

Seal&Cut MV1.

THE VETERINARY VESSEL SEALING!





Vessel sealing functions

- ✓ Vessel sealing function for a wide range of clinical applications: ovariectomy, splenectomy, urology, hysterectomy, thoracotomy and many others
- ✓ Automatically RF current after completion of vessel sealing
- ✓ Full set of reusable and autoclavable accessories
- ✓ Insert of various shapes for all situations
- ✓ Smart access to programs and settings for the most common applications



High performance electro-surgery:

- ✓ 4 Cut Modes, 4 Coag Mode, 2 Bipolar Cut Modes, 3 Bipolar Coag Modes
- ✓ Bipolar Cut & Coag : Modes with independent display setting
- ✓ Up to 400 Watts (monopolar cut)
- ✓ Smart Surgical Assist : This allows smart access to programs & settings
- ✓ Unit Startup Function : Previously activated, standby, factory reset
- ✓ Time Out Function : Stops the HF output incase of prolonged activation
- ✓ 30 programmable memory location



**Mano
Médical**

Medical equipment for veterinarians

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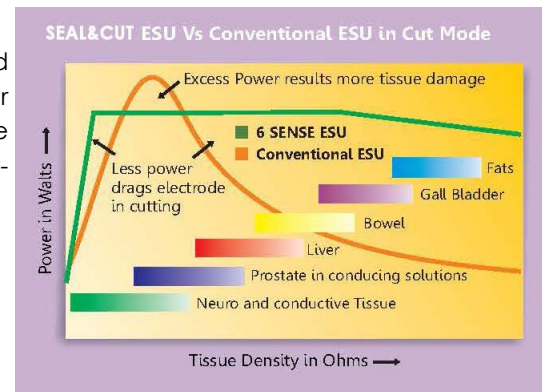
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Unmatched surgical performances

• 6SENSE TECHNOLOGY • MORE AND MORE SENSIBLE

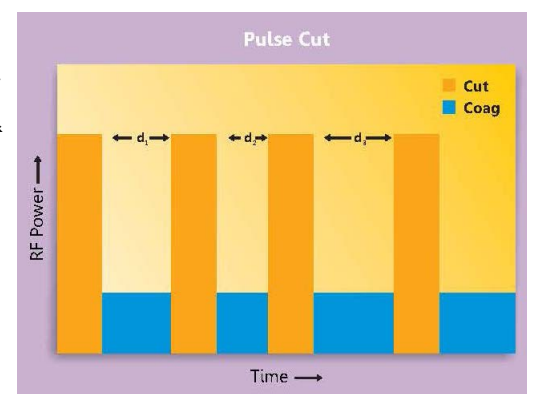
This is a recent innovation in field of advance feedback controlled Electrosurgical Technology. System maintains the set power over wider range of tissue by sensing -voltage, current, power, tissue density, patient return electrode monitoring and leakage RF current- at 2000 times per second.

- No need to adjust the power setting as the tissue changes
- 50% less thermal damage than conventional ESU's
- Minimizes the patient recovery time
- Reduces the risk of collateral tissue damage
- Minimum RF noise in other OT equipments
- Reduces the risk of neuro - muscular stimulation
- Less charring and sparking hence precise & clean cutting



• SMART PULSE CUT • POWER ON DEMAND FOR ENDO SURGERY

For polypectomy & papillotomy, cutting is smartly divided in cut & pause, so that coagulation occurs in each pause.



• PREM • ULTIMATE SAFETY FROM BURNS

Patient Return Electrode Monitoring – PREM - ensures burn-free electrosurgery using DUAL AREA patient return electrode by continuous monitoring the contact quality with the patient.



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COMPREHENSIVE
ELECTRO SURGICAL
SOLUTION FOR
UNMATCHED
RESULTS

EFFECTS MODES • PLOTTED RESPONSE AS THE TISSUE DEMANDS

Cut Modes : Achieves consistent cutting in all types of tissues by 6SENSE Technology.

SP Cut / Low Cut : Offers precision cutting at lower voltages, hence suitable for delicate cutting process where adjacent tissue damage should be minimum such as Neuro or ENT.

Pure Cut : Suitable for clean & precisely controlled consistent cutting in all types of tissues. Minimum Dragging effect, useful for TURP.

