WiseMix® & WiseShake®

wisd.
LABORATORY INSTRUMENTS

Rockers, Rotators, Shakers & Vortex Mixers

- Patented Jog-Shuttle Control System
- Digital LCD Display with Back-Light Function for Timer, RPM and Power Bar-Graph
- Smooth Start and Change of Stirring Speed
- Locking Mode supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
- PL(Product Liability) Insurance

Digital Rocker (RK-model)

Digital Rotator (RT-10 model)

Multifunctional Vortex Mixer (VM-10 model)

Digital Orbital / Reciprocating Shaker (SHO-model)

"witeg" *WiseMix® RK* Programmable Digital Rockers, Digital Feedback Control, 5~50 rpm
with 290×200mm or 300×300mm Platform, Smooth Start & Wave Motion, Tilt Angle ±6° / ±9°

■ **High Precision Digital Speed Control : 1rpm**
■ **Patented Jog-Shuttle Control System**
■ **CE Certified**

∗ Gel Staining, Destaining, Blotting
∗ Cell Culture, Hybridization, Washing
∗ High Precision Digital Speed Control : 1rpm
∗ Programmable Operation Mode Supported : 10 Steps and 6 Programs
∗ Digital Timer : Max. 99hr 59min
∗ Digital LCD Display with Back-Light Function for Timer, RPM and Power Bar-Graph
∗ Smooth Start and Change of Rocking Speed
∗ Overload Protection Function for Motor
∗ Storage Function for Set Values : RPM and Timer
∗ Alarm Function : Error Status and Timer-end
∗ Stainless Steel Platform Comes with Gray Nonslip Rubber Pad
∗ Stackable Platform with Pad to Double Mixing Area (Optional)
∗ Locking Mode supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

2-Year Warranty

CE

Back-light LCD

Patented Jog-Shuttle Control System

Programmable Digital Rocker with Platform "RK-1D"

Specification

Model		Platform Size : 290×200 mm "RK-1D"	Platform Size : 300×300 mm "RK-2D"
Dimensions (w×d×h)	Platform (mm)	290×200	300×300
	Overall (mm)	290×240×150	300×330×150
Speed Range (rpm)		5 ~ 50	
Angle (degree)		±6 or ±9 (±9 as Factory Default)	
Motor		35W Geared DC Motor	
Program Function		10 Steps, 6 Programs	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Programmable Digital Feedback Controller with Jog-Shuttle Switch(Turn+Push)	
Safety Circuit		Overload Protector for motor	
Platform		Included Platform(290×200mm)	Included Platform(300×300mm)
Others		CE Certified, PL(Product Liability) Insurance Smooth Start and Change of the Stirring Speed for Stable Running Storage Function (RPM, Timer) Locking Mode (Jog-Shuttle Input Disabled) Alarm (Error Status and Timer-end)	
Packing Dimension (w×d×h) (mm)		450×350×250	
Gross Weight		7 kg	8 kg
Power Consumption		35 W	
Power plug type		Hybrid E+F	
Power Supply∗		AC 230V, 1N~, 50/60Hz	

∗ Other Specifications are available upon Customer's Request.

Second Platform "RK5011"(Optional)

Pillars

CE

Programmable Digital Rocker, with Second Platform(Optional), "RK-1D"

Ordering Information

with 290×200 Platform/Rubber Pad, Programmable Digital Rocker
DH.WRK01010 Digital Rocker, **230V, "RK-1D"**

with 300×300 Platform/Rubber Pad, Programmable Digital Rocker
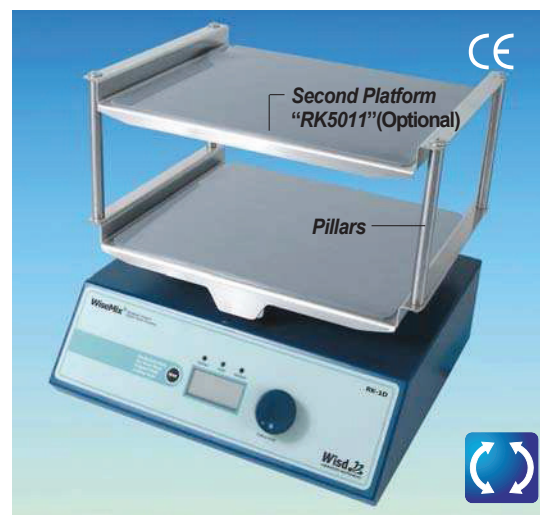**DH.WRK01020** Digital Rocker, **230V, "RK-2D"**

Optional Second Platform
DH.WRK05011 Second Platform, **"RK5011",** for **RK-1D,** w290×d200, with 4 Pillars(L120mm)
DH.WRK05021 , **"RK5021",** for **RK-2D,** w300×d300, with 4 Pillars(L120mm)

rpm

40
30
20
10

Step 1 2 3 4

1 2 3 4 5 6 7 8 time (hr.)

