



# 6 Shakers

## Orbital Shakers

- > Two different shaking functions: back and forth, and orbital
- > Adjustable shaking speed and range
- > Timer function for maximum flexibility
- > Corrosion resistant stainless steel housing,
- > Easy to clean and maintain
- > Large mounting surface and big load capacity of up to 12 kg
- > Ideal for vessels with more than 250 ml capacity, like round flasks, Erlenmeyer flasks, culture flasks, or culture bottles
- > Widely used for bacterial cultures, fermentation, hybridization, biochemical reactions, enzyme or tissue research
- > Shaking motion can be set in up to 6 different ways
- > Wide range of accessories are available.



## Economy Shakers

The distinctive and economical models offer the most felicitousshaking motion

Two types of shaking motions (orbital or reciprocating), four types of an orbit or reciprocating lengths. The compact and interchangeable platform design accommodates various types and sizes of vessels and suitable for use in chambers.



### Specifications

Model	WS-50D	WS-50DR
Motion Type	Orbital	Reciprocating
Speed Range (RPM)	10 to 300	10 to 250
Accuracy (rpm)	± 2 (100 RPM)	± 2 (100 RPM)
Timer (min)	Forward & Backward: 1min to 999min	
Amplitude Size (mm)	20 (10 to 300rpm/14mm; 10 to 300rpm/8mm Available)	20 (10 to 300rpm/14mm; 10 to 300rpm/8mm Available)
Platform (W×D) (mm)	320x260(mm)	320x260(mm)
Overall (WxDxH)	355x375x140(mm)	355x375x140(mm)
Weight(kg)	20	20
Order No.	3A126C	3A226C



### Multi-function Shaking System

Intensive multi-function shaking system surpasses all the previous levels of shaker units. Mix and match clockwise, counterclockwise, start, and stop motions.

(Making 6 possible combinations - refer to each model spec.)



## Dual-Action Shakers

Benchtop platform shakers with advanced dual-shaking features, for flask up to maximum 6L.

Performances Orbital or Reciprocating action and variable-speed control provided gentle to vigorous agitation. Offers user-friendly operating and safety features for reliable shaking of lab glassware.



Note:  
Mounting plate not included



### Specifications

Model	WS-100D	WS-150D	WS-200D
Display and Control	TFT Digital Display / On-Touch Control	TFT Digital Display / On-Touch Control	TFT Digital Display / On-Touch Control
Motion Type	Orbital or Reciprocating motion selectable		
Accuracy(rpm)	±1 (100rpm)	±1 (100rpm)	±1 (100rpm)
Speed Range (RPM)	10~300	10~300	10~300
Amplitude Size (mm)	20, 30, 40 Available - Standard 30	20, 30, 40 Available - Standard 30	30, 40, 50, 60, 70 Available - Standard 30
Timer (min)	Run time: 1min to 999min, Forward & Backward, Pause : 1min to 999min		
Maximum Load (kg)	7.5	15	30
Power (W)	45/10	70/19	140/38
Platform (W×D) (mm / inch)	350×350 / 13.8×13.8	450×450 / 17.7×17.7	755×481 / 29.7×18.9
Overall (W×D×H) (mm/inch)	410×490×150 / 16.1×19.3×5.9	510×595×150 / 20.1×23.4×5.9	820×610×166 / 32.3×24×6.5
Weight (Kg / lbs)	24 / 52.9	29 / 63.9	50 / 110.2
Order No.	200200C	200300C	200400C



## Accessories for Shakers



### Sticky Plate

The Wiggins Sticky Plate can be loaded with any kind of vessel with a smooth base. Even at a speed of up to 350 rpm the vessel sticks to the plate. Other vessels, like e.g. microtitre plates can be shaken on the Wiggins Sticky Plate as well. However, only up to a speed of 220 rpm.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A901	31901	31902	31903
Dimensions(W x D in mm)	320x260	350x350	450x450	755x481



### Multi-Purpose Tray

The multi-purpose tray is made of stainless steel and can be used for a diverse range of unusual specifications.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A521	31521	31522	31523-W

Max. Load of Beakers				
50ml	12	16	25	40
100ml	6	9	16	28
250ml	3	4	9	15
300ml	3	4	9	15
500ml	3	4	5	10
1L	2	2	4	8
2L	-	1	2	4
2.8L	-	1	2	4



