

Electrosurgery

Convincing Precision!



marSeal

marSeal and maxium®

THE SYSTEM FOR BIPOLAR VESSEL SEALING

KLS martin
GROUP

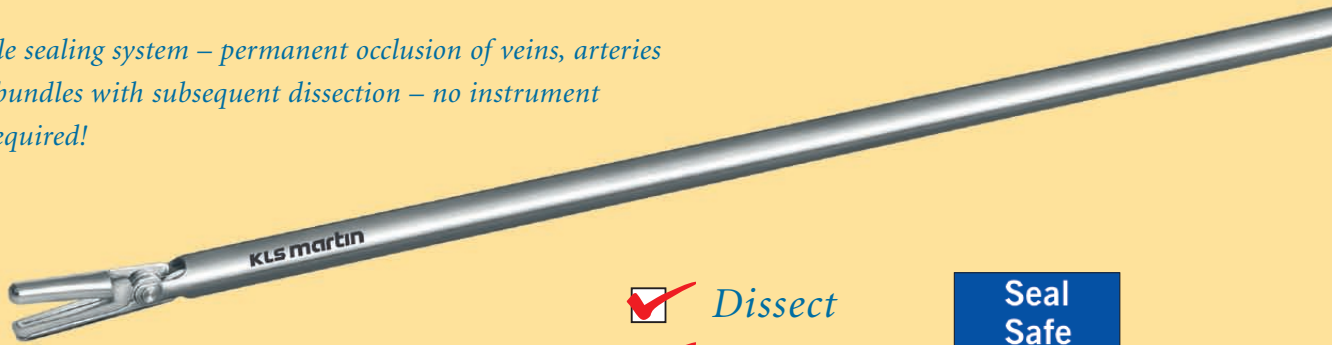
Seal
Safe

80

max. Watt

marSeal and maxium® – Bipolar Sealing System with the marSeal Instrument

The reusable sealing system – permanent occlusion of veins, arteries and tissue bundles with subsequent dissection – no instrument exchange required!

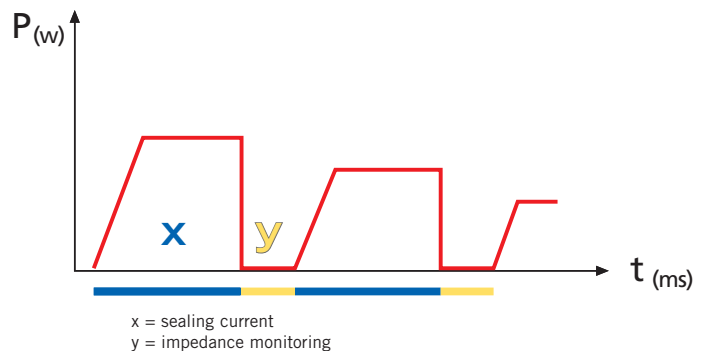


marSeal

- Dissect*
- Seal*
- Cut*



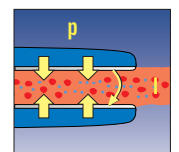
SealSafe® Bipolar Vessel Sealing



The combination of SealSafe® current and marSeal instrument provides a bipolar application technique for effective sealing of vessels and tissue bundles that spares you the need for previous dissection and exposure of individual structures. Unlike the conventional bipolar HF technique, this unique system combines a relatively high output power with a low voltage.

The entire sealing process is continuously monitored by the maxium® HF generator, whose features include a dedicated tissue impedance monitoring function. During this process, individual energy “packages” are sequentially delivered into the tissue in the form of high-frequency pulses. Once the preset sealing degree has been reached, the maxium® terminates the process automatically.

The “secret” behind the sealing process lies in the fact that endogenous structural proteins (such as collagen and elastin) are transformed to create a permanently sealed zone. This is mainly due to the effective combination of high pressure (p) and electric current (I). The instrument’s ratchet plays a vital role here because it is important for the pressure to be maintained and kept constant throughout the application.



