

# From China to the world

SHINVA was established in 1943 with history over 70 years. As the chairman unit of China Association for Medical Devices Industry (CAMDI), SHINVA group is leading in the field of medical instruments and equipment, pharmaceutical equipment and medical medicine service.

Infection Control Division, which focuses on washing, disinfection and sterilization, is one of the biggest divisions in SHINVA group. Since the first generation sterilizer invented, SHINVA has led infection control field more than 40 years in China. As China's national disinfection sterilization equipment research center, SHINVA is the unique company in China which can supply turn-key CSSD project and integrated solutions including design, engineering, decoration, equipment, consumables, tracking and management software and service, etc. Until now, SHINVA has completed more than 5000 CSSD projects in the whole country taking 50% market shares.

For international market, SHINVA's products have been launched over 100 countries or regions in the world. Now SHINA is firmly walking on the way from China to the world.



SHINVA complies with ISO9001, ISO13485 and ISO14001, CE, PED and ASME quality management systems.





series products





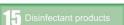












# **Content**

CSSD (Central Sterile Supply Department)



Low Temperature Sterilizer



P<sub>36</sub>



Steam Sterilizer



Washer-disinfector





Small Steam Sterilizer







► Medical Drying Cabinet

P54





## **CSSD(Central Sterile Supply Department)**

SHINVA is the largest manufacturer of infection control products in China. We supplied the integrated solutions for hospital CSSD from 2000. According to the sickbed numbers, surgery operations, outpatient amount, site, budget and development planning in hospitals, we offer the integrated suitable design including the process layout, equipment configuration, heating ventilating and air conditioning, decoration and purification, tracking and quality manager system, etc. so as to meet the requirements for washing, disinfection, checking, packing, sterilization, storage and dispatch in hospital and society CSSD.





5

## **MAST-A Steam Sterilizer**



## **Product introduction**

MAST-A 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.

The design of chamber accords with state GB1502011, GB8599-2008, CE and European EN285 standard.



#### **Product features**

#### Superb chamber machining and welding process

The acid-proof stainless steel chamber and jacket are automatically robot-welded to guarantee long time and trouble-free operation.

#### Nice chamber surface

Surface Smoothness, Ra≤0.5; No welding part or bolt in the chamber which effectively protects the items to be sterilized. Steam baffle plates are surrounded by silicon rubber protecting the chamber surface.

#### Reliable and durable chamber

Chamber is designed according to professional analytical method. High-emulation software ANSYS is used for chamber simulation. Design service life: 10 years (or 20000 times sterilization)

#### Reasonable sealing structure

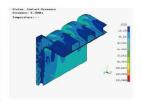
Compact designed sealing groove, durable circular hollow silicon gasket, sealed by compressed air.

#### Hanged door automatically

The door is driven by a motor automatically, stable and easy operation. Door concave-convex tooth structure ensures its safety and durability.









#### Precise pressure detecting and control

Intelligent pressure transmitters, Wika (Germany), ensure steam pressure detecting and control both in Chamber and jacket.

#### Unique vacuum noise-reduction system

LNS low-noise and water-saving vacuum system, effective reduced the noise during running.

#### Humanized operation system

Colorful touch screen on loading-side, 6 indicating lamps on unloading sides, which are concise, vivid and exactly showing sterilization running status and alarming information.

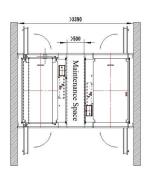
#### Reasonable pipeline layout

All the pipes, valves and components are designed and installed in single side, which is more convenience for repair and maintenance. The sterilizers can be installed against the wall and also, two sterilizers can use the same maintenance space to save installation space.

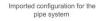


| Item                                    | Chamber  | Jacket |
|---|----------|--------|
| Design pressure MPa                     | -0.1/0.3 | 0.3    |
| Design temperature <sup>°</sup> C       | 144      | 144    |
| Working pressure MPa                    | 0.25     | 0.25   |
| Max. Working temperature <sup>°</sup> C | 139      | 139    |
| Safety valve open pressure              | 0.28     | 0.28   |
|   |          |        |











Pressure transmitter ported from Germany



ptional standard basket



ess steel imported pneumatic v



Vacuum pump



Loading by basket

## **Loading-side Panel**



8" Colorful display touch screen Powerful PLC as cetral processor

#### Display information on main menu:

Run program

Auxiliary function

Program setting

System setting

- P-Chamber
- T-Chamber
- P-Jacket
- Door operation
- Alarm recordingDate
- Log out
- Quick start

#### 32 built-in programs

- 1 Warm Up 8 Leak Test 2 B&D Test 3 Fabric
  - 9 Prion 10 Optical

15 Positive

17 PCD Test

19-32 User Defined

18 A/D Test

16 Dry

- 4 Instrument
- 5 Thermolabile12 Small Load

11 Heavy Load

6 Flash 13 Open Liquid 7 Orthopedics14 Gravity

## **Unloading-side Panel**



#### Humanistic indicating system

- Back door closing indicating lamp
- Back door closed lamp
- Cycle running lamp
- Cycle end indicating lamp Breakdown indicating lamp
- Power lamp

### **Sterilization consumables**



















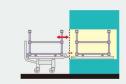


### **Technical parameters**

| Model                   | Volume<br>(L) | Order code        | Net weight (kg) | Input power (kVA) | Power supply (W×H×Dmm) | Chamber dimension (W×H×Dmm) | Overall dimension (W×H×Dmm) | Remark   |
|-------------------------|---------------|-------------------|-----------------|-------------------|------------------------|-----------------------------|-----------------------------|--|
|                         |               | MAST-A-140D-A-N   | 425             | 2.5               | AC 380V,50Hz           | 420×420×830                 | 1290×1680×1050              | single door/external steam supply/shelf load               |
| MAST-A-140              | 146           | MAST-A-140DD-A-N  | 525             | 18                | AC 380V,50Hz           | 420×420×830                 | 1290×1680×1050              | single door/built-in electric steam generator/shelf load   |
|                         |               | MAST-A-140S-A-N   | 510             | 2.5               | AC 380V,50Hz           | 420×420×830                 | 1290×1680×1100              | double door/external steam supply/shelf load               |
|                         |               | MAST-A-140SD-A-N  | 610             | 18                | AC 380V,50Hz           | 420×420×830                 | 1290×1680×1100              | double door/built-in electric steam generator/shelf load   |
|                         |               | MAST-A-240D-A-N   | 580             | 2.5               | AC 380V,50Hz           | 600×600×670                 | 1370×1880×950               | single door/external steam supply/shelf load               |
|                         |               | MAST-A-240DD-A-N  | 660             | 24                | AC 380V,50Hz           | 600×600×670                 | 1370×1880×950               | single door/built-in electric steam generator/shelf load   |
|                         |               | MAST-A-240S-A-N   | 660             | 2.5               | AC 380V,50Hz           | 600×600×670                 | 1370×1880×1000              | double door/external steam supply/shelf load               |
| MAST-A-240              | 241           | MAST-A-240SD-A-N  | 720             | 24                | AC 380V,50Hz           | 600×600×670                 | 1370×1880×1000              | double door/built-in electric steam generator/shelf load   |
|                         | İ             | MAST-A-240D-B-N   | 600             | 2.5               | AC 380V,50Hz           | 600×600×670                 | 1370×1880×950               | single door/external steam supply/cart and trolley load    |
|                         | Ī             | MAST-A-240DD-B-N  | 680             | 24                | AC 380V,50Hz           | 600×600×670                 | 1370×1880×950               | single door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-240S-B-N   | 680             | 2.5               | AC 380V,50Hz           | 600×600×670                 | 1370×1880×1000              | double door/external steam supply/trolley load             |
|                         |               | MAST-A-240SD-B-N  | 740             | 24                | AC 380V,50Hz           | 600×600×670                 | 1370×1880×1000              | double door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-350D-A-N   | 780             | 2.5               | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1150              | single door/external steam supply/shelf load               |
|                         |               | MAST-A-350DD-A-N  | 880             | 24                | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1150              | single door/built-in electric steam generator/shelf load   |
|                         |               | MAST-A-350S-A-N   | 860             | 2.5               | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1200              | double door/external steam supply/shelf load               |
| MAST-A-350              | 352           | MAST-A-350SD-A-N  | 960             | 24                | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1200              | double door/built-in electric steam generator/shelf load   |
| ATTOCK TOTAL CONTROL OF | DOMESTIC .    | MAST-A-350D-B-N   | 880             | 2.5               | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1150              | single door/external steam supply/cart and trolley load    |
|                         |               | MAST-A-350DD-B-N  | 1000            | 24                | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1150              | single door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-350S-B-N   | 960             | 2.5               | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1200              | double door/external steam supply/trolley load             |
|                         | ı             | MAST-A-350SD-B-N  | 1080            | 24                | AC 380V,50Hz           | 600×600×980                 | 1215×1880×1200              | double door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-650D-B-N   | 1170            | 4                 | AC 380V,50Hz           | 610×910×1180                | 1310×2070×1370              | single door/external steam supply/cart and trolley load    |
|                         |               | MAST-A-650DD-B-N  | 1270            | 46                | AC 380V,50Hz           | 610×910×1180                | 1310×2070×1370              | single door/built-in electric steam generator/trolley load |
| MAST-A-650              | 655           | MAST-A-650S-B-N   | 1270            | 4                 | AC 380V,50Hz           | 610×910×1180                | 1310×2070×1420              | double door/external steam supply/trolley load             |
|                         | Ì             | MAST-A-650SD-B-N  | 1370            | 46                | AC 380V,50Hz           | 610×910×1180                | 1310×2070×1420              | double door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-810D-B-N   | 1260            | 4                 | AC 380V,50Hz           | 610×910×1460                | 1310×2070×1650              | single door/external steam supply/cart and trolley load    |
| 151.0m 1 010            |               | MAST-A-810DD-B-N  | 1360            | 61                | AC 380V,50Hz           | 610×910×1460                | 1310×2070×1650              | single door/built-in electric steam generator/trolley load |
| MAST-A-810              | 810           | MAST-A-810S-B-N   | 1360            | 4                 | AC 380V,50Hz           | 610×910×1460                | 1310×2070×1700              | double door/external steam supply/trolley load             |
|                         | İ             | MAST-A-810SD-B-N  | 1460            | 61                | AC 380V,50Hz           | 610×910×1460                | 1310×2070×1700              | double door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-990D-B-N   | 1300            | 4                 | AC 380V,50Hz           | 610×910×1800                | 1310×2070×1990              | single door/external steam supply/cart and trolley load    |
| MAST-A-990              | 999           | MAST-A-990DD-B-N  | 1400            | 61                | AC 380V,50Hz           | 610×910×1800                | 1310×2070×1990              | single door/built-in electric steam generator/trolley load |
| MA31-A-990              | 999           | MAST-A-990S-B-N   | 1400            | 4                 | AC 380V,50Hz           | 610×910×1800                | 1310×2070×2040              | double door/external steam supply/trolley load             |
|                         |               | MAST-A-990SD-B-N  | 1500            | 61                | AC 380V,50Hz           | 610×910×1800                | 1310×2070×2040              | double door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-1200D-B-N  | 1950            | 5                 | AC 380V,50Hz           | 680×1180×1500               | 1450×1990×1710              | single door/external steam supply/cart and trolley load    |
| MA OT A 1200            | 1202          | MAST-A-1200DD-B-N | 2100            | 90                | AC 380V,50Hz           | 680×1180×1500               | 1450×2400×1710              | single door/built-in electric steam generator/trolley load |
| MAST-A-1200             | 1203          | MAST-A-1200S-B-N  | 2050            | 5                 | AC 380V,50Hz           | 680×1180×1500               | 1450×1990×1760              | double door/external steam supply/trolley load             |
|                         |               | MAST-A-1200SD-B-N | 2200            | 90                | AC 380V,50Hz           | 680×1180×1500               | 1450×2400×1760              | double door/built-in electric steam generator/trolley load |
|                         |               | MAST-A-1500D-B-N  | 2100            | 5                 | AC 380V,50Hz           | 680×1180×1870               | 1450×1990×2080              | single door/external steam supply/cart and trolley load    |
| 14.0m                   | 1.000         | MAST-A-1500DD-B-N | 2250            | 100               | AC 380V,50Hz           | 680×1180×1870               | 1450×2400×2080              | single door/built-in electric steam generator/trolley load |
| MAST-A-1500             | 1500          | MAST-A-1500S-B-N  | 2200            | 5                 | AC 380V,50Hz           | 680×1180×1870               | 1450×1990×2130              | double door/external steam supply/trolley load             |
|                         |               | MAST-A-1500SD-B-N | 2350            | 100               | AC 380V,50Hz           | 680×1180×1870               | 1450×2400×2130              | double door/built-in electric steam generator/trolley load |

