WELSO

WELSO
Incubator Shaker & Accessories

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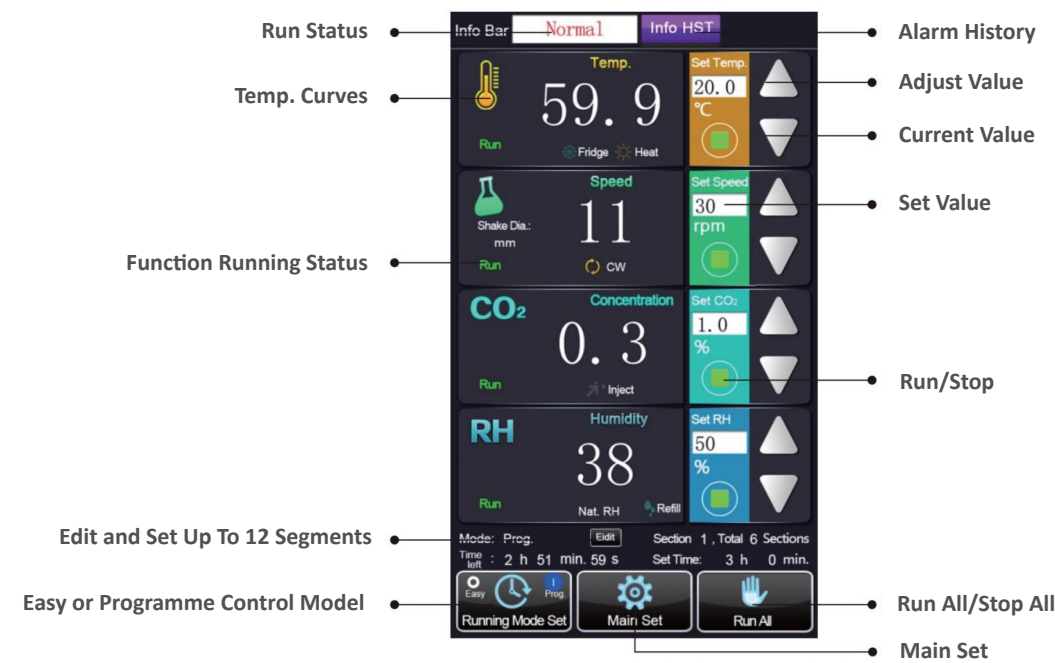
🌐 Website： www.welsobio.com

Incubator Shaker

Contents

Overview

7/10 Inches Touch Screen

Run Status • ● Alarm History
Temp. Curves • ● Adjust Value
● Current Value
● Set Value
Function Running Status •
● Run/Stop
Edit and Set Up To 12 Segments •
Easy or Programme Control Model • ● Run All/Stop All
● Main Set

High resolution touch screen enables easy operation. It displays time, speed, temperature, humidity and all other set values. User can set up to 12 steps for different experiment requirements.

Sliding Out Platform

● Easy Cleaning of All Corners

Easy Pull By One Hand •

This slide out design makes loading and cleaning very easy. User can pull the locking handle by using just one hand to load and unload the fixtures which is fast and convenient.

Stackable Up To 3 Units

**Suggest to use floor stand for one unit or 2 units purchase**

Users can purchase either one, two or three units which can be stacked directly on the floor. For one or two units, it is highly recommended to stack on the floor stand provided by Welso.

Data Storage

USB port for data transmission

Welso incubator shakers record temperature, speed, concentration and humidity every minute. Users can check all records in 7 days. Or users can export 2.5 years data for future reference.

Magnetic Drive
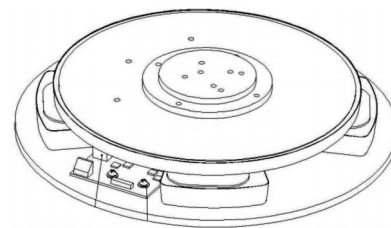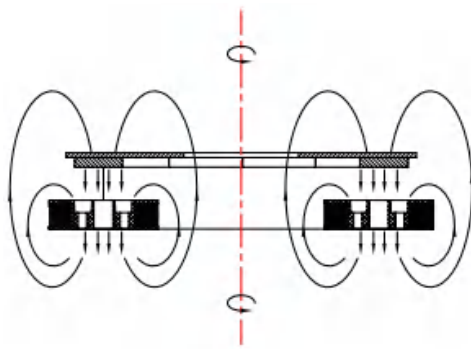
Welso incubator shaker features a magnetic drive with triple-eccentric counterbalance shafts which provides stable, reliable and consistent shaking. The magnetic non-belt drive design ensures no scraps and less maintenance which extends service life of incubator shaker even in harsh environment.

IQ/OQ Documentation

GMP   IQ

Incubator Shaker

PQ   OQ
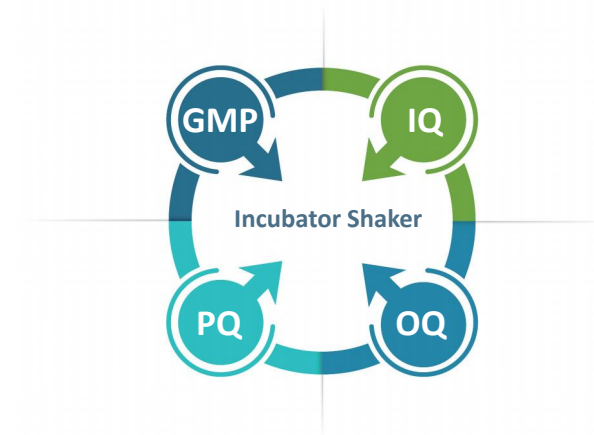
Welso incubator shakers software can control and record temperature, speed, concentration, and humidity which are compatible with FDA CFR21 Part 11 for traceability. IQ/OQ documentation can be provided according to GMP procedures.

