques.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with Swiss adapter. 5-year limited warranty on parts and labor.

Description	Plug version	Electrical (50/60 Hz)	Cat. No.
Incubating 3D Rotator Waver	EU	230 V 5 A 450 W	444-0765
Incubating 3D Rotator Waver	UK	230 V 5 A 450 W	444-0766
Incubating 3D Rotator Waver	CH	230 V 5 A 450 W	444-0767

VWR® PLATFORMS

- Allow for mounting of flask clamps, test tube racks and bottle clamps
- Platform slides over top of included tray and is tightened with adjustment screws
- Optional accessories screw directly into mounting point openings
- Two-tier braces allow stacking of platforms with a 25.4 cm clearance (available for select sizes*)
- Optional nonskid rubber mat can be placed on platform for an added nonskid surface
- Constructed of type 304 stainless steel



UNIVERSAL PLATFORMS

Description	Cat. No.
27.9 × 33 cm Universal Platform	444-7087
33 × 33 cm Universal Platform	444-2930
45.7 × 45.7 cm Universal Platform*	444-2931
45.7 × 45.7 cm Universal Platform for 5000l	444-0967
45.7 × 61 cm Universal Platform*	444-2932
61 × 61 cm Universal Platform	444-2933
45.7 × 76.2 cm Universal Platform*	444-2934
61 × 91.4 cm Universal Platform	444-2935
Two-Tier Braces (set of 4)	444-2965

* Two-tier ready.



VWR® CULTURE PLATFORMS

- Ideal for slow-speed applications using Petri dishes, culture flasks and other flat-bottom, low-profile vessels
- Two-tier braces (available for both sizes*) allow stacking of platforms with a 25.4 cm clearance
- Constructed of type 304 stainless steel
- Platform has a nonskid rubber surface

Description	Cat. No.
45.7 × 45.7 cm Culture Platform*	444-2936
45.7 × 61 cm Culture Platform*	444-2937
Two-Tier Braces (set of 4)	444-2965

* Two-tier ready.

RUBBER MATS

Description	Cat. No.
27.9 × 33 cm Rubber Mat	444-2966
45.7 × 61 cm Rubber Mat	444-2967
61 × 61 cm Rubber Mat	444-2968
61 × 91.4 cm Rubber Mat	444-2969



VWR® DEDICATED PLATFORMS

- Pre-mounted flask clamps for maximum utilization of platform space for flasks of the same size
- Two-tier braces allow stacking of platforms with a 25.4 cm clearance (available for select sizes*)
- Platform is constructed of type 304 stainless steel
- Flask clamps are constructed of PVC
- Ideal for polycarbonate flasks

Description	Flask clamp size	Flask capacity	Cat. No.
33 × 33 cm Dedicated Platform	125 ml	16	444-2945
33 × 33 cm Dedicated Platform	250 ml	12	444-2946
33 × 33 cm Dedicated Platform	500 ml	8	444-2947
33 × 33 cm Dedicated Platform	1 L	4	444-2948
45.7 × 45.7 cm Dedicated Platform*	125 ml	27	444-2949
45.7 × 45.7 cm Dedicated Platform*	250 ml	20	444-2950
45.7 × 45.7 cm Dedicated Platform*	500 ml	13	444-2951
45.7 × 45.7 cm Dedicated Platform	1 L	9	444-2952
Two-Tier Braces (set of 4)	–	–	444-2965

* Two-tier ready.



VWR® ADJUSTABLE PLATFORMS

- Adjustable clamping bars accommodate various vessel types
- Stainless-steel construction
- Base tray has a nonskid rubber surface
- 444-0282: Bar sits 6.4 cm from bottom of platform
- 444-2938 and 444-2939: Bar sits 5.7 cm from platform to bottom slot and 11.4 cm to top slot

Description	Bar size	Overall dimensions (L x W)	Net weight	Cat. No.
2-Bar Adjustable Platform	21.8 cm	21.8 x 29.7 cm	1.48 kg	444-0282
4-Bar Adjustable Platform	45.7 cm	45.7 x 45.7 cm	5 kg	444-2938
4-Bar Adjustable Platform	45.7 cm	45.7 x 61 cm	9 kg	444-2939

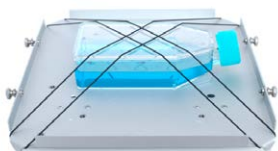
Replacement parts	Compatible platform(s)	Cat. No.
22 cm Adjustable Bar (with mounting hardware)	442-0282	444-0565
45.7 cm Adjustable Bar (with mounting hardware)	444-2938, 444-2939	444-2943



VWR® MICROPLATE CLAMP

- Holds one standard microplate or deep-well plate
- Constructed of type 304 stainless steel

Description	Compatible shakers	Cat. No.
Microplate Clamp	Full-size shakers only	444-2954



VWR® UNIVERSAL HARNESS

- Attaches to tray to secure low-profile plates

Description	Compatible shakers	Cat. No.
Universal Harness	Mini Shakers 444-1418, 444-1422	444-1421



VWR® LARGE VESSEL CARRIER PLATFORMS

- Ideal for large sample containers like carboys, jugs and bottles
- High side walls secure samples
- Heavy-duty design
- Stainless-steel construction
- Base tray has a nonskid rubber surface

Description	Bar size	Overall dimensions (L x W x H)	Cat. No.
4-Bar Large Vessel Carrier Platform	45.7 cm	76.4 x 45.9 x 93.7 cm	444-2940
4-Bar Large Vessel Carrier Platform	61 cm	61.9 x 61.7 x 36.0 cm	444-2941
4-Bar Large Vessel Carrier Platform	61 cm	93.7 x 61.7 x 36.0 cm	444-2942

Replacement parts	Compatible carrier(s)	Cat. No.
45.7 cm Adjustable Bar (with mounting hardware)	444-2940	444-2943
61 cm Adjustable Bar (with mounting hardware)	444-2941, 444-2942	444-2944



VWR® SEPARATORY FUNNEL PLATFORM

- Holds 3 funnels at once on the included 45.7 x 45.7 cm platform
- Accommodates 500 ml to 2 L separatory funnels
- Stainless-steel construction
- Includes platform, clamps and hardware to secure three funnels

Description	Cat. No.
Separatory Funnel Platform	97003-632
Separatory Funnel Clamp	444-2970



VWR® DIMPLED MATS

Designed to hold centrifuge tubes, vials, culture tubes and microtubes securely in place. Mat can be easily removed for cleaning and transporting tubes from bench to tray.

Description	Compatible unit	Cat. No.
32.4 × 25.4 cm Dimpled Mat	Rocking Platform Shaker	444-0768
29.9 × 22.2 cm Dimpled Mat	3D Rotator Waver	444-0770



VWR® STICKY MAT

Recommended for speeds up to 250 rpm. Application temperatures not to exceed 65 °C. Clean with water and air dry to restore adhesive quality.

Description	Cat. No.
22 × 18 cm Sticky Mat	444-1417



VWR® STACKING TRAYS

Easily attaches to the unit-included tray to add a second tier for higher-capacity applications. Second-tier tray mounts 8.9 cm above lower tray and includes a nonskid rubber mat.

Description	Compatible unit	Cat. No.
32.4 × 25.4 cm Stacking Tray	Rocking Platform Shaker	444-0772
29.9 × 22.2 cm Stacking Tray	3D Rotator Waver	444-0773

VWR® FLASK CLAMPS

STAINLESS-STEEL FLASK CLAMPS

- Designed to hold Erlenmeyer flasks from 10 ml to 6 L
- Constructed of types 302 and 304 stainless steel
- Includes hardware for easy attachment to platforms
- Flask clamps 50 ml and higher are supplied with a spring to hold flask in place
- 2.8 L clamp is designed to hold a Fernbach flask
- Media bottle flask clamps feature the same details as flask clamps



Erlenmeyer flask clamps



Media bottle flask clamps

PVC FLASK CLAMPS

- Autoclavable
- One-piece, molded PVC construction
- Will not scratch or mark flasks like other clamps
- Includes hardware for easy attachment to platforms



PVC flask clamps

Description	Cat. No.
10 ml Stainless-Steel Flask Clamp	444-7040
25 ml Stainless-Steel Flask Clamp	444-7041
50 ml Stainless-Steel Flask Clamp	444-7042
125 ml Stainless-Steel Flask Clamp	444-7043
250 ml Stainless-Steel Flask Clamp	444-7044
500 ml Stainless-Steel Flask Clamp	444-7045
1 L Stainless-Steel Flask Clamp	444-7030
2 L Stainless-Steel Flask Clamp	444-7031
2.8 L Stainless-Steel Flask Clamp	444-7032
4 L Stainless-Steel Flask Clamp	444-7033
6 L Stainless-Steel Flask Clamp	444-7034
500 ml Stainless-Steel Media Bottle Clamp	444-7035
1 L Stainless-Steel Media Bottle Clamp	444-7036
125 ml PVC Flask Clamp	444-2960
250 ml PVC Flask Clamp	444-2961
500 ml PVC Flask Clamp	444-2962
1 L PVC Flask Clamp	444-2963
2 L PVC Flask Clamp	444-2964

VWR® TEST TUBE RACKS

HALF SIZE, STATIONARY

- PVC-coated steel
- Includes hardware for easy attachment to platforms
- Dimensions (L × W × H): 12.7 × 17.8 × 10.2 cm / microtube rack 4.3 cm



FULL SIZE, STATIONARY

- PVC-coated steel
- Includes hardware for easy attachment to platforms
- Dimensions (L × W × H): 9.5 × 41.9 × 10.2 cm



FULL SIZE, PIVOTING

- Adjustable angle, custom tilt
- Stainless-steel holder includes removable plastic rack
- Rack is easily removed to transport from work area to shaker
- Dimensions (L × W × H):
Inside rack: 12.9 × 27.4 × 9.9 cm
Outer rack: 12.7 × 27.6 × 12.7 cm



Description	Cat. No.
Half racks	
70 × 1.5–2 ml Microtubes	444-0276
63 × 10–13 mm Tubes	444-0278
48 × 14–16 mm Tubes	444-0279
35 × 18–20 mm Tubes	444-0280
24 × 22–24 mm Tubes	444-0281
35 × 15 ml Centrifuge Tubes	444-0283
12 × 50 ml Centrifuge Tubes	444-0284
Full-size racks	
48 × 10–14 mm Tubes	444-7037
33 × 16–20 mm Tubes	444-7038
21 × 21–25 mm Tubes	444-7039
Full-size pivoting racks	
90 × 13 mm Tubes	444-2955
60 × 16 mm Tubes	444-2956
40 × 20 mm Tubes (15 ml centrifuge tubes)	444-2957
24 × 25 mm Tubes	444-2958
21 × 30 mm Tubes (50 ml centrifuge tubes)	444-2959

