

# PRESSURE MYOGRAPH FOR RAPID FREEZING - 115FP

- Ideal for rapid freezing or fixation of vessel segments for biochemical or morphological assays after the functional experiment
- Flexible for studying the structure and function of small vessels from  $>40\ \mu\text{m}$  with the ability to rapidly freeze/fix the vessel in the pressurized state
- Features a special chamber made of POM to withstand low temperatures and fixatives
- Built-in heating, ideal for pharmacological reactivity work



The Pressure Myograph System - 115FP is designed for biochemical or morphological studies where rapid freezing or fixing of the intact, pressurized vessel is required. After rapid freezing or fixation, the vessel can be used in studies such as morphological analysis or immunohistochemistry.

A built-in heating system maintains the chamber temperature, eliminating the need for continuous (and often costly) superfusion. The chamber cover includes ports for superfusion, for rapid draining and filling, for cumulative addition of drugs and for oxygenation. To facilitate cleaning, the chamber is made of acid resistant stainless steel.

Because of the nature of the technique, physiological responses such as the myogenic response can be measured. Data such as vessel wall thickness, changes in vessel and lumen diameter can be collected.

The experimental chamber is made of stainless steel and contains a window at the base of the chamber, allowing the vessel to be digitized for dimension analysis. The adjoining removable chamber is used for freezing or fixation. Rapid freezing or fixation is achieved by simply raising the segment holder with the mounted vessel to the POM chamber, which takes less than a second.

This chamber can be included as part of a complete set-up or can be an add-on chamber to the 112PP or 114P system.

### The Acquisition & Analysis Package

The DMT Inverted Microscope, inverted Zeiss, Nikon, or similar microscopes (contact DMT for further specifications) with USB camera, computer and data acquisition software - MyoVIEW.



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## CHAMBER:

Chamber volume (min)	5.3 ml
Chamber(s)	1
Chamber material	Acid resistant stainless steel
Vessel size	>40 $\mu$ m
Vessel alignment	X, Y, Z
Micrometer resolution	0.01 mm
Mounting type	Cannulas

## TEMPERATURE:

Range	15.0 to 50.0 °C
Resolution	0.1 °C
Stability	$\pm$ 0.2 °C
Heating	Yes

## TRANSDUCER PRESSURE:

Output reading	mmHg
Range	0 - 250 mmHg
Pressure stability	$\pm$ 0.5 mmHg
Resolution	0.1 mmHg

## RESERVOIR:

Heated	Yes
Capacity	250 ml
Pressure circuit	Closed
Air inlet	1 bar (max)

## OUTPUT:

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

