



**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.



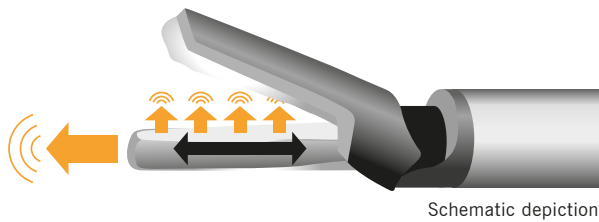
## The latest torsional ultrasonic technology

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.

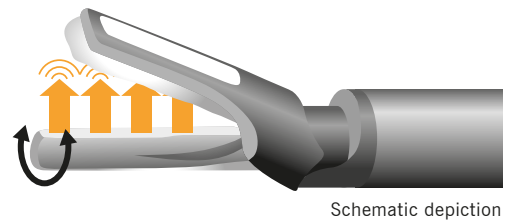
The patented torsional ultrasonic technology makes the LOTUS system especially efficient.

## Enhanced Safety



### Conventional ultrasonic instrument

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

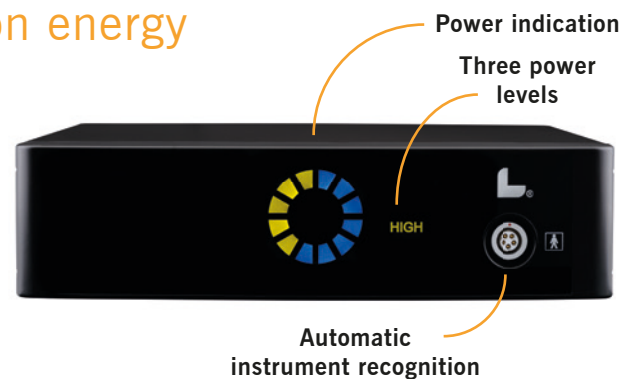


### LOTUS torsional ultrasonic scalpel

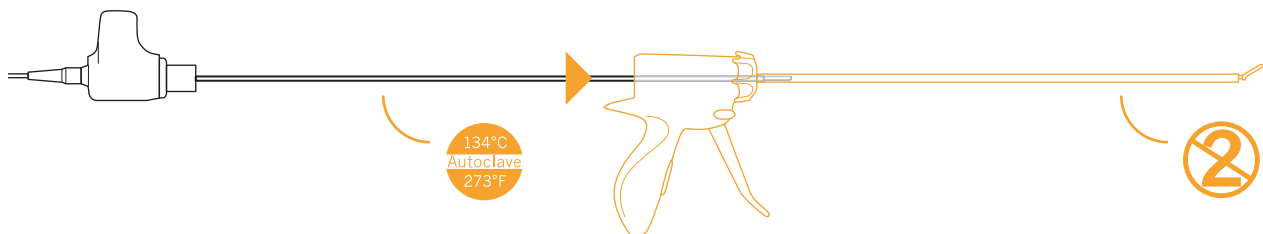
The LOTUS system's energy is perpendicular (90 degrees) to the axis of the blade. This coupled with the blade geometry focuses the energy into the jaw area. Lotus also offers enhanced safety by reducing the risk of inadvertent damage from stray distal energy.

