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EQUIPMENT



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群安实验仪器有限公司  
Joan Lab Equipment Co.,Ltd.

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# SHAKER&MIXER



[www.joanlab.com](http://www.joanlab.com)

## Mini Vortex Mixer



Stepless speed regulation  
Wide speed range



High quality and colorful  
silicone



Press to start / Compact body



Brushless motor / Durable

### TECHNICAL DATA

Model	VM-300S	VM-300	Shell protection level	IP42	
Control mode	Speed control knob	Constant speed	Power	12W	
Motor	Brushless motor		Voltage	100-240V,50/60HZ	
Amplitude	4.5MM (circular oscillation)		Product Size	100*93*72MM	93*93*72MM
Maximum sample processing capacity	50ML		Allowable ambient temperature	5-40°C,80%RH	
Speed range	0-3000RPM	3000RPM	Gross / net weight	0.56/0.37KG	0.55/0.36KG

## Vortex Mixer With Multifunction



Ultra-low body, stable operation



Various fixtures, large handling capacity



Brushless motor with strong power



Touch / Run, easy to switch

### TECHNICAL DATA

Model	VM-500S	VM-500Pro	Speed range	Touch: 0-3000rpm	Touch: 0-3000rpm
Operating mode	Touch / Run			Run: 200-3000rpm	Run: 100-3000rpm
Control mode	Knob speed adjustment	PWM speed adjustment	Timing / Time	1-99min / 1-59sec	
Display	No	Yes	Shell protection level	IP21	
Motor	Brushless motor		Voltage	20W	
Amplitude	4.5MM (circular oscillation)		Power	AC 100-240V / DC24V	
Max capacity	5/10/15ml*12,2ml*30,0.2ml*96		Temperature	5-40 C, 80%RH	

## Multifunctional Mixer Adapted Module

Model	Picture	Image	Module application scope
VM501			Centrifuge tube / Test tube
VM502			Flask / Multi tube
VM503			Φ12mm(Blood collection tube)*21
VM504			5ml/ 15ml (Centrifuge tube) *12
VM505			50ml (Centrifuge tube) *4 5m l/ 15ml (Centrifuge tube) *5
VM506			0.2ml (Centrifuge tube) *96 96 well plate
VM507			0.5ml (Centrifuge tube) *20 1.5 / 2.0ml (Centrifuge tube) *30
VM508			Cell culture plate

## Multi Tube Vortex Mixer



Smooth start, stable operation



Large handling capacity



Brushless motor with strong power



Touch / Run, easy to switch

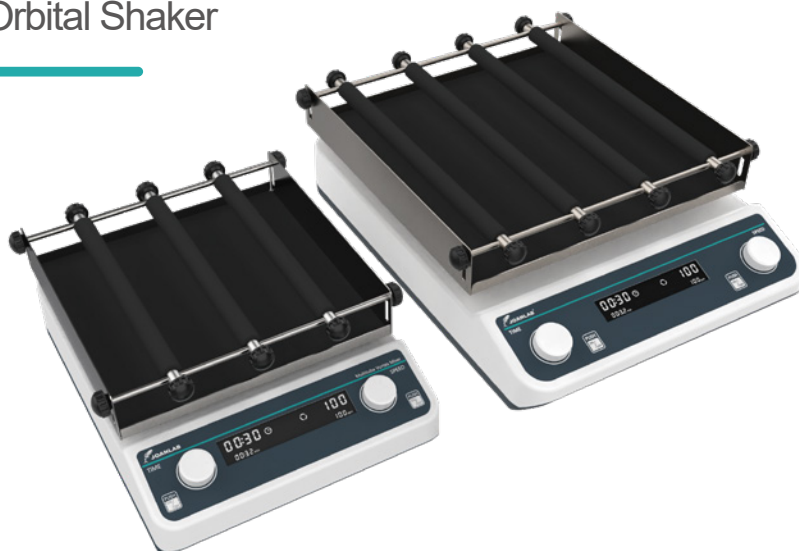
### TECHNICAL DATA

Model	VM800
Operating mode	Touch / Run
Speed range	500 ~ 2800rpm
Amplitude	4mm horizontal swing
Time range	1min ~ 99h59min
Maximum load	4.5kg
Power	100W

### ADAPTATION MODULE DETAILS

Model	Specs	Model
VM801	50*φ10mm	φ9 ~ φ10mm
VM802 (Standard)	50*φ12mm	φ11 ~ φ13 mm (1.5/2ml centrifuge tube)
VM803 (Standard)	50*φ15mm	φ14 ~ φ17mm (5/15ml centrifuge tube)
VM804	50*φ20mm	φ18 ~ φ21mm
VM805	15*φ25mm	φ24 ~ φ27mm
VM806 (Standard)	15*φ29mm	φ28 ~ φ32 mm (50ml centrifuge tube)