VWR® MINI AND MICROPLATE SHAKER ACCESSORY CAPACITIES

Description	Open air			Incubating		Cat. No.
	Standard Array	Universal Platform	Microplate Shaker	Mini Shaker	Microplate Shaker	
10 ml Stainless-Steel Flask Clamp	7	39	–	32	–	444-7040
25 ml Stainless-Steel Flask Clamp	7	24	–	20	–	444-7041
50 ml Stainless-Steel Flask Clamp	7	24	–	12	–	444-7042
125 ml Stainless-Steel Flask Clamp	6	12	–	8	–	444-7043
250 ml Stainless-Steel Flask Clamp	6	8	–	5	–	444-7044
500 ml Stainless-Steel Flask Clamp	4	6	–	–	–	444-7045
1 L Stainless-Steel Flask Clamp	–	3	–	–	–	444-7030
500 ml Media Bottle Clamp	4	6	–	–	–	444-7035
125 ml PVC Flask Clamp	6	12	–	8	–	444-2960
250 ml PVC Flask Clamp	6	8	–	4	–	444-2961
500 ml PVC Flask Clamp	–	4	–	–	–	444-2962
Half Rack For 70 Microtubes (1.5–2 ml)	2	2	2	2	2	444-0276
Half Rack For 63 Test Tubes (10–13 mm)	2	2	–	1	–	444-0278
Half Rack For 48 Test Tubes (14–16 mm)	2	2	–	1	–	444-0279
Half Rack For 35 Test Tubes (18–20 mm)	2	2	–	1	–	444-0280
Half Rack For 35 Centrifuge Tubes (15 ml)	2	2	–	1	–	444-0283
Half Rack For 12 Centrifuge Tubes (50 ml)	2	2	–	1	–	444-0284
Universal Platform	1	–	–	–	–	444-1425
Roller Bar Platform	1	–	–	–	–	444-0282
Sticky Mat	1	1	–	1	–	444-1417
Universal Harness	1	–	–	–	–	444-1421
Deep-Well Plate Kit	–	–	1	–	–	444-1416

VWR® ACCESSORY PLATFORMS FOR OPEN-AIR SHAKERS MODELS 3500 THROUGH 15000

Description	Stackable	Model 3500 and Dura-Shaker	Model 3750 Reciprocating Shaker	Model 5000	Open air		Cat. No.
					Model 10000	Model 15000	
28 × 33 cm Universal Platform	Not stackable	*	*				444-7087
33 × 33 cm Universal Platform	Not stackable	*	*				444-2930
46 × 46 cm Universal Platform	Stackable	*	*				444-2931
46 × 46 cm Universal Platform, (Model 5000 Only)	Not stackable						444-0967
46 × 61 cm Universal Platform	Stackable**	*		*			444-2932
46 × 76 cm Universal Platform	Stackable			*			444-2934
61 × 61 cm Universal Platform	Not stackable				*		444-2933
61 × 91 cm Universal Platform	Not stackable					*	444-2935
46 × 46 cm Culture Platform With Mat	Stackable	*	*				444-2936
46 × 61 cm Culture Platform With Mat	Stackable**	*		*			444-2937
46 × 46 cm Adjustable Bar Platform	Not stackable	*					444-2938
45 × 61 cm Adjustable Bar Platform	Not stackable			*			444-2939
46 × 76 cm Large Vessel Carrier	Not stackable			*			444-2940
61 × 61 cm Large Vessel Carrier	Not stackable				*		444-2941
61 × 91 cm Large Vessel Carrier	Not stackable					*	444-2942
33 × 33 cm Dedicated Platform, 125 ml	Not stackable	*	*				444-2945
33 × 33 cm Dedicated Platform, 250 ml	Not stackable	*	*				444-2946
33 × 33 cm Dedicated Platform, 500 ml	Not stackable	*	*				444-2947
33 × 33 cm Dedicated Platform, 1 L	Not stackable	*	*				444-2948
46 × 46 cm Dedicated Platform, 125 ml	Stackable	*	*				444-2949
46 × 46 cm Dedicated Platform, 250 ml	Stackable	*	*				444-2950
46 × 46 cm Dedicated Platform, 500 ml	Stackable	*	*				444-2951
Dedicated Platform, 1 L	Stackable	*	*				444-2952
46 × 46 cm Separatory Funnel Platform	Not stackable	*	*				444-2953

* To stack platforms, select two stackable platforms of the same size and one Two-Tier Braces Kit (444-2965).

** 46 × 61 cm platforms can not be stacked on Model 5000 shakers.

VWR® FLASK CLAMP CAPACITY CHART

Description	28 × 33 cm 444-7087	33 × 33 cm 444-2930	46 × 46 cm 444-2931	46 × 61 cm 444-2932	46 × 76 cm 444-2934	61 × 61 cm 444-2933	61 × 91 cm 444-2935	Cat. No.
10 ml Stainless-Steel Flask Clamp	60	60	113	158	203	221	336	444-7040
25 ml Stainless-Steel Flask Clamp	25	30	64	88	112	121	160	444-7041
50 ml Stainless-Steel Flask Clamp	13	15	32	44	56	61	94	444-7042
125 ml Stainless-Steel Flask Clamp	10	12	20	28	36	41	61	444-7043
250 ml Stainless-Steel Flask Clamp	9	12	20	28	36	41	64	444-7044
500 ml Stainless-Steel Flask Clamp	7	8	13	20	26	25	40	444-7045
1 L Stainless-Steel Flask Clamp	4	4	8	12	15	16	24	444-7030
2 L Stainless-Steel Flask Clamp	–	3	5	6	8	9	14	444-7031
2.8 L Stainless-Steel Flask Clamp	–	1	2	3	3	5	7	444-7032
4 L Stainless-Steel Flask Clamp	–	1	4	4	6	5	9	444-7033
6 L Stainless-Steel Flask Clamp	–	1	2	3	4	5	7	444-7034
500 ml Stainless-Steel Media Bottle Clamp	5	6	16	20	28	25	40	444-7035
1 L Stainless-Steel Media Bottle Clamp	2	5	10	13	18	18	30	444-7036
125 ml PVC Flask Clamp	10	12	20	28	36	41	61	444-2960
250 ml PVC Flask Clamp	8	10	18	25	33	35	55	444-2961
500 ml PVC Flask Clamp	5	6	12	16	20	24	38	444-2962
1 L PVC Flask Clamp	2	4	8	10	14	13	22	444-2963
2 L PVC Flask Clamp	–	3	4	6	8	9	13	444-2964
Microplate Clamp	4	6	12	18	21	24	36	444-2954

VWR® TUBE RACK CAPACITY CHART

Description	28 × 33 cm 444-7087	33 × 33 cm 444-2930	46 × 46 cm 444-2931	46 × 61 cm 444-2932	46 × 76 cm 444-2934	61 × 61 cm 444-2933	61 × 91 cm 444-2935	Cat. No.
Half racks								
70 × 1.5–2 ml Microtubes	2	2	4	6	8	8	7	444-0276
63 × 10–13 mm Tubes	2	2	4	6	8	8	7	444-0278
48 × 14–16 mm Tubes	2	2	4	6	8	8	7	444-0279
35 × 18–20 mm Tubes	2	2	4	6	8	8	7	444-0280
24 × 22–24 mm Tubes	2	2	4	6	8	8	7	444-0281
35 × 15 ml Centrifuge Tubes	2	2	4	6	8	8	7	444-0283
12 × 50 ml Centrifuge Tubes	2	2	4	6	8	8	7	444-0284
Full-size racks								
48 × 10–14 mm Tubes	–	–	3	5	6	7	5	444-7037
33 × 16–20 mm Tubes	–	–	3	5	6	7	5	444-7038
21 × 21–25 mm Tubes	–	–	3	5	6	7	5	444-7039
Full-size pivoting racks								
90 × 13 mm Tubes	1	2	2	3	4	4	6	444-2955
60 × 16 mm Tubes	1	2	2	3	4	4	6	444-2956
40 × 20 mm Tubes (15 ml centrifuge tubes)	1	2	2	3	4	4	6	444-2957
24 × 25 mm Tubes	1	2	2	3	4	4	6	444-2958
21 × 30 mm Tubes (50 ml centrifuge tubes)	1	2	2	3	4	4	6	444-2959

VWR® INCUBATING 3500I AND 5000I SHAKER ACCESSORIES

Description	Model 3500I	Model 5000I	Cat. No.
28 × 33 cm Universal Platform	1	–	444-7087
46 × 46 cm Universal Platform	–	1	444-0967
10 ml Stainless-Steel Flask Clamp	60	113	444-7040
25 ml Stainless-Steel Flask Clamp	25	64	444-7041
50 ml Stainless-Steel Flask Clamp	13	32	444-7042
125 ml Stainless-Steel Flask Clamp	10	20	444-7043
250 ml Stainless-Steel Flask Clamp	9	20	444-7044
500 ml Stainless-Steel Flask Clamp	7	13	444-7045
1 L Stainless-Steel Flask Clamp	4	8	444-7030
2L Stainless-Steel Flask Clamp	–	5	444-7031
2.8 L Stainless-Steel Flask Clamp	–	2	444-7032
4 L Stainless-Steel Flask Clamp	–	4	444-7033
6 L Stainless-Steel Flask Clamp	–	2	444-7034
500 ml Stainless-Steel Media Bottle Clamp	5	16	444-7035
1 L Stainless-Steel Media Bottle Clamp	2	10	444-7036
125 ml PVC Flask Clamp	10	20	444-2960
250 ml PVC Flask Clamp	8	18	444-2961
500 ml PVC Flask Clamp	5	12	444-2962
1 L PVC Flask Clamp	2	8	444-2963
2 L PVC Flask Clamp	–	4	444-2964
Microplate Clamp	4	12	444-2954
Half racks			
70 × 1.5–2 ml Microtubes	2	4	444-0276
63 × 10–13 mm Tubes	2	4	444-0278
48 × 14–16 mm Tubes	2	4	444-0279
35 × 18–20 mm Tubes	2	4	444-0280
24 × 22–24 mm Tubes	2	4	444-0281
35 × 15 ml Centrifuge Tubes	2	4	444-0283
12 × 50 ml Centrifuge Tubes	2	4	444-0284
Full-size racks			
48 × 10–14 mm Tubes	–	3	444-7037
33 × 16–20 mm Tubes	–	3	444-7038
21 × 21–25 mm Tubes	–	3	444-7039
Full-size pivoting racks			
90 × 13 mm Tubes	1	2	444-2955
60 × 16 mm Tubes	1	2	444-2956
40 × 20 mm Tubes (15 ml centrifuge tubes)	1	2	444-2957
24 × 25 mm Tubes	1	2	444-2958
21 × 30 mm Tubes (50 ml centrifuge tubes)	1	2	444-2959

NOTE: A Universal Platform is required to secure accessories.

How to select a hotplate/stirrer

Review the following points to help you select the appropriate hotplate/stirrer for your unique application:

- 1. CONTROL TYPES:** Both Advanced and Professional Series units offer a closed-loop PID microprocessor for temperature and speed control. This control type offers electronic feedback for control of both temperature and speed, producing greater accuracy and ease of use for reproducing your results. Microprocessor controls automatically stabilize the top plate for temperature and/or stirring speeds by regulating for variations in the system with reference to the original set point. Professional units include a built-in timer, allowing for greater independence. Also included with Professional Series units is an external stainless-steel temperature probe. The probe guarantees the utmost in sample temperature monitoring and control, delivering $\pm 1\%$ temperature stability.
- 2. TEMPERATURE NEEDS:** Temperature uniformity refers to the consistency of temperature across the top plate. Each top plate material has its pros and cons. Ceramic top plates are more chemical resistant, heat up very quickly and are easy to clean. The white reflective surface aids in viewing the sample. However, ceramic tops are subject to thermal shock. Heating of metallic vessels should be avoided. The edges of a ceramic top plate may not be as hot as the center, where the heating element is located. Aluminum top plates offer a more uniform heating surface and will not crack or chip but are more susceptible to corrosion and more difficult to clean.
- 3. SAMPLE SIZE:** The size or volume of your sample is another important factor to consider when selecting a hotplate or stirrer. Always consider the largest sample that you may be working with and look for a unit that can handle that capacity. The capacities listed are based on water. A viscous sample will weigh more than water.
- 4. VISCOSITY:** Sample viscosity plays a role in selecting a stirrer. The magnetic coupling strength is a factor in determining which size stirrer to choose. The right drive magnet and stir bar combination is needed to efficiently stir the sample. Variables such as sample size or weight and top plate size dictate which stirrer will work best. The stir bar size and shape, distance between the drive magnet and the stir bar, vessel shape and size, speed and viscosity also must be considered. The more viscous the sample, the greater the magnetic coupling strength needed.

