

Mixing

Mixers range can be divided into different series as per mixing speed, working mode, load capacity etc:

Series	Image	Model	Speed Range	Working mode	Capacity	Page
Vortex Mixer		MX-S	0~3000rpm	Orbital (touch + continuous modes)	-	p.105
		MX-F	3000rpm (fixed)	Orbital (touch + continuous modes)	-	p.106
		MX-E	3000rpm (fixed)	Orbital (touch mode)	-	p.107
Cell disruptor		MX-C	0~3000rpm	Orbital (touch + continuous modes)	8x2mL	p.109
Microplate Mixer		MX-M	0~1500rpm	Orbital (continuous mode)	0.5Kg	p.109
Disk Rotator		MX-RD-Pro	10~70rpm	360° rolling (timer + continuous)	60x1.5mL,16x15mL, 8x50mL, (available for 3 layers)	p.112
Rotisserie Rotator		MX-RL-Pro	10~70rpm	360° rolling (timer + continuous)	48x1.5mL,24x15mL, 24x50mL	p.113
Disk Rotator		MX-RD-E	0~80rpm	360° rolling (continuous)	48x2mL,16x15mL, 8x50mL	p.115
Rotisserie Rotator		MX-RL-E	0~80rpm	360° rolling (continuous)	32x2mL, 20x15mL,16x50mL	p.116
Rocking Rotator		SK-R30S-E	0~30rpm	30±3° rocking (continuous)	10x10mL, 4x50mL	p.117
		SK-R30L-E	0~30rpm	30±3° rocking (continuous)	16x10mL 6x50mL	p.117
		SK-R30D-E	0~30rpm	40±3° rocking (continuous)	32x10mL,12x50mL	p.117
Roller Mixer		MX-T6-Pro	0~70rpm	360° rocking&rolling (timer + continuous)	4Kg	p.118
		MX-T6-S	0~70rpm	360° rocking&rolling (continuous)	4Kg	p.118

Shaker series can be divided to different types as per different motion models:

Series	Image	Model	Plate Size	Display	Speed Range	Max. Load Capacity	Page
Orbital Shaker		SK-O330-Pro	32x32cm	LCD	100-500rpm	7.5Kg	p.119
		SK-O180-Pro	25x24.5cm	LCD	100-800rpm	2.5Kg	p.119
		SK-O330-M	33.5x33.5cm	LCD	70-400rpm	3Kg	p.120
		SK-O180-S	26.8X26.8cm	LED	40-200rpm	3.1Kg	p.120
Linear Shaker		SK-L330-Pro	32x32cm	LCD	100-350rpm	7.5Kg	p.121
		SK-L180-Pro	25x24.5cm	LCD	100-350rpm	2.5Kg	p.121
Rocking Shaker		SK-R330-Pro	30x28.5cm	LCD	10-70rpm	10Kg	p.122
3D Shaker		SK-D3309-Pro	30x28.5cm	LCD	10-70rpm	5Kg	p.123

MX-S

Variable speed Vortex Mixer



Features

- Variable speed of 0 to 3,000rpm for gentle shaking to rapid mixing of samples
- Touch or continuous operation mode
- Includes a standard top head for mixing a single test tube or other small vessel up to 30mm in diameter
- Electronic speed control maintains constant speed even during changes in load
- Steel base with specially designed vacuum suction feet provides stability and dampens vibration
- Robust aluminum-cast construction

VT1.1 Standard top(Default) **Cat. No.18900034**

for <Ø30mm tubes and small vessels



Specifications	MX-S (Adjustable speed)
Voltage,Frequency	100-120V/200-240V,50/60Hz
Power	60W
Mixing motion	Orbital
Orbital diameter	4mm
Motor type	Shaded pole motor
Motor rating input	58W
Motor rating output	10W
Speed range	0-3000rpm
Speed display	Scale
Run type	Touch operation/Continuous
Dimension[W × H × D]	127 × 130 × 160mm
Weight	2.0kg
Permissible ambient temperature	5-40℃
Permissible relative humidity	80%RH
Protection class	IP20

MX-F
Fixed speed Vortex Mixer



Applications

Vortex mixers are ideal for mixing liquid components in tubes, resuspension of cells, using an eccentric mechanism. They are widely used in clinical labs performing virus diagnostic tests and in biological & chemical analysis applications.
It is perfect for mixing high-viscosity materials, such as waxes and slurries; to mix battery slurries, paints, pharmaceuticals and more.

