



erbe
power your performance.



**BiClamp[®]
reduces costs**

in many specialties

References

- 1 Product catalog
- 2 Based on internal measurements/ Erbefacts
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- 4 Hessler, P-A: Vergleichende Untersuchung zur Effektivität verschiedener instrumenteller Operationstechniken bei der totalen laparoskopischen Hysterektomie (TLH), *Geburtsh Frauenheilk*, 2008
- 5 Del Rio, P et al: The use of energy devices for surgical thyroid procedures. Harmonic focus vs Biclamp 150, *Ann Ital Chir*, 2015
- 6 Oussoultzoglou, E et al: Use of BiClamp Decreased the Severity of Hypocalcemia after Total Thyroidectomy Compared with LigaSure: A Prospective Study, *World Journal of Surgery*, 2008

BiClamp® product range

With our BiClamp instruments, vessels and tissue bundles can be reliably coagulated and sealed.

Dealing with vessels individually is usually not necessary. All BiClamp models for both open surgery and laparoscopy are reusable.

THE BENEFITS OF ALL BICLAMP INSTRUMENTS

- ✔ The BiClamp product range offers a wide indication-specific selection for open surgery and laparoscopic interventions¹
- ✔ The shape and length of the jaws is adapted to the body; target tissue can be reached even with reduced surgical access¹
- ✔ The ceramic-insulated jaws reduce the risk of thermal damage to adjacent tissue structures²
- ✔ The BiClamp device is as appropriate as the LigaSure instrument to successfully ligate 2-7 mm arteries and veins³
- ✔ All BiClamp models can be reused, which reduces BiClamp operating costs^{4,5,6}

*Individual models, based on specification

Example uses:
struma surgery, tonsillectomy



BiClamp 150 C
Angled 23°, smooth, length 150 mm
No. 20195-221

Example uses:
vaginal/abdominal hysterectomy



BiClamp 201 T
Angled 18°, smooth, length 200 mm
No. 20195-202

Example uses:
prostatectomy, nephrectomy,
cystectomy



BiClamp LAP Maryland
Semi-deep, length 340 mm
No. 20195-134

Example uses:
all laparoscopic vessel sealing in surgery,
gynecology and urology



BiClamp E LAP forceps
Fenestrated, semi-deep, length 340 mm
No. 20195-248

You can find more instruments in our product catalog

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- 1 Clavé, H et al: Mini-invasive vaginal hysterectomy with Thermofusion hemostasis, *Journal of Visceral Surgery*, 2011
- 2 Leo, V et al: Vaginal hysterectomy and multimodal anesthesia with bipolar vessel sealing (BiClamp forceps) versus conventional suture technique: quality results' analysis, *Archives of Gynecology and Obstetrics*, 2013
- 3 Suprasongsin, C et al: Comparison of conventional suture versus electrosurgical bipolar vessel sealing in abdominal hysterectomy: a randomized control trial, *Journal of Health Science*, 2012
- 4 Ghirardini, G et al: Minimally invasive vaginal hysterectomy using bipolar vessel sealing: Preliminary experience with 500 cases, *J Obstet Gynaecol*, 2013
- 5 Samulak, D et al: Vaginal hysterectomy with bipolar coagulation forceps (BiClamp) as an alternative to the conventional technique, *Archives of Gynecology and Obstetrics*, 2011
- 6 Li, L et al: BiClamp forceps was significantly superior to conventional suture ligation in radical abdominal hysterectomy: a retrospective cohort study in 391 cases, *Arch Gynecol Obstet*, 2012
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BiClamp reduces costs – in many specialties

BICLAMP REDUCES INTERVENTION COSTS

- ✔ All BiClamp models can be reused, which reduces costs per intervention by the number of multiple uses plus preparation costs^{1,2}
- ✔ Vessel sealing with BiClamp saves the cost of suturing and clip material³
- ✔ Operating times are shorter, often significantly. This aspect also reduces OR costs^{2,4,5}
- ✔ Further savings come from shorter in-patient times, reduced administration of medication and lower revision rates⁵⁻⁸

For all the areas of application listed in this leaflet, the main advantage of the BiClamp range is the reduction in cost per intervention.