VWR® PROFESSIONAL HOTPLATE-STIRRERS



Designed for applications requiring exceptional accuracy, stability and repeatability, VWR Professional hotplate-stirrers are equipped with superior heating and mixing capabilities. With temperatures up to 550 °C and stirring speeds reaching 1,800 rpm, these hotplate-stirrers are equipped to handle any research, academic and industrial application. Available in two sizes.

- 5-year warranty
- Excellent temperature uniformity and powerful stirring
- Includes PT1000 RTD temperature probe
- Large, easy-to-read LCD screen displays temperature, speed and timer settings
- Industry-leading safety features
- Available with an optional NIST-traceable ISO/IEC 17025-accredited calibration certificate from Troemner

OPERATING FEATURES

Microprocessor control: A closed-loop PID microprocessor for temperature and speed control. This control type offers electronic feedback for control of both temperature and speed, providing greater accuracy and ease of use for reproducing your results. Microprocessor controls automatically stabilize the top plate for temperature and/or stirring speeds by regulating for variations in the system with reference to the original set point. Precise speed control provides consistent stirring at all speeds. Powerful continuous-duty motor delivers dependable and reliable stirring. Display will show last settings, even after power has been turned off. Enhanced electronics regulate heating and will bring samples to the desired temperature, quickly and efficiently.

Large digital display: The easy-to-use and easy-to-read front panel includes two intuitive dial knobs to navigate the settings menu options. The bright white LCD always displays both set and actual temperature/speed and timer information for convenient monitoring.

Low-profile design: The low-profile design occupies minimal bench space and fits into fume hoods.

Built-in support rod holder: The rear housing of the hotplate features two built-in support rod holders on each side, enabling flexibility to create a unique setup for the application.

Ceramic top plate: White reflective ceramic tops are chemical resistant and easy to clean.

Timer and audible alarm: A timer displays elapsed time or, when programmed to a user-defined limit, will shut off when time reaches zero. An alarm will sound when time reaches zero or when unit reaches set-point temperature.

RTD probe: Professional models include an 20 cm PT1000 stainless-steel RTD probe, which ensures precise temperature control of the sample.

Temperature calibration: Three user-defined temperature calibration set points for allowing probe and plate calibrations to an external temperature device.

RS232 connection: Serial port allows for data logging and unit control.

SAFETY FEATURES

Hotplates are equipped with a variety of innovative safety features designed to facilitate efficient operation and workplace safety.

Over heat protection: Units are equipped with an industry-leading early detection system that utilizes two independent safety controls to continuously monitor the electronics and shut off the heater before an over-temperature condition occurs.

Spill-resistant design: Channels fluids away from internal components.

Temperature-limiting feature: A maximum temperature-limiting function ensures the plate temperature will not exceed a user-defined limit, allowing for control of samples with sensitive flash points. Additionally, heating function can be disabled for heating prohibited applications.

Hot top indicator: A large 16 mm hot top warning light is illuminated when the heat is turned on. The light remains on until the top plate is below 40 °C, even when power is turned off.

Stir protection: If the stirrer motor stops or fails, the unit will automatically shut off the heater. If using the temperature probe, in the event the probe disengages from the sample, the heater will automatically shut off.

Speed ramping feature: Motor slowly increases speed for improved safety and enhanced coupling. Avoids splashing, improves spin bar control and provides excellent low-end speed control.

OPERATING CONDITIONS

Units can be run in noncondensing environments from 5 to 40 °C, 20% to 80% relative humidity. Not recommended for use in vacuum or low-pressure environments.

ORDERING INFORMATION

Units include a 234 cm detachable three-wire cord and Euro- and UK-type plugs with CH adapter, 3.8 cm PTFE-coated stir bar and 20.3 cm stainless-steel RTD probe.

CERTIFICATIONS

RoHS certified. TÜV listed. CE marked (230 V models). Provided with an optional NIST-traceable ISO/IEC 17025-accredited calibration certificate from Troemner, which includes multiple data points within the speed range and time function with the associated uncertainties. Troemner is accredited by NVLAP under laboratory code 105013-0 to perform ISO/IEC 17025 calibrations.

Product safety: TÜV SÜD certified to CAN/CSA C22.2 61010-1, CAN/CSA C22.2 61010-2-010, CAN/CSA C22.2 61010-2-051, UL 61010-1, UL 61010-2-010 and UL 610102-051.

Electromagnetic compatibility: Canada ICES-003 Class A; FCC Part 15 Class A.

Compliance mark: TÜV SÜD.





Specifications

Top plate dimensions	17.8 × 17.8 cm	25.4 × 25.4 cm
Top plate material	Ceramic	
OPERATING SPECIFICATIONS		
Temperature range	Ambient +5 to 550 °C	Ambient +5 to 550 °C
Temperature resolution	0.5 °C	
Temperature stability of top plate*	±1 % (> 100 °C), ±1 °C (≤100 °C)	
Temperature stability with temperature probe	±0.5 % (> 100 °C), ±0.5 °C (≤100 °C)	
Speed range	50 to 1,800 rpm	
Speed stability	±2%	
Timer	1 min to 99 h, 59 min	
Maximum stirring capacity	20 L H ₂ O	22 L H ₂ O
Ingress Protection rating	IP32	
OVERALL SPECIFICATIONS		
Overall dimensions (L × W × H)	32.9 × 22.1 × 11.6 cm	40.2 × 28.7 × 11.8 cm
Ship weight	5.5 kg	9.1 kg
Net weight	4.6 kg	6.7 kg

* Conditions permitting. Variations in temperature and speed measurement processes, vessel, ambient temperature and sample will impact actual performance. To improve the temperature accuracy of the system, use the Single Point Calibration feature.

Description	Electrical	Cat. No.
Professional hotplate-stirrers		
17.8 x 17.8 cm Hotplate-Stirrer	220–240 V 7 A 1,050 W	444-1510
17.8 x 17.8 cm Hotplate-Stirrer, with NIST-traceable certificate	220–240 V 7 A 1,050 W	444-1511
25.4 x 25.4 cm Hotplate-Stirrer	220–240 V 10 A 2,066 W	444-1512
25.4 x 25.4 cm Hotplate-Stirrer, with NIST-traceable certificate	220–240 V 10 A 2,066 W	444-1513

* Centered on plate.

** Conditions permitting. Variations in temperature and speed measurement processes, vessels, ambient temperature and sample will impact actual performance. To improve the temperature accuracy of the system, use the Single Point Calibration feature.



VWR® ADVANCED HOTPLATE-STIRRERS

VWR Advanced hotplates, stirrers and hotplate-stirrers are designed to deliver accurate and repeatable results in all research, academic and industrial applications. With temperatures up to 500 °C and stirring speeds reaching 1,600 rpm, VWR hotplate-stirrers provide proper mixing and superior temperature control. Available in three sizes and four top plate materials.

- 5-year warranty
- Excellent temperature uniformity and powerful stirring
- Large, easy-to-read LCD screen displays temperature and speed settings
- Industry-leading safety features
- Connection for optional RTD temperature probe



OPERATING FEATURES

Microprocessor control: A closed-loop PID microprocessor for temperature and speed control. This control type offers electronic feedback for control of both temperature and speed, providing greater accuracy and ease of use for reproducing your results. Microprocessor controls automatically stabilize the top plate for temperature and/or stirring speeds by regulating for variations in the system with reference to the original set point. Precise speed control provides consistent stirring at all speeds. Powerful continuous-duty motor delivers dependable and reliable stirring. Display will show last settings, even after power has been turned off. Enhanced electronics regulate heating and will bring samples to the desired temperature, quickly and efficiently.

Digital display: The easy-to-use and easy-to-read front panel includes two intuitive dial knobs to navigate the settings menu options. The bright white LCD screen displays speed and temperature and toggles between actual and set point readings.

Low-profile design: The low-profile design occupies minimal bench space and fits into fume hoods.

Built-in support rod holder: The rear housing of the hotplate features an off-centered, built-in support rod holder. The 25.4 × 25.4 cm model features two support rod holders on each side, enabling flexibility to create a unique setup for the application.

Top plate material: Ceramic, ceramic-coated stainless steel and resin materials create a chemical-resistant, reflective white top plate that is easy to clean. Durable aluminum tops will not crack or chip and provide a more uniform heating surface.

Temperature calibration: User-defined temperature calibration feature allows the user to calibrate the probe and plate to an external temperature device.

SAFETY FEATURES

Hotplates are equipped with a variety of innovative safety features designed to facilitate efficient operation and workplace safety.

Over heat protection: Units are equipped with an industry-leading early detection system that utilizes two independent safety controls to continuously monitor the electronics and shut off the heater before an over-temperature condition occurs.

Spill-resistant design: Channels fluids away from internal components.

Hot top indicator: A large 16 mm hot top warning light is illuminated when the heat is turned on. The light remains on until the top plate is below 40 °C, even when power is turned off.

Stir protection: If the stirrer motor stops or fails, the unit will automatically shut off the heater. If using the optional temperature probe, in the event the probe disengages from the sample, the heater will automatically shut off (hotplate-stirrer models).

Speed ramping feature: Motor slowly increases speed for improved safety and enhanced coupling. Avoids splashing, improves spin bar control and provides excellent low-end speed control.

OPERATING CONDITIONS

Units can be run in noncondensing environments from 5 to 40 °C, 20% to 80% relative humidity. Not recommended for use in vacuum or low-pressure environments.

ORDERING INFORMATION

Units include a 234 cm detachable three-wire cord and Euro- and UK-type plugs with CH adapter and 3.8 cm PTFE-coated stir bar.

CERTIFICATIONS

RoHS certified. TÜV listed. CE marked.
Product safety: TÜV SÜD certified to CAN/CSA C22.2 61010-1, CAN/CSA C22.2 61010-2-010, CAN/CSA C22.2 61010-2-051, UL 61010-1, UL 61010-2-010 and UL 610102-051.
Electromagnetic compatibility: Canada ICES003 Class A; FCC Part 15 Class A.
Compliance mark: TÜV SUD.

