ElectroForce® Heart Valve Testing Solutions

DuraPulse™

Setting the standard for accelerated heart valve durability testing

Welcome to **Above & Beyond**™ Support
Industry-leading assistance from application specialists.

Powered by **ElectroForce®** Technology

Your success. Our mission.™

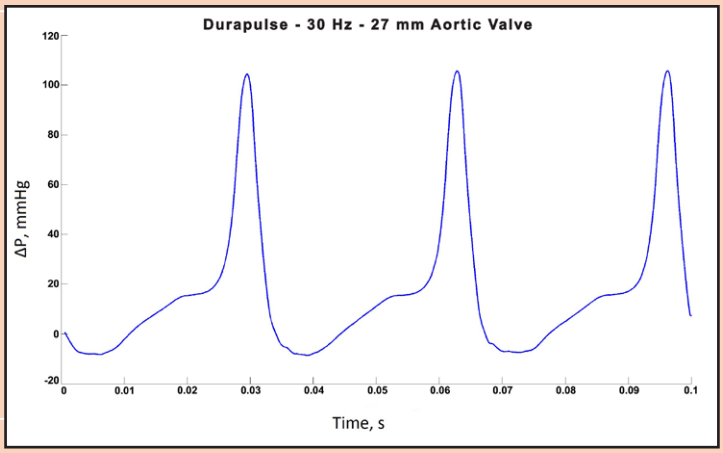
TA | ElectroForce®

The ElectroForce® DuraPulse™ test instrument provides a new level of independent sample pressure control and high-frequency testing capabilities previously unachievable in heart valve durability testing.

Superior waveform control

Automatically adjust settings to main target test conditions while minimizing overshoot of target transvalvular pressures with closed-loop feedback control.

- Reduces time spent on setting and adjusting conditions
- Minimizes potential valve damage from high pressures by keeping overshoot under 10%*



Higher frequencies

Test across a wide range of frequencies with our exclusive chamber design.

- Supports frequencies >30 Hz*
- Helps reduce overall testing time

Independent samples

Each sample is independently controlled, no matter how many are running. Removal or adjustment of one sample does not affect other samples.

Full visibility

Test chambers are fully see-through so users can inspect the test valve from the front, back, and sides. They are also compatible with high-speed imaging techniques.

This instrument complies with ANSI/AAMI/ISO Standard 5840

DuraPulse™

Easy to use

Reduce overall setup and take-down time with:

- Quick-open chambers
- No need to bleed air
- No system tuning
- Fast filling and draining process

Versatile

Test any type of surgical or transcatheter heart valve prosthesis, including:

- Mechanical
- Tissue
- Biomaterial
- Aortic, mitral, pediatric, tricuspid, and pulmonary valves

Reliable

Run tests with the ElectroForce® proprietary motor, which is:

- Friction-free
- Bearing-free
- Proven to run for billions of cycles without maintenance
- Supported by a 10-year warranty

DuraPulse™ System Specifications	
Frequency	15 - 30+ Hz
Temperature	Up to 40° C
Valve Size	Up to 40 mm
Valve differential pressure	Up to 500 mmHg
Number of Samples	2, 4 or 6
Data Acquisition Rate	5 kHz

Consult ElectroForce for custom specifications.

**Actual performance can vary by sample types.*

TA ElectroForce®

Your success. Our mission.™

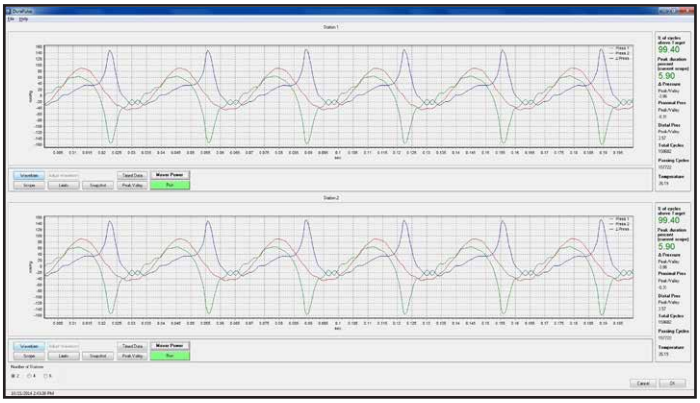
ElectroForce® Heart Valve Testing Solutions

DuraPulse™

The DuraPulse™ test instrument offers you independent sample control, high-frequency testing capabilities, minimal pressure overshoot, and the proven reliability of ElectroForce® test instruments. Find out more at electroforce.tainstruments.com

Application-specific software

The DuraPulse test instrument runs a custom application within the WinTest® software package, which includes quick setup for test conditions and data acquisition, and provides continuous feedback control.



Above & Beyond™ support

Experience industry-leading assistance from application specialists, including a 10-year motor warranty, unlimited phone technical support, protocol development assistance, and free online training sessions.

Comprehensive portfolio of heart valve device and component testing instructments

- Hydrodynamic valve performance
- Linear fatigue testing of materials and components in single-sample and multi-sample configurations
- Radial fatigue testing of valve stent structures
- Axial-torsion testing of catheters and guidewires
- Planar biaxial characterization of valve leaflet materials

Testing Solutions for

Medical Devices · Biomaterials · Engineered Materials

TA ElectroForce®

electroforce.tainstruments.com

Your success. Our mission.™