Over view

BioPharmax is a global leading design and construction group specializing in the Biopharmaceutical market segment.

Biopharmax group is active in Israel, US, Europe, China, India and in the Middle East

The Group representative in Israel worldwide leading companies for deliver the highest quality of products & solutions.

The Group provides tailor made turnkey solutions for Biotechnological, API and Pharmaceutical manufacturing facilities.

For 40 years Biopharmax has catered to industry leaders and has accumulated hundreds of project references all over the world.

Group staff is over 100 expert engineers in the process, validation, mechanical, Software and Control, Biological, Chemical and Industrial fields.

All facilities and plants that are designed and built by Biopharmax globally are FDA and/or EMEA approvable and comply with western cGMP standards and codes.

Contents

Autoclave

KEN S1000 Autoclave

Manufacture: KEN

The autoclaves SC500 / S1000 / S2000 series are designed with a focus on the actual needs of modern hospital sterilization as well as for many sterile centers, outpatient centers, outsourced sterilization tasks.

The following options can be offered:
- Built-in compressor
- Vacuum system with liquid ring pump
- Connection to recycling systems and external cooling, which enables significant savings in water consumption
- Manual and automatic steam diversion
- Recording and graphical display with three-channel video recorder
- Data download via USB portOption to print report and cycle graph in A4 format on external printer
- Stainless steel front
- Permanent access to the following: CompressorVacuum system with water pump
- Additional solutions for external systems and external cooling, which can be used as an option

Vertical Autoclave Model : MO-GR 60/85/110

Manufacture: MoonMed

MoonMed Vertical Autoclaves are trusted by the most technology advanced leading biotechnology, pharmaceutical, academic, Food, Medical, Industrial and clinical laboratories. Our solutions deliver the performance, quality and reliability required by researchers and clinicians all over the world

FEATURES:

- Extra wide sterilization chamber – 40cm
-Microprocessor Control System
- Waste Sterilization.
- Drying
- Cooling Lock Open Temperatures.
- Sterilization Temperature- The autoclave can operate from a low temperature of 105°C to 138°C

Model	**MO-GR60DE** **MO-GR60DF** **MO-GR60DA**	**MO-85DR** **MO-85DF** **MO-85DA**	**MO-110DR**
Capacity	60L	85L	110L
Dimensions (LxWxH)mm	660x644x980	660x644x980	660x644x1180
Camber Dimensions (mm)	400x505	400x700	400x895
Power in watts (W)	2900	4600	4600
Sterilization Temperature C°	105-138 C°		
Preset Range of Sterilization Time	1-300 min		

Table Top Sterilizer Model : MO-MOST-T-18/24/45/60/80 B Class

Manufacture: MoonMed

The MO-MOST-T series: T18/24/45/60/80 is a B- Class table top with the most updated technology in the market. This type of high Pressure sterilizer uses steam as the sterilization medium which is fast, safe and economic. This type of B Class unit is reliable and robust commonly used in Medical, Dental, Stomatological, Veterinary, Ophthalmological clinics, Operating Theaters and CSSD's to perform the sterilization of Wrapped or Unwrapped instruments, Fabrics, Utensils, Culture medium, unsealed liquids, hollow instruments and Lumen etc. The B class performance is achieved with a built-in vacuum pump with a vacuum of over -90kPa used for fractionated pre vacuum air removal eliminating air pockets from all load types and maximizing efficient steam penetration throughout the entire load. After the sterilization stage the vacuum pump is again used for post-vacuum drying. Due to the MoonMed overcapacity vacuum pumps, the goods come out perfectly dry every time.

Model	**T18**	**T24**	**T45**	**T60**	**T80**
Dimensions (LxWxH)mm	560x530x450	660x530x450	830x640x550	1002x730x560	1002x730x560
Camber Dimensions (mm)	250x350	250x450	316x618	358x595	358x717
Input Power (kVa)	2.6	2.6	5.8	7.4	7.4

Vertical Top Loading Autoclave Model:MO-TMQ.C-50/80 series

Manufacture: MoonMed

Two standard model sizes 50L and 80L**.** MoonMed vertical top loading autoclaves are trusted by the most technology advanced leading laboratories, pharmaceutical, medical, food and chemical industries. Our autoclave delivers the performance, quality and reliability required by researchers, clinician's etc. all over the world.

Model	**Volume**	**Camber Dimensions (mm)**	**Dimensions (LxWxH)mm**
MOON-TMQ.C	60L	380×500	800x725x520
MOON-TMQ.C	80L	380×700	950x725x520
MOON-TMQ.C	135L	500×700	1000x710x1700
MOON-TMQ.C	185L	500×950	1250x710x1700

Miniclave 21E

Manufacture: Matachana

The 21E model is designed to comply with EN 13060 Standard with class N and S cycles. Easy to use and maintain. Ensures sterilization without damage to the instruments – quality product.

Recommended for use in:

- Dentistry clinics.
- Gynecology clinics
- Dermatology clinics
- Podiatry clinics
- Veterinary clinics
- Primary care centers.

Main Features:

- Flat and smooth Keyboard
- Frontal service door
- 3 sterilization tests, S type
- Load accessories
- External printer (optional)
- Water separation system (=high quality steam)
- Conductivity sensor
- Communication port.

Miniclave 21ED

Manufacture: Matachana

The 21ED model is designed to comply with EN 13060 standard.
With type B cycles, with multi-fractionated pre-vacuum and drying.
Adaptable to all types of material.

Recommended for use in:

- Dentistry clinics.
- Gynecology clinics
- Dermatology clinics
- Podiatry clinics
- Veterinary clinics
- Primary care centers

Main Features:

- Vacuum system
- Programs: 2 test programs and 3 type B sterilization programs, with special program for prions
- RAPID mode to reduce cycle time
- Low water and power consumption
- Frontal service door
- Water separation system (=high quality steam)
- 3 trays and tray-support structure, as standard
- External printer (optional)
- External multipin for different peripherals

Miniclave M20-B Plus

Manufacture: Matachana

The MATACHANA sterilizer M20-B *plus* entails the confirmation of the latest technology in steam sterilization applied to a table top sterilizer. It is designed to meet the daily needs encountered in day care centers, casualty department, dentists, hygienists and aesthetics cabinets, veterinary practices, etc., and is likewise very necessary as a support device in the surgical block

- Vacuum system equivalent to the large sterilizers
- Microcomputer controlled by non-stop monitoring of cycle development
- Easy to operate by means of touch screen with user's menu simple and intuitive
- USB port for easy download of cycle logs
- Patented system that automatically adjusts the drying time depending on the volume of the load. Significant reduction in cycle times. ECO-DRY FUNCTION
- Programmable cycle start
- User management
- Cycle times 21 to 44 minutes with automatic drying based on load type
- Rapid cycle, 13 minutes
- Low consumption of water and power
- Integrated conductivity sensor
- Patented system of filter and water separator to extend the vacuum pump lifespan
- Integrated automatic system for water tanks' supply and drain
- Ethernet communication port
- External printer (optional)

Miniclave M30-B

Manufacture: Matachana

This model is highly suited for the most emanding tasks.
They are adapted to all types of material,
including the most complex one.

Main Feature:

- Independent steam generator.
- Vacuum system equivalent to the large sterilizers.
- Water separation system (high quality steam).
- Flat and smooth keyboard.
- H2O and power low consumption.
- Programmes: 2 test programmes and 5 working programmes, with special program for prions.
- High loading capacity (30L).
- Built-in printer.
- Automatic water supply system and drain, as an option.
- Compatible with EasyLOOK.
- Microcomptuer controlled.

Portable Autoclave

Manufacture: BioBase

It's desk-top autoclave sterilizer which is designed for the hospital, clinic, lab, etc.
It's mostly suitable for sterilizing of surgical, dental instruments, glassware, culture medium and biological dressing, food and goods, etc

Model	**BKM-P18(D)**	**BKM-P24(D)**	**BKM-P18(A)**	**BKM-P24(A)**	**BKM-P18(B)**	**BKM-P24(B)**
Type	Timing control type		Anti-dry out type		Dual fuel Type	
Capacity	18L	24L	18L	24L	18L	24L
Chamber Size(mm)	ϕ280x210	ϕ280x310	ϕ280x210	ϕ280x310	ϕ280x210	ϕ280x390
Temperature Setting	RT+5~126℃		126℃(default)or 121℃			126℃
Working Pressure	Along with temperature change		0.142Mpa			0.165MPa

Cassette Sterilizer

Manufacture: BioBase

Application:

It is used for the repaid sterilization of small ophthalmology E.N.T. ,intruments in stomatology department, gynecology, operating room, etc

Model	**BKS-2000**	**BKS-5000**	**BKS-6000**
Capacity	1.8L	5.2L	6.0L
Chamber Size(W*D*H)mm	280*180*38	380*180*78	480*180*78
External Size(W*D*H)mm	570*415*170	580*460*190	
Steam Temp	115℃~135℃(Selectable)		
Ambient Temp.	5℃~40℃		
WorkingPressure	42KPa~212KPa		
Chamber Material	SUS304		
Water Tank Volume	3.4L		
Standard Accessories	Instrument loading tray*1, Waste water tank*1, Drain hose*1, Printing paper*2		
Power Supply	AC110/220V±10%, 50/60Hz		
Package Size(W*D*H)mm	580*580*700		
NetWeight(kg)	34	46	
Gross Weight(kg)	49	61	

Large Horizontal Autoclave

Manufacture: BioBase

BKQ-D/S is a fast, compact and versatile sterilizer which is researched and developed according to the latest requirements of medical institution and CSSD. It is designed and manufactured combines high capacity with cost-efficiency, while offering high operating reliability and easy maintenance

Model	Volume	Chamber size (W*D*H)	External size (W*D*H)	Net weight	Power consumption	Power supply
BKQ-140D-A	146L	420*420*830mm	1290*1680*1050mm	425 Kg	2.5KW	380V,50Hz
BKQ-140DD-A				525 Kg	18KW	
BKQ-140S-A			1290*1680*1100mm	510 Kg	2.5KW	
BKQ-140SD-A				610 Kg	18KW	
BKQ-240D-A	241L	600*600*670mm	1370*1880*950mm	580 Kg	2.5KW	380V,50Hz
BKQ-240DD-A				660 Kg	24KW	
BKQ-240S-A			1370*1880*1000mm	660 Kg	2.5KW	
BKQ-240SD-A				720 Kg	24KW	
BKQ-350D-A	352L	600*600*980mm	1215*1880*1190mm	780 Kg	2.5KW	380V,50Hz
BKQ-350DD-A				880 Kg	24KW	
BKQ-350S-A			1215*1880*1240mm	860 Kg	2.5KW	
BKQ-350SD-A				960 Kg	24KW	
BKQ-350D-B			1215*1880*1190mm	880 Kg	2.5KW	380V,50Hz
BKQ-350DD-B				1000 Kg	24KW	
BKQ-350S-B			1215*1880*1240mm	960 Kg	2.5KW	
BKQ-350SD-B				1080 Kg	24KW	
BKQ-650D-B	655L	610*910*1180mm	1310*2070*1370mm	1170 Kg	4KW	
BKQ-650DD-B				1270 Kg	46KW	
BKQ-650S-B			1310*2070*1420mm	1270 Kg	4KW	
BKQ-650SD-B				1370 Kg	46KW	
BKQ-810D-B	810L	610*910*1460mm	1310*2070*1650mm	1260 Kg	4KW	380V,50Hz
BKQ-810DD-B				1360 Kg	61KW	
BKQ-810S-B			1310*2070*1700mm	1360 Kg	4KW	
BKQ-810SD-B				1460 Kg	61KW	
BKQ-990D-B	999L	610*910*1800mm	1310*2070*1990mm	1300 Kg	4KW	380V,50Hz
BKQ-990DD-B				1400 Kg	61KW	
BKQ-990S-B			1310*2070*2040mm	1400 Kg	4KW	
BKQ-990SD-B				1500 Kg	61KW	
BKQ-1200D-B	1203L	680*1180*1500mm	1450*1990*1710mm	1950 Kg	5KW	380V,50Hz
BKQ-1200S-B			1450*1990*1760mm	2050 Kg	5KW	
BKQ-1500D-B	1500L	680*1180*1870mm	1450*1990*2080mm	2111 Kg	5KW	380V,50Hz
BKQ-1500S-B			1450*1990*2130mm	2211 Kg	5KW	

Vertical Pulse Vacuum Autoclave

Manufacture: BioBase

Model	**BKQ-B50V**	**BKQ-B75V**
Capacity	50L	75L
Chamber Size(mm)	φ386*490	φ386*670
Designed Pressure	-0.1~0.28MPa	
External Size(W*D*H)mm	700x610x1100	

Table Top Autoclave Class B Series

Manufacture: BioBase

BKM-BIII series sterilizer is a Class B table top sterilizer. As a type of high pressure sterilizer, it takes steam as its sterilization medium which is fast, safe and economic. They are common used in stomatology department, ophthalmology department, operating room and CSSD to make the sterilization for wrapped or unwrapped instrument, fabric, utensils, culture medium, unsealed liquid, etc.

BKM-Z18B(III)/24B(III)45B(III) BKM-Z60B(III)/80B(III)

Model	**BKM-Z18B(III)**	**BKM-Z24B(III)**	**BKM-Z45B(III)**	**BKM-Z60B(III)**	**BKM-Z80B(III)**
Capacity	18L	24L	45L	60L	80L
Chamber Size(mm)	Φ250*350	Φ250*450	Φ316*618	Φ386*595	Φ386*717
Standard Loading Tray	Type A		Type B		
Consumption	2.6 KW		5.8 KW	7.4 KW	
External Size(W*D*H)mm	530x560x450	530x660x450	640x830x550	730x1002x560	730x1002x560

Table Top Autoclave Class S Series

Manufacture: BioBase

BKM-S series sterilizer is a Class B table top sterilizer. As a type of high pressure sterilizer, it takes steam as its sterilization medium which is fast, safe and economic. They are common used in stomatology department, ophthalmology department, operating room and CSSD to make the sterilization for wrapped or unwrapped instrument , fabric, utensils, culture medium, unsealed liquid, etc.

Model	**BKM-Z24S**	**BKM-Z45S**	**BKM-Z80S**
Capacity	24L	45L	80L
Chamber Size(mm)	Φ250*450	Φ316*618	Φ358*717
Standard Loading Tray	Type A	Type B	
Consumption	2.6 KW	5.8 KW	7.4 Kw
External Size(W*D*H)mm	530x660x450	640x855x550	730x1050x560

Incubator

INCUBATOR LOW TEMPERATURE B.O.D
MODEL : MO-7701K

Manufacture: Monnmed

The MO-7701K Low Temperature Incubator despite its small footprint still provides an inner working volume of about 75L. Ideal for B.O.D. it will control and maintain a stable temperature range from 0°C to 60°C.

Stackable Incubator Shaker

Manufacture: N-Biotek

70 liter capacity constant temperature incubator with one built in shaker is designed for table top use or for double-deck stacking.
With built in shaker, this incubator is widely used for

Model	**NB-205QM**	**NB-205QMC**
Temperature	RT +5 °C to 60°C	RT +15 °C to 60°C
Shaking motion	Orbital	Orbital
Shaking speed	30 to 300 rpm	30 to 300 rpm
Overall Dimensions WxDxH (mm)	430x600x550	430x600x550

suspension cell culture in microbiology, molecular biology.

CO2 Incubator

Manufacture: N-Biotek

This incubator is ideal for experiments involving cultivation of animal cells, sperm/ovum, anaerobic cells, all types of microbe cells and special tissues.