Wide range of accessories

VT1.1 Standard top(Default) **Cat. No.18900034**

for <Ø30mm tubes and small vessels



Specifications	MX-F (Fixed speed)
Voltage,Frequency	100-120V/200-240V,50/60Hz
Power	60W
Mixing motion	Orbital
Orbital diameter	4mm
Motor type	Shaded pole motor
Motor rating input	58W
Motor rating output	10W
Speed range	3000rpm
Speed display	-
Run type	Touch operation/Continuous
Dimension[W × H × D]	127 × 130 × 160mm
Weight	2.0kg
Permissible ambient temperature	5-40℃
Permissible relative humidity	80%RH
Protection class	IP20

MX-E

Economic Vortex Mixer



Features

- Compact , portable and fits nicelyon bench-top (erase desktops and table tops)
- Touch operation,Fixed speed of 3,000rpm for rapid mixing of samples
- Powerful and efficient 12V DC brushless motor is smooth operation and has long life
- Foot pad design secures the mixer in place and does not wobble during operation

Applications

Used to rapidly mix small samples of liquids for lab researches or otherworks like to mix Nail Polish, Gel Polish, Eyelash Adhesives acrylic paint, tattoo ink and so on.

Specifications	MX-E
Voltage	100-240V
Frequency	50/60Hz
Power	12W
Mixing motion	Orbital
Revolving diameter	4.8mm
Motor rating output	10W
Rotational speed	3000rpm
Operating mode	Touch Operation
External dimension	133X133X80mm
Dimension of packing box	250X185X130mm
Weight	0.6kg
Permissible ambient temperature	5-40℃
Permissible relative humidity	≤80%RH
Protection class	IP21



VT1.2 Tube holding rod Cat. No.18900044

used with tube adapters



VT1.3 Universal top plate Cat. No.18900035

Ø 100mm



VT1.3.1 tube adapter Cat. No.18900020

for 48 test tubes, Ø6mm (1mL)



VT1.3.2 tube adapter Cat. No.18900021

for 15 test tubes, Ø10mm (1.5-2mL)



VT1.3.3 tube adapter Cat. No.18900022

for 16 test tubes, Ø12mm (5mL)



VT1.3.4 tube adapter Cat. No.18900023

for 8 test tubes, Ø16mm (10mL)



VT1.3.5 tube adapter Cat. No.18900024

for 8 test tubes, Ø20mm (10-15mL)



VT1.3.6 Platform pad Cat. No.18900043

Ø99mm, multiple small tubes and vessels



VT1.3.7 vacuum chuck Cat. No.18900158

made of rubber





Application of accessories

Accessories	Adjustable speed model (0-3000rpm)	
	Touch mode (High speed area)	Continuous mode (Low speed area)
VTI.1	Y	Y
VTI.2 + VT1.3.1	Y	
VTI.2 + VT1.3.2	Y	
VTI.2 + VT1.3.3	Y	
VTI.2 + VT1.3.4	Y	
VTI.2 + VT1.3.5	Y	
VTI.3 + VT1.3.6	Y	
VTI.3 + VT1.3.1		Y
VTI.3 + VT1.3.2		Y
VTI.3 + VT1.3.3		Y
VTI.3 + VT1.3.4		Y
VTI.3 + VT1.3.5		Y

MX-C
Cell Disruptor

Specifications	MX-C
Functions	Disrupts cells, yeast, bacteria, algae, fungi, etc.to prepare cell lysates for further processing
Mixing motion	High-speed circumferential vortex and oscillation function
Orbital diameter	4mm
Speed range	0-3000rpm (Adjustable)
Speed display	Scale
Capicity	8 × 2mL
Power Requirements	200-240V/ 100-120V, 50/60 Hz, 60W
Dimension	127X130X160mm
Weight	2.0kg



Features

- Durable, reliable and affordable
- Easy to operate, rapid hands-free disruption of up to 8 microtubes
- Processes at a constant, controlled shear rate
- Maintains genome integrity of the biological samples
- Facilitates subsequent purification of genomic material
- Best suited for research laboratories demanding accurate, reproducible, repeatable results

Applications

Suitable for all sample types;Lysis of yeast and fungi; for Isolation of genomic material from faecal samples; fungi and bacteria samples; soil samples;for Isolation of PCR-Ready Genomic DNA from Soil Samples; DNA & RNA Purification; Lysis of bacteria; Lysis of soft tissues; Isolation of genomic DNA; Purification of DNA; Cell Lysis; Used to lyse cell wall of yeast; Break hard/brittle samples.