Example of Program

"witeg" *WiseMix® RT* Programmable Digital Rotator, 0~90° Mixing Angle, 5~60rpm
with Digital Feedback Control, Adjustable Speed & Angle of Rotation, Continuous or Timed Operation

Disk 1,5ml×32ea

Adjustable Angle of Rotation

Patented Jog-Shuttle Control System

2-Year Warranty

Programmable Digital Rotator (RT-10) with 1,5ml×32ea Disk (WRT120)

- **Adjustable Speed and Angle of Rotation : 0 to 90°**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

∗ General Mixing, Diffusing, Dialyzing and Hybridization, Aerating Culture
∗ Keeping Biological Samples in Suspension
∗ Adjustable Speed and Angle of Rotation : 0 to 90°
∗ Digital Feedback Control: Steady and Constant Rotating
∗ Continuous or Timed Operation
∗ Digital LCD Display with Back-Light Function
∗ Programmable Operation Mode Supported : 10 Steps and 6 Programs
∗ Overload Protection for motor
∗ Smooth Start and Change of Stirring Speed
∗ Storage Function for Set values of RPM and Time
∗ Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
∗ Durable Construction for Long-Term Operation
∗ 5 Different Disks and 3 Roller Drums(Optional)
∗ Disk for 250ml Flask is available

Specification

Model	"RT-10"
Speed range	5~60 rpm
Angle range	0°~90°
Motor	35W
Program Function	10 Steps, 6 Programs
Timer & Alarm	99hr 59min (with Continuous run.), Error status & Timer-end
Display	Digital LCD Display with Back-Light Function
Controller	Programmable Digital Feedback Controller with Jog-Shuttle
Temp. Resistance	Lower than 65℃ (Dry Air)
Safety Circuit	Overload Protector for motor
Dimensions (w×d×h) (mm)	200×250×h260 mm
Weight	8.5kg
Others	CE Certified, PL (Product Liability) Insurance Storage Function (RPM, Timer) Locking Mode (Jog-Shuttle Input Disabled) User Self-compensation Function, Alarm (Error Status and Timer-end)
Packing Size (w×d×h) (mm) & Gross Weight	370×240×h430 mm
	6 kg
Power Consumption	40 W
Power plug type	Hybrid E+F
Power Supply∗	AC 230V, 1N~, 50/60Hz

∗ Other Specifications are available upon Customer's Request.

50ml Conical Tube : 8ea
(1) Disk, "WRT100"

15ml Conical Tube : 16ea
(2) Disk, "WRT110"

1,5ml Conical Tube : 32ea
(3) Disk, "WRT120"

1,5ml Conical Tube : 60ea
(4) Disk, "WRT130"

250ml Flask : 4ea
(5) Disk, "WRT140"

Knob   Post
(6) Knob & Post "WRT300"

Ordering Information

DH.WRT00010 Digital Rotator, **230V, "RT-10" Only Unit ,** 5~60 rpm, with 4×knobs & 4×Post

Spare Knob & Post
DH.WRT00300 (6) 4×knobs & 4×Post, **"WRT300,** for Installing Disk

