

# MEDICAL PHANTOM FOR VASCULAR ANASTOMOSIS

Medical Phantom for Vascular Anastomosis is a device modeling the human blood vessel used as a training kit for end-to-end vascular anastomosis procedure (procedure of connecting blood vessels) for medical students in the neurosurgery department. This device answers the needs of a training device with similar characteristics to the human blood vessel while providing quantified feedback for objective training assessment.

## SPECIFICATION

Dimension	36x18x15 cm
Power Supply	220V AC 5A
Blood Vessel Caliber	OD 4mm ID 3mm OD 2mm ID 1mm
Pump Flow Range	28 - 52ml/minute
Debit Measurement Range	0 - 52ml/minute
Force Measurement Range	0 - 1N
Blood Mimicking Fluid Viscosity	$3.55 \pm 0.08 \text{ cP}$
Casing Material	PLA+
Casing Color	Black



### Hydrogel-Based Blood Vessel Model

Blood vessel model created using PVA-H with similar viscoelasticity and surface friction to real human blood vessel

### Interactive Screen

Manage everything in one capacitive screen for easy management and fast screen response



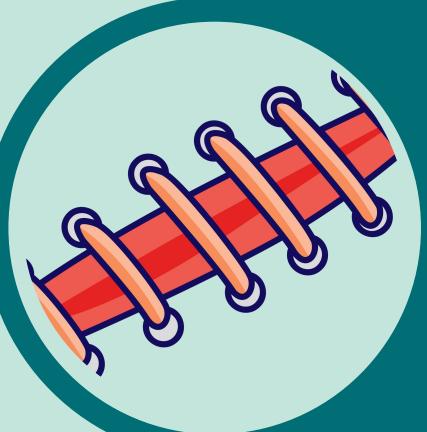
### Detachable Camera

Detachable camera to record the training and save the recording via USB port



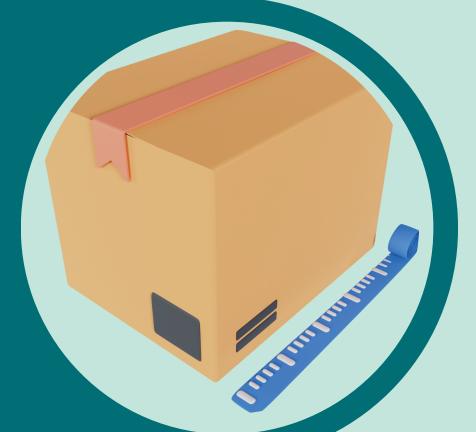
### Measurable Debit

Measure the debit of blood mimicking fluid flowing through the blood vessel model for quantitative and objective performance indicator



### Measurable Suturing Force

Measure the force applied to blood vessel model for quantitative and objective performance indicator



### Compact Size

Small dimension which fit in many microscopes used for vascular anastomosis training

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