



VT series pulsae vacuum sterilizer uses saturated steam as sterilizing medium, through pulsating vacuum, the saturated steam can penetrate to the surface of the articles completely, and the high temperature saturated steam under high pressure can kill all microorganisms and their buds, the sterilizing effect is reliable, it is the most effective method in physical sterilization method. Can be widely used in pharmaceutical, biological engineering, scientific research and other fields of fabric, instruments, lumen instruments, rubber, liquid sterilization treatment. Main performance features

- Vertical sliding door , motor chain drive door up and down vertical sliding open and close, no manual operation, save space occupation.
- Double door channel type, with pressure safety interlock, liquid program with temperature door safety interlock, double door interlock.
- Inflatable pressure driven sealing ring to achieve automatic sealing, the new high quality high tear resistance silicone rubber material circular hollow door sealing ring, the surface of special coating treatment, wear-resistant smooth, with better sealing effect and longer service life, life up to 1500 cycles.
- Main structure is rectangular section, European ring reinforcement jacket without flange structure, sealing groove is directly welded on both ends of the ring jacket.
- Intelligent maintenance system :(optional) equipped with a remote monitoring and maintenance module, you can remotely monitor the device running on a PC or mobile phone and upgrade software.
- Has sterilization procedures for fabric, instrument, cavity instrument, rubber, liquid, custom and BD test, vacuum leakage test and other test procedures.
- Pulsation mode: adopt negative pressure pulsation, cross pressure pulsation and positive pressure pulsation modes, the air removal capacity is greater than 99.99%, save steam consumption, improve steam sterilization and drying effect.
- Flash vacuum drying technology, fabric dryness is less than 0.6%, instrument dryness is less than 0.1%
- Prints process data in real time via a built-in printer, and pharmaceutical customers are equipped with a paperless recorder.
- Pipeline system: stainless steel sanitary pipeline, clamp connection, welding seam all adopt automatic pipe welder welding; The main control valves are imported German Angle seat valve and solenoid valve, German direct water ring vacuum pump.
- Supply system detection and alarm system: equipped with steam, water, power phase sequence detection and alarm device, once the supply system does not meet the operating conditions of equipment, automatic alarm, and forbid the program to start and terminate the program operation.
- With automatic drainage temperature adjustment system, drainage temperature <60℃.

Technical parameters

Chamber design pressure	-0.1/0.3MPa	Accuracy of temperature	0.1℃
Jacket design pressure	0.3MPa	Accuracy of pressure	0.1KPa
Generator design pressure	0.8MPa	Sterilization temperature control accuracy	±1℃
Design temperture	150℃	Negative pressure pulsating vacuum	-80 ~0KPa
Maximum operating temperature	139℃	Across the pressure pulsation	-80~80KPa
Maximum operating pressure	0.25MPa	Positive pressure pulse	0 ~ 9 times

Safety valve	0.28MPa	Maximum vacuum	-97 KPa
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MODE	Chamber size	volume (Liter)	Overall dimensions	weight Kg	Steam consumption	Water consumption	POWER
	W*H*D		L*W*H		Kg/C	Kg/C	
VT-0.08	350*350*650	80	950*1020*1700	320	6.5	40	380V, 50HZ, 2KW+(12KW)
VT-0.1	350*350*820	100	1120*1020*1700	360	8	50	380V, 50HZ, 2KW+(12KW)
VT-0.12	350*350*1000	120	1250*1020*1700	390	9	60	380V, 50HZ, 2KW+(12KW)
VT-0.15	450*450*750	150	1050*1120*1800	520	12	80	380V, 50HZ, 2KW+(15KW)
VT-0.18	450*450*900	180	1200*1120*1800	570	14	90	380V, 50HZ, 2KW+(18KW)
VT-0.25	550*550*850	250	1150*1290*1850	745	16	120	380V, 50HZ, 2KW+(20KW)
VT-0.3	550*550*1000	300	1350*1290*1850	820	18	140	380V, 50HZ, 2KW+(20KW)
VT-0.36	610*610*1000	360	1350*1350*1850	870	20	160	380V, 50HZ, 2KW+(30KW)
VT-0.45	652*690*1000	450	1350*1400*1950	965	22	180	380V, 50HZ, 2KW+(30KW)
VT-0.6	652*690*1350	600	1700*1400*1950	1150	35	320	380V, 50HZ, 3KW+(36KW)
VT-0.8	652*690*1800	800	2150*1400*1950	1350	52	400	380V, 50HZ, 3.5KW+(48KW)

VT series sterilizer Configuration		
	NAME	Specification/Material
pressure vessel	Chamber	304
	Jacket	304
	Steam generator	304 Independent pressure control, visual level gauge
DOOR	Door material	304
	Sealing ring	Silicone rubber with perrin coating
	Opening and closing mode	Vertical sliding door
	The number of the door	Double door o
	Interlock protection device	Froming the lock,Door pressure interlocking protection device/door temperature interlocking

		protection device/anti-hand clamping protection device
condenser	Built-in condenser	AISI 304
Piping system	Vacuum pump	2BV2-060
	Solenoid valve	AirTAC
	Pneumatic Angle seat valve	RSG
	Door sealing reversing valve	AirTAC
	Valve island (5 valves)	AirTAC
	Vacuum pump water recirculation water saving noise reduction system	The water tank is used to collect the circulating water of the condenser. When the temperature of the water tank is lower than 35℃, it is used to supply water to the vacuum pump, saving water consumption and reducing the noise caused by the pressure of the vacuum pump.
Control system	Remote monitoring system	Remote monitoring, remote program upgrade, fault alarm maintenance prompt information is pushed to the mobile phone or PC terminal With visual level gauge
	Water source pressure detection device	√
	Three-phase phase sequence disconnection	√

	protector	
	PLC	Siemens
	Touch screen	7 "Color ,USB port for download the information,With USB port
	Recording device	Built-in printer
	Temperature sensor	Haituo instrument
	Jacket pressure sensor	Swiss Huba
	Chamber pressure sensor	Swiss Huba
	Switching power supply	Taiwan MingWei
	circuit breaker	Schneider
	contactor	Schneider
	relay	Schneider
	Phase sequence break phase protector	Schneider
	Anti-dry temperature controller	√
	Autoturn off evaporator heating function is not used in sterilizer	√
	Jacket and	√

	evaporator independent pressure control		
Loading method	Loading method	Equipped with 304 loading truck + transfer truck	
housing	housing	304 frosted anti-fingerprint stainless steel plate	
Technical parameters	pressure	Chamber Design pressure	-0.1/0.3Mpa
		Jacket Design pressure	0.3MPa
		Evaporator design pressure	0.7MPa
		Max.working pressure	0.25 Mpa
		Safety valve opening pressure	0.28 Mpa
		Evaporator relief valve pressure	0.65MPa
		Compressed air source	0.5 ~ 0.7MPa
		Water source pressure	0.15 ~ 0.3Mpa
		Test pressure	0.4-0.5 MPa
	temperature	Max.working temperature	139 °C
		Sterilization temperature setting range	105 to 139°C
	Parameter Settings	Drying time setting range	0 to 9999 seconds
		Pulsation times range	0 ~ 99 times
		Sterilization time range	0 ~ 9999 seconds
		Drying time range	0 ~ 9999 seconds
	language	Language	English or Spanish

Product Introduction:

Automatic double water bath sterilizer_370L

Sterilizer inner diameter/cylinder length/full volume: 500mm /700mm / 0.37m³

Hot water tank inner diameter/barrel length/full volume: 500mm /800mm / 0.3m³

Design pressure/maximum working pressure: 0.35 Mpa/ 0.30 Mpa

Design temperature/Maximum operating temperature: 147°C/130°C

Power supply voltage/total installed power: 380V, 50Hz/ about 33KW (circulation pump 1.5KW, cold water pump 1.5KW)

Pot material/tank wall thickness: SUS304 stainless steel/sterilization pot wall thickness 4mm, hot water tank wall thickness 4mm

Water quality requirements: sterilization water/cooling water is softened water, hardness: $\leq 0.03\text{mmol/L}$

Heat exchanger: 3 square

POTS with diameter 153 mm and 155 mm high can fit about 20, and POTS with diameter 54 mm and height of 90 mm can fit about 300.



Product Introduction:

Double automatic sterilizer_460L

Material: stainless steel
 Quantity: Double layer
 Inner diameter: 700mm
 Effective length of pot body: 1200mm
 Design temperature: 147°C
 Design pressure: 0.35Mpa
 Heating method: electric heating
 Operating pressure: 0.3Mpa
 Heating method: electric heating
 Control mode: Fully automatic
 Structure: Double layer
 Equipped with 1 trolley, 3 sterilization plates, size: 1200*450*150mm.





