Sterilization item Guide

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Material to sterilization

Sterilizable material

▶ **Metal products (stainless steel, aluminum, titanium alloy, etc.)**

▶ **Plastic products (polyethylene, polycarbonate, polyvinyl chloride (PVC), polypropylene (PP), Viton, etc.))**

▶ **Glassware, Rubber products (silicon)**

▶ **Ceramic products**

Prohibited material

▶ **Hard-Lumen[1]: units having a pipe with a diameter of <1ø and a length of more than 1,000mm**

▶ **Soft-Lumen[1]: units having a tube with a diameter of <1ø and a length of more than 12,000mm**

▶ **Soft-Lumen[1]: Units having a tube with a diameter of <2ø and a length of more than 1,500mm, blocked on one side**

▶ **Substances that absorb moisture[1] (paper, Cellulose, Cotton, Gauze, Wood, etc.)**

▶ **Liquid (oil, water, foam, etc.), equipment with water**

▶ **Powder, copper and zinc, Brass**

▶ **Acetal, Buna N(Nitrile), Hypalon (glove material)**

Material to sterilization

Materials that need attention when sterilizing

▶ Disposable products that are not recommended (disposable tarpaulin, gown, syringe, etc.)

▶ Items damaged by vacuum such as marker pens

▶ Polyurethane, nylon and poor quality plastics[1]

▶ Sponges (styrofoam, sponge for microscope protection, etc.))

▶ In the case of some painted products such as aluminum surface painting, it occurs when discoloration or color change

▶ Some cable products[1]

▶ Some cables may stick to transparent vinyl of sterilized roll and pouch.
Wrap it in sterilized wrap (non-woven) and wrap it.

<Cable item>

< Cable wrapped in non-woven sheet >

※ [1] **Materials with limited sterilization: Porous materials, absorbent materials and lumens interfere with vacuum and absorb hydrogen peroxide, a sterilant, to reduce sterilization effect..**

Lumen Guideline

RENO-S20

Sterilization cycle	Lumen	S20	Max quantity
Eco Cycle	SUS Ø1	150mm	2ea
	Teflon Ø1	400mm	2ea

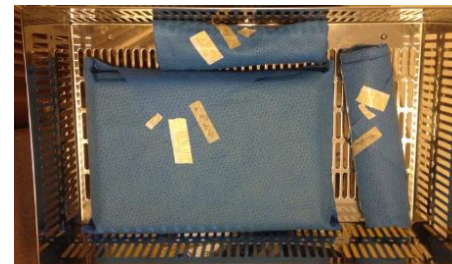| Sterilization cycle	Lumen	S20	Max quantity
Advanced Cycle	SUS Ø1	400mm	5ea
	Teflon Ø1	1,000mm	5ea
	Teflon Ø2	1,500mm (One-side closed)	1ea

Maximum of 2 lumens per load in ECO CYCLE
Maximum of 5 lumens per load in ADVANCED CYCLE

Maximum of 10 containers per load In ECO / ADVANCED CYCLE
Maximum of 2 silicon pads per load in ECO / ADVANCED CYCLE
※ Silicon pad size criteria: 250mm x 150mm

Validation load weight (With tray)
 - Advanced cycle: 2.6kg
 - Eco cycle: 1.5kg

Lumen Guideline

RENO-S30

Sterilization cycle	Lumen	S30	Max quantity
Eco Cycle	SUS Ø1	200mm	10ea
	Teflon Ø1	400mm	10ea
	Flexible Endoscope Teflon Ø1	900mm 1ea with camera and light cable	1set

Sterilization cycle	Lumen	S30	Max quantity
Advanced Cycle	SUS Ø 0.7	500mm	10ea
	Teflon Ø1	1,000mm	10ea
	Teflon Ø2	1,500mm (One-side closed)	2ea

Maximum of 10 lumens per load in ECO/ ADVANCED CYCLE

Maximum of 10 containers per load In ECO / ADVANCED CYCLE
Maximum of 2 silicon pads per load in ECO / ADVANCED CYCLE
※ Silicon pad size criteria: 250mm x 150mm

Validation load weight (With tray)
 - **Advanced cycle: 3.5kg**
 - **Eco cycle: 2.1kg**

Lumen Guideline

RENO-D50

Sterilization cycle	Lumen	S30	Max quantity
Eco Cycle	SUS Ø1	200mm	10ea
	Teflon Ø1	400mm	10ea
	Flexible Endoscope Teflon Ø1	900mm 1ea with camera and light cable	1set

