BiClamp® reduces costs in many specialties
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 costs⁴,⁵,⁶

*Individual models, based on specification

References

1 Product catalog
2 Based on internal measurements/Erbefacts
4 Hessler, P-A: Vergleichende Untersuchung zur Effektivität verschiedener instrumenteller Operationstechniken bei der totalen laparoskopischen Hysterektomie (TLH), Geburtsh Frauenheilk, 2008
You can find more instruments in our product catalog.
References

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
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

BiClamp reduces costs – in many specialties

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**BICLAMP REDUCES INTERVENTION COSTS**

- All BiClamp models can be reused, which reduces costs per intervention by the number of multiple uses plus preparation costs
- Vessel sealing with BiClamp saves the cost of suturing and clip material
- Operating times are shorter, often significantly. This aspect also reduces OR costs
- Further savings come from shorter in-patient times, reduced administration of medication and lower revision rates
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.

“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.”

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

### Potential Savings with BiClamp using total thyroidectomy as an example

<table>
<thead>
<tr>
<th>Intervention with single-use instruments</th>
<th>5,354 million EUR*</th>
</tr>
</thead>
<tbody>
<tr>
<td>*n = 14,000 p.a.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intervention with clip/suture</th>
<th>1,609 EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>*n = 17,500 p.a.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>With BiClamp</th>
<th>1,269 EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>With clip/suture</td>
<td>1,609 EUR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>With single-use instruments</th>
<th>1,520 EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>With BiClamp</td>
<td>1,269 EUR</td>
</tr>
</tbody>
</table>

*  

**Table Data:**

Comparing the costs of different methods for surgical interventions, the table demonstrates the potential savings with BiClamp. For instance, using BiClamp for interventions with single-use instruments results in a cost of 1,269 EUR per procedure, whereas the conventional suture or clip method costs 1,609 EUR per procedure. This results in a potential saving of 410 EUR per procedure when using BiClamp.

**Diagram Data:**

The diagram visually represents the cost comparison between the different surgical methods. It shows how BiClamp offers a potential saving compared to the conventional methods. The left side indicates the cost per intervention with BiClamp (1,269 EUR) versus the cost with single-use instruments (1,520 EUR) and clip/suture (1,609 EUR). The right side shows the potential saving with BiClamp (5,799 million EUR) compared to the overall costs of both alternatives (single-use instruments or the conventional technique).
### Cost-benefit analysis

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

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

GYNECOLOGY

Vaginal hysterectomy
BiClamp versus traditional suture closure

LOWER OPERATING COSTS
AND OTHER BENEFITS OF BICLAMP

☑ BiClamp is an easy, fast and safe technique

☑ Intraoperative blood loss is minimized

☑ Operating times are shorter with BiClamp

☑ Postoperative pain is reduced

☑ In-patient time is reduced through the use of this technique

☑ Patients have lower morbidity and an improved quality of life
“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

References
3 Samulak, D et al: Vaginal hysterectomy with bipolar coagulation forceps (BiClamp) as an alternative to the conventional technique, Archives of Gynecology and Obstetrics, 2011
4 Lobodasch, K et al: Allgemeine Gynäkologie. Vaginale Hysterektomien mit Hilfe der BiClamp, 2005
5 Zubke, W et al: Use of the BiClamp (a bipolar coagulation forceps) in gynecological surgery, Gynecological Surgery, 2007
6 Leo, V et al: Vaginal hysterectomy and multimodal anesthesia with bipolar vessel sealing (BiClampforceps) versus conventional suture technique: quality results’ analysis, Archives of Gynecology and Obstetrics, 2013
7 Clavé, H et al: Painless vaginal hysterectomy with thermal hemostasis (results of a series of 152 cases), Gynecological Surgery, 2005
8 Wässerer, S: Vaginale Hysterektomie mit und ohne BiClamp®. Eine prospektive, randomisierte, einfachblinde, klinische Multizenterstudie, Tübingen, Univ, Diss, 2009
Abdominal hysterectomy

BiClamp versus traditional suture closure

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

☑ BiClamp is a convenient, efficient technique that can be controlled

☑ Intraoperative blood loss is minimized

☑ Operating times are shorter with BiClamp

☑ Postoperative pain is reduced

☑ In-patient time is reduced through the use of these instruments

☑ BiClamp reduces the risk of postoperative complications
BiClamp 201 T
Angled 18°, smooth, length 200 mm
No. 20195-202

References

1 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
2 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
Laparoscopic sealing of pelvic and axillary lymph nodes with BiClamp

**GYNECOLOGY**

Laparoscopic hysterectomy and lymphadenectomy

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**LOWER OPERATING COSTS AND OTHER BENEFITS OF BIOCLAMP**

- With the use of BiClamp, the formation of lymphocele is significantly reduced versus conventional ligation with suturing[^1]
- The thermofusion technique considerably reduces the intervention time[^2]
- Blood loss is usually lower[^2]
- Thermofusion is a safe, useful procedure for breast surgery with removal of the axillary lymph nodes[^2]

[^1]: Reference 1
[^2]: Reference 2
“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

References


BiClamp E LAP forceps
Fenestrated, semi-deep, length 340 mm
No. 20195-248
The ceramic-insulated jaws reduce the risk of thermal damage to adjacent tissue structures.

ABDOMINAL SURGERY

Total thyroidectomy

BiClamp versus suture ligation and competitors’ single-use products

LOWER OPERATING COSTS AND OTHER BENEFITS OF BICLAMP

☑ BiClamp means procedures can be carried out safely

☑ The overall intervention time is significantly shorter vs suture ligation

☑ The technique significantly reduces the risk of postoperative bleeding

☑ Significant potential savings on instrument costs

☑ Fewer patients require oral calcium administration
“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

References
3 Alesina, P F et al: Bipolar thermofusion vessel sealing system (TVS) versus conventional vessel ligation (CVL) in thyroid surgery – results of a prospective study, Langenbecks Arch Surg, 2010
ABDOMINAL SURGERY

Liver surgery, lobectomy, tonsillectomy

THE BENEFITS OF BICLAMP FOR THESE PROCEDURES

Partial hepatectomy using BiClamp: The technique is effective and free from complications.
☑ BiClamp reduces interoperative blood loss.
☑ Can also be used for cirrhotic livers.
☑ There are no postoperative complications like bleeding or leakage.

Pulmonary lobectomy (BiClamp vs. stapler): An efficient technique that is easy to carry out.
☑ No complications occur.
☑ Reduced stapler use means reduced costs.

Tonsillectomy using BiClamp: Safer vessel closure with much less thermal expansion.
☑ Significantly reduced interoperative blood loss.
☑ Severe postoperative bleeding is unlikely.
☑ Significantly reduced intervention times.
☑ Significantly lower rate of complications.
☑ Significantly reduced postoperative pain.
☑ Out-patient procedures are possible.
“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

References
UROLOGY

Prostatectomy, partial nephrectomy

BiClamp versus traditional suture closure

Lower operating costs and other benefits of BiClamp

☑ The BiClamp technique is a practical alternative to clips and ligation\(^1\)

☑ Interoperative blood loss is reduced with this technique\(^1\)

☑ The procedure reduces intervention times\(^1\)

☑ Easy handling\(^2\)

☑ Safe, quick and effective sealing of vessels and vascularized tissue\(^2,3\)

☑ Precise tissue grasping thanks to instrument geometry\(^3\)
“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

References
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