

Electrosurgery



marClamp[®]



marClamp[®]

THE BIPOLAR KLS MARTIN VESSEL
SEALING SYSTEM

KLS martin
GROUP

Bipolar Vessel Sealing System with maxium[®] and marClamp[®]

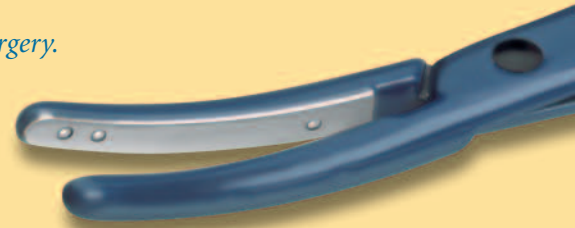
With the new maxium[®] HF generator, KLS Martin relies on the latest technology and advanced design.

Based on the SealSafe current used in conjunction with the congenial marClamp[®] bipolar instrument,

the maxium[®] offers you a reliable vessel sealing system in addition to all the classical HF application options.

The system is primarily intended for use in gynecology, urology and general surgery.

marClamp[®]



SealSafe



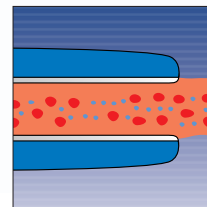
Thanks to the precise SealSafe current specially adapted to the application and designed for use with the marClamp[®] instrument, solely the tissue located between the instrument's jaws is sealed – lateral thermal tissue damage can thus be kept at an absolute minimum. A hallmark of this current is the very high power-to-voltage ratio (high output power but low voltage), compared with the conventional bipolar HF technique.

Vessels and tissue bundles can be sealed effectively without any previous dissection or detailed exposure.

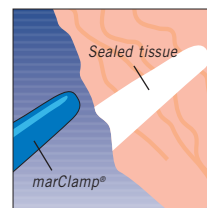
Besides, the SealSafe current has been optimized to reduce tissue adhesion or instrument incrustation drastically and prevent tissue carbonization as long as the current is used as intended.

Due to the effective combination of high pressure (p) and electric current (I), a permanently sealed zone is reliably created on arteries, veins or tissue bundles. The instrument's ratchet plays a vital role here because it is important for the pressure to be maintained and kept constant throughout the sealing process.

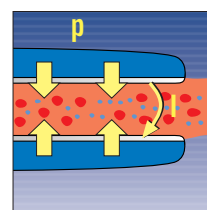
During this process, endogenous structural proteins such as collagen and elastin are transformed so that a permanently sealed zone is created as a result.



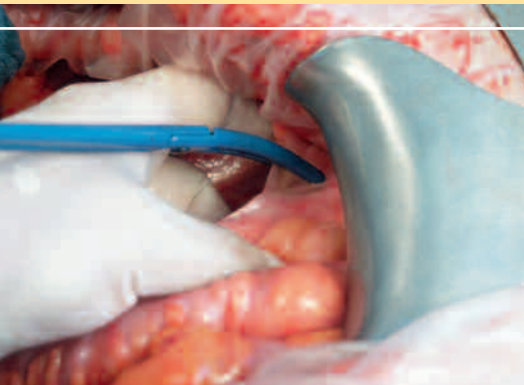
Cross-section of the tissue (with vessels, i.e. veins and arteries) located between the marClamp[®] instrument's jaws