### Adjustable Bar Tray

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A511	31511	31512	31513
Number of bar	3	3	3	6
Order No. of bar	3A511-05	31511-05	31512-05	31513-05



### Universal Trays

The Universal Trays employ a drilled grid for individual loadings of test tube holders, microtitre plates, and deep well plates.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A501	31501	31502	31503
Dimensions(W x D in mm)	320x260	350x350	450x450	755x481

Max. Load of Flask Holders				
50ml	20	32	49	96
100ml	9	25	36	65
250ml	9	13	25	28
300ml	6	13	25	28
500ml	4	9	13	24
1L	2	4	8	12
2L	1	2	5	11
4L	-	2	2	4

Max. Load of Separatory Funnel Holders				
250ml	4	4	6	11
500ml	3	3	4	9
1L	2	2	3	5
2L	-	1	2	4

### Multi-Pore Holders

The Wiggins multi-pore holders can be installed on the Wiggins sticky plates or the Wiggins universal trays. All

holders can be installed on small pores and deeper holes. In total, four different multi-pore holders are available:

1. Multi-Layer Holder
2. Single-Layer Single-Position Holder
3. Single-Layer Three-Position Holder
4. Single-Layer Four-Position Holder



Max. No. of Mountable Holders	Multi-Layer	Four-Position	Three-Position	Single-Position
Order No.	23651	23652	23653	23654

Max. mountable holders				
WS-50D/50DR	4	-	1	6
WS-100D	6	-	2	8
WS-150D	10	2	3	15
WS-200D	16	3	5	25



### Rubber Mats

Designed for low-speed applications, non-skid rubber mats allow quick addition or removal of flasks, plates or tubes.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A531	31531	31532	31533



### Separatory Funnel Holders

Funnel Volumes	250mL	500mL	1L	2L
Order No.	23562	23563	23564	23565



### Erlenmeyer flask clamps

Size of flask	Reference No.	Order No.
25mL	31274	-
50mL	31279	23550
100mL	31271	23551
250mL	31275	23552
300mL	-	23556
500mL	31280	23553
1000mL	31272	23554
2000mL	31273	23555
2800mL Fernbach	-	23557
3000mL	31277	-
4000mL	31278	23558
5000mL	31281	-
6000mL	-	23559

### Plastic clamps for Erlenmeyer flask

Order No.	Description	Order No.	Description
31285	100ml	31287	500ml
31286	250ml		

### Stainless steel clamps for Fernbach flask

Order No.	Description	Order No.	Description
31283	1.8L	31284	2.8L



### Test tube rack for long type

Order No.	Description	Order No.	Description
31342	144 x Ø8mm	31356	39 x Ø18mm
31343	100 x Ø10mm	31358	36 x Ø20mm
31347	72 x Ø12mm	31359	33 x Ø22mm
31352	64 x Ø14mm	31360	20 x Ø25mm
31354	36 x Ø16mm	31361	16 x Ø30mm

### Test tube rack for short type

Order No.	Description
31348	72 x Ø12mm
31353	64 x Ø14mm
31357	39 x Ø18mm ( Suitable for Freiner Bio-one tube )

### Rack for plastic test tube

Order No.	Description
31355	36x Ø16mm ( 15ml)
31362	16x Ø30mm ( 50ml)

### 187mm test tube rack for short type

Order No.	Description	Order No.	Description
31344	44 x Ø12mm	31349	21 x Ø20mm
31346	24 x Ø18mm		



## Remote Shaker

Dedicated for CO<sub>2</sub> incubator

This is Compact Size Shaker with benefits such as small foot print, easy to move. Built-in Plate Type BLOC motor provides low noise, low vibration. Despite compact size, shaking is powerful and work place is large to load various vessels.