Sterilization cycle	Lumen	S30	Max quantity
Advanced Cycle	SUS Ø 0.7	500mm	10ea
	Teflon Ø1	1,000mm	10ea
	Teflon Ø2	1,500mm (One-side closed)	2ea

Maximum of 10 lumens per load in ECO/ ADVANCED CYCLE

Maximum of 10 containers per load In ECO / ADVANCED CYCLE
Maximum of 2 silicon pads per load in ECO / ADVANCED CYCLE
※ Silicon pad size criteria: 250mm x 150mm

Validation load weight (With tray)
 - **Advanced cycle: 3.5kg**
 - **Eco cycle: 2.1kg**

Lumen Guideline

RENO-S90

Sterilization cycle	Lumen	S90	Max quantity
Eco Cycle	SUS Ø1	200mm	10ea
	Teflon Ø1	400mm	10ea
	Flexible Endoscope Teflon Ø1	900mm	2ea
	Flexible Endoscope Teflon Ø1	900mm 1ea with camera and light cable	1set

Sterilization cycle	Lumen	S90	Max quantity
Advanced Cycle	SUS Ø1	500mm	10ea
	Teflon Ø1	1,000mm	10ea
	Teflon Ø2	1,500mm (One-side closed)	2ea

Maximum of 10 lumens per load in ECO/ ADVANCED CYCLE

Maximum of 10 containers per load In ECO / ADVANCED CYCLE
Maximum of 2 silicon pads per load in ECO / ADVANCED CYCLE
※ Silicon pad size criteria: 250mm x 150mm

Validation load weight (With tray)
- **Advanced cycle: 8kg**
- **Eco cycle: 5.5kg**
- **Non lumen cycle: 3.5kg**

Lumen Guideline

RENO-S130

Sterilization cycle	Lumen	S130	Max quantity
Eco Cycle	SUS Ø1	200mm	10ea
	Teflon Ø1	400mm	10ea
	Flexible Endoscope Teflon Ø1	900mm	2ea
	Flexible Endoscope Teflon Ø1	900mm 1ea with camera and light cable	1set

Sterilization cycle	Lumen	S130	Max quantity
Advanced Cycle	SUS Ø0.7	500mm	10ea
	Teflon Ø1	1,000mm	10ea
	Teflon Ø2	1,500mm (One-side closed)	2ea
	Teflon Ø1	1,000mm (Without load)	20ea

Maximum of 10 containers per load In ECO / ADVANCED CYCLE
Maximum of 2 silicon pads per load in ECO / ADVANCED CYCLE
※ Silicon pad size criteria: 250mm x 150mm

Validation load weight (With tray)
- **Advanced cycle : 12kg**
- **Eco cycle : 8kg**
- **Non lumen cycle : 5kg**

Lumen Guideline

RENO-S130D

Sterilization cycle	Lumen	S130D	Max quantity
Eco Cycle	SUS Ø1	200mm	10ea
	Teflon Ø1	400mm	10ea
	Flexible Endoscope Teflon Ø1	900mm	2ea
	Flexible Endoscope Teflon Ø1	900mm 1ea with camera and light cable	1set

Sterilization cycle	Lumen	S130D	Max quantity
Advanced Cycle	SUS Ø1	500mm	10ea
	Teflon Ø1	1,000mm	10ea
	Teflon Ø2	1,500mm (One-side closed)	2ea
	Teflon Ø1	1,000mm (Without load)	20ea

Maximum of 10 containers per load In ECO / ADVANCED CYCLE
Maximum of 2 silicon pads per load in ECO / ADVANCED CYCLE
※ Silicon pad size criteria: 250mm x 150mm

Validation load weight (With tray)
- **Advanced cycle : 12kg**
- **Eco cycle : 8kg**
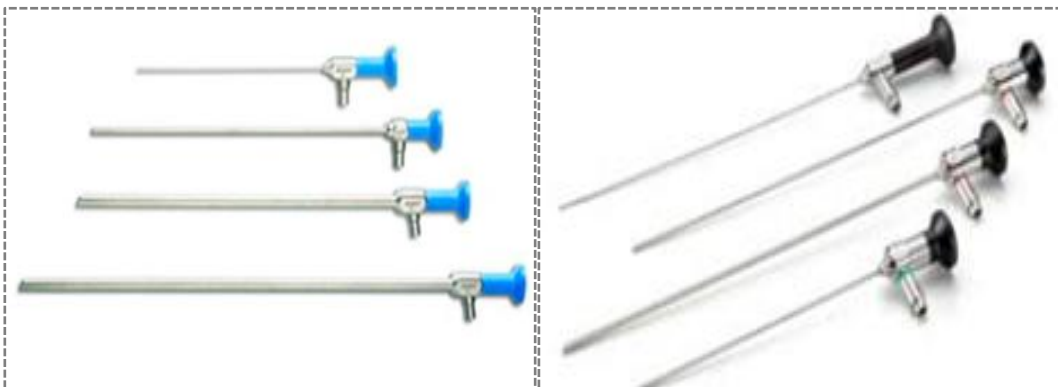- **Non lumen cycle : 5kg**