Optional Disk & Roller Drum
DH.WRT00100 (1) Disk, **"WRT100",** for 50ml conical tube×8ea
DH.WRT00110 (2) , **"WRT110",** for 15ml conical tube×16ea
DH.WRT00120 (3) , **"WRT120",** for 1.5ml conical/centrifuge Tube×32ea
DH.WRT00130 (4) , **"WRT130",** for 1.5ml conical/centrifuge Tube×60ea
DH.WRT00140 (5) , **"WRT140",** 250ml Flask-capacity×4ea
DH.WRT00200 Roller Drum, **"WRT200",** up to Dia.15mm tube×151ea
DH.WRT00210 , **"WRT210",** up to Dia.17mm tube×104ea
DH.WRT00220 , **"WRT220",** up to Dia.24mm tube×42ea
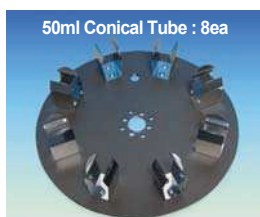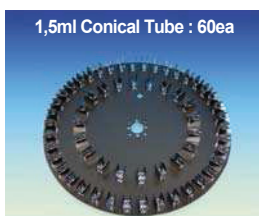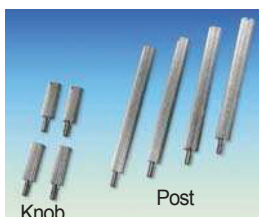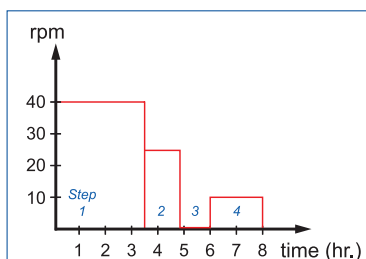
Example of Program

"witeg" *WiseMix® VM* Multifunction Vortex Mixer Set, Up to 3.300rpm
with $\phi76mm$ (3 inch) Platform Head & Pop-off Cup Head, Variable Speed Control, Continuous or Touch-on Mixing

- **Ideal for Mixing Solutions in Test Tubes or Small Flasks with Circular, Oscillating Movement**
- **Variable Speed Control Allows Slow Speed Shaking Action up to High Speed Vortexing**
- **CE Certified**

∗ Gentle Mixing to re-suspending Pellet
∗ Ideal for Mixing Solutions in Test Tubes or Small Flasks with Circular, Oscillating Movement
∗ Supplied with $\phi76mm$ Platform and Pop-Off Cup
∗ Realize High Power, Stable Motion with Low Noise
∗ Tough Metal Housing Provides a Stable Platform for all types of Mixing
∗ 3-position Power Switch Operates with Continuous Action or "Touch On" Control
∗ Variable Speed Control Allows Slow Speed Shaking Action up to High Speed Vortex
∗ Aluminum Die-casting with Powder Coating
∗ Various Shapes, Sizes and Materials of the Head allows for mixing of almost all Common Tubes or Containers

3-position Power Switch Operation (Continuous Action or "Touch on" Control)

$\phi76mm$(3 inch) Platform Head

Adjustable Speed

2-Year Warranty

Pop-off Cup Head Included

Multifunction Vortex Mixer Set "VM-10" with $\phi76mm$(3″) Platform (PM110)

Specification

Model	"VM-10"
Speed Range	0 ~ 3.300 rpm
Shaking Motion	Orbital
Control	Analog Phase Controller
Head	included Pop-off Cup Head and $\phi76mm$ Platform
Material	Aluminum Die-casting with Powder Coating
Dimensions (w×d×h) (mm)	160×128×h145 mm
Weight	3 kg
Others	CE Certified 3-position Power Switch Operates Aluminum Die-casting with Powder Coating included Pop-off Cup Head and $\phi76mm$ Platform
Packing Dimension (w×d×h) (mm)	260×200×h220 mm
Gross Weight	4 kg
Power Consumption	30 W
Power plug type	Hybrid E+F
Power Supply∗	AC 230V, 1N~, 50/60Hz

∗ Other Specifications are available upon Customer's Request.

Ordering Information

DH.WVM00010 Vortex Mixer Set, **230V, "VM-10"**, 3.300 rpm,
with **PM110** $\phi76mm$(3inch) Platform Head
and **PM210** Pop-off Cup Head, Remove Applicator

Spare Heads

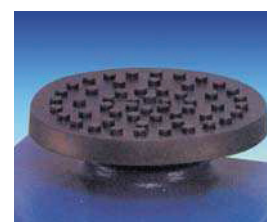**DH.WVM00110** (1) Platform Head, **"PM110"**, $\phi76mm$(3inch)
DH.WVM00210 (2) Pop-off Cup Head, **"PM210"**

Optional Heads

DH.WVM00310 (3) Microtube Platform Head(0.5~2.0ml), **"PM310"**

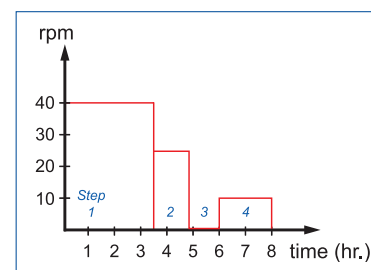**(1) Platform Head, $\phi76mm$(3inch) "PM110"**