## Orbital Shaker



Timing function



Abundant models



Adjustable speed



Brushless motor / Durable

### TECHNICAL DATA

Model	OS-20Pro	OS-40Pro	LS-40Pro
Motor Type	Brushless motor		
Plate Size	250*250mm	320*320mm	320*320mm
Turn	Circular	Circular	Linear and reciprocating
Operation Mode	20mm	20mm	Linear and reciprocating 20mm
Max Load	2kg	5kg	5kg
Speed Range	40 - 200 rpm		
Timing Range	1min - 23h59min		
Power	30W	45W	45W
Voltage	100-240V, 50/60Hz		
Size	260*355*135mm	330*435*140mm	330*435*140mm

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# CENTRIFUGE





## Mini Centrifuge



Stop running after opening lid



Low noise

### TECHNICAL DATA

Model	MC-4K
Max Speed	4000rpm
Max RCF	980xg
Max Capacity	0.2ml*16 + 1.5/2.0ml*8
Power	18W
Dimensions	160*135*110
Weight	0.8kg

## Mini Centrifuge



Multi-rotor, more working capacity



Brushless motor



High frequency and wide voltage



Low noise

### TECHNICAL DATA

Model	MC-4S	MC-7S	MC-4/7S
Control mode	PI power direct drive		
Max relative centrifugal force	1080xg	3286xg	1080/3286xg
Max rotation speed	4000rpm±5%	7000rpm±5%	4000/7000rpm±5%
Rotor capacity	0.2/0.5/1.5/2ml*12 + 0.2ml*8*4 (Centrifuge tube) 0.5/1.0ml*12 (Micro blood tube)		
power	20W	25W	25W
Voltage	AC100-240V / DC24V		

## Digital Mini Centrifuge



LCD display



Multi-rotor, more working capacity



Brushless motor with strong power



Speed adjustable and timing

### TECHNICAL DATA

Model	MC-5Pro	MC-7Pro
Control mode	PI power direct drive	
Display	LCD display	
Max relative centrifugal force	1680xg	3286xg
Max rotation speed	5000rpm±5%	7000rpm±5%
Rotor capacity	0.2/0.5/1.5/2ml*12 + 0.2ml*8*4 (Centrifuge tube) 0.5/1.0ml*12 (Micro blood tube)	
Timing	1-99min / 1-59sec	
Power	25W	

## High Speed Centrifuge



Program memory & gradient operation



Stable rotation



Temperature protection function



Multi-rotor, more working capacity

### TECHNICAL DATA

Model	MC-10Pro	MC-12Pro
Control mode	PI power direct drive	
Max relative centrifugal force	6708xg	9660xg
Max rotation speed	10000rpm±5%	12000rpm±5%
Rotor	0.2/0.5/1.5/2ml*12 + 0.2ml*8*4 (Centrifuge tube) 0.5/1.0ml*12 (Micro blood tube) Hematocrit rotor: 40mm*12(Capillary tube)	
Max speed acceleration / reduction	≤12 s/ ≤15s	
Noise under max rotation speed	≤47db (A)	
Input power	48W	
Shell protection level	AC100-240V / DC24V	
Allow surrounding temperature	-5-40 C / 80%RH	

## High Speed Centrifuge



Program memory & gradient operation



Stable rotation



Temperature protection function



Enclosed high-speed type rotor

### TECHNICAL DATA

Model	MC-13Pro	MC-15Pro
Control mode	PI power direct drive	
Max relative centrifugal force	11337xg	14104xg
Max rotation speed	1000-13000rpm±5%	1000-14500rpm±5%
Rotor	0.2/0.5/1.5/2ml*12 (Centrifuge tube) 0.5/1.0ml*12 (Micro blood tube)	
Max speed acceleration / reduction	≤12 s/ ≤15s	
Noise under max rotation speed	≤47db (A)	
Input power	50W	55W
Shell protection level	AC100-240V / DC24V	
Allow surrounding temperature	-5-40 C / 80%RH	

