



The cardiovascular implant test people



The industry leader in prosthetic heart valve test equipment

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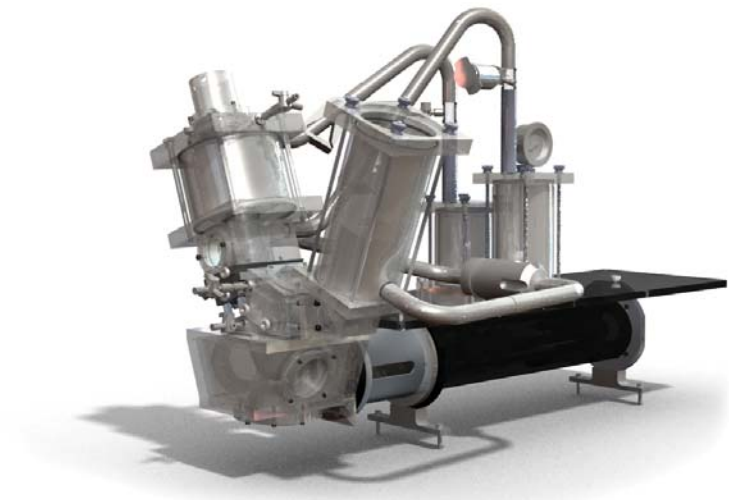
Canada

What we offer

ViVitro Labs Inc offers industry leading prosthetic heart valve test equipment and related testing and consulting services. Since our formation in 1984, we have worked closely with our clients – universities, medical device manufacturers and regulatory agencies – to support their research, regulatory and production requirements.

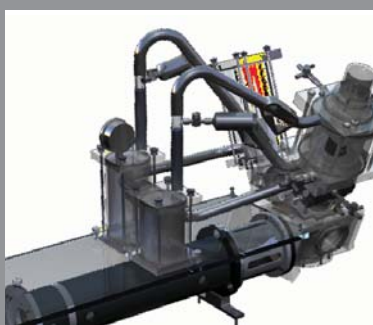
Our vision

Our vision is to empower our clients to complete world-leading research, develop high quality, innovative products and ensure that they demonstrate regulatory compliance.



(Pulse Duplicator)

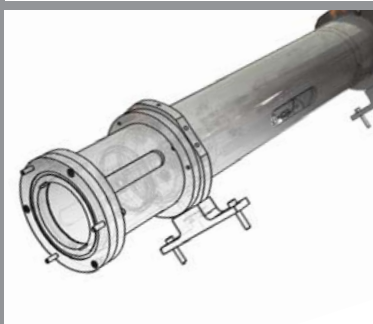
Products



Pulse Duplicator System

The Pulse Duplicator simulates the function of the heart's ventricle through generating pulsatile flow into and out of the placed heart valve in the Model Left Heart. A Superpump System duplicates physiological or other complex pressure variations to provide detailed quality data return to software for heart valve and system performance.

Transparent viewpoints allow monitoring of the valve during testing.



Superpump System

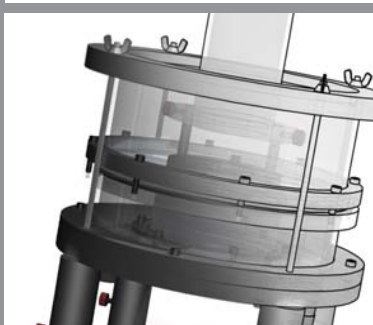
The Superpump System generates physiological simulation of velocity and pressure waveforms of the cardiovascular system. Sold with the ViVITRO Pulse Duplicator System, it is used for applications such as:

- * Flow transducer evaluation/ calibration
- * Heart valve function testing
- * As an isolated heart driver
- * Blood vessel flow studies
- * LVAD evaluations
- * To create an echo Doppler flow phantom
- * MRI studies
- * Neuroendovascular studies



Model Left Heart

The Model Left Heart (MLH) is a compact, compliant model of the left heart and load system. The system can assess the function of heart valves and other devices under simulated cardiac conditions. The MLH's transparent materials allow for flow and specimen visualization while pre-built flow and pressure transducer docks allow you to add additional components to the system if desired.



Leakage Tester

The Leakage Tester is a fast, convenient, accurate and repeatable instrument for determining the mean leakage flow rate through a closed valve over a physiological range of pressures. It allows visualization through a transparent chamber for monitoring. Temperature control is available as an optional attachment.

The Hi-Cycle System is designed to provide accelerated cycling of valves for assessing prosthetic heart valve durability in a laboratory setting. It uses an electrodynamic shaker to drive six pistons within fluid-filled, temperature-controlled chambers. The system exercises mounted heart valves or specimens at an accelerated rate of up to 2000 cycles/minute. Clear viewports allow imaging of the valves during testing and pressure ports allow monitoring the dynamic pressures up and downstream of the valves.

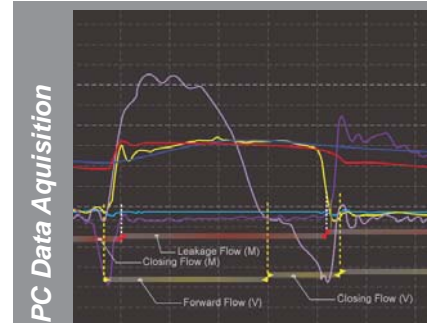
Advantages:

- * Eliminate time consuming re-positioning of transducers and de-bubbling of pressure lines with Scan-Valve with pressure transducers
- * Angled windows assist chamber de-bubbling
- * Test 2, 3, 4, or 6 devices simultaneously
- * Rapidly install and remove test specimens
- * Transparent materials allow for flow and specimen visualization



Hi-Cycle System

The PC Data Acquisition System is designed for acquisition of analog voltage signals generated by pressure and flow instrumentation during the laboratory assessment of prosthetic heart valves. In conjunction with ViViTest software, it can monitor and record pressure, flow and pump signals generated during the hydrodynamic testing of heart valves.



PC Data Acquisition

Services

ViVITRO has been providing testing services for over twenty-five years. Our lab and personnel are well known in the prosthetic heart valve industry and with regulators, as a trustworthy, responsive source of testing.

- Knowledgeable testing personnel to support your research initiatives
- Trustworthy ISO 5840 - compliance testing for both flow and durability
- Stent fatigue testing

For a complete list of products and services please visit www.vivitolabs.com