(2) Pop-off Cup Head "PM210"

(3) Microtube Platform Head, 0,5~2,0ml Tube "PM310"

Remove Applicator (Included)

Example of Program

"witeg" *WiseShake® SHO* Digital Orbital Shaker, 10~300 rpm, Low Noise & Long Life Cycle
with Programmable Digital Feedback Control, Available Rubber Mat-/Universal-Platform, without Platform

Digital Orbital Shaker(SHO-1D) with Rubber Mat Platform (SP110)

- ■ **Ideal for Culturing Cells to Hybridization, Staining and Destaining Gels, and Combinatorial Chemistry**
- ■ **Patented Jog-Shuttle Control System**
- ■ **CE Certified**

∗ Hybridization, Washing Blots, Culturing Microbes
∗ Ideal for Culturing Cells to Hybridization, Staining and Destaining Gels, and Combination Chemistry
∗ Optimal Platform Rotation for Intensive Mixing
∗ Brushless DC Motor (Low Noise & Long Life Cycle)
∗ High Precision Digital Rotation Speed Control
∗ Programmable Operation Mode Supported
∗ Digital LCD Display with Back-Light Function
∗ Smooth Start and Change of Shaking Speed
∗ Universal Platform for Easy and Fast Fixation of Any Kind of Flasks and Bottles (Optional)
∗ Storage Function, Alarm & Overload Protection
∗ Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
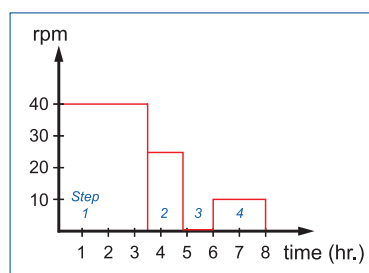∗ Variable accessories are available (Optional)

Digital Orbital Shaker (SHO-2D) with Universal Platform (SP200)

Specification

Model	Base Platform : 230×230 mm "SHO-1D" Only Unit	Base Platform : 350×350 mm "SHO-2D" Only Unit
Shaking Motion	Orbital Motion	
Speed Range	10 ~ 300 rpm	
Max. Load	8 kg	10 kg
Amplitude of Rotation (mm)	10, 15, 20 Available (15 as Factory Default)	20, 30, 40 Available (30 as Factory Default)
Motor	Brushless DC Motor	
Permissible Ambient Temperature	Ambient +5 ~ 50℃	
Permissible Relative Moisture	85%	
Timer & Alarm	99hr 59min (with Continuous run.), Error status & Timer-end	
Display	Digital LCD Display with Back-Light Function	
Controller	Programmable Digital Feedback Controller with Jog-Shuttle Switch(Turn+Pus)	
Program Function	10 Steps, 6 Programs	
Platform	Universal Platform for various Shapes & Size of Flask	
Max. Capacity of Flask Holder — FH100	9 ea	20 ea
Max. Capacity of Flask Holder — FH250	7 ea	16 ea
Max. Capacity of Flask Holder — FH500	4 ea	9 ea
Holder	Durable & Flexible Plastic Flask holder	
Dimension (w×d×h) (mm)	250×330×150	400×480×160
Base Platform Size (mm)	230×230	350×350
Safety Circuit	Overload Protector for Motor	
Net Weight	14 kg	20 kg
Others	CE Certified Smooth Start and Change of the Stirring Speed for Stable Running Storage Function (Program, RPM, Timer) Locking Mode (Jog-Shuttle Input Disabled) Alarm (Error Status and Timer-end)	
Packing Size (w×d×h) (mm) & Gross Weight	450×350×250 18 kg	580×500×250 23 kg
Power Consumption	40 W	
Power plug type	Hybrid E+F	
Power Supply∗	AC 230V, 1N~, 50/60Hz	

∗ Other Specifications are available upon Customer's Request.