Model	NB-203 NB-203QR	NB-203XL NB-203QS	NB-203XXL
Temperature	Ambient +5 °C to 60°C		
CO2 Range	0% to 20%		
Inlet pressure range	0.3-0.5 bar	0.6-0.7 bar	0.9-1.0 bar
Chamber volume	42L	179L	850L
Chamber Dimensions WxDxH (mm)	320x350x370	473x528x710	698x799x1528
Overall Dimensions WxDxH (mm)	408x482x550	560x665x945	820x950x1840

CO2 Incubator with built-in Roller or Shaker

Manufacture: N-Biotek


NB-203QR Inside

Temperature	Ambient +5 °C to 60°C	
CO2 Range	0% to 20%	
Chamber volume	179L	179L
Chamber Dimensions WxDxH (mm)	473x528x710	473x528x710
Overall Dimensions WxDxH (mm)	560x665x945	560x665x945
Number of Shelves	2 layer Roller Rack+1 shelve (2 bottles for each layer)	1 Shaker + 1 Shelve

Roller apparatus or Shaker is mountable on the bottom of chamber. Adherent and Suspension cell culture are simultaneously conducted at an incubator. All operation for built-in apparatus is controlled at external control panel.

General Incubator

Manufacture: N-Biotek

It is useful to incubate or germinate for all kind of microbes, cells, bacteria and germs. Microprocessor controller set for temperature accuracy and reproducibility.
Especially, NB-201C makes it possible to cultivate cell under ambient temperature by Peltier element.

Model	NB-201	NB-201C	NB-201L
Cooling		Peltier	
Chamber volume	42L	42L	179L
Chamber Dimensions WxDxH (mm)	320x350x370	320x350x370	475x530x713
Overall Dimensions WxDxH (mm)	408x482x550	408x482x550	560x645x940

Hybridization Incubator

Manufacture: N-Biotek

Designed to provide only Hybridization or with Rocking in one incubator.
Fast Heat-Up and Precise Temperature Control help efficient sample mixture, Hybridization, incubation

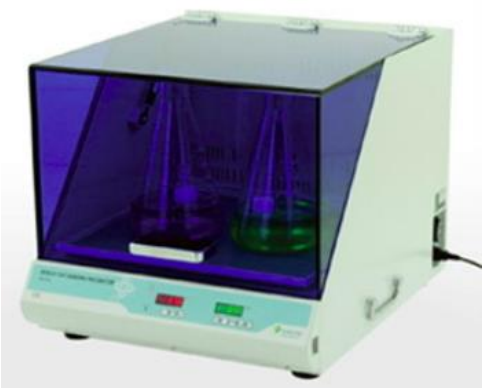
Model	NB-202	NB-202R
Temperature	Ambient +5 °C to 80°C	Ambient +5 °C to 80°C
Chamber Dimensions WxDxH (mm)	320x350x370	320x350x370
Overall Dimensions WxDxH (mm)	415x465x540	415x465x540

Rocker Platform		300x250 (mm)

Large Benchtop Shaking Incubator

Manufacture: N-Biotek

With precise temperature control, this is used for thermophile culture, the experiment of ferment



Model	**NB-205L**	**NB-205LF**
Temperature range	Ambient 5°C to 60 °C	12°C below ambient to 60 °C
Platform Size	450(W)x450(D)mm	450(W)x450(D)mm
Chamber Dimensions WxDxH (mm)	510x500x330	510x500x330
Overall Dimensions WxDxH (mm)	510x600x470	510x600x470

catalyst, microbe/plant call culture and extraction.

Model	**NB-205QF**	**NB-205VQ**
Temperature range	5°C to 60 °C	5°C to 60 °C
Chamber volume	134L	230L

Refrigerated Incubator with built in shaker

Manufacture: N-Biotek

Chamber Dimensions WxDxH (mm)	473x400x710	520x520x850
Overall Dimensions WxDxH (mm)	560x660x1250	585x740x1335

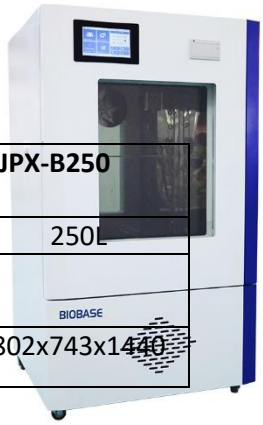
These incubators have a built-in shaker for suspension cell culture as well as shelves for adherent cell culture.
An optimized cooling function provides a wide range of temperature

Biochemistry Incubator

Manufacture: BioBase

Features:

- LCD touch screen.
- Double door design.
- Polished stainless steel chamber.



Model	**BJPX-B100**	**BJPX-B150**	**BJPX-B200**	**BJPX-B250**
Capacity	100L	150L	200L	250L
Temp. Range	0~60 °C			
External Size(mm)	644x647x1170	690x692x1270	742x743x1340	802x743x1440

- Round angle structure , easy to clean.
- Universal castors for easy movement.
- CFC-free environmental friendly refrigerant.
- Microprocessor PID temperature control: accurate and reliable.
  BOD socket integrated inside for additional small equipment.

Constant Temperature and Humidity Incubator

Manufacture: BioBase

Features:

- The starting up time can be preset.
- Universal castors for easy movement.
- Microprocessor temperature control.
- CFC-free refrigerant with high efficiency.
- Double door design and magnetic door sealing.
- UV lamp for sterilization.

Model	**BJPX-HT150/II**	**BJPX-HT200/II**	**BJPX-HT250/II**	**BJPX-HT300/II**	**BJPX-HT400/II**
Capacity	160L	202L	251L	304L	397L
Temp. Range	0~65°C				
Humidity Range	50~90% RH (±5~8% RH)				
Sterilization Type	UV Lamp				
Consumption	710W	760W	810W	960W	1280W
External Size(mm)	590x620x1400	590x640x1550	620x680x1620	660x690x1720	720x740x1820

- LED display for BJPX-HT series. LCD display for BJPX-HTII series.
- The working chamber adopts round angle structure, easy to clean.

Platelet Incubator

Manufacture: BioBase

Features:

- Power on/off switch, more convenient for operation.
- UV lamp for disinfection, the interlock function for UV lamp and door.
- Microprocessor temperature control, high accuracy sensor, LCD display.
- High efficiency refrigeration system, fast cooling speed and uniformity temperature inside.

BJPX-P10

BJPX-P20

Model	BJPX-P10	BJPX-P20
Capacity	160L	202L
Temp. Range	22±2℃	
Trays	5	10
Blood Bags(450ml)	Max. 10 pcs	Max. 20 pcs
Consumption	197W	280W
External Size(mm)	522x600x1050	522x600x1300

- Double-layer glass observation window, filled with inert gas, to ensure the cooling performance.
- Audio and visual alarm for high/low temperature, sensor error, power failure, door ajar, low battery.

Platelet Incubator

Manufacture: BioBase

Features:

- Audio and visual alarm for high/low temperature, stalling speed.
- Stainless steel inner chamber, round angle structure, easy cleaning.
- UV lamp for disinfection, the interlock function for UV lamp and door.
- Microprocessor control system, LCD display. RS485 interface for software connection.
- High efficiency refrigeration system, fast cooling speed and uniformity temperature inside.
- Double-layer glass observation window, filled with inert gas, to ensure the

cooling performance.

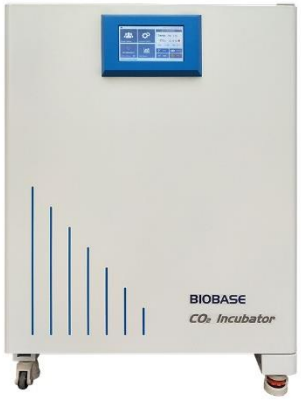
Model	BJPX-P10-II	BJPX-P20-II
Capacity	160L	202L
Temp. Range	22±2℃	
Trays	5	7
Blood Bags(450ml)	Max. 10 pcs	Max. 14 pcs
Consumption	180W	250W
External Size(mm)	540x570x1070	590x620x1370

CO2 Incubator (BJPX-C50II)

Manufacture: BioBase

Features:

- Air jacket: with 90℃ steam sterilization function.
- Equipped with USB port and LCD touch screen, the incubator can save data in real time.
- High quality infrared sensor for accurate CO2 concentration.
- The working chamber adopts round angle structure , easy to clean.



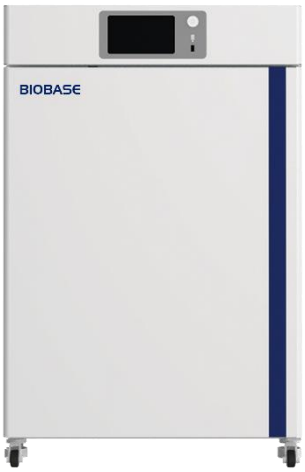
- High quality CO2 gas filter ensures the inside gad quality.
- SMC brand gas circuit valves ensure more stable CO2 concentration and less consumption of CO2 gas.
- Push-pull shelves with holes ensures better temperature uniformity.
- Microcomputer controller, LED displays temperature,CO2 concentration ,run-time and timing.
- Three Liters water reservoir in the bottom chamber ensures high humidity.

Model	**BJPX-C50**	**BJPX-C80**		**BJPX-C160**	
Capacity	50L	80L		160L	
Heating	Air jacket	Air jacket	Water jacket	Air jacket	Water jacket
Temp. Range	RT +5 ~ 60 ℃				
Consumption	350W	600W	875W	650W	1000W
External Size(mm)	500x527x821	600x596x921	648x553x1057	795x835x1255	747x654x1260

Model	**BJPX-C50II**	**BJPX-C80II**	**BJPX-C160II**
Capacity	50L	80L	160L
Heating	Air jacket		
Temp. Range	RT +5 ~ 60 ℃		
Consumption	350W	650W	700W
External Size(mm)	575x632x830	635x683x890	785x783x990

CO2 Incubator (BJPX-C50)

Manufacture: BioBase



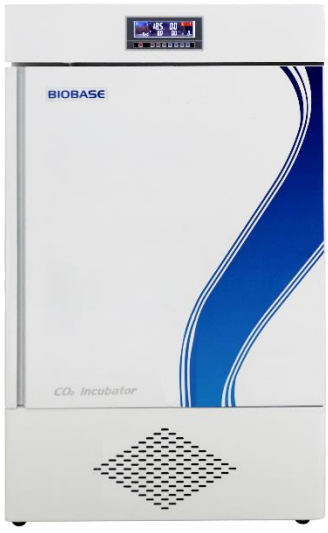
Features:

- Water tank for humidity in the chamber.
- Air jacket:equipped with UV Lamp for sterilizing; Water Jacket : equipped with HEPA filter.

- Equipped with USB port and LCD touch screen, the incubator can save data in real time.
- High quality CO2 gas filter ensures the inside gad quality.
- SMC brand gas circuit valves ensure more stable CO2 concentration and less consumption of CO2 gas.
- Microcomputer controller, LED displays temperature,CO2 concentration ,run-time and timing.
- High quality infrared sensor for accurate CO2 concentration.
- The working chamber adopts round angle structure, easy to clean.

Low Temperature CO2 Incubator

Manufacture: BioBase



Features:

- Air jacket: equipped with cooling and heating function.
- LED display screen, timing segment control procedure.
- High quality infrared sensor for accurate CO2 concentration.

- Three Liters water reservoir in the bottom chamber ensures high humidity.
- The working chamber adopts round angle structure , easy to clean.
- High quality CO2 gas filter ensures the inside gad quality.
- SMC brand gas circuit valves ensure more stable CO2 concentration and less consumption of CO2 gas.
- Push-pull shelves with holes ensures better temperature uniformity.
- Microcomputer controller, LED displays temperature,CO2 concentration ,run-time and timing.

Model	**BJPX-C160III**
Capacity	160L
Heating	Air jacket
Temp. Range	10~60 ℃
CO2 Range	Infrared sensor ,range 0~20%
Consumption	Cooling300W; heating 900W
External Size(mm)	810x748x1320

Constant-Temperature Incubator

Manufacture: BioBase

Features:

- LCD display

- Microcomputer temperature controller.
- Double door design and magnetic door sealing.
- Castors are equipped for easy movement.
- The working chamber adopts round angle structure , easy to clean.

Safety function:

- Over temperature protection, temperature sensor malfunction alarm.
- Parameters can be saved automatically when power off or system error

Model	BJPX-H30	BJPX-H50	BJPX-H80	BJPX-H160	BJPX-H270
Capacity	30L	49L	84L	160L	270L
Temp.Range	RT+5~65℃		RT+5~60℃		
Shelves	2pcs/adjustable		3pcs/adjustable		
Consumption	437W	502W	580W	688W	
External Size(mm)	500x460x720	570x590x850	670x640x1030	770x790x1080	

Constant-Temperature Incubator

Manufacture: BioBase

Features:

Shelves	2pcs/adjustable		3pcs/adjustable		
Consumption	200W	210W	280W	380W	570W
External Size(mm)	610x470x510	510x520x800	580x570x890	680x670x1050	770x780x1150

- Intelligent temperature controller, based on microprocessor with PID parameters controlling function, and LCD display make temperature accurate and reliable.
- The double door makes the temperature fluctuation small. The toughened-glass inner door is convenient to observe chamber condition without affecting chamber temperature.
- The working chamber adopts 304 stainless steel and the round angle structure, easy to clean.

Constant-Temperature Incubator

Manufacture: BioBase

Features:

- Large LED display, multiple groups of data to be displayed at a time; function of timing and over-temperature protection.

- Two-layer toughened-glass observation window

Model	BJPX-H30II	BJPX-H48II	BJPX-H64II	BJPX-H123II	BJPX-H230II
Capacity	30L	45L	65L	125L	230L
Temp.Range	RT+5~80℃				
Shelves	2pcs/adjustable				
Consumption	150W	250W	500W	600W	700W
External Size(mm)	460x510x695	500x550x735	550x550x840	636x680x915	730x670x1220

Model BJPX-H54BK(D/G) BJPX-H88BK(D/G) BJPX-H160BK(D/G)

Touch Screen Constant-Temperature Incubator

Manufacture: BioBase

Features:

- Large LED touch screen.
- D type: with inner glass door.
  G type: with viewing window.

Capacity	54L	88L	160L
Temp.Range	RT+5~65℃		
Shelves	2pcs/adjustable		
External Size(mm)	D type:536x548x681 G type:540x545x590	D type:650x532x793 G type:630x530x695	D type:718x691x890 G type:700x690x810

- Microcomputer controller.
- Stainless steel chamber.

Safety Functions:

- Over temperature alarm.
- Independent limit temperature alarm system.
- Leakage current and over-voltage protector.

Biochemistry Incubator

Manufacture: BioBase

Features:

- BJPX-BI series: LED display.
- BJPX-BII & BIII series: LCD display.
- Built-in printer for BJPX-BII series.
- Polished stainless steel chamber.

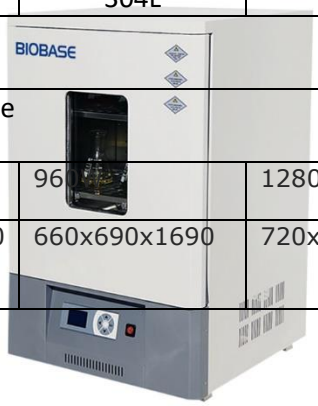
- Round angle structure , easy to clean.
- Universal Castors for easy movement.
- CFC-free eco-friendly refrigerant.
- Microprocessor PID temperature control, accurate and reliable.
- Power socket integrated inside for additional small equipment.

Safety function:

- Temperature protection threshold value can be set.
- Auto-off protection and alarm for abnormal situation.
- Parameters can be saved automatically when power off or system error

Biochemistry Incubator

Model	**BJPX-B80I BJPX-B80II**	**BJPX-B150I BJPX-B150II/III**	**BJPX-B200I BJPX-B200II/III**	**BJPX-B250I BJPX-B250-II/III**	**BJPX-B300I BJPX-B300II/III**	**BJPX-B400I BJPX-B400II/III**
Capacity	80L	160L	202L	251L	304L	397L
Temp.Range	5~50 °C(type II 0~65°C)					
Shelves	2pcs/adjustable	3pcs/adjustable				
Consumption	650W	710W	760W	810W	96	1280W
External Size(mm)	540x570x1070	600x670x1470	590x640x1520	620x680x1590	660x690x1690	720x740x1790



Manufacture: BioBase

Features:

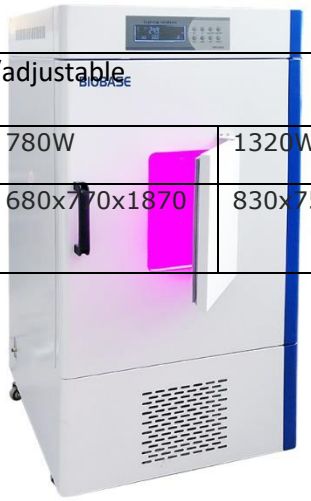
- LCD display.
- Polished stainless steel chamber.
- Round angle structure, easy to clean.