| MAST-A | Model instruction  |
|--------|--|
| 350    | Chamber volume (L)   |
| S      | Door: S- double door D- single door                                    |
| D      | Steam supply: no marks- outer steam supply D- build-in steam generator |
| А      | Installation: A- Shelf loading B- Loading by cart and trolley          |
| N      | Exportation Configuration  |





B series Loading by carts and transfer trolley

## **MAST-V Steam Sterilizer**

#### **Product introduction**

MAST-V 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.

The design of chamber accords with state GB1502011, GB8599-2008, CE and European EN285 standard.



#### **Product features**

#### Superb chamber machining and welding process

The acid-proof stainless steel chamber and jacket are automatically robot-welded to guarantee long time and trouble-free operation.

#### Nice chamber surface

Surface Smoothness, Ra≤0.5; No welding part or bolt in the chamber which effectively protects the items to be sterilized. Steam baffle plates are surrounded by silicon rubber protecting the chamber surface.

#### Reliable and durable chamber

Chamber is designed according to professional analytical method. High-emulation software ANSYS is used for chamber simulation. Design service life: 10 years (or 20000 times sterilization)

#### Reasonable sealing structure

Compact designed sealing groove, durable circular hollow silicon gasket, sealed by compressed air.

#### Vertical sliding door

The door is up and down vertical sliding by air cylinder. It is faster and saves space, while offering proven, handles-free convenience.

#### Precise pressure detecting and control

Intelligent pressure transmitters, Wika (Germany), ensure steam pressure detecting and control both in Chamber and jacket.

#### Unique vacuum noise-reduction system

LNS low-noise and water-saving vacuum system, effective reduced the noise during running.

#### Humanized operation system

Colorful touch screen on loading-side, 6 indicating lamps on unloading sides, which are concise, vivid and exactly showing sterilization running status and alarming information.

#### Reasonable pipeline layout

All the pipes, valves and components are designed and installed in single side, which is more convenience for repair and maintenance. The sterilizers can be installed against the wall and also, two sterilizers can use the same maintenance space to save installation space.

### **Technical parameters**

| Model      | Order code       | Volume | Chamber<br>dimension<br>(W×H×Dmm) | Overall dimension<br>(W×H×Dmm) | Weight (kg)  | Input<br>power<br>(kVA) | Power supply (V/Hz)    | Remark   |
|------------|------------------|--------|-----------------------------------|--------------------------------|--|-------------------------|------------------------|--|
|            | MAST-V-280D-B-N  |        |                                   |                                | 920  | 2.5                     |                        | Single door/external steam supply/cart and trolley load    |
| MAST-V-280 | MAST-V-280S-B-N  | 280    | 535×535×1000                      | 1200×1800×1340                 | 950  | 2.5                     | AC 380V,               | Double door/external steam supply/cart and trolley load    |
|            | MAST-V-280DD-B-N | 200    | 000 000 1000                      | 1200 1000 1010                 | 970 29<br>1000 29<br>1315 4<br>1350 4 AC 380V,<br>50Hz |                         | 50Hz                   | Single door/built-in steam generator/cart and trolley load |
|            | MAST-V-280SD-B-N |        |                                   |                                | 1000   | 29                      |                        | Double door/built-in steam generator/cart and trolley load |
|            | MAST-V-450D-B-N  |        |                                   |                                | 1315   | 4                       |                        | Single door/external steam supply/cart and trolley load    |
| MAST-V-450 | MAST-V-450S-B-N  | 450    | 675×675×1000                      | 1307×1900×1340                 | 1350   | 4                       | 20.757.00.000.0000.000 | Double door/external steam supply/cart and trolley load    |
|            | MAST-V-450DD-B-N |        |                                   |                                | 1365   | 46                      | SUHZ                   | Single door/built-in steam generator/cart and trolley load |
|            | MAST-V-450SD-B-N |        |                                   |                                | 1365 46<br>1400 46<br>1515 4                           |                         |                        | Double door/built-in steam generator/cart and trolley load |
|            | MAST-V-610D-B-N  |        |                                   |                                | 1515   | 4                       |                        | Single door/external steam supply/cart and trolley load    |
| MAST-V-610 | MAST-V-610S-B-N  | 610    | 675×675×1350                      | 1307×1900×1690                 | 1550   | 4                       | ,                      | Double door/external steam supply/cart and trolley load    |
|            | MAST-V-610DD-B-N |        |                                   |                                | 1565   | 46                      | 50Hz                   | Single door/built-in steam generator/cart and trolley load |
|            | MAST-V-610SD-B-N |        |                                   |                                | 1600   | 46                      |                        | Double door/built-in steam generator/cart and trolley load |
|            | MAST-V-800D-B-N  |        |                                   |                                | 1815   | 4                       |                        | Single door/external steam supply/cart and trolley load    |
| MAST-V-800 | MAST-V-800S-B-N  | 800    | 675×675×1750                      | 1307×1900×2090                 | 1850   | 4                       | AC 380V,<br>50Hz       | Double door/external steam supply/cart and trolley load    |
|            | MAST-V-800DD-B-N |        |                                   |                                | 1865   | 68                      | 33112                  | Single door/built-in steam generator/cart and trolley load |
|            | MAST-V-800SD-B-N |        |                                   |                                | 1900   | 68                      |                        | Double door/built-in steam generator/cart and trolley load |

## **MAST-H Steam Sterilizer**

#### **Product introduction**

MAST-H is one of the new breed of state of the art steam sterilizer with large size capacity while offering automatic horizontal sliding door, intelligent control, reliable operation and easy maintenance, which is suitable for the high level customer with large scales. It is developed according to the latest requirements of medical institution and CSSD. MAST-H sterilizer can be widely used in biological engineering, health care, animal laboratory, pharmaceutical industry for the sterilization of biological products, containers, sterile clothing, medical equipment, medical dressings and other items.









#### **Product features**

#### Automatic horizontal sliding door

The doors are automatic horizontal sliding, driven by electric motor and belt, which realizes intelligent control, reliable operation and easy maintenance. The door operation is carried out on touch screen ensures operators no need to touch the door any more.

#### Superb chamber machining and welding process

The acid-proof stainless steel chamber and jacket are automatically robot-welded to guarantee long time and trouble-free operation.

#### Nice chamber design

Surface Smoothness, Ra≤0.5; No welding part or bolt in the chamber which effectively protects the items to be sterilized. Steam baffle plates are surrounded by silicon rubber protecting the chamber surface. Concave structure in middle chamber ensures the condensate water thoroughly drained and dried.



#### Reliable and durable chamber

Chamber is designed according to professional analytical method. High-emulation software ANSYS is used for chamber simulation. Design service life: 15 years (Or 30000 cycles sterilization).

#### Reasonable sealing structure

Compact designed sealing groove, durable circular hollow silicon gasket, sealed by compressed air.

Precise pressure detecting and control

Intelligent pressure transmitters, Wika (Germany), ensure steam pressure detecting and control both in Chamber and jacket.

#### Unique vacuum noise-reduction system

LNS low-noise and water-saving vacuum system, effective reduced the noise during running.

#### Humanized operation system

Colorful touch screen on loading-side, 6 indicating lamps on unloading sides, which are concise, vivid and exactly showing sterilization running status and alarming information.

#### Reasonable maintenance space

MAST-H steam sterilizer is design with maintenance space, the access to the maintenance is available from the front side, no need the extra space. All the pipes, valves and components are designed and installed in single side, which is more convenience for repair and maintenance.

| Model  | Order code        | Chamber dimension (WxHxDmm) | Overall dimension<br>(WxHxDmm) | Power supply    | Input power (kVA) | Net weight (Kg) | Remark   |
|--------|-------------------|-----------------------------|--------------------------------|-----------------|-------------------|-----------------|--|
|        | MAST-H-800S-B-N   | 00040004074                 | 1900×1900×1775                 |                 | 4                 | 1700            | Double door/external steam<br>supply/Cart and trolley load |
|        | MAST-H-800SD-B-N  | 660×1080×1274               | 1900×2215×1775                 |                 | 68                | 1950            | Double door/Built-in steam supply/Cart and trolley load    |
|        | MAST-H-1000S-B-N  | 660×1080×1500               | 1900×1900×2000                 |                 | 4                 | 1800            | Double door/external steam supply/Cart and trolley load    |
| MAST-H | MAST-H-1000SD-B-N | 000*1000*1500               | 1900×2215×1775                 | AC 380V<br>50Hz | 68                | 2050            | Double door/Built-in steam supply/Cart and trolley load    |
|        | MAST-H-1200S-B-N  | 680×1180×1500               | 1900×1900×2000                 |                 | 5                 | 2000            | Double door/external steam<br>supply/Cart and trolley load |
|        | MAST-H-1200SD-B-N | 000/1100/1300               | 1900×2215×2000                 |                 | 90                | 2250            | Double door/Built-in steam supply/Cart and trolley load    |
|        | MAST-H-1500S-B-N  | 680×1180×1870               | 1900×1900×2380                 |                 | 5                 | 2150            | Double door/external steam<br>supply/Cart and trolley load |
|        | MAST-H-1500SD-B-N | 080^1180^1870               | 1900×2215×2380                 |                 | 100               | 2400            | Double door/Built-in steam supply/Cart and trolley load    |
|        | MAST-H-2000S-B-N  |                             | 1900×1900×3070                 |                 | 5                 | 2400            | Double door/external steam supply/Cart and trolley load    |

## **MAST-C Steam Sterilizer**

#### **Product introduction**

MAST-C series is one of the economic sterilizers which are suitable for smaller hospital and medical centers. It is researched according to the latest requirements of medical institution and CSSD.