MX-M
Microplate Mixer



Features

- Wide range of speed from 0 to 1,500 rpm (Double microplate:0-1,000 rpm)
- Excellent performance with electronic speed contro
- High speed and effective mixing for microplates
- With adapters for most popular vessels and microtiter plates
- Used for various mixing applications with optional adapters
- Maintenance-free brushless DC motor

Applications

Microplate Mixer is used for holding single or double microplates. The footprint of MX-M Microplate Mixer occupies less bench space and makes the storage easier. It is widely used in life sciences including microbiology, cell and molecular biology, immunology and biotechnology



Brushless DC motor

Wide range of accessories

PS1.1 Universal top plate Cat. No.18900067

Used with tube adapters



VT1.3.4 tube adapter Cat. No.18900023

for 8 holes test tubes, Ø16mm



VT1.3.1 tube adapter Cat. No.18900020

for 48 holes test tubes, Ø6mm



VT1.3.5 tube adapter Cat. No.18900024

for 8 holes test tubes, Ø20mm



VT1.3.2 tube adapter Cat. No.18900021

for 15 holes test tubes, Ø10mm



PS1.2 Microplate clamp Cat. No.18900042



VT1.3.3 tube adapter Cat. No.18900022

for 12 holes test tubes, Ø12mm



MXM-116 Cat. No.18900079

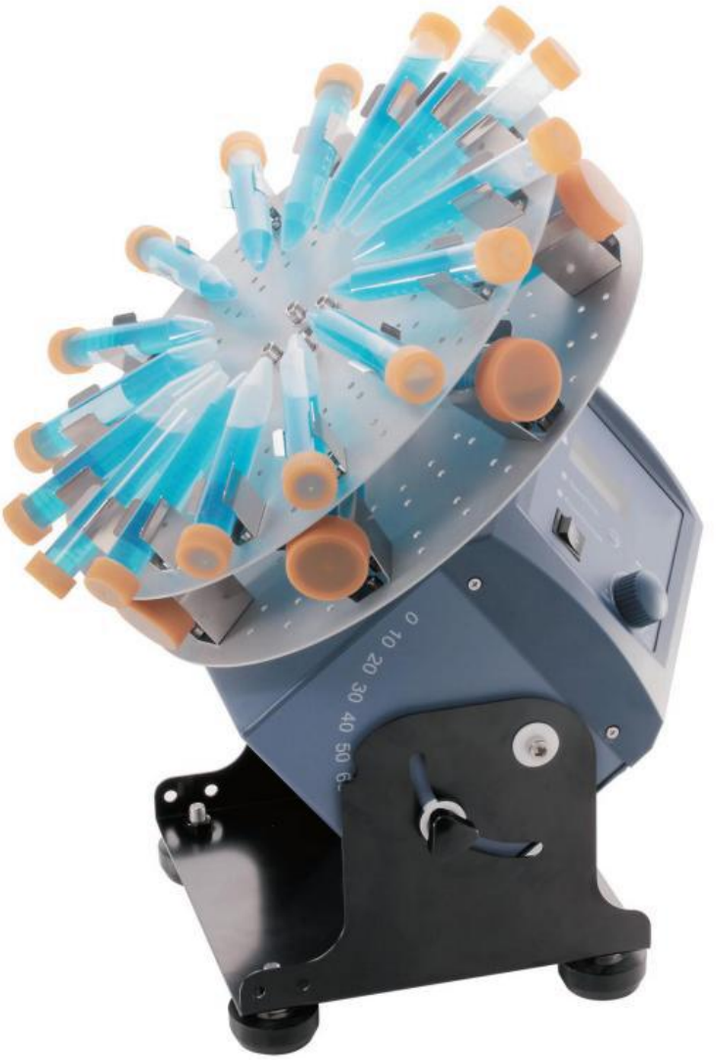
Double microplate clamps



Specifications	MX-M
Shaking movement	Orbital
Orbital diameter	4.5mm
Max. shaking weight (with accessory)	0.5kg
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Speed range	Single microplate: 0–1500rpm Double microplate: 0–1000rpm
Speed display	Scale
Voltage,Frequency	100–240V,50/60Hz
Power	20W
Dimension	260 × 150 × 80mm
Weight	3kg
Permissible ambient temperature and humidity	5–40℃,80%RH
Protection class	IP20

MX-RD-Pro

LCD Digital Tube Rotator



Features

- LCD display of speed and time
- Circular rotating action, gives gentle but effective mixing
- Adjustable speed range from 10 to 70 rpm
- Adjustable angle from 0 to 90°
- Brushless motor ideal for extended use, and longer life
- Wide variety of accessories are available

Applications

Laboratory Tube Rotators are ideal for Biochemistry, Molecular Biology and Clinical applications. Provides a gentle but effective mixing of biological samples in 1.5ml to 50ml micro tubes, used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics etc.