Description	Top plate material	Electrical	Cat. No.
Advanced hotplate-stirrers			
17.8 × 17.8 cm Hotplate-Stirrer	Ceramic	220–240 V 7 A 1,050 W	444-1502
17.8 × 17.8 cm Hotplate-Stirrer	Aluminum	220–240 V 7 A 1,050 W	444-1505
25.4 × 25.4 cm Hotplate-Stirrer	Ceramic	220–240 V 10 A 2,066 W	444-1507
135 mm Round-Top Hotplate-Stirrer	Ceramic-coated stainless steel	220–240 V 4 A 550 W	444-1506
Advanced hotplates			
17.8 × 17.8 cm Hotplate	Ceramic	220–240 V 7 A 1,050 W	444-1503
25.4 × 25.4 cm Hotplate	Ceramic	220–240 V 10 A 2,066 W	444-1508
Advanced stirrers			
17.8 × 17.8 cm Stirrer	Resin	220–240 V 1 A 35 W	444-1504
25.4 × 25.4 cm Stirrer	Ceramic	220–240 V 1 A 35 W	444-1509

Specifications

Top plate dimensions	17.8 × 17.8 cm	25.4 × 25.4 cm	135 mm Ø
OPERATING SPECIFICATIONS			
Temperature range			
Ceramic	Ambient +5 to 500 °C	–	–
Aluminum	–	Ambient +5 to 340 °C	–
Ceramic-coated stainless steel	–	–	Ambient +5 to 380 °C
Resin	–	–	–
Temperature stability of top plate*	±3% (>100 °C), ±2 °C (≤100 °C)		
Temperature stability with temperature probe**	±2% (>100 °C), ±2 °C (≤100 °C)		
Speed range	80 to 1,600 rpm		
Speed stability	±2%		
Ingress Protection rating	IP21		
Maximum stirring capacity	15 L H ₂ O	22 L H ₂ O	15 L H ₂ O
OVERALL SPECIFICATIONS			
Overall dimensions	31.8 × 22.3 × 11.2 cm	40.2 × 28.7 × 11.8 cm	26.4 × 16.3 × 10.1 cm
Ship weight			
Ceramic	4.8 kg (hotplate-stirrers, hotplates)	9.1 kg (hotplate-stirrers, hotplates, stirrers)	–
Aluminum	4.8 kg (hotplate-stirrers)	–	–
Ceramic-coated stainless steel	–	–	3.3 kg (hotplate-stirrers)
Resin	4.8 kg (stirrers)	–	–
Net weight			
Ceramic	3.9 kg (hotplate-stirrers) 3.3 kg (hotplates)	6.7 kg (hotplate-stirrers, stirrers)	6.1 kg (hotplates)
Aluminum	4 kg (hotplate-stirrers)	–	–
Ceramic-coated stainless steel	–	–	2.5 kg (hotplate-stirrers)
Resin	3 kg (stirrers)	–	–

* Centered on plate.

** Conditions permitting. Variations in temperature and speed measurement processes, vessels, ambient temperature and sample will impact actual performance. To improve the temperature accuracy of the system, use the Single Point Calibration feature.



VWR® HOTPLATE-STIRRER ACCESSORIES

Description	Cat. No.
20.3 cm Stainless-Steel PT1000 Probe	444-0641
20.3 cm PTFE PT1000 Probe	444-0642
25.4 cm Stainless-Steel PT1000 Probe	444-0643
25.4 cm PTFE PT1000 Probe	444-0644
20.3 cm Stainless-Steel Probe, with 45.7 cm stainless-steel rod, hook connector, thermometer extension clamp and 3-prong swivel clamp	444-0645
Vessel Clamp	442-1278
Support Rod and Clamp Kit, with 45.7 cm stainless-steel rod, hook connector, thermometer extension clamp and 3-prong swivel clamp	444-2844



VWR® ROUND-TOP HOTPLATE-STIRRER ACCESSORIES

REACTION STATION BLOCKS

- Heat and stir a variety of samples simultaneously on one hotplate
- Uni-blocks and sectional blocks accommodate nine different sample sizes
- Anodized aluminum with close block-to-tube contact ensures optimal transfer of heat

The VWR Multisample Reaction Station holds up to five multiple sample sizes all in one unit. The base plate has a centrally located threaded opening to accommodate a 13 mm Ø support rod. Blocks are made of anodized aluminum to provide superior temperature stability and heat transfer. Each block has a thermometer well for measuring temperature. Base plate is designed to fit VWR Round-Top hotplate-stirrers or other models with 135 mm Ø tops. Safety handles are available to aid in the safe removal of the blocks or base plate.



Uni-Blocks: Test tubes

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
12 mm Tubes	40	12.7 mm	45.7 mm	442-1279
16 mm Tubes	32	17.5 mm	45.7 mm	442-1280
20 mm Tubes	32	20.5 mm	45.7 mm	442-1281
25 mm Tubes	24	25.4 mm	41.9 mm	442-1282

Uni-Blocks: Vials

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
12 mm Vials (2 ml)	40	12.7 mm	16.8 mm	442-1283
15 mm Vials (1 dram)	40	15.5 mm	16.8 mm	442-1284
17 mm Vials (2 drams)	32	17.8 mm	16.8 mm	442-1285
21 mm Vials (4 drams)	24	21.5 mm	16.8 mm	442-1286
28 mm Vials	16	28.8 mm	16.8 mm	442-1287



Sectional blocks: Test tubes

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
12 mm Tubes	9	12.7 mm	45.7 mm	442-1288
16 mm Tubes	8	17.5 mm	45.7 mm	442-1289
20 mm Tubes	6	20.5 mm	45.7 mm	442-1290
25 mm Tubes	5	25.4 mm	41.9 mm	442-1291

Sectional blocks: Vials

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
12 mm Vials (2 ml)	9	12.7 mm	16.8 mm	442-1292
15 mm Vials (1 dram)	10	15.5 mm	16.8 mm	442-1293
17 mm Vials (2 drams)	7	17.8 mm	16.8 mm	442-1294
21 mm Vials (4 drams)	5	21.5 mm	16.8 mm	442-1295
28 mm Vials	3	28.8 mm	16.8 mm	442-1296

OTHER ACCESSORIES

Description	Cat. No.
Base Plate, for 135 mm Ø top plates	442-1297
Safety Handles (set of 2)	442-1298





444-7115

VWR® ADVANCED LARGE-CAPACITY STIRRERS

- LED screens for speed and time
- Durable, stainless-steel construction
- Mix up to 200 L

VWR Advanced Model 1000 and Model 2000 Large-Capacity Stirrers are ideal for high-volume applications. The powerful magnetic drive is capable of mixing high-viscosity materials. Stainless-steel base offers durability and added stability.

OPERATING FEATURES

Microprocessor control: Precisely regulates speed through the entire range. Stirring function, with continuous-duty motor and magnet, maintains the set speed even under changing load or viscosity.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time. Timer will display elapsed time or, when programmed to user-defined limit, will shut off the unit when the time reaches zero.

SAFETY FEATURES

Audible alarm: In timed mode, the alarm will sound when time reaches zero.

Speed ramping feature: Slowly increases speed for improved safety and enhanced coupling. Avoids splashing, improves spin bar control and provides excellent low-speed control.

OPERATING CONDITIONS

Parameters: Units can be run in noncondensing environments from 5 to 40 °C, 20% to 80% relative humidity.

Applications: Mixing viscous materials, polymers and pilot scale.

ORDERING INFORMATION

Units include a 234 cm detachable three-wire cord and Euro- and UK-type plugs with CH adapter. Model 1000 units are supplied with a 7 cm egg-shaped PTFE-coated stir bar. Model 2000 units are supplied with a 10.2 cm PTFE-coated stir bar with a pivot ring. 5-year limited warranty on parts and labor.

Description	Electrical (50/60 Hz)	Cat. No.
Model 1000 Advanced Large-Capacity Stirrer, 100 L	230 V 0.5 A 41 W	444-7115
Model 2000 Advanced Large-Capacity Stirrer, 200 L	230 V 0.5 A 82 W	444-7118

Specifications

Speed range	Model 1000: 100 to 1,800 rpm Model 2000: 100 to 1,650 rpm
PID temperature controller:	Easy-to-use controls allow users to adjust temperature in 1 °C increments.
Speed stability	±2%
Timer	1 to 160 h
Maximum stirring capacity	Model 1000: 100 L H ₂ O Model 2000: 200 L H ₂ O
Maximum weight capacity	193 kg
Top plate material	Type 304 stainless steel
Top plate dimensions (L × W)	54 × 63.5 cm
Overall dimensions (L × W × H)	72.4 × 68 × 13.3 cm
Ship weight	28.6 kg



VWR® ADVANCED MINI DRY BLOCK HEATER

- Compact, ergonomic design
- Six modular block options

The VWR Advanced Mini Dry Block Heater is ideal for a variety of applications that require accurate and repeatable results, such as LAMP assays, immunoassays, enzyme reactions and denaturations. This personal-sized heater takes up minimal bench space and is small enough to fit in the palm of your hand.

The block heater accepts one interchangeable mini block for 0.2, 0.5, 1.5 or 50 ml tubes. This model includes a clear polycarbonate lid to help prevent evaporation and maintain temperature uniformity. The cover is easily removable when incubating 15 or 50 ml tubes. Efficient heater features close tube-and-block contact with a low-density design for exceptional temperature uniformity. Units include a block-lifting tool.

OPERATING FEATURES

Microprocessor control: PID temperature control provides temperature accuracy as low as $\pm 0.5^{\circ}\text{C}$ and uniformity as low as $\pm 0.2^{\circ}\text{C}$. Samples are heated to temperature quickly and accurately. Temperature can be adjusted in 0.1°C increments.

LED screens: Touchpad controls with easy-to-read, independent screens for temperature and time. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off when the time reaches zero. Display will show last settings, even after power has been turned off.

Temperature calibration mode: Allows user to calibrate unit to an external temperature device.

SAFETY FEATURES

Audible alarm: In timed mode, the alarm will sound when time reaches zero and when unit reaches set-point temperature.

Cool-touch housing: Constructed from a high-quality heat- and chemical-resistant polymer. The unit's housing remains cool to touch throughout normal operating temperatures.

Heat caution indicator: To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 18 to 33°C , 20% to 80% relative humidity.

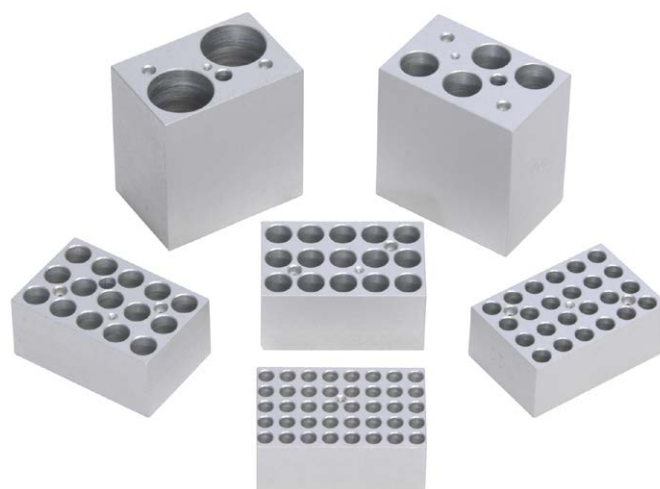
Applications: LAMP assays, immunoassays, enzyme reactions and denaturations.

Specifications

Temperature range	Ambient +5 to 100°C
Temperature accuracy	$\pm 0.5^{\circ}\text{C}$
Temperature uniformity	$\pm 0.2^{\circ}\text{C}$
Time to reach 37°C	2 min
Timer	1 s to 160 h
Overall dimensions (L x W x H)	16 x 12.7 x 12.3 cm
Ship weight	1.6 kg



460-0334 with optional block



Accessory blocks, see Page 46

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and UK-type plug or Euro-type plug with Swiss adapter. 5-year limited warranty on parts and labor. VWR Mini Modular Heating Block (sold separately) required for operation.

Description	Electrical (50/60 Hz)	Cat. No.
Advanced Mini Dry Block Heater (EU/CH)	230 V 0.25 A 48 W	460-0334
Advanced Mini Dry Block Heater (UK)	230 V 0.25 A 48 W	460-0335

VWR® ADVANCED MINI DRY BLOCK HEATER WITH HEATED LID

- Heated lid option reduces condensation on sample lids
- Compact, ergonomic design
- Four modular block options

The VWR Advanced Mini Dry Block Heater with Heated Lid is ideal for a variety of applications that require accurate and repeatable results, such as LAMP assays, immunoassays, enzyme reactions and denaturations. This personal-sized heater takes up minimal bench space and is small enough to fit in the palm of your hand.