05



01



04



06



02 (deep tank)



deep tank bearing set



simple knob control panel



design of unpack side-plate

X-ray Film Processor parameter and specifications

Model	01	06	04	05	02
Rinse time	Min. 3"×6" Max. 14"×17"	Min. 3"×6" Max. 14"×17"	Min. 3"×6" Max. 14"×17"	Min. 3"×6" Max. 14"×17"	Min. 3"×6" Max. 14"×17"
Process time	105/135/165s whole 25/35/45s dev.time	105/135/165s whole 25/35/45s dev.time	90~250s whole 20~60s dev.time	90~250s whole 20~60s dev.time	90~300s whole 25~70s dev.time
Dev. capacity	80pcs/h (14"×17") 145pcs/h (10"×12")	90pcs/h (14"×17") 145pcs/h (10"×12")	105pcs/h (14"×17") 165pcs/h (10"×12")	115pcs/h (14"×17") 165pcs/h (10"×12")	220pcs/h (14"×17") 280pcs/h (10"×12")
Dev. time	28"~37"at option	28"~37"at option	20"~40"at option	20"~40"at option	20"~40"at option
Dryer temp.	40°C~65°C	40°C~65°C	40°C~65°C	40°C~65°C	20°C~70°C at option
Channel Volume	5.2L	8.2L	5.2L	8.2L	12.5L
Washing Control	water 2~8l/min when rise	water 2~8l/min when rise	water 2~8l/min when rise	water 2~8l/min when rise	water 2~8l/min when rise
Replenish -ment	Auto./manual 20~200ml for 0.5s,qm	Auto./manual 20~200ml for 0.5s,qm	Auto./manual 20~200ml for 0.5s,qm	Auto./manual 20~200ml for 0.5s,qm	Auto./manual 20~200ml for 0.5s,qm
Power source	200V/50Hz/8.8A Power input 2000w	200V/50Hz/8.8A Power input 2000w	200V/50Hz/8.8A Power input 2000w	200V/50Hz/8.8A Power input 2000w	200V/50Hz/8.8A Power input 2000w
Packing size	1130×757×700/mm 100kg/G.W	1105×830×710/mm 110kg/G.W	1130×757×700/mm 100kg/G.W	1105×830×710/mm 110kg/G.W	1305×850×1530/mm 130kg/G.W

LD series X-ray Film Processor

Multi-purpose applications

an innovative table-top processor for film types up to a width of 35cm(14"). The allrounder is used in various fields: human medicine including mammography, in veterinary medicine as well as for laboratory and graphic arts applications. The msl is easy to service and presents itself with an attractive design.

Best economic efficiency

The integrated stand-by mode reduces your water and energy consumption. The film detection with a micro sensor enables intelligent and economic replenishment depending on the processed film surface. Because of that the Prook saves chemicals and provides a constant high quality of your image.

No problem operation, perfect safety

With the simple control panel the tanks easily be filled during the warm-up cycle and the developer temperature can be set. Acoustic and visual controls signal the readiness for processing of the next film. The anti-crystallisation and antioxidant programs in combination with the continuous circulation of the chemicals and the thermostat for the developer ensure constant high image quality. The processed film is available 90 seconds after processing. For special applications the processing time can be adjusted to 90~360 seconds (factory set, please state preferred timing when placing order).

Coordinated product range:

e.g. msl Processor for fresh air in the dark room.

TEST ITEMS

Basic blood-gas	Haematology	Electrolyte	Biochemistry
pH, pCO ₂ , pO ₂	Hct	K ⁺ , Na ⁺ , Ca ⁺⁺ , Cl ⁻	Glu, Lac

CALCULATION PARAMETERS

Total 24 Parameters:

cH⁺; cH⁺(T), pH(T), pCO₂(T), pO₂(T), HCO₃⁻std, HCO₃⁻atd, BB(B), BE(B), BE(ecf), ct CO₂, Ca⁺⁺(7.4), AnGap, tHb(est), sO₂(est), pO₂(A-a), pO₂(A-a)(T), pO₂(a/A), pO₂(a/A)(T), RI, RI(T), pO₂/FI O₂, pO₂(T)/FI O₂, POP

TEST PACKAGES

Cat. No.	Test Item	Qualification
W461	K ⁺ , Na ⁺ , Ca ⁺⁺ , Cl ⁻	C € NMPA
W465	pH, pCO ₂ , pO ₂ , K ⁺ , Na ⁺ , Cl ⁻ , Ca ⁺⁺ , Hct	C € NMPA
W466	pH, pCO ₂ , pO ₂ , K ⁺ , Na ⁺ , Cl ⁻ , Ca ⁺⁺ , Hct , Glu, Lac	C € NMPA



Fight for time and grab treatment opportunity for critical patients whenever wherever !

Blood Gas Analyzer

- Reliable
- Portable
- Accurate
- Efficient



C € NMPA

1 BENIFITS

Automatic Sampling Process

Without manual operation, the procedure is more simple.

Maintenance Free

Compact instrument design, no internal liquid path, no need for maintenance.

Easy To Use

Only two steps are required to complete one sample test.

Accurate Results

Good correlation with the Radiometer and help doctors make a diagnosis.

Carry With Ease

Small and light, humanized handle makes it easier to carry.



302 (L)*226 (W)*180 (H) mm
No more than 6.5 kg
(including battery but no power adapter)

Design advantages make it adapt to different scenarios.



Battery powered



Built-in Printer



LIS Connect Function



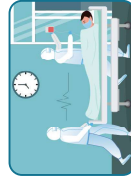
Operate Video

2 APPLICATION SCENARIOS

Necessary equipment for medical institutions to treat critically ill patients.



ICU/CCU/NICU



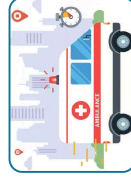
ER



OR



Pneumology Department



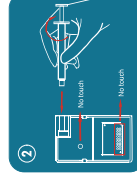
Ambulance

3 OPERATION

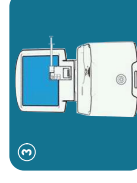
Two-steps operation, One complete test.



Sampling



Connecting



Inserting



Reading

4 COMPONENTS

Less product component, better user experience.

Test Card		One test card, multiple solutions. <ul style="list-style-type: none"> Sample Type: Arterial Whole Blood Sample Volume: 80 μL Test Time: 45 s Store at room temperature for up to 12 months Suitable for syringe
Reagent Pack		<ul style="list-style-type: none"> Storage Condition: 2~8°C Shelf Life: 12 months Installed Life: 10 parameters: 45 days 8 parameters: 60 days
Quality Control		<ul style="list-style-type: none"> 3 levels quality control analysis External quality control

MSLCX10

Uhf mobile C-arm X-ray machine

Technical parameters (enhanced version)

Working conditions

Environmental requirement:
Ambient temperature: $10^{\circ}\text{C} \sim 40^{\circ}\text{C}$
Relative humidity: $30\% \sim 75\%$
Atmospheric pressure: $70 \sim 106\text{kPa}$

Power requirements:
Supply voltage: 220V , 50Hz
Internal resistance of power supply: $\leq 0.3\Omega$
Power supply capacity: $\geq 5.5\text{kVA}$

Scope of application

It is suitable for emergency, general surgery, spine surgery, orthopedics, trauma, pain, radiology, plastic surgery, operating room and other departments for X-ray examination and diagnosis. It can be used for internal foreign body removal, lumbar surgery, osteopathy, reduction, nailing and other diagnostic work

Oil-cooled combined high adaptability ball tube

1. focus size: small focus 0.3mm large focus 0.6mm
2. anode heat capacity: 300KHU
3. tube sleeve heat capacity: 900KHU

High voltage generator

- ★1. output power: 5.5kW (the first unit with 5.5kW product registration certificate in China)
- ★2. working frequency: 100kHz (ultra-high frequency design, frequency up to the most domestic, to ensure high-definition picture quality at the same time, radiation is far lower than the national standard)
3. perspective current: $0.3\text{mA} \sim 4.0\text{mA}$ (step size 0.1mA)
4. film current: $30\text{mA} \sim 78\text{mA}$
5. perspective, photography kV : $40\text{kV} \sim 120\text{kV}$ (step length $1\text{kV}/10\text{kV}$)
6. the current time product: $1\text{mAs} \sim 160\text{mAs}$

Filter grid

1. grid ratio: $8:1$
2. density: $40\text{l}/\text{cm}$
3. focal length: $90\text{cm}/100\text{cm}$
4. the use of imported high-density filter line grid, efficient filter scattering line

Intensifier

1. Toshiba 9 "image intensifier
2. the image intensifier receiving screen can be loaded with a simple camera rack for $10'' \times 12''$ size magazine photography

Monitor

1. 2 sets of 19 inch LCD HD display
2. double screen display, using the world's most advanced image transfer technology, two monitors can display dynamic and static two different images at the same time. At present, this technology is our company's proprietary technology



Image processing

Hardware part

1. GEMSS (Professional Industrial Computer)
2. aviation special quality dual-core 2.9GHZ
3. DDR four generations 4GB
4. hard disk: 500G large capacity

★ 5. the use of high-end notebook special hard disk: seismic, anti-fall, read stable

★ Comprehensive advantages: Professional computer performance is stable, the operating system is professionally customized, with data recovery function, after misoperation, shut down and restart the system after automatic restoration, there is no need to worry about data loss, computer crash.

Accessories can be replaced in 5-10 years. Industrial control fanless mini model, low power consumption, no noise, pure metal aluminum shell cooling effect is good for high temperature environment work

Software part

★ 1. with independent research and development of image processing system, and provide the original factory obtained national utility model patent certificate real-time acquisition, up and down mirroring, left and right mirroring, positive and negative image conversion, multi-image storage, last frame freezing, digital image 360° polar rotation, real-time image sharpening, window width, window position, noise reduction, gain, rotation, 2.brightener adjustment processing, image remarks, multi-screen display, image polar scaling, multi-directional field of view free conversion and other image post-processing functions

3. large memory, mass storage of images

4. stepless recursive noise reduction

★ 5. image format storage support: JPG, DCM, RAW, BMP

★ 6. print mode support traditional report printing and DICOM film printing

★ 7. picture information display support patient information, hospital information, operator information are all reflected around the image

8. with DICOM3.0 protocol, can meet the hospital PACS/HIS system connection

9. can accept other devices with DICOM protocol image processing and browsing

★ 10. the image can be measured for length and Angle and related specific annotations

★ 11. with the overall image zoom function (that is, no distortion amplification), with the image local amplification function

★ 12. according to the set parameters, can completely eliminate the intraoperative tailing phenomenon, for difficult new operations such as percutaneous vertebroplasty has a good support

★ 13. patients can be stored in the same case in different time periods

★ 14. with the whole recording image function, convenient for later medical research

CCD camera

- ★ 1. image resolution $\geq 2.2lp/mm$
2. Maximum frame rate of image acquisition: 30fps
3. A/D conversion coefficient (gray level) $\geq 14bit$
4. camera pixel size: 1 million ($1K \times 1K$)

★ Imported GEMSS HD megapixel ultra-low illumination camera, equipped with medical image acquisition card, faster (image transmission to the display only 0.8s), while greatly improving image quality