## Bench Type Centrifuge



Program memory



Multi rotors optional



Temperature protection & overshock protection



Double electronic lock

### TECHNICAL DATA

Model	LC500-8	LC500-12	LC500-6	LC500-18	LC500-24
Rotor capacity	15ml*8 Centrifuge tube 5/10ml*8 Blood tube	15ml*12 Centrifuge tube 5/10ml*12 Blood tube	15/50ml*6 Centrifuge tube	5/10ml*18 Blood tube	5/10ml*24 Blood tube
Speed	500 - 4000rpm				
Max RCF	1967xg	2075xg	2146xg	2182xg	2164xg
Semidiameter of rotor	11cm	11cm	12cm	12.2cm	12.1cm
Timing range	10sec - 2h				
Protection function	Lid opening protection, cavity overtemperature protection, vibration projection				
Power	60W	60W	80W	80W	80W
Power supply	AC 110V - 220V 50/60Hz				

## Low Speed Centrifuge



Built-in 4 programs, one key operation



LCD display



Electronic door lock



Easy to use



Automatic fault alarm

### TECHNICAL DATA

Model	LC-6S	LC-8S	LC-12S	LC-8P
Max rotation speed	500-5000r/min	500-5000r/min	500-4000r/min	500-4000r/min
Max relative centrifuge force	3074xg	3074xg	2220xg	2220xg
Max capacity	6*15ml centrifuge tube	8*15ml centrifuge tube	12*5/10ml blood collection tube	8*15ml blood collection tube
Speed regulation accuracy	± 30 r/min			<b>Built-in 4 programs</b> CGF:Highly concentrated growth factor fibrin centrifugal manufacturing
Timing range	10s ~ 99min59s			PRP:Platelet-rich plasma centrifugation
Noise	≤ 60dB(A)			APRF:High-grade plasma rich fibrin
Voltage	AC220V / 110V-50Hz 5A			IPRF:Injectable plasma rich fibrin
Power	130W			
Dimensions	375*320*240mm (L*W*H)			

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# MICROPLATE CENTRIFUGE



[www.joanlab.com](http://www.joanlab.com)



## Mini Microplate Centrifuge



Rotor for microplate



Low noise

### TECHNICAL DATA

Model	MPC-5Pro
Control mode	PWM electronic speed regulation
Display	LCD display
Max relative centrifugal force	1258xg
Max rotation speed	1000-5000rpm±5%
Rotor capacity	96-wells micro plate(20ul per hole) * 2
Timing range	1-99min
Power	20W
Voltage	AC100-240V / DC24V

## Microplate Centrifuge



LCD display



Rotor for microplate,  
more working capacity



Brushless motor with strong power



Speed adjustable and timing

### TECHNICAL DATA

Model	LC500 - MP
Max capacity	96-well PCR microplate * 4
Max speed	500 - 2300 rpm
Max RCF	603xg
Semidiaeter of rotor	10.2cm
Protection funcion	Lid opening protection, cavity overtemperature protection, vibration proyection
Timing range	10sec - 2h
Power	50W
Power supply	AC 110V - 220V 50/60Hz

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# STIRRER



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## Mini Magnetic Stirrer



Strong magnetic field



Large mixing ability



Durable brushless motor



LCD display

### TECHNICAL DATA

Model	MS3	MS5	MS5S	MS5C
LCD display	No	No	Yes	Yes
Control	Rotary knob	Rotary knob	Rotary knob	Digital knob control
Motor type	Brushless motor			
Working plate size	125mm	135mm	135mm	135mm
Speed range	200-1800rpm	350-1800rpm	200-2000pm	200-2000pm
Max stirring volume	1L(H <sub>2</sub> O)	2L(H <sub>2</sub> O)	2L(H <sub>2</sub> O)	3L(H <sub>2</sub> O)
Stir bar size	20-30mm	20-30mm	20-30mm	30-50mm
Power	3W	5W	5W	10W
Shell protection level	IP42			
Voltage	100-240V 50/60Hz			

## Digital Display Hotplate Stirrer



Strong magnetic field



Anti-corrosion ceramic plate



Accurate temperature control



Over temperature protection

### TECHNICAL DATA

Model	HS5S	Working plate	Anti-corrosion ceramic plate
Control mode	Brushless motor	Plate temperature	260°C
Max stirring volume	2L (H <sub>2</sub> O)	Power	400W
RPM	50-1500rpm	Temperature sensor	Inside and outside PT1000
Stir bar size	20-40mm	Voltage	AC110/220V
Mixing direction	Right	Product size	155*220*700mm
Shell protection level	IP42	Net weight	0.7KG