- CFC-free eco-friendly refrigerant.
- Double-layer glass observation window design.
- Microprocessor PID temperature control, accurate and reliable.
- Universal castors for easy movement (except the model BJPX-B70/100GK)

Safety function:

- Temperature protection threshold value can be set.
- Auto-off protection and alarm for abnormal situation.
- Parameters can be saved automatically when power off or system error.

Model	BJPX-B70GK	BJPX-B100GK	BJPX-B150GK	BJPX-B250GK	BJPX-B350GK	BJPX-B450GK
Capacity	70L	100L	150L	250L	350L	450L
Temp.Range	4~60 °C					
Shelves	2pcs/adjustable		3pcs/adjustable			
Consumption	660W	680W	690W	730W	780W	1320W
External Size(mm)	500x500x890	610x580x940	630x600x1450	680x660x1710	680x770x1870	830x750x1860



Lighting Incubator

Manufacture: BioBase

Features:

- Large LCD screen.
- Forced-air convection.
- Microprocessor controller.
- Universal casters with lock for easy movement.
- Double door design, outer door is with viewing window.

- Polished stainless steel chamber.

Safety Functions:

- Over temperature alarm.
- Independent limit temperature alarm system.
- Leakage current and over-voltage protector.

Model	**BJPX-L200BK**
Capacity	200L
Lighting Type	LED cold light source
Temp. Range	With illumination: 10~60 °C, Without illumination: 5~60 °C
Lighting Illumination	0~12000 Lux (5-grade adjustable)
Refrigerant	R134a (CFC free)
Shelves	Standard: 2pcs
Heating Power	900W
Cooling Power	300W
Power Supply	AC220V ±10%,50Hz
External Size(mm)	760x750x1500

Small Capacity Thermostatic Shaking Incubator

Manufacture: BioBase

Features:

- Soft shaking mode, stable and reliable operation.
- Audio and visual alarm for over-temperature, PID controller.
- Adopting unique design to ensure the tank cover can open and close steadily.
- With the function of memory and recovery, avoid the cumbersome operation.

- Large LCD Display with back light can display both the setting parameters and the measured arameters
- Big toughened glass window, can observe the working condition completely.
- Optional accessories: nlet air pipe, UV lamp

Stacked Large Capacity Shaking Incubator

Manufacture: BioBase

Features:

- Audio and visual alarm function.
- Advanced unishaft drive, low noise.
- Eight self-compiled programs, with different speed and time setting.

Model	**BJPX-103B**	**BJPX-100B**	**BJPX-200B**
Temp. Range	RT+5~60℃		4℃~60℃
Shaking Plate Size	260x260 mm	400x370mm	420x400 mm
Standard Capacity	Universal spring clamp	50mlx4 100mlx4 250x3 500mlx3	50mlx5 100mlx5 250x4 500mlx3
Max. Capacity	100mlx9 or 50x9 or 250mlx5	50mlx16 or 100mlx16 or 250x12 or 500mlx9 or 1000x5	50mlx24 or 100mlx25 or 250x16 or 500mlx9 or 1000x5 or 2000mlx5
Consumption	280W	490W	580W
External Size(mm)	440x420x420	610x610x510	700x740x560

- Shaking plate is made of electroplating aluminum, anti-rust or anti-corrosion.

- Automatic operation, auto-stop, timing, time display, parameters memory and recovery function.
- Automatic power-off protection system when the motor is overheating and temperature is out of control.
- Accessories: UV lamp (standard accessories); Humidity controller, Inlet air pipe, Light system (optional accessories).

Model	**BJPX-2012**	**BJPX-100B**
Temp. Range	RT+5~60℃	4~60℃
Shaking Plate Size	780*480mm	
Standard Capacity	250ml*40	
Max. Capacity	2000ml*12 or 1000ml*15or 500ml*28 or 250ml*40	
Consumption	960W	1120W
External Size(mm)	1150*780*640	

Vertical Type Shaking Incubator (Single Door & Double Layer)

Manufacture: BioBase

Features:

- Audio and visual alarm.

- Power off recovery function.
- Soft shaking mode, stable and reliable operation.
- Efficient drive motor and cooling controller, low energy consumption.
- Transparent window and built-in lighting design convenient for observation samples.
- Accessories: UV lamp (standard accessories); Humidity controller, Inlet air pipe, Light system (optional accessories).

Model	**BJPX-1102C**	**BJPX-2102C**
Temp. Range	RT+5~60℃	4~ 60℃
Shaking Plate Size	500*350mm	
Standard Capacity	500ml*12 ,250ml*15	
Max. Capacity	1000ml*12 or 500ml*24 or 250ml*30 or 100ml*48 or 50ml*48	
Consumption	600W	830W
External Size(mm)	700*600*1250	

Large Capacity Vertical Type Shaking Incubator (Double Door & Double Layer)

Manufacture: BioBase

Features:

- Audio and visual alarm.
- Power off recovery function.

- Soft shaking mode, stable and reliable operation.
- Efficient drive motor and cooling controller, low energy consumption.
- Transparent window and built-in lighting design convenient for observation samples.
- Accessories: UV lamp (standard accessories); Humidity controller, Inlet air pipe, Light system (optional accessories).

Model	**BJPX-1102**	**BJPX-2102**
Temp. Range	RT+5~60℃	4~ 60℃
Shaking Plate Size	734x464 mm	
Standard Capacity	500mlx22, 250mlx28	
Max. Capacity	1000mlx24 or 500mlx44 or 250mlx56 or 50mlx104	
Consumption	930W	1200W
External Size(mm)	950x740x1400	

Mould Incubator

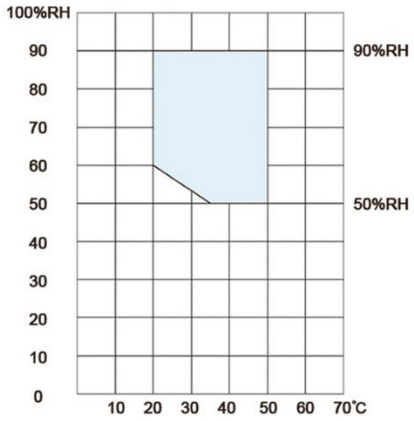
Manufacture: BioBase

Features:

- Cooling/heating automatic control.
- There is power socket in the chamber, and UV lamp for sterilization.
- The body and chamber adopts round angle strucure, easy to learn.

- International famous compressor, CFC free refrigerant, high effecient and low energy comsumption.
- Double door design and magnetic door sealing.

Model	BJPX-M150	BJPX-M200	BJPX-M250	BJPX-M300	BJPX-M400
Capacity	160L	202L	251L	304L	397L
Temp. Range	5~50℃				
Temp. Fluctuation	±1 ℃				
Shelves	3 pcs/adjustable				
Consumption	710W	760W	810W	960W	1280W
Standard Accessory	Humidifying plate				
External Size(W*D*H)mm	600x670x1470	590x640x1520	620x680x1590	660x690x1690	720x740x1790



Climate Incubator BJPX-A Series

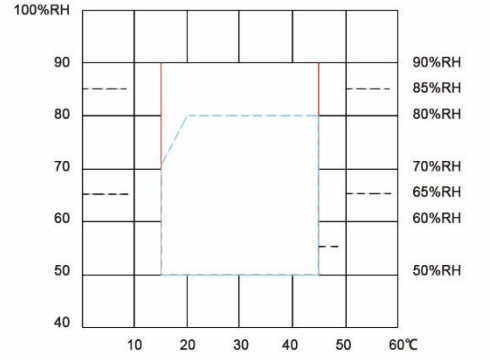
Manufacture: BioBase

Safety function:

- Over temperature protection.
- Temperature sensor for open circuit or short circuit protection.
- Auto-off protection and alarm for abnormal situation.
- Parameters can be saved automatically when power off or system error.

Features:

- Microprocessor PID control, accurate and stable.
- Magnetic door sealing.
- The three sides special glasses ensure good heat insulating ability and desired light intensity.
- CFC-free refrigerant, eco-friendly and highly efficient.



Temperature/Humidity area table.
Blue area: Illumination on, 18~45°C/50%~80%RH
Red area: Illumination off, 14~45°C/50%~90%RH

Climate Incubator BJPX-A(II) Series

Manufacture: BioBase

Safety function:
- Over temperature protection.
- Temperature sensor for open circuit or short circuit protection.
- Auto-off protection and alarm for abnormal situation.
- Parameters can be saved automatically when power off or system error.

Model	**BJPX-A250**	**BJPX-A300**	**BJPX-A400**
Capacity	250L	300L	400L
Temp. Range	With illumination: 10~50 °C, Without illumination: 5~50 °C		
Consumption	1000W	1500W	2000W
External Size(mm)	880x670x1820	900x660x1920	1000x730x1870

Features:

- Microprocessor PID control, accurate and stable.
- Magnetic door sealing.
- LED display for BJPX-A series, LCD display for BJPX-AII series.
- CFC-free refrigerant, eco-friendly and highly efficient.
- The three sides special glasses ensure good heat insulating ability and desired light intensity.
- Auto defrost without influence on the inner temperature

Lighting Incubator BJPX-L Series

Model	**BJPX-A250/II**	**BJPX-A300/II**	**BJPX-A350II**	**BJPX-A400II**
Capacity	255L	298L	350L	403L
Temp. Range	With illumination: 10~50 °C, Without illumination: 5~50 °C			
Consumption	2400W	2900W	1640W	3000W
External Size(mm)	665x765x1820	685x780x1920	780x780x1900	755x905x1840

Manufacture: BioBase

Safety function:

- Over temperature protection.
- Temperature sensor for open circuit or short circuit protection.
- Auto-off protection and alarm for abnormal situation.
- Parameters can be saved automatically when power off or system error.

Features:
- Microprocessor PID control, accurate and stable.
- Magnetic door sealing.
- The three sides special glasses ensure good heat insulating ability and
  desired light intensity.
- CFC-free refrigerant, eco-friendly and highly efficient.

Model	**BJPX-L150**	**BJPX-L250**	**BJPX-L300**	**BJPX-L400**
Capacity	150L	250L	300L	400L
Temp. Range	With illumination: 10~50 °C, Without illumination: 5~50 °C			
Consumption	1000W	1500W	2000W	2500W
External Size(mm)	730x580x1570	665x765x1820	680x780x1920	755x905x1840

Lighting Incubator BJPX-L(Ⅱ) Series

Manufacture: BioBase

Safety function:

- Over temperature protection.
- Temperature sensor for open circuit or short circuit protection.
- Auto-off protection and alarm for abnormal situation.
- Parameters can be saved automatically when power off or system error.

Features:

- Microprocessor PID control, accurate and stable.
- Magnetic door sealing.
- LED display for BJPX-L series, LCD display for BJPX-LII series.
- CFC-free refrigerant, eco-friendly and highly efficient.
- The three sides special glasses ensure good heat insulating ability and desired light intensity.

Model	**BJPX-L150/II**	**BJPX-L250/II**	**BJPX-L300/II**	**BJPX-L400/II**	**BJPX-L450/II**
Capacity	164L	255L	298L	403L	450L
Temp. Range	With illumination: 10~50 °C, Without illumination: 5~50 °C				
Consumption	1000W	1500W	2000W	2500W	1750W
External Size(mm)	615x725x1570	665x765x1820	685x780x1920	755x905x1840	1030x780x1900

Ovens

Ovens model: MO-OOV 80/150/250

Manufacture: MoonMed

MoonMed ovens have been trusted by the most technology advanced leading biotechnology, pharmaceutical, academic, industrial and clinical laboratories. Our solutions deliver the performance, quality and reliability required by researchers and clinicians worldwide. Since this year our ovens are equipped with a 3.5" color touchscreen HMI which allows you to set all the basics in a minimum of actions. No matter if you do ageing of computer chips, drying or tempering of electronic components, hardening plastic resin or heating plasticine etc. our ovens are adaptable despite the type of test you may require. Our ovens are precise with an even control of temperature.

Model	**MO-OOV-80**	**MO-OOV-150**	**MO-OOV-250**
External Dimensions: (WxDxH) mm	575x583x855	625x635x1055	725x765x1115
Capacity	80L	150L	250L
Temperature Range	Ambient RT +5°C to 220°C(250°max for 1 Hr)		
Heating : Watts	1600W	2000W	2500W

Drying Oven

Manufacture: N-Biotek

- Digital PID Controller
- Auto-tuning function
- Secure safety device
- Simple operation
- Glass door to observe inside of the chamber
- 10 step Programmable Controller (option)
- Fast drying and precise warm-air flow type (NB-901M)
- Natural air flow type (NB-902N) is suitable for optimum drying
- Compact size to save space and energy (NB-901S)

Model	**NB-901M**	**NB-901S**	**NB-902N**
Type	Mechanical Convection	Mechanical Convection	Natural Convection
Temp. Range	Ambient +5 to 220 C°		
Capacity	172 liter	48 liter	150 liter
Dimension Internal	550x520x600mm	380x310x410mm	510x500x600mm
Dimension External	710x725x920mm	540x565x710mm	685x650x1000mm

High Temperature Drying Oven

Manufacture: BioBase

Features:

- Mirror stainless steel inner chamber.
- Optionla test hole diameter 50mm on the left side.
- Optional independent temperature protector.
- Optional RS485 interface for software connection.

Model	**BOV-H50F**	**BOV-H90F**	**BOV-H216F**
Capacity	50L	100L	216L
Temp.Range	50~400℃		
Consumption	2500W	3000W	4500W
External Size (W*D*H)mm	810x640x640	900x710x710	1060x860x860

Vacuum Drying Oven

Manufacture: BioBase

Features:

- PID microprocessor temperature control with LED display.
- Polished stainless steelinnerchamber.
- Vacuum degree is automatically controlled (for BOV-90V/BOV-215V/ BOV- 90VL/ BOV-215VL)
- Silicon rubber seal ring ensures the high vacuum degree in the chamber.
- Tempered double-layer glass door ensures the operation safety.
- The vacuum is controlled by microprocessor controller with digital display .(for BOV-90VL/BOV-215VL)
- The working program can be cycled for 99 times. (for BOV-90VL/BOV-215VL)
- The vacuum pump is standard accessory (for BOV-90V/BOV-215V/ BOV-90VL/BOV-215VL)
- Inert gas can be filled in the chamber. (Inert gas pressure is not higher than 0.1Mpa when filling in). (for BOV-90VL/BOV-215VL)

Model	**BOV-30V**	**BOV-50V**	**BOV-90V**	**BOV-215V**	**BOV-90VL**	**BOV-215VL**
Capacity	30L	54L	91L	215L	91L	215L
Temp.Range	50~200°C	50~250°C	50~200°C			
Shelves No.	1 pcs	2 pcs	2 pcs	3 pcs	2 pcs	3 pcs
Consumption	500W	1400W	1600W	2200W	1600W	2200W
External Size (W*D*H)mm	296x300x270	416x370x346	450x450x450	556x600x640	450x450x450	556x600x640

Biological Safety Cabinet

Biosafety Cabints Type A2

(Microbiological Safety Cabinets)

Manufacture: EF-LAB

The Class 2 Biological Safety cabinet must meet personnel, environmental and product protection requirements. The air flow is drawn into the working room through the front opening and continues under the bench and exits to the back plenum, where 70% is recirculated through the main HEPA filter and 30% comes out of the HEPA filter exhaust. Vertical laminar flow Biological Safety Cabinet provides operator protection

he Biological Safety Cabinet is equipped with double HEPA filters according to European standard EN 12469. It can also be produced with triple filters according to DIN 12980. The triple HEPA filter system ensures that cross-contamination is eliminated as the air in the working room must pass through two main sets of HEPA filters.

