



# LOTUS

## THE HIGH-PERFORMANCE TORSIONAL ULTRASONIC SCALPEL



**BOWA**  
EINFACH SICHER



# LOTUS – with torsional ultrasonic technology for enhanced safety

## Ultrasonics – then and now

Ultrasonic scalpels have been used for laparoscopic surgery since the 1990s. In technological terms, an ultrasonic scalpel is a mechanical instrument with a vibrating blade.

Oscillating at a frequency of 36,000 Hz, it effectively acts as a simultaneous cutting and coagulation instrument.

Ultrasonic energy enables fast dissection without requiring the use of high frequency current.



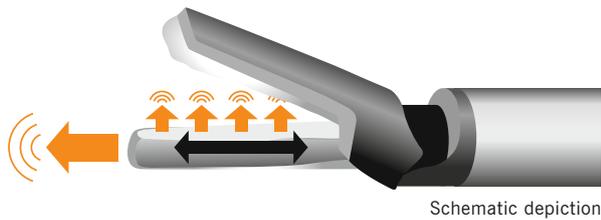
## The latest torsional ultrasonic technology

With the LOTUS system you benefit from the advantages of the latest generation of ultrasonic scalpels. The torsional energy generated in the LOTUS system reduces stray energy dissipation at the tip of the device, when compared to conventional longitudinal instruments.

Vessels are sealed quickly and reliably with the LOTUS ultrasonic scalpel.

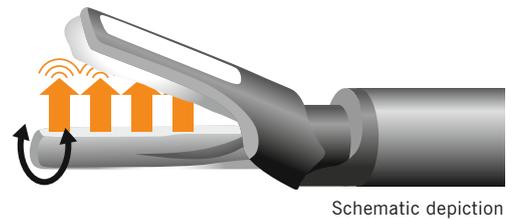
The patented torsional ultrasonic technology makes the LOTUS system especially efficient.

## Enhanced Safety



### Conventional ultrasonic instrument

Energy is fed in a linear direction through to the tip of the instrument, which leads to stray energy being dissipated there. Inadvertent distal penetration of tissue is possible.



### LOTUS torsional ultrasonic scalpel

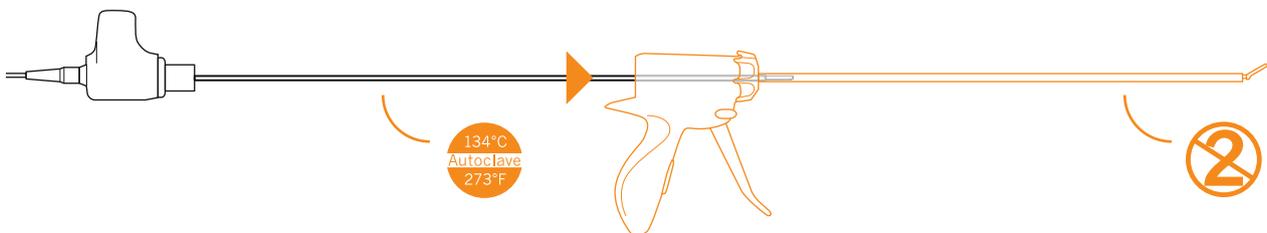
The LOTUS system's energy is perpendicular (90 degrees) to the axis of the blade. Coupled with the blade geometry, this focuses the energy into the jaw area. Lotus also offers enhanced safety by reducing the risk of inadvertent damage from stray distal energy.

## High-performance compression energy

- Safe: controlled energy orientation at the instrument tip
- Time saving: cutting and coagulation with a single instrument
- Precise: effective dissection and haemostatic sealing with high tactile feedback



