When Edison invented the lightbulb, it revolutionized the way we see.

The LigaSure* Vessel Sealing System will revolutionise the way you operate.

tyco Healthcare
Valleylab Introduces Permanent Vessel Occlusion

No matter what vessel, artery, or tissue bundle you’re likely to encounter in gynaecologic and general surgery, Valleylab’s LigaSure® Vessel Sealing System can seal it. This revolutionary haemostasis product works by fusing the collagen in vessel walls to create a permanent seal.

THE LIGASURE® SYSTEM IS A UNIQUE FORM OF ELECTROSURGERY:

- Can be used with confidence on vessels up to 7 mm
- Seals tissue bundles without dissection and isolation
- Causes minimal thermal spread, precisely confining its effect to the target tissue
- The unique energy output results in virtually no sticking

THE LIGASURE® SYSTEM DELIVERS THE BENEFITS OF OTHER HEMOSTASIS TOOLS WITHOUT THE DRAWBACKS:

- Reduced sticking and charring
- Minimised need for multiple applications
- No dislodged clips
- No foreign material left behind
Increased Burst Strength

Vessel Sealing actually fuses the vessel walls and obliterates the lumen, changing the nature of the tissue. The fusion mechanism results in strong burst strength characteristics in comparison to standard bipolar and ultrasonic coagulating instruments.

**THE LIGASURE® VESSEL SEALING SYSTEM:**
- Creates seals that can withstand more than 3 times normal systolic pressure
- Gives visual assurance of a successful seal – you may see the tissue’s translucence, indicating no blood flow
- Does not rely on a proximal thrombus

The study showed that the LigaSure® System’s burst strength is statistically higher than that of both bipolar and ultrasonics, and statistically comparable to clips and sutures.

Yellow Bar – Median Burst Pressure
Purple Bar – 95% of sealed arteries burst within this pressure band.

Results of in vitro study comparing ligation techniques on renal arteries*.
Seal strength was quantified by measuring the pressure required to burst the occlusion.

* Animal models

<table>
<thead>
<tr>
<th></th>
<th>Ultrasonic Coagulator (n=22)</th>
<th>Bipolar Coagulator (n=98)</th>
<th>LigaSure® (n=46)</th>
<th>Clip (n=23)</th>
<th>Suture (n=21)</th>
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<td>Burst Pressure (mmHg)</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
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<td>Normal Systolic Pressure</td>
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</table>

The study showed that the LigaSure® System’s burst strength is statistically higher than that of both bipolar and ultrasonics, and statistically comparable to clips and sutures.
Now that’s a bright idea.

Permanent vessel occlusion of any vein, artery, or tissue bundle you encounter in surgery.
Mechanism of Fusion

HOW IT WORKS
Valleylab’s patented Instant Response* technology diagnoses the type of tissue in the instrument jaws and delivers the appropriate amount of energy needed to effectively seal it. The patented Smart Generator* technology minimises seal time and maximises reliability.

THE SEAL CYCLE
The seal mechanism uses the body’s collagen to actually change the nature of the vessel walls and obliterate the lumen. The collagen and elastin within the tissue melt and reform to create the seal zone.

THE SEAL ZONE:
- Appears as a distinctive, possibly translucent area of reformed collagen
- Has plastic resistance to deformation, making it permanent

THE LIGASURE™ VESSEL SEALING SYSTEM USES STATE-OF-THE-ART BIOMEDICAL ENGINEERING. AN OPTIMISED COMBINATION OF PRESSURE AND ENERGY CREATE THE SEAL.
Advantages of the LigaSure Systems

REDUCED THERMAL SPREAD
Vessel sealing produces significantly reduced thermal spread compared to existing bipolar instruments. The LigaSure* System precisely confines its effects to the target tissue or vessel with virtually no charring, and with minimal thermal spread to adjacent tissue.

LEAVE NOTHING BEHIND BUT THE SEAL
The LigaSure* System leaves no foreign material behind to potentially interfere with future diagnosis. The system uses the body’s own collagen to reform the tissue, creating a permanent seal which resists dislodgement.

NO MORE AWKWARD SUTURING
Some surgical procedures make sutures a tedious option. Vessel sealing may save critical time because each seal cycle takes only seconds to complete.