The block heater accepts one interchangeable mini block for 0.2, 0.5, 1.5 or 2 ml tubes. The heated lid helps to reduce the amount of condensation on sample lids, regulate the temperature and maintain temperature uniformity. Efficient heater features close tube-and-block contact with a low-density design for exceptional temperature uniformity. Units include a block-lifting tool.

OPERATING FEATURES

Microprocessor control: PID temperature control provides temperature accuracy as low as ± 0.3 °C and uniformity as low as ± 0.2 °C. Samples are heated to temperature quickly and accurately. Temperature can be adjusted in 0.1 °C increments.

LED screens: Touchpad controls with easy-to-read, independent screens for temperature and time. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last settings, even after power has been turned off.

Temperature calibration mode: Allows user to calibrate unit to an external temperature device.

SAFETY FEATURES

Audible alarm: In timed mode, the alarm will sound when time reaches zero and when unit reaches set-point temperature.

Cool-touch housing: Constructed from a high-quality heat- and chemical-resistant polymer. The unit's housing remains cool to touch throughout normal operating temperatures.

Heat caution indicator: To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

Specifications

Temperature range	Ambient +5 to 100 °C
Temperature accuracy	± 0.3 °C
Temperature uniformity	± 0.2 °C
Time to reach 37 °C	2 min
Timer	1 to 160 h
Overall dimensions (L x W x H)	16 x 12.7 x 12.3 cm
Ship weight	1.6 kg



460-0336 with optional block 460-0339

**OPERATING CONDITIONS**

Parameters: Unit can be run in noncondensing environments from 18 to 33 °C, 20% to 80% relative humidity.

Applications: LAMP assays, immunoassays, enzyme reactions and denaturations.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and UK-type plug or Euro-type plug with Swiss adapter. 5-year limited warranty on parts and labor. VWR Mini Modular Heating Block (sold separately) required for operation.

Description	Electrical (50/60 Hz)	Cat. No.
Advanced Mini Dry Block Heater (EU/CH)	230 V 0.340 A 73 W	460-0336
Advanced Mini Dry Block Heater (UK)	230 V 0.340 A 73 W	460-0337

Accessories

Description	No. of wells	Dimensions (D x W x H)	Well depth	Well Ø	Thermometer well	Cat. No.
Mini block for 0.2 ml tubes	40	7.11 x 4.69 x 2.67 cm	15.2 mm	6.4 mm	No	460-0338
Mini block for 0.5 ml tubes	24	7.11 x 4.69 x 2.92 cm	21 mm	7.9 mm	No	460-0339
Mini block for 1.5 ml tubes	15	7.11 x 4.69 x 3.30 cm	30.5 mm	11.1 mm	Yes	460-0340
Mini block for 2.0 ml tubes	15	7.11 x 4.69 x 3.30 cm	30.5 mm	11.5 mm	No	460-0341
Mini block for 15 ml tubes*	4	7.11 x 4.69 x 5.59 cm	72.4 mm	17.1 mm	Yes	460-0342
Mini block for 50 ml tubes*	2	7.11 x 4.69 x 5.59 cm	72.4 mm	30.0 mm	Yes	460-0343

* Not for use with Advanced Mini Dry Block Heater with Heated Lid.

VWR® ADVANCED DRY BLOCK HEATER

- New design with smaller footprint
- Exceptional temperature uniformity and stability
- Optional External Temperature Probe Kit
- Holds interchangeable modular blocks

The VWR Advanced Dry Block Heater is designed for applications that require repeatable results and superior temperature stability. This multipurpose unit is ideal for the incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional External Temperature Probe Kit to monitor actual block or sample temperature. Each of the five models accepts separate interchangeable modular blocks, accommodating various tube sizes from 0.2 ml microtubes to 50 ml centrifuge tubes. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube-and-block contact for maximum heat retention. Modular heating blocks (sold separately) required for operation (see Pages 51–53).

OPERATING FEATURES

Microprocessor control: PID temperature control, with optional external RTD probe, offers temperature stability and uniformity each as low as $\pm 0.1^\circ\text{C}$. Samples are heated to temperature quickly and accurately. Temperature is adjusted in 0.1°C increments.

LED screens: Touchpad controls with easy-to-read, independent LED screens for temperature and time. Provide repeatable and accurate results every time and are easily visible across lab benches. Shows set point and actual temperatures. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

Temperature calibration mode: Allows user to calibrate unit to an external temperature device.

SAFETY FEATURES

Heat caution indicator: A hot top warning light is illuminated when the temperature is above 40°C .

Audible alarm: In timed mode, the alarm will sound when time reaches zero and when unit reaches set-point temperature.

Heat caution indicator: To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.



460-0349 with optional block and probe kit

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 18 to 33°C , 20% to 80% relative humidity.

Applications: Denaturing proteins, DNA applications, ELISA and other immunoassay studies.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with CH adapter. 5-year limited warranty on parts and labor. Modular blocks sold separately (see Pages 51–53).

Block capacity	Temperature range	Stability at 37 °C	Uniformity within the block at 37 °C	Uniformity across similar blocks at 37 °C	Time to reach 100 °C	Timer
1	Ambient +5 to 120 °C	230 V units: ±0.2 °C	230 V units: ±0.2 °C	–	45 min	1 to 160 h
2				±0.1 °C	50 min	
4				±0.2 °C	60 min	
6				±0.3 °C	65 min	

Block capacity	Dimensions (L × W × H)	Electrical (50/60 Hz)	Ship weight	Cat. No.
Advanced Dry Block Heater				
1	26.9 × 19.6 × 11.7 cm	230 V 0.5 A 100 W	2.3 kg	460-0349
2	34.8 × 19.6 × 11.7 cm	230 V 0.9 A 190 W	2.6 kg	460-0350
4	42.4 × 20.1 × 10.4 cm	230 V 1.3 A 270 W	4.0 kg	460-0351
6	52.6 × 20.1 × 10.4 cm	230 V 2.0 A 420 W	4.5 kg	460-0352

VWR® EXTERNAL TEMPERATURE PROBE KIT

The VWR External Temperature Probe Kit enables the unit to read the actual block or sample temperature and display that temperature on the control panel. Includes a stainless-steel RTD PT100 probe, 45.7 cm stainless-steel support rod, thermometer/temperature probe extension clamp and hook connector. The RTD probe is designed to fit perfectly into the thermometer well of each modular block.



Description	Cat. No.
External Temperature Probe Kit	460-3288



VWR® ADVANCED DRY BLOCK HEATER WITH HEATED LID

- Exceptional temperature uniformity, stability and regulation
- Heated lid reduces condensation on sample lids
- Optional External Temperature Probe Kit

The VWR Advanced Dry Block Heater with Heated Lid is designed for applications that require repeatable results and superior temperature stability. It is ideal for isothermal incubation, enzyme reactions, immunoassays, nucleic acid denaturation and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional External Temperature-Probe Kit. Optional External Temperature Probe Kit monitors actual block or sample temperature. Block heater accepts one microplate block or two separate interchangeable modular blocks, accommodating various tube sizes from 0.2 ml microtubes to test tubes or vials up to 85 mm tall. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube-and-block contact with a low-density design for exceptional temperature uniformity. The heated lid helps to regulate the temperature and reduce the amount of condensation on sample lids. Modular heating blocks (sold separately) required for operation (see Pages 51–53).

OPERATING FEATURES

Microprocessor control: PID temperature control, with optional external RTD probe, offers temperature and temperature uniformity each as low as $\pm 0.1^\circ\text{C}$. Samples are heated to temperature quickly and accurately. Temperature is adjusted in 0.1°C increments.

LED screens: Touchpad controls with easy-to-read, independent LED screens for temperature and time. Provide repeatable and accurate results every time and are easily visible across lab benches. Shows set point and actual temperature. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

Temperature calibration mode: Allows user to calibrate unit to an external temperature device.

SAFETY FEATURES

Heat caution indicator: A hot top warning light is illuminated when the temperature is above 40°C .

Audible alarm: In timed mode, the alarm will sound when time reaches zero and when unit reaches set-point temperature.

Heat caution indicator: To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.



OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 18 to 33°C , 20% to 80% relative humidity.

Applications: Isothermal incubation, enzyme reactions, immunoassays and nucleic acid denaturation.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with CH adapter. 5-year limited warranty on parts and labor. Optional External Temperature Probe Kit available (see Page 48). Modular blocks sold separately (see Pages 51–53).

Block capacity	Temperature range	Stability at 37°C	Uniformity within the block at 37°C	Uniformity across similar blocks at 37°C	Time to reach 100°C	Timer
2	Ambient $+5$ to 100°C	230 V units: $\pm 0.2^\circ\text{C}$	230 V units: $\pm 0.2^\circ\text{C}$	$\pm 0.2^\circ\text{C}$	50 min	1 to 160 h

Block capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)	Ship weight	Cat. No.
Advanced Dry Block Heater				
2	34.8 x 19.6 x 18.8 cm	230 V 1.5 A 320 W	3.9 kg	460-0353

VWR® STANDARD DRY BLOCK HEATER

- New design with smaller footprint
- Multipurpose use
- Holds interchangeable modular blocks
- Analog controls

The high-wattage, constant-temperature VWR Standard Dry Block Heater is economical, versatile and compact. This multipurpose unit is ideal for the incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points and a wide variety of other laboratory procedures. Each of the five models accepts separate interchangeable modular blocks, accommodating various sample enclosures such as microtubes, centrifuge tubes, vials, microplates and PCR strips or tubes. Each block has a thermometer well for measuring block temperature. Anodized aluminum modular blocks provide superior temperature stability and heat transfer. Modular heating blocks (sold separately) required for operation (see Pages 51–53).

OPERATING FEATURES

Adjustment knobs: Dual temperature control knobs with dial markings from 1 to 10 for low-temperature and high-temperature adjustments. Low-range knob adjusts from ambient to 100 °C, and high-range knob adjusts from 75 to 150 °C.

Heat caution indicator: To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 18 to 33 °C, 20% to 80% relative humidity.

Applications: Coagulation and RH studies.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro- and UK-type plugs with CH adapter. 5-year limited warranty on parts and labor. Modular blocks sold separately (see Pages 51–53).



460-0355 with optional block



460-0354 with optional block

Block capacity	Temperature range	Stability at 37 °C	Uniformity within the block at 37 °C	Uniformity across similar blocks at 37 °C	Time to reach 100 °C
1	Low range: ambient +5 to 100 °C High range: 75 to 150 °C	230 V units: ±1.5 °C	230 V units: ±0.2 °C	–	45 min
2		230 V units: ±2.0 °C		±0.1 °C	50 min
4		230 V units: ±2.5 °C		±0.2 °C	70 min
6		230 V units: ±2.5 °C		±0.3 °C	75 min

Block capacity	Dimensions (L × W × H)	Electrical (50/60 Hz)	Ship weight	Cat. No.
Standard Dry Block Heater				
1	26.9 × 19.6 × 11.7 cm	230 V 0.5 A 100 W	2.3 kg	460-0354
2	34.8 × 19.6 × 11.7 cm	230 V 0.9 A 190 W	2.6 kg	460-0355
4	42.4 × 20.1 × 10.4 cm	230 V 1.3 A 270 W	4.0 kg	460-0356
6	52.6 × 20.1 × 10.4 cm	230 V 2.0 A 420 W	4.5 kg	460-0357

VWR® MODULAR BLOCKS AND ACCESSORIES

VWR Modular Blocks are constructed from solid anodized aluminum. The close tubes-to-block-walls contact allows for maximum heat retention. Each block has a thermometer well for measuring block temperature. Block color may vary.

