

Workhorse

Radial Durability Tester



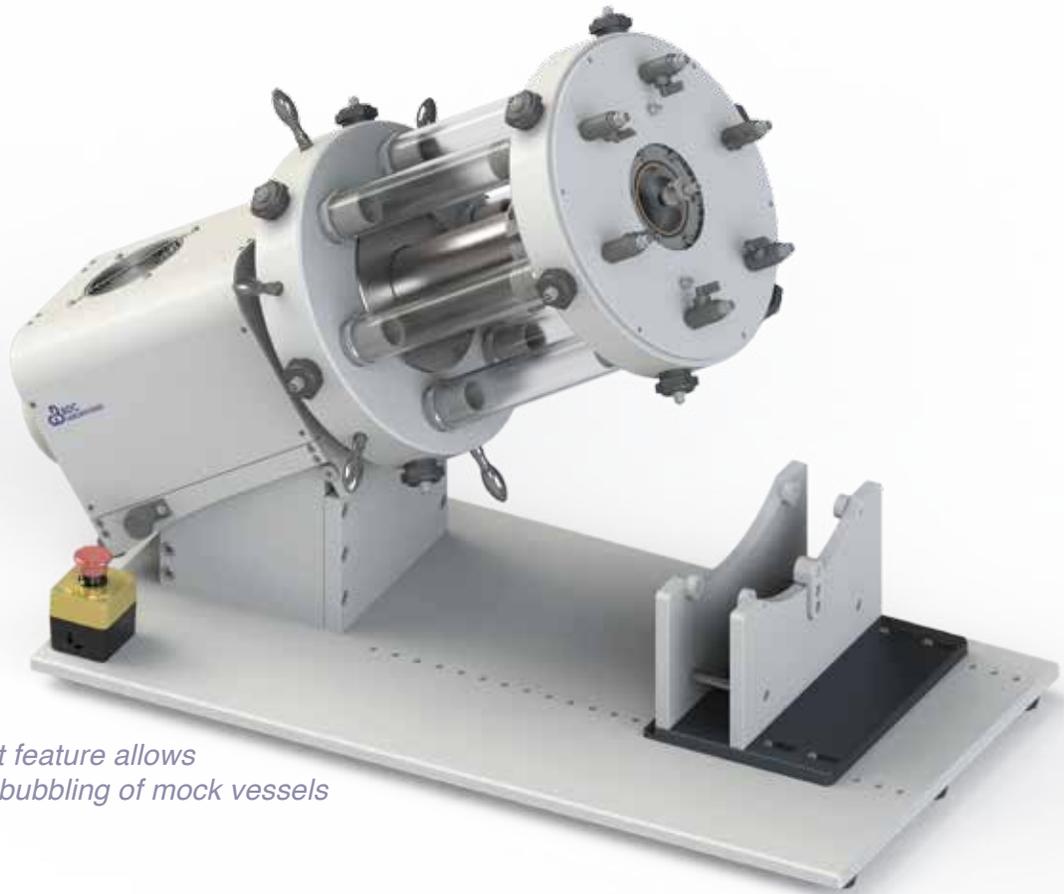
RDTL-0200



Medical Device Testing & Equipment • Simulation Platforms • Silicone Vessels

On critical stent and stent graft durability testing projects, BDC Laboratories' workhorse RDTL-0200 radial durability tester meets – and exceeds – the most stringent performance requirements addressed by ASTM F2477.

The regulatory environment for the pulsatile durability testing of endovascular devices presents challenges in both demanding test conditions and accurate results. The standard 400 million cycle test for such devices calls for precise, rugged, accurate, and reliable platforms that keep running without a break.



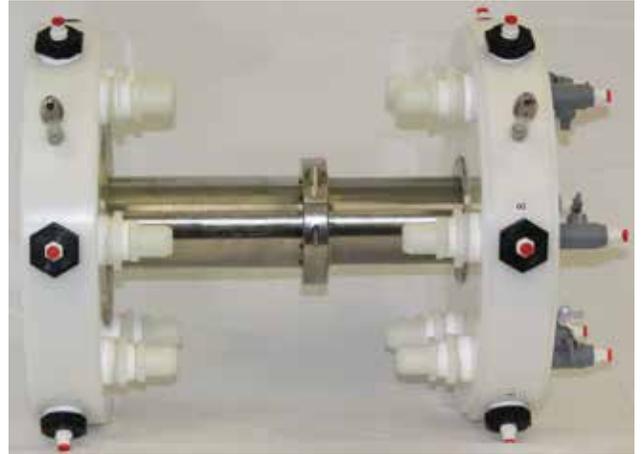
RDTL-0200 tilt feature allows convenient debubbling of mock vessels