Optional Remote Monitor

iPhone&Ipad (Android/Apple)
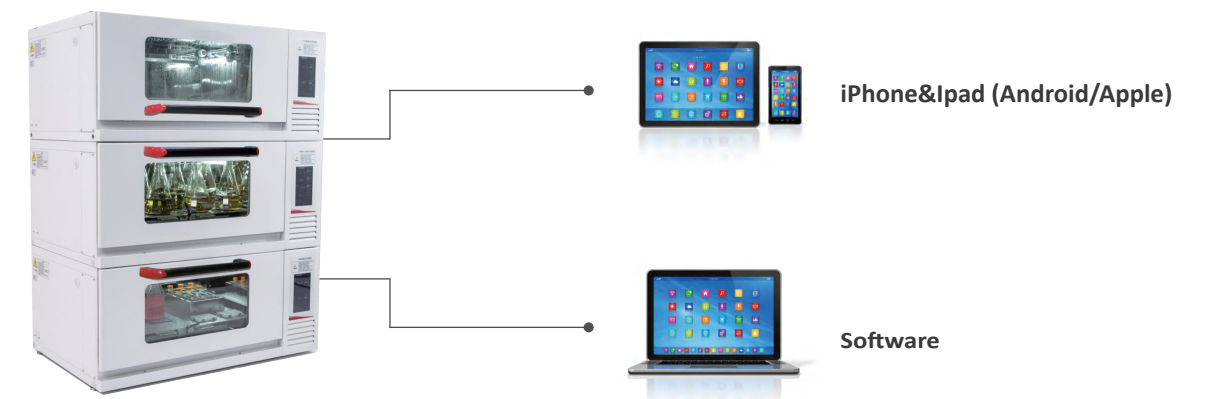
Software

User can use software to monitor up to 32 units of incubator shakers by using LAN.
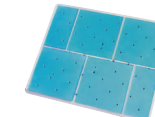
Multiple Choices Of Accessories
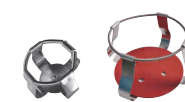
| Flask Clamp | Flask Holder | Sticky Mat | Fixture For Separating Funnel |
| Test Tube Holder | Test Tube Rack | Spring Platform | 24-Deep Well Plate Clamp |

Welso provide different trays to hold flasks, test tubes, plates, vessels, bags and etc to fulfill various needs. It can maximum hold up to 8 pieces of 5L flasks.

WIS1900

Features

- Stable and reliable 3-axis balance system for long service life.
- 7" high resolution LCD touch screen with simultaneous display of all parameters.
- Inverter compressor with high refrigeration efficiency and low energy consumption.
- Side open for easy operation.
- Stackable up to 3 units. Single and double units can be supplied with stand.
- Complies with GMP requirements and FDA CFR 21 PART 11 for traceability.
- Program mode allows the user to set up to 12 temperature and speed segments.
- Slide-out platform for easy cleaning and accessibility of samples.
- Optional WiFi monitoring system allows remote control to ensure safety.
- Bi-directional ultraviolet sterilization.

Specifications

| Model	WIS1900	WIS1905
Product Name	Stackable Incubator Shaker, Touch Screen	
Shaking		
Orbit Diameter	26mm	50mm
Speed	0 (stop), 30- 300 rpm	
Speed Accuracy	±1rpm	
Temperature		
Temp.Range	Room Temp.Minus 18℃~60℃(lowest Temp. is 4℃)	
Temp.Accuracy	0.1℃	
Temp.Uniformity	±0.3℃(@37℃)	
Heating Power	≤450w	
Cooling Power	70~230w	
Recover Time After Open Door 30s on Temp	≤6min(@37℃)	
Humidity		
Humidity Type	NA	
Max.Humidity	NA	
General		
Platform Dimensions	550*470mm	
Capacity	190L	
Max.Load	10KG	
Programmable Segments	12 Sections	
Illumination	Both Of Side Lamps	
Disinfection	Both Of Side UV Lamps	
Door Open Direction	Leftward	
Protect Set Parameters	Passwords Protect	
Data Display	Temp, Speed	
Display	7" Color Capacitance Touch Screen	
Timer	0-999h59min	
USB Export Data	Yes	

Data Display on Interface	In 7 Days
Operating Data Storage Cycle	More Than 912 Days
Data Storage Interval	1min
Data Stored	Time, Temp, Speed, Status
Auto-Defrost	Yes
Auto Screen Off	Yes
Auto Screen Lock	Yes
Third Platform Height	1315mm
Platform with Rails	Yes
Noise Level	≤55dB(When Compressor Is Running)
Water Resistant	Yes
Auto-Run After Power Recovery	Yes
Drive Type	Motor
Power	≤730w
Power Supply	AC 220V±22V, 50Hz/60Hz
RH Control	Optional (10% Above Ambient Humidity, Up To 90%)
Mobile Monitor And Control By Wifi	Optional
PC Monitor And Control By RS485	Optional
Window Cover	Optional
Net Weight	170kg
Internal Working Height	305mm
External Dimensions	970*780*(530+80 Feet High)mm

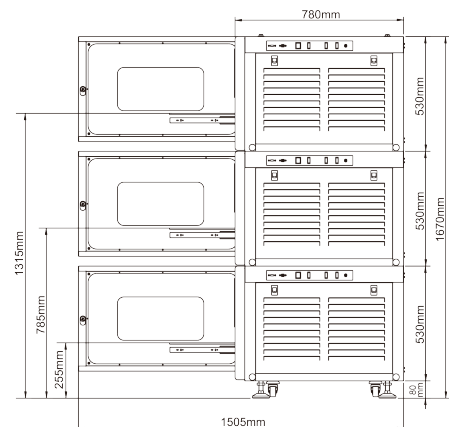## Stack Dimensions

One Unit
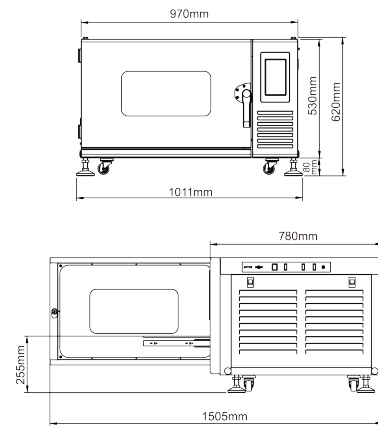
Two Units
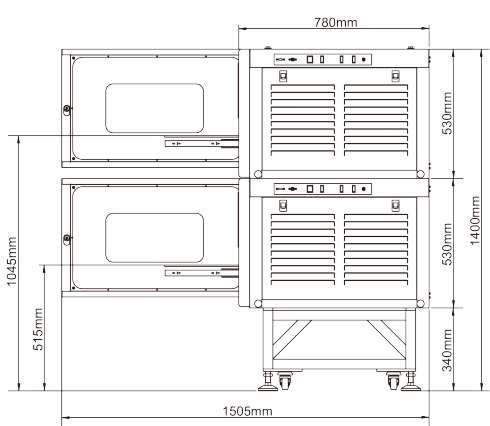
Three Units

WIS1900M

Features

- Stable and reliable 3-axis balance system for long service life.
- 7" high resolution LCD touch screen with simultaneous display of all parameters.
- Magnetic drive motor for stable and reliable shaking with low maintenance.
- Stackable up to 3 units. Single and double units can be supplied with stand.
- Side opening FOR easy operation.
- Complies with GMP requirements and FDA CFR 21 PART 11 for traceability.
- Program mode allows the user to set up to 12 temperature and speed segments.
- Slide-out platform for easy cleaning and accessibility of samples.
- Optional WiFi monitoring system allows remote control to ensure safety.
- Bi-directional ultraviolet sterilization.

