

Ligasure™ Vessel Sealing System



Permanent vessel occlusion

The Ligasure™ Vessel Sealing System is a revolutionary haemostasis system which works by fusing the collagen in vessel walls to create a permanent seal.

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.

Main benefits:

- Seals vessels up to 7mm in diameter
- Very quick procedure, saving your surgical time
- Enables you to use less anaesthetic agent
- Minimal thermal spread to adjacent tissue
- Reduced sticking and charring
- Minimal need for multiple applications
- No dislodged clips
- No foreign material left behind

Use:

For creating permanent blood vessel occlusion, especially useful for sealing multiple blood vessels.

Presentation:

Electrosurgical generator and seven different instruments (accessories)

Generator:

- Bipolar configuration reduces the risk of injury from the stray current hazards and eliminates the need for a patient return electrode (grounding pad)
- Low Voltage (180V) / High Amperage (4A)
- minimises thermal spread to the surrounding tissue
- Individual tissue response – the system can measure changes in the tissue and adjust the energy delivery in response to those changes



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How it works:

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 Ligasure™ Vessel Sealing System:

- Applies optimal pressure to vessel/tissue bundle
- Measures initial impedance of tissue and chooses appropriate energy settings.
- Delivers pulsed energy with continuous feedback control.
- Senses that tissue response is complete and stops the cycle.

The seal mechanism uses the body’s collagen to 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.

Two Ligasure™ System studies done in horses:

Laparoscopic ovariectomy in mares¹:

- **No foreign material**
- **Minimal need for dissection**
- **Elimination of complications**
 - No ligature slippage
 - No bleeding during dissection

Small intestinal resection and anastomosis in normal horses²:

- **No foreign material**
- **Reduced time for haemostasis**
- **No risk of ligature slippage**
- **Acceptable Burst Pressure**

1. Evaluation of a vessel-sealing device for use in laparoscopic ovariectomy in mares. Hand R, Rakestraw P, Taylor T. Vet Surg. 2002;31:240-4.
2. Evaluation of a vessel-sealing device for small intestinal resection and anastomosis in normal horses. Rumbaugh ML, Burba DJ, Natalini C, Hosgood G, Moore RM. Vet Surg. 2003;32:574-9.