C-arm structure

1. C-arm frame (with perfect C-arm balance system)
2. Diagnostic space: SID $\geq 920mm$; Opening $\geq 720mm$; Arc depth: $\geq 650mm$;
3. C-shaped arm up and down movement: $\geq 400mm$;
4. C-shaped arm horizontal movement: $\geq 200mm$;
5. C-arm swing Angle: $\pm 15^\circ$;
6. The C-shaped arm rotates in the horizontal direction: $\pm 360^\circ$;
7. The C-shaped arm rotates along the arc orbit: $-30^\circ \sim +90^\circ$

Beam: fixed full surround type

Electric machine

1. the lifting motor, the electric lifting to achieve no noise design, and the lifting will not shake
2. the C-arm bracket adopts imported alloy profiles to ensure long-term use without fracture

Electric machine

1. digital high frequency host, digital interface, microcomputer control, waterproof film switch, automatic detection, automatic protection, to ensure that the machine is not damaged
2. large screen LCD, Chinese display, good interactive interface, more convenient for doctors to read information
3. the perspective cumulative time timer is the alarm, with fault alarm, one button restore
4. with IBS function, simplify the operation while the radiation is lower
5. modular design, greatly improve product performance, safety
6. with manual two-speed hand brake exposure, foot brake exposure, remote control exposure device three modes, indoor and outdoor can control the instrument

After-sales service

★ We always uphold the "heart to serve the society, with love to travel the world" service concept, adhere to the safest products, national warranty, one-year warranty, the use of domestic unique replacement maintenance. In the country set up 28 offices, 6 branches, products all over the world, service everywhere! Equipped with professional and perfect after-sales service team, after-sales service 24 hours online, call 10 minutes response, within 1 hour to give the best after-sales service plan, the first time to rush to the scene, for you to solve all the problems encountered in the use of the machine.

Technical specifications

DEFIBRILLATOR

- (1)Defibrillator type:Manual, Synchronized, Asynchronized
- (2)Energy accuracy: $\angle +1\%$
- (3)Energy selection:0, 3, 5, 7, 10, 20, 30, 50, 100, 200, 300, 360 joules (nominal at a resistance of 50)
- (4)Charging time:Maximum 10 seconds to 360 Joules
- (5)Standard Adult/Pediatric Paddles:Reusable external adult paddles (pediatric paddles integrated)

Power requirements

- (a)AC Power supply:100V~240V,50Hz/60 Hz
- (b)Vehicle Voltage(Optional):DC 12V

Internal Battery Backup

- (1)Battery type:Rechargeable lead-acid battery (12V 2.0Ah X2)
- (2)Charging time:Time-Minimum of 4 hours for full charging
- (3)Battery charging:During AC Power Supply operation of the device.
- (4)Charging /Low Battery Indication:Red LED
- (5)Battery Capacity:100% of the battery will provide 120-min monitoring; and 30 discharges at 360 joules.

Display

- LCD Dimensions:7-inch
- Type:High resolution true-color graphic
- Resolution:480X234

ECG

- ECG lead: I , II , III , AVR, AVL, AVF, V1~V6
 S-T segment analysis: -2.0~2.0mv
 Arrhythmia analysis: yes
 Protection: With stand 4000vAc/50Hz voltage in isolation
 and work against electrosurgical knife and defibrillation

Respiration

Measurement method: Thoracic impedance

Standard parameter & configuration

ECG/ RESP/DEFIBRILLATOR

Optional parameter

Recorder, Li-ion battery (11.1V 4Ah X2)

Physical characteristics:
 Main unit: Portable
 Dimensions:L320xW205
 xH410
 Weight:9.5kg



Biphase

Defi-Monitor

Electric hospital bed

【Three-function Electric Hospital Bed (YHC105) 】



Product standards:

Electric beds meet the requirements of Chapter 36 of industry standards YY055-2012 and YY 0571-2012. The overall operation of the bed is stable, low noise, low EMI (electromagnetic radiation), and does not interfere with the work of medical equipment such as multi-parameter monitors beside the bed. An optional battery can ensure that the hospital bed can continue to use in case of power failure or transport patients.

Product Overview:

1.1. Product name: Electric bed.

2. Specifications: SD-YHC105 (Note: three-function electric bed)

3. Structural composition of the bed body and its production materials:

3.1 By the bed surface part (backplane, seat board, thigh board, calf board), bed frame part (bed frame, front and rear headboard), lower bed frame part (lifting mechanism, central control caster), electric control part (lifting motor,

backplane motor, leg plate motor, controller, etc. Suspension controller) and accessories (infusion rack, drainage hanger, guardrail, head/tail) and moving device and brake device;

3.2 The production materials of the bed body are: carbon steel, powder spray, high-grade medical grade ABS engineering plastic, etc. Casters, motors and their supporting electrical systems, engineering plastic parts, etc. are supplied by professional manufacturers/suppliers.

4.Product size: 2200mm*900mm*(480–650)mm \pm 10mm (bed surface does not include guardrail width).

5. Product function: Back inclination: $0^{\circ} - 75^{\circ} \pm 5^{\circ}$,

Knee inclination: $0^{\circ} - 45^{\circ} \pm 5^{\circ}$;

Maximum height of overall lifting: 650mm \pm 10mm;

Overall lifting minimum: 480mm \pm 10mm,

Technical parameters:

1. Basic requirements: electric bed basic operation, with the overall lifting, back lifting, leg lifting and other functions, the operation panel is a handheld operator (hanging operator), located inside and outside the head guardrail, the guardrail is a four-piece ABS lifting safety guardrail.

2. Working conditions:

2.1 Ambient temperature range: $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$; Relative humidity: 30% \sim 75%;

2.2 Atmospheric pressure range: 700hPa ~ 1060hPa;

2.3 External power supply: $\sim 220V \pm 10\%$, $50Hz \pm 1Hz$;

2.3 Internal DC power supply: $24V \pm 10\%$;

2.4 Classification according to the type of anti-shock: Class II equipment, internal power supply equipment;

2.5 Classification according to the degree of shock protection: Type B application part;

2.6 Classified according to the degree of protection for liquid intake specified in GB4208: IPX4

2.7 Power supply type of the device: single-phase power supply from the network;

2.8 Input power: 220VA;

2.9 The device is not an AP or APG;

2.10 Equipment operation mode: intermittent loading continuous operation (use 2 minutes/rest 18 minutes);

2.11 Fuse: T5AH250V X 2;

3 Performance indicators:

3.1 Bed length: overall length $\geq 2200mm$

3.2 Bed width: $\geq 900mm$ (excluding guardrail width)

3.3 Bed lifting height (refers to the height from the ground to the bed) :

3.3 (1) Maximum height of the bed body lifting: $\geq 650\text{mm} \pm 10\text{mm}$;

3.3 (2) Minimum lifting degree of bed body: $\geq 480\text{mm} \pm 10\text{mm}$;

Product Description:

1. Bed board

1.1 The bed panel is made of 1.2mm cold-rolled steel sheet once stamped to form a high-grade bed surface;

1.2 The cross-section of the bed adopts the circular process, the surface is smooth without burrs, and has the function of concave and convex anti-slip. The overall bed surface forms a concave panel structure, and the porous design improves the air permeability of the bed body

1.3 The cold-rolled rectangular tube is used around the bed plate to strengthen the reinforcement, the weld is uniform, the bearing capacity is increased, and the stability is reliable

1.4 Bed surface porous design, no rivets, with good air permeability and anti-aging;

1.5 The bed surface is composed of 4 sections, and there are gap grooves between the sections, which are breathable and moisture-proof

1.6 The bed plate link adopts steel bed surface connecting parts, the thickness of a single piece is not less than 3mm, wear-resistant, no noise in operation, anti-breaking.

2.bed body

2.1 The frame of the electric hospital bed is made of carbon steel 30x60*1.2 rectangular pipe with uniform weld and is durable.

2.2 The electric bed body adopts the double-beam structure, and the whole body is equipped with the central control brake system, which has higher stability;

2.3 Automatic spraying line is used on the metal surface of the bed body and electrostatic spraying of Aksu powder, a well-known domestic brand;

2.4 The resin powder is cured on the metal surface at high temperature, and has the antistatic function of anti-acid corrosion, anti-mildew, anti-fading, no rust, no deformation, and easy to scrub and disinfect.

3 ABS Head/end of bed

3.1 The head/tail of the electric hospital bed is blown by ABS advanced engineering plastic, and the board lock is installed on the hospital bed. The hidden lock switch can be locked and easily disassembled. The design is streamlined, beautiful and elegant, and there is no sanitary dead Angle.

3.3 The ABS bed is equipped with medical case card holder to facilitate the registration of patient information;

3.4 ABS head/tail is easy to disassemble and can be used as a CPR board for emergency use to meet the needs of clinical first aid.

4 Guardrail

4.1 The whole bed is equipped with 4 lifting guardrail, and the modeling design combines natural aesthetics and ergonomics;

4.2 ABS lifting guardrail, with a one-key release abduction down type function, while the guardrail can be hidden under the bed when not in use, beautiful, solid and durable;

4.3 The guardrail of this electric hospital bed is configured with a utility model patent, which controls the speed and noise of the guardrail lifting through the damper buffer to ensure the smooth lifting and lowering, while reducing the impact of the noise of the guardrail lifting and lowering on patients;

4.4 The electric hospital bed is equipped with 4 ABS lifting guardrail, which can be turned up and down at the same time, assisted by gas spring, which is more portable and flexible, and has the function of anti-clamping hand;

4.5 The four guardrails equipped with this electric hospital bed have hollow design at both ends, which can be used as handrails in emergency;

4.6 The outer side of ABS guardrail head end and tail end are equipped with ball Angle indicators to indicate the front/back tilt Angle of the bed, and are specially marked at 30 degrees to meet the needs of different nursing staff and patient comfort.

5 ✕ Electric drive system

5.1 Three-function electric bed, the use of international well-known brand medical silent motor, bed body, back, leg lifting a total of three groups, through the international medical safety certification. Safe, constant speed, quiet, no static electricity, in line with IP66 waterproof and dustproof protection level.