For vessel and tissue sealing, the BiClamp procedure is cheaper than clip/suture closure and competitors' disposable products. The reasons for this are different for each

specialty and vary in importance. The advantages apply to both open surgery and laparoscopic techniques, such as laparoscopic hysterectomy.



Prof. Hang Seok Chang M.D., Ph.D., F.A.C.S.
Gangnam Severance Hospital
Seoul, South Korea (Thyroidectomy)

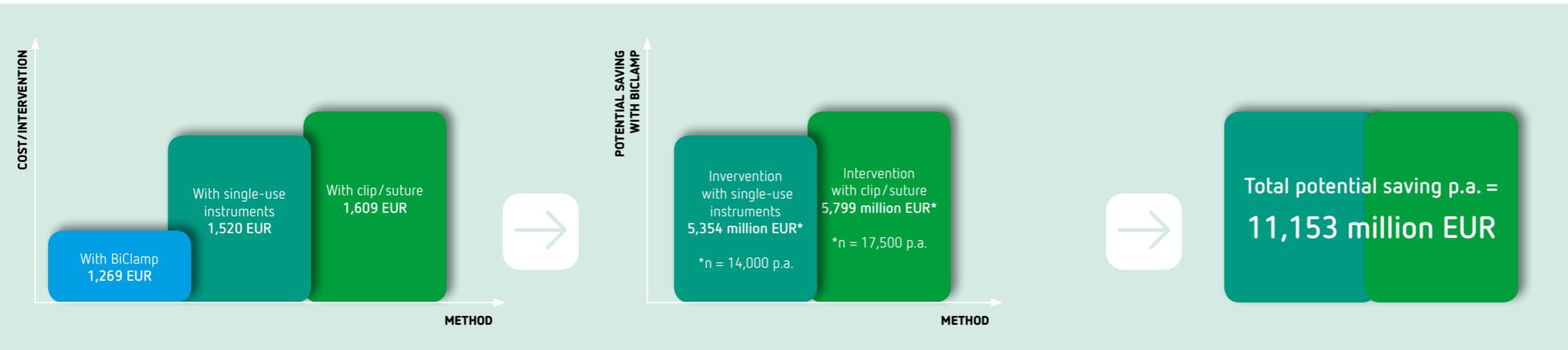
"I think the BiClamp has three remarkable features: it is fast, safe and efficient. The current average operation time is an hour and 10 minutes; however using Erbe BiClamp, I shorten the operation time to 50 minutes which is cutting about 30% of the operation time. These 20 minutes of reduced operation time have a significant meaning to me."

Potential savings with BiClamp using total thyroidectomy as an example

The calculation is based on an estimated 35,000 total thyroidectomies of around 100,000 thyroid procedures per year in Germany.

Single-use vessel sealing instruments are used in approx. 14,000 total thyroidectomies. According to internal Erbe estimates, approx. 3,500 procedures were performed using the BiClamp 150 C, and 17,500 with the conventional suture or clip (as of 2009).

Compared with the overall costs of both alternatives (single-use instruments or the conventional technique), using BiClamp for surgical interventions results in a potential saving of over 11 million Euros per year.



Cost-benefit analysis	BiClamp	Single-use vessel sealing instrument	Suture and clip
Instrument equipment costs (incl. reprocessing)	€27.87	€160.00	€0.00
Suture material	€6.34	€6.34	€19.02
Cost of drainage incl. fitting	€7.67	€7.67	€14.49
Equipment costs per intervention	€41.88	€174.01	€33.51
Intervention time in minutes	142 min	170 min	180 min
Cost of intervention time	€1,269.48	€1,519.80	€1,609.20
Personnel cost reduction		€250.32	€339.72
Material cost reduction		€132.13	€-8.37
Potential saving per intervention		€382.45	€331.35
Number of interventions p.a. per method		14,000	17,500
Potential saving p.a. per method (rounded)		€5,354,000	€5,799,000
Total potential saving (rounded)		€11,153,000.00	

*SPECTARIS study: Potential savings of innovative medical technology in healthcare. Thermofusion and total thyroidectomy with BiClamp, 2008.