Specifications	MX-RD-Pro
Motor type	Brushless DC motor
Tilt angle	0–90°
Speed range	10–70rpm
Speed display	LCD
Timer display	LCD
Timer	1–1199min
Operation mode	Continuous / timer
Voltage,Frequency	100–240V, 50/60Hz
Power	40W
Dimension [D × W × H]	280 × 210 × 300mm
Permissible ambient temperature and humidity	5–40℃,80%RH
Protection class	IP21

MX-RL-Pro

LCD Digital Tube Rotator, Horizontal



Features

- LCD displays speed and time
- Adjustable speed range of 10 to 70 rpm
- Provides gentle but effective rolling and mixing
- Can be used in cold rooms or incubators
- Wide variety of Disk accessories and Rotisserie accessories available

Applications

Laboratory Tube Rotators are ideal for Biochemistry, Molecular Biology and Clinical applications. Provides a gentle but effective mixing of biological samples in 1.5mL to 50mL micro tubes, used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics etc.



Specifications	MX-RL-Pro
Motor type	Brushless DC motor
Speed range	10–70rpm
Speed display	LCD
Timer display	LCD
Timer	1–1199min
Operation mode	Continuous / timer
Voltage,Frequency	100–240V, 50/60Hz
Power	40W
Dimension [D × W × H]	220 × 510 × 260mm
Permissible ambient temperature and humidity	5–40℃,80%RH
Protection class	IP21



Disk Accessories Type-1 Cat. No.18900160

Used for MX-RD-Pro
for 1.5mLx60 centrifuge tubes holder



Disk Accessories Type-2 Cat. No.18900161

Used for MX-RD-Pro
for 15mLx16 centrifuge tubes holder



Disk Accessories Type-3 Cat. No.18900162

Used for MX-RD-Pro
for 50mLx8 centrifuge tubes holder



Disk support rods Cat. No.18900140

4pcs in a group
use with disk accessories







Rotisserie Accessory Type-3 Cat. No.18900144

Used for MX-RL-Pro,for 50mLx24
centrifuge tubes held horizontally



Rotisserie Accessory Type-4 Cat. No.18900145

Used for MX-RL-Pro,for 1.5mLx32
centrifuge tubes held vertically



Rotisserie Accessory Type-1 Cat. No.18900142

Used for MX-RL-Pro, for 1.5mLx48
centrifuge tubes held horizontally



Rotisserie Accessory Type-5 Cat. No.18900146

Used for MX-RL-Pro,for 15mLx16
centrifuge tubes held vertically



Rotisserie Accessory Type-2 Cat. No.18900143

Used for MX-RL-Pro, for 15mLx24
centrifuge tubes held horizontally



Rotisserie Accessory Type-6 Cat. No.18900147

Used for MX-RL-Pro,for 50mLx16
centrifuge tubes held vertically



MX-RD-E

Effective affordable mixing



Features

- Speed controlled by Scale
- Adjustable speed range from 0 to 80 rpm

Applications

Laboratory Tube Rotators are ideal for Biochemistry, Molecular Biology and Clinical applications. Provides a gentle but effective mixing of biological samples in 1.5mL to 50mL micro tubes, used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics etc.



Plastic Clips	
Used with MX-RL-E/MX-RD-E Disk/Rotisserie accessory, for 50mL, 15mL and 1.5mL	

Specifications	MX-RD-E
Motor type	DC motor
Speed range	0-80rpm
Speed display	Scale
Operation mode	Continuous
Voltage,Frequency	100-240V, 50/60Hz
Power	20W
Dimension [D×W×H]	300×220×310mm
Permissible ambient temperature and humidity	5-40℃,80%RH
Protection class	IP21

MX-RL-E

Economical Rotator



Features

- Provides gentle but effective rolling
- Adjustable speed range from 0 to 80 rpm

Plastic Clips

Used with MX-RL-E/MX-RD-E Disk/Rotisserie accessory, for 50mL, 15mL and 1.5mL



Applications

Rotisserie Horizontal Tube Rotator provides slow to vigorous mixing of your biological samples and solutions with advanced features you expect. Used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostic tests etc. Not recommended for extended use in incubators or cold rooms.