Cautions

Before loading the instruments

▶ **Check if instruments includes prohibited materials.**

▶ **Check if there are prohibited instruments loaded.**

▶ **Follow the lumen guideline.**

▶ **The recommendation amount is less than 80% loading.**
However it can be different according to the instrument kinds.

▶ **Check the instrument compatibility.**
Some instrument are not compatible with Plasma sterilizer such as container only for steam sterilizer with out holes.

▶ **The quantity of the Silicon pad must not be over 2ea.**
※ Silicon pad size criteria: 250mm x 150mm

Cautions

Rigid Endoscopes (Arthrosocpe, Laparoscope, Telescope, etc.)

Moisture removal caution items

Laparoscopic Forceps

Moisture removal caution items

Cautions

Light Cables | **Moisture removal caution items**

Camera Head & Camera Cables | **Moisture removal caution items**

* In the case of cables, scratches or holes on the surface may have an effect on the vacuum process.

Cautions

Bipolar forceps & Bipolar codes

Trocar (Reusable)

Cautions

Micro Instruments set

* **In the case of silicon material, the more the amount is used, the more it needs to be managed due to the surface change.**

Tubes, lines

Moisture removal caution items

Cautions

Drill & Battery

Moisture removal caution items

Arthroscopy Set

Cautions

Laparoscopy Set

Endo Urology Set   **Moisture removal caution items**

Device that can be sterilized

Cable Code

Electrosugical Cable (Biopolar code)

Pinccete

Wire Guide

Twister Needle Holder TC

PLIERS

Device that can be sterilized

Electric Coagulation Forceps

Electro sugical Cable

Stainless steel device

Biolar Forceps

Forcep

GS Micro

Device that can be sterilized

Skin Stapler

Endo Clip

Cryo-probes

Power Drills

Micro eye surgery instrument

TUR Set

Device that can be sterilized

Micro Forceps

Forward/ reverse scanlan

Light Cable

Air drill code

Chest Tube

Sucker

Device that can be sterilized

Lonstar ret & Hook

Co2 line

Silicon Tube

Arthro suture set

Drill

Face Cover

Device that can be sterilized

Air drill

Remover

Trocar

Rectal Tube

Laparascopic Trocar

Biopsy forceps

Device that can be sterilized

Optical Sugical Instrument

Cataract Instrument

Optical Sugical Instrument

Handle of surgical light

Arthroscope

Rm 5. 5mm 30°

Laparoscope

Substances that cannot be sterilized

wood, pulp material

Gauze, cotton, linen

Sponge, styrofoam, foam material

Patient clothes, gowns, bed sheets

Liquid, powder,

Paper

Gel, oil, clay

Disposable

* 일회용품 같은 경우 재사용이 제한되어 있어 멸균 불가능함.

Non-woven packaging method

① After preparing a tray suitable for medical tools as shown in the picture, Put the sterilized product and CI strip in the tray.
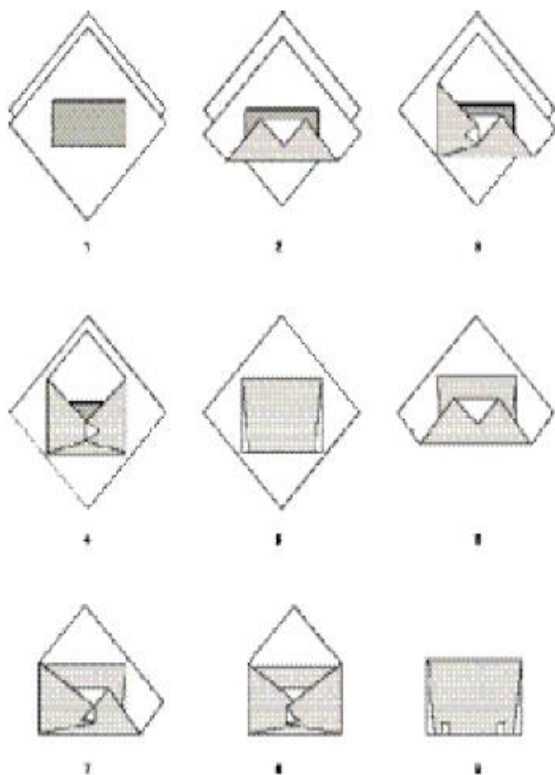