#### **Product features**

- Low working noise, high vacuum limit.
- Equipped with water saving without pressure cooling system. The draining water temperature blow 65°C during normal working process.
- Equipped with professional and systematized sterilizing programs of fabric, instrument, rubber, liquid, cavity, testing and auxiliary programs of BD, PCD and leakage.
- Temperature, pressure, time, running status, failure warning liquid-crystal display.
- Intelligentized drying system to guarantee the residual humidity of instrument and dressing no more than 0.2% and 1% respectively.
- Build-in efficient steam generator, microcomputer temperature control, time and energy saving.
- Equipped with printer to print date, time and process parameters
- Over-heat auto protection device, dual door safety lock device, overpressure relief valve, short-circuit protection, and overpressure protection.
- Perfect four-level authority management system to avoid mis-operation.

#### **Technical parameter**

Design pressure: -0.1/0.25MPa
Temperature display accuracy: 0.1 °C
Vacuum lower limit:-0.08MPa
Pressure display accuracy: 1 KPa
Sterilization working pressure:115 °C -139 °C
Chamber material: 304 Stainless steel

| Model  | Order Code | Volume | Chamber dimension(φ×L) | Overall dimension | Net<br>weight | Power supply  | Input<br>power |
|--------|------------|--------|------------------------|-------------------|---------------|---------------|----------------|
| MAST-C | MAST-C-100 | 100L   | 400×850mm              | 1250×730×1660mm   | 260kg         | AC 380V, 50Hz | 11 kVA         |
| MAST-C | MAST-C-135 | 135L   | 500×710mm              | 1110×750×1712mm   | 360kg         | AC 380V, 50Hz | 13 kVA         |
| MAST-C | MAST-C-185 | 185L   | 500×950mm              | 1350×750×1712mm   | 470kg         | AC 380V, 50Hz | 13 kVA         |
| MAST-C | MAST-C-300 | 300L   | 632×1000mm             | 1415×890×1780mm   | 710kg         | AC 380V, 50Hz | 20 kVA         |

## XG1.U Steam Sterilizer

#### **Product introduction**

It can be widely used in department of stomatology and ophthalmology, operating room and other medical institutions. It is suitable for all wrapped or unwrapped solid instruments, A-class cavity instrument (dental hand-pieces and endoscopes), implantable instruments, dressing fabric and rubber tubes, etc.

#### **Product features**

- Equipped with professional and systematized sterilizing programs of fabric, instrument, rubber, liquid, cavity, testing and auxiliary programs of BD, PCD and leakage.
- Temperature, pressure, time, running status, failure warning liquid-crystal display.
- Intelligentized drying system to guarantee the residual humidity of instrument and dressing no more than 0.2% and 1% respectively.
- Build-in efficient steam generator, microcomputer temperature control, time and energy saving.
- Equipped with printer to print date, time and process parameters.
- Over-heat auto protection device, dual door safety lock device, overpressure relief valve, short-circuit protection, and overpressure protection.
- Perfect four-level authority management system to avoid misoperation.



#### **Technical parameters**

Design pressure: -0.1/0.25MPa
Maximum working pressure: 0.23MPa

Accuracy of temperature display: 0.1 C Pa Accuracy of pressure display: 1KPa Chamber material: 304 stainless steel

Sterilizing temperature: 105~136 C

Vacuum limit: -0.080MPa

| Model | Order Code   | Volume | Chamber<br>dimension(φ×L) | Overall dimension(L×W×H) | Net<br>weight | Power supply  | Input<br>power |
|-------|--------------|--------|---------------------------|--------------------------|---------------|---------------|----------------|
| XG1.U | XG1.UCD-100M | 100L   | 400×850mm                 | 1250×730×1660mm          | 260kg         | AC 380V, 50Hz | 11 kVA         |
| XG1.U | XG1.UCD-135M | 135L   | 500×710mm                 | 1110×750×1742mm          | 400kg         | AC 380V, 50Hz | 11.5 kVA       |
| XG1.U | XG1.UCD-185M | 185L   | 500×950mm                 | 1350×750×1742mm          | 460kg         | AC 380V, 50Hz | 11.5 kVA       |
| XG1.U | XG1.UCD-300M | 300L   | 632×1000mm                | 1400×890×1780mm          | 750kg         | AC 380V, 50Hz | 18 kVA         |

## XG1.C Steam Sterilizer

#### **Product introduction**

It is applicable for the sterilization of unpacked solid instrument in department of stomatology, ophthalmology, operation room and CSSD.

#### **Product features**

- Touch screen display of temperature, pressure, time, running status and failure warning.
- Equipped with professional and systematized sterilizing programs of fabric, instrument, rubber and liquid.
- The positive pressure air-discharging system will effectively discharge the cold air from chamber to improve steam saturability.
- Build-in efficient steam generator, microcomputer temperature control, time and energy saving.
- Equipped with post-drying function which makes the residual humidity of sterilized articles less than 3%.
- Equipped with printer to print date, time and process parameters.
- Over-heat auto protection device, dual door safety lock device, overpressure relief valve, short-circuit protection and overpressure protection.
- Perfect four-level authority management system to avoid misoperation.



#### **Technical parameters**

Design pressure: 0.25MPa

Maximum working pressure: 0.23MPa Sterilizing temperature: 105~136 ℃

Chamber material: 06Cr19Ni10 stainless steel (304)

Accuracy of temperature display: 0.1 C Accuracy of pressure display: 1Kpa

| Model | Order Code  | Volume | Chamber<br>Dimension (Φ×L) | Overall Dimension (L×W×H) | Net<br>weight | Power supply  | Input<br>power |
|-------|-------------|--------|----------------------------|---------------------------|---------------|---------------|----------------|
| XG1.C | XG1.CD-100M | 100L   | 400×850mm                  | 1250×730×1660mm           | 260kg         | AC 380V, 50Hz | 10 kVA         |
| XG1.C | XG1.CD-135M | 135L   | 500×710mm                  | 1110×750×1742mm           | 400kg         | AC 380V, 50Hz | 11 kVA         |
| XG1.C | XG1.CD-185M | 185L   | 500×950mm                  | 1350×750×1742mm           | 460kg         | AC 380V, 50Hz | 11 kVA         |
| XG1.C | XG1.CD-300M | 300L   | 632×1000mm                 | 1400×890×1780mm           | 750kg         | AC 380V. 50Hz | 17 kVA         |

# Clean Q Clean Electric Steam Generator

#### **Product introduction**

Clean Q series clean electric steam generator produces clean steam by heating pure water. It has advantages of small size, fast heating, no pollution, easy operation and high reliability. It can effectively solve the rust pollution on instrument and dressing material package.

#### **Product feature**

cleanliness of the steam

Safety protection

Low water level protection

Heating element stepped starting

- Safe and reliable
   Low water volume, more safety, water volume less than 30L.
- High heat efficiency
   High heating density, heat efficiency up to 98%, energy saving and environmental protection.
- High steam production speed
   From the powered on to rated pressure (0.65Mpa), only 10 minutes.
- Steam cleaner
   All stainless steel material, with automatic dirty discharge function, automatic timing to eliminate impurities inside the generator, improve the
- Automatic control
   One button start and fully automatic control, automatic water addition and water lack automatic cut off, heating automatic turn on or off according to

the produced steam pressure, simple operation.

Heating element contactor adhesion protection

Heating element over-current protection

Heating element overall heat protection



- Water filling pump overload protection
- Dual pressure switch control
- Emergency stop
- Concentrated sewage system

| Model   | Rated power (kVA) | Rated evaporation (Kg/h) | Rated steam pressure(Mpa) | Designed heat efficiency | Material            | Overall size<br>(W×H×Dmm) | Service life | Net weight (Kg) |  |
|---|-------------------|--------------------------|---------------------------|--------------------------|---------------------|---------------------------|--------------|-----------------|--|
| Clean Q60   | 60                | 80                       |                           |                          |                     |                           |              |                 |  |
| Clean Q90   | 90                | 120                      | 0.65                      | 0.98                     | All stainless steel | 830×1800×1198             | 8 years      | 450             |  |
| Clean Q120  | 120               | 160                      |                           |                          |                     |                           |              |                 |  |
| Water resource: Pure water, electrical conductivity≤15µs/cm |                   |                          |                           |                          |                     |                           |              |                 |  |
| Power supply: 380V, 50Hz                                    |                   |                          |                           |                          |                     |                           |              |                 |  |



# MOST-T tabletop steam sterilizer

#### **Product Introduction**

MOST-T series: T18/24/45/80 is a Class B tabletop 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 stomatological department, ophthalmological department, operating room and CSSD to make the sterilization for warped or unwrapped instrument, fabric, utensils, culture medium, unsealed liquid, etc. The design of chamber accords with state GB1502011, GB8599-2008, CE and EN285 standard.





18/ 24 / 45L

60/80L

#### **Product features**

#### Built-in open-type water tank

Water tank in open type makes it easy to be cleaned. It is available to continuously run with one time water filling, until getting the reminder of replacing the water. The water monitoring module in the tank ensures the enough water level and water quality, while offering the qualified steam to the chamber and keeps the cycle running stably.

#### Brand-new display interface

LCD screen can show temperature, pressure, time, running process, error and alarm information, etc. Sterilization information is more obvious and easier to observe the running state.

#### Multiple safety protection devices

Over temperature automatic protection device, multiple control and protection for steam generator, door safety interlock protection and dual chamber over-pressure protection, electronic circuit safety device.





#### Automatic door structure

T18/T24/T45 adopts automatic door structure, fast and simply operation, protecting the operators from scald. T60/T80 adopts multi-point synchronous linkage pressing technology, more reliable and durable.

#### Efficient vacuum

Efficient vacuum system, low working noisy, vacuum lower limit can reach over -90kPa, vacuum in high speed, perfect drying performance, thorough sterilization.

#### A variety of programs

Sterilization programs: Unwrapped, Wrapped, Rubber, User01, N-Quick, B-Quick, Prion Test Programs: BD & Helix, Leak Test

Auxiliary Program: Preheat, Drying, Washing

#### Efficient Steam generator

T18/T24/T45 adopts built-in instant steam generator, T60/T80 adopts built-in energy-storage type steam generator producing steam in high speed and good quantity.