## Large Capacity Magnetic Stirrer



Timing function



Knob operation



Forward and reverse



Large capacity

### TECHNICAL DATA

Model	MS-10L	MS-15L	MS-30L	MS-50L
Control mode	Knob			
Display method	LCD display			
Power	20W	20W	24W	50W
Working plate	220*220mm	220*220mm	300*300mm	300*300mm
Max stirring volume	10L	15L	30L	50L
Speed range	50-1500rpm	50-1300rpm	50-1100rpm	50-1100rpm
Speed regulation accuracy	10rpm	10rpm	10rpm	10rpm
Timing range	23h / 59min / 59sec			
Stir bar size	50mm	60mm	80mm	100mm

## Multiple Magnetic Stirrer



Can be set to run synchronously or asynchronously



Timing function



Stepless speed regulation, wide speed range



LCD display



Durable brushless motor

### TECHNICAL DATA

Model	MMS4Pro	MMS6Pro	MMS9Pro
Control	Asynchronous control		
Number of stirring points	4	6	9
Max capacity	4*500ml	6*500ml	9*500ml
Working plate size	4-(110*110mm)	6-(110*110mm)	9-(110*110mm)
Motor	Brushless motor		
Speed	50-1500rpm		
Bar size	20-50MM		
Timing	23h / 59min / 59sec		
Voltage	AC100-240V		

## Multi Position Magnetic Stirrer With Heating

Can be set to run synchronously or asynchronously



LCD display



304 stainless steel plate, corrosion resistant



Heat more uniformly



Durable brushless motor

### TECHNICAL DATA

Model	MHS4Pro	MHS6Pro	MHS9Pro
Control	Asynchronous control		
Number of stirring points	4	6	9
Max capacity	4*500ml	6*500ml	9*500ml
Working plate size	4-(110*110mm)	6-(110*110mm)	9-(110*110mm)
Speed range	50 - 1200 rpm		
Plate material	304 Stainless steel		
Plate temperature	120°C		
Timing	23h / 59min / 59sec		
Bar size	Z30mm	Z30mm	Z30mm
Power	240W	360W	360W
Voltage	AC100-220V		



## Overhead Stirrer



Smooth start



Adjustable speed



DC permanent magnet motor



Position of stirring paddle is adjustable

### TECHNICAL DATA

Model	OS-15Pro	OS-30Pro
Motor	Brushless motor	
Max amount of stirring(H <sub>2</sub> O)	10L	20L
Range of rotate speed	100 - 2000rpm	50 - 1200rpm
Timing	23h59min	23h59min
Max torque	15Ncm	30Ncm
Max viscosity	8000mPas	16000mPas
Clamping diameter range of drill chuck	1-8mm	1-8mm
Power	40W	60W
Voltage	AC 100-240V	AC 100-240V

## Magnetic Stirrer



Strong magnetic



LCD display



Anti-corrosion ceramic plate



Safety circuit over temperature protection

### TECHNICAL DATA

Model	HS-12	HS-17	HS-19	HSC-19T
Working plate size	12*12cm	17*17cm	19*19cm	19*19cm
Working plate material	Aluminum plate	Aluminum plate	Aluminum plate	Aluminum plate
Speed	0-1600rpm	0-1600rpm	0-1600rpm	200-2000rpm
Function	Heating & stirring	Heating & stirring	Heating & stirring	Heating & stirring
Heating power	180W	500W	600W	600W
Working plate temperature	Room temperature-280 °C	Room temperature-300 °C	Room temperature-350 °C	Room temperature-350 °C
Stirring capacity	1L	3L	5L	5L

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# DRY BATH



## Mini Dry Bath

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Small volume



Multi-point operation



LCD display



Overtemperature protection

## TECHNICAL DATA

Model	MDB100C	MDB100
Temperature range	Room temp - 15°C ~ 100°C	Room temp + 5°C ~ 100°C
Temperature stability	±0.5°C	±0.5°C
Temperature homogeneity	±0.5°C	±0.5°C
Display accuracy	0.1°C	0.1°C
Heating time	≤12min (25-100°C)	≤12min (25-100°C)
Cooling time	20 - 25 min (20-0°C)	/
Multi-point operation	Yes	No
Temperature point can be set	9	/
Time setting range	1s - 23h59min	1s - 23h59min
Power	60W	48W
Voltage	AC100-240V	AC100-240V
Size	160*115*96 mm	160*115*96 mm

Module options	Numbers and aperture of test tube
MDB1	40 * 0.2ml( Centrifuge tube)
MDB2	24 * 0.5ml(Centrifuge tube)
MDB3	15 * 1.5ml(Centrifuge tube)
MDB4	15 * 2.0ml(Centrifuge tube)
MDB5	6 * 5/15ml(Centrifuge tube)
MDB6	2 * 50ml(Centrifuge tube)
MDB7	Cuvettes dedicated module
OEM of modules	Modules can be customized according to customer needs

