

## Technical Specifications

<b>Sterilization Cycle Time</b>	Long Cycle: 55 minutes. Standard Cycle: 31 minutes.
<b>Sterilization Chamber</b>	Configuration: Rectangular. Material: Aluminum. Sterilization temperature: 35°C-55°C Instruments shelves: 2 Layers. Shelf Dimension: 710mmX360mm X100mm
	Double door                      Single door
	Chamber dimensions(WxHxD) 450mmX400mm X800mm      450mmX400mm X690mm
	Chamber volume 144 Liters      124 Liters Usable volume 112 Liters      100 Liters
<b>System Controlling</b>	The system is fully automated, controlled by microprocessor controller.
<b>Biological Incubator</b>	Built in biological incubator with 8 positions.
<b>Display &amp; Printer Outputs</b>	7inch, TFT true color, touch screen. Built- in heatsensitive Micro printer.
<b>Flash Memory Card</b>	32MB smart memory card in order to generate system performance record and data storage for each cycle.
<b>Hydrogen peroxide cassette</b>	Hydrogen peroxide concentration: 58%. Hydrogen peroxide validity: 1 year. * The steriliser works with a system with closed cassettes that guarantees the use of the same volume of sterilizing agent for each sterilization cycle. * one cassette of the sterilizer performs 3 standard mode and 6 test mode. * The expiry of the cassette is shown on the touch screen.
<b>Dimensions, Weight</b>	Double door                      Single door
	Dimensions (WxHxD) 800mm X 1100mm X 1730mm      800mm X 1002mm X 1730mm
	Net Weight 600Kg      490Kg
	Gross Weight 660Kg      590Kg
<b>Sterilization Level</b>	Sterilization efficacy: SAL 10 <sup>-6</sup>
<b>Installing Space</b>	Minimum distance from wall: 100mm. Minimum service access: 1000mm. Venting requirements: Not required. Minimum area(WxHxD)(double door): 860mm X 1310mm X 1760mm. Minimum area(WxHxD)(single door): 1400mm X 1400mm X 2000mm.
<b>Door Positioning</b>	Automatic vertical sliding door controlled by hand switch, footswitch and the touch screen.
<b>Placement</b>	Built in locked wheels to provide mobility.
<b>Connections</b>	Electricity only. 380 v, 50-60Hz, 16A, 3phase. No additional connections with water and drain channel.
<b>Operational Environment</b>	Ambient temperature: 5°C - 40°C. Relative Humidity: 30% - 95% RH.
<b>Sterilization Efficacy</b>	The LK/MJG series plasma sterilizers reach sterilization efficacy with different instruments to include (but not limited to) -Single channel stainless steel lumens 500mm sterilization efficacy with diameter at least 1mm -Single channel Polyethylene/Teflon lumens 2000mm sterilization efficacy with diameter at least 1mm
<b>Accessories and Consumables</b>	Laoken produces and provides all the necessary consumables for sterilization - cassettes, containers, packing paper, packing reels, chemical and biological indicators.
<b>Standards and Directives follows</b>	ISO 9001:2000/ISO 13485:2003/ISO 14937:2000/MDD 93/42/EEC+2007/47/CE



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**HYDROGEN PEROXIDE LOW TEMPERATURE PLASMA STERILIZER**

**LK/MJG-100L**

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# Hydrogen Peroxide Low Temperature Plasma Sterilizer LK/MJG-100L

## Design Conception

Hydrogen peroxide low temperature plasma sterilization technology is to create plasma inside of sterilization chamber. Hydrogen Peroxide is a kind of high effect oxidant, when it enters into vacuumed sterilization chamber in gas state, hydrogen peroxide and water diffuse quickly into a slurry state under strong electromagnetic field. Then the slurry decomposes into high active free radicals and diffuses to the surfaces, inside and apertures of instruments. Gas slurry of molecules is then created (mainly free electrons and ions). The active molecules kill bacteria and microorganisms on heat sensitive surgical instruments and then pressure in chamber increases to atmospheric pressure. Finally, sterilization circulation ends and the particles recombine into water and oxygen and discharged without any residue.