GYNECOLOGY

Vaginal hysterectomy

BiClamp versus traditional suture closure



Sealing uterine structures using BiClamp

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

- ✔ BiClamp is an easy, fast and safe technique¹
- ✔ Intraoperative blood loss is minimized^{2-5,8}
- ✔ Operating times are shorter with BiClamp^{2,6}
- ✔ Postoperative pain is reduced^{3,4,6,8}
- ✔ In-patient time is reduced through the use of this technique^{4,7}
- ✔ Patients have lower morbidity and an improved quality of life^{6,7}



BiClamp 201 T
Angled 18°, smooth, length 200 mm
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"BiClamp allows vaginal hysterectomies to be performed safely in patients with minimal uterine descent. With multimodal anesthesia it is possible to discharge the majority of patients on the same day as the operation."



Sambit Mukhopadhyay
Consultant Gynecologist and Clinical Director,
Norfolk and Norwich University
Hospital Foundation Trust
Colney Lane, Norwich, UK

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- 1 Clavé, H et al: Mini-invasive vaginal hysterectomy with Thermofusion hemostasis, Elsevier, Journal of Visceral Surgery, 2011
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Abdominal hysterectomy

BiClamp versus traditional suture closure



Open-surgery adnexa sealing using BiClamp

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

- ✔ BiClamp is a convenient, efficient technique that can be controlled^{1,2}
- ✔ Intraoperative blood loss is minimized^{1,2}
- ✔ Operating times are shorter with BiClamp^{1,2}
- ✔ Postoperative pain is reduced¹
- ✔ In-patient time is reduced through the use of these instruments²
- ✔ BiClamp reduces the risk of postoperative complications²



BiClamp 201 T
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References

- 1 Suprasongsin, C et al: Comparison of conventional suture versus electro-surgical bipolar vessel sealing in abdominal hysterectomy: a randomized control trial, *Journal of Health Science*, 2012
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Laparoscopic hysterectomy and lymphadenectomy



Laparoscopic sealing of pelvic and axillary lymph nodes with BiClamp

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

- ✔ With the use of BiClamp, the formation of lymphocele is significantly reduced versus conventional ligation with suturing¹
- ✔ The thermofusion technique considerably reduces the intervention time²
- ✔ Blood loss is usually lower²
- ✔ Thermofusion is a safe, useful procedure for breast surgery with removal of the axillary lymph nodes²



BiClamp E LAP forceps
Fenestrated, semi-deep, length 340 mm
No. 20195-248

"Why do I need LAP BiClamp instruments? BiClamp instruments offer extremely stable sealing. They last a very long time and are excellent value for money. Erbe has proven to be a reliable partner for decades."



PD Dr. med. Dimitri Sarlos
Senior Consultant, Gynecology and Gynecological Oncology
Medical Director, Mittelland Breast Center
Medical Director, KSA Gynecological Tumor Center
Kantonsspital Aarau AG, Switzerland

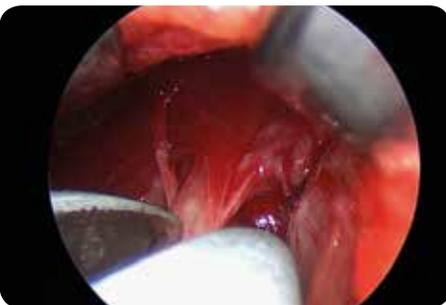
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ABDOMINAL SURGERY

Total thyroidectomy

BiClamp versus suture ligation and competitors' single-use products



The ceramic-insulated jaws reduce the risk of thermal damage to adjacent tissue structures

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

- ✔ BiClamp means procedures can be carried out safely^{1,2,3,4}
- ✔ The overall intervention time is significantly shorter vs suture ligation^{1,3}
- ✔ The technique significantly reduces the risk of postoperative bleeding¹
- ✔ Significant potential savings on instrument costs²
- ✔ Fewer patients require oral calcium administration⁴

"BiClamp allows the vessels in the upper pole of the thyroid to be treated safely. We don't need clips or sutures."