## Dry Bath



LCD display



Multi-point operation



Overtemperature protection



Multipoint temperature operation

## TECHNICAL DATA

Model	DB100C	DB100
Temperature range	Room temp - 15°C ~ 100°C	Room temp + 5°C ~ 100°C
Temperature stability	±0.5°C	±0.5°C
Temperature homogeneity	±0.5°C	±0.5°C
Display accuracy	0.1°C	0.1°C
Heating time	≤12min (25-100°C)	/
Cooling time	20 - 25 min (20-0°C)	20 - 25 min (20-0°C)
Multi-point operation	Yes	No
Temperature point can be set	9	/
Time setting range	1s - 23h59min	1s - 23h59min
Power	96W	96W
Voltage	AC100-240V	AC100-240V
Size	170*160*102 mm	170*160*102 mm

Module options	Numbers and aperture of test tube
DB1	96 * 0.2ml(Centrifuge tube)
DB2	54 * 0.5ml(Centrifuge tube)
DB3	35 * 1.5ml(Centrifuge tube)
DB4	35 * 2.0ml(Centrifuge tube)
DB5	24 * 5.0ml( Blood tube)
DB6	12 * 5 / 15ml(Centrifuge tube)
DB7	6 * 50ml(Centrifuge tube)
DB8	Flat bottom plate (ELISA plate/culture plate, etc.)
OEM of modules	Modules can be customized according to customer needs

## Dry Bath Shaking Incubator

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LCD display



Multi-point operation



Overtemperature protection



Multipoint temperature operation



## TECHNICAL DATA

Model	DBS100C	DBS100
Temperature range	0°C ~ 100°C	15°C ~ 100°C
Temperature stability	±0.5°C	±0.5°C
Display accuracy	0.1°C	0.1°C
Heating rate	5.5°C/min	5.5°C/min
Cooling rate	2.5°C/min(100 C -Room temperature) 0.5°C/min(Below room temperature)	/
Speed adjust / Timing range	200-1500rpm / 1s-23h59min	
Mixing diameter	3mm	
Program memory	9 grades	
Power	200W	
Power supply	100-240V 50/60HZ	
Size	200*235*120mm	

Module options	Numbers and aperture of test tube
DBS1	Centrifuge tube:0.2ml*96
DBS2	Centrifuge tube:1.5ml*24
DBS3	Centrifuge tube:2ml*24
DBS4	Centrifuge tube:15ml*8
DBS5	Centrifuge tube:50ml*4
OEM of modules	Modules can be customized according to customer needs

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# WATER BATH



[www.joanlab.com](http://www.joanlab.com)

## Water Bath



Digital display thermostatic



High precise temperature control



Stainless steel tank



High corrosion resistance

### TECHNICAL DATA

Model	WB100-1 WB100-1F	WB100-2 WB100-2F	WB100-4 WB100-4F	WB100-6 WB100-6F
Temperature range	Room temp- 99.9°C			
Power	300W	600W	800W	1200W
Accuracy	0.1°C			
Working chamber size	16*16*13cm	30*15*14cm	30*30*14cm	45*30*13cm

\* WB100-F series are anti-dry series

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# HEATING MANTLE



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## Heating Mantle



Intelligent temperature control



Heating evenly, heating up fast

### TECHNICAL DATA

Model	HM		HMC		HMS			HMSC	
Capacity	100ml	250ml	500ml	1L	2L	3L	5L	10L	20L
Function	Heating		Heating		Heating/magnetic stirrer			Heating/magnetic stirrer	
Heating power	100W	150W	250W	350W	450W	600W	800W	1200W	2400W
Temperature control	/		Digital temperature control			/		Digital temperature control	
Max temperature	Room temp - 380°C		Room temp - 300°C		Room temp - 380°C			Room temp - 300°C	

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# INFRARED STERILIZER



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## Infrared Sterilizer



Sterilization only takes  
5-7 seconds



Can be used in an anaerobic  
environment



No open-flame, more safe



Easy to clean

### TECHNICAL DATA

Model	DS-900	DS-900S
Power	150W	240W
Max. temperature inside the heating hole	825°C±50°C	
Heating temperature	Two temperatures available 400°C/850°C	
Max. diameter of sterilizer goods	φ 14mm	φ 35mm
Length of heating zone	150mm	100mm
Warm-up time	10min	