Specifications

Model	WIS1900M	WIS1900MC	WIS1905M	WIS1905MC
Product Name	Stackable Incubator Shaker, Touch Screen	Stackable Incubator Shaker With CO_2 Controller, Touch Screen	Stackable Incubator Shaker, Touch Screen, Shaker Diameter 50mm	Stackable Incubator Shaker With CO_2 Controller, Touch Screen, Shaker Diameter 50mm
Shaking				
Orbit Diameter	26mm		50mm	
Speed	0 (stop), 30- 300rpm			
Speed Accuracy	±1rpm			
Temperature				
Temp.Range	Room Temp.Minus 18℃~60℃(lowest Temp. is 4 ℃)			
Temp.Accuracy	±0.1℃			
Temp.Uniformity	±0.3℃(@37℃)			
Heating Power	≤450w			
Cooling Power	70~230w			
Humidity				
Humidity Type	NA	Evapor Naturally	NA	Evapor Naturally
Max.Humidity	NA	95%	NA	95%
CO₂				
CO₂ Sensor	NA	IR	NA	IR
CO₂ Control Range	NA	0-20%	NA	0-20%
CO₂ Control Accuracy	NA	±0.1%	NA	±0.1%
Recover Time After Open Door 30s on Temp	≤6min(@37℃)			
Recover Time After Open Door 30s on CO₂	NA	≤6min(@5%)	NA	≤6min(@5%)
General				
Platform Dimensions	550x470mm			
Capacity	190L			
Max.load	10KG			
Magnetic Driver	Yes			
Programmable Segments	12m Segments			
illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			

Door Open Direction	Leftward			
Protect Set Parameters	Passwords Protect			
Data Display	Temp, Speed	Temp, Speed CO_2, RH	Temp, Speed	Temp, Speed, CO_2, RH
Display	7" High-Res Color Touch Screen			
Timer	0-999h59min			
USB Export Data	Yes			
Data Display on Interface	in 7 Days			
Operating Data Storage Cycle	More than 912 days			
Data Storage Interval	1 min			
Data Stored	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2 RH	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH
Auto-Defrost	Yes			
Auto Screen Off	Yes			
Auto Screen Lock	Yes			
Third Platform Height	1315mm			
Platform with Rails	Yes			
Noise Level	≤55dB(When compressor is running)			
Water resistant	Yes			
Drive Type	Magnetic Driver			
Auto-run after Power Recovery	Yes			
Power	≤730w			
Power Supply	AC 220V±22V, 50Hz/60Hz			
RH Control	NA	Optional(10% Above Ambient Humidity, Up To 90%)	NA	Optional(10% Above Ambient Humidity, Up To 90%)
Mobile Monitor and Control by WIFI	Optional			
PC monitor and Control by RS485	Optional			
Window cover	Optional			
Net Weight	170kg	170kg	175kg	175kg
Internal Working Height	305mm			
External Dimensions	970*780*(530+80 Feet High)mm			

Stack Dimensions

One Unit

Two Units

Three Units
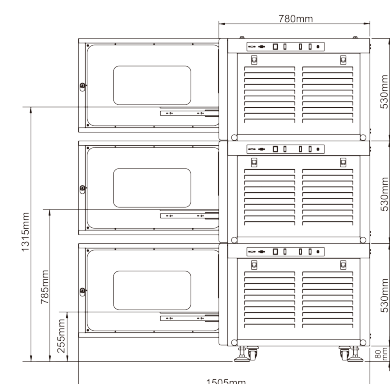
WIS2500
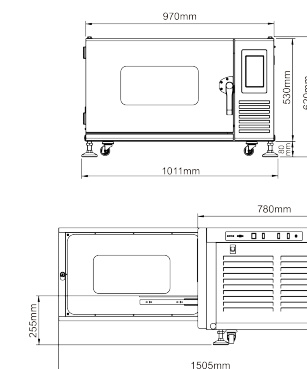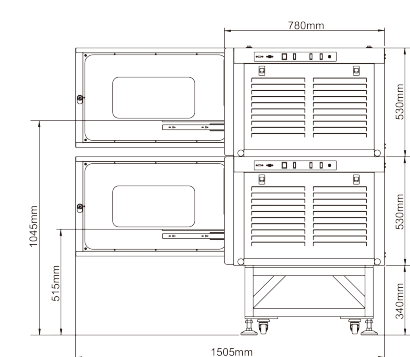
Features

- Compact design, Space-saving in the lab.
- 10" high resolution LCD touch screen with simultaneous display of all parameters.
- Stackable up to 3 units. Single and double units can be supplied with stand.
- Triple eccentric drive for stable and reliable shaking.
- Optional WiFi monitoring system allows remote control to ensure safety.
- Slide-out platform for easy cleaning and accessibility of samples.
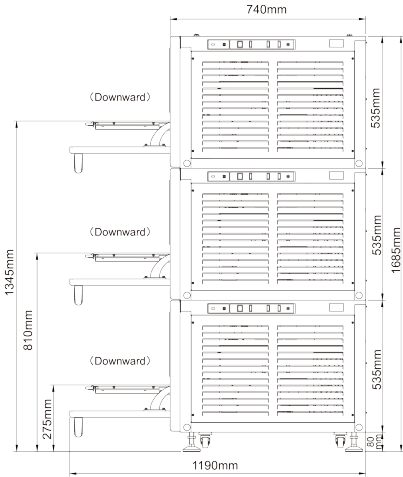- Bi-directional ultraviolet sterilization.