This makes the triple filter cabinet the ideal cabinet choice for working with hazardous materials such as cytostatics, virus manipulation and category 3 pathogens. The triple filter Biological Safety Cabinet is easier to service since no decontamination was required before.

A2 Biological Safety Cabinet

Downstream with HEPA filter.

70% of the air is recirculated in the cabin.

30% of the HEPA filtered air is discharged into the laboratory or outside atmosphere either through a ferrule duct connection.

The biologically contaminated plenum is surrounded by negative pressure or surrounded by negative pressure.

Biosafety Cabints Type B2
(Microbiological Safety Cabinets)

Manufacture: EF-LAB

Type B2 Biosafety Cabinets provide personnel, product and environmental protection from hazardous particles, such as substances that require Biosafety Level 1, 2 or 3 enclosures. Other suitable applications include working with antineoplastic drugs, genetic material, asbestos and additional substances that form dangerous airborne particles.

Type B2 Biosafety Cabinets have the same airflow pattern to provide personnel and product protection. These biological safety cabinets are designed to have hard ducts outside. During operation, room air is drawn into the top of the cabinet and through a supply HEPA filter. This filtered air flows down the work area. Room air is also drawn into the inlet grille at the working access opening. All contaminated air passes through the exhaust HEPA filter. A special exhaust system and remote blower evacuates 100% of filtered exhaust air from the laboratory.

- Air flow: 100% Exhaust
- Touch Electronic Control System
- HEPA Filters
- Production in accordance with 12469 Standart
- On the touch control panel, filter life time, UV life time, glass on-off, fan controls, fan efficiencies, condition of the windshield barriers, all alarms, UV countdown timing, device total working time, the ability to follow on the PLC touch screen
- Production is done in desired dimensions
- Standard production dimensions 90cm, 120cm, 150cm, 180cm

NSF Certified Class II A2 Biological Safety Cabinet

Manufacture: BioBase

Three protection: operator, sample and environment.
Airflow system: 70% air recirculation, 30% air exhaust
A2 Cabinet is suitable for working with microbiological research in
the absence of volatile or toxic chemicals and radionuclide.

Model	**BSC-4FA2(4')**	**BSC-3FA2-GL(3')** **BSC-3FA2-NA(3')**	**BSC-4FA2-GL(4')** **BSC-4FA2-NA(4')**	**BSC-6FA2-GL(6')** **BSC-6FA2-NA(6')**
External Size (W*D*H)mm	1383x775x2295	1087x775x2265	1383x775x2295	1873x775x2295
Tested Opening	Safety height 200mm (8'')	Safety height 254mm (10'')	Safety height 254mm (10'')	Safety height 254mm (10'')
Consumption	400W	300W	400W	500W
UV Lamp	30W	18W	30W	40W
	Germicidal UV lamp, Emission of 253.7 nanometers for most efficient decontamination			
Illuminating Lamp	18Wx2	10Wx2	18Wx2	22Wx2
	LED Lamp			

Biological safety cabinet

Manufacture: BioBase

Three protection: operator, sample and environment. Airflow system: 70 % air recirculation, 30% air exhaust A2 Cabinet is suitable for working with microbilogical research in the absence of working with microbiological research in the absence of vola tile or toxic chemicals and radionuclide.

Model	**11231 BBC 86**
External Size (W*D*H)	700x650x1230 mm
ULPA Filter	Two, 99.9995% efficiency at 0.12µm. Filter life indicator.
UV Lamp	30W*1
	UV timer, UV life indicator, emission of 253.7 nanometers for most efficient decontamination
LEDLamp	8W*2
Illumination	≥1000Lux
Consumption	500W
Control System	Microprocessor
Airflow System	70% air recirculation,30% air exhaust
Visual and AudioAlarm	Filter replacement, window over height, abnormal air flow velocity
Work Surface Height	750mm with optional base stand
Power Supply	AC220V±10%, 50/60Hz; 110V±10%, 60Hz
Standard Accessory	LEDlamp, UV lamp*2,Remote control, Waterproof sockets*2

B2 Biological Safety Cabinet

Manufacture: BioBase

Three protection: operator, sample and environment.
Airflow system: 0 % air recirculation, 100% air exhaust
A Class II B2 BSC, also called a total exhaust cabinet, is necessary when significant amounts of radionuclides and volatile chemicals are expected to be used.

Model	**BSC-1100IIB2-X**	**BSC- BSC-1300IIB2-X**	**BSC-1500IIB2-X**	**BSC-1800IIB2-X**
External Size (W*D*H)mm	940x600x660 mm	1150x600x660 mm	1350x600x660 mm	1700x600x660 mm
Consumption	700W	850W	900W	1200W
UV Lamp	30Wx1	30Wx1	40Wx1	40Wx1
	UV timer, UV life indicator, emission of 253.7 nanometers for most efficient decontamination.			
Illuminating Lamp	12Wx2	14Wx2	16Wx2	16Wx2
	LED Lamp	LED Lamp	LED Lamp	LED Lamp

Class III Biological Safety Cabinet

Manufacture: BioBase

Class III Biosafety Cabinet is totally enclosed and gas-tight with ULPA filtered supply and exhaust air. Work is performed with long-sleeved gloves. The cabinet is kept under negative pressure of at least 120Pa,
and airflow is maintained by a dedicated exterior exhaust system. It can protect the operator, product and environment.

Model	**BSC-1100IIIX**	**BSC-1500IIIX**
External Size (W*D*H)mm	1540x880x2000 mm	1790x880x2080 mm
Consumption	1200W	1300W
UV Lamp	18W*2 ,8W*1	30W*2, 8W*1,
	Emission of 253.7 nanometers for most efficient decontamination	

EN Certified Biological Safety Cabinet

Manufacture: BioBase

Three protection: operator, sample and environment.
Airflow system: 70% air recirculation, 30% air exhaust
A2 Cabinet is suitable for working with microbiological research in the absence of volatile

Model	**BSC-3FA2 (3')**	**BSC-4FA2(4')**
External Size (W*D*H)mm	1087X775X2265mm	1383×775×2295mm
Consumption	1200W	1300W
Tested Opening	Safety height 200mm (8'')	
Consumption	≤500W	≤600W
UV Lamp	'18	30w
	Germicidal UV lamp, Emission of 253.7 nanometers for most efficient decontamination	
Fluorescent lamp	21Wx2	28Wx2

or toxic chemicals and radionuclide

Cytotoxic Safety Cabinet

Manufacture: BioBase

BIOBASE Cytotoxic Safety Cabinet is the premium solution for cytotoxic / antineoplastic drug

Model	**11224BBC86**	**11234BBC86**
External Size (W*D*H)mm	1087x760x2100mm	1380x760x2100mm
Internal Work Area,space	0.55m3	0.73m3

processing, providing the highest level of patient, pharmacist and environmental protection.
The unique demands of handling and preparing cytotoxic drugs for use in chemotherapy require a specialized cabinet.

Tested Opening	Safety height 200mm (8'')	
Exhaust Volume	347m3/h (204cfm)	465m3/h (273cfm)
UV Lamp	18Wx1	30Wx1
	Emission of 253.7nanometers for most efficient decontamination	
LEDLamp	12Wx2	16Wx2
Consumption	700W	900W

Class I Biological Safety Cabinet-BYKG -I/II

Manufacture: BioBase

1. Class I Biosafety Cabinet does not protect the product from contamination because un-purified room air constantly enters into work area.
2. As a partical containment unit, the Class I Biosafety Cabinet is suitable for work involving low to moderate risk agents (Biosafety Levels 1, 2 and 3) where there is a need for containment, but not for product protection.
3. Unlike conventional fume hood, the HEPA filter in the Class I Biosafety Cabinet protects the environment by filtering air before it is exhausted.
4. With the negative pressure, personnel protection is

made possible by constant movement of air into the work area.

Model	BYKG-I	BYKG-II
External Size (W*D*H)mm	550x395x730	700x550x900
HEPA Filter	99.999% efficiency at 0.3 µm	
Illuminating Lamp	4W*1 LED Lamp	8W*1 LED Lamp
Consumption	150W	160W
UV Lamp	15W*1	20Wx1
	Emission of 253.7 nanometers for most efficient decontamination	

NSF Certified Class II B2 Biological Safety Cabinet

Manufacture: BioBase

1. Motorized front window.
2. ULPA filter life and UV life indicator.
3. Automatic air speed adjustable with filter block.

4. With memory function in case of power-failure.
5. Remote control. All function can be realized with it, making the operation much easier and more convenient.
6. Interlock function: UV lamp and front window, UV lamp and blower, fluore scent lamp.

Model	**BSC-4FA2(4')**	**BSC-3FA2-GL(3') BSC-3FA2-NA(3')**	**BSC-4FA2-GL(4') BSC-4FA2-NA(4')**	**BSC-6FA2-GL(6') BSC-6FA2-NA(6')**
External Size (W*D*H)mm	1383x775x2295	1087x775x2265	1383x775x2295	1873x775x2295
Tested Opening	Safety height 200mm (8'')	Safety height 254mm (10'')	Safety height 254mm (10'')	Safety height 254mm (10'')
Consumption	400W	300W	400W	500W
UV Lamp	30W	18W	30W	40W
	Germicidal UV lamp, Emission of 253.7 nanometers for most efficient decontamination			
Illuminating Lamp	18Wx2	10Wx2	18Wx2	22Wx2
	LED Lamp			

Class I Biological Safety Cabinet-BYKG-III

Manufacture: BioBase

1. Class I Biosafety Cabinet does not protect the product from contamination because un-purified room air constantly enters into work area.
2. As a partical containment unit, the Class I Biosafety Cabinet is suitable for work involving low to moderate risk agents

(Biosafety Levels 1, 2 and 3) where there is a need for containment, but not for product protection.
3. Unlike conventional fume hood, the HEPA filter in the Class I Biosafety Cabinet protects the environment by filtering air before it is exhausted.
4. With the negative pressure, personnel protection is made possible by constant movement of air into the work area.

Model	**BYKG-III**
External Size(W*D*H)	900x713x1250mm
HEPA Filter	99.999% efficiency at 0.3 μm
Illuminating Lamp	8W*1 LED Lamp
UV Lamp	20W*1
	Emission of 253.7 nanometers for most efficient decontamination BYKG-III has UV timer function and the display could indicate the UV life.
Power Consumption	≤400W
Power Supply	AC220V±10%,50/60Hz;110V±10%,60Hz
Standard Accessory	LED lamp, UV lamp*2

Fume Hood

Fume Hood

Manufacture: EF-LAB

2 x 230V 50Hz electrical socket
Water tap with control valve from front panel
Ventilated under-cabinet cupboard made of steel, coated with chemically resistant epoxy paint, connected to the hood ventilation system,
PP sink 280x80mm
study room lighting
air flow sensor
Acid-resistant PP Fan

Automatic controlled upward opening window
Tempered 6mm safety glass

FH700 Ducted Fume Hood

Manufacture: BioBase

Fume Hood FH700: Negative pressure in work area protects operator and environment.

1. Folding acrylic front window, down part with free stop function.
2. Microprocessor control system, LED display.
3. With memory function in case of power-failure.
4. Built-in centrifugal blower.

5. Interlock function: UV lamp and blower, LED lamp (Only for choosing UV lamp).

Note: Experiments with strong acids and alkali, flammable or explosive substances cannot be conducted with this type fume hood.

Model	Model	FH1000(C)	FH700	FH1200(C)	FH1500(C)	FH1800(C)
External Size (W*D*H)	External Size(W*D*H)	1000x880x2140mm	700x620x1150mm	1200x880x2140mm	1500x940x2140mm	1800x940x2140mm
	Internal Size(W*D*H)	640x550x700mm				
Max Opening		660mm				
Air Velocity		0.3~0.8m/s				
Noise		≤60dB（A）				
LED Lamp		4W *2				
Blower		Built-in centrifugal blower; Speed adjustable				
Front Window		Folding acrylic window, down part with free stop function				
Material	Main Body	1.0mm cold-rolled steel with bacteria power coating				
	Work Table	Chemical resistant phenolic resin				
	Back&Side Windows	5mm toughened glass				
Consumption		200W				

Air Velocity	0.25~0.35m/s		
Airflow Volume	105m3/h	325m3/h	415m3/h
Fluorescent Lamp	16Wx2	16Wx3	
Consumption	400W	500W	
Chemical Filter	2pcs	4 pcs	

Ductless Fume Hood

Manufacture: BioBase

1. LCD Touch screen control panel, easy to operate.
2. With memory function in case of power-failure
3. 8°slope front ergonomics design, fatigue-free working posture.
4. Temperature and humidity sensors, can detect indoor temperature and humidity.
5. Three side transparent Acrylic windows, front window reversal design, easy to operate.
6. Double-layers structure: 1mm sheet metal surface; Chemical resistant phenolic resin work table.
7. Electronic control system, anti-overload, anti-electric shock, stable performance, long service life.
8. Inside and outside probe, detect indoor air pollution and filter conditions. Audible and visual alarm for changing filter.

Ducted Fume Hood

Manufacture: BioBase

Fume Hood is used to protect lab environment and operator during general chemical applications. It actively protects operator from inhaling toxic vapors and dramatically reduces the risk of fire and explosion. By installing proper filter, it can also protect environment

1. UV lamp for sterilization.
2. Resistant to weak acid and alkali.
3. Adjustable air speed: 9 levels
4. Motorized front window, height adjustable.
5. Microprocessor control system, LED display.
6. With memory function in case of power-failure.

Model	**FH1000(A)**	**FH1200(A)**	**FH1500(A)**	**FH1800(A)**
External Size (W*D*H)	1040x800x2200mm	1240x800x2200mm	1540x800x2200mm	1840x800x2200mm
Air Velocity	0.3~0.8m/s			
Fluorescent Lamp	8Wx1	12Wx1	16Wx1	16Wx1
Consumption	400W		500W	
Chemical Filter	2pcs		4 pcs	

FH(X) series Fume Hood

Manufacture: BioBase

Fume Hood is used to protect lab environment and operator during general chemical applications .It actively protects operator from inhaling toxic vapors and dramatically reduces the risk of fire and explosion. By installing proper filter, it can also protect environment.

1. UV Lamp for sterilization.
2. Motorized front glass window.
3. Adjustable air speed: 9 levels.
4. Alarm when filter working time 3500 hours.
5. With air velocity memory function in case of power failure.
6. Back side air compensation, to avoid turbulence in work area.
7.10°slope front ergonomics design, fatigue-free working posture.
8. Microprocessor control system, LED display.LED display filter working time.
9. Transparent side glass windows maximize light and visibility inside the cabinet, providing a bright and open working environment.

Model	**FH1000(X)**	**FH1200(X)**	**FH1500(X)**	**FH1800(X)**
External Size (W*D*H)	1000x840x2150mm	1200x840x2150mm	1500x840x2150mm	1800x840x2150mm
Air Velocity	0.3~0.8m/s			
Led Lamp	8Wx1	12Wx1	16Wx1	16Wx1
Consumption	400W		500W	
Waterproof Socket	1 pcs	2pcs	2pcs	2 pcs

FH(E) series Fume Hood

Manufacture: BioBase

Fume Hood is used to protect lab environment and operator during general chemical applications. It actively protects operator from inhaling toxic vapors and dramatically reduces the risk of fire and explosion. By installing proper filter, it can also protect environment.

1. Adjustable air speed: 9 levels.
2. Microprocessor control system, LED display.
3. Resistant to moderate acid and alkali.
4. With memory function in case of power-failure.
5. Manual front glass window, height adjustable.
6.Built-in PP centrifugal blower; low noise, easy installation.

