

# LIGATION with TissueSeal® PLUS – simply precise

Rely on an established technique for permanent vessel and tissue sealing: LIGATION. And on a simple, yet precise instrument for open surgical applications: TissueSeal PLUS. Optimum surgery results because of excellent ergonomics and tactility will enthuse surgeons, while cost reductions and improved efficiency will please the strictest controller.

### LIGATION sequence



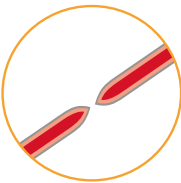
Hold the tissue



Connect and lock the TissueSeal® PLUS

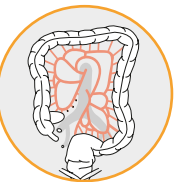


LIGATE until the signal sounds



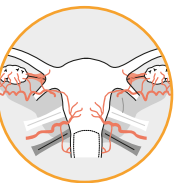
Separate the LIGATION

### Application ranges of the TissueSeal® PLUS



#### Surgical applications

- Colectomy
- Gastrectomy
- Liver resection
- Thyroidectomy
- Lobectomy



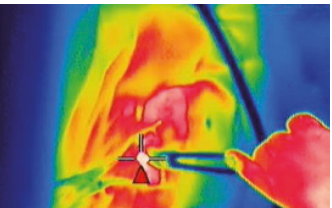
#### Gynaecological applications

- Hysterectomy
- Mastectomy



#### Urological applications

- Prostatectomy
- Cystectomy
- Nephrectomy



34.5 °C

30.4 °C

#### Application safety due to little heating-up

The sandwich structure reduces the thermal spread to < 1 mm. The active electrode surfaces are fully insulated from the instrument and therefore hardly transfer any heat.

#### References:

Schuld J, Richter S, Laschke MW, Sperling J, Menger MD, Schilling MK on behalf of the Surgical Task Force: Theatre and Instrument Technology of the German Association of General and Visceral Surgery (Chirurgische Arbeitsgemeinschaft: OP- und Instrumententechnik der Deutschen Gesellschaft für Allgemein- und Viszeralchirurgie). Evaluation study: BOWA TissueSeal® vs. Valleylab LigaSure™, BOWA, Gomaringen 2008

Harold KL, Pollinger H, Matthews BD, Kercher KW, Sing RF, Heniford BT: Comparison of ultrasonic energy, bipolar thermal energy, and vascular clips for the hemostasis of small-, medium-, and large-sized arteries. Surg Endosc 2003; 17(8), 1228–1230

Adamina M, Champagne B J, Hoffman L, Ermlich MB, Delaney CP: Randomized clinical trial comparing the cost and effectiveness of bipolar vessel sealers versus clips and vascular staplers for laparoscopic colorectal resection. Br J Surg 2011; 98(12), 1703–1712

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## TissueSeal® PLUS THE LIGATION OF PRECISION AND ECONOMY



**BOWA**  
EINFACH SICHER

Made in Germany



TissueSeal® PLUS – handling that has been properly thought through

134°C  
Autoclave  
273°F

Repeatable results  
due to the notching mechanism  
for a defined pressure

Tested application safety  
due to proven locking safety up to  
700 mmHg for vessels with up to  
7 mm diameter

Protection against tissue  
adhesion  
due to non-stick coating

Excellent tactility  
and effortless operating  
due to the ergonomic design

Efficient operation  
due to mouth piece lengths of up to 30 mm for  
TissueSeal PLUS 190, 230 and 280 mm

Active electrode

Insulation

Ceramics pin

TissueSeal® PLUS – real cutting edge technology

134°C  
Autoclave  
273°F

Anatomically optimised  
due to the curved mouth shape

Safe tissue grip  
due to ceramics pins

Minimum thermal spread  
due to the sandwich structure

Fine point  
especially suited for thyroidectomies:  
TissueSeal PLUS 160 mm

Active electrode

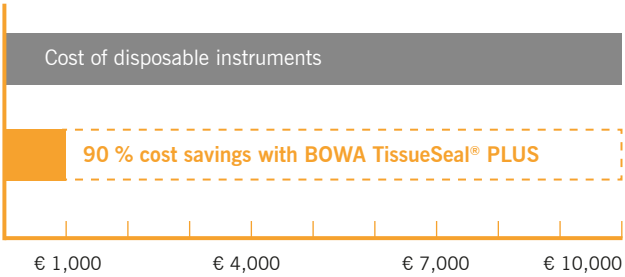
Ceramics pin

Insulation



Process optimisation, quality assurance and suitability for use Plug'n Cut COMFORT automatically identifies the instrument and preselects the right settings. The COMFORT sYSTEM continuously monitors the number of applications and logs them in the instrument itself.

Cost benefits of BOWA TissueSeal® PLUS compared to disposable instruments after 50 procedures



Economical and sustainable High quality materials ensure application safety and long-term economy.

BOWA TissueSeal® PLUS – safe in your hands

The ligation of precision and economy TissueSeal PLUS gives you everything you need for a LIGATION for open surgical applications in a single instrument. This way you can achieve shortened theatre times and reduced patient blood loss as well as ensuring that no foreign objects are left behind in the patient. TissueSeal PLUS is manufactured from premium quality materials and has been designed according to state-of-the-art ergonomics. As a result you gain optimum handling and impressive tactility. Also, the point's sandwich structure ensures minimum temperature

built-up and the non-stick coating protects against tissue adhesion. The Plug'n Cut technology uses automatic instrument detection and parameter configuration for maximum effectiveness and safety. Furthermore, TissueSeal PLUS is fully autoclavable and can be reused up to 50 times.

TissueSeal PLUS combines maximum application safety and patient safety with economy and efficiency.

The suitable solution for each requirement – an overview of all types

		760-216	COMFORT 4.5 m cable BOWA 350 BOWA 400
		760-219	COMFORT 4.5 m cable BOWA 350 BOWA 400
		760-223	COMFORT 4.5 m cable BOWA 350 BOWA 400
		760-228	COMFORT 4.5 m cable BOWA 350 BOWA 400