#### Other features

Pulse vacuum, heating, sterilization, exhausting, vacuum drying totally automatic. Chamber is heating by film heater, saving energy and time.

| Model  | Order<br>Code | Class<br>type | Chamber dimension (φxL)mm | Overall<br>dimension<br>(LxWxH)mm | Power supply | Input<br>power<br>(kVA) | Temperature range | Net weight | Design<br>pressure | Design temperature | Loading<br>Tray |
|--------|---------------|---------------|---------------------------|-----------------------------------|--------------|-------------------------|-------------------|------------|--------------------|--------------------|-----------------|
| MOST-T | T18           | Class B       | 250x350                   | 560x530x450                       | AC 220V 50Hz | 2.6                     | 105-138 °C        | 55Kg       | -0.1/0.3Mpa        | 144 C              |                 |
| MOST-T | T24           | Class B       | 250x450                   | 660x530x450                       | AC 220V 50Hz | 2.6                     | 105-138℃          | 65Kg       | -0.1/0.3Mpa        | 144°C              | and the second  |
| MOST-T | T45           | Class B       | 316x618                   | 830x640x550                       | AC 220V 50Hz | 5.8                     | 105-138°C         | 115Kg      | -0.1/0.3Mpa        | 144°C              | 200             |
| MOST-T | T60           | Class B       | 358x595                   | 1002x730x560                      | AC 220V 50Hz | 7.4                     | 105-138°C         | 160Kg      | -0.1/0.3Mpa        | 144°C              |                 |
| MOST-T | T80           | Class B       | 358x717                   | 1002x730x560                      | AC 220V 50Hz | 7.4                     | 105-138°C         | 180Kg      | -0.1/0.3Mpa        | 144 C              |                 |

# MOST-T tabletop steam sterilizer

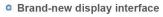
#### **Product Introduction**

MOST-T series: T24-S/45-S/80-S is a Class S tabletop 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 medical health care institution or R & D institution to make the sterilization for warped or unwrapped instrument, fabric, utensils, culture medium, unsealed liquid, etc. The design of chamber accords with state GB1502011, GB8599-2008, CE and EN285 standard.



#### Built-in open-type water tank

Water tank in open type makes it easy to be cleaned. It is available to continuously run with one time water filling, until getting the reminder of replacing the water. The water monitoring module in the tank ensures the enough water level and water quality, while offering the qualified steam to the chamber and keeps the cycle running stably.



LCD screen can show temperature, pressure, time, running process, error and alarm information, etc. Sterilization information is more obvious and easier to observe the running state.

### Multiple safety protection devices

Over temperature automatic protection device, multiple control and protection for steam generator, door safety interlock protection and dual chamber over-pressure protection, electronic circuit safety device.









18/ 24 / 45L

60/80L

21

#### Automatic door structure

T18-S/T45-S/T80-S adopts automatic door structure, operation fast and simply, protecting the operators from scald. T80-S adopts multi-point synchronous linkage pressing technology, more reliable and durable.

#### A variety of programs

Sterilization programs: Unwrapped, Wrapped, Rubber, User01, N-Quick Auxiliary Program: Preheat, Washing

#### Efficient Steam generator

T24-S/T45-S adopts built-in instant steam generator, T80-S adopts built-in energy-storage type steam generator producing steam in high speed and good quantity.

#### Other features

Heating, sterilization, exhausting, drying totally automatic. Chamber is heating by film heater, saving energy and time.

| Model  | Order Code | Class type | Chamber dimension(φxL)mm | Overall dimension(LxWxH)mm | Power supply | Net weight | Input power(kVA) | Temperature range | Chamber material    | Design pressure | Design temperature | Loading Tray   |
|--------|------------|------------|--------------------------|----------------------------|--------------|------------|------------------|-------------------|---------------------|-----------------|--------------------|--|
| MOST-T | T24-S      | Class S    | 250×450                  | 660×530×450                | AC 220V 50Hz | 65Kg       | 2.6              | 105-138℃          | Stainless steel 304 | -0.1/0.3Mpa     | 144°C              |  |
| MOST-T | T45-S      | Class S    | 316×618                  | 830×640×550                | AC 220V 50Hz | 115Kg      | 5.8              | 105-138℃          | Stainless steel 304 | -0.1/0.3Mpa     | 144°C              | THE STATE OF THE S |
| MOST-T | T80-S      | Class S    | 358×717                  | 1002×730×560               | AC 220V 50Hz | 180Kg      | 7.4              | 105-138℃          | Stainless steel 304 | -0.1/0.3Mpa     | 144°C              |  |



#### **Product Introduction**

TMQ.C series: TMQ.C-U23K is a Class N tabletop sterilizer. As a type of high pressure sterilizer, it takes steam as its sterilization medium which is safe and economic. They are common used in small medical health care institution or R & D institution to make the sterilization for the small package warped or unwrapped solid instrument, fabric, utensils, culture medium, unsealed liquid, etc. The design of chamber accords with state GB1502011, GB8599-2008, CE and EN285 standard.



#### **Product features**

- Manual water filling, exhaust and dry.
- Automatic heating, sterilization process.
- World famous brand pressure switch.
- Automatic pressure control.
- Steam and water inner circulation system, no need external water supply.
- High accuracy analogue pressure gauge.

#### **Technical parameters**

Design pressure: 0.28MPa Design temperature: 150℃ Maximum working pressure: 0.23MPa Temperature range: 105~134℃ Accuracy of pressure control: 0.005MPa

Chamber material: 06Cr19Ni10 Stainless steel

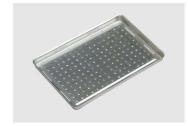
## Safety devices

- Over temperature automatic protection device.
- Door safety interlock device.
- Safety valve for over pressure exhausting.
- Short-circuit protection and over pressure protection.
- Alarm buzzer for error reminder.

#### Installation conditions

- Working environment: clean, dry, shady and cool, ventilated, small temperature difference
- Room temperature 5℃—40℃
- Maximum relative humidity 85%.
- Allowable scope range of the fluctuation of voltage ±10%.
- Water requirement
- Water quality: Distilled water or pure water,
- Electro conductibility:≤15µS/cm
- The content of bleach: ≤2mg/l
- PH value: 5—7
- Hardness: ≤0.02mmol/l
- Fill the distilled water into the clean water tank; the water should up to high water level.





Loading rack

Loading tray

| Model      | Volume | Chamber Dimension (Φ×L) | Overall Dimension (L×W×H) | Net Weight | Voltage | Power<br>Frequency | Input Power |
|------------|--------|-------------------------|---------------------------|------------|---------|--------------------|-------------|
| TMQ.C-U23K | 23L    | 250×440mm               | 580×510×375mm             | 36kg       | 220v    | 50Hz               | 2.0Kw       |



## Vertical steam sterilizer

## LMQ.C vertical steam sterilizer **Automatic model**

#### **Product Introduction**

LMQ.C series is one of the vertical sterilizers. It takes steam as its sterilization medium which is safe and economic. They are common used in small hospital, clinic, health care institution, laboratory to make the sterilization for fabric, utensils, culture medium, unsealed liquid, rubber, etc. The design of chamber accords with state GB1502011, GB8599-2008, CE and EN285 standard.



LMQ.C-50E / LMQ.C-80E

#### **Product features**

- Microcomputer control technology, touch-key
- Display of dynamic sterilizing process graph, LED display of chamber temperature, time and fault code
- Equipped with sterilizing programs of unpacked instrument, instrument parcel, dressing, rubber and fluid medium
- Dynamic pulsed exhausting function, totally exhaust the cold air from chamber to guarantee steam saturation
- Chamber heating and heat-dry function effectively improve the drying result after sterilization
- Build-in water tank, steam and water inner circulation
- Over-heat auto protection device, door safety lock device, overpressure relief valve, short-circuit protection, overpressure sure protection and insulated door cover
- Optional printer

Design pressure: 0.28MPa Maximum working pressure: 0.23MPa Chamber material: 304 stainless steel

Insulation temperature: 40~60°C

Solution temperature: 60~100℃ Accuracy of temperature display: 0.1 °C Design temperature: 150°C Accessories: 2 stainless steel baskets





### **Technical parameters**

Temperature range: 105~136℃

| Model | Order code | Volume | Chamber<br>Dimension(Φ×L) | Overall Dimension (L×W×H) | Net Weight | Voltage | Power<br>Frequency | Input Power |
|-------|------------|--------|---------------------------|---------------------------|------------|---------|--------------------|-------------|
| LMQ.C | LMQ.C-50E  | 50L    | 316×667mm                 | 616×476×990mm             | 55kg       | 220V    | 50Hz               | 5kVA        |
| LMQ.C | LMQ.C-80E  | 80L    | 386×695mm                 | 688×546×1030mm            | 75kg       | 220V    | 50Hz               | 5.3kVA      |
| LMQ.C | LMQ.C-100E | 100L   | 386×860mm                 | 688×546×1195mm            | 92kg       | 220V    | 50Hz               | 5.3kVA      |

LMQ.C vertical steam sterilizer

Semi-automatic model

#### **Product Introduction**

LMQ.C series is one of the vertical sterilizers. It takes steam as its sterilization medium which is safe and economic. They are common used in small hospital, clinic, health care institution, laboratory to make the sterilization for fabric, utensils, culture medium, unsealed liquid, rubber, etc. The design of chamber accords with state GB1502011, GB8599-2008, CE and EN285 standard.

#### **Product features**

- Manual water injection, exhausting and drainage system
- Automatic control of heating and sterilizing process
- Manual dynamic pulsed exhausting function, totally exhaust the cold air from chamber to guarantee steam saturation
- Horizontal sliding door equipped with reliable self-rising sealing gasket, convenient operation
- Over-heat auto protection device, door safety lock device, overpressure relief valve, short-circuit protection, overpressure protection and insulated door cover

Design pressure: 0.28MPa Design temperature: 142°C Temperature range: 105~138°C Chamber material: 304 stainless steel Accuracy of temperature display: 0.1 °C Accessories: 2 stainless steel baskets







#### **Technical parameters**

| Model | Order code | Volume | Chamber<br>Dimension(Φ×L) | Overall Dimension (L×W×H) | Net Weight | Voltage | Power<br>Frequency | Input Power |
|-------|------------|--------|---------------------------|---------------------------|------------|---------|--------------------|-------------|
| LMQ.C | LMQ.C-50EJ | 50L    | 316×667mm                 | 500×476×990mm             | 50kg       | 220V    | 50Hz               | 5.0kVA      |
| LMQ.C | LMQ.C-80EJ | 80L    | 386×695mm                 | 570×546×1030mm            | 55kg       | 220V    | 50Hz               | 5.3kVA      |

## H<sub>2</sub>O<sub>2</sub> Low Temperature Plasma Sterilizer







PS-100XP

#### **Product introduction**

SHINVA Plasma sterilizer takes  $H_2O_2$  as sterilizing agent and form plasmatic state of  $H_2O_2$  by electromagnetic field under low temperature. It combines both gaseous and plasmatic  $H_2O_2$  to make sterilization for the items in chamber and decomposes the residual  $H_2O_2$  after sterilization.

It is widely used in CSSD or other medical institute for the sterilization of electric wire and cable, optical glasses and glass lens, power equipment and batteries, endoscopes, catheter, nonmetallic and other wet or heat sensitive instruments.



## Scope of application

The sterilizer is applicable to sterilize the medical instruments that are thermolabile or non-moisturetight. It is not applicable to the sterilization of liquid, powder or cotton fabrics. All the medical instruments that meet the following conditions can be processed by this sterilizer.

#### PS-100:

- Metal tubular instrument: inner diameter≥1mm; length≤500mm
- o Nonmetal tubular instrument: inner diameter≥1mm; length≤2000mm

#### PS-200:

- Metal tubular instrument: inner diameter≥0.8mm; length≤300mm
- Nonmetal tubular instrument: inner diameter≥1mm; length≤1000mm

## H<sub>2</sub>O<sub>2</sub> Low Temperature Plasma Sterilizer

#### **Product features**

#### Low temperature sterilization

The sterilization temperature is 50±5 °C which is much lower than steam sterilization. It is dry sterilization that has no harm on instrument, so it extends the device service life.

