

NOMAD

High Flow Pulsatile Pump System

A precision-engineered pulsatile flow system built for R&D and engineering professionals, compact and versatile enough for field demonstrations by sales and marketing teams. Designed to solve the portability problem in pulsatile pumps, it delivers physiological performance in a fully self-contained travel friendly battery-powered package with up to 8 hours of runtime per charge.



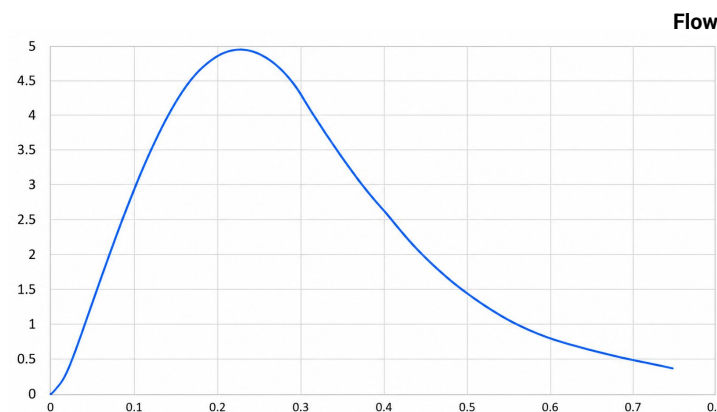
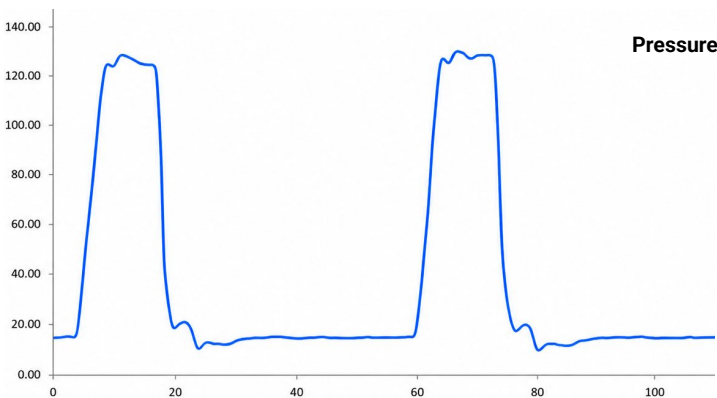
System Features

- Pulse Rate: 0-180 BPM (250ms pulse duration) • Adjustable Flow Power (0-100% or 0-5L/min) • Built-in 1L Reservoir
- Built-in Heater and Temperature Monitor (98.6°F) • Maximum Output Pressure: ~450 mmHg • Travel-Compliant Battery
- 2 Valved Ports (CPC - PLCD 16006) • Low Power Rating 12V System (Power Supply: 14.6VDC 85W)

System Specifications

- Dimensions: (220*176*143)mm • Manufacturing Materials: ABS and Aluminum • System Total Weight: 6lb

Flow and Pressure Waveform Characterization Test



Test Configuration

Pressure and flow testing was performed with the NOMAD connected in a closed-loop configuration using a 12-inch, 3/8-inch ID rigid PVC circuit (pump outlet to inlet). The reservoir was filled with one liter of water, thermally conditioned to 98.6°F (37°C). The system was operated at 60 BPM and 100% Flow Rate.

Pressure waveform data was acquired using the Vascular-Labs DPM (Digital Pressure Monitor). Flow rate data was collected using a multi-sensor array comprising an analog flow meter, a digital flow sensor, and a high-speed camera.



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