Example of Program

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<Continued from... "witeg" *WiseShake®* SHO Digital Orbital Shaker >

Ordering Information

230×230 Base Platform, "SHO-1D" Unit Only

DH.WSO04010   Digital Orbital Shaker, **"SHO-1D" Unit only,** without Platform, **230V**

350×350 Base Platform, "SHO-2D" Unit Only

DH.WSO04012   Digital Orbital Shaker, **"SHO-2D" Unit only,** without Platform, **230V**

Optional Accessories

DH.WSO504100   (1) Universal Platform, **"SP100",** for **SHO/SHR-1D,**
            w230×d230mm
DH.WSO504200   (1) Universal Platform, **"SP200",** for **SHO/SHR-2D,**
            w350×d350mm
DH.WSO504110   (2) Rubber Mat Platform, **"SP110",** for **SHO/SHR-1D,**
            w270×d270mm
DH.WSO504210   (2) Rubber Mat Platform, **"SP210",** for **SHO/SHR-2D,**
            w370×d370mm
DH.WSO504120   (3) Platform for Flasks, **"SP120",** for **SHO/SHR-1D**,
            w366×d355×h175mm
DH.WSO504220   (3) Platform for Flasks, **"SP220",** for **SHO/SHR-2D**,
            w366×d355×h175mm
DH.WSO504130   (4) Platform for Separatory Funnels, **"SP130"**
            for **SHO/SHR-1D**, w366×d351×h175mm
DH.WSO504230   (4) Platform for Separatory Funnels, **"SP230"**
            for **SHO/SHR-2D**, w366×d351×h175mm
DH.WSO504140   (5) Universal Spring Rack, **"SP140"**
            for **SHO/SHR-1D**, w270×d270×h100mm
DH.WSO504240   (5) Universal Spring Rack, **"SP240"**
            for **SHO/SHR-2D**, w370×d370×h100mm
DH.WIS504030   (6) Flask Holder, **"FH100",** 50~ 100ml, for **SHO, SHR** and **WIS**
DH.WIS504035   (7)   , **"FH250",** 200~ 300ml, for **SHO, SHR** and **WIS**
DH.WIS504040   (8)   , **"FH500",** 500~1000ml, for **SHO, SHR** and **WIS**

(1) Universal Platform "SP100" / "SP200"

(2) Rubber Mat Platform "SP110" / "SP210"

with Flasks
(3) Platform for Flasks "SP120" / "SP220"

with Separatory funnels
(4) Platform for Separatory Funnels "SP130" / "SP230"

(5) Universal Spring Rack "SP140" / "SP240"

(8)   (7)   (6)
Flask Holders "FH500"/"FH250"/"FH100"

Platform Selection Guide

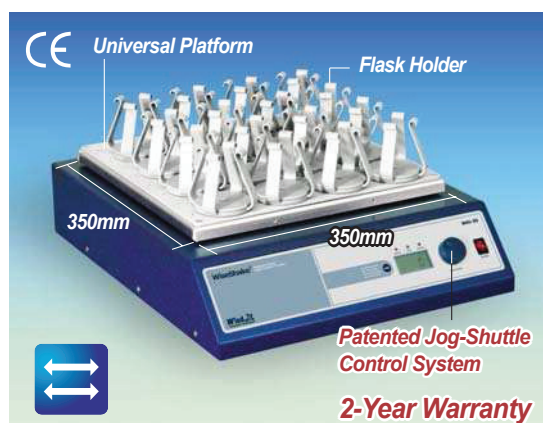| APPLICATION	PLATFORM	HOLDER
Culturing Microbes Mixed with Erlenmeyer Flask	**Universal Platform** SP100 for SHO/SHR-1D SP200 for SHO/SHR-2D	**Flask Holder** FH100 (50~100ml) FH250 (200~300ml) FH500 (500~1000ml)
Staining/Destaining Gel, Washing Blots Gentle Mixing(Shaking)	**Rubber Mat Platform** SP110 for SHO/SHR-1D SP320 for SHO/SHR-2D	
Mixed Sample, Combination Chemistry Combinatorial Chemistry, with Round Flask	**Platform for Flask** SP120 for SHO/SHR-1D SP220 for SHO/SHR-2D	
Combinatorial Chemistry with Separatory Funnel	**Platform for Separatory Funnels** SP130 for SHO/SHR-1D SP230 for SHO/SHR-2D	
with Variety of Size Flask & Bottle	**Universal Spring Rack** SP140 for SHO/SHR-1D SP240 for SHO/SHR-2D	

"witeg" WiseShake® SHR Digital Reciprocating Shaker, 10~300 rpm, Low Noise & Long Life Cycle
with Programmable Digital Feedback Control, Available Rubber Mat-/Universal-Platform, without Platform