5.2 The control box can maximize the function of the push rod, with low standby power;

5.3 Controller: with electronic overload protection device, while the overall system controls the drive of three motors to achieve the overall lifting, back lifting, leg lifting and other functions;

6 ✕ Control operation (manual)

6.1 The hand-held manipulator (hanging manipulator) adopts 24V DC voltage, and the control panel buttons are ≥ 4 , which can be suspended inside and outside the head guardrail;

6.2 The manual controller adopts aluminum foil shielded wire, driven by thin film keys and microcomputer controller to control the whole lifting, back lifting, leg lifting and other functions of the bed body, providing the correct orientation of the bed surface control, three kinds of electronic control can be completed by the controller, easy to operate, safe and reliable;

6.3 Optional electric CPR (cardiopulmonary resuscitation) function according to customer needs: in case of first aid, the whole bed can be quickly lowered

and leveled by single key operation;

6.4 Three-function electric bed, according to customer needs, optional mechanical CPR(cardiopulmonary resuscitation) function: in case of emergency, single-hand operation can make the backplane quickly flat; Do not need to carry out multiple operations, one step in place, convenient for patient inspection and diagnosis.

7 casters

7.1 The three-function electric hospital bed is equipped with a luxurious central control brake system, and the brake pedal is controlled by a button of four casters;

7.2 The central control brake system has locking, free, central control locking device, which can realize one foot pedal brake is the biggest feature of this caster;

7.3 Equipped with 5-inch medical double-sided central control silent polyurethane caster, wear-resistant, non-burr, anti-corrosion, good acid and alkali resistance. The caster is equipped with dustproof and anti-hair entanglement device.

7.4 The central control brake mute wheel is made of PU polyurethane, the skeleton is made of aviation aluminum, and the built-in fully enclosed self-lubricating precision bearing has good lubrication performance.

7.5 Four casters with brake device, wheel shaft and turntable are precision bearings, easy to push, flexible control, good stability, flexible and light bed movement.

8 Infusion rack rod

8.1 The three-function electric bed is equipped with four drop sockets at the four corners of the bed, which are stamped and formed by metal material, fixed and welded and inserted without breaking worries;

8.2 The height of the infusion stand rod can be adjusted by itself: loosen the knob, adjust the "adjustment tube" to the required height, and then tighten the "knob", which is convenient to operate and use, and solves the trouble of medical staff to find infusion holes for patients.

9. Mattress

9.1 The three-function electric hospital bed is equipped with a 6cm new medical grade mattress with half brown silk and half memory cotton. The mattress outer layer is equipped with an antibacterial and waterproof bed cover. The total thickness of the mattress is 6cm, among which the thickness of memory sponge is 2cm and the thickness of brown silk is 4cm.

9.2 New medical mattress through high-tech nanotechnology, Escherichia coli, Staphylococcus aureus, Candida albicans and other pathogenic microorganisms have a strong inhibition and killing effect, antibacterial effect

lasting, will not produce drug resistance, safe and harmless to human body high temperature.

9.3 The mattress cover has been made insect-proof treatment, with air permeability, anti-deformation, anti-moisture, anti-mold, wear-resistant function, equipped with zipper can be flexibly disassembled.

五. Daily maintenance and maintenance of electric hospital beds

1, open flame, flammable items, corrosion products, etc. shall not be near the bed body; Do not spray spray insecticides directly into the bed.

2. After the bed or mattress is stained with water or other dirt, it should be cleaned in time to keep it dry and clean.

3. When cleaning the bed, please wet the cloth in neutral detergent diluted with water and wring it out, then wipe it on the bed, and then wipe it dry with a dry cloth. Do not use volatile solvents such as gasoline, alcohol, and thinner.

4, the mattress should be placed in a well-ventilated place to dry every 2 to 4 weeks after use or after dipping with water.

5, all electrical components should be kept dry and clean daily, and prevent mechanical damage.

The picture is for reference only, please refer to the actual object.

Product Configuration list:

Configuration list

SN	Part name	Unit	Quantity	Remark
1	High-grade bed body	sheet	1	Standard configuration
2	ABS four guardrail	set	1	
3	ABS High-end headboard/tail	cover	1	
4	Central control brake mute wheel	piece	4	
5	The manual control device	piece	1	
6	Motor	sleeve	1	
7.	Mattress	sleeve	1	
8	Adjustable infusion rack	rod	1	
9	ABS Mobile dining table	set	1	Select accessories
10	Battery	unit	1	



Portable X-ray machine



Applicable to hospitals | medical clinics | nursing homes

Introduction

Compact and convenient X-ray

a multifunctional portable X-ray machine, including a 5kW X-ray power supply device. Small size, light weight and high power density, It can fulfill various portable X-ray application scenarios.



Product features



① Compact and portable, Easy to use



② Wireless controlled exposure



③ Wired manual exposure



④ Flexible operation, fast imaging



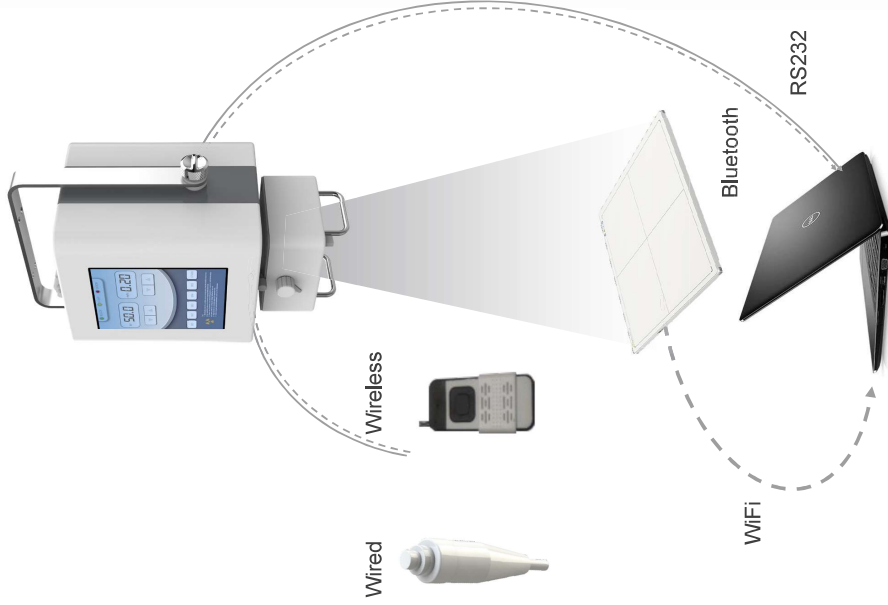
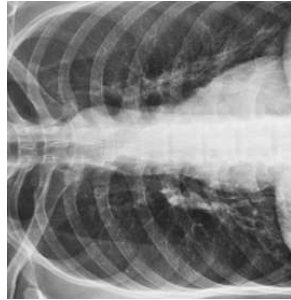
⑤ Bluetooth Support
Easy connection to computer



Application



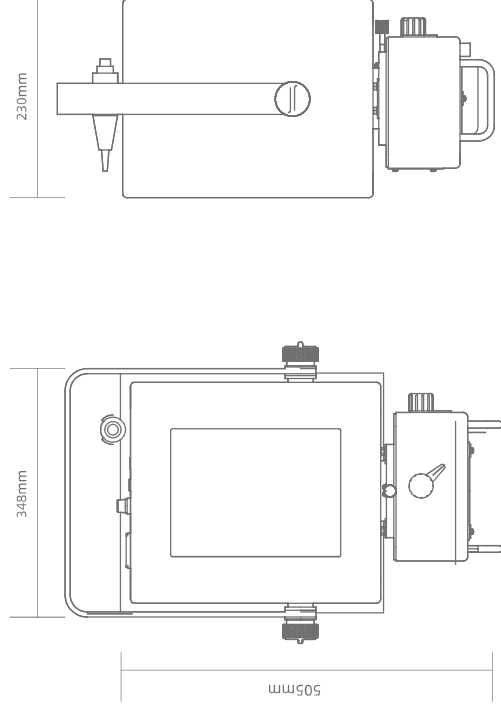
Clinical pictures



Specifications

Type	System Requirements
Electric source	AC 210~230V / AC 100V~120V
Power	5KW
Generator	
kV range	40~125 kV
mAs range	0.1~100mAs
mA range	10~100mA
Communication mode	RS232/Bluetooth
Exposure mode	Wired /Wireless
X-ray Tube	
Focal spots	0.6/1.8mm
Anode Angle	15°
Mechanics parameters	
Size	505 x 348 x 230mm
Weight	16kg

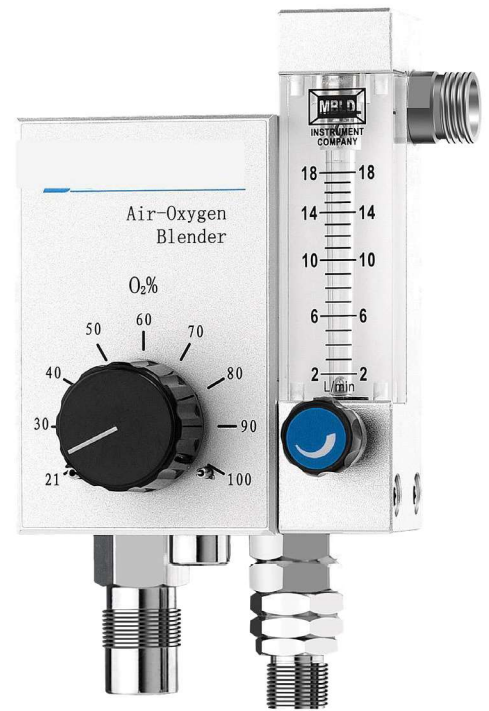
Dimension



Air Oxygen Blender

■ Product Introduction

Medical air-oxygen blender is a device used by medical personnel to control the concentration and flow of oxygen for the rescue of patients with hypoxic problems while avoiding the side effects of pure oxygen inhalation. It provides the ability to mixed air and oxygen in a safe, easy and controlled manner, supporting the use of ventilator, HFNC, infant resuscitator, infant radiant warmer, CPAP, especially suitable for those who have high requirement for oxygen concentration.