Celshak™

NEW



### Specification

Model	WOS-101SRC	WOS-101MRC
Motion	Orbital	
Control	Microprocessor Digital	
Motor	Brushless DC Motor	
Drive System	Magnetic Drive	
Display	LED display	
Speed range ( rpm )	30 ~ 300 (No Load)	
Accuracy ( rpm )	± 1	
Orbital diameter ( mm )	22	
Time Range	Continuous or up to 47 hours 59min	
Time Increment	1min	
Shaker size(W x L x H mm) / Weight ( Kg )	305 x 350 x 75/7.5	465 x 540 x 125/35
Platform Size(W x L x H mm)	300 x 330	460 x 455
Control box Size(W x L x H mm) / Weight( Kg )	190 x 50 x 140 / 2	
Power	220V 50/60HZ	
Load Capacity	100mL x 12	100mL x 36
	250mL x 9	250mL x 25
	500mL x 5	500mL x 16
	1000mL x 4	1000mL x 9
	2000mL x 2	2000mL x 5
Order No.	189321-02	189322-02

### Accessories

Order No.	Name	Model
Suitable for WOS-101SRC		
189330-01	Sticky Plate	101S-IS
189331-01	Universal Tray	101S-PL
189332-01	Multi-Purpose Tray	101S-SR
189333-01	Microplate Rack	101S-MR
Suitable for WOS-101MRC		
189330-02	Sticky Plate	101M-IS
189331-02	Universal Tray	101M-PL
189332-02	Multi-Purpose Tray	101M-SR
189333-02	Microplate Rack	101M-MR

### Features

#### Extremely Low Heat Release from Shaker

The BLDC motor of shaker is powered by very low watt electricity so heat from shaker motor is very low. This is ideal for the shaker to use inside incubator or chamber where uniform temperature maintenance is required.

#### Moisture Resistant Structure

Electric Coil and some electric part of shaker motor are coated with epoxy which protect electric parts from high humidity. In deed, other electric parts such as main board, LED display are installed in remote box to be away from high humidity, CO<sub>2</sub> or extreme environment like high or low temperature.

#### Wire Remote Control Box

This allows user to control the shaker out of incubator. Its display show shaker status clearly so user don't need to open incubator door to check. This saves time and minimizes energy loss caused by opening incubator door.

#### Magnetic Attachment

Thin Wire Cable connection between shaker and control box  
Very thin wire cable enable to pass through sealing part of inner glass door although no access port is in your incubator.

#### Placing remote box with Magnet or Hanger or just standing

Depending on material type of incubator or situation of lab, placing remote box is available with 3 options such as magnet attachment, hanging with strap hanger, or just standing on top of incubator(or on table near incubator).



Sticky Plate



Universal Tray



Multi-Purpose Tray



Microplate Rack

For Erlenmeyer flask clamp, tube rack, please reference Page 114

## Remote Roller

WIGGENS Remote Roller WB-204MR is highly flexible in facilitating its operation not only incubator inside but also elsewhere on work table. Remote control box can be attached to the incubator surface and flat cable needs no particular measures such as access port. Its operation capacity is 2000ml bottle x 4ea at one time.

Speed range 2rpm to 30rpm helps user utilize adherent cell culture performance.



WB-204MR

### Features

- > Steel reinforced Polyurethane timing belts
- > Brushless DC Motor
- > Powder coated aluminum for durability and cleanliness Non-slip rubber material for the best performance of rolling Designed for no idle roller by drive-belt

### Product size Information



### Specifications

Model	WB-204MR
RPM Range	2~30rpm
Accuracy	1rpm
Increment	0.1rpm
Control	Microprocessor digital PIO
Time Range	Continuous or up to 99h 59min
Accuracy	± 1%
Display	LED Display
Motor type	Brushless DC motor
Standard roller bottle	110mm to 120mm, 4ea
Roller deck dimension	362 ( W ) × 299 ( D ) × 212 ( H ) mm
Overall dimension	375 ( W ) × 370 ( D ) × 345 ( H ) mm
Power	AC 90~264V, 50/60Hz, 10W
Weight	12.5kg



Can contain four Dia.100-120mm roller bottles.

### Outside control

Controller can adjust speed without opening the door.

# Separatory Funnel Shaker

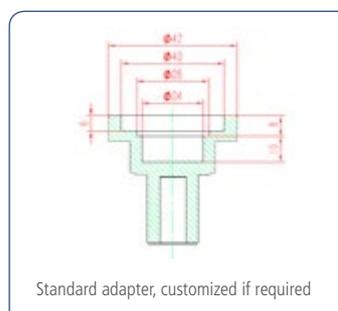
## WS-1

Intensive vertical reciprocating quick solvent extraction shaking unit.

The separatory funnel shaker is able to shake six samples in identical conditions for any series or comparative protocols in chemistry, biotech, and medical labs.