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# PIPETTE



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## Electric Pipette



Dynamic drainage + Gravity drainage



Membrane protection



6 levels adjustable pipetting speed



LCD display

### TECHNICAL DATA

Model	EP100Pro
Range	0.1-100ml
Suction speed	25ml < 5s (6 speeds adjustable)
Drain mode	Dynamic drainage + Gravity drainage
Battery Life	Could work intermittently for about 8 hours
Type of pipette	Plastic or glass pipette (0.1-100ml); Pasteur pipettes
Filter membrane	0.45µm hydrophobic filter membrane
Weight	180g

## Liquid Vacuum Aspiration System



Work for multi purpose



Digital display speed control knob



9档调速  
9-speed speed regulation




High temperature disinfection


### TECHNICAL DATA

Model	VP-6Pro	Fluid absorption rate	1.6L / Min
Type	Negative pressure suction	Ultimate vacuum	0.06Mpa
Control type	Digital display knob · 9 speeds	Diameter of collection bottle	93mm
Pumping rate	6L / Min	Power	10W


## Bottle Top Dispenser



Digital window 

Gear adjustment 

Acid and alkali resistant 

Safety valve protection 

Various models 

### TECHNICAL DATA

Model	Capacity Range	Increment	Test Capacity	Systemic Error	Random Error	Repeat Error
DA-2ML	0.4-2ml	0.05	1ml	10ul	10ul	2ul
DA-5ML	1-5ml	0.1	2.5ml	25ul	25ul	5ul
DA-10ML	2-10ml	0.25	5ml	50ul	50ul	10ul
DA-30ML	5-30ml	0.5	15ml	125ul	125ul	25ul
DA-60ML	10-60ml	1	30ml	250ul	250ul	50ul

## M Series Half Autoclavable Micropipette



Half autoclavable



Wide range



Dispense accurately



### TECHNICAL DATA

Model	Capacity Range	Test Capacity	Tip	Increment	Accuracy Error	Repeat Error
M2.5	0.1 - 2.5ul	1.25	10ul	0.05ul	±3.00%	±3.00%
M10	0.5 - 10ul	5	10ul	0.1ul	±1.50%	±0.80%
M20	2 - 20ul	10	200ul	0.5ul	±1.20%	±0.40%
M50	5 - 50ul	25	200ul	0.5ul	±0.90%	±0.30%
M100	10 - 100ul	50	200ul	1ul	±1.00%	±0.15%
M200	20 - 200ul	100	200ul	1ul	±0.70%	±0.15%
M1000	100 - 1000ul	500	1000ul	5ul	±0.80%	±0.20%
M5000	1000 - 5000ul	2500	5000ul	50ul	±0.60%	±0.15%
M10000	2 - 10ml	5ml	10ml	0.1ml	±1.20%	±0.20%

## P Series Whole Autoclavable Micropipette



121°C sterilization



Wide range



Dispense accurately



### TECHNICAL DATA

Model	Capacity Range	Test Capacity	Tip	Increment	Accuracy Error	Repeat Error
P10	0.5 - 10ul	5ul	10ul	0.1ul	±1.00%	±1.00%
P20	2 - 20ul	10ul	200ul	0.5ul	±1.00%	±1.00%
P50	5 - 50ul	25ul	200ul	0.5ul	±0.90%	±0.60%
P100	10 - 100ul	50ul	200ul	1ul	±1.00%	±0.40%
P200	20 - 200ul	100ul	200ul	1ul	±0.80%	±0.30%
P1000	100 - 1000ul	500ul	1000ul	5ul	±0.70%	±0.25%
P5000	1000 - 5000ul	2500ul	5000ul	50ul	±0.60%	±0.30%
P10000	2 - 10ml	5ml	10ml	0.1ml	±1.20%	±0.30%

