

MICROVASCULAR ANASTOMOTIC COUPLING (MAC) SYSTEM



Shown to be a Fast Method for Microvascular Anastomosis^{1,2}

The MICROVASCULAR ANASTOMOTIC COUPLING System has been specifically designed for use in the anastomosis of veins and arteries normally encountered in microsurgical procedures. The COUPLER Device is intended for use with veins and arteries having an outside diameter no smaller than 0.8 mm and no larger than 4.3 mm and a wall thickness of 0.5 mm or less.



Features & Benefits:

- **Anastomosis**—Intima-to-intima contact without any intraluminal foreign (suture) material may decrease the rate of thrombosis²⁻⁴
- **Speed**—Most anastomoses using the COUPLER Device can be completed in 3-8 minutes, potentially saving valuable OR time, reducing ischemic time for the flap, and patient exposure to anesthesia^{1,2}
- **Versatility**—Manages vessel size mismatches in both end-to-end and end-to-side anastomotic configurations^{2,4}
- **Proven Performance**—Superior patency rates for venous anastomoses as compared to hand suturing^{1,2}
- 30 year clinical history¹



Ordering Information

GEM2741CC	Complete System includes (2) Forceps, and the following components:
GEM 2740	Reusable, Titanium-Tipped Anastomotic Instrument
GEM2745	Anodized Aluminum Sterilization Tray
GEM2749	Non-Glare Stainless Steel Double-Ended Vessel Measuring Gauge
GEM4183C	COUPLER Forceps, 18 cm - For everting the vessel over the pins of the COUPLER

GEM2551-CS	Single Layer Tray – Includes: Anastomotic Instrument, 2 Coupler Forceps, Measuring Gauge & 2 MicroClip Appliers 15 cm
GEM2551-2-CS	Double Layer Tray – Includes: Anastomotic Instrument, 2 Coupler Forceps, Measuring Gauge & 2 MicroClip Appliers 15 cm

GEM2750	1.0 mm COUPLER (gray) 6 per box
GEM2751	1.5 mm COUPLER (blue) 6 per box
GEM2752	2.0 mm COUPLER (green) 6 per box
GEM2753	2.5 mm COUPLER (red) 6 per box
GEM2754	3.0 mm COUPLER (yellow) 6 per box
GEM2755	3.5 mm COUPLER (purple) 6 per box
GEM2756	4.0 mm COUPLER (orange) 6 per box
GEM2750/I	1.0 mm COUPLER (gray) single, 1 each
GEM2751/I	1.5 mm COUPLER (blue) single, 1 each
GEM2752/I	2.0 mm COUPLER (green) single, 1 each
GEM2753/I	2.5 mm COUPLER (red) single, 1 each
GEM2754/I	3.0 mm COUPLER (yellow) single, 1 each
GEM2755/I	3.5 mm COUPLER (purple) single, 1 each
GEM2756/I	4.0 mm COUPLER (orange) single, 1 each

INDICATIONS FOR USE:

The Microvascular Anastomotic COUPLER Device is intended to be used in the anastomosis of veins and arteries normally encountered in microsurgical procedures only in the peripheral vascular system. The Microvascular Anastomotic COUPLER Device is intended for use with veins and arteries having an outside diameter no smaller than 0.8 mm and no larger than 4.3 mm and a wall thickness of 0.5 mm or less. The degree of vessel spasm and the elasticity of the vessel should be considered when choosing the COUPLER Device size to be used. Use a Vessel Measuring Gauge to approximate the OUTER diameter of the vessel for selection of an appropriate COUPLER Device size.

CONTRAINDICATIONS:

The COUPLER Device is not indicated for use in patients presenting conditions that would normally preclude microvascular repair with suture technique. Examples of such conditions include, but are not limited to:

- Pre-existing or suspected peripheral vascular disease
- Ongoing irradiation of the area of reconstruction
- Clinical infection of the area of reconstruction
- Anticipated infection due to significant contamination of the area of reconstruction
- Friability of the vascular tissue due to sclerotic conditions
- Concurrent diabetes mellitus
- Concurrent corticosteroid therapy

Rx Only. For safe and proper use of this device, refer to the Instructions for Use.

References: **1.** Ahn CY, Shaw WW, Berns S, Matkowitz BL. Clinical experience with the 3M Microvascular Coupling Anastomotic Device in 100 free-tissue transfers. *Plast Reconstr Surg.* 1994;93(7):1481-1484. **2.** Jandali S, Wu LC, Vega SJ, Kovach SJ, Serletti JM. 1000 consecutive venous anastomoses using the Microvascular Anastomotic Coupler in breast reconstruction. *Breast.* 2009;125(3):792-798. **3.** O' Connor EF, Rozen WM, Chowdhry M, et al. The microvascular anastomotic coupler for venous anastomoses in free flap breast reconstruction improves outcomes. *Gland Surg.* 2016;5(2):88-92. **4.** Kulkarni AR, Mehrara BJ, Pusic AL, et al. Venous thrombosis in handsewn vs. coupled venous anastomoses in 857 consecutive breast free flaps. *J Reconstr Microsurg.* 2016;32(3):178-182.