**WS-1PLUS**  
0~20° Angle adjustable



**WS-1**  
Angle is not adjustable

### Features

- > Intensive vertical shaking
- > Shaking of 6 samples under identical conditions possible
- > Mostly used in chemical, biotech, and medical laboratories
- > The speed can be set between 50 and 300 rpm
- > The timer can either be set on continuous or between 0 and 60 min
- > Flasks of up to 40 mm width can be used
- > Bright LED display for convenient speed monitoring
- > Wide speed range and high precision of the speed control
- > Feedback loop to a digital controller
- > At the end of a shaking session the device stops automatically with an audible alarm
- > Easily adjustable flask holder (max. 5 flasks per side)
- > Two holders for a total of 6 flasks (500ml) included
- > WS-1 PLUS entails a holder to adjust the shaking angle

### \* Funnel Capacities (per each side)

Capacity	Round type funnel	Slim type funnel
under 500ml	3-5	5
500ml ( )	3	3
1L	--	3
2L	--	2

### Included Accessories

- 500mL Separatory Funnel Holder (Ordering information - Order No.: 32500)
- 1L Separatory Funnel Holder (Ordering information - Order No.: 32501)
- 2L Separatory Funnel Holder (Ordering information - Order No.: 32502)

### Specifications

Model	WS-1
Motion Type	Vertical reciprocating
Speed Range (rpm)	50 ~ 300
Accuracy(± rpm)	± 1
Vertical Stroke Length (mm / inch)	40 / 1.6
Timer	60 min or continuous operation
Overall (W×D×H) (mm / inch)	445×730×505 / 17.5×28.7×19.9
Max. Load per each Side (kg / lbs)	3 / 6.6
Power (W)	90
Fixture	6
Weight (Kg / lbs)	24 / 52.9
Order No.	WS-1 32012KA
	WS-1 PLUS 32012KB

## Accessories for Shakers

### Snorkel Stopper

With a WIGGENS Snorkel Stopper, you'll never again have to take time to open the stopcock and relieve pressure when vigorously shaking a separatory funnel, because our Snorkel Stopper does the task automatically. When using a WIGGENS shaker, you can simply load the funnels onto it and get on with more important things without worrying about exploding glass. The Snorkel Stopper features a one-way check valve that automatically relieves gas pressure. The non-sticking, ground-glass valve is backed with a stainless-steel spring and a Teflon® closure screw for maximum chemical resistance. The valve releases pressure of more than 1 pound and prevents direct air contact with the vessel.

The shape of the stopper allows manual or machine shaking and avoids solution leakage. For manual shaking, the stopper is held in place by hand. On WIGGENS shakers, glassware holders automatically restrain the stopper.



Order No.	Fits Standard Taper Stopper Size	Weight (kg)
SST13	13	0.1
SST16	16	0.1
SST22	22	0.2
SST27	27	0.2
SST38	38	0.2

### Pressure Release Valves

Exclusive! Designed to work specifically with WIGGENS's separatory funnels, these pressure release valves reduce the hazards of pressure build-up. They simply slip over the drain of a WIGGENS funnel and tighten down with a twist of the wrist. The valve can be easily removed when it is time to drain the funnel. Each valve is made of Teflon® resin and is factory preset to release at 1 psi of pressure.

The valve can be adjusted to release at pressures up to 5 psi by turning the pressure release slug on the top of the valve with a screwdriver. Models are also available to convert other separatory funnels to automatically vent. Weight: 0.10kg.



Order No.	Description
PRV6	For WIGGENS funnels SEP0060–SEP1000 or spout OD 7.5–9.5 mm
PRV10	For WIGGENS SEP2000 or spout OD 12.5–13.0 mm

### Ventsep

VentSep, a special 1-liter or 2-liter separatory funnel with a built-in relief valve, can be used on WIGGENS's Bench-Top Shaker or either of the WIGGENS 3D shakers. That means you can shake up to eight 2-liter funnels or ten 1-liter funnels at once without worrying about pressure buildup. What's more, VentSep features a screw cap instead of a penny-head stopper. As a result, VentSep is safer to use in the laboratory because the screw cap doesn't need restraining and won't come off at inappropriate times, though it will come off easily when you want it to.