#### Safe and environment friendly

The matter after sterilization is water and oxygen molecule that have no toxic harm to staff or patient, and there is no need for drainage or air exhausting. High efficient  $H_2O_2$  filter is installed in the exhausting outlet to guarantee no  $H_2O_2$  pollution to the environment.

#### • Time-saving and cost-efficient

Rectangular chamber has greater capacity, high efficiency and short sterilizing cycle (≤50mins). The sterilized articles can be used directly without extra processing. It can increase the instrument turnover and decrease the storage of precious instrument to cut cost indirectly.

#### Convenient

Only power supply is needed for installation. The system adopts man-machine control interface with intelligent program design. Equipped with foot switch (alternative) and integrated biological incubator (alternative).

#### Multiple models

The door structure of the sterilizer is customizable (single or double door). To meet pharmaceutical factory needs, chamber material can be stainless steel.

#### Reliable sterilization

The chamber adopts alloy material which has good thermal conductivity to guarantee a stable temperature in the chamber. The purification system makes the  $H_2O_2$  diffuses uniformly. The low temperature storage system provides a stable concentration of  $H_2O_2$ .

#### Safe sealing door

The sterilizer adopts mandril-driving auto overhead door with reliable sealing function and safe lock device to guarantee personal safety.

#### Data management

The 2048M storage (alternative) can store original data for inquiring. Mini printer can be used to print operation data timely. There are two types of record methods to guarantee the data is 100% acquirable.

#### Advanced configuration

The vacuum pump, controller, pressure transmitter and other key components are world famous brand. The sterilizer equipped with multiple programs and bar code identification system (alternative).

#### Reassuring

We provide comprehensive operation training materials to key components maintenance intelligent reminding system for your convenience.

### **Alternative configuration**

#### USB flash disk storage

Timely sterilizing information storage to guarantee all data can be safely stored and traced during the sterilizer service life. This configuration can also be updated to traceability system.

#### Integrated biological incubator

The biological incubator will timely display temperature and incubate time. It equipped with independent control system that could work in the case of the sterilizer switched off.

#### Foot switch

Simply kick the switch to open or close the door.

#### Alloy storage rack

The alloy storage rack realizes that sterilized articles can be separately stored

#### Metallic sterilizing container

To improve sterilizing result, we provide various sterilizing container for different kinds of instruments and operation kits.

#### Auto elevating trolley

The trolley equipped with auto elevating platform, chargeable lithium battery. The convenient memory function could record three different positions.







#### Auto elevating trolley

| Order code                  | T-100         | T-200         |  |
|-----------------------------|---------------|---------------|--|
| Overall dimensions(L×W×H)mm | 1150×780×1165 | 1650×780×1165 |  |
| Suitable sterilizer         | PS-100        | PS-200        |  |

#### **Technical Parameters**

| Model                            | PS-40X                | PS-              | 100          | PS-200        |               |  |  |
|----------------------------------|-----------------------|------------------|--------------|---------------|---------------|--|--|
| Order code                       | PS-40X                | PS-100X PS-100XP |              | PS-200X       | PS-200XP      |  |  |
| Chamber dimensions (L×W×H)mm     | 650×380×260           | 750×450×400      | 750×450×400  | 1250×450×400  | 1250×450×400  |  |  |
| Volume (L)                       | 64                    | 1:               | 35           | 22            | 25            |  |  |
| Overall dimensions (L×W×H)mm     | 850×725×750           | 990×760×1600     | 990×760×1600 | 1460×760×1600 | 1460×760×1600 |  |  |
| Weight (Kg)                      | 200                   | 41               | 00           | 500           |               |  |  |
| Power supply                     | 220V 50Hz             | 380V             | 50Hz         | 380V 50Hz     |               |  |  |
| Power (Kw)                       | 3.5                   | 3                | .8           | 4.7           |               |  |  |
| Environment temperature          |                       |                  | 10~40        |               |               |  |  |
| Minimum installation room(L×W)mm |                       | 1500×900         | 2000×1200    |               |               |  |  |
| Minimum repair distance          | 1 meter for each side |                  |              |               |               |  |  |

#### Consumable items



**Biological indicator (self-contained)**Bacteria: Thermophilic fat bacillus
Quantum: 2~5×10<sup>6</sup>



Chemical indicator label



Chemical indicator card



Paper-plastic wrapping bag Size: wide: 75/100/150/250mm



Microbicide
Name: hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>)
Concentration: 60%
Specification: 12 capsules per cassette



Non-woven fabric Size: 500×500mm, 800×800mm, 1200×1200mm

## **Medical Vacuum Dryer**



## **Product introduction**

Based on the principle that the boiling point of water will be reduced under low-pressure state, Medical vacuum dryer can make the water boiling at lower temperatures. With boiling and vaporization, the water on the outer and inner surface of the instruments can be quickly separated. In the meanwhile, the vacuum pump will exhaust the vaporized steam rapidly. With ventilation valve intermittent opening, it will speed up the air flow in the chamber to achieve the purpose of rapid and thorough drying for the instrument loadings.

FEST-L100

## Four major advantages:

#### Security protection

The vacuum dryer can achieve drying under low pressure and low temperature environment, which can effectively avoid the damage from the high temperature;

#### Wide range of application

Can dry for various types of precision instruments, complex structure devices and thermal sensitive instruments;

#### Drying fast and thoroughly

Can achieve completely drying for items in short time.

#### Energy efficient

Vacuum drying at a lower temperature, can achieve drying with less heat.



FEST-L100H/100HS

### **Product advantages**

- The chamber is made of high-quality aluminum alloy rust-proof welding plate, with excellent thermal conductivity, smooth surface, high heat radiation efficiency, nice chamber temperature control, effective drying performance;
- The outer wall of the tank is coated with PTC heating film, which is safe, efficient and uniform.
- Toughened glass seal, high-perspective window, to ensure that the seal at the same time in operation to observe the internal situation:
- I electric lock, automatic detection of door shut, safe and convenient, to avoid manual operation caused by misuse;
- I high efficiency vacuum pump, running smoothly, low noise, low vibration, taking the time fast, easy maintenance;
- Control system with 7-inch color touch screen display control, can display the bulkhead temperature, cabin pressure, running time, alarm information and other parameters; a key to start quickly and easily, with automatic fault detection, built-in 10 sets of procedures, 4 sets of default program, The user can adjust the parameters according to their own needs. Process intuitive, easy to operate;
- I The bottom of the device is equipped with a water tray to collect the sent condensate, no external exhaust pipe.



#### **Technical Parameters**

|                         | FEST-L50A  | FEST-L50                                 | FEST-L50H | FEST-L50HS                  | FEST-L100                                  | FEST-L100H | FEST-L100HS                    |  |
|-------------------------|--|--|-----------|-----------------------------|--|------------|--------------------------------|--|
| Overall size<br>(WXHXD) | 550x1560x860   | 530x1350x                                | <860      | 530x1350x870                | 530x1565x860                               |            | 550x1565x870                   |  |
| Chamber size mm         | Ф300×700   |  |           | 320                         | ×220×700                                   |            |                                |  |
| Chamber type /Volume    | Round /50L   | Squar                                    | e/50L     |                             | Squa                                       | re/100L    |                                |  |
| Outside cove r          | Steel stoving varnish in                                   | ing varnish in white color Stainless ste |           |                             | Steel stoving varnish in white color Stain |            | less steel                     |  |
| Chamber quantity        | Single chamber/Single door                                 |  |           | Single chamber /Double door | Double chamber/Single door                 |            | Double chamber<br>/Double door |  |
| Tray quantity           | 2  | Pieces                                   |           |                             | 4 Pieces                                   |            |                                |  |
| Weight                  | 150kg  | 140kg                                    | 145kg     | 165kg                       | 190kg                                      | 195kg      | 235kg                          |  |
| Drying time             |  |  |           | 0∼99min                     |  |            |                                |  |
| Temperature range       |  | Room temperature~65°C                    |           |                             |  |            |                                |  |
| Power                   |  | 2kVA                                     |           | 3kVA                        |  |            |                                |  |
| Power supply            | AC220V, 50Hz   |  |           |                             |  |            |                                |  |
| Control method          | LCD display , Touch button operation Colorful touch screen |  |           |                             |  |            |                                |  |

## 100% Ethylene Oxide Gas Sterilizer



**Product introduction** 

XG2. C series sterilizer takes 100% ethylene oxide (EO) gas as sterilization medium. It is mainly used to make sterilization for precise medical instrument, optical instrument, and medical electronic instrument, plastic and medical materials that cannot bear with high temperature and wet sterilization.

EO gas is one of the most efficient low temperature sterilization agents. It has advantage of wide-pedigree bacterium killing range, strong penetrability, no damage and pollution, easy and reliable chemical and biological monitoring method.

XG2.C-130 / XG2.C-220

### **Product features**

Negative pressure in whole cycle

Chamber pressure is always negative in whole cycle ensures EO gas no leakage to outside during working.

Safety EO gas puncture device

EO gas can automatically punctured by special device in the chamber, no need human intervention.

Chamber pressure real-time monitoring function:

Any pressure abnormal in the chamber will cause the machine alarm.

Efficient ventilation system

Automatic pulse Vacuum ventilation ensures EO gas exhaust thoroughly.

Door interlock

The door cannot be opened while program is running.

EO gas concentration monitor (optional)

Accuracy: 0.1PPM, portable design.

## 100% Ethylene Oxide Gas Sterilizer

#### Accurate parameter control

Sterilization temperature, humidity, pressure and time data are collected by relative sensor and transferred to PLC.

#### Perfect chamber temperature conducting

Chamber is made of aluminum alloy which has good thermal conductivity makes chamber temperature conducting fast and uniformity.

### Dual sterilization temperature choices

High temperature 55°C, Low temperature 37°C.

#### Humidify control system

Humidity sensor in high accuracy ensures chamber humidity keep in stable level.

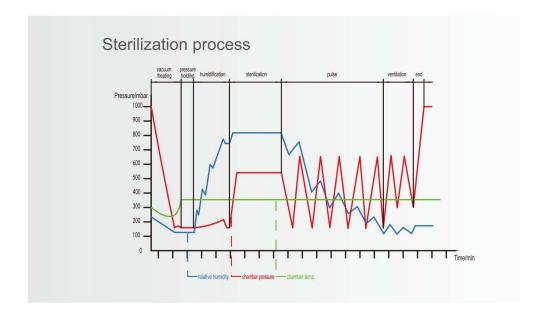
#### Power off memory function

Once power off, the sterilization data will be saved automatically and will automatically continue the sterilization when power on.