Digital Reciprocating Shaker (SHR-1D)
with Rubber Mat Platform (SP110)

Digital Reciprocating Shaker (SHR-2D)
with Universal Platform (SP200)

■ **Ideal for Culturing Cells to Hybridization, Staining and Destaining Gels, and Combinatorial Chemistry**
■ **Patented Jog-Shuttle Control System**
■ **CE Certified**

∗ Hybridization, Washing Blots, Culturing Microbes
∗ Ideal for Culturing Cells to Hybridization, Staining and Destaining Gels, and Combination Chemistry
∗ Optimal Platform Rotation for Intensive Mixing
∗ Brushless DC Motor (Low Noise & Long Life Cycle)
∗ High Precision Digital Rotation Speed Control
∗ Programmable Operation Mode Supported
∗ Digital LCD Display with Back-Light Function
∗ Smooth Start and Change of Shaking Speed
∗ Universal Platform for Easy and Fast Fixation of Any Kind of Flasks and Bottles (Optional)
∗ Storage Function, Alarm & Overload Protection
∗ Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
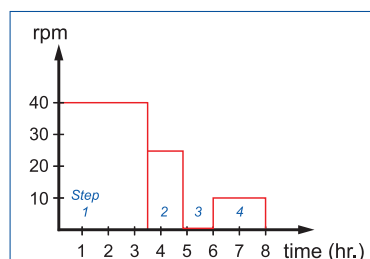∗ Variable accessories are available (Optional)

Example of Program

Specification

Model		Base Platform : 230×230 mm "SHR-1D" Only Unit	Base Platform : 350×350 mm "SHR-2D" Only Unit
Shaking Motion		Reciprocating	
Speed Range		10 ~ 300 rpm	
Max. Load		8 kg	10 kg
Amplitude of Rotation (mm)		10, 15, 20 Available (15 as Factory Default)	20, 30, 40 Available (30 as Factory Default)
Motor		Brushless DC Motor	
Permissible Ambient Temperature		Ambient +5 ~ 50℃	
Permissible Relative Moisture		85%	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Programmable Digital Feedback Controller with Jog-Shuttle Switch(Turn+Pus)	
Program Function		10 Steps, 6 Programs	
Platform		Universal Platform for various Shapes & Size of Flask	
Max. Capacity of Flask Holder	FH100	9 ea	20 ea
	FH250	7 ea	16 ea
	FH500	4 ea	9 ea
Holder		Durable & Flexible Plastic Flask holder	
Dimension (w×d×h) (mm)		250×330×150	400×480×160
Base Platform Size (mm)		230×230	350×350
Safety Circuit		Overload Protector for Motor	
Net Weight		14 kg	20 kg
Others		CE Certified Smooth Start and Change of the Stirring Speed for Stable Running Storage Function (Program, RPM, Timer) Locking Mode (Jog-Shuttle Input Disabled) Alarm (Error Status and Timer-end)	
Packing Size (w×d×h) (mm) & Gross Weight		450×350×250	580×500×250
		18 kg	23 kg
Power Consumption		40 W	
Power plug type		Hybrid E+F	
Power Supply∗		AC 230V, 1N~, 50/60Hz	

∗ Other Specifications are available upon Customer's Request.

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<Continued from..."witeg" WiseShake® SHR Digital Reciprocating Shaker >

Ordering Information

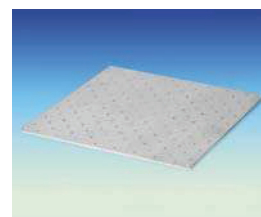#### 230 × 230 Base Platform, "SHR-1D" Unit Only

DH.WSR04020　　Digital Orbital Shaker, **"SHO-1D" Unit only,** without Platform, **230V**
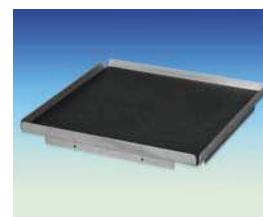
350 × 350 Base Platform, "SHR-2D" Unit Only

DH.WSR04022　　Digital Orbital Shaker, **"SHO-2D" Unit only,** without Platform, **230V**
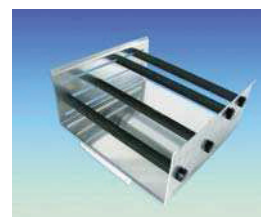
Optional Accessories