Heat caution indicator: To avoid possible electrical hazard, do not fill well or block with water or other liquids. Units are designed as a dry bath/incubator.

Dimensions (L × W × H):

Single blocks: 9.5 × 7.6 × 5.1 cm

Double blocks: 15.2 × 9.5 × 5.7 cm



VWR® MICROCENTRIFUGE TUBE BLOCKS

Single blocks.

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
0.5 ml tubes	30	7.9 mm	27.6 mm	460-3211
1.5 ml tubes	20	11.1 mm	39.1 mm	460-3235
1.5 ml Eppendorf Tubes	20	11.5 mm	36.9 mm	460-3212
2 ml Eppendorf Tubes	20	11.5 mm	38.1 mm	460-3245
2 ml Corning® Tubes	20	10.9 mm	38.1 mm	460-3246



VWR® TITER PLATE BLOCKS

Double blocks. Fits dry block heaters. Ideal for 96- or 384-well titer plates. Recessed wells for better stability and flat surface good for flat and round-bottom plates.

Sample type	Well depth	Cat. No.
Titer plates	13.5 mm	460-3238



VWR® CONICAL-BOTTOM CENTRIFUGE TUBE BLOCKS

Single blocks.

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
15 ml tubes	12	17.1 mm	44.5 mm	460-3221
50 ml tubes	5	29 mm	47.6 mm	460-3223

VWR® STANDARD TEST TUBE BLOCKS

Single blocks.

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
6 mm tubes	30	8.3 mm	48.4 mm	460-3213
10 mm tubes	24	10.7 mm	48.4 mm	460-3214
12/13 mm tubes	20	13.9 mm	48.4 mm	460-3216
12/13 mm tubes	16	13.9 mm	48.4 mm	460-3215
15/16 mm tubes	12	17.5 mm	48.4 mm	460-3217
17/18 mm tubes	12	19.1 mm	48.4 mm	460-3243
20 mm tubes	8	21 mm	48.4 mm	460-3218
25 mm tubes	6	26.2 mm	48.4 mm	460-3219
35 mm tubes	4	35 mm	47.6 mm	460-3222



VWR® COMBINATION BLOCKS

Single blocks. Designed for variable-sized samples.

Sample type combination	Tube size	No. of wells	Well Ø	Well depth	Cat. No.
Test tubes	6 mm	6	8.3 mm	48.4 mm	460-3220
	12/13 mm	5	13.8 mm	48.4 mm	
	25 mm	3	26.2 mm	48.4 mm	
Centrifuge tubes	1.5 ml	4	11.1 mm	39.1 mm	460-3247
	15 ml	3	17.1 mm	44.5 mm	
	50 ml	2	29 mm	47.6 mm	
Microtubes	0.5 ml	6	7.9 mm	27.6 mm	460-3248
	1.5 ml	10	11.1 mm	39.1 mm	
	2 ml	5	11.5 mm	38.1 mm	



VWR® PCR PLATE, TUBE & STRIP BLOCKS

Single and double blocks. Tapered wells for 0.2 ml tubes. Spaced for easy access and removal.

Sample type	Block size	No. of wells	Well Ø	Well depth	Cat. No.
96-well PCR plates	Double	96	6.4 mm	15.5 mm	460-3226
10 × 8-tube strips	Single	80	6.4 mm	15.5 mm	460-3224
Individual tubes	Single	64	6.4 mm	20.2 mm	460-3225



VWR® VIAL BLOCKS

Single blocks. Designed for sample/serum and scintillation vials.

Sample type	No. of wells	Well Ø	Well depth	Cat. No.
12 mm vials	20	12.7 mm	30 mm	460-3279
15 mm vials	20	15.8 mm	35 mm	460-3280
16 mm vials	15	16.4 mm	45 mm	460-3287
17 mm vials	12	17.8 mm	45 mm	460-3281
19 mm vials	12	19.7 mm	45 mm	460-3282
21 mm vials	9	21.7 mm	45 mm	460-3283
23 mm vials	8	23.8 mm	45 mm	460-3284
25 mm vials	8	25.8 mm	45 mm	460-3285
28 mm vials	6	28.8 mm	45 mm	460-3286
35 mm vials	4	35.0 mm	47.6 mm	460-3222



VWR® CUVETTE BLOCKS

Single blocks. Two parallel slots each fit six cuvettes side by side.

Sample type	No. of wells	Well depth	Cat. No.
12 × 12.5-mm cuvettes	2	25.4 mm	460-3237



VWR® SOLID BLOCKS

Single and double blocks. For use as a low-temperature hotplate, for slide drying or for drilling to make a custom block.

Block size	Dimensions (L × W × H)	Cat. No.
Single	9.5 × 7.6 × 5.1 cm	460-3236
Double	15.2 × 9.5 × 5.7 cm	460-3239



VWR® STAINLESS-STEEL SAND BATHS

Ideal for irregular vessels. Stainless-steel construction for superior corrosion resistance. Designed to hold sand, stainless-steel shot or nonvolatile liquids.

For unit	Dimensions (L × W × H)	Cat. No.
1-Block Dry Block Heater	9.5 × 7.6 × 6.4 cm	460-3227
2-Block Dry Block Heater	9.5 × 14.9 × 6.4 cm	460-3228
4-Block Dry Block Heater	14.7 × 19.1 × 6.4 cm	460-3230
6-Block Dry Block Heater	14.7 × 28.7 × 6.4 cm	460-3231

Accessories

Dimensions	Cat. No.
Sand*	460-3232
Stainless-Steel Shot*	460-3233

* 450 g capacity per sand bath.

VWR® LOW-TEMPERATURE COVERS

Plexiglass covers reduce air flow for additional temperature stability in low-temperature applications. Two sides are open 6.4 mm.

Description	Dimensions (L × W × H)	Cat. No.
2-Block Cover	16.5 × 16.5 × 4.1 cm	460-3240
2-Block Cover	16.5 × 16.5 × 11.0 cm	460-3289
4-Block Cover	21.6 × 19.1 × 4.1 cm	460-3241
6-Block Cover	31.8 × 19.1 × 4.1 cm	460-3242





444-0994



VWR® FIXED-SPEED VORTEX MIXER

- New ergonomic design
- Fixed high-speed mixing
- Touch mode operation

New ergonomic design provides optimum comfort and minimal stress. Starts mixing when the cup head is pressed down. Speed is fixed to provide vigorous vortexing of samples.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

ORDERING INFORMATION

Unit includes a 183 cm three-wire cord and UK-type plug or Euro-type plug with CH adapter. Includes both cup head and 7.6 cm head with cover. 5-year limited warranty on parts and labor.

Speed	2,800 rpm
Orbit	4.9 mm
Capacity	0.5 kg
Controls	None
Duty rating	Intermittent duty
Dimensions (L × W × H)	17.8 × 11.2 × 13.5 cm
Ship weight	4.5 kg

Description	Electrical (50/60 Hz)	Cat. No.
Fixed-Speed Vortex Mixer (EU/CH)	230 V 0.6 A 135 W	460-0994
Fixed Speed Vortex Mixer (UK)	230 V 0.6 A 135 W	460-0995



444-0996



VWR® ANALOG VORTEX MIXER

- New ergonomic design
- Variable, analog speed control
- Continuous or touch mode operation

New ergonomic design provides optimum comfort and minimal stress. Controls allow low-speed startup for gentle shaking or high-speed mixing for vigorous vortexing of samples. Choose from two modes of operation: "Touch" mode, which activates mixing when cup head is depressed, or "On" mode, for continuous operation while using accessory attachments.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

ORDERING INFORMATION

Unit includes a 183 cm three-wire cord and UK-type plug or Euro-type plug with CH adapter. Includes both cup head and 7.6 cm head with cover. 5-year limited warranty on parts and labor.

Speed range*	300 to 2,800 rpm
Orbit	4.9 mm
Capacity	0.5 kg
Duty rating	Intermittent duty
Controls	Auto/Off/On rocker switch, speed knob with variable 1 to 10 dial marks
Dimensions (L × W × H)	17.8 × 11.2 × 13.5 cm
Ship weight	4.5 kg

* Maximum speed will vary depending on accessory used.

Description	Electrical (50/60 Hz)	Cat. No.
Analog Vortex Mixer (EU/CH)	230 V 0.6 A 135 W	460-0996
Analog Vortex Mixer (UK)	230 V 0.6 A 135 W	460-0997



444-0998



VWR® DIGITAL VORTEX MIXER

- New ergonomic design
- LED screens for speed and time
- Continuous or touch mode operation
- Microprocessor controls

New ergonomic design provides optimum comfort and minimal stress. Ideal for applications that demand repeatable results. Microprocessor control maintains the set speed for strong, consistent mixing action. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Choose from two modes of operation: "Touch" mode, which activates mixing when cup head is depressed, or "On" mode, for continuous operation while using accessory attachments.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

ORDERING INFORMATION

Unit includes a 183 cm EU cord and plug with a CH adapter or a UK cord and plug. Includes both cup head and 7.6 cm head with cover. 5-year limited warranty on parts and labor.

Speed range*	500 to 2,800 rpm
Timer	1 to 160 h
Orbit	4.9 mm
Capacity	0.5 kg
Duty rating	Intermittent duty
Controls	Auto/Standby/On rocker switch, LED screens for speed/time, Up/Down buttons for set-point control
Dimensions (L x W x H)	17.8 x 11.2 x 13.5 cm
Ship weight	4.5 kg

* Maximum speed will vary depending on accessory used.

Description	Electrical (50/60 Hz)	Cat. No.
Digital Vortex Mixer (EU/CH)	230 V 0.6 A 135 W	444-0998
Digital Vortex Mixer (UK)	230 V 0.6 A 135 W	444-0999



444-1041



VWR® PULSING VORTEX MIXER

- New ergonomic design
- LED screens for time and speed
- Continuous or touch mode operation
- Glass bead cell disruption/homogenization

New ergonomic design provides optimum comfort and minimal stress. Powerful pulsing vortex action produces excellent cell disruption for glass bead procedures. Capable of complete cell disruption of samples in only minutes. Unique pulsing action reduces heat generation while providing more effective mixing and disruption. Displayed time counts up during continuous operation and down during timed runs.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

ORDERING INFORMATION

Unit includes a 183 cm three-wire cord and UK-type plug or Euro-type plug with CH adapter. Includes cup head, 7.6 cm head with cover and easy-to-load 1.5 to 2 ml microtube holder. Holder has a built-in cup head. 5-year limited warranty on parts and labor.

Speed range*	500 to 2,800 rpm
Timer	1 to 160 h
Orbit	2.5 mm
Capacity	0.5 kg
Duty rating	Intermittent duty
Controls	Auto/Standby/On rocker switch, LED screens for speed/time, Up/Down buttons for set-point control, Pulse button
Dimensions (L x W x H)	17.8 x 11.2 x 13.5 cm
Ship weight	4.5 kg

* Maximum speed will vary depending on accessory used.