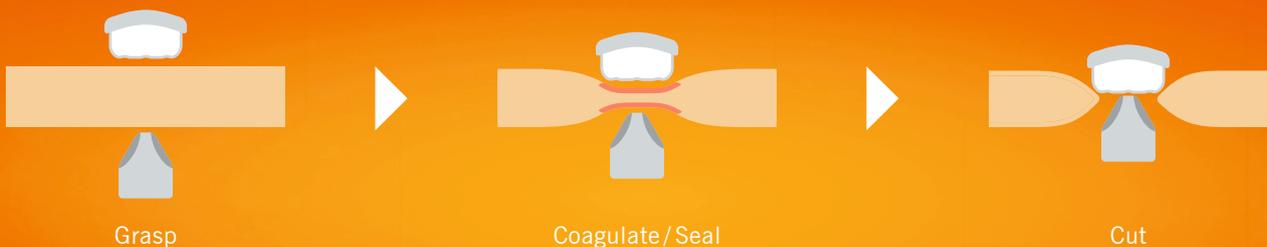
## Plug'n Play



**LOTUS torsional transducer**  
Tool-less instrument assembly

**Handpiece**  
Simple Plug'n Play setup

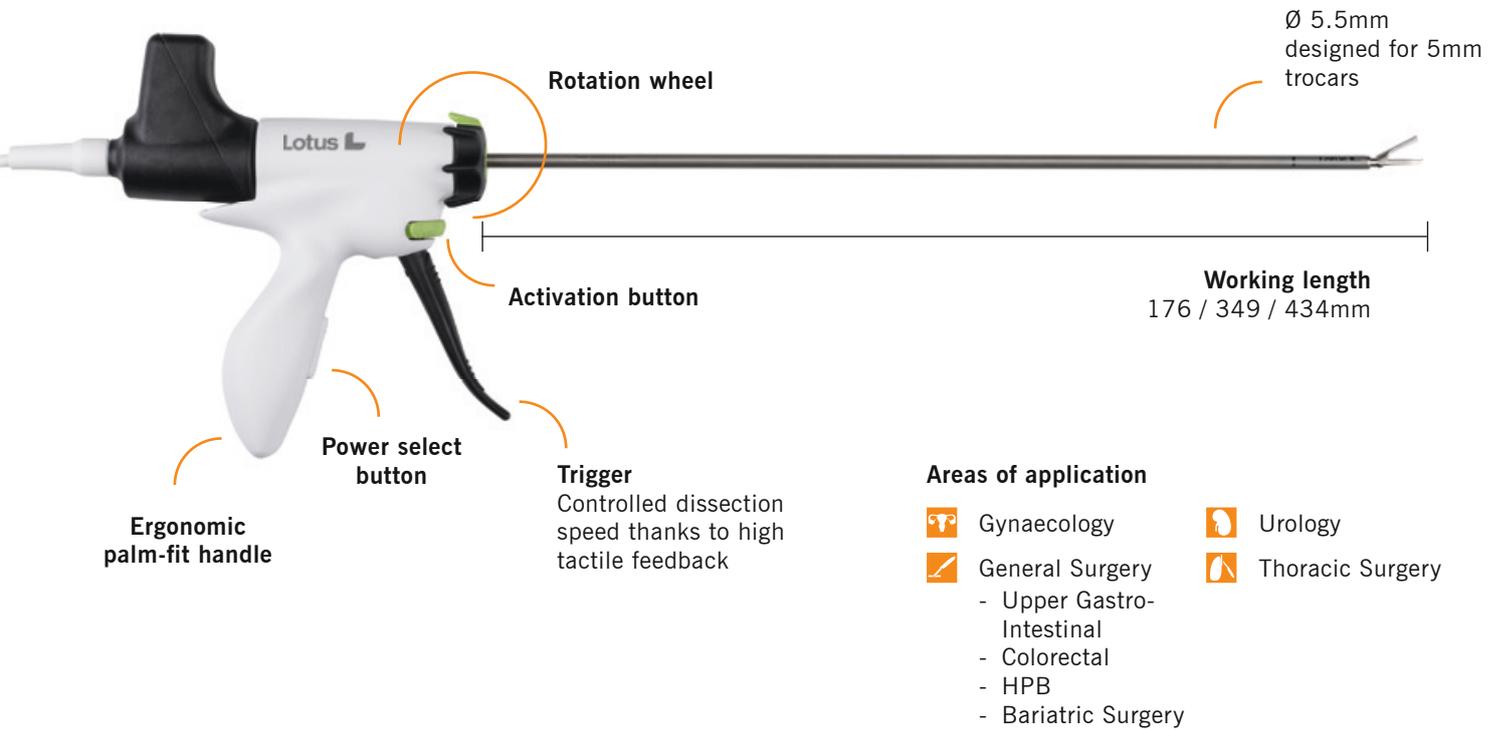
## Full control in your own hand



The cutting speed of the LOTUS ultrasonic scalpel is directly related to the pressure on the trigger.