Specifications

Model	WIS2500	WIS2500C	WIS2505	WIS2505C
Product Name	Stackable Incubator Shaker, Touch Screen	Stackable Incubator Shaker With CO_2 Controller, Touch Screen	Stackable Incubator Shaker, Touch Screen, Shaker Diameter 50mm	Stackable Incubator Shaker With CO_2 Controller, Touch Screen, Shaker Diameter 50mm
Shaking				
Orbit Diameter	26mm		50mm	
Speed	0 (stop), 30- 300rpm			
Speed Accuracy	±1rpm			
Temperature				
Temp.Range	Room Temp.Minus 29℃~60℃(lowest Temp. is 4 ℃)			
Temp.Accuracy	±0.1℃			
Temp.Uniformity	±0.3℃(@37℃)			
Heating Power	≤850w			
Cooling Power	70~230w			
Humidity				
Humidity Type	NA	Evapor Naturally	NA	Evapor Naturally
Max.Humidity	NA	95%	NA	95%
CO_2				
CO_2 Sensor	NA	IR	NA	IR
CO_2 Control Range	NA	0-20%	NA	0-20%
CO_2 Control Accuracy	NA	±0.1%	NA	±0.1%
Recover Time After Open Door 30s on Temp	≤6min(@37℃)			
Recover Time After Open Door 30s on CO_2	NA	≤6min(@5%)	NA	≤6min(@5%)
General				
Platform Dimensions	770*470mm			
Capacity	250L			
Max.Load	20KG			
Programmable Segments	12 Segments			
Illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Protect Set Parameters	Passwords Protect			
Door Open Direction	Downward			
Data Display	Temp, Speed	Temp, Speed, CO_2 , RH	Temp, Speed	Temp, Speed, CO_2, RH
Display	10" High-Res Color Touch Screen			

	WIS2500	WIS2500C	WIS2505	WIS2505C
Timer	0-999h59min			
USB Export Data	Yes			
Data Display On Interface	In 7 Days			
Operating Data Storage Cycle	More Than 912 Days			
Data Storage Interval	1 min			
Data Stored	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH
Auto-Defrost	Yes			
Auto Screen Off	Yes			
Auto Screen Lock	Yes			
Third Platform Height	1345mm			
Platform With Rails	Yes			
Noise Level	≤55dB(When Compressor Is Running)			
Water Resistant	Yes			
Auto-Run After Power Recovery	Yes			
Power	≤950w	≤1000w	≤950w	≤1000w
Power Supply	AC 220V±22V, 50Hz/60Hz			
RH Control	NA	Optional(10% Above Ambient Humidity, Up To 90%)	NA	Optional(10% Above Ambient Humidity, Up To 90%)
Mobile Monitor And Control By Wifi	Optional			
PC Monitor And Control By RS485	Optional			
Window cover	Optional			
Net Weight	255kg	255kg	255kg	260kg
Internal Working Height	305mm			
External Dimensions	1240*785*(535+80 Feet High)mm	1240*785*(580+80 Feet High)mm	1240*785*(535+80 Feet High)mm	1240*785*(535+80 Feet High)mm

Stack Dimensions

Three Units Down

3 Downr And Upward Swing Door

Two Units

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WIS3000
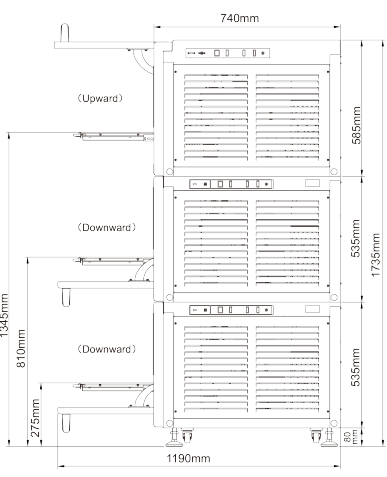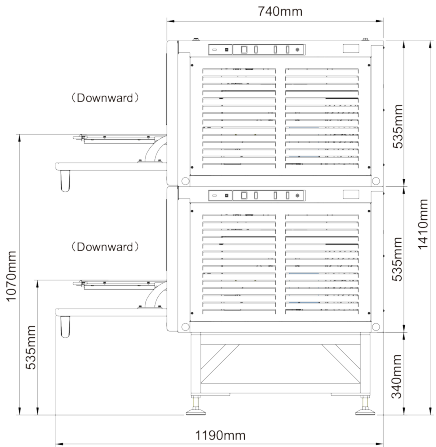
Features

- Foamed polyurethane materials offer excellent thermal insulation, air-tightness, and waterproof properties.
- 7" high resolution LCD touch screen with simultaneous display of all parameters.
- Strong cooling capacity with variable frequency refrigeration: RT Minus 20℃-60℃ (Lowest Temp. is 4℃)
- Excellent temperature control performance: uniformity ≤±0.2°C(@37℃).
- Stackable up to 3 units. Single and double units can be supplied with stand.
- Slide out rail platform for easy load and unload.
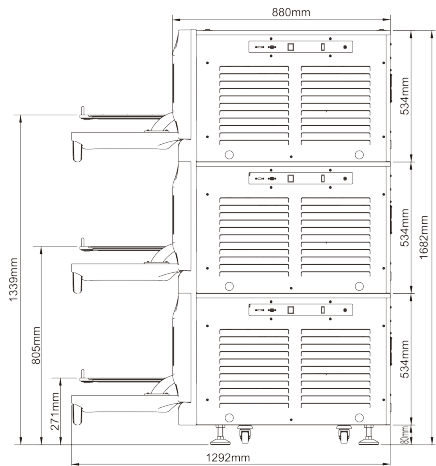- Bi-directional ultraviolet sterilization.

Specifications

Model	WIS3000	WIS3000C	WIS3005	WIS3005C
Product Name	Stackable Incubator Shaker, Touch Screen	Stackable Incubator Shaker With CO₂ Controller, Touch Screen	Stackable Incubator Shaker, Touch Screen, Shaker Diameter 50mm	Stackable Incubator Shaker With CO₂ Controller, Touch Screen, Shaker Diameter 50mm
Shaking				
Orbit Diameter	26mm		50mm	
Speed	0 (stop), 30- 300 rpm			
Speed Accuracy	±1rpm			
Temperature				
Temp.Range	Room Temp.Minus 29℃~60℃(lowest Temp. is 4 ℃)			
Temp.Accuracy	±0.1℃			
Temp.Uniformity	±0.2℃(@37℃)			
Heating Power	≤850w			
Cooling Power	70~230w			
Humidity				
Humidity Type	NA	Evapor Naturally	NA	Evapor Naturally
Max.Humidity	NA	95%	NA	95%
CO₂				
CO₂ Sensor	NA	IR	NA	IR
CO₂ Control Range	NA	0-20%	NA	0-20%
CO₂ Control Accuracy	NA	±0.1%	NA	±0.1%
Recover Time After Open Door 30s on Temp	≤6min(@37℃)			
Recover Time After Open Door 30s on CO₂	NA	≤6min(@5%)	NA	≤6min(@5%)
General				
Platform Dimensions	900*560mm			
Capacity	302L			
Max.Load	20KG			
Programmable Segments	12 Segments			
Illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Protect Set Parameters	Passwords Protect			
Door Open Direction	Downward			

