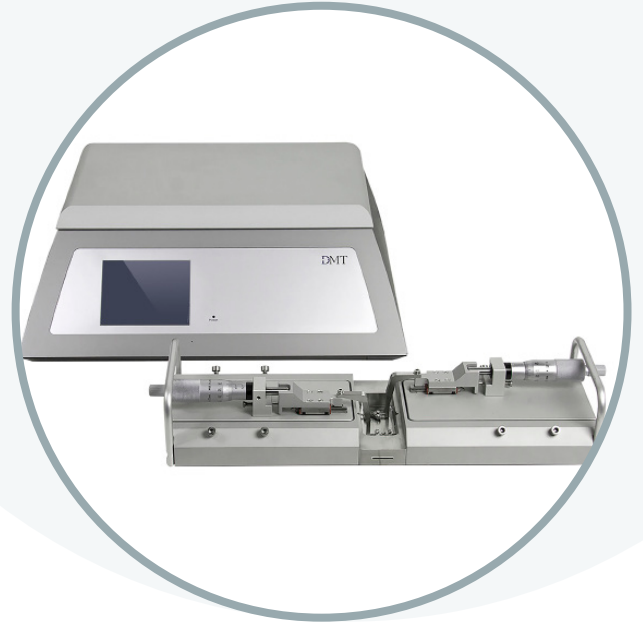


- Manually operated micropositioners for accurate tension control
- Chamber can be easily divided to keep 2 mounted samples separate
- Glass windows in chamber base facilitates morphological or fluorescence measurements
- Digital output. Data directly piped into Labchart Pro



The Dual Wire Myograph System - 420A is designed for simultaneous testing of two vessels with diameters of 30 μm - 3 mm, independently. The vessels are mounted as ring preparations by threading them over two parallel wires and securing the wires to two supports or "jaws". One support is attached to a precision micrometer, allowing manual control of vessel circumference and stretch. The other support is attached to a force transducer for measurement of force/tension development.

The base of the chamber contains glass windows allowing morphological observations or fluorescence measurements on an inverted microscope. Typically, the preparation is kept in the heated vessel chamber in a physiological salt solution at 37°C, bubbled with oxygen where the vessels remain viable for up to 12 hours.

The preparation is mounted in a heated 10 ml acid-resistant stainless steel chamber, which can be covered with a lid with ports for rapid suction/draining, refilling and bubbling of oxygen supply. Following mounting and equilibration, the passive length-tension relationship of the vessel is determined. During the actual experiment, the circumference of the vessel is kept constant. Compounds can be added directly to the chamber, and the vessel's contractility and reactivity are measured under isometric conditions.

In the Dual Wire Myograph System - 420A, the chamber can be divided for independent testing of each vessel. The two vessels also can be mounted in a single chamber by removing the divider. This allows direct comparative studies of vessels from treated/untreated conditions or diseased vs. healthy patient samples, for example, by exposing the vessels to identical concentrations of drug or compound. It is thus possible to examine whether a given pathological state is associated with altered morphology or reactivity.

As an option, an electronic valve can be added to the system for easy control and emptying of the chamber.

The Wire Interface with touch screen makes it easy to set up and use. Furthermore, the Wire Interface is compatible with the DMT Device Enabler allowing automatic recognition of supported devices by LabChart, use of multiple devices simultaneously, correct units and ranges in LabChart channels and simultaneous recording of data into LabChart alongside a PowerLab. The DMT Device Enabler allows the Dual Wire Myograph System - 420A to stream data directly into LabChart.



DUAL WIRE MYOGRAPH SYSTEM - 420A

CHAMBER:

Chamber volume (min)	2.7 ml
Chamber(s)	2
Chamber material	Acid resistant stainless steel
Vessel size	>30 μ m
Vessel normalization	Manually
Micrometer resolution	0.01 mm
Mounting type	Jaws

TEMPERATURE:

Range	15.0 to 50.0 $^{\circ}$ C
Resolution	0.1 $^{\circ}$ C
Stability	\pm 0.2 $^{\circ}$ C
Heating	Yes

TRANSDUCER:

Output reading	mN
Range	\pm 200 mN
Resolution	0.01 mN
Force calibration	Yes

OUTPUT:

Data communication	USB 2.0
Analogue output channels	4
Analogue output range	\pm 2.5 V