Description	Electrical (50/60 Hz)	Cat. No.
Pulsing Vortex Mixer (EU/CH)	230 V 0.6 A 135 W	444-1041
Pulsing Vortex Mixer (UK)	230 V 0.6 A 135 W	444-1042

VWR® VORTEX MIXER ACCESSORIES

VWR® MICROTUBE HOLDER

Mixes 48 microtubes (0.25 to 2 ml).
Requires insert retainer.

Description	Cat. No.
Microtube Holder (2 pack)	444-0218
Insert Retainer	444-7048



VWR® 9–13 MM TUBE HOLDER

Ideal for mixing 5 ml culture tubes and microvials. Requires Insert Retainer.

Description	Cat. No.
9–13 mm Tube Holder (2 pack)	444-7051
Insert Retainer	444-7048



VWR® 14–19 MM TUBE HOLDER

Ideal for mixing up to eight 15 ml centrifuge tubes. Requires insert retainer.

Description	Cat. No.
14–19 mm Tube Holder (2 pack)	444-7052
Insert Retainer	444-7048



VWR® 20–25 MM TUBE HOLDER

Ideal for mixing up to eight 50 ml centrifuge tubes. Requires insert retainer.

Description	Cat. No.
20–25 mm Tube Holder (2 pack)	444-7053
Insert Retainer	444-7048



VWR® VESSEL HARNESS

Mixes Erlenmeyer flasks and media bottles. Requires insert retainer.

Description	Cat. No.
Vessel Harness (2 pack)	444-7050
Insert Retainer	444-7048



VWR® CUP HEAD

Designed for mixing one tube at a time.

Description	Cat. No.
Cup Head	444-7060



VWR® 7.6 CM RUBBER HEAD COVER AND 7.6 CM HEAD

Designed for mixing irregularly shaped objects.

Description	Cat. No.
7.6 cm Rubber Head Cover	444-7059
7.6 cm Head	444-7058
7.6 cm Head and Rubber Head Cover	444-0208



VWR® MICROWELL PLATE HOLDER

Ideal for mixing 96-well plates or deep-well blocks. Requires insert retainer.

Description	Cat. No.
Microwell Plate Holder (2 pack)	444-0219
Insert Retainer	444-7048



VWR® FLAT FOAM INSERT

Ideal for custom applications. Can be cut or drilled to fit your specifications. Requires insert retainer.

Description	Cat. No.
Flat Foam Insert (2 pack)	444-0211
Insert Retainer	444-7048



VWR® AMPULE TUBE HOLDER

Mixes up to four storage vials and test tubes.

Description	Cat. No.
15–17 mm Ampule Tube Holder	444-0212
10–17 mm Ampule Tube Holder	444-0213



VWR® STAINLESS-STEEL MICROTUBE HOLDER

Mixes up to twelve 1.5 to 5 ml tubes. Stainless-steel construction.

Description	Cat. No.
Stainless-Steel Microtube Holder	444-0214



VWR® MICROTUBE AND MICROWELL PLATE HOLDER KITS

Includes either microtube holder or microwell plate holder, both with insert retainer.

Description	Cat. No.
Microtube Holder Kit	444-0209
Microwell Plate Holder Kit	444-0210



VWR® TUBE HOLDER KIT

Includes 3 tube holders (for 9–13, 14–19 and 20–25 mm tubes), 1 flat foam insert, 2 vessel harnesses and 1 insert retainer.



Description	Cat. No.
Tube Holder Kit	444-7047

VWR® SINGLE TUBE HOLDER

Single-tube, hands-free mixing. Magnetically attaches to the top of any vortex mixer. Accepts tubes 6.4–11.4 cm tall and with at least 19 mm Ø.



Description	Cat. No.
Single Tube Holder	444-0217

VWR® 0.5 ML MICROTUBE ADAPTER

Holds 24 microtubes (0.5 ml). For use with Single Tube Holder.



Description	Cat. No.
Microtube Adapter for Single Tube Holder, holds 24 tubes (0.5 ml)	444-0215

VWR® 1.5–2 ML MICROTUBE ADAPTER

Holds 18 microtubes (1.5–2 ml). For use with Single Tube Holder.



Description	Cat. No.
Microtube Adapter for Single Tube Holder, holds 18 tubes (1.5–2 ml)	444-0216

GRINDING MEDIA**VWR® MOLECULAR BIOLOGY-GRADE SILICA/GLASS BEADS**

Treated to be DNase/RNase free, these beads are useful for preparing samples for molecular analysis.

Applications: Molecular applications for disrupting molds and yeast.

Description	Cat. No.
200 g Bottle	432-0064



VWR® STANDARD MICROPLATE VORTEX MIXER

- Designed for continuous operation
- Designed for shaking microplates or tubes
- Optional double microplate holder available

The VWR Standard Microplate Vortex Mixer is a variable-speed analog mixer designed for continuous operation. Its high speed and small orbit are optimal for effectively mixing microplates. Choose from two modes of operation: "Touch" mode, which activates mixing when cup head is depressed, or "On" mode, for continuous operation while using the microplate attachments.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and UK-type plug or Euro-type plug with CH adapter, cup head and microplate holder. Optional double-microplate holder available (444-7138). 5-year limited warranty on parts and labor.

Specifications

Speed range	On mode: 300 to 2,500 rpm Touch mode: 300 to 3,500 rpm
Orbit	3.5 mm
Controls	Analog
Capacity	2 microplates
Duty rating	Continuous duty
Dimensions (L x W x H)	26.7 x 13.7 x 11.4 cm
Ship weight	5.4 kg

Description	Electrical (50/60 Hz)	Cat. No.
Standard Microplate Vortex Mixer (EU/CH)	230 V 0.25 A 30 W	444-0986
Standard Microplate Vortex Mixer (UK)	230 V 0.25 A 30 W	444-0993



444-0985

VWR® ADVANCED MICROPLATE VORTEX MIXER

- Designed for continuous operation
- Designed for shaking microplates or tubes
- LED screen displays speed and time

The VWR Advanced Microplate Vortex Mixer is ideal for applications that demand repeatable results. Mixer features touchpad controls and LED indicators for accurate speed (rpm) and time (min and s). Microprocessor control maintains the set speed for strong, consistent mixing action. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Choose from two modes of operation: "Touch" mode, which activates mixing when cup head is depressed, or "On" mode, for continuous operation while using the microplate attachments.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

Speed range	On mode: 300 to 2,500 rpm Touch mode: 300 to 3,500 rpm
Timer	1 to 160 h
Orbit	3.5 mm
Controls	Touch/Standby/On rocker switch, LED screens for speed/time, Up/Down buttons for set-point control
Capacity	2 microplates
Duty rating	Continuous duty
Dimensions (L x W x H)	26.7 x 13.7 x 11.4 cm
Ship weight	15.4 kg

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and UK-type plug or Euro-type plug with CH adapter, cup head and microplate holder. Optional double-microplate holder available (444-7138). 5-year limited warranty on parts and labor.

Description	Electrical (50/60 Hz)	Cat. No.
Advanced Microplate Vortex Mixer (EU/CH)	230 V 0.13 A 30 W	444-0985
Advanced Microplate Vortex Mixer (UK)	230 V 0.13 A 30 W	444-0992



444-7133 with optional foam insert for 15 ml tubes 444-7144

VWR® STANDARD HEAVY-DUTY VORTEX MIXER

- Designed for continuous operation
- Includes foam insert for 1.5–2.0 ml microtubes
- Heavy-duty design

The VWR Standard Heavy-Duty Vortex Mixer is a variable-speed analog mixer that is designed for continuous operation. The heavy-duty design and efficient motor allow this mixer to operate continuously and handle all accessories over the entire speed range. Choose from two modes of operation: “Touch” mode, which activates mixing when cup head or Universal Holder with cover is depressed, or “On” mode, for continuous operation while using any of the accessory attachments.

Speed range	On mode: 300 to 2,500 rpm Touch mode: 300 to 3,500 rpm
Orbit	4.9 mm
Controls	Analog
Capacity	1.1 kg
Duty rating	Continuous duty
Dimensions (L × W × H)	24.1 × 16.8 × 16 cm
Ship weight	6.8 kg

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and UK-type plug or Euro-type plug with CH adapter, cup head, universal holder with cover and foam insert for 38 microtubes (1.5–2.0 ml). 5-year limited warranty on parts and labor.

Description	Electrical (50/60 Hz)	Cat. No.
Standard Heavy-Duty Vortex Mixer (EU/CH)	230 V 0.13 A 30 W	444-7133
Standard Heavy-Duty Vortex Mixer (UK)	230 V 0.13 A 30 W	444-7134



444-7130 with optional microplate holders 444-7151 and 444-7152

VWR® ADVANCED HEAVY-DUTY VORTEX MIXER

- Designed for continuous operation
- LED screens for speed and time
- Includes foam insert for 1.5–2.0 ml microtubes

The VWR Advanced Heavy-Duty Vortex Mixer is ideal for applications that demand repeatable results. Mixer features touchpad controls and LED screens for accurate speed (rpm) and time (min and s). The heavy-duty design and efficient motor allow this mixer to operate continuously duty and handle all accessories over the entire speed range. Choose from two modes of operation: "Touch" mode, which activates mixing when cup head or Universal Holder with cover is depressed, or "On" mode, for continuous operation while using any of the accessory attachments. Microprocessor control maintains set speed for strong, consistent mixing action. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero.

Speed range	On mode: 300 to 2,500 rpm Touch mode: 300 to 3,500 rpm
Timer	1 to 160 h
Orbit	4.9 mm
Controls	Touch/Standby/On rocker switch, LED screens for speed/time, Up/Down buttons for set-point control
Capacity	1.1 kg
Duty rating	Continuous duty
Dimensions (L × W × H)	24.1 × 16.8 × 16 cm
Ship weight	6.8 kg

ORDERING INFORMATION:

Unit includes a 234 cm detachable three-wire cord and UK-type plug or Euro-type plug with CH adapter, cup head, Universal Holder with cover and foam insert for 38 microtubes (1.5–2.0 ml). 5-year limited warranty on parts and labor.

OPERATING CONDITIONS:

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

Description	Electrical (50/60 Hz)	Cat. No.
Advanced Heavy-Duty Vortex Mixer (EU/CH)	230 V 0.13 A 30 W	444-7130
Advanced Heavy-Duty Vortex Mixer	230 V 0.13 A 30 W	444-7131

VWR® VORTEX MIXER ACCESSORIES

VWR® FOAM INSERT FOR 0.5 ML MICROTUBES

Holds 52 microtubes (0.5 ml). Requires Universal Holder.

**VWR® FOAM INSERT FOR 26–29 MM TEST TUBES**

Holds four test tubes (26–29 mm). Ideal for 50 ml centrifuge tubes. Requires Universal Holder.

**VWR® MICROPLATE HOLDER (DOUBLE)***

Designed to hold two standard microplates.



Description	Cat. No.
0.5 ml Microtubes	444-7141
Universal Holder	444-7139

Description	Cat. No.
26–29 mm Test Tubes	444-7147
Universal Holder	444-7139

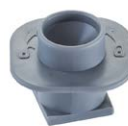
Description	Cat. No.
Double Holder	444-7138

VWR® FOAM INSERT FOR 1.5–2.0 ML MICROTUBES

Holds 38 microtubes (1.5–2.0 ml). Requires Universal Holder.

**VWR® CUP HEAD***

Designed for mixing one tube at a time.

**VWR® MICROPLATE HOLDER (QUAD)**

Designed to hold four standard microplates.



