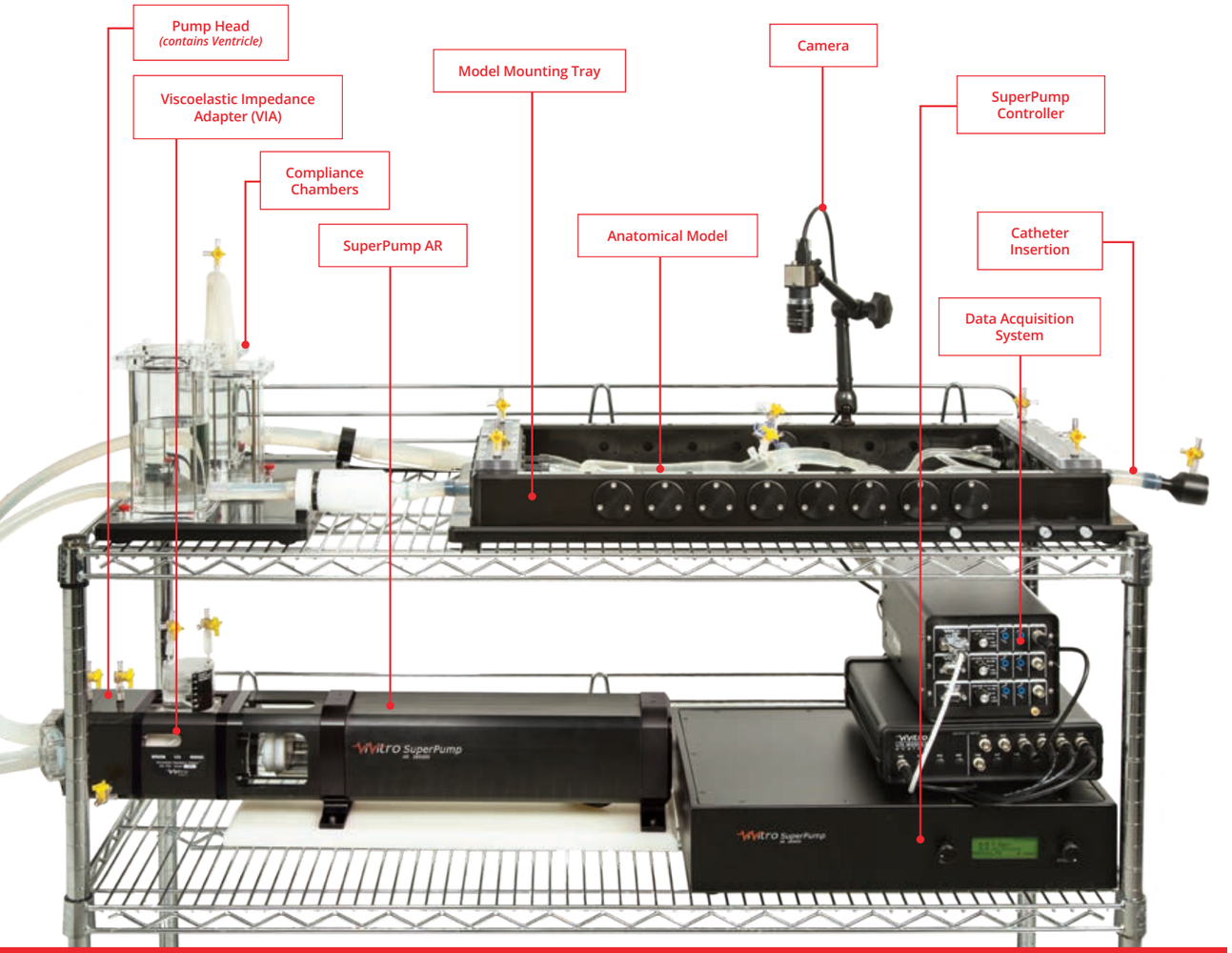
ENDOVASCULAR SIMULATOR

Device simulation testing and training

Product Code: Tray 30543 // Compliance 25654

The ViVitro Endovascular Simulator can be used for any portion of the cardiovascular system. Our vascular flow platform brings physiological pulsatility to anatomical models for research and development. The simulator can easily be reconfigured for benchtop, cath lab or portable cart installation.