Data Display	Temp, Speed	Temp, Speed, CO₂ , RH	Temp, Speed	Temp, Speed, CO₂ , RH
Display	10" High-Res Color Touch Screen			
Timer	0-999h59min			
USB Export Data	Yes			
Screen Data Display	In 7 Days			
Operating Data Storage Cycle	More Than 912 Days			
Data Storage Interval	1 min			
Data Stored	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO₂, RH	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO₂, RH
Auto-Defrost	Yes			
Auto Screen Off	Yes			
Auto Screen Lock	Yes			
Third Platform Height	1350mm			
Platform With Rails	Yes			
Noise Level	≤55dB(When Compressor Is Running)			
AuTo-Recovery After Power Interuption	Yes			
Power	≤950w	≤1000w	≤950w	≤1000w
Power Supply	AC 220V±22V, 50Hz/60Hz			
RH Control	NA	Optional(10% Above Ambient Humidity, Up To 90%)	NA	Optional(10% Above Ambient Humidity, Up To 90%)
Mobile Monitor And Control by Wifi	Optional			
PC Monitor And Control By RS485	Optional			
Window Cover	Optional			
Net Weight	200kg			
Internal Working Height	308mm			
External Dimensions	1355*885*(535+80 Feet High)mm			

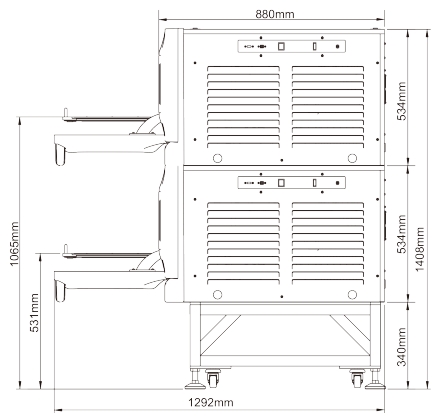## Stack Dimensions

Three Units Down

Three Units Down And Upward Swing Door

Two Units

WIS4000

Features

- 10" high resolution LCD touch screen with simultaneous display of all parameters.
- Bi-directional ultraviolet sterilization.
- Slide-out platform for easy cleaning and accessibility of samples.
- Large capacity for batch culture and shaking.
- Optional WiFi and computer monitoring systems allow remote control to ensure safety.
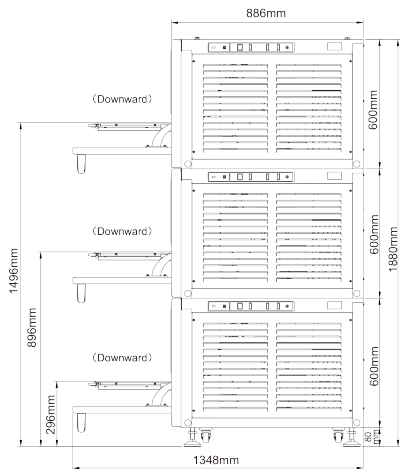- CO_2 infrared sensor and effective inlet filter.
- Temp. uniformity ≤±0.4°C(@37℃).

Specifications

Model	WIS4000	WIS4000C	WIS4005	WIS4005C
Product Name	Stackable Incubator Shaker, Touch Screen	Stackable Incubator Shaker With CO_2 Controller, Touch Screen	Stackable Incubator Shaker, Touch Screen, Shaker Diameter 50mm	Stackable Incubator Shaker With CO_2 Controller, Touch Screen, Shaker Diameter 50mm
Shaking				
Orbit Diameter	26mm		50mm	
Speed	0 (stop), 30- 300 rpm			
Speed Accuracy	±1rpm			
Temperature				
Temp.Range	Room Temp.Minus 29℃~60℃ (lowest Temp. is 4 ℃)			
Temp.Accuracy	±0.1℃			
Temp.Uniformity	±0.5℃(@37℃)	±0.4℃(@37℃)	±0.5℃(@37℃)	±0.4℃(@37℃)
Heating Power	≤850w			
Cooling Power	70~230w			
Humidity				
Humidity Type	NA	Evapor Naturally	NA	Evapor Naturally
Max.Humidity	NA	95%	NA	95%
CO_2				
CO_2 Sensor	NA	IR	NA	IR
CO_2 Control Range	NA	0-20%	NA	0-20%
CO_2 Control Accuracy	NA	±0.1%	NA	±0.1%
Recover Time After Open Door 30s on Temp	≤6min(@37℃)			
Recover Time After Open Door 30s on CO_2	NA	≤6min(@5%)	NA	≤6min(@5%)
General				
Platform Dimensions	900*560mm			
Capacity	401L			
Max.Load	20KG			
Programmable Segments	12 Segments			
Illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Protect Set Parameters	Passwords Protect			
Door Open Direction	Downward			

Data Display	Temp, Speed	Temp, Speed, CO_2, RH	Temp, Speed	Temp, Speed, CO_2, RH
Display	10" High-Res Color Touch Screen			
Timer	0-999h59min			
USB Export Data	Yes			
Screen Data Display	In 7 Days			
Operating Data Storage Cycle	More Than 912 Days			
Data Storage Interval	1 min			
Data Stored	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH
Auto-Defrost	Yes			
Auto Screen Off	Yes			
Auto Screen Lock	Yes			
Third Platform Height	1496mm			
Platform With Rails	Yes			
Noise Level	≤55dB(When Compressor Is Running)			
AuTo-Recovery After Power Interuption	Yes			
Power	≤950w	≤1000w	≤950w	≤1000w
Power Supply	AC 220V±22V, 50Hz/60Hz			
RH Control	NA	Optional(10% Above Ambient Humidity, Up To 90%)	NA	Optional(10% Above Ambient Humidity, Up To 90%)
Mobile Monitor And Control by Wifi	Optional			
PC Monitor And Control By RS485	Optional			
Window Cover	Optional			
Net Weight	315kg	315kg	320kg	320kg
Internal Working Height	335mm			
External Dimensions	1400*886*(600+80 Feet High)mm			

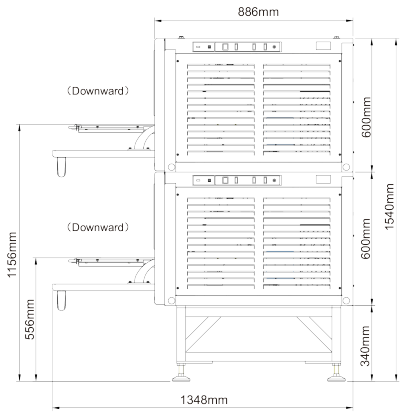## Stack Dimensions

Three Units Down

Three Units Down And Upward Swing Door

Two Units

WIS4000M

Features

• 10" high resolution LCD touch screen with simultaneous display of all parameters.