VentSep will vent gas pressure over 1 psi automatically. This means you reduce the possibility of unsuspected pressure buildups that could cause exploding glass and personnel injury. As a result, vigorous hand or machine shaking can be done with confidence.

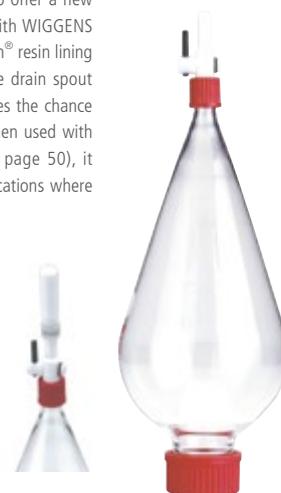


Order No.	Description	Weight (kg)
SST555	Separatory funnel with automatic pressure relief. Teflon® resin stopcock and screw cap with Teflon® resin liner, 1000 ml.	1.5
SST655	Separatory funnel with automatic pressure relief. Teflon® resin stopcock and screw cap with Teflon® resin liner, 2000 ml.	2.7

### Separatory Funnel

WIGGENS new separatory funnel is designed to offer a new level of convenience and safety when used with WIGGENS shakers. This funnel has a screw cap with a Teflon® resin lining to reduce the possibility of contamination. The drain spout is a screw-on Teflon® resin design which reduces the chance of breakage and allows for easier cleaning. When used with WIGGENS's new pressure release valve (see page 50), it offers the convenience of self-venting for applications where pressure build-up is a concern.

When used with the WIGGENS Pressure Release Valve, this separatory funnel becomes self-venting.



Order No.	Description	Weight (kg)
SEP 0060	Separatory funnel with Teflon® cap and spout,, 60 ml	0.1
SEP 0125	Separatory funnel with Teflon® cap and spout,, 125 ml	0.2
SEP 0250	Separatory funnel with Teflon® cap and spout,, 250 ml	0.4
SEP 0500	Separatory funnel with Teflon® cap and spout,, 500 ml	0.4
SEP 1000	Separatory funnel with Teflon® cap and spout,, 1000 ml	0.5
SEP 2000	Separatory funnel with Teflon® cap and spout,, 2000 ml	0.9

Funnel Separatory, Glass or PTFE stopper



Order No.	Capacity ( mL )	Joint	Plug Bore ( mm )	Stopper
189111-05	50	14/20	2	PTFE stopper
189111-06	50	19/22	2	PTFE stopper
189111-07	100	14/20	2	PTFE stopper
189111-08	100	19/22	2	PTFE stopper
189111-09	125	14/20	2	PTFE stopper
189111-10	125	19/22	2	PTFE stopper
189111-11	125	24/40	2	PTFE stopper
189111-12	250	14/20	4	PTFE stopper
189111-13	250	19/22	4	PTFE stopper
189111-14	250	24/40	4	PTFE stopper

Order No.	Capacity ( mL )	Joint	Plug Bore ( mm )	Stopper
189111-19	50	14/20	2	Glass stopper
189111-20	50	19/22	2	Glass stopper
189111-21	100	14/20	2	Glass stopper
189111-22	125	14/20	2	Glass stopper
189111-23	100	19/22	2	Glass stopper
189111-24	125	19/22	2	Glass stopper
189111-25	125	24/40	2	Glass stopper
189111-26	250	14/20	4	Glass stopper
189111-27	250	19/22	4	Glass stopper
189111-28	250	24/40	4	Glass stopper

Optional accessories

Order No.	Description
189111-29	2mm PTFE locking stopper
189111-30	4mm PTFE locking stopper
189111-31	14/20 Glass stopper
189111-32	19/22 Glass stopper
189111-33	14/20 PTFE locking stopper
189111-34	19/22 PTFE locking stopper
189111-35	24/40 PTFE locking stopper

Funnel Separatory, Glass locking stopper

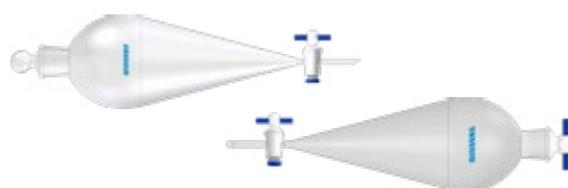


Order No.	Capacity ( mL )	Stopper Size ( mm )	Plug Bore ( mm )	Stopper
189112-02	60	16	2	PTFE
189112-03	125	22	2	PTFE
189112-04	250	22	4	PTFE
189112-05	500	27	4	PTFE
189112-06	1000	27	4	PTFE