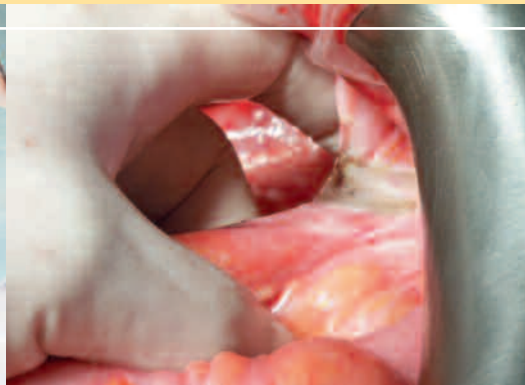
Precisely defined coagulation zone



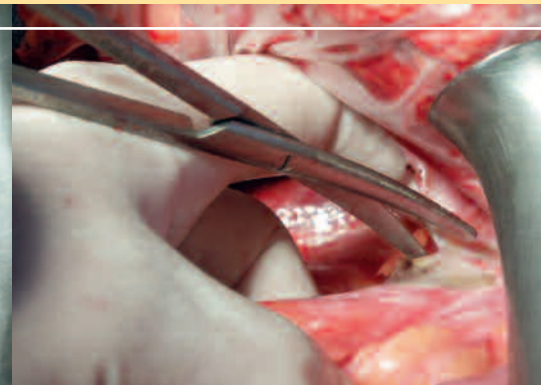
Pressure (p) plus electric current (I) achieves the sealing



The sealing process is started by grasping the tissue with the bipolar marClamp® instrument and closing the ratchet. This strongly compresses the tissue.



Then, the HF current is activated via the footswitch until the sealing process stops automatically. At the same time, an acoustic signal is emitted for acknowledgement.



Thereafter, the tissue can be safely dissected in the sealed zone with a conventional pair of scissors.

Open-surgical application examples:

- General surgery
 - Hemorrhoidectomy
 - Strumectomy
- Visceral surgery
- Gynecology
 - Abdominal hysterectomy
 - Vaginal hysterectomy
- Urology
 - Radical prostatectomy
- Thyroidectomy
- Parotidectomy

Clear & Unambiguous

SealSafe and marClamp®

Bipolar vessel sealing with the KLS Martin marClamp® instrument is supported by KLS Martin's maxium® HF generator.

No additional unit is required because the maxium® HF generator features SealSafe, a current that has been specially developed for use with the bipolar marClamp® instruments!

maxium®



To apply the necessary pressure to the tissue and maintain it throughout the sealing process, the marClamp® instrument features a ratchet.

The instrument can be reused and, therefore, autoclaved at 134°C (273°F). Due to the special current flow, no insulation is needed in the joint or lock box. This makes it highly resistant.

SealSafe and marClamp®

SealSafe is a current specially designed for use with the bipolar marClamp® instruments. Continuous tissue impedance monitoring ensures tissue coagulation to exactly the intended degree.

In this process, individual “energy packages” are released into the tissue on a time-controlled, continuously system-monitored basis until the intended coagulation degree is achieved and the sealing completed. Completion is acknowledged by an acoustic signal. At the same time, the maxium® HF generator automatically blocks power output.

The marClamp® instrument, in conjunction with the SealSafe current, spares you the need to use suture material and, therefore, time-consuming ligatures. But apart from the time saved, our novel technique has the important advantage that *no* exogenous materials (suture, clips) need to remain in the patient's body.

In a nutshell, the new system allows you to seal tissue or vessels quickly, yet gently and reliably.



One of the instrument's jaws features ceramic pins that ensure a defined distance between the jaws over their entire length, thus preventing a short. Besides, the pins prevent tissue slippage as well.

The KLS Martin standard bipolar cable can also be used for special instruments such as the KLS Martin marClamp® instrument.

This is a typical maxium® setting for the application shown in the illustrations above.

Advantages of the New System

- Reliable sealing of vessels or tissue bundles without any previous dissection and detailed exposure
- Precise application due to limitation of the lateral heat spread
- Less encrustation and carbonization thanks to the maxium® generator's special SealSafe current
- Reliable surgical results without any need to use exogenous materials such as suture or clips
- Time savings compared with suturing; a single application is usually enough
- High efficiency, reusable instruments, *no* expenses for consumables, time-saving technique
- Instruments with ratchet for defined pressure application
- Ceramic pins in one jaw of the instrument ensure a defined distance between the jaws and prevent tissue slippage
- Compatible with existing KLS Martin standard bipolar connecting cables
- Simple, yet highly reliable design
- *No* extra costs when using the new maxium® HF unit – *no* special generator required

Types of Forceps and Connecting Cables

marClamp® is available in different models and sizes to give each user exactly the right instrument for the task at hand.