• Bi-directional ultraviolet sterilization.

• Slide-out platform for easy cleaning and accessibility of samples.

• Large capacity for batch culture and shaking.

• Optional WiFi and computer monitoring systems allow remote control to ensure safety.

• CO_2 infrared sensor and effective inlet filter.

• Temp. uniformity ≤±0.4°C(@37℃).

• Magnetic drive motor for stable and reliable shaking with low maintenance.

Specifications

Model	WIS4000M	WIS4000MC	WIS4005M	WIS4005MC
Product Name	Stackable Incubator Shaker, Touch Screen	Stackable Incubator Shaker With CO_2 Controller, Touch Screen	Stackable Incubator Shaker, Touch Screen, Shaker Diameter 50mm	Stackable Incubator Shaker With CO_2 Controller, Touch Screen, Shaker Diameter 50mm
Shaking				
Orbit Diameter	26mm		50mm	
Speed	0 (stop), 30- 350 rpm			
Speed Accuracy	±1rpm			
Temperature				
Temp.Range	Room Temp.Minus 18℃~60℃(lowest Temp. is 4 ℃)			
Temp.Accuracy	±0.1℃			
Temp.Uniformity	±0.4℃(@37℃)	±0.3℃(@37℃)	±0.4℃(@37℃)	±0.3℃(@37℃)
Heating Power	≤850w			
Cooling Power	70~230w			
Humidity				
Humidity Type	NA	Evapor Naturally	NA	Evapor Naturally
Max.Humidity	NA	95%	NA	95%
CO_2				
CO_2 Sensor	NA	IR	NA	IR
CO_2 Control Range	NA	0-20%	NA	0-20%
CO_2 Control Accuracy	NA	±0.1%	NA	±0.1%
Recover Time After Open Door 30s on Temp	≤6min(@37℃)			
Recover Time After Open Door 30s on CO_2	NA	≤6min(@5%)	NA	≤6min(@5%)
General				
Platform Dimensions	900*560mm			
Capacity	401L			
Max.Load	20KG			
Programmable Segments	12 Segments			
Illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Protect Set Parameters	Passwords Protect			
Door Open Direction	Downward			

Data Display	Temp, Speed	Temp, Speed, CO_2, RH	Temp, Speed	Temp, Speed, CO_2 , RH
Display	10" High-Res Color Touch Screen			
Timer	0-999h59min			
USB Export Data	Yes			
Screen Data Display	In 7 Days			
Operating Data Storage Cycle	More Than 912 Days			
Data Storage Interval	1 min			
Data Stored	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH
Auto-Defrost	Yes			
Auto Screen Off	Yes			
Auto Screen Lock	Yes			
Third Platform Height	1491mm			
Platform With Rails	Yes			
Noise Level	≤55dB(When Compressor Is Running)			
AuTo-Recovery After Power Interuption	Yes			
Power	≤950w	≤1000w	≤950w	≤1000w
Power Supply	AC 220V±22V, 50Hz/60Hz			
RH Control	NA	Optional(10% Above Ambient Humidity, Up To 90%)	NA	Optional(10% Above Ambient Humidity, Up To 90%)
Mobile Monitor And Control by Wifi	Optional			
PC Monitor And Control By RS485	Optional			
Window Cover	Optional			
Net Weight	265kg	270kg	265kg	270kg
Internal Working Height	335mm			
External Dimensions	1400*886*(600+80 Feet High)mm			

Stack Dimensions

Three Units Down

Three Units Down And Upward Swing Door

Two Units

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WIS5000
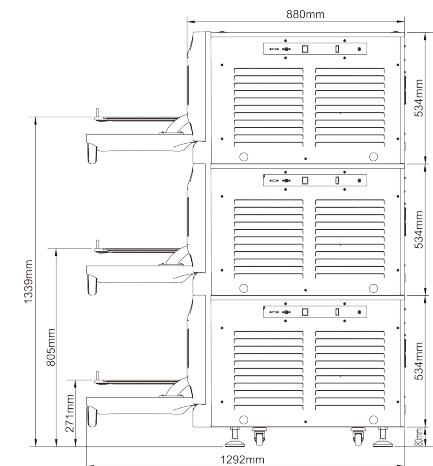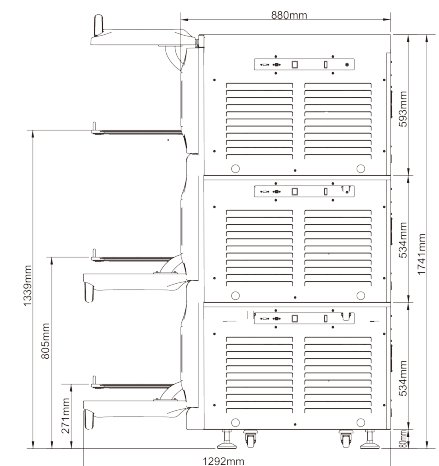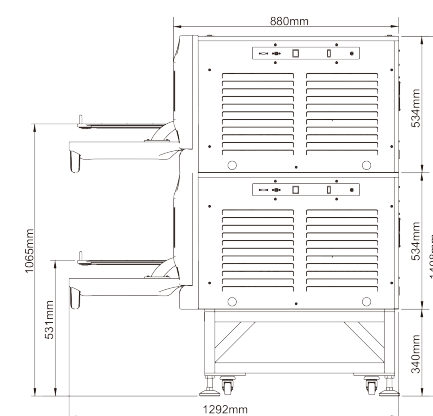
Features

- Large capacity of 450L.
- 10" high resolution LCD touch screen with simultaneous display of all parameters.
- Large space for accommodating 5L erlenmeyer flasks.
- Stackable up to 2 units maximum.
- CO_2 infrared sensor and effective inlet filter.
- Triple eccentric drive for stable and reliable shaking.