The EV Simulator provides functional design testing for:

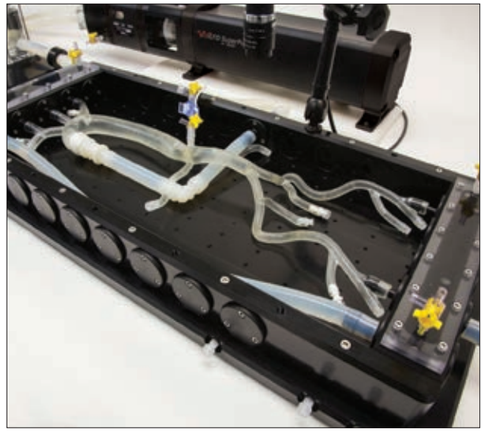
- Stents
- Stent Grafts
- Balloons
- Wires
- Coils
- Filters
- Transcatheter Heart Valves

Assess:

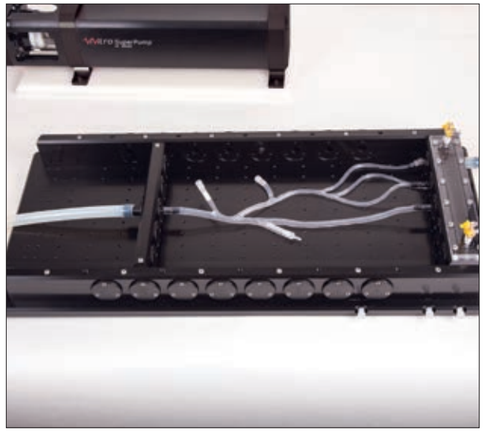
- Pulsatile Flow Interactions
- Positioning
- Deployment Accuracy and Force
- Sizing
- Conformability
- Trackability and Pushability
- Torquability
- Securement Measuring

Designed for Easy Adaptability

The simulator's tray is a modular platform that accommodates anatomical models for a variety of transcatheter or surgical vascular interventions. It is easily reconfigured for different model sizes and connection types.



Aorta Model with Femoral Access



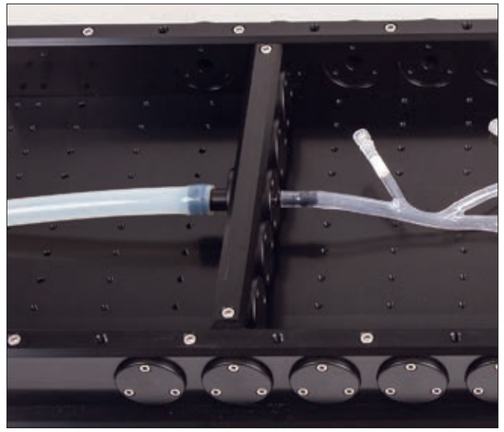
Lower Leg Arterial Model

Neuro Aneurysm Model

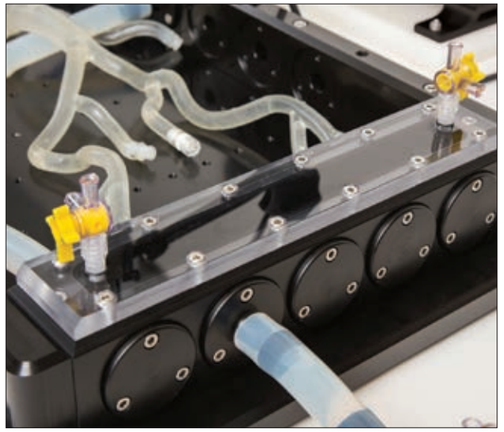
A compliance assembly provides adjustable air volume to allow system tuning for a wide range of pressure conditions.

