PLASMA STERILIZER

DURALINE BIOSYSTEMS INC | Clean to Sterile Solutions™

Low temperature plasma sterilizer for wide range of medical devices

The world's first direct injection pouch-type
patented sterilization technology has been applied.
SAL of 10^{-6} is validated to ensure sterilization stability of medical devices.

(SAL: Sterility Assurance Level, 99.9999%)

STERLINK* plasmapp

STERLINK FPS-15s Plus
STERLINK mini

STERLINK™

Low Temperature PLASMA STERILIZER

Biological Inactivation

7 min.

Direct Sterilization with Plasma

@131°F (55°C)

The biological inactivation of Plasmapp is the world's fastest low-temperature sterilization solution using sterilant direct injection technology with an impermeable sterile package to maximize sterilant efficiency. This solution prevents thermal damage to delicate medical devices and secures user safety in the sterilization process using differentiated plasma technology of Plasmapp.

Preventing infection Accidents

Pouch Mode
- 7 minutes fast sterilization with the world's first direct injection pouch and patented sterilization technology

Express Mode (STERLINK™ MINI only)
- 12minutes fast sterilization Double cycle sterilization process is applied complying with ISO14937

Vaccum sealing pouches enable staff to have an immediate check on the sterile condition of the sterilized tools inside

Compatible with most medical devices and materials that are heat and moisture intolerable

Safe disposable sterilant cassettes

Core Technologies for obtaining SAFE and Bio-compatible surface

Plasma is defined as a quasi-neutral gas having a collective behavior (or simply as the 4th state of matter). The plasma discharge voltage is determined by the Paschen's law in which pressure is a key parameter to determine the discharge.

Under Independently Controllable Pressure

Gentle plasma can be discharged under a vacuum condition without using additional gas.

Unique Vacuum Technology

Plasma is discharged inside the package by using dielectric barrier of the vacuum state.

By Discharging Gentle and Powerful Plasma

The pressure can be spatially controlled to discharge gentle and powerful plasma.

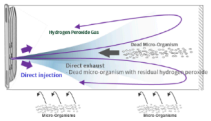
Operated by Validated Reliable Process

Plasma discharge and overall process are validated for obtaining outstanding performance.

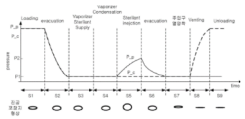
> **Global plasma technology company penetrated more than 50 countries**

FDA CE 0068 TGA HC ANVISA SFDA TFDA TFDA MDA RZN MHLW MDSAP GMP RoHS

Novel sterile packaging to enable super-fast 7 min sterilizaiton cycle



- Direct sterilant injection enhances sterilization efficiency.
- Direct vacuum pumping shortens purification process time.



- Independent pressure control allows unique sterilization cycle including compression process.
- Compression maximizes sterilization efficiency to obtain 7 min cycle.

- Impermeable pouch allows direct sterilization with compression process and vacuum sealing after the cycle.
- Vacuum sealing visualizes sterile condition which extends shelflife of sterilized devices and provides advanced infection control solution.

7 min. Fast 7 minutes Sterilization

Easy Operation

Compact Design

Double Cycle Sterilization

Sterilization Performance

STERLINK™ verifies sterilization performance through the following lumen tests

Single-channel lumen claims for STERLINK™

- 0.7 x 500 mm Stainless steel
- 2.0 x 1,500 mm Stainless steel
- 1.0 x 2,000 mm PTFE

STERLINK – inside diameter 1mm and a length up to 2,000mm

Competitor A length up to 500mm

Competitor B length up to 1,000mm

Plasmapp STERLINK™

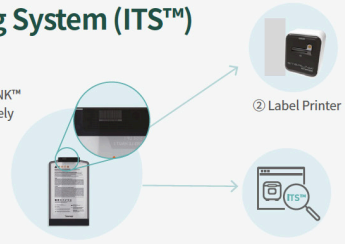
Comparison Chart

Sterilizer	Temperature	Cycle Time	Sterilant	Feature
Autoclave	Up to 134°C	60 min + 1 hour cooldown	Hot steam	· Cloth sterilization · Risk of burn · Long cycle time · Damage of medical instruments
E.O. Gas	Up to 60°C	Over 120 min + 12 hour ventilation	E.O. gas	· Highly dangerou toxic gas · Long cycle time
Plasma Sterilizer	Up to 60°C	70 min	H_2O_2	· High cost · Additional ventilation · Large volume · Very low efficiency
STERLINK™	Up to 60°C	Pouch Mode : 7min Pouch Plus Mode : 14 min Chamber Mode : 36 min	H_2O_2 direct injection	· Fast sterilization cycle · Easy maintenance · Economic cost · ITS™ system · Compact size · Eco-friendly · Ergonomic design · Safeness of heat sensitive instrument

