

Expert in Infection Control

www.renosem.com

RENO

Low Temperature Plasma Sterilizer



Promise...

Supreme quality plasma sterilizer is the promise
RENOSEM offers to you



About RENOSEM

RENOSEM CO.,LTD. is an innovative provider of Low Temperature Plasma Sterilizer resulting in infection prevention, microbial reduction and RENOSEM strives to develop various medical devices using our own well-experienced high-tech plasma applications.

RENOSEM CO., LTD. has been distributing state-of-the-art medical products through business partners globally.

RENO Plasma Sterilizer protect patients and users from infection by means of sterilizing surgical device 10^{-6} SAL (Sterility Assurance Level) e.g. most type of surgical endoscopes, catheters, cannula, etc. Low Temperature Plasma Sterilization is rapidly emerging as an essential, which can sterilize humidity sensitive and heat sensitive medical device in OR, CSSD and General hospital, as well as Ophthalmology, Biolab, Veterinary clinic (Hospital), Dental clinic, and Pharmaceutical Aseptic industry.

RENOSEM CO.,LTD. focus on the endeavor to come up to customer's needs and market situations.

RENOSEM CO., LTD. strives to become the World's Best Brand in the Healthcare industry by providing the highest levels of technology, service and standards compliance.

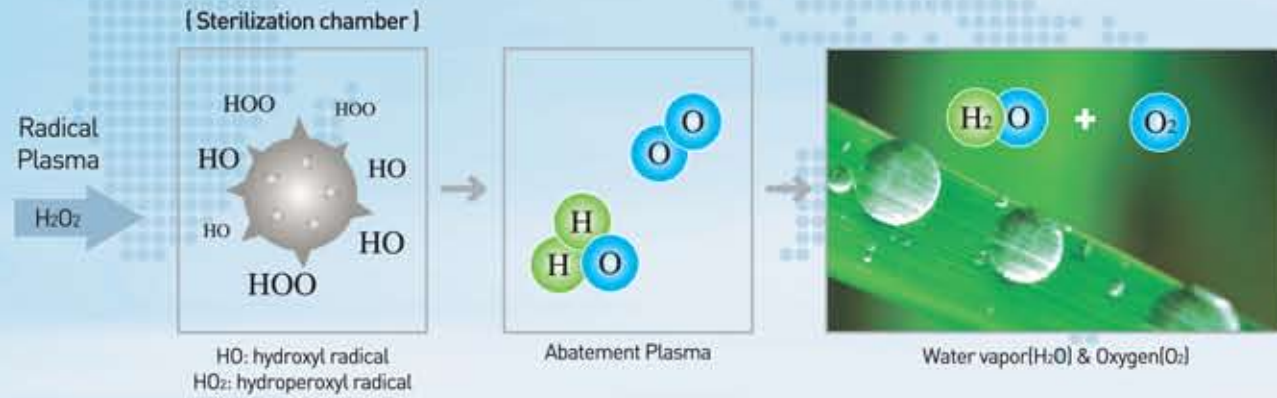
Best Regards,



Family Company



How RENO system works?



The process is Environmentally Friendly,
Safe, Reliable!



More Powerful sterilization



User Friendly interface

- Colored wide touch screen
- Display cycle information (estimated cycle time, Temperature, Pressure, etc.)
- Customized cycle-mode selection (Short cycle, Long cycle)
- Applicable languages available (English, German, Spanish, Arabic, French, others)



User-friendly chamber design

- Spacious rectangular chamber (usable volume more than 90%)
- Removable 2 sliding-shelves
- Easy-to-clean chamber wall - Freely contactable chamber wall
- Solid & acid-proof stainless steel chamber
- Sterilant residual-free using vaporizing filter system



Easy-to-use sterilization cassette

- Easy-to-load single-use cassette
- Safe-to-load & waste (Push&Pull)
- Reliable quantitative injection system using full vacuum system only
- Minimized error system



Thermal Printer

- Reporting complete cycle information



Universal data acquisition system

- Data backup using Memory Card or Stick



Mobile wheel

- Easy relocation wherever user need



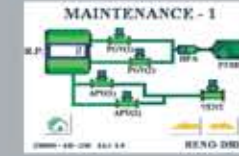
Radical plasma

- Using DBD (dielectric barrier discharge) plasma technology
- Maximizing H_2O_2 radical effect and sterilization efficacy
- Durable & effective plasma (radical) generating system



Abatement Plasma

- AC plasma discharge
- Break down H_2O_2 gas into Water (H_2O) vapor and Oxygen (O_2)
- Durable & Reliable finishing system



Maintenance mode

- Service diagnostic mode for maintenance and calibration.
- Easy-to-diagnosis engineer interface



Peripheral devices

- Biological Incubator for verification of biological test



RENO-S30

“More reliable sterilization”



RENO-D50

“More economic sterilization”



Color-coded touch screen Sterilant residual-free system Single-use cassette type sterilant

RENO-S30 Specification

Item	RENO-S30
External dimension	1,020(H) × 570(W) × 840(D)mm
Weight	190 Kg
Chamber Dimension	300(W) × 185(H) × 610(D)
Chamber Volume & Type	34 L, Rectangular
Sterilant Dose	4ml (50%)
Cassette	1 cycle/cassette
Processing temperature	Below 55°C
Total cycle Time	About 45 min.
Power Consumption	2.5KVA
Electricity	230V~ Single Phase, 50/60Hz
Control	Micro Processor
Display	Touch Panel
Printer	Thermal Printer
Mobility	4 wheels



Color-coded touch screen Selectable double chamber Single-use cassette type sterilant