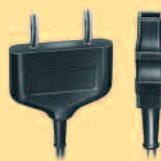




80-287-33 80-287-53
3 m/10 ft. 5 m/16 ft.
Bipolar connecting cable
for KLS Martin, Berchtold and
Aesculap units



80-286-30 80-286-50
3 m/10 ft. 5 m/16 ft.
Bipolar connecting cable
for Erbe units (VIO, ICC, ACC)



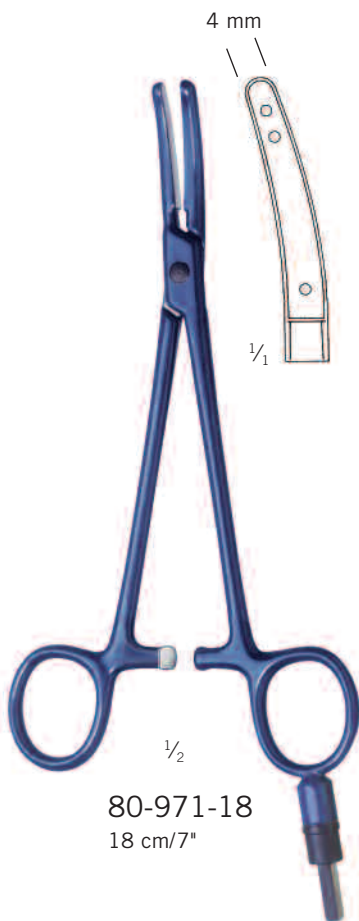
80-287-89 80-287-90
3 m/10 ft. 5 m/16 ft.
Bipolar connecting cable
for Valleylab units



80-287-70
3 m/10 ft.
Bipolar connecting cable
for Conmed, Codman and
Valleylab units



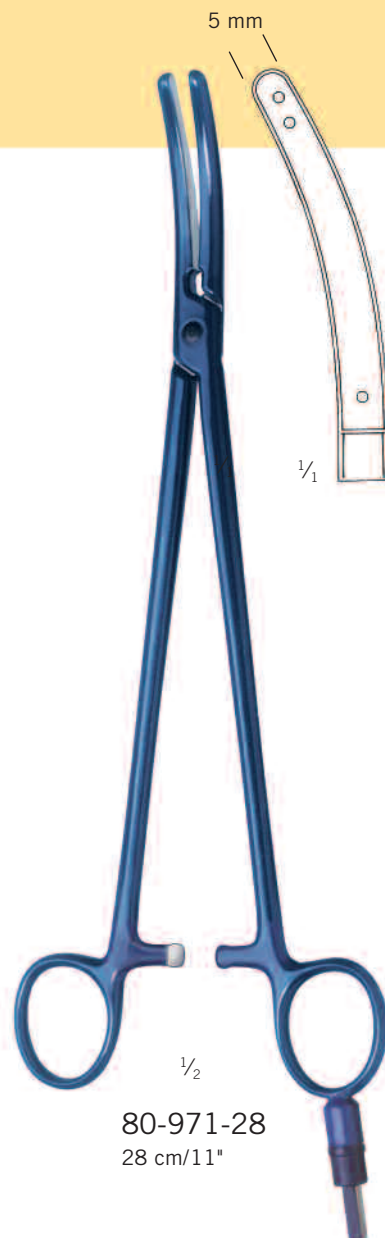
80-971-16
16 cm/6"



80-971-18
18 cm/7"



80-971-23
23 cm/9"



80-971-28
28 cm/11"

Gebrüder Martin GmbH & Co. KG

Ludwigstaler Str. 132 · D-78532 Tuttlingen

Postfach 60 · D-78501 Tuttlingen

Tel. +49 7461 706-0 · Fax +49 7461 706-193

info@klsmartin.com · www.klsmartin.com