Specifications	MX-RL-E
Motor type	DC motor
Speed range	0-80rpm
Speed display	Scale
Operation mode	Continuous
Voltage,Frequency	100-240V, 50/60Hz
Power	20W
Dimension [D × W × H]	150X530X190mm
Permissible ambient temperature and humidity	5-40℃,80%RH
Protection class	IP21

Laboratory Deck Rocking Rotator Mixer

SK-R30S-E
Short Deck Rocking Rotator

SK-R30L-E
Long Deck Rocking Rotator

SK-R30D-E
Long Deck Double Layer Rocking Rotator



Applications

Laboratory Deck Rocking Rotator Mixer is suitable for molecular biology, virology, microbiology, pathology, immunology and other laboratories in scientific research units, medical schools, emergency control centres, and medical and health units.

Features

- Brushless DC motor
- Continuous mode of operation
- Available with various silicon mattress accessories

Specifications	SK-R30S-E	SK-R30L-E	SK-R30D-E
Tilt angle	30±3°	30±3°	40±3°
Load capacity	1kg	1kg	1kg
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Speed range	0~30rpm	0~30rpm	0~30rpm
Operation mode	Continuous	Continuous	Continuous
Dimension (W×D ×H)	295×160×120mm	405×160×120mm	405×160×160mm
Voltage,Frequency	100~240V, 50/60Hz	100~240V, 50/60Hz	100~240V, 50/60Hz
Power	15W	15W	15W
Weight	1.8kg	2kg	2.2kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH	5-40℃,80%RH

Accessories Information



Cat.No.18202835

Silicone mattress for 16× 5~10mL blood collection tubes on long decks (SK-R30L-E&SK-R30D-E)

Cat.No.18202846

Silicone mattress for 6× 50mL test tubes on long decks (SK-R30L E&SK-R30D-E)



Cat.No.18202852

Silicone mattress for 10× 5~10mL blood collection tubes on short decks (SK-R30S-E)



Cat.No.18202853

Silicone mattress for 4× 50mL test tubes on short decks (SK-R30S-E)

MX-T6-Pro

LCD Digital Tube Roller



Features

- LCD displays the speed and time
- Rocking & rolling at variable-speed
- Adjustable speed range from 10 to 70 rpm
- Six roller design for gentle and efficient rolling, and easy to clean
- DC brushless motor quiet and maintenance free
- Cold room and incubator compatible

LCD display

Timer



MX-T6-S

Standard tube roller

Features

- Adjustable speed range from 0 to 70 rpm
- Six roller design for gentle and efficient rolling, and is easy to clean

Applications

Laboratory tube rollers provide a gentle and highly efficient rolling motions, deal for mixing blood samples, viscous substances and liquid-solid suspensions. Used in a variety of applications, such as the prevention of blood coagulation, immune precipitation, etc.

Specifications	MX-T6-Pro	MX-T6-S
Amplitude	24mm	24mm
Motor type	DC motor	DC motor
Rocking motion	Rocking and rolling	Rocking and rolling
Max. load capacity	4kg	4kg
Number of rollers	6	6
Roller size[length]	280mm	280mm
Speed range	10 -70rpm	0-70rpm
Speed display	LCD	Scale
Timer	Yes	-
Timer display	LCD	-
Time setting range	1-1199min	-
Operation mode	Continuous/timer	Continuous
Voltage,Frequency	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	25W
Dimension [D × W × H]	485 × 250 × 100mm	485 × 250 × 100mm
Weight	5.1kg	4.5kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH
Protection class	IP21	IP21

SK-O330-Pro
SK-O180-Pro

LCD Digital Orbital Shaker



SK-O330-Pro

Features

- Independent LCD display for speed and time
- Compact footprint
- Provides smooth and uniform shaking
- Two options: 7.5 kg (O330) with platform and 2.5kg (O180) with platform speed range 100-500 rpm and 100-800 rpm
- Continuous or timer operation mode
- Maintenance- free brushless DC motor
- Over speed detection and protection
- Wide range of optional platform for flasks, and other popular vessels
- Remote function provides PC control and data transmission
- Free software for PC control & data logging



SK-O180-Pro

Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO2 incubators.