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

Thanks to the precise, specially adapted SealSafe® current and its use in conjunction with the marSeal instrument, only the tissue held between the instrument’s jaws is actually sealed – lateral thermal tissue damage can thus be kept to an absolute minimum. Besides, the SealSafe® current has been further optimized with a view to minimizing tissue adhesion drastically and preventing carbonization as long as the system is used as intended.



marSeal

The marSeal instrument is a universally applicable instrument that, thanks to its modular design offering different shaft lengths, can be used for laparoscopic applications as well as open surgery.

marSeal allows you to occlude veins, arteries and tissue bundles permanently and reliably. Besides, the instrument features an integrated blade mechanism by which the sealed zone can be conveniently cut in the middle once the sealing process has been completed – without any need for exchanging instruments!

The instrument can be completely taken apart and autoclaved, with the blade being the only disposable part used in its design. This offers a further benefit in the form of a significant cost reduction, compared with an entirely disposable instrument.

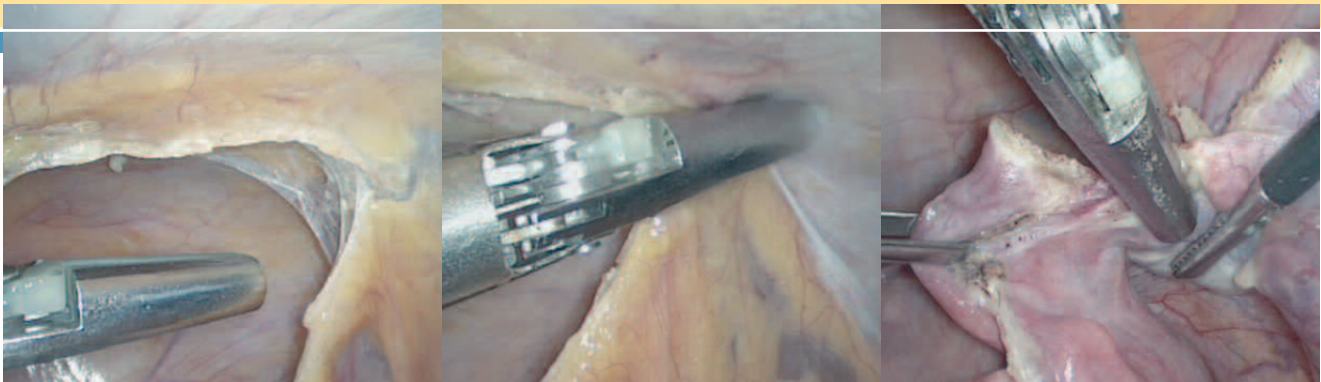
Advantages offered by the marSeal instrument

- Reliable sealing with subsequent tissue dissection
- Cost reduction due to minimal share of disposables
- Modular system with different shaft lengths for laparoscopic as well as open-surgical applications
- Easy cleaning as the instrument can be taken apart completely
- Autoclavable at 134°C (273°F)
- Validated cleaning
- Additional benefits deriving from marSeal's use in conjunction with the maximum® and its specially adapted SealSafe® current:
 - minimized tissue adhesion and corresponding contact surface incrustation
 - reduced tissue damage by lateral heat spread
 - efficient, time-saving sealing process
- The ratchet integrated into the handle ensures that a constant pressure is applied to the target tissue as required for effective sealing
- The ergonomic design of the handle provides for ease of working, preventing fatigue in the surgeon's hand during the sealing process and subsequent dissection
- Easy application of the instrument to the target tissue as the tubular shaft can be rotated by 360°