Engineered to Perform Reliably and Continuously

BDC Labs' Radial Durability Tester is designed to deliver an unbeatable level of performance at an affordable price. The RDTL-0200 includes the patented RB-5 drive system capable of loading implants of all sizes and is provided standard with a Single Electromagnetic Driver, one set of System Manifolds, a Controller, all DAQ Hardware, a Fluid Reservoir with Circulatory Pump, a Pressure Transducer and Temperature Probe. An optional optical micrometer and additional manifolds for different sized vessels are available. When you're responsible for selecting a reliable durability tester, don't experiment; turn to BDC Labs' patented RDTL-0200 system.

Dual Drive Emulator – Simply Better

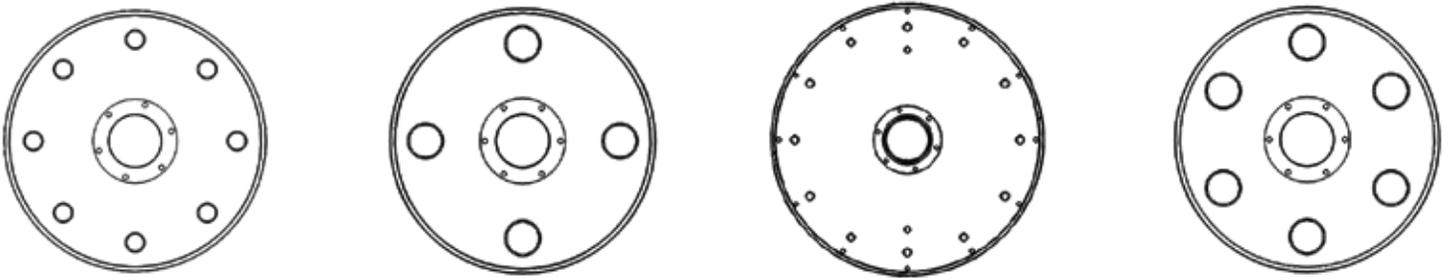
BDC's patented Dual Drive Emulator allows the single motor to drive an excitation pressure wave at either end of the mock vessels concurrently, pressurizing both ends with every cycle and preventing the occurrence of standing waves. With the Dual Drive Emulator, the prosthesis undergoes comparable deflection along its entire length as established by the system response.



Manifolds connected by the Dual Drive Emulator

One Platform – Maximizes Throughput and Return on Investment

The RDTL-0200 features *True Swap™* capability, allowing you to test the full range of stents and stent grafts from 2.5 to 50 mm on the same unit. The manifolds offer 12, 8, 6 and 4 sample positions, depending on the size and geometry of the mock vessel. Simply swap out the manifold alone with the optional manifold you require and eliminate the need to buy separate machines to test different device sizes.



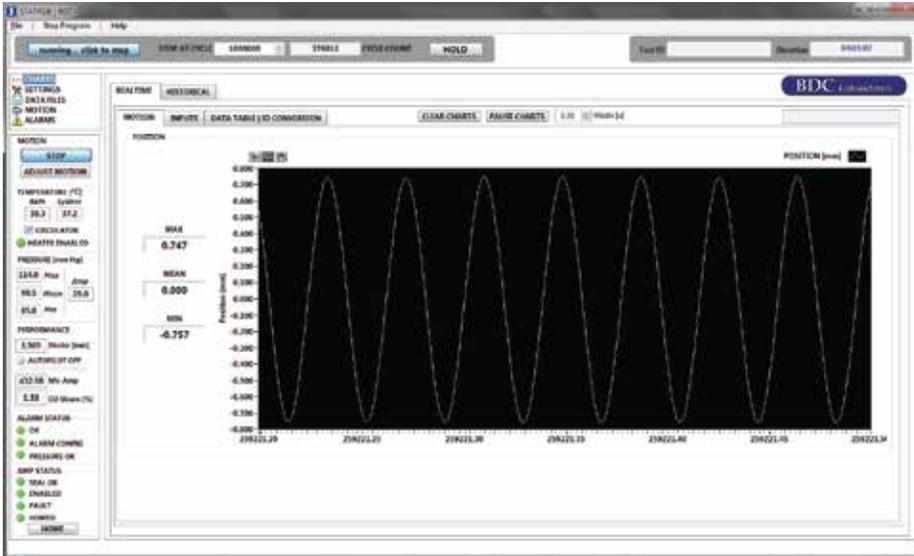
Manifold options with 12, 8, 6, and 4 positions that cover the entire sample size and geometry range.