🌿 Processed with anodic oxidation

The surface of Pigeon Medical air-oxygen blender is processed with anodic oxidation. Concentration level from 21%-100% of medical oxygen will be configured by adjusting the proportion of oxygen and air.

🌿 Can be specified for either mounting on a pole or rail

In order to offer maximum flexibility, the air oxygen blender can be specified for either mounting on a pole or rail, with a variety flow of flow meters.

🌿 Supply gas to two machines or two patients at a time

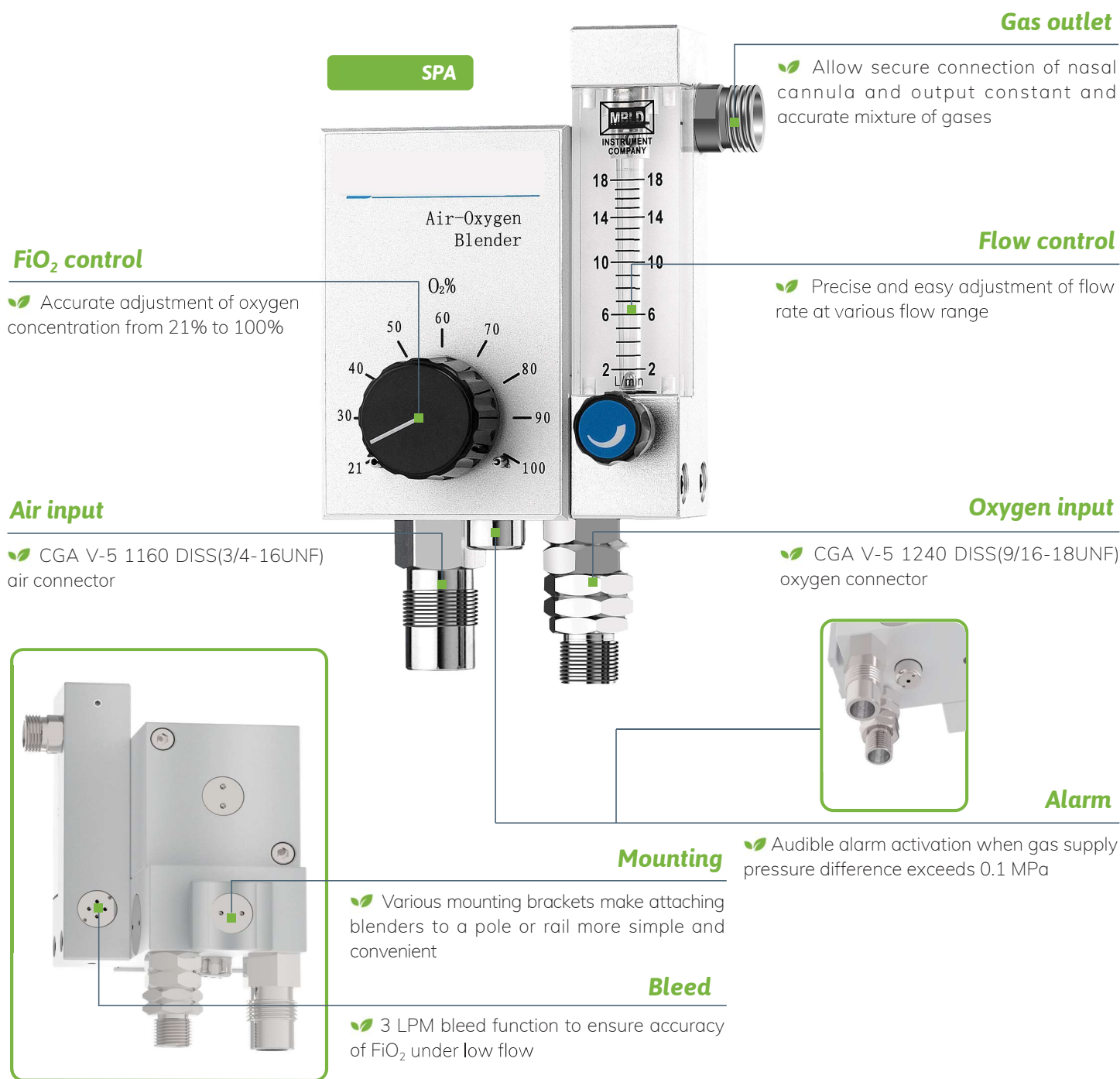
In addition, optional double output ports

SPD2) can supply gas to two machines or two

patients at a time.



■ Product Detail



■ Product Features



Low flow to high flow range optional to meet the needs of patients of different ages



Mechanical alarm system by detection of pressure differential



With bleed function to ensure accuracy of oxygen concentration



Flexible structure with multiple mounting brackets optional

■ Product Specification

Model				
	SPA	SPB	SPD	SPD2
Code	11-01-02-01	11-01-03-01	11-01-02-05	11-01-02-03
Oxygen concentration	21%-100%	21%-100%	21%-100%	21%-100%
Number of flowmeter	1	1	2	2
Number of output	1	1	1	2
Flow range	2-18 LPM	1-15 LPM	0.1-1.0 LPM 1-10 LPM	0.1-1.0 LPM 1-10 LPM
FiO ₂ accuracy	±3%			
Operating pressure	Air/Oxygen@0.3-0.4 MPa			
Oxygen inlet	CGA V-5 1240 DISS(9/16-18UNF)			
Air inlet	CGA V-5 1160 DISS(3/4-16UNF)			
Blender outlet	M16x1.5			
Alarm	Gas-powered buzzer			
Pressure differential alarm	0.1 MPa			
Alarm noise	≥ 57 dB(A)			
Bleed	3 LPM	/	3 LPM	3 LPM
Blender net weight	1.5 kg	1.4 kg	1.8 kg	1.8 kg
Blender size (mm)	96 (L) *120 (W) *150 (H)	83 (L) *120 (W) *126 (H)	121 (L) *120 (W) *150 (H)	135 (L) *120 (W) *150 (H)

■ Recommended Accessories



■ Air/Oxygen high pressure tube

Air: 2m (6.5ft) , black
Oxygen: 2m (6.5ft) , blue



■ Bubble humidifier bottle

Main material :
Aluminum alloy
Capacity: 45-85 ml



■ Mounting bracket

Main material :
Aluminum alloy



■ Central air/oxygen connector

BS, DIN , Ohmeda , FS,
JIS and SIS standards
optional



■ A output connector II

OD :
7-8.5 mm



■ A output connector III

OD :
15-16 mm

CARE FOR YOU !

OLV-5S/10S

MEDICAL GRADE OXYGEN CONCENTRATOR



FEATURES:

Support 24*7 continuously working

93%±3% purity

Low noise

Approved by **TUV CE**, and
our factory implements **ISO13485** certified strictly.

Model No.	5S	10S
Voltage	AC220V \pm 22V, 50Hz \pm 1 Hz/110v \pm 15V,60Hz \pm 1 Hz	
Outlet Pressure	20Kpa-60Kpa	
Flow Rate	0-5L/min	0-10L/min
Oxygen Purity	93% \pm 3%	
Sound Level	Less than 45db	Less than 50db
Input Power	500VA	800VA
Net Weight	23 Kgs	28Kgs
Dimension(MM)	350 X 250 X 670mm	
Working System	Continuous flow	
Warranty	2 Years	
Standard Accessories	2*Nasal Cannula 1*Humidifier Bottle 1*User Manual	1 *Extra First Filter 1 *Extra Hepa Filter 1*Warranty Card
Optional Function		
Nebulizer	Nebulizing Rate NO.15ml/min	
Dual Flow	2 person can use at same time	
Low Purity Alarm	Green Light : 82% Yellow Light : 65%-82% Red Light : <65%	
Remote Control	Wire-less Remote Control in 3m	

PSA Oxygen Generator System (Oxygen Plant)

Altitude: 0~1000m

Model: MNPO-20/93-150

Purity: $\geq 93\% \pm 3$, Flow Rate: 20Nm³/h,

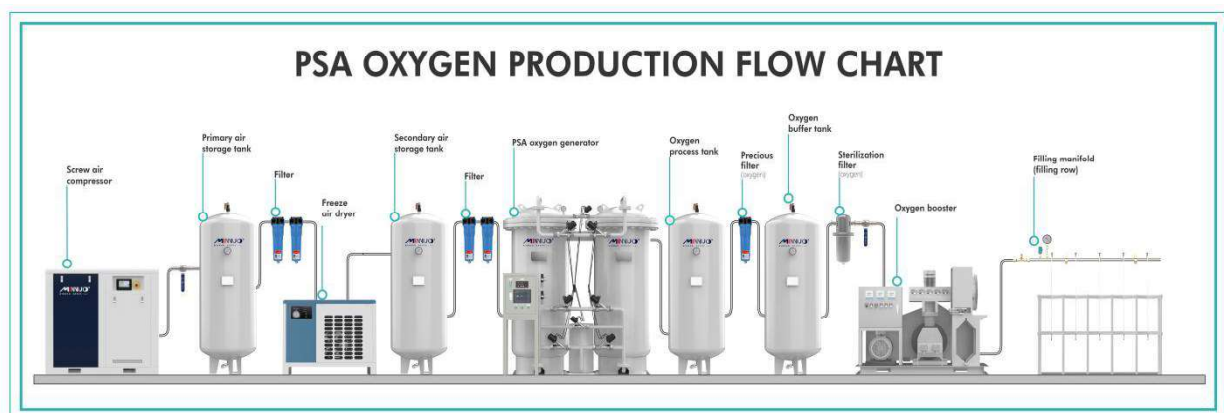
Pressure: (150bar Automatic filling system)



Principle of PSA Oxygen Generator

The PSA Oxygen Generator is an air separation unit which is based on molecular sieves selective adsorption of nitrogen from air and can continuously generate gas oxygen with a purity $\geq 93\%$ at ambient temperature, and the adsorbed nitrogen can be desorbed by decreasing the adsorbed bed pressure resulting cyclical adsorption-desorption operation.

