

FLOW COUPLER®

Peace of Mind You Can Hear

Introducing the New GEM™ FLOW COUPLER®

The FLOW COUPLER System is the marriage of two trusted technologies: the GEM™ COUPLER™ and a 20 MHz ultrasonic Doppler. The FLOW COUPLER has been specifically designed for use in end-to-end anastomosis for the detection of blood flow in order to confirm vessel patency intra- and postoperatively at the anastomotic site.

The GEM COUPLER Technology You Rely On Just Got Better

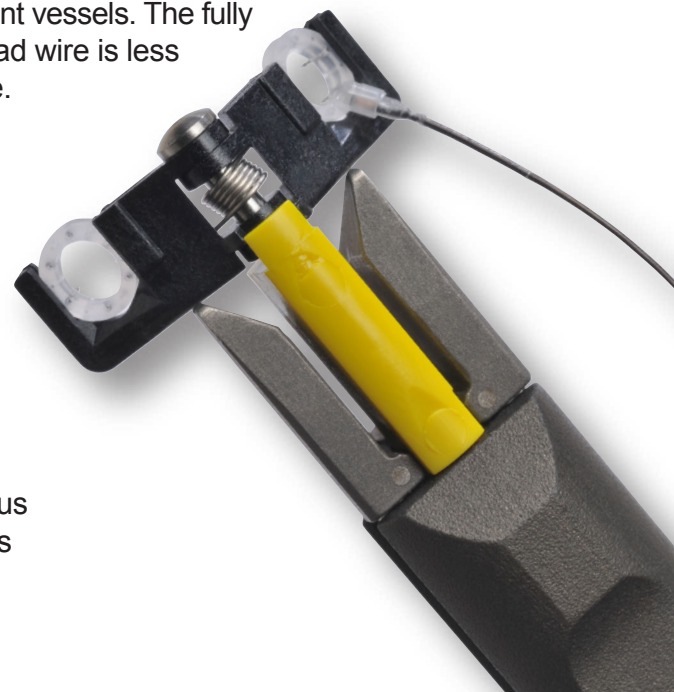
The FLOW COUPLER System creates a secure anastomosis for shorter procedures and reduced ischemia time compared to traditional suturing. The resulting intima-to-intima technique stents the vessel open which improves patency and reduces the chance of thrombosis.

Auditory Feedback – Loss of an audible signal alerts staff that a potential problem with perfusion may exist

A press-fit point of attachment for the 20MHz Doppler Probe ensures secure alignment of the probe and accurate monitoring of the vessel, reducing noise and interference of adjacent vessels. The fully insulated silver-coated copper coaxial lead wire is less sensitive to noise and signal interference.

Rapid Detection Through Venous Monitoring

Monitoring of the outflow vein of the flap will detect cessation of venous flow almost immediately. Interruption of arterial flow will cause a near-immediate loss of the venous Doppler signal. Thus, venous monitoring clearly offers a distinct advantage over arterial monitoring with regard to detecting venous thrombosis and simultaneously serves as a monitor of arterial flow.^{1,2}



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Early Intervention – Through Intensive Post Op Monitoring
Timing of presentation of flap compromise is a significant predictor in flap salvage rates.³ Intensive monitoring in the initial postoperative period by the clinician leads to early re-exploration and more likely repair.⁴

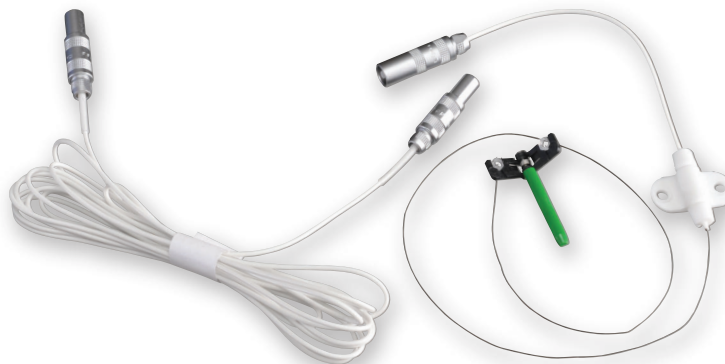


Improved Outcomes – Through Doppler Monitoring

- Reduce needless re-explorations⁵
- Increase flap salvage rates⁶
- Minimize flap loss⁷

Convenience – For The Clinician

Two channels allow monitoring of multiple sites. The external lead may be disconnected from the probe wire by pulling the Universal Connectors apart for easy patient ambulation. Quick, easy removal of the Probe Wire during follow-up in the clinic.



See instructions for use for indications, warnings, precautions, side effects and contraindications. Rx only.

¹Swartz, William, et al. Direct Monitoring of Microvascular Anastomoses with the 20 MHz Ultrasonic Doppler Probe: An Experimental and Clinical Study. *Plastic and Reconstructive Surgery*. Volume 81, 1988.

²Kind, Gabriel, et al. The Effect of an Implantable Doppler Probe on Salvage of Microvascular Tissue Transplants. *Plastic and Reconstructive Surgery*, Volume 101, Number 5, 1998.

³Chen, KT, et al. Timing of Presentation of the First Signs of Vascular Compromise Dictates the Salvage Outcome of Free Flap Transfers. *Plastic and Reconstructive Surgery*, Volume 120, Number 1, 2007.

⁴Salgado, Christopher, et al. Flap Monitoring and Patient Management. *Plastic and Reconstructive Surgery*, Volume 124, Number 6, 2009.

⁵Ferguson, Robert, Yu, Peirong. Techniques of Monitoring Buried Fasciocutaneous Free Flaps. *Plastic and Reconstructive Surgery*, Volume 123, Number 2, 2009.

⁶Disa, Joseph, et al. Efficacy of Conventional Monitoring Techniques in Free Tissue Transfer: An 11-Year Experience in 750 Consecutive Cases. *Plastic and Reconstructive Surgery*, Volume 104, Number 1, 1999.

⁷Kroll, Stephen, et al. Timing of Pedicle Thrombosis and Flap Loss After Free Tissue Transfer. *Plastic and Reconstructive Surgery*, Volume 98, Number 7, 1996.