Model	**FH1000(E)**	**FH1200(E)**	**FH1500(E)**	**FH1800(E)**
External Size (W*D*H)	1000x800x2515mm	1200x800x2515mm	1500x800x2515mm	1800x800x2515mm
Air Velocity	0.3~0.8m/s			
System Exhaust Volume	570 m3/h	710 m3/h	930 m3/h	1140 m3/h
Led Lamp	8Wx1	12Wx1	16Wx1	16Wx1
Consumption	400W		500W	

FH(P) series Fume Hood

Manufacture: BioBase

Fume Hood is used to protect lab environment and operator during general chemical applications. It actively protects operator from inhaling toxic vapors and dramatically reduces the risk of fire and explosion. By installing proper filter, it can also protect environment.

1.It is safer to use anti-corrosive water tap.
2.Microprocessor control system, LED display
3.With memory function in case of power-failure
4.Made of porcelain white PP, resistant to acid, alkali and anti-corrosion.
5.Front window which is made of thick transparent toughened glass maximize light and visibility inside the fume hood, providing a bright and open working environment.

Model	**FH1000(P)**	**FH1200(P)**	**FH1500(P)**	**FH1800(P)**
External Size (W*D*H)	1047x800x2450mm	1247x800x2450mm	1547x800x2450mm	1847x800x2450 mm
Air Velocity	0.3~0.8m/s			
Led Lamp	12Wx1	30Wx1	30Wx2	36Wx1
Consumption	330W	360W	360W	360W

Fume Hood Model : MO-HF 900/1200/1500/1800

Manufacture: MoonMed

Our fume hood is built with unplasticised poly vinyl chloride (u-PVC) internal surfaces (including the work surface) and a polycarbonate sash window. Acid digestion applications use very concentrated acids. Therefore u-PVC interior liner is utilized due to its superior chemical resistance. We use a polycarbonate sash, as glass is easily etched by hydrofluoric acid which is a common acid used in basic applications.

Model	External Dimension	Internal Dimension
MO-HF-900	900x750x2350	700x580x1300
MO-HF-1200	1200x750x2350	1000x580x1200
MO-HF-1500	1500x750x2350	1300x580x1200
MO-HF-1800	1800x750x2350	1600x580x1200

Laminar Flow Cabinet

BBS-H1300&BBS-H1800 Horizontal Laminar Flow Cabinet

Manufacture: BioBase

Laminar Flow Cabinet –sample protection only
Laminar Flow Cabinet is a work bench or similar enclosure, which creates a particle-free working environment by taking air through a filtration system and exhausting it across a work surface in a laminar or unidirectional air stream. The laminar flow cabinet is enclosed on the sides and kept under constant positive pressure in order to prevent the infiltration of contaminated room air. Laminar flow cabinet is widely used in medical research laboratories, hospitals, manufacturing facilities and other research and production environments.

Model	**BBS-H1300**	**BBS-H1800**
External Size (W*D*H)mm	1300x820x2040	1800x820x2070
UV Lamp	30Wx1	30Wx1
	Emission of 253.7 nanometers	
Consumption	400W	500W

BBS-H1100&BBS-H1500 Horizontal Laminar Flow Cabinet

Manufacture: BioBase

Laminar Flow Cabinet –sample protection only
Laminar Flow Cabinet is a work bench or similar enclosure, which creates a particle-free working environment by taking air through a filtration system and exhausting it across a work surface in a laminar or unidirectional air stream. The laminar flow cabinet is enclosed on the sides and kept under constant positive pressure in order to prevent the infiltration of contaminated room air. Laminar flow cabinet is widely used in medical research laboratories, hospitals, manufacturing facilities and other research and production environments.

Model	**BBS-H1100**	**BBS-H1500**	**BBS-H1800(X)**
External Size (W*D*H)mm	1100x808x1690	1500x808x1690	1800x808x1890
UV Lamp	20Wx1	30Wx1	20Wx2
	Emission of 253.7 nanometers		
Consumption	200W	300W	400W

BBS-V1300&BBS-V1800 Vertical Laminar Flow Cabinet

Manufacture: BioBase

Laminar Flow Cabinet is a work bench or similar enclosure, which creates a particle-free working environment by taking air through a filtration system and exhausting it across a work surface in a laminar or unidirectional air stream. The laminar flow cabinet is enclosed on the sides and kept under constant positive pressure in order to prevent the infiltration of contaminated room air.
Laminar flow cabinet is widely used in medical research laboratories, hospitals, manufacturing facilities and other research and production environments.

Model	**BBS-V1300**	**BBS-V1800**
External Size (W*D*H)mm	1300x750x2040	1800x750x2040
UV Lamp	30Wx1	40Wx1
	Emission of 253.7 nanometers	
Consumption	400W	450W

Vertical Laminar Flow Cabinet

Manufacture: BioBase

Laminar Flow Cabinet is a work bench or similar enclosure, which creates a particle-free working environment by taking air
through a filtration system and exhausting it across a work surface in a laminar or unidirectional air stream. The laminar flow cabinet is enclosed on the sides and kept under constant positive pressure in order to prevent the infiltration of contaminated room air.
Laminar flow cabinet is widely used in medical research laboratories, hospitals, manufacturing facilities and other research and production environments.

Model	**BBS-V680**	**BBS-V800**	**BBS-DDC**	**BBS-SDC**
External Size (W*D*H)mm	680x410x1160	802x650x1550	1040x615x1770	1440x615x1770
Illuminating Lamp	Fluorescent Lamp 8Wx1	LED Lamp 8Wx1	LED Lamp 12Wx1	LED Lamp 16Wx1
UV Lamp	15Wx1	20Wx1	18Wx1	30Wx1
	Emission of 253.7 nanometers			
Consumption	160W	350W	350W	600W

Vertical Laminar Flow Cabinet-Double Sides Type

Manufacture: BioBase

Laminar Flow Cabinet is a work bench or similar enclosure, which creates a particle-free working environment by taking air through a filtration system and exhausting it across a work surface in a laminar or unidirectional air stream. The laminar flow cabinet is enclosed on the sides and kept under constant positive pressure in order to prevent the infiltration of contaminated room air.
Laminar flow cabinet is widely used in medical research laboratories, hospitals, manufacturing facilities and other research and production environments.

Model	**BBS-DSC**	**BBS-SSC**
External Size (W*D*H)mm	1040x660x1770	1440x660x1770
UV Lamp	18Wx1	16Wx1
Consumption	350W	600W

Compounding Hood

Manufacture: BioBase

There are two types:
Vertical laminar flow cabinet BBS series, positive pressure in work area only protects sample.
Class I biological safety cabinet BYKG series, negative pressure in work area protects operator and environment.

1.Air speed adjustable.
2. Tabletop type, easy to carry and save space.
3. Microprocessor control system, LED Display.
4.HEPA Filter with efficiency:99.999% at 0.3 μm.

Model	**BBS-V500**	**BYKG-VII**	**BBS-V600**	**BYKG-VIII**	**BBS-V700**	**BYKG-IX**	**BYKG-X**	**BYKG-XII**
External Size (W*D*H)mm	550x460x700		600x581x1115		700x620x1150		1000x620 x1150	1200x620 x1150
Filter	HEPA Filter	Active Carbon ,Filter HEPA Filter	HEPA Filter	Active Carbon ,Filter HEPA Filter	HEPA Filter	Active Carbon ,Filter HEPA Filter	,Active Carbon Filter HEPA Filter	
LED Lamp	4Wx1				4Wx2		12Wx1	
UV Lamp	8Wx1				15Wx1		15Wx1	
	Emission of 253.7 nanometers							

Medicine Stability Test Chamber

Medicine Stability Test Chamber

Manufacture: BioBase

This equipment provide a long time stable environment of temperature, humidity and illumination for the Pharmaceutical industry medicine invalidation evaluation. It's applied in the medicine accelerating test, growth test, high humidity test and high illuminance test.

- P.I.D accurate and reliable temperature and humidity control.
- Built-in fan to form air circulation and improve temperature uniformity insidethe cabinet
- 50 pre-set programs for the pharmaceuticals application.

Model	**BJPX-MS120A**	**BJPX-MS288A**	**BJPX-MS500A**
Capacity	122L	288L	504L
Temp. Range	-20~65°C		
Consumption	2100W	2600W	3500W
External Size(mm)	600x950x*1570mm	750x1100x1770mm	850x1300x1870mm

- Standard Accessory include: USB port.
- Optional: Printer, External temperature protection device

Economic Type Medicine Stability Test Chamber

Manufacture: BioBase

This equipment provide a long time stable environment of temperature, humidity and illumination for the Pharmaceutical industry medicine invalidation evaluation. It's applied in the medicine accelerating test, growth test, high humidity test and high illuminance test.

- P.I.D accurate and reliable temperature and humidity control.
- Built-in fan to form air circulation and improve temperature uniformity insidethe cabinet
- 50 pre-set programs for the pharmaceuticals application.

Model	**BJPX-MS250**	**BJPX-MS300**	**BJPX-MS400**
Capacity	255L	298L	403L
Temp. Range	0~65°C		
Consumption	2400W	2900W	3400W
External Size(mm)	665x880x1820mm	685x895x1920mm	755x1020x1840mm

- Standard Accessory include: USB port.
- Optional: Printer, External temperature protection device

Washer Disinfector

IQ3 Washer Disinfector with side cabinet

Manufacture: KEN

IQ3 is the smallest machine in the IQ series of intelligent washer-disinfectors. A small washer disinfector that is efficient and has a very small footprint and equipped with all the features and programs well known from IQ4, IQ5 and IQ6.
Printer, RFID recognition, and various racks can be offered to suit the customer's needs.
The machines is available with a side cabinet, including storage for detergent, a drying module and condenser.
IQ3 has a standard psysical design and is the designed to leave a small environmental, operational and financial footprint. IQ3 has with a wide range of racks and modules that would suit every need in day surgery cinics – dental facilities – wards – private clinics and so on.

External dimensions with side cabinet	H: 840 x W: 900 x D: 630mm
Wash chamber dimensions	H: 490 x W: 540 x D:556 mm
Operative volume, wash chamber	150 L (Approx.)
Capacity DIN-basket 480x250x50mm	4×2 DIN-baskets 480 x 250 x 50 mm
Cycle time, standard	40-60 min.
Condenser	Standard
Potable water	200-800pKa, ≥15L/min, 5-30˚, 0-30˚ dH
Soft water	200-800kPa, ≥15L/min, 5-70˚, 0-3˚ dH
Demi vand/RO water	200-800kPa, ≥15L/min, 5-70˚ optional
Washing / Drying	< 60.0 dB
Water consumption per phase	Approx. 10-12 L (standard 4 level rack)

IQ4 Washer Disinfector Life science

Manufacture: KEN

IQ4 comes with a 4 level flexible rack and holds up to 8 DIN baskets. A small washer disinfector that is efficient and has a very small footprint and equipped with all the features and programs well known from IQ5 and 6. Printer, RFID recognition, and various racks can be offered to suit the customer's needs.

External dimensions with side cabinet	H: 1790 x W: 600 x D: 700mm
Wash chamber dimensions	H: 597 x W: 540 x D: 610mm
Operative volume, wash chamber	197L
Capacity DIN-basket 480x250x50mm	8 pcs
Cycle time, standard	50-60 min.
Cold water	200-800pKa, ≥15L/min, 5-30˚, 0-30˚ dH
Hot water	200-800kPa, ≥15L/min, 5-70˚, 0-3˚ dH
Demi vand/RO water	200-800kPa, ≥15L/min, 5-70˚ optional
Water consumption per phase	Approx. 12 L (standard 4 level rack)

IQ5 Washer Disinfector Life science

Manufacture: KEN

Proven performance, reliability and space-saving design for CSSDs. With its small footprint and the shortest cycle times, IQ5 is a superior washer disinfector for CSSDs. The IQ series is compatible with the traceability software systems used in CSSDs and makes batch logging an easy, automated and secure task. Side by side installation and compact efficiency reduces the space needed and increases productivity in a smaller space. Thanks to the user-friendly, intuitive and graphics screens staff are able to monitor the progress of the washing cycles thus ensuring optimal use of resources. The IQ series even allows robotic loading and unloading, hereby reducing heavy lifting and improves the working environment inside the CSSD. These features facilitate the management and planning of daily activities

External dimensions with side cabinet	H: 1985 x W: 662 x D: 711mm
Wash chamber dimensions	H: 690 x W: 550 x D: 625mm
Operative volume, wash chamber	236L
Capacity DIN-basket 480x250x50mm	12 pcs
Cycle time, standard	35-45 min.
Cold water	200-800pKa, ≥15L/min, 5-30˚, 0-30˚ dH
Hot water	200-800kPa, ≥15L/min, 5-70˚, 0-3˚ dH
Demi vand/RO water	200-800kPa, ≥15L/min, 5-70˚ optional
Water consumption per phase	Approx. 12-15 L (standard 4 level rack)

IQ5M Washer Disinfector Life science

Manufacture: KEN

Proven performance, reliability and space-saving design for CSSDs. With its small footprint and the shortest cycle times, IQ5 is a superior washer disinfector for CSSDs. The IQ series is compatible with the traceability software systems used in CSSDs and makes batch logging an easy, automated and secure task. Side by side installation and compact efficiency reduces the space needed and increases productivity in a smaller space. Thanks to the user-friendly, intuitive and graphics screens staff are able to monitor the progress of the washing cycles thus ensuring optimal use of resources. The IQ series even allows robotic loading and unloading, hereby reducing heavy lifting and improves the working environment inside the CSSD. These features facilitate the management and planning of daily activities

External dimensions with side cabinet	H: 1985 x W: 662 x D: 711mm
Wash chamber dimensions	H: 690 x W: 550 x D: 625mm
Operative volume, wash chamber	236L
Capacity DIN-basket 480x250x50mm	12 pcs
Cycle time, standard	35-45 min.
Cold water	200-800pKa, ≥15L/min, 5-30˚, 0-30˚ dH
Hot water	200-800kPa, ≥15L/min, 5-70˚, 0-3˚ dH
Demi vand/RO water	200-800kPa, ≥15L/min, 5-70˚ optional
Water consumption per phase	Approx. 12-15 L (standard 4 level rack)

IQ6 Washer Disinfector Life science

Manufacture: KEN

IQ6 – Intelligent Disinfection are designed for big capacity, small footprint, fast cycles, low water, and electricity demands prove that this 18 DIN basket machine is extremely economical compared to our competitors. The IQ series is a modular built range that meets all relevant standards such as ISO 15883, UL to name a few. The elegant design provides a smooth surface in tempered glass that is easy to clean. The IQ6 has downward sliding doors that allow for manual loading, or the use of a unique automatic loading that provides high flexibility and uses very little space. The IQ is easy to operate by touch panel with swipe function, showing all relevant information of the program needed by the operators.

External dimensions with side cabinet	H: 1985 x W: 820 x D: 936mm
Wash chamber dimensions	H: 690 x W: 705 x D: 850mm
Operative volume, wash chamber	413L
Capacity DIN-basket 480x250x50mm	18 pcs
Cycle time, standard	35-45 min.
Cold water	200-800pKa, ≥15L/min, 5-30˚, 0-30˚ dH

Hot water	200-800kPa, ≥15L/min, 5-70˚, 0-3˚ dH
Demi vand/RO water	200-800kPa, ≥15L/min, 5-70˚ optional
Water consumption per phase	Approx. 22-25 L (standard 4 level rack)

SP Hotpack under Counter Glassware Washers

Manufacture: Spscientific

Hotpack Undercounter Glassware Washers are engineered for durable, reliable and energy efficient operation.