Reference:



This PSA Oxygen Generating System is composed of Compressed Air System, Compressed Air Purification System, PSA Oxygen Making System and Oxygen Storage System.










Air compressor provides compressed air with certain pressure;





Air purification system purifies compressed air by removing the dust, oil and water;

Oxygen and nitrogen separation system produce qualified oxygen gas with PSA technology;

Oxygen Storage system provides a stable source and store oxygen gas.


1.Main Configuration Table

NO.	Pictures	Name	Specification		
1		Screw Air Compressor	Model: N-50A-DT,Power: 37KW, Air output: 6.7 m ³ /min,Pressure: 0.7Mpa		
2		Primary air storage tank	Capacity:600L, Working Pressure:0.8Mpa, Internal anti-corrosion treatment. Material: carbon steel, with safety valve, Pressure gauge. With Automatic Drainer		
3		Freeze Air Dryer	Compressor brand:Panasonic Model:BL0080, Flow rate8.8m ³ /min,		
4		4Stage filter group(air)	Precious filters, remove water. oil, dust, bacteria and odor in the gas,in air residual content of oil vapor does not exceed 0.003mg/m ³ (21°C), 0.003ppm (w). With Automatic Drainer		
5		Precision filter (Oxygen)	Removes fine dust from oxygen		
6		Stainless Steel Sterilization filter(Oxygen)	Oxygen sterilization to meet medical standards		
7		Secondary air storage tank	Capacity:600L, Working Pressure:0.8Mpa, Internal anti-corrosion treatment. Material: carbon steel, with safety valve, Pressure gauge.		
8		PSA Oxygen Generator	Oxygen purity:≥93%±3, Oxygen flow rate:20Nm ³ /h, Including Siemens PLC system, 7-inch LCD touch screen, With monitor and alarm system.		
9		Oxygen Process Tank	Capacity:600L, Working Pressure:0.8Mpa, Material: carbon steel, with safety valve, Pressure gauge,Oxygen Standard(Inside clean and grease removal)		


10		Oxygen Buffer Tank	Capacity:600L, Working Pressure:0.8Mpa, Material: carbon steel, with safety valve, Pressure gauge.Oxygen Standard(Inside clean and grease removal)		
11		Oxygen Booster	Model: Z-20/4-150 20Nm3/h oil free Oxygen Booster, Power: 11KW, Air cooling, filling pressure 150bar.		
12		Filling Manifold	Cylinder filling Manifold , 304 stainless steel material, with pressure meter, valve, working pressure 150bar,5 filling head		
Optional item					
1	Maintenance parts （Annual）		1. Air Compressor maintenance pack 2.Filter maintenance pack 3.Booster maintenance pack		
2			All install in 20feet container （Including one 20feet container, internal lighting, cable layout, general electric control box, exhaust system, installation and fixation)		
:					

2. DETAILED TECHNICAL PARAMETER

2.1 Screw Air Compressor


	Manufacturer:	.
	model:	N-50A-DT
	Dimensions:	1350*1000*1320mm
	Rated exhaust capacity:	6.7m ³ /min
	Rated discharge pressure:	0.7-0.8MPa
	Interface size:	G1 1/2"
	Power supply voltage:	3Ph/380V/50Hz
	Equipment weight:	680kg
	Power:	37KW

2.2 Primary air storage tank


	Manufacturer:	
	model:	CQ-0.6/8
	Volume:	0.6m ³
	Design pressure:	0.84 MPa
	working pressure:	0.8 MPa
	Design temperature:	150℃
	Import and export size:	DN40
	Dimensions(reference):	Φ650mm×2050mm
	Weight(reference):	125kg

With safety valve, blowdown valve, pressure gauge, pressure vessel certificate


2.3 Freeze Air dryer

	Manufacturer:	
	model:	BL0080
	Rated capacity:	8.8m ³ /min
	Interface size:	DN50
	Size(reference):	700*900*1000mm
	Power supply voltage:	1Ph/220V/50HZ
	Power:	1.5KW
	Equipment weight(reference):	130kg
	the dew point:	2-10℃


2.4.1 4Stage filter group(4filter to air)

	Manufacturer:	
	model:	CJ-070C/T/A/X
	Treatment capacity:	7.8 m3/min
	Interface size:	1.5"
	Last X filter residual oil content:	≤0.003 ppm
	Last X filter filtration accuracy:	≤0.01μm


2.4.2 Precision filter(Oxygen)

	Manufacturer:	
	model:	CJ-010
	Treatment capacity:	1.2m3/min
	Interface size:	1"
	Filtration accuracy:	≤0.01μm


2.4.3 Stainless Steel Sterilization filter(Oxygen)

	Manufacturer:	
	model:	F-010
	Treatment capacity:	1-3m3/min
	Interface size:	5"
	Main fuction	Sterilization
	Filtration accuracy:	≤0.22μm


2.5 Secondary air storage tank

	Manufacturer:	
	model:	CQ-0.6/8
	Volume:	0.6m3
	Design pressure:	0.84 MPa
	working pressure:	0.8 MPa
	Design temperature:	150℃
	Import and export size:	DN40
	Dimensions(reference):	Φ650mm×2050mm
	Weight(reference):	125kg
With safety valve, blowdown valve, pressure gauge, pressure vessel certificate		


2.6 PSA oxygen generator

	Manufacturer:	.
	model:	MNPO-20/93
	Product Name:	O2
	Gas volume:	20 Nm3/h
	Purity:	≥93%(±3)
	the dew point:	-45℃
	Outlet pressure:	≥0.4 Mpa
	Interface size:	DN25
	Power supply voltage:	1Ph/220V/50HZ
	Power:	0.2KW
	Dimensions(reference):	1750mm×700mm×2100mm
	Equipment weight(reference):	1400kg



2.7 Oxygen Process Tank

	Manufacturer:	
	model:	YQ-0.6/8
	Volume:	0.6m3
	Design pressure:	0.84 MPa
	working pressure:	0.8 MPa
	Design temperature:	110℃
	Import and export size:	DN40
	Dimensions(reference):	Φ650mm×2050mm
	Weight(reference):	172kg
With safety valve, blowdown valve, pressure gauge, pressure vessel certificate		

2.8 Oxygen Buffer Tank

	Manufacturer:	
	model:	YQ-0.6/8
	Volume:	0.6m3
	Design pressure:	0.84 MPa
	working pressure:	0.8 MPa
	Design temperature:	110℃
	Import and export size:	DN40
	Dimensions(reference):	Φ650mm×2050mm
	Weight(reference):	172kg
With safety valve, blowdown valve, pressure gauge, pressure vessel certificate		

2.9 filling system

 	Manufacturer:	.
	model:	WWZ-20/4-150
	Flow rate:	20Nm3/H
	Intake pressure:	4 bar
	Discharge pressure:	150 bar
	Intake air temperature:	℃≤35
	Exhaust temperature:	℃≤55
	Dimensions(reference):	1350mm×1020mm×930mm
	Cooling mode:	Air-cooling
	Motor power:	11KW
	Power supply voltage:	3Ph/380V/50HZ
	Weight(reference):	480KG
Filling row (filling manifold) : 1 *5 (5 cylinders at a time)		

4	Booster and Filling row(if any)		
(1)	Oxygen booster	.	8 years
(2)	Filling row/Filling Manifold	Zhongfu/Haoyuan	8 years
	Remarks: no corrosive gas		

4. PUBLIC FACILITIES

System utility requirements:

name	Voltage	power
Screw Air compressor	3Ph, 380V, 50HZ	37KW
Freeze Air dryer	1Ph, 220V, 50HZ	1.5KW
Oxygen generator	1Ph, 220V, 50HZ	0.2KW
Oxygen Booster	3Ph, 380V, 50HZ	11KW
Total		49.7KW

Executive standard

Production	Oxygen generator: according to JB6427/92 standard Pressure vessel: according to GB 150-1998 standard Welding: according to JB/T4709-92 standard Wire arrangement and installation: Standard GB5226-96 ISO9001:2016 certification ISO13485:2016 certification CE EU certification
Inspection	Oxygen content detection: range: 21% ~ 98% Flow test: flowmeter Acceptance standard: according to the contract and the buyer's requirements Before acceptance, it can be installed and debugged on site.

PH meter



Foreword

Microcomputer based digital acidity thank you buy my company to develop and produce.

The instrument is composed of an intelligent control of pH microprocessor design, selection of high reliable imported integrated element and the strict screening and refined, stable and reliable performance, simple operation. Suitable for laboratory precision measurement of solution acidity (pH value) and the electrode potential (mV), widely used in light industry, chemical, electrochemical analysis of pharmaceutical, food, epidemic prevention, environmental protection and education scientific research departments.

The "manual" will complete guide you install and use. At the same time, also on the equipment maintenance, maintenance and matters needing attention are introduced in this paper. Please read the "manual", so that you can use our products better, improve

the efficiency of your work.

Instrument registered

Before using this instrument, please take a few minutes to fill in the "manual" attached to the user registration card and mail or e-mail to our company. Company customer service engineer to more effectively to provide you with technical support and after sale service.

Technical service

In the instrument within the warranty period, if quality problems, please contact the dealer or the Sales Department of the company. We will conscientiously quickly for you to solve.

If you use the instrument problems, see the "manual" if can't solve, welcome to our customer service service department consultation, we will warmly and timely service for you.