Blended Cut : Consistent cutting power delivery with effective coagulation through a wide range of tissue types, reduces re-bleeding.

Coag Modes: These modes offer every range of coagulation ability for modern surgeries.

Desiccate : Specifically designed for contact coagulation at lower voltages, hence suitable for Neuro, ENT & Endoscopy cases.

Fulgurate : Suitable for non contact coagulation with moderate sparking in variety of applications such as cardiothoracic surgeries.

Spray Coag : Non touch coagulation for large areas with minimum depth of tissue damage & necrosis. Useful in Liver Cancer & Trauma.

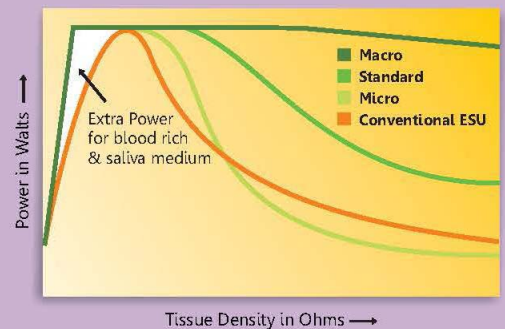
Bipolar Modes :

Micro /Precise Bipolar : This mode offers clinical precision at lower voltages, prevent Sparking and reduce adjacent tissue damage used in Neuro, ENT, Ophthalmic surgery.

Standard Bipolar : Suitable for most of bipolar processes with optimized Coagulation.

Macro Bipolar / Bipolar Cutting : This mode offers smart control over consistent CUTTING effects in all types of tissues. Output is specifically designed for today's new generation of cutting instruments, bipolar needles and hooks.

SEAL&CUT ESU Vs Conventional ESU in Bipolar mode

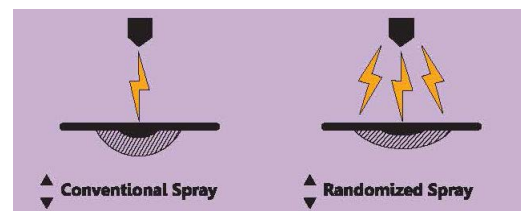


RANDOMIZED SPRAY COAG • THE REAL SPRAY COAGULATION

In conventional spray coag, beam tends to follow the same path left by previous spark resulting in non uniform coagulation over larger area. By randomizing spray frequency & amplitude, spark tends to take multiple paths covering larger area.

Advantages:

- Starts the sparking from longer distance
- Uniform & homogeneous coagulation over large surface area at lower power settings
- Less tissue necrosis & carbonization
- Increases the speed of coagulation
- Reduces the output voltages



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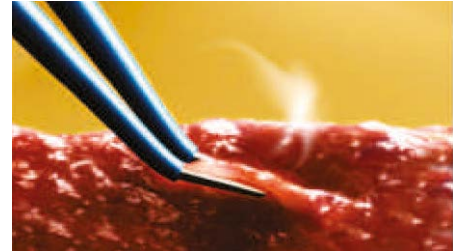
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Advanced technological innovations

- **SMART BIPOLAR** • AUTO BIPOLAR & BICOAG ALARM
BiCoag Alarm : Audio feedback after completion of Bipolar Coag, reduces charring and sticking.
AutoBip : Automatic Start & Stop of Bipolar current by tissue sensing without foot switch activation.



- **REMOTE POWER AND MODE SETTINGS**
FROM SURGICAL FIELDS
Surgeon can change power and mode settings of ESU directly from sterile surgical field using conventional hand switching electro-surgical pencil.



- **SELF DIAGNOSIS**
FASTEST ERROR IDENTIFICATION & SOLUTION...
System features the self diagnostic function during self test at the time of starting ON to ensure smooth functioning. As soon as fault is detected, it gives alarm and error code is displayed.
The Service manual may be referred to rectify the error.



- **5" TOUCH SCREEN DISPLAY**
Allows quick, easy and interactive experience to users.



- **SMART SURGICAL ASSISTANT** • TO HELP YOU
User set able and Preset Programs : This helps you in setting up the system very fast after turning ON.
By pressing PROGRAM key, power setting display shows procedure's name or number of program. After selection of required program, press RECALL just once to set system for selected application.