Specifications	SK-O330-Pro	SK-O180-Pro
Orbital diameter	10mm	4mm
Max. load capacity (with platform)	7.5kg	2.5kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	28W	28W
Motor output power	15W	15W
Speed range	100-500rpm	100-800rpm
Speed display	LCD	LCD
Timer display	LCD	LCD
Time settings range	1min-19h59min	1min-19h59min
Voltage,Frequency	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	30W
Weight	12kg	8.1kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH
Dimension[W × D × H]	370 × 420 × 100mm	300 × 340 × 100mm
Protection class	IP21	IP20
Data connector	RS232	RS232

SK-O330-M

Fixed Top LCD Digital Orbital Shaker



Features

- Independent LCD display for speed and time
- Compact footprint
- Provides smooth and uniform shaking
- Two options: 9.8kg (O330-M) and speed range 70-400rpm,3.1kg (O180-S) and speed range 40-200rpm
- Continuous or timer operation mode
- Maintenance- free brushless DC motor
- Over speed detection and protection
- Wide range of optional platform for flasks, and other popular vessels

Applications

Orbital Shaker is ideal for applications like bacterial suspension, solubility studies, growth of bacteria and yeast, extraction procedures, washing procedures, diagnostics tests, hybridization, general mixing, staining & destaining, mixing, and extracting.

It is suitable for almost any vessel from micro-centrifuge tubes through petri dishes and microplates to conical flasks.

SK-O180-S

LED Digital Orbital Shaker



Timer

Specifications	SK-O180-S	SK-O330-M
Orbital diameter	20mm	10mm
Max. load capacity (with platform)	2kg	3kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	20W	20W
Motor output power	16W	15W
Speed range	40-200rpm	70-400rpm
Speed display	LED	LCD
Timer display	LED	LCD
Time settings range	1min-19h59min	1min-19h59min
Voltage,Frequency	100-240V,50/60Hz	100-240V,50/60Hz
Power	20W	25W
Weight	3.1kg	9.8kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH
Dimension[W × D × H]	294 × 348 × 123mm	420 × 370 × 100mm
Protection class	IP20	IP21
Work plate Dimension [W x D]	268x268mm	335 × 335mm

SK-L330-Pro
SK-L180-Pro
LCD Digital Linear Shaker



SK-L330-Pro

Features

- Linear reciprocating shaking action
- Two options:7.5kg(L330) and 2.5kg(L180) with platform
- Independent LCD display for speed andtime
- Speed range of 100-350 rpm
- Maintenance- free brushless DC motor
- Over speed detection and protection
- Wide range of platforms for use with a variety of vessels



SK-L180-Pro

Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO2 incubators.

Specifications	SK-L330-Pro	SK-L180-Pro
Amplitude	10mm	4mm
Max. load capacity (with platform)	7.5kg	2.5kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	28W	28W
Motor output power	15W	15W
Speed range	100-350rpm	100-350rpm
Speed display	LCD	LCD
Timer display	LCD	LCD
Time settings range	1min-19h59min	1min-19h59min
Voltage,Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	30W	30W
Weight	13.5kg	8.1kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH
Dimension[W × D × H]	370 × 420 × 100mm	300X340X100mm
Protection class	IP21	IP21
Data connector	RS232	RS232



SK-R330-Pro

LCD Digital Rocking Shaker

Features

- Rocking motion angle 9°
- Maximum load capacity of 10 kg with platform
- Speed range of 10-70 rpm
- Double LCDs for independent display of
- time and speed
- Wide range of platforms for use with a variety of vessels

Specifications	SK-R330-Pro
Tilt angle	9°
Max. load capacity(with platform)	10kg
Motor type	DC motor
Motor input power	40W
Motor output power	24W
Speed range	10-70rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-19h59min
Voltage,Frequency	100-240V, 50/60Hz
Power	50W
Weight	9kg
Permissible ambient temperature and humidity	5-40℃,80%RH
Dimension[W×D×H]	360×410×200mm
Protection class	IP21

Applications

Designed for time-dependent and low rpm sensitive shaking applications such as ELISA washes, enzyme immunoassays, protein synthesis, hybridization staining/destaining gels, , immune precipitation and Western blots; cell culture; pharmaceutical profiling, etc.

SK-D3309-Pro

LCD Digital 3D Shaker



Features

- Three-dimensional rocking motion with an angle of 9°
- Maximum load capacity of 5kg with platform
- Speed range of 10-70 rpm
- Independent LCD display of time and speed
- Incubator compatible
- Various platform accessories

Applications

3D shaker used for uniform shaking mixing in flasks, culture flasks, petri dishes and tubes. Ideal for culturing a variety ofcell cultures, DNA extractions, distributing of cells and gel staining & destaining of cells.