## **Technical parameters**

| Model                       | XG2.C             | XG2.C            |
|-----------------------------|-------------------|------------------|
| Order code                  | XG2.C-130         | XG2.C-220        |
| Chamber dimension (L×W×H)mm | 750×450×400       | 1250×450×400     |
| Overall dimension           | 950x860x1730      | 1450x860x1730    |
| Chamber volume L            | 135               | 225              |
| Net weight Kg               | 300               | 400              |
| Input power                 | 3.5kVA, 220V,50Hz | 4.5kVA,220V,50Hz |

| EO gas can                  |           |           |
|-----------------------------|-----------|-----------|
| Oder code                   | Z-100     | V-170     |
| Net weight                  | 100g      | 170g      |
| Suitable sterilizer         | XG2.C-130 | XG2.C-220 |
| Sterilization concentration | 735mg/L   | 750mg/L   |

| Automatic lifting trolley          |               |               |
|------------------------------------|---------------|---------------|
| Oder code                          | T-100         | T-200         |
| Loading platform dimension (L×W)mm | 800×400       | 1300×400      |
| Overall dimension(L×W×H)           | 1150×780×1165 | 1650×780×1165 |
| Sterilization concentration        | 735mg/L       | 750mg/L       |
| Lifting range                      | 720-1220      | 720-1220      |
| Max. load capacity Kg              | 100           | 150           |
| Weight                             | 55            | 70            |
| Suitable sterilizer                | XG2.C-130     | XG2.C-220     |











## Washer-disinfector Rapid-A-520

Washing chamber with nice water saving structure; Pre-heat water tanks and special designed rising and heating system and pipeline layout make it save 30% water and energy consumption than ever.

#### Fast and high efficiency

Rapid-A-520 is one of the fastest washer-disinfector in the world, which the standard cycle time is reduced to 28mins, including pre-washing, washing, 1st rising, 2nd rising, disinfection and drying. Meanwhile it can process 15 DIN trays per cycle.

Water preheat system reduced the preparation time, there is no waiting time during the cycle running.







#### **Product introduction**

Rapid-A-520 automatic washer-disinfector is high efficient washing equipment that researched and developed according to hospital actual situation. It is widely used for washing and disinfection of surgical instruments, wares, medical trays and plates, anesthesia instruments and corrugated hose in hospital CSSD or operating room. The greatest advantage of the equipment is labor-saving with fast washing speed which could shorten 1/3 operation time than ever.



Rapid-A-520

#### **Product features**

#### Superb chamber design and process

The conical chamber in SUS316L is stretch forming at one time without dead corner and welding joint, which is better for smoothly draining and water saving.

#### Intelligent control system

Double sides automatic vertical sliding doors, controlled by touch screen, which is convenient and safety. Cycle process is intelligent controlled by PLC, no need labor control. All the temperature, pressure, time, process stages, alarm can be shown on the touch screen and also be recorded by the built-in printers.

#### A variety of programs

11 preset programs and 21 user-defined programs which can be defined according to user requirements

#### Easy loading and unloading

Manual or automatic systems for loading and unloading are available. Washing rack, transfer trolley and convey system, fit in with the design of ergonomics, easy to operate and placement.

## **Technical parameter for Rapid-A-520**

| Dimension          | Chamber dime             | nsion/capacity<br>H)mm/L | Overall dimension (L×W×H)mm |   | Washing rack dimension (L×W×H)mm |                           | Transfer trolley dimension (L×W×H)mm |        | Net weight (Kg)       | Running weight (Kg) |
|--------------------|--------------------------|--------------------------|-----------------------------|---|----------------------------------|---------------------------|--------------------------------------|--------|-----------------------|---------------------|
|                    | 800×696×                 | 1115/520                 | 1000×1270×1870              |   | 794×652×630                      |                           | 880×710×985                          |        | 500Kg                 | 600Kg               |
| Parameter          | Disinfection temperature | Wash temperature         | Disinfed                    | tion time   | Cycle time<br>(Stand program)    |                           | Drying temperature                   |        | Standard drying time  |                     |
|                    | 80°C~93°C                | 45°C                     | 0~9                         | 199s  | 999s 28min                       |                           | 70~120°C                             |        | 10                    | min                 |
| Max. loading       | Standard                 | DIN tray                 |                             | Middle dressing bowl(16cm) Middle kid             |                                  | / basin                   | Anesthesia / Respiration tubes       |        | All capacity          |                     |
| capacity           | 15pieces(480×250×50)     |                          |                             | 68 Pieces ecified rack) 144pieces(specified rack) |                                  | ified rack)               | 4-6                                  |        | 520L                  |                     |
|                    | Saturated                | d steam                  | RO water                    |   | Compressed air                   |                           | Control power                        |        | Driving power         |                     |
| Energy supply      | Pressure<br>MPa          | Flow                     | Pressure<br>MPa             | Flow  | Pressure<br>MPa                  | Flow                      | Voltage<br>/Frequency                | Power  | Voltage<br>/Frequency | / Power             |
|                    | 0.3~0.5                  | 50Kg/h                   | 0.2~0.5                     | 2000Kg/h  | 0.4~0.7                          | 100L/min                  | 220/50HZ                             | 0.5KW  | 380/50HZ              | 16.5KW              |
| Energy consumption | Saturated                | d steam                  | Water                       | Washi   | ashing detergent Anti-rust       |                           | Anti-rust lubricating agent F        |        |                       |                     |
| (Standard program) | 7.8Kg/                   | Cycle                    | 100L/Cycle                  | 25000ml ×   | concentration ratio              | on ratio 25000ml ×concent |                                      | 2.8KWh |                       |                     |

## Washer-disinfector Rapid-M-320



#### **Product introduction**

Rapid-M-320 is an economic manual door washer-disinfector that researched and developed according to requirements of smaller hospitals or institution. Its function and washing effective is equal with Rapid-A-520. It is also can be used for disinfection of surgical instruments, wares, medical trays and plates, anesthesia instruments and corrugated hoses in hospital CSSD or operating room.

#### **Product features**

#### Door structure

Rapid-M-320 adopts double pull-down door structure. After opening the door, it can be regarded as a working platform for loading the washing rack and items. The double doors are interlocked and have self-lock function.

#### Strong glass window

Three layers tempered glass window with excellent sealing ensures the security, insulation and easily observing during washing process.

#### Operation System

LCD display screen can shows all the temperature, pressure, time, process stage and parameters. Easily operation by touch button on the panel.

SIEMENS PLC ensures the machine intelligent running and control. Built-in printer can automatically record the temperature, pressure, time, graph and A0 value.

#### A variety of programs

11 preset programs and 15 user-defined programs which can be edited according to user equirements

#### Outstanding loading capacity

12 DIN trays per cycle in four layers.

#### **Technical parameter for Rapid-M-320**

| Dimension          | Chamber dimen            |                     | Overall dimension<br>(L×W×H)mm |   | Washing rack dimension (L×W×H)mm |                 | Net weight<br>(Kg)              | Running weight<br>(Kg)     |                      |
|--------------------|--------------------------|---------------------|--------------------------------|---|----------------------------------|-----------------|---------------------------------|----------------------------|----------------------|
|                    | 601×592×                 | 996/320             | 760×71                         | 0×1930  | 590×558                          | ×630            | 300Kg                           | 350Kg                      |                      |
| Parameter          | Disinfection temperature | Wash<br>temperature | Disinfection time              |   | Cycle time                       |                 | Drying temperature              | Standard of                | Irying time          |
|                    | 80°C~93°C                | 45°C                | 0~99                           | 0∼99mins Electric heated 42 min Steam heated 36 min |                                  | 70∼110℃         | 1                               | 5                          |                      |
| Max. loading       | Standard                 | DIN tray            | Middle o                       | dressing<br>16cm)                                   | Middle kidn                      | ey basin        | n All capacity                  |                            |                      |
| capacity           | 10 (480×25               | 0×50mm)             | 36 Pi                          | ieces   | 48 Pie                           | ces             | 320L                            |                            |                      |
|                    | RO w                     | ater                |                                |   |                                  | oower<br>eated) | Saturated steam                 |                            |                      |
| Energy supply      | Pressure MPa             | Flow                | Voltage<br>/Frequency          | Input power   | Voltage<br>/ Frequency           | Power           | Pressure MPa                    | Flo                        | ow                   |
|                    | 0.2~0.5                  | 1000Kg/h            | 380/50HZ                       | 22.5KW  | 380/50Hz                         | 9KW             | 0.3~0.5                         | 1000                       | Kg/h                 |
| Energy consumption | Saturated ste            | am Kg/cycle         | RO water                       | r Kg/cycle  | Washing detergent                |                 | Anti-rust<br>lubricating agent  | Power<br>(Electric heated) | Power (Steam heated) |
| (Standard program) | 10                       |                     | 100                            | )   | 25000ml<br>×concentration ratio  |                 | 25000ml<br>×concentration ratio | 10.5KWh                    | 4.5Kwh               |

## Tunnel washer-disinfector DC series



#### **Product introduction**

Tunnel washer-disinfector is internationally-advanced product which is researched aim at middle and large-scale hospitals. It has advantages of reliable quality, high work load and high efficiency and can be widely used for hospital reusable articles such as operating instrument, minimally invasive instrument, corrugated and anesthesia hose, glass ware, dental handpiece, baby product and general medical instrument. It is also applicable for hospital CSSD.

Modular design, compact structure, reliable performance, convenient installation

It adopts modular design and provides multiple combinations to meet customer requirements.

The wide of the washer-disinfector is only 1200mm which provides convenient installation and furthest reduces the expenses and time of installation.

## **Tunnel washer-disinfector DC series**

#### **Product features**

#### More efficient

Advanced design concept which makes the running speed 30% faster than traditional products.

The lager capacity which can afford 15 DIN trays one time gives it 50% more than traditional products.

#### Better washing result

Well-designed spray arm with flexible rotary system and perfect connection between washing rack and chamber provide a better washing result than traditional products.

#### Easy-to-use

To operate this washer-disinfector, simply touch the 10.6 inches touch-screen.

#### Energy saving

New-designed pipeline system and dead-zone free structure save 25% water.

#### Reliable and sanitary inner-chamber delivery system

The chamber equipped with stainless steel wheels which are dead-zone free. All transfer executive components are installed out of chamber to protect the instrument from secondary contamination.

#### Better compatibility

The washing racks can also work with Shinva Rapid-A-520 or Super6000 washer-disinfector.

#### Humanized window design and good maintainability

The chamber adopts glass-faced sealing door and large-sized window on side of it. For maintenance purpose, all pipelines are fixed on one side of the washer-disinfector with open type door.

#### High-efficient hot-wind drying system

Two-stage drying system with sieve-style air inlet dramatically improves drying result and efficiency. It also solves the drying problems caused by temperature changes.

#### Diversified carrying system

For your convenience, we offer manual carry-trolley and auto washing rack carrying system to increase efficiency and reduce labor intensity.

#### **Technical parameters**

| Double-chamber: 1940×1165×2280<br>Triple-chamber: 2886×1165×2280<br>Four-chamber: 3980×1165×2280 |
|--|
| 500Kg  |
| Vertical   |
| Water: steam-heating; Air: steam-heating and electric heating                                    |
| 28L/step/chamber   |
| 2" internal thread   |
| φ63.5mm/drying chamberφ125mm   |
| 93℃  |
|  |

#### Water quality

| Softened water  | 4-7°d                    |  |  |  |  |
|---|--------------------------|--|--|--|--|
| Pure water  | Conductivity≤15µs (25°C) |  |  |  |  |
| 1°d=10mg/CaO=17.8mg/L CaCO3 Washing/rinse water: softened or pure water. Final rinse and disinfection water must be pure water. |                          |  |  |  |  |

#### Working conditions

| 1/2"       |
|------------|
| 0.2~0.5Mpa |
| 60L/min    |
| 0.3~0.5Mpa |
|            |

#### Power supply

| Double-chamber | 380VAC,50Hz,17kVA  |
|----------------|--------------------|
| Triple-chamber | 380VAC,50Hz, 20kVA |
| Four-chamber   | 380VAC,50Hz,25kVA  |

### Working condition

| Temperature       | 5~40℃                    |  |
|-------------------|--------------------------|--|
| Relative humidity | No more than 80% in 20°C |  |

### Varieties of loading racks

SHINVA can supply different kinds of loading solutions and fittings to satisfy customers' requirement.