THE LIGASURE* SYSTEM REPLACES VIRTUALLY ALL OTHER HEMOSTATIC DEVICES – YOU ONLY NEED ONE INSTRUMENT FOR AN ENTIRE PROCEDURE.

Sealing of an Inferior Vena Cava (porcine animal model).
Product line

The LigaSure* Vessel Sealing System includes a generator and a choice of seven instruments.

**LigaSure Atlas* NEW!**
is a laparoscopic device that seals and divides vessels up to and including 7 mm in diameter and tissue bundles.

**LigaSure* Lap**
is a single-use laparoscopic instrument for all general and gynaecological laparoscopic procedures.

**LigaSure Precise* NEW!**
is a single-use instrument specifically designed to provide permanent vessel occlusion to structures that require fine grasping.

**LigaSure* Std**
is a reposable instrument for all general surgery open procedures.

**LigaSure* Max**
is a reposable gynaecology instrument for open procedures. The instrument’s textured surface provides improved grasping capability for thick tissues.

**LigaSure* Axs NEW!**
is a reposable instrument that has extra length and angled jaw to allow better access in deep cavities.

**LigaSure* Xtd**
is a reposable instrument for deep cavity procedures. The longer instrument allows the surgeon to comfortably hold the device outside the surgical site.

**Clinical Articles & Presentations**


The LigaSure® Vessel Sealing System
FUSES VESSEL WALLS TO CREATE A PERMANENT SEAL.

Ordering Information

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<tr>
<th>REF</th>
<th>Description</th>
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<td>LigaSure® Generator with Instant Response® technology</td>
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<tr>
<td>LS0200</td>
<td>Sterilizer case for reusable LigaSure® handpieces</td>
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Valleylab’s LigaSure® Vessel Sealing System consists of an electrosurgical generator and seven handpieces. The unique energy output fuses vessel walls to create a permanent seal. The LigaSure® Vessel Sealing System seals isolated vessels and tissue bundles in a single application.
PERMANENTLY SEALS VESSELS

Up to and including 7mm in diameter without dissection or isolation.

The LigaSure™ generator incorporates Valleylab’s patented Instant Response™ technology, a feedback-controlled response system that diagnoses the tissue type in the jaws of the instrument and delivers the appropriate amount of energy to effectively seal the vessel or tissue bundle.

tyco
Healthcare

Kendall
VEssel Sealing
Electrosurgery That Combines

- Pressure and energy that permanently fuses vessels and tissue bundles up to and including 7mm
- A seal is created which reforms the collagen in vessel walls and connective tissue into a permanent seal

The Ligasure System Can Permanently Replace All Other Hemostatic Devices for Ligation of Vessels Up to and Including 7mm

Reduce lateral thermal spread

Sticking and charring greatly reduced

No dissection or isolation of vessels from tissue bundles

Ligasure seal 28 days post surgery
THE SCIENCE OF VESSEL SEALING TECHNOLOGY

- An optimized combination of pressure and energy creates the seal by melting the collagen and elastin in the vessel walls and reforming it into a permanent, plastic-like seal.

INSTANT RESPONSE™ TECHNOLOGY

- Feedback-controlled response system automatically discontinues energy delivery when the seal cycle is complete, eliminating the guesswork and producing a consistent, reliable tissue effect.

CLINICAL BENEFITS

- The seal is created using the body's own collagen to actually change the nature of the vessel walls and obliterate the lumen. The collagen and elastin within the tissue melt and reform to create the seal zone.

- Great potential time savings compared to suture.

- May reduce blood loss in some surgical procedures.

- Minimizes the need for multiple applications. Vessels are typically sealed using a single application.

INSTANT RESPONSE™ TECHNOLOGY

- The generator incorporates Valleylab's patented Instant Response™ technology, a feedback controlled response system that diagnoses the tissue type in the jaws of the instrument and delivers the appropriate amount of energy to effectively seal vessel or tissue bundle.

- When the seal cycle is complete, a generator tone sounds and output on the handset is automatically discontinued.

- The automated system eliminates the guess work, minimizing seal time and maximizing reliability.
The Seal of Confidence
Providing A World Of New Opportunities In Open
And Laparoscopic Surgery

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Contact your Kendall Animal Health Representative To Schedule a Demonstration.
1-800-962-9888 option 4 or e-mail animalhealth@tycohealthcare.com

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15 Hampshire Street
Mansfield, MA 02048
1-800-962-9888
508-261-8000

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