## Brief Introduction

LK/MJG series sterilizer adopts internationally advanced low temperature hydrogen peroxide sterilization technology. The sterilizer can reach reliable fast and effective sterilization on metal, non-metal, humidity and heat sensitive medical instruments. No offensive residue, safe to operator, high efficiency to reduce the instrument storage are the top values of LK/MJG Low temperature plasma sterilizer.

the most important technical parameter to show the effect hydrogen peroxide low temperature plasma sterilization is sterilization for microstructure tubule. LK/MJG can reach:

## Product Development

In late twenty century, application and development of minimal invasive surgery were highly enhanced with the development of science and technology and higher requirements for health from human being. The popularization of minimal invasive surgery is a trend of modern operation. On this base, choosing a safe, environment friendly, easy and fast sterilization equipment is very important. Laoken's Hydrogen Peroxide Low Temperature Plasma Sterilizer is the right product which can meet all requirements mentioned above from the clients.



## Applicable Medical Instrument For Sterilization

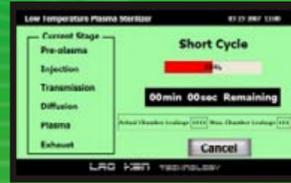
Laoken brand plasma sterilizer is applicable for surgical instruments including metal, nonmetal, humidity and heat sensitive instruments.

Metal: stainless steel, aluminum, bronze, titanium and some other metals

nonmetal: glass, plastic (plastic: poly-acetal, ethenyl, styrene polymers, Polycarbonate, ethylene resin, Poly methyl methacrylate, Non-woven fabrics, Polyurethane, polyvinyl chloride, nylon

- papers, pledget and hygroscopic articles are not allowed to put in the chamber.
- Can not sterilize hygroscopic instruments.
- Can not sterilize powder objects.

## LCD touch screen



## sterilization chamber



## Standard Accories

Fixed shelves



## Advantages

LK/MJG adopt full computer control system. LCD touch screen provide man-machine conversation platform. Built in biological incubator of Laoken plasma sterilizer can monitor and recognize biological incubation result automatically with easy operation. Printing system can print accurate current and stored sterilization parameters and results.

## Heat preservation chamber

Hydrogen peroxide low temperature plasma sterilizer is very sensitive to temperature difference in sterilization chamber. LK/MJG series sterilization chamber adopts full Aluminium with good heat conductivity. Temperature in the chamber can keep constant equal after chemical treatment to guarantee no offensive residue and reach stable sterilization effect.

With same capacity, rectangle design of LK/MJG sterilization chamber has much bigger loading capability than round sterilization chamber. The chamber can hold more instrument at one time and also enhance sterilization efficiency.

- ⊗ Pass-through (double-door) design
- ⊗ 2 Levels 4 layer shelves
- ⊗ 100 Liters usable volume
- ⊗ Easy Operating
- ⊗ Broad application scope
- ⊗ Safe to operator and environment
- ⊗ Low temperature sterilization
- ⊗ Easy fixing
- ⊗ Efficient sterilization

## Pass-through (double-door) design



## Consumable

All the consumables are of the best materials and competitive price. We can meet various personalized requirements for some of the consumables.



Non-woven fabric



Appliance box



Chemical indicate strip



Chemical Indication Label



Packages meet specifications Seal for all instruments



Hydrogen Peroxide Low Temperature Plasma Sterilizer can sterilize most of metal and non-metal instrument shortly except containing oil, powder, paper, cotton material and other wet and absorbable material.



polytetrafluoroethylene tubul



single routeway



Working screen



Working process

## Advantages of Biological Indicator



biological indicator

The best temperature for the growth of ATCC7953 is about 50 °C and it could also grow well at 75°C. The temperature is close to the working temperature of hydrogen peroxide low temperature plasma sterilizer. Meanwhile, ATCC7953 has more endurance to hydrogen peroxide. Therefore, adopting ATCC7953 as biological indicator could show hydrogen peroxide low temperature plasma sterilization effect accurately.

Most eugenic bacteria is ATCC7953 in the environment of 40-55°C, according to the latest edition of European codex. ATCC7953 is sporeformer to replace ATCC9372. So ATCC7953 is selected as biological indicator to inspect sterilization efficiency.

## Cassette



inserting cassette

cassette: one of the key technology for hydrogen peroxide low temperature plasma sterilization is to accurately control the injection of hydrogen peroxide. Inadequate hydrogen peroxide injection can not meet sterilization requirement; overinjection leaves residue. Therefore, injection system is the key point. A media to store the hydrogen peroxide is very import. LK/MJG series adopt capsule cassette. 2ml 58% hydrogen peroxide is stored in the capsule in accurate volume. One capsule for one cycle to ensure invariable hydrogen peroxide injection. Moreover, capsule cassette storage have advantages of easy storage, easy operation and easy replacement to guarantee the safety of operators.