RENO-D50 Specification

Item	RENO-D50
External dimension	1,310(H) × 538(W) × 789(D)
Weight	290 Kg
Chamber Dimension	185(H) × 300(W) × 550(D)
Chamber Volume & Type	60L, 2 × Chamber(30L), Rectangular
Sterilant Dose	4ml × 2chambers (50%)
Cassette	1 cycle/2cassettes
Processing temperature	Below 55°C
Total cycle Time	About 45 min.
Power Consumption	2.5KVA
Electricity	230V~, Single Phase, 50/60Hz
Control	Micro Processor
Display	Touch Panel
Printer	Thermal Printer
Mobility	4 wheels



RENO-S130

“More effective sterilization”



Wide TFT LCD touch screen Removable 2 sliding shelves Ergonomic design Single-use cassette type sterilant Universal data acquisition system

RENO-S130 Specification

Item	RENO-S130	
External dimension	1,547(H) × 778(W) × 1,220(D)mm	
Weight	440 Kg	
Chamber	Dimension	450(W) × 400(H) × 730(D)mm
	Volume & Type	130L, Rectangular
Sterilant	Dose	10ml (50%)
	Cassette	1cycle/1cassettes
	Processing temperature	Below 60°C
	Total cycle Time	Eco cycle: about 45min / Advanced cycle: about 62min
	Power Consumption	3.0KVA
	Electricity	230V~, Single Phase, 50/60Hz
	Control	Micro Processor
	Display	Wide Touch Panel
	Printer	Thermal Printer
	Data	Memory Card or Stick
	Mobility	4 wheels

Complete line of RENO accessories

- Sterilization agent:** RENO-SA sterilant cassettes.
- Chemical indicator tape:** Rolls of blue and white tape.
- Biological indicator:** Small vials used for testing sterilization efficacy.
- Wrapping pouch:** White non-woven sheets used for instrument wrapping.
- Wrapping non-woven sheet:** Blue non-woven sheets for instrument wrapping.
- Chemical indicator:** Individual strips of chemical indicators.
- Printer Roll:** Rolls of white paper for thermal printing.
- Instrument tray:** A metal wire tray for holding instruments.
- B/I Incubator:** A black incubator used for biological indicator testing.

What are the benefits from your best choice ?

1. Rapid sterilization cycle time ?

Yes No → Contribute to rapid turnaround time of instrument and minimized inventory cost

2. Proven strong sterilization efficacy ?

Yes No → 2mm(inside diameter) x 1.5m(length) PCD(Process challenge device) tool, single-through lumen with an indicator at the closed end of the tube, is used to verify sterility assurance of complex hollow-type instruments.

3. Environmentally friendly byproducts ?

Yes No → Water vapor & Oxygen only, it's safe to your staff, patient and the environment

4. No plumbing facility required ?

Yes No → Easy-to-relocate everywhere user need in OR and CSSD

5. Economic operation cost & efficient ?

Yes No → It relieves the financial burden.

6. Low processing temperature?

Yes No → it's less than 55-60°C and is suitable for most type of endoscope, heat-sensitive instrument.

7. Reliable & Durable system?

Yes No → it costs less for repairing and maintenance

8. Service activity?

Yes No → RENO engineer provide support PM(preventive maintenance) , calibration, IQ/OQ.



Ø1x 12,000mm(Flexible Endoscope) Ø1 x 1,000mm(Rigid Endoscope)

[Flexible & Rigid Lumen]

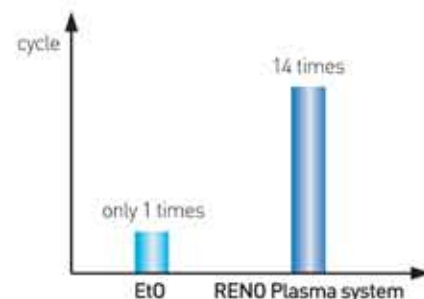


2mm x 1,500mm

[Single-through lumen PCD & hollow-type Trocar/cannula]

	RENO Plasma System	Paracetic Acid System
Humid-sensitive materials	Can	Can't
Storage after process	Can	Can't
Toxicity	No	Noxious odor
Process capability	usable chamber volume more than 90%	Limited capacity

[Analysis of performance capability]



[Analysis of daily running cycle time]

What kinds of device can be sterilized in RENO Sterilizer ?

- Cryo-probes
- Dopplers
- Electrocautery instruments
- Cranial pressure transducer cables
- Defibrillator paddles
- Endoscopic instruments
- Rigid endoscopes (laryngoscope&blade, arthroscopes , laparoscopes & Trocar cannula and Trocar sheaths, resectoscope and sheaths, etc.)
- Flexible endoscopes (bronchoscopes, hysteroscopes, choledochoscopes, ureteroscopes, cystoscopes, etc.)
- Esophageal dilators
- Fiberoptic light cables
- Laser handpieces, fibers, accessories
- Shaver handpieces / Pigmentation handpieces
- Metal instruments
- Ophthalmic lenses (diagnostic, magnifying)
- Patient lead cables
- Radiation therapy equipment
- Surgical power equipment and batteries (Power drills)
- Ultrasound probes
- Video cameras and couplers
- All devices processed in RENO sterilizer must be within the claims of the sterilizer.

Suitable for minimally invasive surgery (MIS) endoscopes



Laparoscope & Trocar cannula

Laparoscope & Trocar cannula

Bronchoscope



Cystoscope

Choledochoscope

laryngoscope

Heat sensitive instruments



Power drills

Micro eye surgery instrument



TUR Set

Tube

Light cords



RENOSEM

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Regulatory Approvals

Medical Device directive 93/42/EEC

ISO 13485:2003

Quality Management system-Medical devices-Requirements for regulatory purposes

ISO 9001:2008

Quality management system-design, development and manufacture of
low-temperature plasma sterilizer in RENOSEM series.



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