Set-up is straightforward and simple

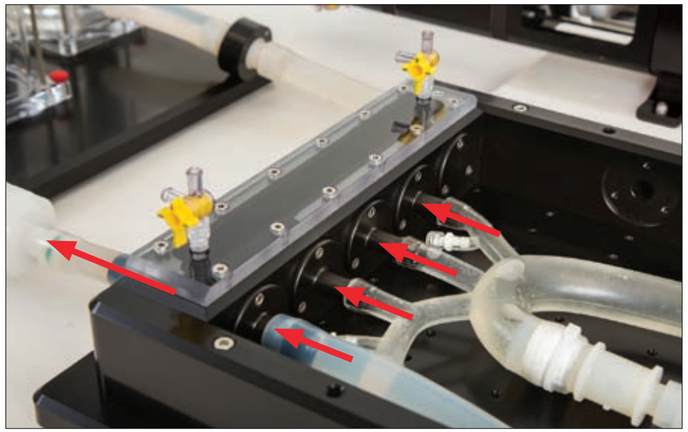
Inlet and outlet ports can be swapped out for the optional manifold for joining the return flow paths.



Inlet/Outlet Port

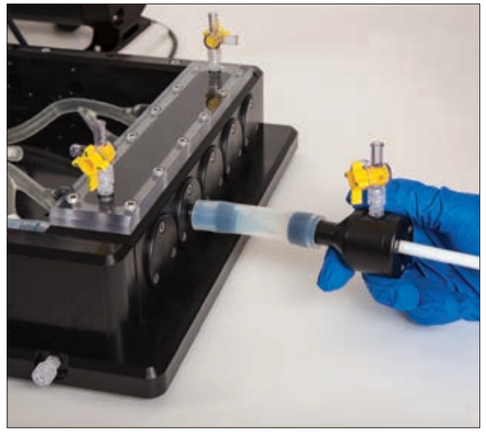


Optional manifold for joining return flow paths



Red lines indicate inlets, and outlet/return flow

Optional add-ons keep costs down while increasing system capabilities as needed



Catheter insertion ports facilitate device deployment, and measurement device insertion.

A Viscoelastic Impedance Adaptor provides input waveform compliance to create physiological pressures and flows.

Maintain physiological fluid temperature up to 40°C using the optional heating system.

Capture and display flows and pressures from any point in the system with the Data Acquisition System.

A digital camera captures high resolution imagery of positioning and deployment. It can also be used to simulate fluoroscopy without the use of an expensive cath lab.

Capture high resolution video

Simulate fluoroscopy

Interchangeable Components

SUPERPUMP

The most widely used computer-controlled pump for cardiac flows

Product Code: 10647

The ViVitro SuperPump that powers the Endovascular Simulator is also the foundation for ViVitro's Pulse Duplicator and Real Time Wear Tester. The SuperPump can be operated independently with any type of cardiac flow loop.

The SuperPump provides pulsatile flow from 3 to 200 Beats per Minute and up to 15 Litres per Minute output. A Pump Head facilitates circulatory flow using two valves.

REAL-TIME WEAR TESTER (RWT)

Product Code: 20174

The ViVitro Real-Time Wear Tester (RWT) is a quasi-real-time wear tester for heart valve replacements, venous Valve replacements, occluder devices, cardiac patches or strips, medical sutures, staples or clips, and other cardiovascular devices.

PULSE DUPLICATOR

The world's most widely-used heart model

Product Code: 18363

The ViVitro Pulse Duplicator simulates the function of the heart (left or right) by generating pulsatile flow through prosthetic heart valves placed in the Left Heart Model.

Optional Components

The ViVitro Endovascular Simulator shares many other ViVitro product elements. This provides a low cost upgrade path, re-use of common parts, and ease of use.

Heat Exchanger

Product Code: Heat Exchanger - HE9991

Heat Bath

Product Code: Heat Bath Temperature Controller - 10679 N.A., 10680 Int'l

Viscoelastic Impedance Adapter (VIA)

Product Code: VIA7991

Contact us for a video demonstration and free consultation.

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ViVitro Labs Inc.
First in Cardiovascular Device Testing