Description	Cat. No.
1.5 – 2.0 ml Microtubes	444-7142
Universal Holder	444-7139

Description	Cat. No.
Cup Head	444-7136

Description	Cat. No.
Quad Holder	444-7151

VWR® FOAM INSERT FOR 15–18 MM TEST TUBES

Holds 20 test tubes (15–18 mm). Ideal for 15 ml centrifuge tubes. Requires Universal Holder.

**VWR® SMALL VESSEL HOLDER**

Rubber holder secures 125 and 250 ml Erlenmeyer flasks. Vessel holder also includes a grip mat. Requires Universal Holder.

**VWR® STACKABLE MICROPLATE HOLDER**

Designed to maximize the capacity of the Heavy-Duty Vortex Mixer to eight microplates by stacking the tray on top of the four-plate holder.



Description	Cat. No.
15–18 mm Test Tubes	444-7144
Universal Holder	444-7139

Description	Cat. No.
Small Vessel Holder	444-7148
Universal Holder	444-7139

Description	Cat. No.
Stackable Holder	444-7152

VWR® FOAM INSERT FOR 19–21 MM TEST TUBES

Holds 18 test tubes (19–21 mm). Requires Universal Holder.

**VWR® LARGE VESSEL HOLDER**

Rubber holder secures 500 and 1,000 ml Erlenmeyer flasks. Vessel holder also includes a grip mat. Requires Universal Holder.

**VWR® FLAT FOAM INSERT**

Ideal for custom applications. Can be cut or drilled to fit your specifications. Requires Universal Holder.



Description	Cat. No.
19–21 mm Test Tubes	444-7145
Universal Holder	444-7139

Description	Cat. No.
Large Vessel Holder	444-7149
Universal Holder	444-7139

Description	Cat. No.
Flat Foam Insert	444-7153
Universal Holder	444-7139

VWR® FOAM INSERT FOR 22 – 25 MM TEST TUBES

Holds 13 test tubes (22–25 mm). Requires Universal Holder.

**VWR® MICROPLATE HOLDER (SINGLE)***

Designed to hold one standard microplate.

**VWR® UNIVERSAL HOLDER & COVER**

Replacement for items supplied with Heavy-Duty Vortex Mixer. Cover allows for mixing irregularly shaped objects.



Description	Cat. No.
22–25 mm Test Tubes	444-7146
Universal Holder	444-7139

Description	Cat. No.
Single Holder	444-7137

Description	Cat. No.
Universal Holder	444-7139
Universal Holder Cover	444-7140

NOTE: Unless noted with an asterisk (*), for use with Heavy-Duty Vortexers only.



444-7063

VWR® STANDARD MULTITUBE VORTEXER

- Process up to 50 samples at a time
- Continuous or timed operation
- Includes foam rack for 12 mm tubes

Conveniently angled front panel features rocker switch for run, time and standby modes.

OPERATING FEATURES

Microprocessor control: The variable-speed microprocessor control provides consistent uniform mixing action.

Adjustment knobs: Basic speed and time knobs with 1 to 10 dial settings.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

Applications: Suspensions and high-throughput testing in clinical, environmental and chemistry labs.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro-, UK- and CH-type plugs. Unit is also supplied with a Tray Pad Set for support and one 12 mm Test Tube Foam Rack (444-7066). 5-year limited warranty on parts and labor.

Specifications

Speed range*	1,200 to 2,400 rpm
Timer	0 to 60 s
Orbit	3.6 mm
Maximum weight capacity	4.5 kg
Duty rating	Continuous duty
Tray dimensions (L × W)	18.4 × 31.1 cm
Overall dimensions (L × W × H)	24.1 × 38.4 × 40.6 cm
Ship weight	19.1 kg

* Maximum speed will vary depending on load.

Description	Electrical (50/60 Hz)	Cat. No.
Standard Multitube Vortexer	230 V 0.4 A 100 W	444-7063



444-7061 with rack for 50 ml tubes 444-7092

VWR® ADVANCED MULTITUBE VORTEXER

- Process up to 50 samples at a time
- Displays for speed and time
- Pulsing mode

Ideal for applications requiring accuracy and repeatability.

OPERATING FEATURES

Microprocessor control: The variable-speed microprocessor control provides consistent uniform mixing action.

LED screens: Touchpad controls with easy-to-read, independent LED screens for speed and time allow the operator to view both settings at once. Provide repeatable and accurate results every time and are easily visible across lab benches. Timer will display elapsed time or, when programmed to a user-defined limit, will shut off the unit when the time reaches zero. Display will show the last used settings, even after power has been turned off.

Pulsing mode: Programmable pulsing mode allows user to adjust the pulse-on and pulse-off times between 1 and 59 s in intervals of 1 s. This feature enhances the vortex action by creating a more vigorous mix.

OPERATING CONDITIONS

Parameters: Unit can be run in noncondensing environments from 4 to 40 °C, 20% to 85% relative humidity.

Applications: Suspensions and high-throughput testing in clinical, environmental and chemistry labs.

ORDERING INFORMATION

Unit includes a 234 cm detachable three-wire cord and Euro-, UK- and CH-type plugs. Unit is also supplied with a Tray Pad Set for support and one 12 mm Test Tube Foam Rack (444-7066). 5-year limited warranty on parts and labor.

Specifications

Speed range*	500 to 2,500 rpm
Timer	1 to 160 h
Orbit	3.6 mm
Maximum weight capacity	4.5 kg
Duty rating	Continuous duty
Tray dimensions (L x W)	18.4 x 31.1 cm
Overall dimensions (L x W x H)	24.1 x 38.4 x 40.6 cm
Ship weight	19.1 kg

* Maximum speed will vary depending on load.

Description	Electrical (50/60 Hz)	Cat. No.
Advanced Multitube Vortexer	230 V 0.4 A 100 W	444-7061

VWR® MULTITUBE VORTEXER ACCESSORIES

VWR® FOAM TEST TUBE RACKS

Accessories for Multitube Vortexers

Description	Tube capacity	Color*	Dimensions (L × W × H)	Cat. No.
10 mm Test Tube Foam Rack	50	Gray	14 × 24.1 × 5.1 cm	444-7065
12 mm Test Tube Foam Rack	50	Blue	14 × 24.1 × 5.1 cm	444-7066
13 mm Test Tube Foam Rack	50	Yellow	14 × 24.1 × 5.1 cm	444-7067
16 mm Test Tube Foam Rack (for 15 ml centrifuge tubes)	50	Pink	14 × 24.1 × 5.1 cm	444-7068
25 mm Test Tube Foam Rack	28	White	14 × 24.1 × 5.1 cm	444-7091
29 mm Test Tube Foam Rack (for 50 ml centrifuge tubes)	15	Red	14 × 24.1 × 5.1 cm	444-7092
Replacement tray pad set (upper and lower)	–	Gray	17.8 × 30.5 × 2.5 cm	VWRI80862882

* Colors subject to change.



VWR® POST EXTENSION KIT

Adds 15.2 cm to the post of Multitube Vortexers to accommodate tubes up to 25.4 cm tall.

Description	Cat. No.
Post Extension Kit	444-7062

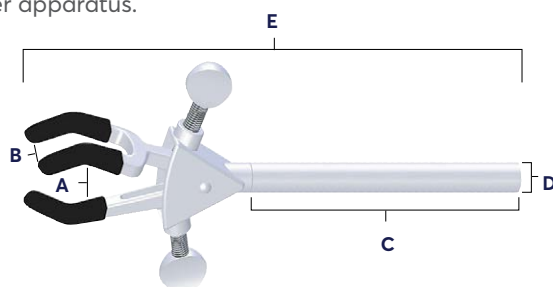
VWR® TALON® MULTIPURPOSE CLAMPS

VWR® TALON® STAINLESS-STEEL MULTIPURPOSE CLAMPS

- Stainless-steel, electro-polished finish
- Large dual-adjustment range
- Available in three sizes: small, medium and large

Durable VWR Talon® Stainless-Steel Multipurpose Clamps are made entirely of stainless steel with an electro-polished finish and offer excellent chemical resistance and overall strength. The versatile 3-prong design secures various lab apparatus such as jointed glassware, columns, flasks and tubes. Dual-prong adjustments offer a wide range of motion. Long stainless-steel extension arm offers easy positioning and depth adjustment. Autoclavable. Supplied with nonslip vinyl sleeves and, for temperatures above 100 °C, fiberglass covers.

NOTE: An additional holder must be purchased in order to attach clamps to frames or other apparatus.



Size	(A) Min. to max. grip size	(B) Prong width	(C) Arm length	(D) Arm Ø	(E) Overall length	Cat. No.
Small	0–48 mm	13 mm	102 mm	10 mm	172 mm	241-0406
Medium	0–69 mm	19 mm	127 mm	13 mm	229 mm	241-0405
Large	0–102 mm	29 mm	127 mm	13 mm	273 mm	241-0404

VWR® TALON® SPECIALTY CLAMPS

VWR® TALON® SWIVEL CLAMPS

VWR Talon Swivel Clamps hold apparatus near the lab frame. Unlike extension clamps, swivel clamps have an integral holder for attaching to a lab frame or other apparatus. Built-in holder grips rods up to 19 mm Ø and is adjustable for forward- or reverse-facing adjustment screws. Shaft wing-nut allows the swivel clamp rotate 360° and can be locked in place once desired position is achieved. Stainless-steel electro-polished finish or nickel-plated construction. Supplied with nonslip vinyl sleeves and, for temperatures above 100 °C, fiberglass covers.



241-0407

Material	Prongs and adjustment	Size	Min. to max. grip size	Prong width	Overall length	Cat. No.
Stainless steel	2-Prong dual adjust	Medium	0–76 mm	23 mm	163 mm	241-0408
Stainless steel	3-Prong dual adjust	Medium	0–69 mm	20 mm	178 mm	241-0407
Nickel-plated zinc	3-Prong dual adjust	Medium	0–69 mm	20 mm	178 mm	241-0410

VWR® TALON® FIXED-POSITION CLAMPS

VWR Talon Fixed-Position Clamps hold apparatus near the lab frame where no adjustment is required after setup. Built-in holder grips rods up to 19 mm Ø. Fixed-position clamps have an integral holder. Available with 2 prongs. Stainless-steel with electro-polished finish. Supplied with nonslip vinyl sleeves and, for temperatures above 100 °C, fiberglass covers.



241-0409

Material	Prongs and adjustment	Size	Min. to max. grip size	Prong width	Overall length	Cat. No.
Stainless steel	2-Prong single adjust	Medium	0–77 mm	23 mm	133 mm	241-0409

VWR® TALON® SUPPORT STANDS, RODS AND PLATES

Cast iron support stand bases are constructed with black enamel finish for chemical resistance and durability. All bases feature a built-in support rod holder with locking knob that accepts a 13 mm Ø support rod.

* Support rods are not included.



444-0918



444-0919

VWR® RECTANGULAR BASE SUPPORT STAND, CAST IRON

Description	Dimensions (L x W)	Cat. No.
Rectangular Base (only)	203 x 254 mm	444-0918

VWR® STAINLESS-STEEL SUPPORT RODS

Length	Ø	Cat. No.
914 mm	13 mm	444-0919

VWR® TALON® SUPPORT PLATES

Designed to hold hotplates, stirrers, hotplate-stirrers and other apparatus to lab frames or ring stands. Aluminum construction offers strength and durability. Support plates include a nonskid rubber mat and a built-in holder that grips rods up to 19 mm Ø.

Size	Plate dimensions (L x W)	Distance from rod	Cat. No.
Medium	324 x 229 mm	48 mm	444-2851



444-2851