- Loading and operation flexibility to accommodate a wide range of requirement
- A wide variety of specialty baskets available to fit both upper and lower racks
- Temperature selection to 70ºC (158ºF) for optimal cleaning of different loads
- Spindle-ready models can accommodate 1 or 2 direct injection spindle racks

SP Hotpack Vertical SpaceSaver Washers

Manufacture: Spscientific

Hotpack Vertical SpaceSarver Glassware Washers are engineered for durable, reliable and energy efficient operation -- Perfect for laboratories with space restraints. Maximum Capacity and Flexibility in a Small Footprint– Available in Single and Double Washing Chamber Models Vertical SpaceSaver™ Double Stack Washer with Independent Microprocessor Controls for Maximum

Models	**H-1115 UCW with DI Rinse**	**H-1125 UCW with DI Rinse and Spindles**	**H-1175 UCW with DI Rinse, Spindles&High Pressure Pump**	**H-1595 Double Stack Space Saver Combination of H-1115 and H1125**
Chamber Volume	6.0 ft^3 170 Liters			12.0 ft^3 340 Liters
Chamber Dimensions W x D x H	21.5 x 19 x 25.25 in 55 x 48 x 64 cm			
Exterior Dimensions (free standing mobile) W x D x H	24 x 24.5 x 38.5 in 61 x 62 x 98 cm			26.5 x 24.6 x 78.5 in 67.3 x 62.5 x 199.0 cm
Wash Cycles	6			
Temperature Range	70ºC			

Throughput and Flexibility

- Up to four loading levels in two independently controlled chambers

- Ultimate space saver provides up to 33% smaller footprint than washers of similar capacity
- Each chamber can be customized to meet specific requirement

Models	VSW
Volume	340 Liters
Exterior Dimensions (w x d x h)	673 x 625 x 183 mm (1828˝ with casters)
Interior Dimensions (w x d x h) - per washer	546 x 482.6 x 635 mm
Wash Cycles	6
Temperature Range	70ºC

MAT LD50 / MAT LD60

Manufacture: Matachana

The MAT LD50 and MAT LD60 thermal washers disinfectors are conceived to cover the needs of an efficient and professional washing and disinfection process within compact and reduced spaces, without reducing the quality of process, cycle time nor performance of the device.

The MAT LD50 and MAT LD60 thermal washers disinfectors, with external dimensions of 600 mm x 850 mm x 605 mm, have a washing capacity up to 8 DIN 1/1 baskets in 4 levels.

- Wide range of accessories adapted to the needs of each installation
- Control panel with LED display
- Door locking system during wash cycles and automatic unlock at the end of the cycle
- MAT LD60 incorporates forced drying module with hot air and HEPA H14 filter
- Thermal disinfection and AO measurement
- Integrated water softener and steam condenser
- 2 peristaltic dosing pumps and 2 water connections

MAT LD90

Manufacture: Matachana

The MAT LD90 thermal washer disinfector is conceived to cover the needs of an efficient and professional washing and disinfection process within compact and reduced spaces, without reducing the quality of process, cycle time nor performance of the device.

The MAT LD90 thermal washer disinfector, with external dimensions of 900 mm x 850 mm x 605 mm, has a washing capacity up to 8 DIN 1/1 baskets in 4 levels.

- Wide range of accessories adapted to the needs of each installation
- LCD display
- Integrated side cabinet for chemical products storage
- Door locking system during wash cycles and automatic unlock at the end of the cycle
- Hot air forced drying system module and HEPA H14 filter are incorporated
- Thermal disinfection and AO measurement
- Integrated water softener and steam condenser
- 2 peristaltic dosing pumps and 2 water connections
- Integrated main switch

MAT LD100

Manufacture: Matachana

The MAT LD100 thermal washer-disinfector has been specially designed for use in sterilization centrals as well as in a surgical block or other departments, or care centers where the decontamination of materials is required. Its tight dimensions and its manual hinged doors make it the ideal solution to facilitate the material reprocessing in small rooms.

The MAT LD100 thermal washer-disinfector has a capacity up to 8 DIN 1/1 baskets in 4 level with a compact external dimensions of only 600 mm x 1810 mm x 705 mm.

- Door locking system that prevents simultaneous opening in the 2-door versions
- Fully integrated graphic display
- Ergonomic loading height
- Low noise level
- Installation under NULLGAP format, that allows to install up to 3 MAT LD100 thermal washer- disinfectors in 2 meters wide
- Minimization of water and energy consumption, achieving cost savings per cycle and an increase in daily productivity
- Thermal disinfection and A_0 measurement

MAT LD500

Manufacture: Matachana

The MAT LD500 thermal washer-disinfector has been specially designed for use in sterilization centrals as well as in a surgical block or other departments, or care centers where the decontamination of materials is required. Our MAT LD500 model combines innovation, technology and ergonomics with the reliability,

functionality and performance characteristic of MATACHANA equipment.

The MAT LD500 thermal washer-disinfector has the following qualities:

- Compact surface of only 662 mm x 1985 mm x 787 mm
- Up to 12 baskets of 1/1 DIN in 6 levels
- 15 liters of water per phase, reduced chemicals consumption
- Minimization of water and energy consumption, achieving cost savings per cycle and an increase in daily productivity
- Rack recognition and automatic cycle start using RFID wireless technology
- Dosing monitoring with flowmeters
- EasyRUN user interface and 7" touch screen integrated in the front panel
- Door locking system that prevents simultaneous opening
- Ergonomic loading height
- Low noise level
- Installation under NULLGAP format, that allows to install up to 3 MAT LD100 thermal washer-disinfectors in 2 meters wide
- Environmentally friendly thanks to the control of variables and cycle parameters that optimize the consumption of water, energy and chemicals

MAT LD1000

Manufacture: Matachana

The MAT LD1000 thermal washer-disinfector has been specially designed for use in sterilization centrals as well as in a surgical block or other departments, or care centers where the decontamination of materials is required. Our MAT LD1000 model combines innovation, technology and ergonomics with the reliability,

functionality and performance characteristic of MATACHANA equipment

The MAT LD1000 thermal washer-disinfector has the following qualities:

- Compact surface of only 820 mm x 1995 mm x 936 mm
- Up to 18 baskets of 1/1 DIN in 6 levels
- 25 liters of water per phase, reduced chemicals consumption
- Minimization of water and energy consumption, achieving cost savings per cycle and an increase in daily productivity
- Rack recognition and automatic cycle start using RFID wireless technology
- Dosing monitoring with flowmeters
- EasyRUN user interface and 7" touch screen integrated in the frontal panel
- Door locking system that prevents simultaneous opening
- Ergonomic loading height
- Low noise level
- Installation under NULLGAP format, that allows to install up to 2 MAT LD100 washer disinfectors in 2 meters wide
- Environmentally friendly thanks to the control of variables and cycle parameters that optimize the consumption of water, energy and chemicals

MAT LD2000

Manufacture: Matachana

- Environmental friendly
- Reduced energy, water and chemical consumption. Up to 60% less
- Improved efficiency. Recovery up to 90% of the water from last rinse
- Reduced cycle time

- Easy to use. User interface EasyRUN and 10” touch screen
- High productivity
- Cost savings

MAXIMUM WASHING FLEXIBILITY

Due to our improved washing pump controlled by inverter, MAT LD2000 is able to adjust the water pressure according to the cycle and materials to be washed.

Bedpan Washers

KEN BWD 731

Manufacture: KEN

Exceptional advantages for users and technicians

Printer, RFID recognition, and various racks can be offered to suit the customer's needs.KEN BWD 731 is a compact bedpan washer with a modern Danish design. BWD 731 has specially been developed for hospitals, nursing homes, private clinics, etc. where there is a need for washing bedpans, urine bottles, etc. The machine is also suitable for isolation rooms where there is a need of washing and disinfection

KEN BWD 733

Water connection	Cold water: 1 pcs., ¾" RG, 5-30 gr.C, 0-3 gr.dH
Water connection	Hot soft water: 1 pcs., ¾" RG, 30-70 gr.C, 0-3 gr.dH
Water pressure	200-800 kPa
Water consumption, Rinsing programme	1 wash phase, 7 l
Water consumption, Urine bottle programme	2 wash phases, 14 l
Water consumption, Bedpan programme medium	3 wash phases, 21 l
Water consumption, Bedpan programme long	5 wash phases, 35 l
Water consumption, Wash basin programme	3 wash phases, 21 l
Pump capacity	170 l/min.
Measurements wash chamber h x w x d	460 x 380 x 280 mm

Manufacture: KEN

Bedpan washer disinfector with large capacity for hospitals, private hospitals, and nursing homes. KEN BWD 733 has been specially developed for hospitals, nursing homes and private clinics where there is a need for washing bedpans, urine bottles, kidney bowls, and others. The machine is also suitable for intensive care wards with a versatile need for washing and disinfecting various utensils.

Water connection	Cold tap water: 1 pcs. 3/4”RG, 5-30° C, Hardness 0-3° dH
Water connection	Hot soft water: 1 pcs., 3/4” RG, 30-70°C, hardness 0-3° dH
Water pressure	200-800 kPa
Water consumption, Rinsing programme	1 wash phase, 7 l
Water consumption, Urine bottle programme	2 wash phases, 14 l
Water consumption, Bedpan programme medium	3 wash phases, 21 l
Water consumption, Bedpan programme long	5 wash phases, 35 l
Water consumption, Wash basin programme	3 wash phases, 21 l
Pump capacity	298 L/min., 0,75kW
Measurements wash chamber h x w x d	520 x 500 x 330mm

KEN BWD 736

Manufacture: KEN

Bedpan washer disinfector with large capacity for hospitals, private hospitals and nursing homes .KEN BWD 733 has been specially developed for hospitals, nursing homes and private clinics where there is a need for washing bedpans, urine bottles, kidney bowls and others. The machine is also suitable for intensive care wards with a versatile need for washing and disinfecting various utensils. The focus of this machine is on quality, flexibility and user-friendly advantages

Water connection	Cold water: 1 pcs., ¾” RG, 5-30 gr.C, 0-30 gr.dH
Water connection	Hot soft water: 1 pcs., ¾” RG, 30-70 gr.C, 0-3 gr.dH
Water pressure	200-800 kPa

Water consumption, Rinsing programme	2 wash phase, 16 l
Water consumption, Urine bottle programme	3 wash phases, 24 l
Water consumption, Bedpan programme medium	5 wash phases, 40 l
Pump capacity	130 l/min.
Measurements wash chamber h x w x d	500 x 485 x 370 mm

Water connection	Cold water: 1 pcs., ¾" RG, 5-30 gr.C, 0-30 gr.dH

KEN BWD 738

Manufacture: KEN

Put-through bedpan washer. Unique design and optimum hygiene conditions. KEN recommends the use of put-through machines where there is sufficient space. This choice ensures an effective separation or an unclean and a clean side, which maximizes the level of hygiene and reduces the risk of hospital infections. Despite only having a depth of 56 cm, the bedpan washer is particularly spacious, and the wide range of accessories enables many different combinations, which increases flexibility and user-friendliness.

Water connection	Hot soft water: 1 pcs., ¾" RG, 30-70 gr.C, 0-3 gr.dH
Water pressure	200-800 kPa
Water consumption, Rinsing programme	2 wash phase, 16 l
Water consumption, Urine bottle programme	3 wash phases, 24 l
Water consumption, Bedpan programme medium	5 wash phases, 40 l
Pump capacity	130 l/min.
Measurements wash chamber h x w x d	500 x 485 x 370 mm

External dimensions	H: 266 W: 244,7 D: 265 cm

KEN CWD 5000

Manufacture: KEN

KEN CWD 5000 washer disinfector for carts and containers. Washing, disinfection and drying all in one, with very economical operating costs. KEN CWD5000 has been constructed with innovative and superior technology to disinfect medical products in class IIa. Cleaning, disinfection, and drying of instruments e.g. sterile containers with lids, instrument baskets with utensils, wire baskets and other equipment like shoes, trolleys, kidney bowls, transportation carts

Dimensions wash chamber	H:200 W:126 D: 245 cm
Wash and rinsing programs	9 programs with up to 9 phases
Programs & washing consumption	Rinsing: Approx. 75L / No recycling Wash: Approx. 75 L / No recycling Disinfection: Recycling of water Drying: Approx. 50L / recycling of water Drying: Approx. 50L / recycling of water
Pump capacity	283 L / min. / 2,5kW
Air filter	HEPA H14
Water connection	Cold: 3/4" RG/pressure 200-800kPa/5-30°/Hardness 0-3°dH Warm: 3/4"RG/pressure: 200-800kPa/5-70°/Hardness 0-3°dH
Capacity water tank	175L

MAT LC 10

Manufacture: Matachana

Devices specifically designed for the reprocessing of bedpans and urinals. Our complete range of MAT LC bedpan washers includes three different models, able to cover all the needs of clinics and hospitals, in their different sections and wards, as well as residential care and day centres.

- Automatic door opening and closing.
- Contains 1 bedpan or 2 urinals.
- 5 programs.
- Vapour condenser.
- Interior space for chemical storage.

- Noise level <50 dB(A)

MAT LC20

Manufacture: Matachana

Devices specifically designed for the reprocessing of bedpans and urinals. Our complete range of MAT LC bedpan washers includes three different models, able to cover all the needs of clinics and hospitals, in their different sections and wards, as well as residential care and day centres.

- Automatic door opening and closing.
- Contains 1 bedpan or 2 urinals.
- 5 programs.
- Vapour condenser.

- Interior space for chemical storage.
- Noise level <50 dB(A)

BEDPAN WASHERS LP/IN 90

Manufacture: Matachana

Devices specifically designed for the reprocessing of bedpans and urinals. Our complete range of MAT LC bedpan washers includes three different models, able to cover all the needs of clinics and hospitals, in their different sections and wards, as well as residential care and day centres.

- Automatic door opening and closing.
- Contains 1 bedpan or 3 urinals or up to 3 bedpan.

- 7 programs.
- Vapour condenser.
- Interior space for chemical storage.
- Noise level <50 dB(A)

Ultrasonic Cleaning Baths

FamoSonic benchtop ultrasonic cleaning baths

Manufacture: Famos

High power ultrasonic cleaning units for aquous cleaning solutions. The benchtop models are available in three different sizes, S, M and XL. The tank of the S and M models are made of AISI 304 stainless steel, while the tank of the XL is made of AISI 316 stainless steel.

All baths are equipped with a digital display. The FamoSonic S is suitable for 1/2 DIN instrument

trays such as the 50.100.063. The FamoSonic M is suitable for 1/1 DIN instrument trays such as the 50.100.062. The FamoSonic XL is suitable for 1/1 DIN and 1/1 ISO instrument trays such as the 50.100.062

Description	Max. capacity in liters	Int. dimensions in mm L x W x H
FamoSonic S	13,5	325x300x150
FamoSonic M	28	500x300x200
FamoSonic XL	90	600x500x300

FamoSonic Flush ultrasonic cleaner for MIS instruments

Manufacture: Famos

Ultrasonic disinfection and cleaning unit for a maximum of 12 rinsable keyhole surgery instruments with external diameters from1 mm to 10 mm.

1. The FamoSonic Flush checks the flow rate of each instrument separately. Clogged instruments can be identified clearly for e.g. instrument on channel 1,6,9 is clogged.
   Other ultrasonic brands rinse at all channels (all instruments) at the

same time. This makes Identification of clogged instruments impossible.

2. The FamoSonic flush is the only ultrasonic device with a suction principle on the market world wide. All other brands are working with pressure and pass the whole dirty through the instrument. The advantage of the suction principle is the short way to the adapter. The most part of the contamination you will find on the distal end of the instrument. Dirt will not be forwarded through the whole lumen and will not accumulate in the restrictions in the range of the handle.
3. Universal adapter for the connection of cannulated surgery instruments with a diameter of 1 mm to 10 mm (max. 12 instruments). Change of the seal is not necessary. The patented adapter has a unique closing system world wide.
   In case of other ultrasonic brands different seals must be adjusted and mounted on the adapter.

The tank is made of AISI 316 stainless steel, while the housing is made of AISI 304 stainless steel

Description	**Max. capacity in liters**	**Int. dimensions in mm LxWxH**
FamoSonic Flush	42,5	600x400x160

Built-in Ultrasonic cleaners

Manufacture: Famos

Manual pre-cleaning station which is made of AISI 304 stainless steel with exception of the tank of the ultrasonic cleaner. The tank is made of AISI 316Ti. The unit has a fixed height. The worktop is equipped with a water rim at the front and around the sides to prevent any spilled fluids from dripping of the unit. Furthermore, the unit is equipped with a backsplash of 108mm at the back of the unit.