Optional accessories

Order No.	Description
189112-07	2mm Glass locking stopper
189112-08	4mm Glass locking stopper

Funnel Separatory, PTFE locking stopper



Order No.	Capacity ( mL )	Joint	Plug Bore ( mm )	Stopper
189113-06	50	14/20	2	Glass stopper
189113-07	50	19/22	2	Glass stopper
189113-08	60	N0.16	2	Glass stopper
189113-09	100	14/20	2	Glass stopper
189113-10	100	19/22	2	Glass stopper
189113-11	125	14/20	2	Glass stopper
189113-12	125	19/22	2	Glass stopper
189113-13	125	24/40	2	Glass stopper
189113-14	125	N0.22	2	Glass stopper
189113-15	250	19/22	4	Glass stopper
189113-16	250	24/40	4	Glass stopper
189113-17	250	29/42	4	Glass stopper
189113-18	250	N0.22	4	Glass stopper
189113-19	500	24/40	4	Glass stopper
189113-20	500	29/42	4	Glass stopper
189113-22	500	N0.27	4	Glass stopper
189113-23	1000	24/40	4	Glass stopper
189113-24	1000	N0.27	4	Glass stopper

Order No.	Capacity ( mL )	Joint	Plug Bore ( mm )	Stopper
189113-31	50	14/20	2	PTFE stopper
189113-32	50	19/22	2	PTFE stopper
189113-33	60	N0.16	2	PTFE stopper
189113-34	100	14/20	2	PTFE stopper
189113-35	100	19/22	2	PTFE stopper
189113-36	125	14/20	2	PTFE stopper
189113-37	125	19/22	2	PTFE stopper
189113-38	125	24/40	2	PTFE stopper
189113-39	125	N0.22	2	PTFE stopper
189113-40	250	19/22	4	PTFE stopper
189113-41	250	24/40	4	PTFE stopper
189113-42	250	29/42	4	PTFE stopper
189113-43	250	N0.22	4	PTFE stopper
189113-44	500	24/40	4	PTFE stopper
189113-45	500	29/42	4	PTFE stopper
189113-46	500	N0.27	4	PTFE stopper
189113-47	1000	24/40	4	PTFE stopper
189113-48	1000	N0.27	4	PTFE stopper

Optional accessories

Order No.	Description
189113-49	2mm PTFE locking stopper
189113-50	4mm PTFE locking stopper

## Vortex Shakers-Vortex 3000

Low profile design and highly touch sensitive sensor reduce wrist stress when pushing and holding experiment tools resulting in less fatigue and unpleasant feeling.

### Features

- > Elaborate design for safe and reliable vortex shaking
- > Speed can be set between 0 and 3000 rpm
- > Very suitable for work under fume hoods, and on sterile workbenches
- > Excellent vortex mixing of test tubes and capped vials
- > Shaking operation can be switched between continuous and on-touch operation
- > LED light shows the actual shaking operation method
- > Rubber feet guarantee stability of the shaker
- > Power cut-off function in case of electrical overload or excess current.
- > Chemically resistant PP (polypropylene) molded exterior.
- > Available in 7 different colors
- > A wide range of accessories available.(rubber platform comes standard)