Four/Five-level wash racks They are mainly used in surgical instruments putting in DIN trays. Remarks: Wash racks kidney trays.



Anaesthesia/ Respiration tubes racks



Humidifying bottles racks Mainly used for cleaning humidifying bottles, also can be used to clean suitable sized test



Glassware wash racks Remarks: Due to a wide range of glassware

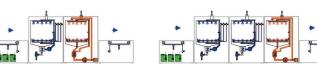


Racks for bowls and kidney trays



with the equipment for wash racks transportation, and also ancillary equipment such as equipment will be more in line with the humanism and ergonomic requirements.

#### Multi-combination of washing programs

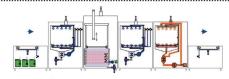


#### Double-chamber

Chamber 1: prewashing, washing, rinse and disinfection Chamber 2: drving

#### Triple-chamber

Chamber1: prewashing and washing Chamber2: rinse and disinfection



#### Four-chamber

Chamber1: prewashing and washing Chamber2: ultrasonic washing Chamber3: prewashing and disinfection Chamber4: drying

## **Ultrasonic washer QX series**

#### **Product introduction**

QX series ultrasonic washer is essential washing machine in CSSD, operating room and laboratory.

SHINVA provides integrated ultrasonic washer solutions, including preliminary washing, secondary washing and deep washing with different frequency. Users can also choose the ultrasonic washing auxiliary machine for flushing and drying. The machine consists of washing tank, ultrasonic generator, ultrasonic transducer, heating tube, temperature transmitter, and water level transmitter, draining pump, basket and pipeline. It uses high frequency oscillation signal, which sent out by ultrasonic generator, and converts to high frequency mechanical oscillation signal and diffuses into the cleaning solution. The ultrasonic spreads forward in the cleaning solution to generate millions of tiny bubbles. During the process called 'Cavitation' the bubbles implode immediately to generate high pressure and impacts the articles to spall the fouling adhered on the surface and gap of the articles to achieve cleaning purpose.



#### **Product features**

- Excellent washing effect and high washing accuracy that could clean those instruments with uneven surface or tiny gap.
- High washing speed improves working efficiency. It protects the instrument from contamination caused by hand contact.
- The tank and outer cover adopt high quality stainless steel which is durable and easy to clean.
- All tanks are auto water-injecting which injects water to certain water level.
- All tanks are equipped with reliable LCD monitor that could be controlled independently.
- It can be equipped with extended-function tank: flushing tank, drying tank.

**Flushing tank:** High pressure water flushing after ultrasonic washing. It is equipped powerful circulating pump and specialized nozzle to flush, rinse, disinfect and lubricating on instrument.

**Drying tank:** Used to dry the instrument after washing; the high quality heater and efficient fan ensures the thoroughly dry.





Flushing tank



Ultrasonic washer

Drying tank

# Automatic lifting ultrasonic washer



QX2000-A ultrasonic washer equipped with lift system that can lift the top lid and baskets automatically after washing which decreases the labor intensity.



### **Technical parameters**

| Model                        |                       | QX2000   |           |                       |                       |                  | QX1500           |                  |
|------------------------------|-----------------------|--|-----------|-----------------------|-----------------------|------------------|------------------|------------------|
| Order code                   | QX2000                | QX2000-C                                       | QX2000-G  | QX2000-D              | QX2000-S              | QX1500           | QX1500-D         | QX1500-S         |
| Chamber dimension (LxWxH) mm |                       | 600x420x330                                    |           |                       |                       | 70               | 00x300x310       |                  |
| Overall dimension (LxWxH)mm  |                       | 80   | 0x640x830 |                       |                       | 90               | 00x520x830       |                  |
| Water consumption L          | 65                    | 20x3   |           | 65                    | 65                    | 48               | 48               | 48               |
| Max. Input power(kVA)        | 11.5                  | 11.5   | 3         | 11.5                  | 11.5                  | 11.5             | 11.5             | 11.5             |
| Ultrasonic power(kVA)        | 2                     |  |           | 2                     | 2                     | 2                | 2                | 2                |
| Function                     | Ultrasonic<br>washing | Flush washing<br>/lubricating<br>/disinfection | Drying    | Ultrasonic<br>washing | Ultrasonic<br>washing | Ultra            | sonic washii     | ng               |
| Frequency(kHz)               | 40                    |  |           | 40/100                | 40/80/100             | 40               | 40/100           | 40/80/100        |
| Remark                       | Single frequency      |  |           | Double frequency      | Triple frequency      | Single frequency | Double frequency | Triple frequency |

### **Technical parameters for Automatic lifting ultrasonic washer**

| Model                        |  | QX2000 |  |  |
|------------------------------|--|--------|--|--|
| Order code                   | QX2000-A QX2000-DA QX2000-SA                       |        |  |  |
| Chamber dimension (LxWxH) mm | 600x420x330  |        |  |  |
| Overall dimension (LxWxH)mm  | 800x640x830  |        |  |  |
| Water consumption L          | 65   |        |  |  |
| Max. Input power(kVA)        | 11.5   |        |  |  |
| Ultrasonic power(kVA)        | 2  |        |  |  |
| Function                     | Ultrasonic washing                                 |        |  |  |
| Frequency(kHz)               | 40 40/100 40/80/100                                |        |  |  |
| Remark                       | Single frequency Double frequency Triple frequency |        |  |  |

# **Automatic Flexible Endoscope Washer-disinfector**

Automatic Flexible Endoscope Washer-disinfector is designed based on the standard ISO15883-4 which is special used for washing and disinfection for Flexible Endoscope.





#### **Endoscope protection design**

#### Leakage test function

The Endoscope leakage test will be finished before contacting with the liquid in the chamber, and can make continuous testing during the cycle. When the detected leakage value exceeds the set allowable value, the system will issue a visual and audible alarm signal, and automatic terminate the cycle.



#### **Process tracking system**

#### Process data printing

The printer can print the washing and disinfection process data for each endoscope, making it easy for users to archive records.

#### Process data management

The system can collect the information of endoscope operators and the washing and disinfection process data can connect user's management computer system through network, which is easy access to the synchronization management for patient information and endoscope washing and disinfection information.



Operator information collection



Endoscope information collection



## **High efficiency Washing**

Rider series automatic endoscope washer can finish the entire washing and disinfection process for one piece of flexible endoscope within 15 minutes, greatly improving the efficiency of endoscopes turnover.



Rider 50 Rider 60

# **Automatic Flexible Endoscope Washer-disinfector**

#### **Self-disinfection function**

- After finishing the maintenance, repairing or interruption for the machine, should run a self-disinfecting program.
- The self-disinfection function can thoroughly disinfect the machine chamber and pipe, including the 0.1µm filter, to prevent the washer-disinfector from becoming a source of pollution.



#### o All-round, full pipe washing and disinfection

The washing chamber equipped with spray nozzle and rotating spray arm which can make washing and disinfection for the outer surface of the endoscope, while the circulating water can make continuous washing and disinfection for the entire inner cavity of the endoscope.

#### Endoscope lumen pressure booster pump.

With independent endoscope lumen booster pump, can make continuously washing and disinfection, gas or water injection and make biopsy or suction lumen, to prevent the formation of bacterial biofilm.

#### Filtered water rising

After disinfection, it will rinse the endoscope with water which is filtered by  $0.1\mu m$  filter to avoid secondary contamination by unsanitary rising water.

#### Drying function

The drying function can realize drying for inner lumen of the endoscope with two modes, air drying and alcohol drying.





#### Perfect protection for operator

#### Automatic door, foot pedal switch

Visualize automatic glass door, easy to observe the washing and disinfection status; foot pedal switch, the door can be opened by gently kicking the foot switch.

#### Fully enclosed

Rider series automatic endoscope washer-disinfector was designed with fully enclosed structure. The automatic glass doors will press the door sealing gasket tightly, to prevent the smell of disinfectant and protection of the operator health maximum.

#### Chemical additives automatic added

In the process of washing and disinfection, the chemical additives, such as enzymes, alcohol and disinfectants can be metered and added automatically

#### Disinfectant automatic sampling function

Rider B series equipped with automatic disinfectant sampling device which is convenient for the users to monitor the concentration of disinfectant and to protect the safety of the operator.

#### Disinfectant automatic addition and discharge function.

Rider B series equips with disinfectant automatic addition and discharge function. When adding the disinfectant, just pour the disinfectant into the washing chamber and start the disinfectant adding program. When discharge, just start the disinfectant discharge program.





| Ted                        | chnical parameter | Rider 50A                                 | Rider 50B |
|----------------------------|-------------------|---|-----------|
| Weight(k                   | Weight(Kg)        |   | 110kg     |
| Water co                   | nsumption/Cycle   | 25L                                       | 25L       |
| Power su                   | upply             | AC220                                     | V 50Hz    |
| Input power                |                   | 1.5                                       | 1.5       |
|                            | Water pressure    | 0.2~0.5                                   |           |
| Water<br>supply            | Water hardness    | Calcium carbonate concentration< 120 mg/l |           |
| Water PH value             |                   | 6.5                                       | ~9        |
| Water discharge mode       |                   | Discharge                                 | by pump   |
| Overall dimension(LxWxHmm) |                   | 740×65                                    | 50×940    |

| Techi                      | nical parameter | Rider 60A         | Rider 60B                |
|----------------------------|-----------------|-------------------|--------------------------|
| Weight(Kg)                 |                 | 200Kg 220Kg       |                          |
| Water co                   | nsumption/Cycle | 25L 25L           |                          |
| Power supply               |                 | AC220\            | / 50Hz                   |
| Input power                |                 | 3                 | 3                        |
|                            | Water pressure  | 0.2~0.5           |                          |
| Water<br>supply            | Water hardness  | Calcium o         | carbonate<br>n< 120 mg/L |
| Water PH value             |                 | 6.5               | ~9                       |
| Water discharge mode       |                 | Discharge by pump |                          |
| Overall dimension(LxWxHmm) |                 | 740×120           | 00×950                   |

## **Center-HGZ Endoscope Storage Cabinet**

#### **Product Description**

Endoscope dry and storage is a very important link in the process of endoscope washing and disinfection. It directly relates to whether the endoscope storage is safe and whether the endoscope can be used directly and doesn't need to be washed and disinfected again.

Center-HGZ series endoscope storage cabinet is designed and developed according to the standard of Flexible Endoscope Disinfection Technical Specification and the factual condition of flexible endoscope storage all over the world. It adopts vertical hang as endoscope storage mode, which is required by Chinese national regulation and it suitable for all brands of endoscopes. The chamber structure is optimized and the capacity in improved to 9 sets of endoscopes. The new concept and design including intelligent storage, long-term effective storage and retrospective storage is imported on the product, realizing safe storage, controllability and traceability.