1、 out of the box and acceptance

After unpacking the instrument, please check the following devices:

- MSLZJ020 pH meter(1)
- PH composite electrode(1)
- short circuit plug (plug electrode jack on the rear of the instrument)(1)
- electrode holder(1)
- Power adapter (9V DC output)(1)
- standard buffer reagents: pH4, pH 6.86, pH 9.18(1)
- User Guide(1)

2、 the instrument technical characteristics compensation

Model	MSLZJ020
Measuring Range	pH: 0~14.00pH; mV:±1600mV; temperature: 0~100°C
Resolution	pH: 0.01/0.1pH, temperature: ±1°C

Precision	pH: 0.01pH, temperature: $\pm 1^{\circ}\text{C}$
Temperature Compensation	0—100$^{\circ}\text{C}$ Manual
Basic Configuration	plastic PH composite electrode (for the solution temperature of 5–60 $^{\circ}\text{C}$ range measurement) The PH standard calibration sample The DC9V power adapter

Working conditions

- Ambient temperature: 0 ~ 40 $^{\circ}\text{C}$; Relative Humidity: <85%
- Electricity Supply source: 9V DC power supply
- no significant vibration
- In addition to the Earth's magnetic field external magnetic field interference
- Input impedance: $\geq 1 \times 10^{12}\Omega$
- zero drift: $\leq 0.01\text{pH} \pm 1 \text{ word} / 2 \text{ hours}$
- solution temperature compensation range: 0~ 100 $^{\circ}\text{C}$

Dimensions and weight: 230 × 200 × 60mm (length × width × height) 1.2Kg

3、 the instrument works

pH Measurement Fundamentals

The measurement of pH of aqueous solutions are generally using a glass electrode as the indicator electrode, calomel electrode as the reference electrode, when the hydrogen ion concentration in the solution (strictly speaking, activity) that the pH value of the solution is changed, a glass electrode and a calomel electrode generated between the electric potential also changes with the potential change relationship meets the following formula:

$$\Delta E = -58.16 \times \Delta \text{pH} \times (273 + t \text{ } ^{\circ}\text{C}) / 293 \text{ (mV)}$$

ΔE : represents the electric potential changes in millivolts. (MV)

ΔpH : the changes of the pH of the solution.

t: indicates the measured solution temperature ($^{\circ}\text{C}$).

Top indicator electrode is a glass electrode, an antimony electrode, a fluorine electrode, the silver electrode, etc., in which the glass electrode is most widely used. The head of the pH glass electrode is made by a special sensitive thin film, in its hydrogen ion sensitive, insert it into a test solution, the potential change with the concentration of hydrogen ions in the liquid under test and temperature. Solution temperature of 25 $^{\circ}\text{C}$, each change of one pH electrode potential change 59.16mV. This is often said that the theoretical slope coefficient of the electrode.

Commonly used reference electrode was a calomel electrode, its potential does not change with the hydrogen ion concentration in the test solution.

the pH measurement essence measuring the potential difference between the two electrodes. When the potential difference is generated by a pair of electrodes in the solution is equal to zero, the value of the measured pH of the solution that the pH value of zero potential value, it is concerned with the solution in the glass electrode. The instrument is equipped with is integral with the composite electrode by a glass electrode and an Ag-AgCl electrode, its zero-bit pH at $7 \pm 0.25\text{pH}$.

Circuit works manager

Due to the high internal resistance of the glass electrode, about $2 \times 10^8\Omega$, therefore, the instrument is actually a high-input impedance of the DC amplifier, the impedance transformation is obtained through the high input impedance of the IC. Due to the related to the pH of the solution and temperature; glass electrode MV-pH conversion slope generally less than the theoretical value, and with the use and storage of the time of growth decreased; between electrodes of presence of certain discrete; therefore need an instrument having a temperature compensation and electrode slope compensation. Temperature compensation of the instrument and the electrode of the pH-mV the conversion slope compensation and pH positioning, correction by the microprocessor automatically control and adjust.

4、 the instrument to use

Preparation

the power adapter into 220V AC power supply, DC output plug is inserted into the instrument panel on the "DC9V" power jack. The electrode is arranged on the electrode frame, take short plug of instrument electrode socket, plug electrode. Note that the electrode plug should be kept clean and dry before use, should not be pollution.

· power press to open the key, preheat for 5 minutes.

Instrument calibration

Note: this instrument must use 4, 6.86, 9.18, three kinds of standard buffer solution calibration

In the pH before the measurement, we need to instrument calibration. To obtain accurate measurement results, calibration with standard buffer solution should be accurate and reliable.

Plug in the power, press the "switch" boot.

Unscrew the short-circuit protection pH socket on the cover, access plastic pH

composite electrode, the electrode in pure water and clean and dry.

By measuring the pH thermometer buffer solution temperature, pressing the button " \wedge " or reduce the key " \vee " will display the temperature value accurate adjustment.

The location and calibration, the pH electrodes immersed in pH6.86 buffer, stir it still be placed, measured value stability, hold down the "calibration" key and do not put, let go when the LCD screen display CAL symbol, to show flashes of 6.86, after a few seconds display End symbols, and then show the pH calibration (this pH is displayed value varies with temperature, such as 25 °C showed 6.86, 15 °C showed 7.04 of these are numerical, built-in chip set below). Said to complete the calibration and memory.

The slope of calibration of I: remove the PH electrode, pure water and clean and dry, then PH electrodes immersed in pH4.00 buffer, stir it still be placed, measured value stability, hold down the "calibration" key and do not put, let go when the LCD screen displays the CAL symbol, the first display flashing 4, a few seconds after the show End symbol, and then display the pH calibration values, indicating the completion of calibration and memory. After the calibration will automatically display electrode in the linear section of the slope percentage.

The slope of calibration of II: remove the pH electrode, pure water and clean and dry, then PH electrodes immersed in pH9.18 buffer, stir it still be placed, measured value stability, hold down the "calibration" key and do not put, let go when the LCD screen displays the CAL symbol, the first display flashing 9.18, a few seconds after the show End symbol, and then display the pH calibration values, indicating the completion of calibration and memory. After the calibration will automatically display electrode in the linear section of the slope percentage.

Solution measurement

By measuring the solution temperature (temperature water temperature automatic detection electrode), and then press a button to increase or decrease key V will instrument temperature adjustment is accurate, the pH electrode cleaning after immersion in a solution to be measured, stir it still be placed, measured value stability when reading, namely for the measured value of pH.

Be careful

According to the pH isotherm measurement principle, the measured temperature and calibration solution temperature is close, the measurement accuracy is higher, the actual test should be observed.

Explain

This instrument built-in smart chip, can be a point, two point or three point calibration automatically, if the measurement accuracy $\leq 0.1\text{pH}$, as long as the use of pH buffer solution was one point calibration can be; if the measurement range only in the acidic

range ($\leq 7\text{pH}$), select the pH6.86 and pH4.00 calibration; if the measurement range of only alkaline range ($\geq 7\text{pH}$), select the pH6.86 and pH9.18 calibration; if the measurement range is wide, or pH electrode is used for a long time aging phenomenon, should choose three point calibration, it will make the higher measurement accuracy, pH electrode is used for the first time, must be three point calibration of the instrument, the slope of the adjusted and the pH electrode.

Test mV value:

Press "pH/mV" key, the instrument switch to the "mV" file,

The ion selective electrode (ORP electrode or other) is inserted into the test solution, stir it still be placed, measured value stability after reading, potential is measured ORP values or the values of the ion electrode

5、Instrument maintenance and use precautions

The good and bad of the instrument, in addition to the instrument itself structure, with proper maintenance, standardized operation and correct methods are inseparable.

Measurement sample Note

instrument the electrodes plug and jack must be kept clean and dry when not in use, the short circuit plug or electrode plug in to prevent dust and moisture immersion and reduce the input impedance of the instrument, affect the measurement accuracy.

Different samples should be selected to adapt the pH of the electrode (for example: the measurement of acid, alkali, or pure water, etc.).

Sample measurement, the electrode of the introduction of wire should be kept still, do not touch. Failure to do so will cause measurement instability.

Preparation of standard solution must be used twice-distilled water or deionized water, the conductivity should be less than $2\ \mu\text{S}$, preferably boiling use.

standard buffer to ensure accurate and reliable, the alkaline solution should be packed in a polyethylene bottle sealed tightly. The standard buffer should be stored in the refrigerator (low temperature $5 \sim 10\ ^\circ\text{C}$) Save generally can be stored for three months. Such as muddy, moldy, or precipitation and other phenomena, can not continue to use.

Do not use more than the shelf life of the standard buffer Do not use the standard rewind buffer the standard liquid storage bottle.

calibration, as much as possible close to the sample pH standard buffer, and

calibration of the temperature of the liquid as possible consistent with the temperature of the sample.

In the process of using the instrument to replace the electrode, the best power-cycle, re-calibration.

Notes of the electrodes used

composite electrodes should not be long-term immersion in distilled water, when not in use, should the electrode insertion protection solution bottle equipped with electrodes, so that the electrode bulb to maintain the active state.

the electrode protection solution preparation: take pH4.00 buffer (250ml) bag, dissolved in 250 ml of deionized water, then add 56g of analytical grade KCl, stirring until completely dissolved Serve.

Remove the electrode protective sleeve should avoid electrode head collision, in order to avoid the glass bulb of the electrode breakage, failure of the electrode.

plus liquid electrode, should pay attention to whether the reduction of the the electrode internal reference solution, if less than 1/2 the volume of available dropper joined from the upper end of the hole. Measurement should be the sealing sleeve to move down to expose the hole.