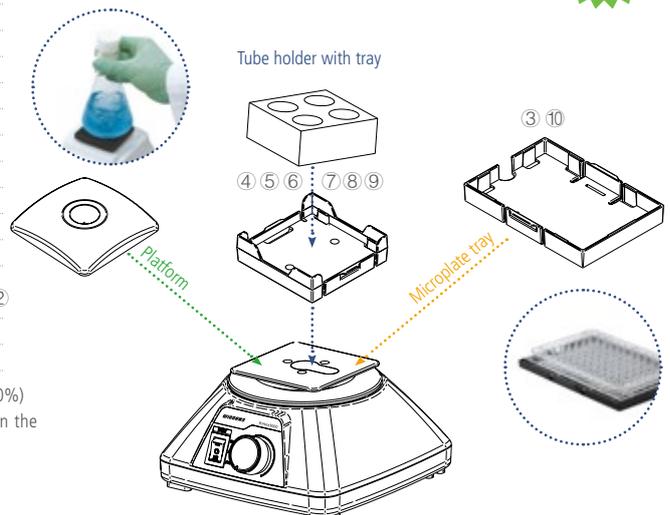


### Specifications

Shaking Method	Vortex Shaking	
Technical Data	Motion	Orbital
	Speed Range (RPM)	0 - 3,000
	Control	Scale
	Orbit (mm / inch, Ø)	4 / 0.16
	Operating Mode	Touch, Continuous
	Motor Rating Input / Output (W)	12W / 6W
	Motor	BLDC motor
General Data	Max. Load (kg / lbs) - incl. attachment 0.5 / 1.1	
	Material	Body Polypropylene Platform Silicone rubber
	Dimension (mm / inch, W x D x H)*	148 x 159 x 77 / 5.8 x 7.4 x 3
	Net Weight (kg / lbs)	2.6 / 5.7
	Safety Device	Current limit protection ① ②
Order No.	360115	

※ Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%)  
 ※ Protection class according to DIN EN 60529: Waterproof, Dust production index based on the test level.  
 \* Exterior dimension without attachment.

Best-seller!



Accessories application

### Accessories for Vortex 3000 Series

No.	Order No.	Description
1	V0058	Platform (pop-off)
2	V0011	Platform
3	V0008	Microplate tray, recommendation speed range 0-1500rpm
4	36520	Tube holder with tray ( up to Ø50mm ), recommendation speed range 0-1500rpm
5	36521	Tube holder with tray (Ø10mm x 16 ea), recommendation speed range 0-1500rpm
6	36522	Tube holder with tray (Ø12mm x 9 ea), recommendation speed range 0-1500rpm
7	36523	Tube holder with tray (Ø15mm x 9 ea), recommendation speed range 0-1500rpm
8	36524	Tube holder with tray (Ø20mm x 5 ea), recommendation speed range 0-1500rpm
9	36525	Tube holder with tray (Ø25mm x 4 ea), recommendation speed range 0-1500rpm
10	36526	Tube holder with tray (Ø8mm x 18e a & Ø10mm x 28 ea), recommendation speed range 0-1500rpm

## TM Series Vortex Shakers

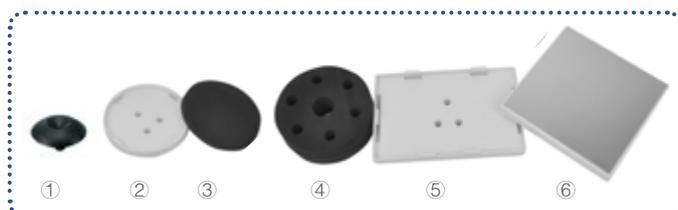
- > Very accurate shaking speed due to micro-chip speed controller
- > Stable and reliable performance
- > High shaking speed of up to 2500 rpm
- > Shaking operation can be switched between continuous and on-touch operation
- > Suitable for shaking test tubes or other small volume vials
- > Large range of platforms and other accessories
- > Aluminum housing
- > Suitable for deep well titer plates
- > Can be used as a stirrer and flask shaker



TM-1



TM-1F



### TM-1F / 2F Accessories

TM-1F/2F 6 in 1 Package



Platform (standard) ①



One-hand insert ③  
Order No.: 3601-06  
Universal Tray ②  
Order No.: 3601-01



Test Tube Platform (6 Holes) ④  
Order No.: 3601-04  
Universal Tray ②  
Order No.: 3601-01