#### **Product Features**

- Initiative new arc appearance.
- 5.7 -inch color touch control screen.
- Chamber integral forming, easy clean without bacteria residue.
- Tempered glass door is easy for observing chamber inner condition.
- Smart password electromagnetic lock, safe and reliable.
- Rotary type of endoscope hand system realizes 9 sets of endoscopes.
- Four layers, including top position, middle position, low position and bottom position, locate endoscopes to realize 360 degrees protection for endoscopes.
- LED cold light illuminator offers safe and reliable illumination without producing heat.









#### **Performance Features**

- Long-term Effect Storage: 24hours positive pressure ensures outside air cannot enter chamber.
- o Intelligent storage Mode: Daily working time can be set separately, auto start and stop, High Efficient and Energy-saving.
- Clean Storage: 0.3um HEPA replaces UV sterilization, guaranteeing the sterility of air.
- Intensified Dry Function: The sterile air supplied by medical level of air compressor and 0.3um HEPA dries the external and internal chamber, avoiding endoscope scarfskin damage resulted from heat air and second pollution resulted from unqualified air.
- Storage Capacity: Center-HGZ endoscope storage cabinet could store 9 endoscopes, Center-GZ1 could store 6 endoscopes and Center-GZ2 could store 12 endoscopes.
- Endoscope Storage Tracing System: It could scan endoscope information, trace the record of storage time and storage environment, guaranteeing the storage process is safe. (Optional)
- Automatic Monitoring: It could monitor storage environment parameters, such as storage temperature, ventilation pressure, humidity, guaranteeing the storage environment is safe.

## **Center-GZ Endoscope Storage Cabinet**

#### **Product Description**

Center-GZ series endoscope storage cabinet is designed and developed according to the standard of Flexible Endoscope Disinfection Technical Specification and the factual condition of flexible endoscope storage all over the world. The external material is carbon steel, the chamber seal is excellent. The endoscopes are hung vertically in chamber.

Built-in automatic control of ultraviolet ray, recirculating air disinfection and illumination.

Center-GZ1 could store 6 endoscopes and Center-GZ2 could store 12 endoscopes.





#### **Product Features**

- The material of chamber is made up of ABS and PMMA acrylic special composite and processed by special production process. Blister forming, smooth surface, easy clean without bacteria residue.
- Automatic Digital Tube Control, Center-GZ2 is equipped with a key switch control button.
- Transparent acrylic carbon steel door, ensuring good observation of chamber condition.
- Double circulation axial flow fan, guaranteeing good storage effect.
- The form of seal is magnetic seal. Tight seal without any gap and isolation Air from chamber.
- Vertical suspension system, Center-GZ1 could store 6 endoscopes and Center-GZ2 could store 12 endoscopes.
- Three layers, including top position, middle position and bottom position, locate endoscopes to realize protection for endoscopes.
- LED cold light illuminator offers safe and reliable illumination without producing heat.





#### **Performance Features**

- Storage Effectiveness: Seal Storage ensures the chamber is isolated from outside air, guaranteeing the outside air cannot enter chamber.
- Storage Mode: UV sterilization and circulation ventilation can be completed by standard cycle. The time of UV sterilization and circulation ventilation can be set separately. The time can be stopped according to your setting and the energy is saved.
- Storage Capacity: Single door storage cabinet could store 6 sets of endoscopes and double doors storage cabinet could 12 sets of endoscopes.

## **Medical Drying Cabinet**



## YGZ-1600 series

YGZ-1600 series drying cabinet is kind of large capacity medical drying equipment designed according to the requirement of market to fulfill dry treatment of surgical instruments, glassware and respiratory therapeutic items. Easy to operate, the setup scope of drying temperature and time is 40℃~90℃ and 0s~30000s respectively. It is user custom, which can be set up freely. Two models of single-door and double-door are available.

To solve the problems that those like products are mainly used for drying catheter and poor drying effect, we change the structure of air intake system. This series drying cabinet adopts independent drying programs that could work not only for drying catheter but also other instruments. It is drying equipment with high performance price ratio.

#### Application

Hospital CSSD, operating room and other departments in which items need to get dried.

#### Capacity

It can handle 9 DIN standard surgical instruments trays and 36 pieces of anesthesia or respiration hoses.

#### Control system

It equipped with reliable American Rabbit 2000 chip control system, LCD screen and 10 sets of programs. Parameters are convenient to adjust.

The chamber is of top-quality 304 stainless steel with a thermal insulation jacket to avoid heat lost. The door is designed like a glass window for monitoring the inside working.



YGZ-1600S





Accommodate 9 DIN standard instrument trays



Catheter and humidification bottle support

#### Standard configuration

| Items                        | Quantity | Note   |
|------------------------------|----------|--|
| Main machine                 | 1        | 304 stainless steel with double-glazing door |
| Rack                         | 9        | stainless steel                              |
| DIN standard instrument tray | 9        | stainless steel                              |
| Pipe support                 | 2        | stainless steel                              |
| Water collector              | 1        | stainless steel                              |

## YGZ-1600X seires

YGZ-1600X series drying cabinet is kind of high performance-price ratio equipment developed according to the market demand. It has advantages of good appearance, multiple functions, and convenient operation. It can be widely used for drying of different kinds of articles in hospital CSSD and operating room.

- It can be used for surgical operating instrument, glass ware, stainless steel dish and bowl, breathing tube and humidification bottle. Drying temperature setting range: 40~90 ℃ (adjustable); Drying time setting range: 1~99min (adjustable).
- Structure: The chamber adopts 304 stainless steel wire drawing board; outer cover adopts 304 stainless steel with plastic spray; the door is equipped with glass visual window.
- Olassification: Single-door and double-door.
- o Control: Independent drying programs, LCD screen, 10 sets of default programs with adjustable parameters.
- Working ability: Large capacity that could handle 16 DIN standard instrument trays or 48 anesthesia/breathing tubes at same time.
- The water collector which is installed on the bottom of the equipment could discharge water without door opening.
- Multi-functional castors provide convenient transfer and equipment fixing.





16 DIN standard

instrument tray



Catheter and

humidification bottle rack indicating lights



LCD screen and

YGZ-1600XS

#### Standard configuration

Bottom water collector

| Items                        | Quantity | Note                          |
|------------------------------|----------|-------------------------------|
| Main machine                 | 1        | 304 stainless steel           |
| Rack                         | 8        | stainless steel               |
| DIN standard instrument tray | 8        | the quantity is customized    |
| Pipe support                 | 2        | east to use, multi-functional |
| Water collector              | 1        | stainless steel               |

## YGZ-1000 series

YGZ-1000 series drying cabinet is kind of small-size drying equipment developed according to the market demand. It is mainly used for drying of surgical operating instrument, stainless steel dish and bowl, glass ware and plastic items. Drying temperature setting range: 40~90°C (adjustable); Drying time setting range: 0~9999s (adjustable). According to appearance and material, it can be divided into YGZ-1000 (all stainless steel) and YGZ-1000X (outer cover with plastic spray).

#### Application

Hospital CSSD, operating room and other departments in which items need to get dried.

#### Capacity

It can handle 10 DIN standard instrument trays or stainless steel dishes/bowls.

#### Control system

It equipped with reliable PLC which is assembled of American chip, 3 sets of default programs (A: operating instrument B: glass ware C: plastic article) and 2 sets of custom programs. The screen displays dynamic parameters timely which is intuitionistic and the parameters are adjustable. It is equipped with self-checking function.

#### Materials

The whole chamber adopts 304 stainless steel board and thermal insulation jacket to avoid heat lost;

The triple-glazing door is designed like a glass window for avoiding heat lost and monitoring the inside working.

The unique design of the rack structure is easy to pick and place.







water collector

10 DIN standard instrument trays

rack push-pull structure

YGZ-1000

YGZ-1000X

YGZ-500 Series

YGZ-500 series bench-top drying cabinet is kind of small-size drying equipment developed according to the market demand. It is mainly used for drying of surgical operating instrument, stainless steel dish and bowl, glass ware and plastic items. Drying temperature setting range: 40~90°C (adjustable); Drying time setting range: 0~9999s (adjustable).



YGZ-500

#### Room-saving, convenient

It is a small-sized and time-saving drying cabinet which is applicable for operating room or works with low temperature sterilizer to improve the turnover of precision instrument.

#### Materials

- ♦ The whole chamber adopts 304 stainless steel board and thermal insulation jacket to avoid heat lost;
- ♦ The double-glazing door is designed like a glass window for avoiding heat lost and monitoring the inside working.

#### Application

- ♦ It is applicable for hospitals, health institutions, scientific research institutions and laboratories.
- ♦ It is the best choice for drying of glass ware or stainless steel operating instrument.

#### Standard configuration

| Items                        | Quantity | Note   |
|------------------------------|----------|--|
| Machine                      | 1        | 304 stainless steel chamber, double-glazing glass window |
| Rack                         | 2        | stainless steel  |
| DIN standard instrument tray | 2        | stainless steel, for containing instrument               |
| Water collector              | 1        | stainless steel  |

| Order Code<br>Technical<br>Parameter              | YGZ-1600S                 | YGZ-1600D     | YGZ-1600XS        | YGZ-1600XD  | YGZ-1000(1000X)        | YGZ-500                |
|---|---------------------------|---------------|-------------------|-------------|------------------------|------------------------|
| Overall size $(W \times H \times D)$ mm           | 973×2200×630 973×2200×540 |               | 720×2230×750      |             | 705×1640×770           | 820×540×650            |
| Chamber size $(W \times H \times D)$ mm/Volume(L) | 603×1602                  | ×373/360L     | 600×1602×510/500L |             | 580×980×578/330L       | 550×450×330/80L        |
| Net Weight  | 300                       | OKg           | 280Kg             |             | 150Kg                  | 50Kg                   |
| Door quantity                                     | Double door               | Single door   | Double door       | Single door | Single door            | Single door            |
| Structure   |                           | Vertical type |                   |             |                        | Tabletop type          |
| Power supply                                      | AC380V、50Hz               |               | AC380V            | 、50Hz       | AC220V、50Hz            | AC220V、50Hz            |
| Environment temperature                           |                           | 5~40℃         |                   |             |                        |                        |
| Relative humidity                                 |                           | 20℃≤90%       |                   |             |                        |                        |
|   | Thermal heater: 9kVA      |               | Thermal he        | eater: 8kVA | Thermal heater: 5.4kVA | Thermal heater: 2.5kVA |
| Power consumption                                 | Wind fan: 0.72kVA         |               | Wind fan: 0       | ).6kVA      | Wind fan: 0.4kVA       | Wind fan: 0.1kVA       |
|   | Rated pow                 | er: 11kVA     | Rated pow         | er: 9kVA    | Rated power: 6.5kVA    | Rated power: 3kVA      |

#### Standard configuration

| Items                        | Quantity | Note  |
|------------------------------|----------|---|
| Main machine                 | 1        | double-layer 304 stainless steel board, triple-glazing glass window |
| Rack                         | 5        | stainless steel, each layer bears 2 standard instrument tray        |
| DIN standard instrument tray | 10       | stainless steel, for containing instrument                          |
| Water collector              | 1        | stainless steel   |