The RDTL gives you the choice of four manifolds that allows you to test straight, curved or bifurcated prostheses up to 400 mm long. Purchase the manifold for the sample size you need to test now, and later you can purchase another manifold, not a whole new machine. The manifolds are easy to swap with standard tools. If return on investment is important to you, choose the RDTL-0200.



Statys software offers simplicity, ease of use and productivity

The Statys® RDTL closed-loop control and monitoring software program features an intuitive user interface that simplifies every step of your process, making it faster and easier to get from startup to generating results.



Key Software Highlights

- Real-time vessel outer diameter to inner diameter conversion
- Closed-loop control on either dynamic pressure or micrometer measurements
- RB-5 Drive control
- Temperature monitoring
- Test alarm configuration
- Real time data acquisition
- Historical data capture
- Built-in system safety features

Accessories

BDC offers specialized accessories that extend the capabilities and maximize the return on investment of your RDTL-0200 instrument.

Optical Micrometer

An optional optical micrometer for the RDTL-0200 is available for taking accurate dynamic sample distention and strain measurements. Each micrometer accessory comes complete with an optical micrometer transmitter and receiver, controller and power supply.

Micrometer Stand and Linear Stage

The micrometer can be positioned with a Micrometer Stand and Linear Micrometer Stage to measure diametric change anywhere along the sample length. The optional Micrometer Stand and Linear Stage includes the upright support, guide, linear micrometer stage and counterweight.



Micrometer Stand and Linear Stage

Adjustable Manifold Channels

Each pair of manifolds on the RDTL-0200 is connected with a pair of infinitely adjustable telescoping stainless steel channels that allow the manifolds to be secured at any distance from each other to accommodate the specific test samples being evaluated. Additional Adjustable Manifold Channels are available to accommodate the full range of mock vessel lengths.

Low Pressure Regulator



The Low Pressure Regulator is a precision pressure regulator designed for applications that require high resolution such as the RDTL-0200 System. The Regulator features control sensitivity of 1/8" water column, a pressure range of 0-10 psi, and a balanced supply valve to deliver consistent and reliable accuracy to maintain the system desired set point regardless of supply pressure changes or flow conditions.

Silent Air Compressor

The optional Silent Air Compressor is a whisper quiet air compressor featuring an inline regulator and moisture trap with a noise level of a mere 30 dB. The Compressor features a convenient carry handle on top with an operating pressure range of 55-85 psi.



Silicone Mock Vessels

BDC Labs offers certified silicone mock vessels in straight, curved or bifurcated configurations for mounting stents, stent grafts and other cardiovascular devices on the RDTL-0200. Our mock vessels can be fabricated based on wall thickness or compliance to suit your requirements. Qualification can be performed at various pulse pressures to meet your specific requirements (e.g., 160 mmHg/80 mmHg).

Instrument Workstation

This rugged, customizable instrument workstation featuring levelers and all-welded 16 gauge metal tube frame for durability, offers the following options for a tailored configuration:



- Full width handle for easy control when casters are present
- Adjustable, full-width 16 inch deep upper shelf for locating electronics away from possible liquid spills
- Steel 6 inch drawer for small accessories and tools
- A 3-way height-adjustable arm to mount the system flat-screen monitor
- Articulating keyboard with mouse tray
- Fixed, full-depth lower shelf for large accessories and fluid containers
- Lockable casters for a mobile workstation

RDTL-0200 Specifications

Stent/Stent graft diameter	2.5 to 50 mm
Max. test frequency	80 Hz*
Number of samples	up to 20**
Sample configuration	straight, bifurcated 'U,' angled, 90° arch, aneurismal
Diameter measurement	optical micrometer or high speed imaging
Fluid temperature	Up to 50 °C
Power requirements	110 V/ 240 V
Regulatory compliance	complies with ASTM F2477, ISO 25539, and all applicable European Union directives and standards for safety and EMC. CE marked.

*Actual frequency dependent upon sample size/configuration.

**Maximum number of vessels per manifold dependent on diameter/configuration.



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