Instrument Tracking System (ITS™)

Equipment tracking using barcode

- Real-time monitoring to check the STERLINK™
- Provide the latest software updates remotely

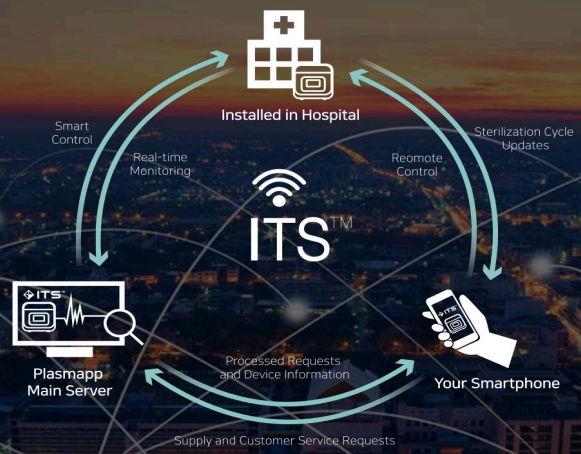


② Label Printer

① Barcode

③ Real-time monitoring system

* STERLINK™ lite does not support ITS™



Easy & Simple Operation

1 Medical Equipment Packaging

Pouch Mode
STERPACK™ sealing and mounting cassette
(Recommend to use dedicated tray)

Chamber Mode
Dedicated Tyvek® pouch sealing and mounting STERLOAD™

⚠ Please remove moisture on the product.
Do not put moisture absorbing materials in a sterilizer.
(cloth, gauze, paper, liquid, powder, autoclave pouch, etc.)

2 Start Sterilization

Press the **"Sterilize"** button after loading the chamber.

⚠ FPS-15s Plus and mini sterilants are prohibited from being reused.
Please be careful not to use expired sterilants.
If the instrument door is not closed properly during a sterile cycle, the cycle will be cancelled.
Please remove moisture on the product.

3 Sterilization Complete

Press the **"Confirm"** button to return to the ready status.

⚠ Always wear gloves to protech users when handling a loaded medical device after a process has been cancelled or failed.

STERPACK™ for FPS-15s Plus & mini

1L
Vacuum Pouch

4L
Vacuum Pouch

Maintain sterilization
for about 6 months

PREMIUM Plasma Sterilizer

STERLINK™ FPS-15s Plus

14L
Chamber size

1L / 4L
Pouch mode

14L
Chamber mode

STERPACK™
STERPACK™ Plus

STERLOAD™
FPS-15s Plus

Specification

STERLINK™ FPS-15s Plus			
Size (W x D x H)	433 x 614 x 437 mm	Vacuum Pump	Pump built-in type
Chamber (W x D x H)	265 x 410 x 125 mm (14 ℓ)	Weight	67kg
Diagonal Length (Chamber)	47cm	Sterilant Cassette	1 Cycle

Mode	Cycle time	Capacity	Sterilant
Pouch Mode	STERPACK™: 7 min	1 L	H_2O_2 58%—59.5% (0.1 ml/cell)
Pouch Plus Mode	STERPACK™ Plus: 14 min	4 L	H_2O_2 58%—59.5% (0.3 ml/cell)
Chamber Mode	STERLOAD™: 36 min	14 L	H_2O_2 58%—59.5% (0.9 ml/cell)

* STERPACK™, STERPACK™ Plus and STERLOAD™ are global certified sterilants

PREMIUM Plasma Sterilizer

STERLINK™ mini

7L
Chamber size

1L
Pouch mode

7L
Chamber mode

STERPACK™

STERLOAD™
mini

Specification

STERLINK™ mini			
Size (W x D x H)	275 x 440 x 330 mm	Vacuum Pump	Pump stand-alone type
Chamber (W x D x H)	190 x 330 x 100 mm (7 ℓ)	Weight	20kg (Pump module : 21kg)
Diagonal Length (Chamber)	36cm	Sterilant Cassette	1 Cycle

Mode	Cycle time	Capacity	Sterilant
Pouch Mode	STERPACK™: 7 min	1 L	H_2O_2 58%—59.5% (0.1 ml/cell)
Advanced Mode	STERLOAD™ mini: 18 min	7 L	H_2O_2 58%—59.5% (0.7 ml/cell)

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Sterilant & Consumables and Accessories

for Medical Devices Sterilization Performance

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