Specifications

Model	WIS5000	WIS500C	WIS5005	WIS5005C
Product Name	Stackable Incubator Shaker, Touch Screen	Stackable Incubator Shaker With CO_2 Controller, Touch Screen	Stackable Incubator Shaker, Touch Screen, Shaker Diameter 50mm	Stackable Incubator Shaker With CO_2 Controller, Touch Screen, Shaker Diameter 50mm
Shaking				
Orbit Diameter	26mm		50mm	
Speed	0 (stop), 30- 300 rpm			
Speed Accuracy	±1rpm			
Temperature				
Temp.Range	Room Temp.Minus 18℃~60℃ (lowest Temp. is 4℃)			
Temp.Accuracy	±0.1℃			
Temp.Uniformity	±0.5℃ (@37℃)			
Heating Power	≤850w			
Cooling Power	70~230w			
Humidity				
Humidity Type	NA	Evapor Naturally	NA	Evapor Naturally
Max.Humidity	NA	95%	NA	95%
CO_2				
CO_2 Sensor	NA	IR	NA	IR
CO_2 Control Range	NA	0-20%	NA	0-20%
CO_2 Control Accuracy	NA	±0.1%	NA	±0.1%
Recover Time After Open Door 30s on Temp	≤6min(@37℃)			
Recover Time After Open Door 30s on CO_2	NA	≤6min(@5%)	NA	≤6min(@5%)
General				
Platform Dimensions	900*560mm			
Capacity	450L			
Max.Load	20KG			
Programmable Segments	12 Segments			
Illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Protect Set Parameters	Passwords Protect			
Door Open Direction	Downward			

Data Display	Temp, Speed	Temp, Speed, CO_2 , RH	Temp, Speed	Temp, Speed, CO_2 , RH
Display	10" High-Res Color Touch Screen			
Timer	0-999h59min			
USB Export Data	Yes			
Screen Data Display	Displays Most Recent 7 Days Of Data			
Operating Data Storage Cycle	More Than 912 Days			
Data Storage Interval	1 min			
Data Stored	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH	Time, Temp, Speed, Status	Time, Temp, Speed, Status, CO_2, RH
Auto-Defrost	Yes			
Auto Screen Off	Yes			
Auto Screen Lock	Yes			
Third Platform Height	1256mm			
Plateform with Rails	Yes			
Noise Level	≤55dB(When Compressor Is Running)			
AuTo-recovery After Power Interuption	Yes			
Power	≤950w	≤1000w	≤950w	≤1000w
Power Supply	AC 220V±22V, 50Hz/60Hz			
RH Control	NA	Optional(10% Above Ambient Humidity, Up To 90%)	NA	Optional(10% Above Ambient Humidity, Up To 90%)
Mobile Monitor And Control By Wifi	Optional			
PC Monitor And Control By RS485	Optional			
Window Cover	Optional			
Net Weight	325kg	325kg	325kg	330kg
Internal Working Height	430mm			
External Dimensions	1400*886*(700+80 Feet High)mm			

Stack Dimensions

Two Units

886mm
700mm
1740mm
1256mm
556mm
（Downward）
（Downward）
700mm
340mm
1348mm
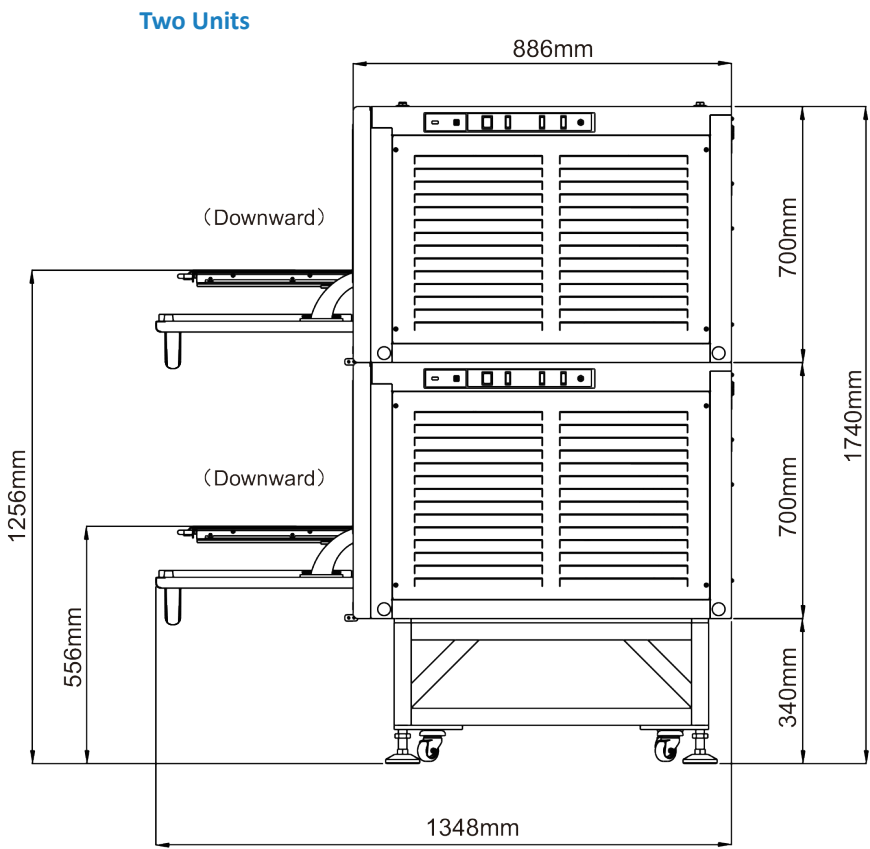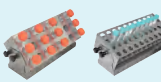
Accessories