Timer

Wide range of accessories

Specifications	SK-D3309-Pro
Tilt angle	9°
Max. load capacity(with platform)	5kg
Motor type	DC motor
Motor input power	40W
Motor output power	24W
Speed range	10-70rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-19h59min
Voltage,Frequency	100-240V, 50/60Hz
Power	50W
Weight	9kg
Permissible ambient temperature and humidity	5-40℃,80%RH
Dimension[W × D × H]	360 × 430 × 106mm
Protection class	IP21





Cat. No.	Description	SK-O330-Pro	SK-L330-Pro	SK-R330-Pro	SK-D3309-Pro	SK-O180-Pro	SK-L180-Pro
 18900155	SK330.5, Dish platform with non-slip mat and fixed string (8pcs) Dimension[WxD]: 30x28.5cm	■	■	■	■		
 18202835	Silicone mattress for 16 × 5~15mL tubes, use with SK330.5	■	■	■	■		
18202846	Silicone mattress for 6 × 50mL tubes, use with SK330.5	■	■	■	■		
 18900185	SK180.4, Dish attachment with non-slip mat Dimension[WxD]: 24x21.5cm					■	■
 18900200	SK180.5, Large size dish attachment with non-slip mat Dimension[WxD]: 30x23cm					■	■
 18900326	SK180.6, Dish attachment with non-slip mat Dimension[WxD]: 28x28cm					■	■
 18202852	Silicone mattress for 10 × 5~10mL tubes					■	■
 18202853	Silicone mattress for 4 × 50mL tubes					■	■
 18900027	SK330.1, Universal attachment with 4 bars Size: 32x32cm Capacity for flask: 25mLx21pcs, 50mLx15pcs, 100mLx12pcs, 250mLx6pcs, 500x4pcs	■	■	■	■		
 18900040	SK330.3, Lengthways roller attachment Size: 32x32cm Capacity for flask: 25mLx21pcs, 50mLx15pcs, 100mLx12pcs, 250mLx6pcs, 500x4pcs	■	■	■	■		
 18900025	SK180.1, Universal attachment with 3 bars Size: 25x24.5cm Capacity for flask: 25mLx10pcs, 50mLx8pcs, 100mLx6pcs, 250mLx4pcs, 500x2pcs					■	■
 18900038	SK180.3, Lengthways roller attachment Size: 25x24.5cm Capacity for flask: 25mLx10pcs, 50mLx8pcs, 100mLx6pcs, 250mLx4pcs, 500x2pcs					■	■

Cat. No.	Description	SK-O330-Pro	SK-L330-Pro	SK-R330-Pro	SK-D3309-Pro	SK-O180-Pro	SK-L180-Pro
 18900036	Bar for SK330.1 universal attachment	■	■	■	■		
 18900037	Bar for SK180.1 universal attachment					■	■
 18900280	Connect sticks for double dishes shaker	■	■	■	■	■	■
 18900028	SK330.2, Fixing clip attachment Size: 32 x 32cm	■	■	■	■		
 18900026	SK180.2, Fixing clip attachment Size: 25 x 24cm					■	■
 18900029	Fixing clip for flask volume 25mL, used with SK330.2[56pcs] SK180.2[36pcs]	■	■	■	■	■	■
 18900030	Fixing clip for flask volume 50mL, used with SK330.2[28pcs] SK180.2[18pcs]	■	■	■	■	■	■
 18900031	Fixing clip for flask volume 100mL, used with SK330.2[28pcs] SK180.2 [18pcs]	■	■	■	■	■	■
 18900032	Fixing clip for flask volume 200/250mL, used with SK330.2[13pcs] SK180.2[8pcs]	■	■	■	■	■	■
 18900033	Fixing clip for flask volume 500mL, used with SK330.2[9pcs] SK180.2[8pcs]	■	■	■	■	■	■

Spectrophotometer

SP-V1000/SP-UV1000/SP-V1100/ SP-UV1100



Features

- Saves up to 200 group data & 200 standard curves
- Data can be restored even after a sudden power failure
- Auto setting of wavelength to calibrate the system
- Wavelength range from 190 to 1100nm
- Automatic Switching between Tungsten & Deuterium lamps
- System is fully equipped and capable of executing all functions in stand-alone mode
- Large sample for accommodate 5 - 100mm path length cuvettes with optional holders
- Optional application software 'Wave Professional' provides computer control , and other functions such as spectrum scan, time scan(kinetics), multiwavelength scanning & Nucleic Acid / Protein measurement. (SP-V1100/SP-UV1100)
- Wide range of accessories are available