Modular System

Instruments for laparoscopic applications and open surgery

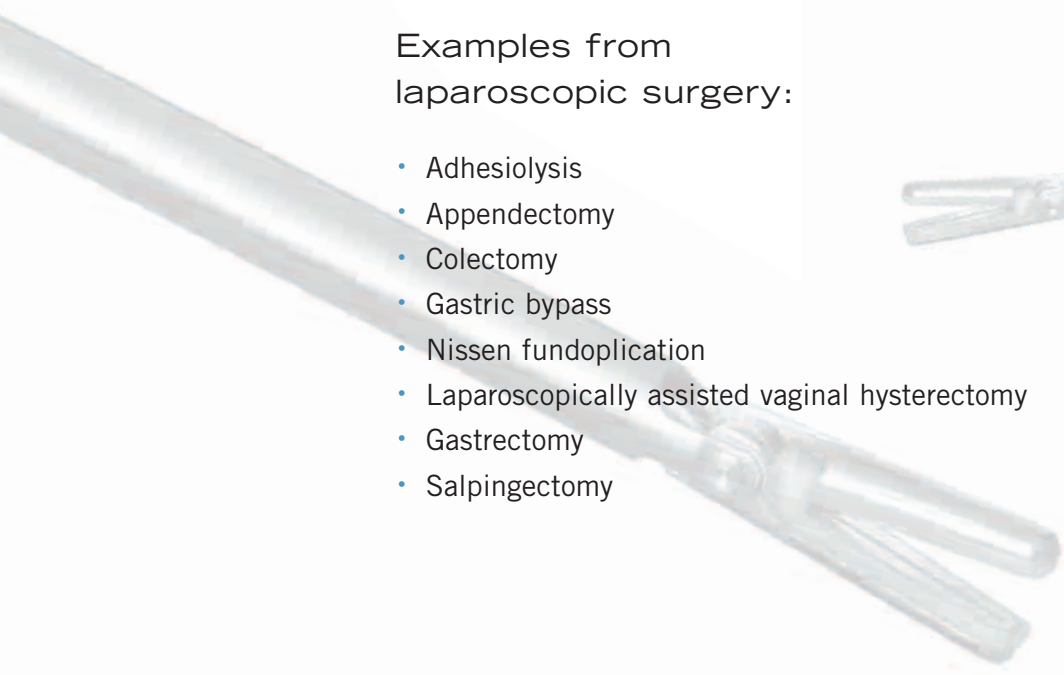
mar Seal

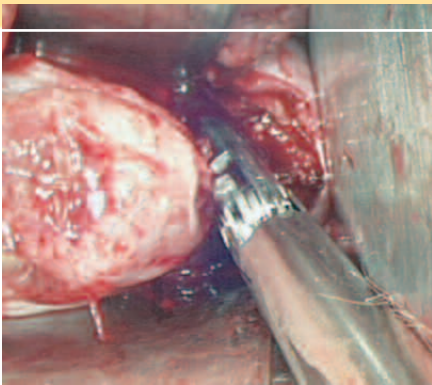


Laparoscopic salpingectomy

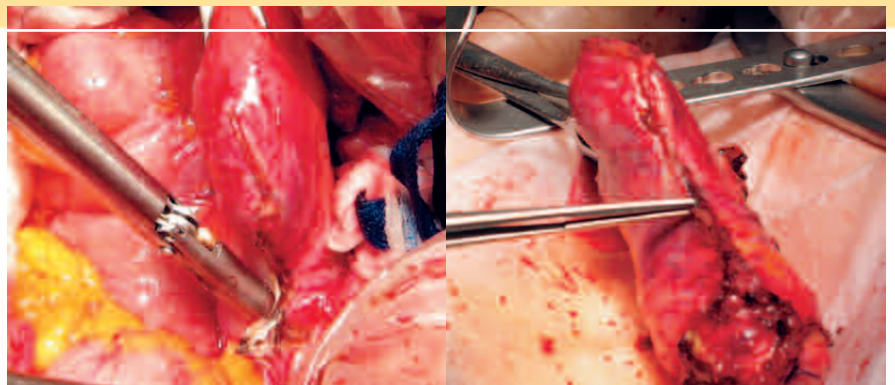
Examples from
laparoscopic surgery:

- Adhesiolysis
- Appendectomy
- Colectomy
- Gastric bypass
- Nissen fundoplication
- Laparoscopically assisted vaginal hysterectomy
- Gastrectomy
- Salpingectomy