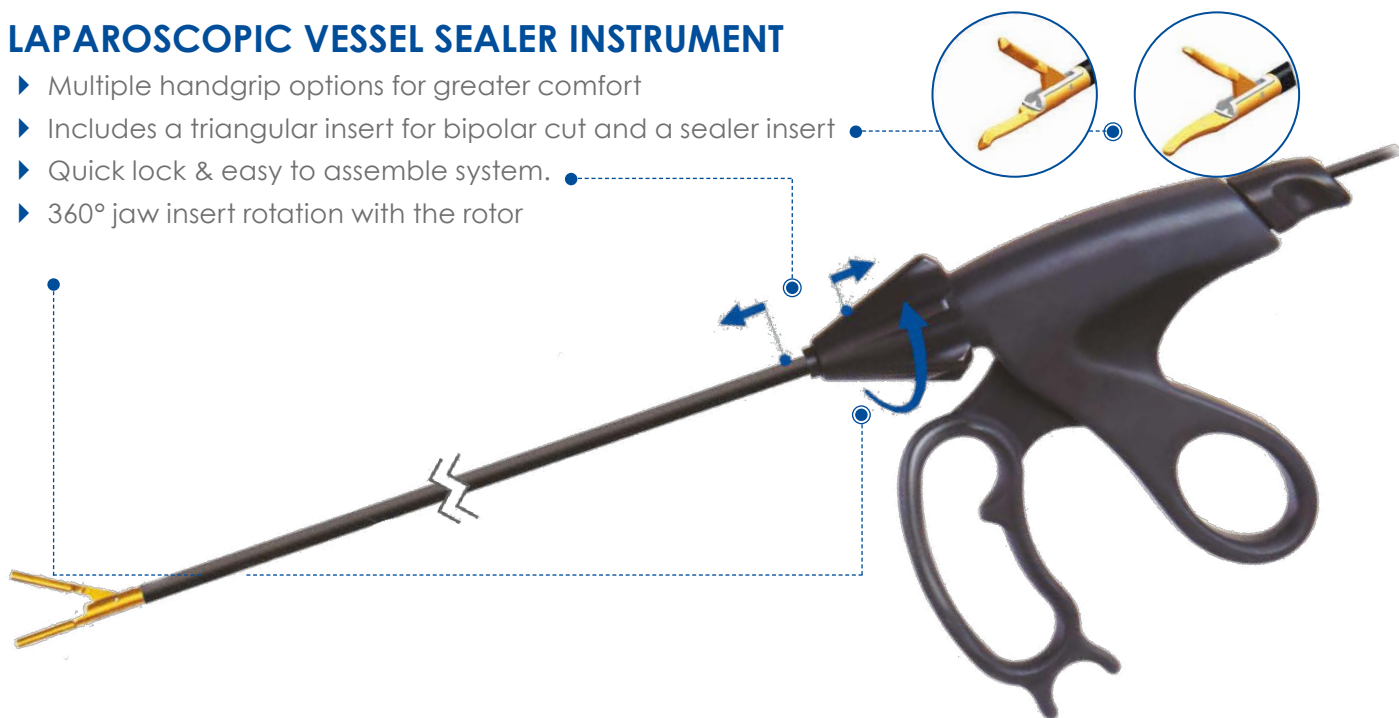
Veterinary Vessel Sealing



Developed to reduce cost while optimizing surgical outcomes

LAPAROSCOPIC VESSEL SEALER INSTRUMENT

- ▶ Multiple handgrip options for greater comfort
- ▶ Includes a triangular insert for bipolar cut and a sealer insert
- ▶ Quick lock & easy to assemble system.
- ▶ 360° jaw insert rotation with the rotor



Sealing cycle



Ensure zone seal



Cut the tissue

VESSEL SEALER INSTRUMENT FOR OPEN SURGERY



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Seal&Cut MV1



Indications in veterinarian medicine

Designed for a wide range of clinical applications, such as:

- Ovariectomy
- Splenectomy
- Urology
- Hysterectomy
- Thoracotomy
- Hepatectomy...

Seal&Cut has been developed for all kind of open, endoscopic, laparoscopic and minimally invasive surgeries.



Add high-tech precision to your surgical expertise!

Seal&Cut senses the density of tissue held in the instrument and delivers an appropriate amount of energy to form the permanent seal.

