

DCT Compliance Tester

The patented¹ DCT is a dynamic compliance tester and is used to characterize mechanical properties of synthetic or biological vessels.

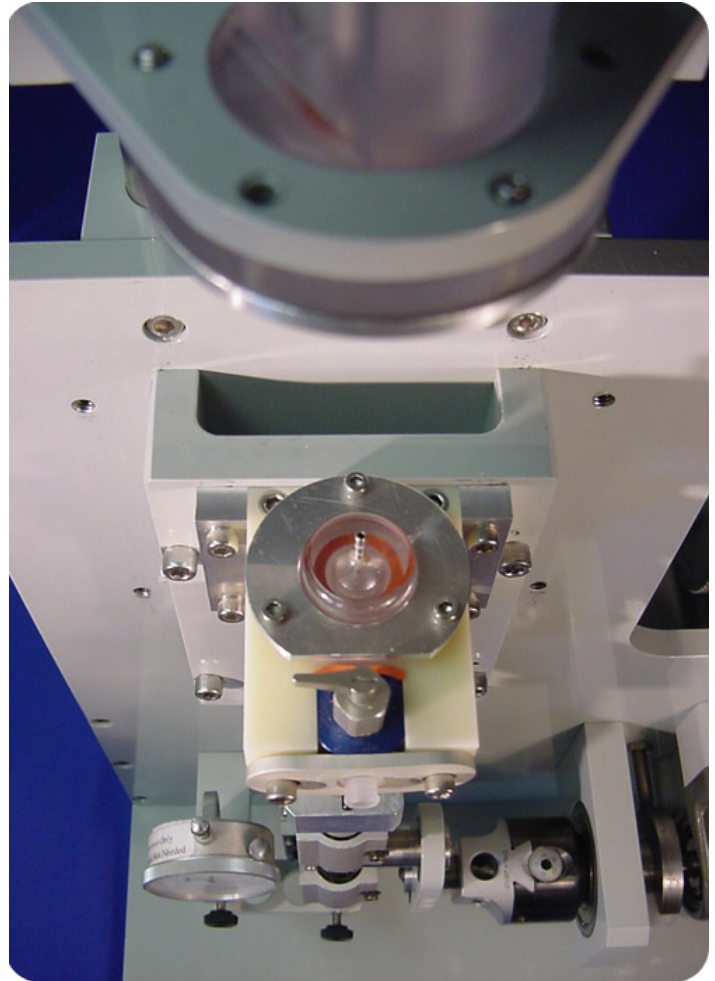
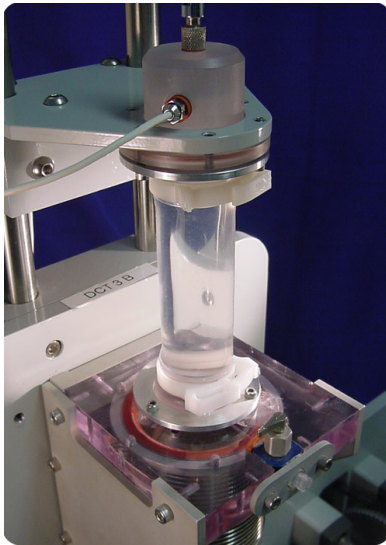
Overview

The DCT uses a calibrated positive displacement mechanism along with pressure and linear voltage to displacement transducers to deliver known volumes and to measure pressures and changes in length. The DCT has a variable speed motor that turns a shaft on which an adjustable eccentric coupler is mounted. The coupler and crank arm assembly converts the rotational motion into linear motion which compresses the bellows. A linear voltage displacement transducer (LVDT) measures the stroke volume of the bellows. The DCT mounting plate and adapters allow for testing of tubes from 1.5 mm ID to 50 mm ID. This instrument allows for the verification of % radial compliance for testing under the FDA guidelines as well as ISO, AAMI and upcoming ASTM test methods. Determining the frequency response of a vessel or vessel containing a stent can be performed using the DCT by measuring the compliance under physiological conditions (72 bpm and 120/80mm Hg) then monitoring the changes in compliance and in pressure with varying frequencies. This will determine what the optimum testing frequency and pressures are.

1 US Patent # 4,972,721

DCT Specifications

- Overall Dimensions: 17" L x 19" W x 41" H
- Power Requirements: 115V AC
- Motor: 1/8 HP
- Dry Weight: 58 lbs.
- Number of Samples: 1
- Length of Vessel: Min 3cm / Max 30cm
- Diameter of Vessel: Min 1.5mm / Max 50mm
- Speed: 0.83 to 30Hz



Advantages of this Tester

- Highly versatile to accommodate a large range of sizes.
- Accurate frequency control.
- Adjustable pressure differentials.
- Ability to measure both radial and length compliance.
- Monitors change in compliance with change in frequency.
- Tests biological or synthetic materials.
- Measures the device and vessel combination.

Limited one year on tester and controller, three months on precision bellows. Extended warranties available upon request.

To receive a customized proposal, contact us today at:

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