Vaginal hysterectomy



Abdominal hysterectomy

Examples from
open surgery:

- Adhesiolysis
- Abdominal hysterectomy
- Vaginal hysterectomy
- Colon resection
- Gastrectomy
- Gastric bypass
- Radical prostatectomy
- Cystectomy
- Salpingectomy



The marSeal Instrument Set at a Glance



marSeal

- Dissect*
- Seal*
- Cut*

marSeal System

marSeal instrument, complete

80-630-00	Shaft length 370 mm, Ø 10 mm, with connecting plug for maxium® "m" version
80-630-01	Shaft length 200 mm, Ø 10 mm, with connecting plug for maxium® "m" version
80-630-02	Shaft length 370 mm, Ø 10 mm, with connecting plug for maxium® "i"/"e" versions
80-630-03	Shaft length 200 mm, Ø 10 mm, with connecting plug for maxium® "i"/"e" versions

Individual components

80-630-08	Handle with 4-m cable and connecting plug for maxium® "m" version
80-630-09	Handle with 4-m cable and connecting plug for maxium® "i"/"e" versions
80-630-11	Tubular shaft, 370 mm, Ø 10 mm, incl. blade shaft, cleaning tool and flushing adapter
80-630-12	Tubular shaft, 200 mm, Ø 10 mm, incl. blade shaft, cleaning tool and flushing adapter
80-630-15	Disposable blade, 6 items/pack

marSeal Instrument Components

	Handle w. KLS Martin connector 80-630-08	Handle w. International connector 80-630-09	Tubular shaft incl. blade shaft, 370 mm 80-630-11	Tubular shaft incl. blade shaft, 200 mm 80-630-12	Blade 80-630-15
marSeal cpl., 370 mm, w. KLS Martin connector 80-630-00	X		X		X
marSeal cpl., 200 mm, w. KLS Martin connector 80-630-01	X			X	X
marSeal cpl., 370 mm, w. International connector 80-630-02		X	X		X
marSeal cpl., 200 mm, w. International connector 80-630-03		X		X	X



Tubular shaft, length 370 mm



Blade



Tubular shaft, length 200 mm



Handle with connecting cable for maximum® "i"/"e" versions



Handle with connecting cable for maximum® "m" version

KLS Martin Group

Karl Leibinger GmbH & Co. KG

78570 Mühlheim
Germany
Tel. +49 74 63 838-0
info@klsmartin.com

Stuckenbrock Medizintechnik GmbH

78532 Tuttlingen
Germany
Tel. +49 74 61 16 11 14
verwaltung@stuckenbrock.de

KLS Martin GmbH & Co. KG

79224 Umkirch
Germany
Tel. +49 76 65 98 02-0
info@klsmartin.com

Rudolf Buck GmbH

78570 Mühlheim
Germany
Tel. +49 74 63 99 516-30
info@klsmartin.com

KLS Martin France SARL

68000 Colmar
France
Tel. +33 3 89 21 66 01
france@klsmartin.com

Martin Italia S.r.l.

20059 Vimercate (MB)
Italy
Tel. +39 039 605 67 31
italia@klsmartin.com

Martin Nederland/Marned B.V.

1270 AG Huizen
The Netherlands
Tel. +31 35 523 45 38
nederland@klsmartin.com

Nippon Martin K.K.

Osaka 541-0046
Japan
Tel. +81 6 62 28 90 75
nippon@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Representative Office
121471 Moscow
Russia
Tel. +7 (499) 792-76-19
russia@klsmartin.com

KLS Martin L.P.

Jacksonville, FL 32246
USA
Office phone +1 904 641 77 46
usa@klsmartin.com

Orthosurgical Implants Inc.

Miami, FL 33186
USA
Office phone +1 877 969 45 45
sales@orthosurgical.com

Gebrüder Martin GmbH & Co. KG

A company of the KLS Martin Group
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