## Multichannel Pipette



Digital window



8/12 channels optional



Suitable for 96-well plates



The tip can rotate 360 degrees

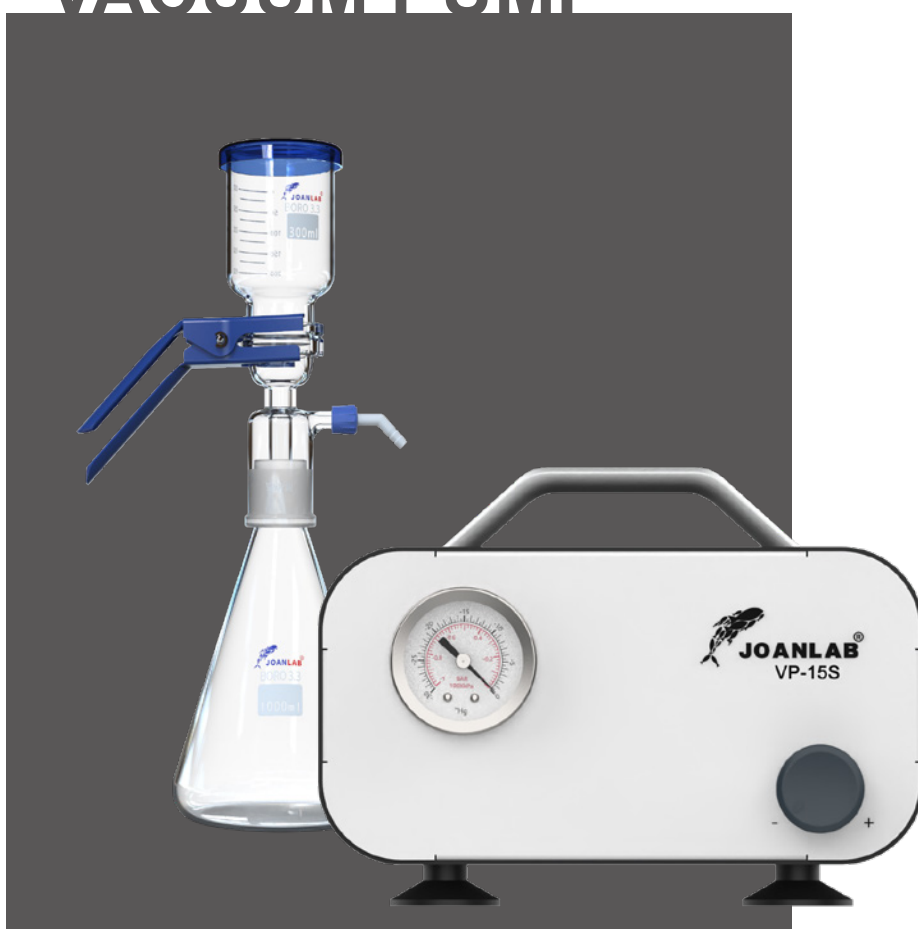


### TECHNICAL DATA

Model	Type	Capacity Range	Tip	Increment	Test Capacity	Allow maximum error
M8 - 10	8 channels	0.5 - 10ul	10ul	0.1ul	5	2.50% 0.125
M8 - 50	8 channels	5 - 50ul	200ul	0.5ul	25	1.50% 0.375
M8 - 300	8 channels	50 - 300ul	300ul	5ul	150	1.00% 1.500
M12 - 10	12 channels	0.5 - 10ul	10ul	0.1ul	5	2.50% 0.125
M12 - 50	12 channels	5 - 50ul	200ul	0.5ul	25	1.50% 0.375
M12 - 300	12 channels	50 - 300ul	300ul	5ul	150	1.00% 1.500

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# VACUUM PUMP



[www.joanlab.com](http://www.joanlab.com)

## Oilless Diaphragm Vacuum Pump



Oil-free and no pollution



Illuminated switch



Overload,overheat and short circuit protection



High precision vacuum gauge

### TECHNICAL DATA

Model	VP-10L	VP-15L
Type	Negative pressure	
Suction flow rate	10L/min	15L/min
Limit vacuum degree	0.075Mpa	0.08pa
Noise	<40db	<45db
Enclosure ratings	IP21	
Power supply	20W	30W
Diaphragm	Rubber	
Protection devices	Overload protection, over temperature protection, short circuit protection	
Gross/net weight	1.95/1.58 KG	



## Adjustable Speed Oil-free Diaphragm Vacuum Pump



The suction speed is adjustable



Illuminated switch



Overload,overheat and short circuit protection

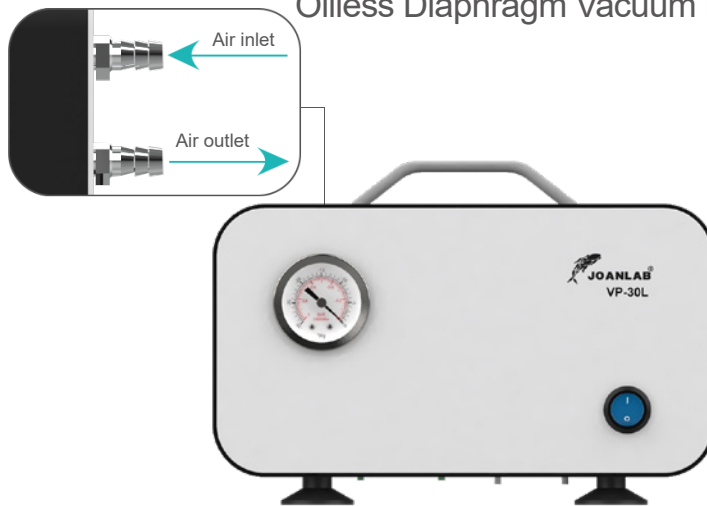


High precision vacuum gauge

### TECHNICAL DATA

Model	VP-15S
Type	Negative pressure
Suction flow rate	0-15 L/min
Limit vacuum degree	0.08Mpa
Noise	< 45db
Enclosure ratings	IP21
Power supply	30W
Diaphragm	Rubber
Protection devices	Overload protection, over temperature protection, short circuit protection
Gross/net weight	1.95/1.58 KG