- Dual paddle footswitch allowing to change surgery mode thanks to central buttons
- High withstand tissue seal
- Seals artery, vein or tissue bundles up to 7 mm (thickness and width)
- Minimal thermal spread to adjacent tissue
- Reduced tissue sticking and charring
- No foreign material left behind after surgery
- Minimum cost per case due to reusable attachments
- Independent activation of bipolar cutting and coagulation

Seal&Cut MV1 includes reusable and autoclavable accessories:

- Monopolar handswitch pencil
- Neutral plate and cable
- Vessel sealer laparoscopic instrument including 2 tubes, 18 cm long
- 1 triangular insert for bipolar cut and 1 sealer insert
- Vessel sealer open surgery instrument, 19 cm long, 3 mm thick - 24 mm jaw
- Bipolar straight forcep 20 cm long, 1 mm tip and cable
- Dual paddle footswitch
- Set of 4 electrodes (1 needle, 1 ball, 1 straight blade, 1 loop)

*Many additional accessories available in option, ask for the detailed list
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Output characteristics:

Monopolar Cut: Pure Sine wave 390 kHz

- Low - Continuous output, 300 W at 300 Ω , CF 1.5, Low volt
- Pure - Continuous, 400 W at 300 Ω , CF 1.5, High volt
- Blend - Bursts at 29 kHz, 50%, 250 W at 300 Ω , CF 2.5

Bipolar: Pure Sine wave 390 kHz

- Macro - Continuous output, 100 W at 100 Ω , CF 1.5, High volt, Rapid
- Pulse BiCut - Pulse output voltage, 100 W at 100 Ω , CF 1.5, High Volt

Leakage currents:

- RF leakage current
 - Monopolar : < 150 mA rms
 - Bipolar : < 60 mA rms
- Low Frequency leakage currents
 - Normal polarity, intact ground : < 10 μ A
 - Normal polarity, ground open : < 50 μ A

Feedback system:

- 3 Microprocessor Controlled 6SENSE Technology with sampling rate above 4000 sense/second
- Maximum output power deviation < 15% or 5 watts, whichever is greater at any setting with PER-98

Monopolar Coag: Damped Sine 460 kHz

- Soft - Continues at 84 kHz, 150 W at 500 Ω , CF 4.0
- Swift - Repetition Frequency 36 kHz, 120 W at 500 Ω , CF 6.0
- Fulgurate - Repetition Frequency 29 kHz, 120 W at 500 Ω , CF 7.0
- Spray - Randomized Repetition Frequency 30 kHz < f < 50 kHz, 120 W at 500 Ω , CF 8.0

Bipolar Coag: Pure sine wave 390 KHz

- Micro - Continues output, 100 W at 100 Ω , CF 1.5, low volt
- Standard - Continuous output, 100 W at 100 Ω , CF 1.5, medium volt
- Force - Continuous output, 100 W at 100 Ω , CF 1.5, high volt
- Sealer** - Pure sine wave 390 KHz
- Rapid seal - Output mode, 3 levels, 100 W at 100 Ω , CF 1.5

Prem system:

- Measuring Frequency : 80 kHz $\pm$ 10 kHz
- Measuring current : < 10 μ A
- Acceptable Resistance Range:
 - Dual Area PREM Patient Return Electrode : 05 - 135 Ω
 - Single Area Patient Return Electrode : 0 - 10 Ω

Design standard:

- Classification according to the EC- Directive 93/ 42/ EEC: Class IIb;
- General Safety Standards: IEC 60601-1-1, IEC 60601-2-2; EMI/EMC
- Compatibility Standard: IEC 60601-1-2, IS Safety Standard: IS 7583

Input power:

- Operating Voltage : 180-265Volt AC, 50-60 Hz
- Max. Power input : 1000 VA, Fuse : 6 A, UPS Backup : 1.2 KVA

► Max Power (Watts) according to the selected mode:

Monopolar Cut	Low	300
	Pure	400
	Blend	250
	Pulse Cut	400

Monopolar Coag	Soft	150
	Swift	120
	Fulgurate	120
	Spray	120

Bipolar Cut	Macro	100
	BiCut	-
	Pulse BiCut	100

Bipolar Coag	Micro	100
	Standard	100
	Force	100
	Sealer (Rapid)	L-3: 100



Weight: 6 kg
Dimensions: 38 x 32 x 12 cm

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