Before the electrode is shifted from one solution to another solution, the application of distilled water to clean the electrode, sucking up the water with a filter paper. Do not bother to wipe the glass electrode bulb, otherwise it could lead to the slow response of the electrode. The best method is to use the measured liquid rinse electrode.

should avoid the the electrode internal reference bubble cut off, if bubbles in the liquid lashing electrode, so eliminate.

value of the response time of the instrument is shown with the internal resistance of the electrode and the temperature of the solution as well as the nature of the solution, especially in the measurement of a low degree of dissociation solution (e.g., pure water), as well as lower temperature of the solution or the electrode aging, apparatus, showing the value settling time will be longer.

test acids, alkalis or the particularity solution (such as: a solution containing protein, paint), should try to reduce the soaking time, carefully cleaned after use. The best way is to select a E314 composite electrode.

electrode after long use, the slope of the electrode, and the response speed will be reduced. Electrode bulb with 0.1mol / L dilute HCl solution (preparation: 9mlHCl

diluted with deionized water to 100ml) soak for 24 hours, if the passivation is more serious, the electrode ball immersion in 4% HF solution (preparation: 4 mlHF was diluted with deionized water to 100ml) for 3 to 5 seconds, and after washing with distilled water, placed in the electrode protecting soaking liquid, so that proper recovery. Neither approach can recover, replace the electrode.

in the sample solution containing an easily contaminate sensitive ball bubble or clogging the reference electrode liquid junction of substances (such as suspensions, emulsion, viscous liquid, etc.) causes the electrode passivation. The phenomenon is a reduction in the sensitivity or the readings drift instability inaccurate. So, according to the nature of the pollutants should be an appropriate solution to clean, use distilled water to wash away the solvent, soaking into the electrode protection, so as to restore.

pollutants cleaning methods: (for reference)

Pollutants--cleaning agent

Inorganic metal oxide--concentrations below 1 mol / L dilute acid

Organic fats and oils-- weak dilute alkaline detergent

Resin, polymeric substance--alcohol, acetone, diethyl ether, etc.

Protein blood cell precipitate--acidic enzyme solution (such as food born tablets)

Pigment classes substance-- dilute bleach, hydrogen peroxide, etc.

★ Note: selection of cleaning agent, if used cleaning solution dissolving the polycarbonate resin, such as carbon tetrachloride, trichloro-hexene, tetrahydrofuran, etc., can polycarbonate resin (electrode material) may be dissolved in the sensitive glass balls coated taking a dip, leaving the electrode failure, caution!

Check with the judgment of the general failure

Electrode failure or measurement method most measurement problems arise due to an error, rather than the instrument itself. In addition, the use of the standard buffer, sample many factors can lead to the emergence of the problem, a careful analysis to determine where the problem is.

● electrode

If it is determined that the normal host of instruments, with the electrode supporting the test, showing the value of instability or instrument response is very slow; poor reproducibility;, or can not be calibrated to the desired pH value, check the electrode:

- (1) Patch is good at both ends of the electrode lead is loose or disconnected;
- (2) Electrode bulb is immersed in the sample;
- (3) Electrodes within the existence of bubbles in the solution;
- (4) Electrode bulb is contaminated;

If the above situation, replace the new electrode.

● standard buffer

If the host, the electrodes were calibrated reading is incorrect or can not check the

buffer solution:

- (1) Are using the correct pH standard buffer;
- (2) Check whether the buffer exceeds the shelf life or pollution inaccurate;

If you re-formulated pH standard buffer.

6、 the standard buffer preparation

Instrument with standard buffer reagents were poured into 250ml volumetric flask) flush reagents plastic bags dissolve and dilute to the mark with double-distilled water (preferably boil, shake spare.

Table of commonly used standard buffer solution of pH and temperature relationship:

<div> <div>Solution</div> <div>PH Solution value</div> <div>Temperature</div> </div>	0.05mol/kg C8H5KO4	0.025mol/kg Mixed phosphate	0.01mol/kg Na2B4O7·10H2O
0°C	4.01	6.98	9.46
5°C	4.00	6.95	9.39
10°C	4.00	6.92	9.33
15°C	4.00	6.90	9.28
20°C	4.00	6.88	9.23
25°C	4.00	6.86	9.18
30°C	4.01	6.85	9.14
35°C	4.02	6.84	9.10
40°C	4.03	6.84	9.07
45°C	4.04	6.83	9.04
50°C	4.06	6.83	9.02
55°C	4.07	6.83	8.99

60°C	4.09	6.84	8.97
70°C	4.12	6.85	8.93
80°C	4.16	6.86	8.89
90°C	4.20	6.88	8.86
95°C	4.22	6.89	8.84

MEDICAL AIR PURIFICATION DISINFECTOR





MEDICAL PLASMA AIR DISINFECTOR

MEDICAL PLASMA AIR DISINFECTOR

KXD series medical plasma air disinfectors are mainly composed of fans, junior high-efficiency filters, plasma modules and activated carbon molecular filters. Indoor pulled air is circulated through various disinfection, purification modules and junior high-efficiency filters under the action of fans. The filter mainly filters hair, dust and other large particles of dust; the plasma module can effectively kill various bacteria, viruses, fungi and other pathogenic microorganisms in the air; the activated carbon molecular filter can effectively remove organic gases and various odors in the air. This series of products can effectively achieve the disinfection effect of the disinfection environment in the hospital.

CORE STERILIZATION COMPONENTS

This module is divided into two sections. The first section uses high-voltage tip discharge management to make the gas change from a molecular state to a highly unstable plasma state, accompanied by a violent redox reaction, thereby achieving sterilization. In the second paragraph, the principle of generating Coulomb force in the electric field by the charged particles is used to make the dust in the air move to the dust collecting plate in order to achieve the effect of air purification.

FEATURES

- Can be operated in a human state without any harm to the human body
- Accumulation of working hours, automatic reminder for cleaning and maintenance
- The shell is made of high-quality galvanized steel, with stable structure, anti-aging and self-ignition
- Enhanced disinfection function for emergency treatment of indoor infectors
- Adopt new multifunctional plasma module, high sterilization efficiency and good dust accumulation effect
- Reservation mode can realize 6-hour appointment switch on and off
- Select high-quality activated carbon molecular filter, which can effectively remove organic gas and odor
- Modular design for easy maintenance
- Equipped with manual, intelligent, and appointment modes to meet users' more needs
- Negative oxygen ion function, fresh air
- Manual control and remote control for users to choose
- Automatic fault alarm function

PRODUCT PARAMETERS

Model	S100	Y100	ZH-KXD-Y150	ZH-KXD-X100
Applicable Volume (m³)	100	100	150	100
Product Size (cm)	100×38×16	32×42×82	52×45×180	68×68×44
Product Weight (kg)	20	25	65	26
Power (W)	60	110	150	115



APPLICABLE PLACES

Hospital: Operating room, ICU, Supply room, Delivery room, Ward, Laboratory, Pathology room, Laboratory Consultation room, Infusion room, Dental Implant room, Hemodialysis room, etc.; also can be used in hotels, theaters, swimming pools, books museums, exhibition halls, and other personnel are relatively secretive, public places prone to cross infection.



X100
CEILING TYPE

Applicable Volume 100m³
Widely used in Hospital Delivery room, ICU, SSDD, Supply room, Hemodialysis Center, Laboratory and other places;
Ceiling-mounted installation, hiding during engineering decoration, effectively saving room space and better overall room



B100
WALL-MOUNTED

Applicable Volume 100m³
Widely used in Hospital Infection Department Wards, General Wards and Treatment rooms, Rescuer rooms, Dispensing rooms and other departments; wall-mounted installation, effectively saving room floor space



Y150 /
MOBILE TYPE

Applicable Volume 100m³, 150m³
Widely used in Hospital Intensive Care Units, General Wards, ICUs, Ordinary Operating rooms and other places. Small mobile models can be used in multiple rooms for Emergency Infection. Large mobile type models can be used for larger volumes Disinfection, effectively saving the number of invested equipment

AIR DISINFECTION BOARD



AIR DISINFECTION BOARD

The air disinfection panel is a kind of flexible air purification equipment which can realize their disinfection and purification in local areas. Using the circulating air system, the indoor air is filtered efficiently to form a hundred grade clean area, which provides an effective and necessary clean space.

SUITABLE PLACE

It is widely used in various hospital operating rooms, ICU, delivery room, newborn room, access catheter room, sterile room, general ward room, supply room, treatment room and other places.



Product model: Y60
Product size: 89*11*140cm
Power: 30W
Noise: 55dB (A)
Applicable system: 60m³
(hospital class II environment)

PRODUCT FEATURES

- It can operate in the manned state without any harm to human body;
- The shell is made of high quality galvanized steel plate, with stable structure, anti-aging and spontaneous combustion;
- High intensity ultraviolet lamp is used for sterilization, with high sterilization efficiency and long service life;
- Photocatalyst can effectively remove formaldehyde, benzene, TVOC and other organic gases;
- Equipped with manual, reservation mode, to meet more user needs;

- Equipped with a magnetic remote control that can be attached to the surface of a fuselage or metal object;
- Work time accumulation function, cleaning and maintenance automatic reminder function;
- Can be ceiling-mounted, wall-mounted, mobile installation;
- The reservation mode can realize the 6-hour reservation switch machine;
- Automatic fault alarm function

..... | BED UNIT STERILIZER

BED UNIT STERILIZER

bed unit sterilizer is a kind of automatic equipment which can sterilize bedding, pillow core, mattress, clothing and other articles in hospital with ozone as disinfection factor. Through the four processes of air extraction, disinfection, penetration and analysis, the comprehensive disinfection of articles can be realized.

PRODUCT FEATURES

- Adopting stainless steel ceramic ozone generator, ozone has high purity, large quantity and long service life;
- By using air compression technology, ozone can completely enter the interior of cotton wadding and other articles for disinfection;
- It can disinfect one bed or two beds at the same time;
- The shell is made of high quality galvanized steel plate with stable structure, anti-aging and anti-corrosion;
- Equipped with a magnetic remote control, which can be adsorbed on the surface of the fuselage or metal objects
- New ozone analysis technology is adopted to avoid environmental pollution caused by residual ozone;
- Air pump and pipeline materials are resistant to oxidation and have long service life.
- The whole disinfection process can be completed manually and automatically;
- Automatic fault detection and shutdown alarm;

Product model: CDW
Product size: 320*380*830mm
Ozone concentration: $\geq 1400\text{mg/m}^3$
Ozone leakage: $\leq 0.003\text{mg/m}^3$
Noise: $<50\text{dB (a)}$
Working power supply: AC220V / 50Hz