## Oilless Diaphragm Vacuum Pump - 30L



Positive and negative pressure



Illuminated switch



Overload,overheat and short circuit protection



High precision vacuum gauge

### TECHNICAL DATA

Model	VP-30L
Type	Positive and negative pressure
Suction flow rate	30 L/min
Limit vacuum degree	0.085Mpa
Greatest pressure	5.0bar
Noise	< 50db
Enclosure ratings	IP21
Power supply	50W
Diaphragm	Rubber
Protection devices	Overload protection, over temperature protection, short circuit protection

## 6L Mini Vacuum Pump



9-speed speed regulation



Digital display speed control knob



Mini portable, strong power



Steady motion

### TECHNICAL DATA

Model	VP-6L	Pumping rate	6L / Min
Type	Negative pressure suction	Ultimate vacuum	0.06Mpa
Control type	Digital display knob · 9 speeds	Power	10W

## Vacuum Filtration Apparatus



### TECHNICAL DATA

Receiving flask	Sand core diameter	Sand core aperture
250ml	20mm	10um
500ml	40mm	10um
1000ml	40mm	10um
2000ml	40mm	10um
5000ml	40mm	30-50um
10000ml	40mm	30-50um



Boro 3.3



Tight sealing



Suitable for bottles with GL-45



Large diameter Fast suction



### TECHNICAL DATA

Receiving flask	Sand core diameter	Filter membrane	Sand core aperture
2000ml	80mm	90-100mm	10um
5000ml	80mm	90-100mm	10um
10000ml	80mm	90-100mm	10um

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# BALANCE



[www.joanlab.com](http://www.joanlab.com)

## 0.001g Analytical Balance - FA-S



Dual screen display



Unit conversion



Multi-device printing  
Standard RS232 interface



DC and AC dual-use

### TECHNICAL DATA

Model	FA2003S	FA3003S	FA5003S
Max Capacity	200g	300g	500g
Min readout		20mg	
Accuracy		0.001g	
Repeatability		±0.0002g	
Linearity error		±0.0002g	
Stability time		≤ 3S	
Working temp.		15°C ~ 35°C	
Pan size		φ120mm	
Dimensions		320*195*280 mm	
Calibration mode		External calibration	
Communication interface		RS232(USB interface optional)	

## Analytical Balance - FA



LED display



Unit conversion



Multi-device printing  
Standard RS232 interface



Full electromagnetic  
interference protection

### TECHNICAL DATA

Model	FA1004 FA1004N	FA1204 FA1204N	FA2004 FA2004N	FA2204 FA2204N
Max Capacity	100g	120g	200g	220g
Min readout		0.01g		
Accuracy		0.1mg		
Repeatability		±0.0002g		
Linearity error		±0.0003g		
Stability time		≤ 3S		
Working temp.		15°C ~ 35°C		
Pan size	Standard model φ80mm / Optional model φ90mm			
Dimensions	300*200*295 mm			
Calibration mode	External calibration(FA****A) / Internal calibration(FA****)			
Communication interface	RS232(USB interface optional)			

\* FA-N series Internal calibration balance

## Moisture Balance



Multiple protections, more secure



Two calibration modes



High-efficiency halogen heating lamp



Multi-device printing, standard RS232 interface

### TECHNICAL DATA

Model	MBA1002	MBA1002a	MBA100b2	MBA1003
Max capacity	100g			
Measuring accuracy	0.01g	0.005g	0.002g	0.001g
Actual scale dividing value	1mg			
Verification scale dividing value	10mg			
Moisture test accuracy	±0.5% (sample ≥2g)			
Moisture content determines readability	0.02%~0.1%(sample ≥2g)			
Temp control adjustment tolerance	±1°C			
Heating temp set range	(60~160) °C (adjust based on 1°C)			
Heating time set range	0min~99min(adjust based on 1min)			
Analysis method	Manual / Timing / Automatic			
Moisture content determination range	0%~100%			