The unit is equipped with the FamoSonic BM ultrasonic cleaner which has a capacity of 46 liters. The filing volume for cleaning is 32 liters. The bath is

being operated through a digital control panel through which the temperature and time can be set.

The ultrasonic cleaning bath is being filled and drained automatically. It is equipped with an outlet of 1 ½". The ultrasonic cleaner is equipped with a safelty shutdown after 12 hours and gives a signal in case of excess temperature.

Product	Description
Pre-cleaning station with BS ultrasonic cleaner	Manual pre-cleaning station with BS ultrasonic cleaner, max. capacity 29 liters. Dimensions 900x730x890 mm WxDxH
Pre-cleaning station with BM ultrasonic cleaner	Manual pre-cleaning station with BM ultrasonic cleaner, max. capacity 46 liters. Dimensions 900x730x890 mm WxDxH
Basket holder M / BS	Basket holder for FamoSonic M / BS
Basket holder XL / BM	Basket holder for FamoSonic XL / BM

Model	SME-VU03H	SME-VU06H	SME-VU13H
Lid KT-BS			Lid for FamoSonic BS, only for use with basket holder
Lid KT-BM			Lid for FamoSonic BM, only for use with basket holder
1/1 DIN tray			1/1 DIN instrument tray, 480x250x60 mm LxWxH

Ultrasonic – Small and Medium

Manufacture: MoonMed

Moonmed offers a range of ultrasonic cleaners suitable for washing delicate instruments, Instruments with special shape or used in contact with materials difficult to be cleaned. Our Ultrasonic cleaners have different sizes in order to better satisfy washing needs. Their use is easy and intuitive. The stainless steel they are made of will make their cleaning simple and quick. It is possible to connect the drain to the rear in order to guarantee greater autonomy of use.

Maximum Peak Ultrasound Power	320W	600W	800W
Heater Power	200W	400W	800W
Ultrasound Intensity	4.1W/cm²	2.6W/cm²	2.6W/cm²
Chamber Volume L	2.75L	5.75L	12.75L
Internal Chamber Dimensions	240x137x100mm	300x151x150mm	300x240x200mm
External Chamber Dimensions	300x179x214mm	365x186x264mm	365x278x321mm

On the front side of this appliance you will find knobs to adjust cleaning time and temperature, as well as buttons to choose special cleaning functions

Shaker & Water Bath

Remote Shaker

Manufacture: N-Biotek

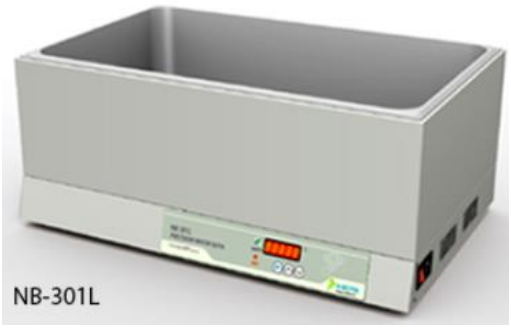
This is compact size shaker with benefits such as small foot print and easy to move.
Built-in plate type BLDC motor provides low noise, low vibration.
Despite compact size, shaking is powerful and work place is large to load various vessels.

Model	NB-101SRC	NB-101MRC
Shaker Size	305x350x85mm	465x540x125mm
Platform Size	300x300mm	460x455mm

General Water Bath

Manufacture: N-Biotek

By maintaining constant temperature, water bath is suitable for fat examining, cell incubation, ferment reaction, solvent extraction engaged in clinic, medical technology, pharmacy, micro-biology



Model	NB-301	NB-301L
Temperature Range	Ambient +5 C° to 99 C°	
Bath Capacity	Max 10 liter	Max 20 liter
Dimension Internal	240x300x150mm	500x290x150
Dimension External	270x345x225	555x390x230

Heating & Cooling Block/Thermal Block

Manufacture: N-Biotek

These are used in the experiment for ferment reaction & analysis, solvent extraction, cell incubation, heat treatment in test tubes well as used like concentrator, Disintegrator, reaction bath by quick and uniformity heating.
It is possible to use two blocks at the same time.

Model	NB-305CB	NB-305TB
Temperature Range	-4 C° to 80 C°	Ambient +5 C° to 120 C°
Method	Peltier	Heater
Block Capacity	BL x 1ea, BSx2ea	BL x 2ea, BS x4ea
Dimension	250x250x175	

Medium Shaker

Manufacture: N-Biotek

Magnetic indication Drive & Brush Less Motor provides ideal shaking function for cell culture, sample mixtures, suspension, microbiology, chemistry.

Model	NB-101M	NB-101MT	NB-101MC
Motion	Orbital	Orbital or Reciprocating	Orbital or Reciprocating
Platform Size	460x455mm with rubber ped	460x455mm with rubber ped	220x455mmx2ea
Dimension	465x540x125mm	465x540x125mm	465x540x195mm

Mini shaker

Manufacture: N-Biotek

This is compact size shaker with benefits such as small footprint, easy to move. Built-in plate type BLDC motor.

Shaking Water Bath

Manufacture: N-Biotek

By maintaining constant temperature and using orbital or reciprocating shaking, water bath is used for fat examining, cell incubating, ferment reaction, solvent extraction in the field such as clinic, medical technology and pharmacy.

Model	**NB-303**	**NB-304**
Motion	Orbital	Reciprocating
Temperature Range	Ambient +5C° to 80C°	
Bath Capacity	Max 10 liter	
Dimension	310x345x260mm	310x345x260mm

Stirrer Water Bath

Manufacture: N-Biotek

By maintaining constant temperature and using orbital or reciprocating shaking, water bath is used for fat examining, cell incubating, ferment reaction, solvent extraction in the field such as clinic, medical technology and pharmacy

Model	NB-302	NB-302L
Speed Range	60 to 1000 rpm	60 to 1000 rpm
Temperature Range	Ambient +5C° to 90C°	
Bath Capacity	Max 10 liter	
Dimension	270x345x225mm	555x390x230mm

Freeze Dryers / Lyophilizers

SP VirTis BenchTop Pro with Omnitronics

Manufacture: SP-Penntech

The VirTis BenchTop Pro freeze dryers have been designed to meet the needs of the most demanding research laboratories. Each system can be configured to meet your present and future needs. Condenser refrigeration packages of -55°C, -85°C and -105°C can meet the demands of both aqueous or aqueous-solvent based formulations.

	8 Liter	9 Liter	
	ZG	SG	EG
Lowest Condenser Temperature (°C) (50 Hz / 60 Hz)	-102 / -105	-52 / -55	-82 / -85
Maximum Condenser Capacity (L)	8	9	
Maximum Ice Condensing Capacity in 24 hours (L)†	3	5	
Number of Compressors	2	1	2
Compressor Horsepower	1/3, 3/8	1/3	1/3, 3/8
System Refrigerant	R1290 / R1150	R1270	R1270 / R170

SP VirTis AdVantage Pro Freeze Dryer / Lyophilizer with Intellitronics Controller

Manufacture: SP-Penntech

The AdVantage Pro freeze dryer with Intellitronics™ Controller now offers users the benefit of Ethernet communication and email options. Monitor your cycle from anywhere you receive email! Get the convenience of a tray dryer in a benchtop unit.

Shelf Temperature Control Range*	-55 to 60 °C, ± 1.0 °C
Lowest Shelf Temperature†	-62 °C @ 50 Hz -65 °C @ 60 Hz
Shelf Pull-Down from 20 °C to -40 °C‡	≤ 30 minutes
Lowest Condenser Temperature†	-82 °C @ 50 Hz -85 °C @ 60 Hz
Maximum Condenser Capacity	6 L
Maximum Ice Condensing Capacity in 24 hours\\	4 L
Maximum Deposition Rate\\	0.17 L/hour
Vacuum Rate of Rise	≤ 60 mT/hour (≤ .08 mbar/hour)
Number of Compressors	2

SP VirTis Freezemobile Freeze Dryers

Manufacture: SP-Penntech

The freezemobile Large Capacity Freeze Dryer is available with condenser capacities of 25 Liters. Condenser refrigeration of -85C available to allow configuration for a variety of solvents. A wide array of manifolds are available

Specification	EL
Maximum Low Condenser Temperature (°C) 60Hz or 50Hz	-85C / -82C
Maximum Low Temperature for Optional Shell Bath (°C) 60Hz / 50Hz	-70C / -67C
Condenser Capacity in 24 hours* FM25 *This specification is based on freeze drying water as aggessively as possible.* *The ability to collect ice is application dependent and your actual rate will most likely be lower*	12 L
Condenser Capacity Total FM25	25 L
Condenser Surface Area FM25	506 in^2 /3264 cm^2
Vacuum Pull Down Time to 100 mT (0.133 mB) (minutes)	≤20 minutes
Lowest Vacuum mT / mB (Refrigerated, Dry and Empty)	15 mT / .0198 mB

SP VirTis Freezemobile Shell Bath Freezer

Manufacture: SP-Penntech

The Freezemobile Shell Bath, a floor model shell bath available in a -75C configuration, helps to decrease manifold freeze drying time. The FSB rotates the flask on its axis thereby coating the interior surface of the flask with frozen product. This increases the surface area of the product-to-energy input, as well as vapor removal; thus helping to reduce the freeze drying process to the shortest time possible when utilizing flasks and a manifold system.

SP VirTis Ultra Pilot and Small Production Lyophilizer

Manufacture: SP-Penntech

The Ultra Pilot Lyophilizer is a suitable for pilot scale work as well as small production runs. Shelf temperatures as low as -70C and condenser temperatures to -85C supports a wide range of applications .

Specification	EL (35L or 50L)
Shelf Temperature Control Range (°C)	-55 to 65C
Lowest Condenser Temperature 35 Liter Ultra 50 Liter Ultra (50 Hz / 60 Hz, °C)	-82C / -85C
Maximum Condenser Capacity (L) Ultra 35L Ultra 50L	 35L 50L
Condenser Surface Area (in^2 / cm^2) Ultra 35L Ultra 50L	 750 in^2 / 4838 cm^2 10 ft^2 / 0.93 m^2
Maximum Ice Condensing Capacity in 24 hours (L) Ultra 35L Ultra 50L *This specification is based on freeze drying water as aggressively as possible.* *The ability to collect ice is application dependent and your actual rate will most likely be lower*	 20L 20L
Condenser Pull-Down from 20 °C to -45 °C (minutes)	≤ 25 minutes
Vacuum Time to 100 Millitorr (minutes)	≤ 30
Lowest System Vacuum (mT)	≤ 15

SP Hull LyoStar 3

Manufacture: SP-Penntech

The LyoStar3 is designed to meet the needs of R&D professionals. Our freeze drying equipment is used for applications ranging from process development for scale-up to product processing for stability studies to formulations work.

The LyoStar is an R&D and process development freeze-dryer that provides unmatched process accuracy, reliability and unique ease-of-use features. The LyoStar features Type T thermocouple-controlled shelf temperature accuracy of +/- 0.5°C or better and vacuum control within 0.1% of set-point. Its robust 5.5 hp cascade refrigeration system enables shelf pull down from ambient to –40°C in less than 25 minutes, and the ultra-reliable scroll compressors feature just 3 moving parts.

Shelf Temperature Control Range (°C)	-70 to +60C
Lowest Condenser Temperature	-85C
Maximum Condenser Capacity (L)	30 L
Condenser Surface Area (in^2 / cm^2)	828 / 5481
Condenser Pull-Down from 20 °C to -75 °C (minutes)	< 10
Shelf Pull-Down from 25 °C to -40 °C (minutes)	< 25
Vacuum Time to 100 Millitorr (minutes)	< 20
Lowest System Vacuum (mT)	< 10
Shelf Surface Temperature Uniformity (°C)	+/- 0.5C

Vial Washer

RW-250 VIAL WASHER

Manufacture: SP-Penntech

Features

- Typical batch size: 1,000-8,000 vials
- 8 vial holders that hold up to 6 vials at the neck
- A transparent cover permits visual verification of the washing process
- Dedicated media manifolds (1 for water, 1 for air)
- GMP design: All 304/316L stainless steel
- Intrinsically designed for 3-log endotoxin reduction
- Allen-Bradley Micrologix 1100 PLC that works in conjunction with an Allen-Bradley PanelView Component C400 Touch Terminal HMI
- No penetrating nozzles, no glass breakage, less particulate generation
- Self-draining after end of batch
- Internal surfaces are electro polished
- Orbital welding is used whenever possible
- Piping system is designed to run from high to low to prevent water stagnation
- Optional WFI-skid to supply the WFI at 80°C (no need for a WFI-loop)
- Complete validation documents package available (FRS, DDS, FAT/SAT, IQ/OQ)

Dimensions

127x114cm

Purpose

Low speed, semi-automatic pharmaceutical and biotech applications

Vial Range

2-100ml glass or plastic (change parts required)

Output

Up to 70 vials per minute

RW-500 Vial Washer

Manufacture: SP-Penntech

Features

- Typical batch size: 10,000-25,000 vials
- 8 vial holders that hold up to 6 vials at the neck
- Rotary infeed table with automatic loading of the vials into the vial holders
- A transparent cover permits visual verification of the washing process
- Dedicated media manifolds (1 for water, 1 for air)
- Recycling of WFI, intermittent spraying and automatic lid lift mechanism
- GMP design: All 304/316L stainless steel
- Main drive is servo-driven
- Intrinsically designed for 3-log endotoxin reduction
- Allen-Bradley Micrologix 1100 PLC that works in conjunction with an Allen-Bradley PanelView 600+ operator interface
- Each vial format has an HMI selected “recipe” with specific settings for spray time and indexing time to help reduce water consumption
- Water for injection (WFI) can be recycled, filtered and used a second time, further reducing water consumption
- No penetrating nozzles, no glass breakage, less particulate generation
- Self-draining after end of batch
- Internal surfaces are electro polished
- Orbital welding is used whenever possible
- Piping system is designed to run from high to low to prevent water stagnation
- Silicone seals are used throughout the piping system
- Optional WFI-skid to supply the WFI at 80°C (no need for a WFI-loop)
- Complete validation documents package available

Dimensions
133x128cm

Purpose
Smallest automatic vial washer and is designed for low-to-medium output pharmaceutical and biotech applications

Vial Range
1-100ml (change parts required)

Output
Up to 120 vials per minute (dependent on the vial format)

RW-800 Vial Washer

Manufacture: SP-Penntech

Features

- Typical batch size: 10,000-25,000 vials
- 8 vial holders that hold up to 6 vials at the neck
- Vials are fed to the vial carriers by way of an infeed drive belt
- Vials leave the washer in a single-file fashion
- Rotary infeed table with automatic loading of the vials into the vial holders
- A transparent cover permits visual verification of the washing process
- Safety provisions are in place to prevent water spraying when the cover is not located over the washing chamber
- Dedicated media manifolds (1 for water, 1 for air)
- Recycling of WFI, intermittent spraying and automatic lid lift mechanism
- cGMP design: All 304/316L stainless steel
- Main drive is servo-driven
- Intrinsically designed for 3-log endotoxin reduction
- Allen-Bradley Micrologix 1100 PLC that works in conjunction with an Allen-Bradley PanelView 600+ operator interface
- Each vial format has an HMI selected “recipe” with specific settings for spray time and indexing time to help reduce water consumption
- Water for injection (WFI) can be recycled, filtered and used a second time, further reducing water consumption
- No penetrating nozzles, no glass breakage, less particulate generation
- Self-draining after end of batch
- Internal surfaces are electro polished
- Orbital welding is used whenever possible
- Piping system is designed to run from high to low to prevent water stagnation
- Silicone seals are used throughout the piping system
- Optional WFI-skid to supply the WFI at 80°C (no need for a WFI-loop)
- Complete validation documents package available

Dimensions
90x130cm

Purpose
Medium speed automatic vial washer for pharmaceutical and biotech applications

Vial Range
2-250ml (change parts required)