② Wrap the tray as shown in the picture using non-woven sheet. (After packing, fix with CI tape)
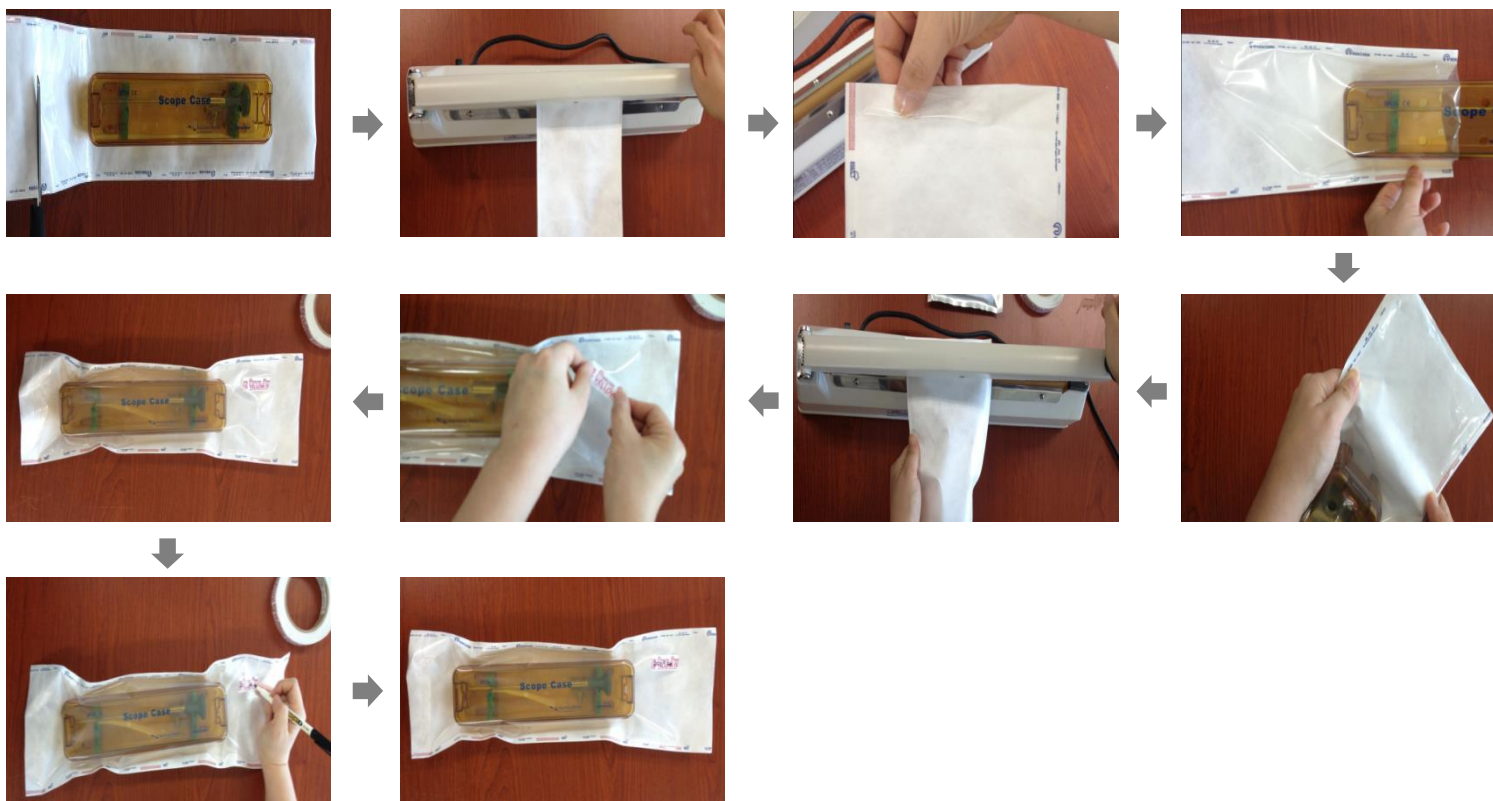
Non-woven packaging method

❷ Tray packing flow chart

Pouch packing method

❶ Pouch packing method

Thank you
Expert in Infection Control