The high degree of tactile feedback enables precise cutting control by the surgeon.

## Easy handling, precise operation



## Efficient through and through

### Dissecting shears

LOTUS dissecting shears are specifically designed for fast, precise haemostatic tissue dissection. The thin curved blade has focusing grooves and facilitates accurate dissection at the desired location.

### Liver resector

The LOTUS liver resector is specifically made for use on liver parenchyma tissue. The larger contact surface creates a stronger haemostatic effect.



### Dissecting shears

Narrow blade with focusing grooves for accurate dissection.



### Liver resector

Larger contact surface for a stronger haemostatic effect.

## Ordering information



### LOTUS dissecting shears



Type	L		REF
Open surgery 200, curved jaw	176mm	Handpiece (disposable, 10 per package)	DS4-200CD
		Transducer (reusable)	ES4-200CT*
Laparoscopy 400, curved jaw	349mm	Handpiece (disposable, 10 per package)	DS4-400CD
		Transducer (reusable)	ES4-400CT*
Bariatric surgery 500, curved jaw	434mm	Handpiece (disposable, 10 per package)	DS4-500CD
		Transducer (reusable)	ES4-500CT*

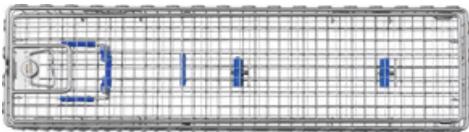
\* only for LG4 Series 4 generators with software version Issue 6 or later.

### LOTUS liver resector



Type	L		REF
Open surgery 200, straight jaw	176mm	Handpiece (disposable, 10 per package)	LR4-200SD
		Transducer (reusable)	LR3-200
Laparoscopy 400, straight jaw	349mm	Handpiece (disposable, 10 per package)	LR4-400SD
		Transducer (reusable)	LR3-400

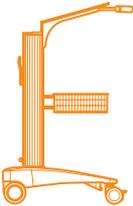
### LOTUS reprocessing basket with lid

	For transducer Open surgery 200 Laparoscopy 400	550 x 150 x 77 mm	773-984
	For transducer Bariatric surgery 500	640 x 150 x 77 mm	773-985

### LOTUS generator

	Type	REF
	Series 4	LG4

### Optional accessories

	LOTUS LG4 foot switch	LF4
	ARC CART, angled equipment shelf for LOTUS (shelf for retrofitting to ARC CART)	902-924
	LOTUS CART (device trolley), assembled Consisting of: <b>902-024</b> LOTUS CART, unassembled <b>902-921</b> Grip <b>902-912</b> Basket <b>902-100</b> Assembly	902-070

## Technical data

Technical data summary	LOTUS Series 4 generator
Line frequency	50/60 Hz
Mains voltage	100 – 240 V (± 10 %)
Mains fuse	Internal mains fuse
Max. power consumption	150 VA
Width x height x depth	340 x 95 x 340mm
Weight	4.3 kg
Display	Thin-film technology
Classification according to EC Directive 93/42/EEC	IIb
Protection class according to EN 60601-1	I
Type according to EN 60601-1	BF
Ref	LG4
Output frequency	36 kHz
Output power	70 W (± 30 W)*
Duty type	Intermittent 3/30s (on/off)

\*depending on the transducer type

#### Ambient conditions for storage and transport

Temperature	-10 °C to +50 °C
Relative humidity	10 % to 90 %
Atmospheric pressure	500 hPa to 1060 hPa

#### Ambient conditions for operation

Temperature	+10 °C to +30 °C
Relative humidity	30 % to 75 %
Atmospheric pressure	810 hPa to 1060 hPa

**BOWA**  
EINFACH SICHER

BOWA-electronic GmbH & Co. KG  
Heinrich-Hertz-Strasse 4 – 10  
72810 Gomaringen | Germany

Phone +49 (0) 7072-6002-0  
Fax +49 (0) 7072-6002-33  
info@bowa.de | bowa-medical.com



**SRA Developments Ltd**

a BOWA-electronic GmbH & Co. KG company  
Bremridge House, Bremridge,  
Ashburton, Devon, TQ13 7JX, UK

