

MIM Services & Product

Services

- **Stress Analysis on Medical Implantable Devices (FEA&CFD)**
- **Multiaxial Fatigue Safety Computation with in-house Fatigue Stress/Strain Calculator**
- **Component Fatigue Test**

Products

- **Patent Bioprosthetic Heart Valve Leaflet Accelerated Wearing Testor (AWT)**
- **Portable Pulse Duplicator**
- **Temperature-displacement measurement system (Shape memory alloy transformational temperature Tester "Af tester" or Tissue shrinkage temperature tester)**



We Know Mechanics

**8 Whatney, #100, Unit 124
Irvine, CA 92618
Phone: 949.485.2975
Fax: 949.315.3137
E-mail: admin@medicalimplantmech.com**

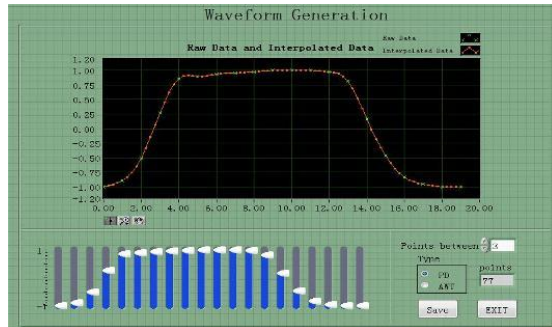
Medical Implant Mechanics LLC

Portable Pulsatile Pump
And Versatile Modular
Pulsatile Pump System



Modular Pulsatile Pump System

Arbitrary Waveform Fluid Pump



Waveform Generation Interface

Overview

This complete cardiac flow pump system is the only compact and portable or modular, configurable Pulse Duplicator system on the market. The patented flow loop is tunneled in a block and is of modular design. The control system is intuitive and allows users to adjust frequency, waveform, amplitude, and fluid temperature. The system is a standing alone electronic driving pump with many options including a user friendly data acquisition module.

Specifications:

Dimensions: Refer to models for details.

Power: 100~240V AC 250 W

Aortic Pressure Range: 30-300mmHg

Simulated Heart Rate: 45-2400 bpm
(Operation frequency 0.75Hz to 40Hz)

Max Stroke Volume: 100ml

Temperature Range: 22°C to 60°C

Accuracy of Temperature: $\pm 1^\circ\text{C}$

Ideal for

- Heart valve testing and design evaluation.
- Product demo.
- Simulated use of cardiovascular devices such as stent, stented graft system and Left Ventricular Assist Device or other educational and research purposes.

Models and Prices

Portable Pump (PP): US\$27,895.00

- Dimension (in inch): 8 x 8 x 12.
- Self sufficient pulsatile pump of most applications.

Base Module (BM): US\$18,895.00

- Dimension (in inch): 6 x 6 x 14.
- Requires a static pump to create back pressure.
- Capable of generating the patient specific pulsatile flow.

Pulse Duplicator Module (PD): US\$39,749.00

- Dimension (in inch): 22 x 12 x 14.
- With addition of a fluid reservoir, valves, compliances and resistance chambers, this model is ISO 5840 compliant.

Complete Module (CPM): US\$58,895.00

- Dimension (in inch): 22 x 12 x 14.
- Top of product line offers all functions that the PDM offers plus two pressure transducers and a flow meter.

Other Options

Data Acquisition System:

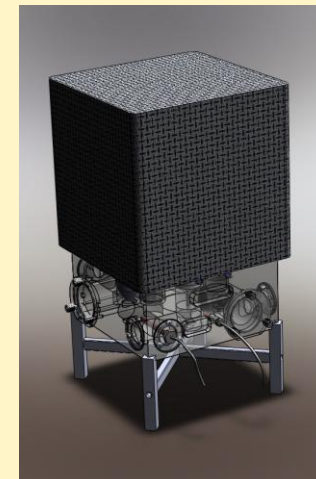
- Offered to all models for a low price of US\$4998.00

Onsite installation with a half day training.

- Offered to all customers
- Call for Quotation

Warranty

All parts are manufactured by MIM and ISO certified vendors. Standard limited one year warranty is offered on all components.



Portable Pulsatile Pump

World's Smallest Pulse Duplicator