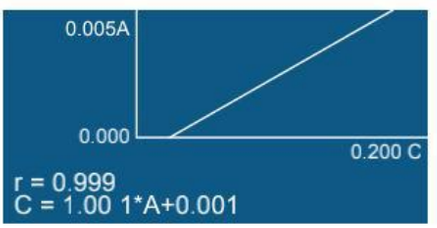
Applications

Our Spectrophotometer range is highly recommended for live display of ABS & %T, Quantitative analysis (Beer's Law), Reaction monitoring, Colorimetric analysis, Kinetic experiments, Protein and DNA assays, DNA & RNA quantification, Protein quantification and many more application in Advanced teaching labs; Industrial, Pharmaceutical, Life Science & Biotechnology research QA/QC labs.

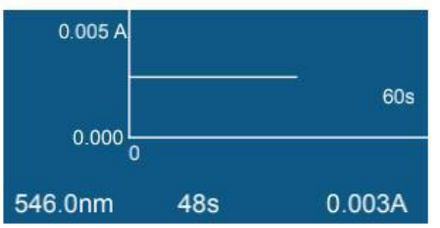
Basic Mode

546.0nm		0.001A
No.	WL.	Abs.
1	230.0	0.001
2	340.0	0.000
3	450.0	0.002
4	540.0	0.000
5	620.0	0.003

Quantitative



Kinetics





Model	SP-V1000	SP-UV1000	SP-V1100	SP-UV1100
Optical System	Single Beam	Single Beam	Single Beam	Single Beam
Light Source	Tungsten lamp	Tungsten lamp & Deuterium lamp	Tungsten lamp	Tungsten lamp & Deuterium lamp
Spectral Bandwidth	4.0nm	4.0nm	2.0nm	2.0nm
Wavelength Range	325–1000nm	200–1000nm	320–1100nm	190–1100nm
Wavelength Accuracy	±2nm	±2nm	±0.5nm	±0.5nm
Wavelength Repeatability	≤1nm	≤1nm	≤0.3nm	≤0.3nm
Photometric Range	−0.3 – 3.0 A, 0 – 200%T	−0.3 – 3.0 A, 0 – 200%T	−0.3 – 3.0 A, 0 – 200%T	−0.3 – 3.0 A, 0 – 200%T
Photometric Accuracy	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T
Photometric Repeatability	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T
Stability	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)
Stray Light	≤0.2%T @ 360nm	≤0.2%T @ 360nm	≤0.05%T @ 360nm	≤0.05%T @ 220 & 360nm
Sample Compartment	4–position, 10mm pathlength cuvette	4–position, 10mm pathlength cuvette	4–position, 10mm pathlength cuvette	4–position, 10mm pathlength cuvette
Display	LCD	LCD	LCD	LCD
Output	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port(Printer)	USB Port & Parallel Port (Printer)
Power Requirements	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W
Dimension(L × W × H)	490 × 360 × 210mm	490 × 360 × 210mm	490 × 360 × 210mm	490 × 360 × 210mm
Weight	12kg	14kg	12kg	14kg





Cat. No. 18900337

Micro Cell holder



Cat. No. 18900340

8-position auto cell changer
(for SP-V1100&SP-UV1100)



Cat. No. 18900331

4-cell holder for 10mm squ.cuvette



Cat. No. 18900332

4-cell holder for 10mm
to 50mm squ. cuvette



Cat. No. 18900333

4-cell holder for up to
100mm squ.cuvette



Cat. No. 18900338

Test tube holder(ø8-ø22mm)



Cat. No. 18900334

cylindrical cell holder(ø16mm)



Cat. No. 18900339

solid sample holder
(ø1.5-3mmø1 position)



Cat. No. 18900335

10mm water-jacketed 1 cell holder
(for SP-V1100 & SP-UV1100)



Cat. No. 18900336

10mm water-jacketed 4-cell holder
(for SP-V1100 & SP-UV1100)



Square cuvettes glass/quartz
1-5mm/10-100mm



Cat. No. 18900341

12V20W halogen lamp



Cat. No. 18900342

Milas deuterium lamp,
10V,300mA, 30W
(for SP-UV1000&SP-UV1100)