Incubator Shaker Accessories

Product	Model	Details
Flask Clamp	WIS-A1~A10 WIS-A50	50mL/100mL/150mL/200mL/250mL/ 500mL/1000mL/2000mL/3000mL/5000mL/25mL
Test Tube Rack	WIS-A11	40 hole Ø14mm for 5mL Tube; W×D×H: 262×112×140mm
	WIS-A12	40 hole Ø16mm for 10mL Tube; W×D×H: 262×112×140mm
	WIS-A23	40 hole Ø18mm for 15mL Tube; W×D×H: 262×112×140mm
	WIS-A24	27 hole Ø22mm for 20mL Tube; W×D×H: 262×112×140mm
	WIS-A42	21 hole Ø30mm for 50mL Tube; W×D×H: 262×112×140mm
Fixed Test Tube Rack	WIS-A101	21 hole Ø30mm for 50mL Tube; W×D×H: 262×112×142mm
	WIS-A106	40 hole Ø18mm for 15mL Tube; W×D×H: 262×112×142mm
	WIS-A103	10 hole Ø30mm for 50mL Tube; W×D×H: 197×86×105mm
	WIS-A105	24 hole Ø16mm for 15mL Tube; W×D×H: 197×86×105mm
Test Tube Rack	WIS-A20	40 hole Ø14mm for 5mL Tube; W×D×H: 267×125×172mm
	WIS-A21	40 hole Ø16mm for 10mL Tube; W×D×H: 267×125×172mm
	WIS-A30	40 hole Ø18mm for 15mL Tube; W×D×H: 267×125×172mm
	WIS-A109	40 hole Ø16mm for 15mL Tube; W×D×H: 267×125×172mm
	WIS-A31	27 hole Ø22mm for 20mL Tube; W×D×H: 267×125×172mm
	WIS-A32	21 hole Ø30mm for 50mL Tube; W×D×H: 267×125×172mm
	WIS-A102	21 hole Ø28mm for 50mL Tube; W×D×H: 267×125×172mm
Test Tube Rack	WIS-A37	24 hole Ø30mm for 30mL Tube; W×D×H: 267×125×172mm
Multifunction Spring Platform	WIS-A19	W×D×H:165×165×80mm; 1.2Kg; for all shakers
	WIS-A27	W×D×H: 350×240×80mm; 2.5Kg
	WIS-A22	W×D×H: 450×400×80mm; 5.1Kg; for Bench Top Shakers
	WIS-A14	W×D×H: 428×295×80mm; 3.6Kg; for Upright shakers
	WIS-A39	W×D×H: 720×440×80mm; 11.4Kg; for WIS2500
	WIS-A94	W×D×H: 740×440×81.5mm; 11.6Kg; for WIS2500
	WIS-A48	W×D×H: 840×440×80mm; 12Kg;
	WIS-A63	W×D×H: 899×539×81.5mm; 13.8Kg; for WIS4000, WIS5000
	WIS-A96	W×D×H: 550×470×80mm; 6.7Kg; for WIS1900, WIS1900M
Fixture for Separating Funnel	WIS-A25	W×D×H: 355×402×153mm; for separating funnel with 5000mL
	WIS-A35	for separating funnel with 500mL
Infusion Bottle Clamp	WIS-A33	500mL, made of SS, for shakers platform
	WIS-A34	1000mL, made of SS, for shakers platform
Pasteboard	WIS-A36	W×D:140×355mm; black, a little odor
Self-Adhesive Silica Mat	WIS-A47	W×D: 140×140mm; 1/3 water, within 2000mL can reach 280rpm, within 5000mL can reach 250rpm;
	WIS-A169	W×D: 140×140mm; 1/3 water, within 2000mL can reach 280rpm, within 5000mL can reach 250rpm; with hard flask sheet, can not deform in using
	WIS-A122	W×D: 140×140mm; 1/3 water, within 2000mL can reach 280rpm, within 5000mL can reach 250rpm;
Rack for Stacking	WIS-A62	W×D×H: 1440×775×330mm support for WIS5000 series stackable shakers
	WIS-A91	W×D×H: 1241×651×340mm support for WIS2500 series stackable shakers
	WIS-A93	W×D×H: 971×625×340mm support for WIS1900/1900M series stackable shakers
	WIS-A118	W×D×H: 1305×745×340mm support for WIS3000 series stackable shakers
	WIS-A154	W×D×H: 1441×797×340mm support for WIS5000 series stackable shakers

Product	Model	Details
96 Well Microplate Holder	WIS-A13	can be fixed on any platfrom of incubator shakers
Flask Holder	WIS-A26	5000mL, for 5000mL flask
24 Deep Well plate Holder	WIS-A107	can be fixed on 24 well plate, W×D×H
Deep Well plate Clamp	WIS-A61	W×D×H: 780×450×84mm, can put 21
Static Separator	WIS-A110	W×D: 1005×600mm, for IS-RDS6 Series, IS-6L to put cell dish
	WIS-A116	W×D: 864×500mm, for IS-4 Series, IS-7L to put cell dish
	WIS-A162	W×D: 600×500mm, for IS-A/AX/AM, to put cell dish
Double Cradle	WIS-138	W×D: 900×560mm, Height: 180mm, for IS-5/6 series, for placing culture vessel or conical bottles under 150mL, can be operated within 180rpm
Fixed Test Tube holder	WIS-A111	36 hole Ø21.5mm for 20mL Tube; W×D×H: 250×134×160mm
	WIS-A112	36 hole Ø18.5mm for 15mL Tube; W×D×H: 250×134×161mm
	WIS-A113	55 hole Ø15.5mm for 10/15mL Tube; W×D×H: 250×134×162mm
	WIS-A114	15 hole Ø30mm for 50mL Tube; W×D×H: 250×134×163mm
Centrifuge Test Tube Cradle	WIS-A165	8 hole Ø63mm for 250mL centrifuge Tube; W×D×H: 411×176×110mm；can fixed by either bolt or sticker mat
	WIS-A166	3 hole Ø100mm for 500mL centrifuge Tube; W×D×H: 435×170×99mm; can fixed by either bolt or sticker mat
Stainless Steel Test Tube Holder	WIS-A117	24x Ø30mm, for 50mL test tube, W×D×H: 382×139×75mm
	WIS-A133	24x Ø30mm, for 50mL test tube, W×D×H: 365×139×126mm
	WIS-A136	44x Ø18.5mm, for 50mL test tube, W×D×H: 365×139×126mm
24 Well Vent Cap Accessories	WIS-A150	suggested to use together with WIS-A107 or WIS-A152
Alert System	WIS-A153	for WIS1900M/2500/5000/4000 series incubator shakers, has the function of Machine stall or abnormal speed, excessive speed, excessive concentration, excessive humidity, etc

Universal Platforms and Clamps Capacity

Order Number Universal Platform	WIS5000		WIS4000/4000M		WIS3000		WIS2500		WIS1900/1900M	
	Clamps	Sticky Mat	Clamps	Sticky Mat	Clamps	Sticky Mat	Clamps	Sticky Mat	Clamps	Sticky Mat
50mL Erlenmeyer flasks	135	187	135	187	135	187	104	112	72	80
100mL Erlenmeyer flasks	60	112	60	112	60	112	45	72	30	56
150mL Erlenmeyer flasks	60	104	60	104	60	104	45	60	30	42
200mL Erlenmeyer flasks	60	84	60	84	60	84	45	45	30	30
250mL Erlenmeyer flasks	60	77	60	77	60	77	40	40	30	30
500mL Erlenmeyer flasks	38	40	38	40	38	40	25	28	16	20
1000mL Erlenmeyer flasks	24	28	24	28	24	28	20	15	12	12
2000mL Erlenmeyer flasks	15	15	15	15	15	15	12	12	6	8
3000mL Erlenmeyer flasks	12	15	12	15	12	15				
5000mL Erlenmeyer flasks	6	8	6 Thomson	8 Thomson	6 Thomson	8 Thomson	6 Thomson	6 Thomson	4 Thomson	4 Thomson
Platform size(cm)	900x560mm		900x560mm		900x560mm		770x4700mm		550x470mm	