DH.WSO504100	(1) Universal Platform, **"SP100"**, for **SHO/SHR-1D**, w230 × d230mm
DH.WSO504200	(1) Universal Platform, **"SP200"**, for **SHO/SHR-2D**, w350 × d350mm
DH.WSO504110	(2) Rubber Mat Platform, **"SP110"**, for **SHO/SHR-1D**, w270 × d270mm
DH.WSO504210	(2) Rubber Mat Platform, **"SP210"**, for **SHO/SHR-2D**, w370 × d370mm
DH.WSO504120	(3) Platform for Flasks, **"SP120"**, for **SHO/SHR-1D**, w366 × d355 × h175mm
DH.WSO504220	(3) Platform for Flasks, **"SP220"**, for **SHO/SHR-2D**, w366 × d355 × h175mm
DH.WSO504130	(4) Platform for Separatory Funnels, **"SP130"** for **SHO/SHR-1D**, w366 × d351 × h175mm
DH.WSO504230	(4) Platform for Separatory Funnels, **"SP230"** for **SHO/SHR-2D**, w366 × d351 × h175mm
DH.WSO504140	(5) Universal Spring Rack, **"SP140"** for **SHO/SHR-1D**, w270 × d270 × h100mm
DH.WSO504240	(5) Universal Spring Rack, **"SP240"** for **SHO/SHR-2D**, w370 × d370 × h100mm
DH.WIS504030	(6) Flask Holder, **"FH100"**, 50~ 100ml, for **SHO, SHR** and **WIS**
DH.WIS504035	(7)　　　　　, **"FH250"**, 200~ 300ml, for **SHO, SHR** and **WIS**
DH.WIS504040	(8)　　　　　, **"FH500"**, 500~1000ml, for **SHO, SHR** and **WIS**

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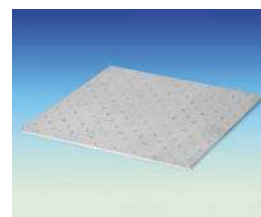
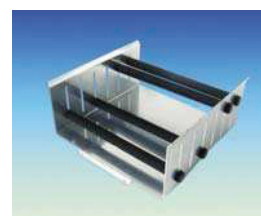**(1) Universal Platform "SP100" / "SP200"**
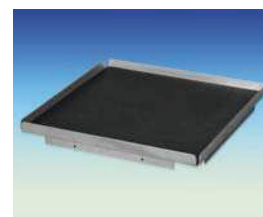
(2) Rubber Mat Platform "SP110" / "SP210"
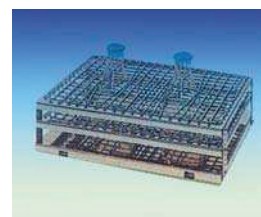
(3) Platform for Flasks "SP120" / "SP220"
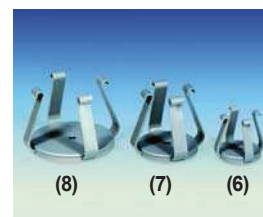
with Flasks

(4) Platform for Separatory Funnels "SP130" / "SP230"

with Separatory funnels

(5) Universal Spring Rack "SP140" / "SP240"

Flask Holders "FH500"/"FH250"/"FH100"

(8)　(7)　(6)

Platform Selection Guide

APPLICATION	PLATFORM	HOLDER
Culturing Microbes Mixed with Erlenmeyer Flask	**Universal Platform** SP100 for SHO/SHR-1D SP200 for SHO/SHR-2D	**Flask Holder** FH100 (50~100ml) FH250 (200~300ml) FH500 (500~1000ml)
Staining/Destaining Gel, Washing Blots Gentle Mixing(Shaking)	**Rubber Mat Platform** SP110 for SHO/SHR-1D SP320 for SHO/SHR-2D	
Mixed Sample, Combination Chemistry Combinatorial Chemistry, with Round Flask	**Platform for Flask** SP120 for SHO/SHR-1D SP220 for SHO/SHR-2D	
Combinatorial Chemistry with Separatory Funnel	**Platform for Separatory Funnels** SP130 for SHO/SHR-1D SP230 for SHO/SHR-2D	
with Variety of Size Flask & Bottle	**Universal Spring Rack** SP140 for SHO/SHR-1D SP240 for SHO/SHR-2D	