Elisa Plate Tray ⑤  
Order No.: 3601-03



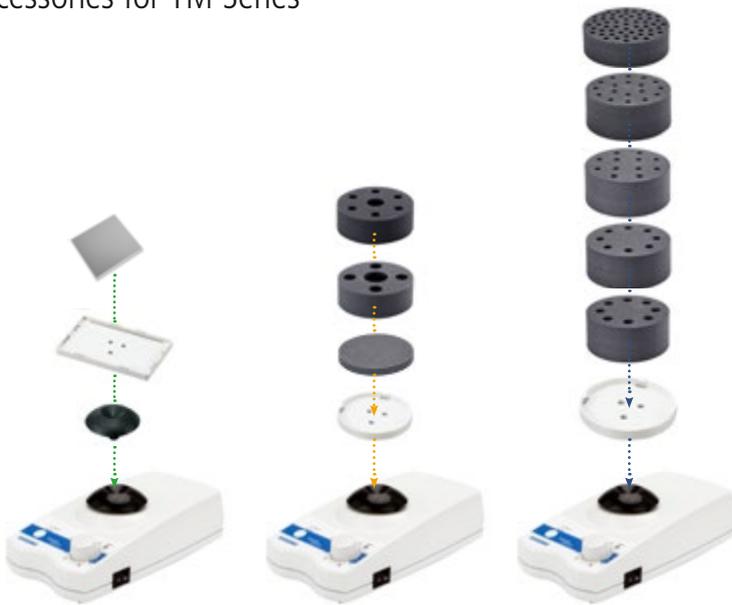
Magnetic Stirring Plate ⑥  
Shaking Speed 0~1500rpm  
Order No.: 3601-02

TM-1F / 2F

### Specifications

Model	TM-1	TM-1F	TM-2	TM-2F
Shaking Speed(rpm)	0-2500	0-2500	0-2500	0-2500
Max. Volume (L) in Stirring Mode	2	2	2	2
Housing Material	Plastic-Aluminum	Plastic-Aluminum	Plastic-Aluminum	Plastic-Aluminum
Shaking Amplitude (mm)	4.5	4.5	4.5	4.5
Speed Control/Display	Turning Knob Scale Display	Turning Knob Scale Display	Turning Knob LED Display	Turning Knob LED Display
Operation Mode	Continuous / On-Touch	Continuous / On-Touch	Continuous / On-Touch	Continuous / On-Touch
Accessories	Shaker Tray	Accessory Pack	Shaker Tray	Accessory Pack
Power (W)	17.3	17.3	17.3	17.3
Dimension (mm)	115X230X60	115X230X60	115X230X60	115X230X60
Order No.	360110	36011F	360120	36012F

## Accessories for TM Series



### Universal Tray

Can be used with different foam plastic platforms for simultaneous shaking of several test tubes  
Order No. : 3601-01



### Magnetic Stirring Plate

Can be directly installed on the shaker and used for stirring of smaller samples  
recommendation speed range 0-1500rpm  
Order No. : 3601-02



### Elisa Plate Tray

Can be used with an ELISA Plate  
recommendation speed range 0-1500rpm  
Order No. : 3601-03



### Test Tube Platform (6 Holes)

Can be used in combination with the universal tray for shaking operation of 6 test tubes with 12 mm diameter  
recommendation speed range 0-2000rpm  
Order No. : 3601-04



### Test Tube Platform (4 Holes)

Can be used in combination with the universal tray for shaking operation of 4 test tubes with 16 mm diameter  
recommendation speed range 0-2000rpm  
Order No. : 3601-05



### One-hand insert

80mm  
recommendation speed range 0-800rpm  
Order No. : 3601-06



### Universal Base Plate

Base plate for foam plastic platforms with 120 mm diameter  
recommendation speed range 0-1500rpm  
Order No. : 3602-01



### Test Tube Platform (54 Holes)

Can be used in combination with the universal base plate for shaking operation of 54 Eppendorf tubes  
recommendation speed range 0-1500rpm  
Order No. : 3602-02



### Test Tube Platform (18 Holes)

Can be used in combination with the universal base plate for shaking operation of 18 test tubes with 10 mm diameter  
recommendation speed range 0-1500rpm  
Order No. : 3602-03



### Test Tube Platform (12 Holes)

Can be used in combination with the universal base plate for shaking operation of 12 test tubes with 12 mm diameter  
recommendation speed range 0-1500rpm  
Order No. : 3602-04



### Test Tube Platform (8 Holes)

Can be used in combination with the universal base plate for shaking operation of 8 test tubes with 16 mm diameter  
recommendation speed range 0-1500rpm  
Order No. : 3602-05



### TTest Tube Platform (8 Holes)

Can be used in combination with the universal base plate for shaking operation of 8 test tubes with 20 mm diameter  
recommendation speed range 0-1500rpm  
Order No. : 3602-06



### Flask Holder

Can be used in combination with the universal base plate for shaking operation of Erlenmeyer or round flasks with a volume between 100 and 250 ml  
Order No. : 3602-07