Output
Up to 200 vials per minute

RW-1150 Vial Washer

Manufacture: SP-Penntech

Features

- Typical batch size: 10,000-25,000 vials
- 16 vial holders that hold vials at the neck
- Vials are fed to the vial carriers by way of an infeed drive belt
- Vials leave the washer in a single-file fashion
- Rotary infeed table with automatic loading of the vials into the vial holders
- Infeed Vial Flip Table that is ergonomically designed to avoid repetitive wrist motion, has a quicker plastic removal (2-3 times faster), and less potential of fallen vials
- A transparent cover permits visual verification of the washing process
- Safety provisions are in place to prevent water spraying when the cover is not located over the washing chamber
- 14 effective water/air stations
- Combined exposure time is approximately 20 seconds based on 30 indexes per minute
- Dedicated media manifolds (1 for water, 1 for air)
- Recycling of WFI, intermittent spraying and automatic lid lift mechanism
- cGMP design: All 304/316L stainless steel
- Main drive is servo-driven
- Intrinsically designed for 3-log endotoxin reduction
- Allen-Bradley Micrologix 1100 PLC that works in conjunction with an Allen-Bradley PanelView 600+ operator interface
- Four level dual password protected menu guides the operator through the operations of the machine
- Each vial format has an HMI selected “recipe” with specific settings for spray time and indexing time to help reduce water consumption
- Water for injection (WFI) can be recycled, filtered and used a second time, further reducing water consumption
- Tank includes a high and low level control mechanisms automatically adding water upon low-level detection

- Internal immersion heating element helps maintain water temperature
- No penetrating nozzles, no glass breakage, less particulate generation
- Self-draining after end of batch
- Internal surfaces are electro polished
- Orbital welding is used whenever possible
- Piping system is designed to run from high to low to prevent water stagnation
- Silicone seals are used throughout the piping system
- Optional WFI-skid to supply the WFI at 80°C (no need for a WFI-loop)
- Complete validation documents package

Dimensions
202.5x183x137cm vial running surface 85-95cm

Purpose
High speed automatic vial washer for pharmaceutical and biotech applications

Vial Range
2-500ml (change parts required)

Output
Up to 400 vials per minute

Aseptic Fillers

LI-Filler

Manufacture: SP-Penntech

Linear filling, stoppering/tip placement/pump inserting and crimping or closing machine for bottles and vials up to 12,000 u/h. This system is compatible with RABs or isolator enclosures. The system is able to work with stainless steel or ceramic rotary piston pumps or peristaltic pumps. Systems are available for manual or semi-automatic debagging, manual, semi-automatic or automatic delidding for pre-sterilized glass as well as cleanroom unscrambler's for ophthalmic containers. Systems are 21 CFR Part 11 and audit trail compatible.

BI-MI Filler

Manufacture: SP-Penntech

Rotary filling, stoppering/tip placement/pump inserting and crimping or closing machine for bottles and vials up to 6000 u/h. The system is compatible with RABs or isolator enclosures. The system is able to work with stainless steel or ceramic rotary piston pumps or peristaltic pumps. Systems are available for manual or semi-automatic debagging, manual, semi-automatic or automatic delidding for pre-sterilized glass as well as cleanroom unscrambler's for ophthalmic containers. Systems are 21 CFR Part 11 and audit trail compatible.

SY Syringe Filler

Manufacture: SP-Penntech

Robot filling and plungering machine for glass and plastic syringes, cartridges and vials in nest up to 6000 u/h with 2 nozzles, 12000 u/h with 5 nozzles and 24000 u/h with 10 nozzles. The syringe filler is compatible with RABs or isolator enclosures. The system is able to work with stainless steel or ceramic rotary piston pumps or peristaltic pumps with possible standard filling with mechanical plunger introduction or vacuum plunger introduction. Automatic nest unloading and loading of tubes. The cleanroom style robot is used to position syringes for filling and stoppering. Manual or semi-automatic debagging, manual, semi-automatic or automatic delidding are available along with 21 CFR Part 11 and audit trail capabilities.

Trayloaders

Trayloader TL-100

Manufacture: SP-Penntech

Features

- Single trayloader
- Controlled by a Programmable Logic Controller (PLC) and will handle plastic and glass vials
- Designed to handle trays up to 610 mm (24") wide (open end) and up to 610 mm (24") deep
- Tray materials can be metal, cardboard, corrugated plastic, or rigid plastic
- No format/change parts required
- Menu-driven, PLC-assisted changeover
- Automatic nesting
- Optional automatic containment ring lowering system for freeze drying applications
- Optional camera inspection to ensure same cap color/format and vial configuration
- Consistency in trayloading, always the same number of vials per tray
- Non-stop loading, even when replacing a full tray

Dimensions

208x112x95cm vial running surface 85-95cm

Purpose

Designed to collect vials for your application and your tray format

Vial Range

2-500ml

Output

Up to 200 vials per minute (depending on vial diameter and tray size)

Trayloader TL-200

Manufacture: SP-Penntech

Features

- Dual trayloader
- Controlled by a Programmable Logic Controller (PLC) and will handle plastic and glass vials
- Designed to handle trays up to 610 mm (24") wide (open end) and up to 610 mm (24") deep
- Tray materials can be metal, cardboard, corrugated plastic, or rigid plastic
- No format/change parts required
- Menu-driven, PLC-assisted changeover
- Automatic nesting
- Optional automatic containment ring lowering system for freeze drying applications
- Optional camera inspection to ensure same cap color/format and vial configuration
- Consistency in trayloading, always the same number of vials per tray
- Non-stop loading, even when replacing a full tray

Dimensions

297.5x112x95cm vial running surface 85-95cm

Purpose

Designed to collect vials for your application and your tray format

Vial Range

2-500ml

Output

Up to 400 vials per minute (depending on vial diameter and tray size)

Trayloader HSTL-200

Manufacture: SP-Penntech

Features

- Dual trayloader
- Controlled by a Programmable Logic Controller (PLC) and will handle plastic and glass vials
- Designed to handle trays up to 610 mm (24") wide (open end) and up to 610 mm (24") deep
- Tray materials can be metal, cardboard, corrugated plastic, or rigid plastic
- No format/change parts required
- Menu-driven, PLC-assisted changeover
- Automatic nesting
- Optional automatic containment ring lowering system for freeze drying applications
- Optional camera inspection to ensure same cap color/format and vial configuration
- Consistency in trayloading, always the same number of vials per tray
- Non-stop loading, even when replacing a full tray

Dimensions

297.5x97x100cm vial running surface 85-95cm

Purpose

Designed to collect vials for your application and your tray format

Vial Range

2-500ml

Output

Up to 500 vials per minute (depending on vial diameter and tray size)

Genevac – Evaporation pure and simple.

SP Genevac HT Series 3i

Manufacture: SP- Scientific

Genevac HT series evaporators are the ideal solution for parallel evaporation bottlenecks in high throughput and production laboratories having high performance and high sample capacities.

The all new **Series 3i HT evaporator range** from Genevac represents the ultimate in solvent removal technology. Incorporating new high performance vacuum pump, the latest touchscreen technology and a sleek ergonomic design makes optimising your evaporation processes effortless. New intuitive touchscreen controls enhances monitoring and review of the whole evaporation process. For popular solvent removal protocols pre-set "Press & Go" methods makes operation easy and productive even for occasional users. Simplified manual and automatic programming means even the most complex multi-stage evaporation methods can be set-up and run quickly and easily

Technical Information

Evaporator	
Max rotor speed	1415 rpm
Max load per swing	1.5 kg
Max operational imbalance	80g
Dimensions (W x D x H)	660 x 710 x 840 mm
Weight (approx)[1]	193.3 kg

Vacuum Pump (Remote)	
Type	Oil-free Scroll
Ultimate system vacuum	< 0.4 mbar
Dimensions (W x D x H)	432 x 282 x 302 mm
Weight	26.2 kg
Vacuum hose/control cable	3 m

Condenser	
Type	Dual-stage vapour compression
Refrigerant gas - stage 1	R449A
Refrigerant charge - stage 1	320 g
Refrigerant GWP - stage 1	1,397
Refrigerant CO2e - stage 1	0.5 tonnes
Refrigerant gas - stage 2	R170
Refrigerant charge - stage 2	41 g
Refrigerant GWP - stage 2	6
Refrigerant CO2e - stage 2	< 0.001 tonnes
Total CO2 equivalent (CO2e)	0.5 tonnes
Ultimate low temperature[2]	-75 °C
Max Pressure (PS)	30 bar

Emissions	
Noise (@ 1 metre)	65 dB(A)
Exhaust hose (supplied)	6 mm ID / 8 mm OD

Electrical	
Supply	230 V 50 Hz/208 V 60 Hz
Max supply input	1500A

Power Consumption			
		Current (A) at unit voltage	
		HT-6	HT-12
Supply 1	Peak:	21	26
	Running:	19	22

Storage/Transportation Environment	
Ambient Temperature	0 °C - 40 °C[3]
Relative humidity	10-80% non-condensing
Store upright at all times	

Operational Environment	
Ambient temperature	15 °C to 30 °C
Relative humidity	10-80% non-condensing
Altitude	Sea-level to 1600 m
Min. ventilation air-gap	70 mm
Installation environment	Indoor only
	Static-dissipative laboratory or similar

Solvent Capacity & ACC Range	
Maximum solvent capacity	4.5L
Refrigeration ACC range: 100°C.	

Inert Gas Supply Requirements			
Max. Pressure	2 bar g (3 bar absolute)	Max Consumption (Purge)	120 litres approx.
Min. Pressure	1.5 bar g (2.5 bar abs.)	Max Cons. (Blanket)	60 litres/hour approx.
Flow Rate (nominal)	50 litres/min @ STP	Connector Type	⅜" BSP female
Hose Length	2.5 m		

[1] varies with build options.
[2] Ultimate low temperature; operational values may vary.
[3] -10 °C permissable during transport (only).

SP Genevac EZ-2 Series

Manufacture: SP- Scientific

The third generation of the EZ-2 Series is the pinnacle of parallel evaporation that draws on the expertise of Genevac engineers and the experiences of many scientists in the laboratory. Using the most advanced proven technology in evaporation science, the EZ-2 Series has been designed specifically for solvent removal in many areas of scientific research, whether concentration of samples or complete drying is required.

SP Genevac Rocket Synergy 2

Manufacture: SP- Scientific

Designed to dry or concentrate up to six flasks, each containing a maximum of 450ml of solvent, or 18 ASE® vials, with no user intervention or attention. The removable flask rotor may also be replaced with a 5 litre stainless steel vessel for batch processing.

Rocket Synergy 2 controls are very easy to use. Load your samples, select the correct method,press start and walk away. The evaporator is equipped with high performance features that prevent foaming, bumping and cross contamination. A built-in cold trap provides very high levels of solvent recovery, even with volatile organic solvents. Auto-draining, under the control of the Rocket Synergy 2, ensures optimal solvent recovery is maintained under all conditions.

SP Genevac miVac Sample Concentrators

Manufacture: SP- Scientific

miVac is a modular range of centrifugal vacuum concentrators and freeze driers capable of removing water and organic solvents from a variety of sample formats including tubes, microplates, and vials.

Choose from the Duo Concentrator for low sample numbers or the Quattro Sample Concentrator for larger numbers. Combine with a Duo, Quattro or Scroll vacuum pump depending on the solvents being concentrated and add further options such as the unique SpeedTrap cold trap and vacuum controller.

Unique solid aluminium JetRotors and built-in special methods optimise the concentration of water and water mixtures, improving performance and reducing time.

Concentrators		
Specifications	***Duo***	***Quattro***
Dimensions mm (in.) WxDxH	360x424x300 (14.2x16.7x11.8)	480x594x300 (18.9x23.4x11.8)
Max g-force	250	250
Vacuum connection	0.5 in. or 12.7 mm	0.5 in. or 12.7 mm
Weight	21 kg (46.3 lbs)	35 kg (77.2 lbs)
Temperature range	Ambient, 30ºC - 80ºC	Ambient, 30ºC - 80ºC

Pumps			

SpeedTrap	
Specifications	
Temperature	Minimum temperature -50°C; nominal operating temperature -35°C

Specifications	***Duo Pump***	***Quattro Pump***	***Scroll Pump***
Vacuum level (Maximum)	10 mbar	<2 mbar	0.15 mbar
Flow rate	38 l/min (2.3 m3h)	33 l/min (2 m3h)	83 l/min (5 m3h)
Vacuum connection	0.5 in. or 12.7 mm	0.5 in. or 12.7 mm	0.5 in. or 12.7 mm
Outlet connection	3/8 in. or 9.5 mm	3/8 in. or 9.5 mm	3/8 in. or 9.5 mm
Dimensions mm (in.) WxDxH	215x394x300 (8.5x15.5x11.8)	215x394x300 (8.5x15.5x11.8)	249x427x288 (9.8x16.8x11.3)
Weight	13 kg (28.6 lbs)	18 kg (39.6 lbs)	23 kg (50.7 lbs)

Cooling power	134 Watts
Refrigerant medium	R449A
Glass Vessel Capacity	1 litre as standard, 2 litres with option
Vacuum connections	0.5 in. or 12.7 mm
Dimensions mm (in.) WxDxH	212x563x450 (8.3x22.2x17.7)
Weight	25 kg (55.1 lbs

Dimension mm (WxDxH)	360x597x300
Max G-force	250
Temperature range	Ambient, 30ºC - 80ºC

SP Genevac miVac DNA

Manufacture: SP- Scientific

The miVac DNA is an ideal small vacuum concentrator for the molecular biology laboratory.

The miVac DNA is capable of removing low volumes of water and organic solvents from a variety of sample formats including tubes, microplates, vials and round bottom flasks. Making it an ideal concentrator for the busy molecular biology laboratory.

Steam Sterilizer

STEAM STERILIZERS S100

Manufacture: Matachana

The Series S100 steam sterilizers incorporate in its technical design the latest advances in safety and efficacy.

-Useful chamber volume: 75-80l

- Capacity in S.M.: 1
- **Technology:** new control system more powerful and more advanced. TFT touch screen for loading area with integrated PLC and PLC register that ensure autonomy from temperature and pressure readings. Front backlit with indicator icons that show the status of the sterilizer
- **Ergonomics:** more accessible displays with a modern and versatile interface
- **Sustainability**: energy and water consumption reduced thanks to built-in economizer systems
- **Efficiency**: vacuum system by Venturi ensuring a low water consumption

- **Compatibility**: perfect drying tested with the most demanding packaging on the market

STEAM STERILIZERS SC500

Manufacture: Matachana

MATACHANA Series SC500 Sterilizers have been designed taking into account the real needs of today's hospital sterilization, as much in sterilization centrals as in surgical units, outpatient centres, outsourced sterilization services, etc.

The SC500 is designed in our R + D centers in Spain and Germany, and manufactured in our production site in Barcelona (Spain), a new plant equipped with the latest technological breakthroughs in terms of sustainability, energy efficiency and process control.

- **Technology:** new control system more powerful and modern. TFT touch screen for loading area with integrated PLC, as well as register PLC which ensure independent readings between temperature and pressure. Frontal made of an innovative material that prevents dirt and reflections. Easy to clean. Frontal backlit indicator icons that show the status of the sterilizer.

- **Ergonomics:** more accessible displays with a modern and versatile interface.

- **Sustainability:** energy and water consumption reduced thanks to incorporated economizer systems.

- **Efficiency:** redesigning of vacuum system by Venturi ensuring a low water consumption.

- **Compatibility:** perfect drying tested with the most demanding packaging on the market.

- **Connectivity:** ready to connect with the most usual management and traceability systems via Ethernet port.

- **Comfort:** new range of more functional accessories, adapted to the loading requirements.

- **Accessibility:** full circuits and components redistribution that facilitates the
accessibility of the Technical Service for easy maintenance procedures.

- **Remote diagnosis:** remote connection via Ethernet port to know the sterilizer's condition and enable the Technical Support Service to diagnose incidences/failures remotely for faster solution.