Prof. Dr. med. Dr. h.c. Martin K. Walz
Kliniken Essen-Mitte
Surgery and Center for
Minimally Invasive Surgery
Essen, Germany



BiClamp 150 C
Angled 23°, smooth, length 150 mm
No. 20195-221

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Liver surgery, lobectomy, tonsillectomy

THE BENEFITS OF BICLAMP FOR THESE PROCEDURES

Partial hepatectomy using BiClamp: The technique is effective and free from complications¹

- ✔ BiClamp reduces interoperative blood loss^{2,3}
- ✔ Can also be used for cirrhotic livers²
- ✔ There are no postoperative complications like bleeding or leakage³

Pulmonary lobectomy (BiClamp vs. stapler): An efficient technique that is easy to carry out^{4,5,6}

- ✔ No complications occur^{4,6}
- ✔ Reduced stapler use means reduced costs^{4,5,6}

Tonsillectomy using BiClamp: Safer vessel closure with much less thermal expansion⁸

- ✔ Significantly reduced interoperative blood loss⁷
- ✔ Severe postoperative bleeding is unlikely⁸
- ✔ Significantly reduced intervention times⁷
- ✔ Significantly lower rate of complications^{7,8}
- ✔ Significantly reduced postoperative pain⁷
- ✔ Out-patient procedures are possible⁸

“The laparoscopic BiClamp is an instrument that allows very precise and effective hemostasis. During liver parenchymal transection it works well with its crushing technique function and it is very useful when associated with water from the ERBEJET. Together they allow a precise dissection and identification of vascular structures inside the liver.”

Dr. Marcel Sanhueza, Dr. Eduardo Viñuela
Hepatobiliary Surgery, Sotero del Rio Hospital,
Santiago, Chile



BiClamp 150 C
Angled 23°, smooth, length 150 mm
No. 20195-221



BiClamp LAP forceps
Maryland, semi-deep
No. 20195-134

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Prostatectomy, partial nephrectomy

BiClamp versus traditional suture closure

BiClamp LAP forceps
Maryland, semi-deep
No. 20195-134



Reliable sealing of veins and arteries
using the BiClamp LAP Forceps

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

- ✔ The BiClamp technique is a practical alternative to clips and ligation¹
- ✔ Intraoperative blood loss is reduced with this technique¹
- ✔ The procedure reduces intervention times¹
- ✔ Easy handling²
- ✔ Safe, quick and effective sealing of vessels and vascularized tissue^{2,3}
- ✔ Precise tissue grasping thanks to instrument geometry³

"BiClamp reliably controls intrarenal vessels during off-clamp laparoscopic partial nephrectomy, without the need for subsequent renorrhaphy. Used in conjunction with waterjet dissection, this achieves a truly minimally ischaemic procedure with no secondary haemorrhage."



Mr Andrew Kennedy-Smith
Wellington Hospital
Wellington, New Zealand

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- 1 Panda, S et al: Impact of vessel sealing device on outcome of radical cystectomy. *Indian Journal of Urology*, 2008
- 2 Medical Video: Kennedy-Smith, A: Nephrectomy, partial, laparoscopic, with ERBEJET 2 and BiClamp, 2014
- 3 Medical Video: Stenzl, A: Radical cystectomy and formation of a neobladder in female patients with BiClamp, 2015

Erbe Elektromedizin GmbH
Waldhoernlestrasse 17
72072 Tuebingen
Germany

Phone +49 7071 755-0
Fax +49 7071 755-179
info@erbe-med.com
erbe-med.com