## 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



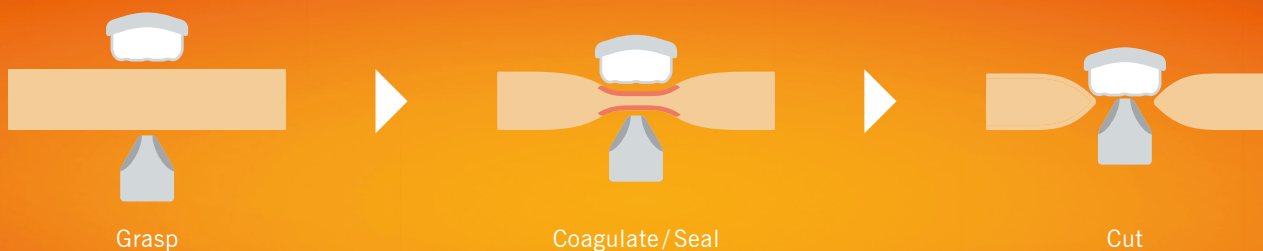
### LOTUS torsional transducer

Tool-less instrument assembly

### Handpiece

Simple Plug'n Play setup

## Full control in your own hand

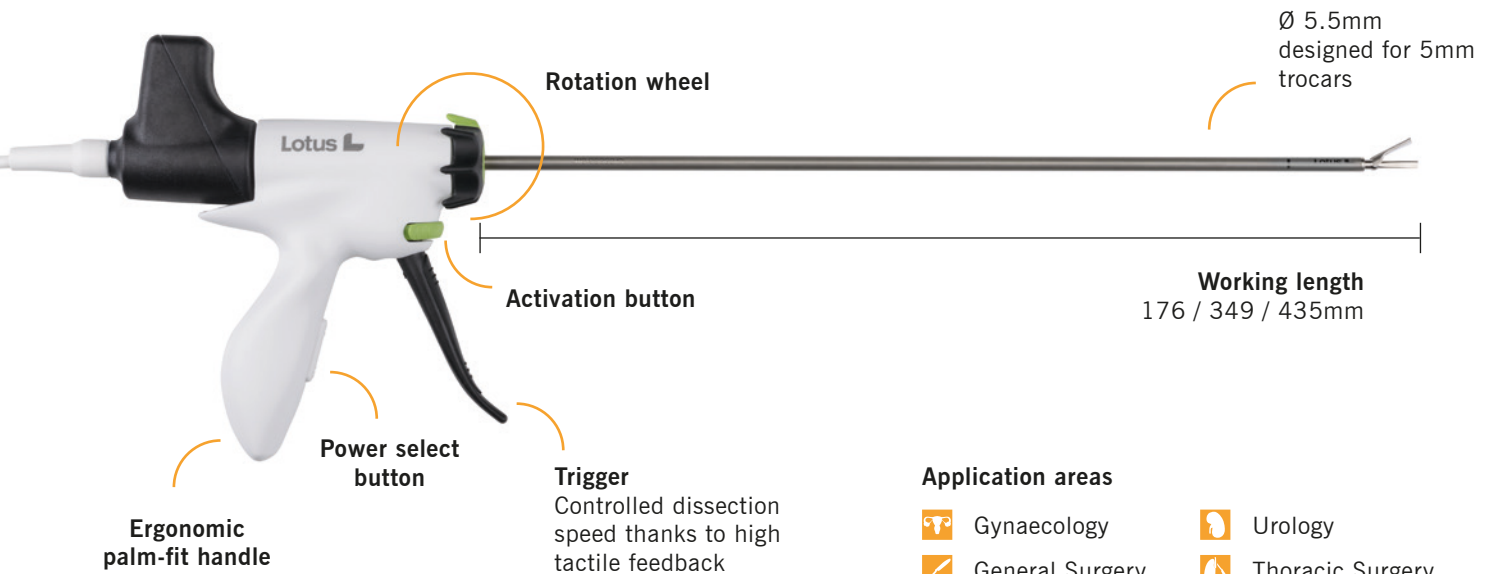


The cutting speed of the LOTUS ultrasonic scalpel is directly related to the pressure on the trigger.





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



## Easy handling, precise operation



### Application areas

-  Gynaecology
-  Urology
-  General Surgery
  - Upper Gastro-Intestinal
  - Colorectal
  - HPB
  - Bariatric Surgery
-  Thoracic Surgery

## Efficient through and through

### Dissecting shears

LOTUS dissecting shears are specifically designed for fast, precise haemostatic tissue dissection. The thin curved blade has focussed recesses 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, straight jaw	176mm	Handpiece (disposable, 10 per package)	DS4-200SD
		Transducer (reusable)	SV3-200
Laparoscopy 400, curved jaw	349mm	Handpiece (disposable, 10 per package)	DS4-400CD
		Transducer (reusable)	ES4-400CT*
Bariatric surgery 500, straight jaw	435mm	Handpiece (disposable, 10 per package)	DS4-500SD
		Transducer (reusable)	SV3-500

\* only for LG4 Series 4 generators with software version Issue 6 or later.  
Previous versions must be used with the transducer CV3-400.


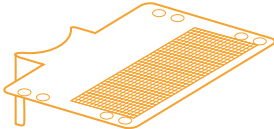
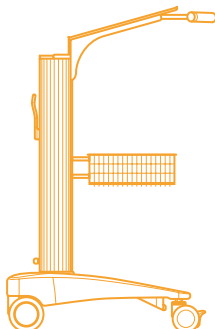
### LOTUS liver resector



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 Series 4 generator		LG4
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## Optional accessories

	Type	REF
	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> Tool	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



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