

- Multifunctional purpose - tubular or strip segments
- Acid resistant stainless steel chamber (avoid lipids/ compounds sticking)
- Ring mounted tissue >500µm
- Strip mount muscle <20mm
- Low chamber volume



The DMT Organ Bath is a comprehensive system used for contractile studies of isolated smooth, skeletal, or cardiac tissue. In a controlled environment, tissue segments are kept in a heated and oxygenated perfusate to maintain tissue viability, and contraction and relaxation are measured using isometric force transducers.

With different types of mounts, tissue such as aortic rings, trachea, veins, uterine, colon, ileum, diaphragm (and many more) are submerged in a >8 ml chamber and kept in a heated perfusate. One end is attached to a force transducer and the other end to a micrometer. The micrometer enables the accurate setting of pre-load while sensitive force transducers provide the isometric measurement of vessel or muscle contractions.

Following mounting and equilibration, the length-tension relationships of the tissue can be determined. During the experiment, the length of the muscle is kept constant, and compounds can be added directly to the chamber to assess function.

There is no longer a need to physically change transducers as the 820MO is equipped with selectable force ranges on the transducer. Simply select the range that gives the most sensitive data collection for various tissue types. The rectangular chamber shape is made of acid-resistant stainless steel, which prevents lipids from sticking to the surface.

Whether rings or strips (>20 mm) are used, the mounting is simplified as the chambers can be easily moved to a dissection microscope for quick tissue mounting. If electrical stimulation is part of the protocol, electrodes for field stimulation or direct stimulation are available.

The design and materials used for the chambers make maintenance and cleaning as minimal as possible. Preparing the system for experimentation takes no time, and cleaning at the end of the experiment is a matter of a few water washes. The aluminum and stainless steel in the chambers do not require detailed cleaning procedures and will stand up to heavy use.

This DMT Organ Bath is well suited to work in combination with the Automatic Buffer Filler System - 625FS, making it ideal for work requiring high-throughput screening, such as drug testing, or experiments requiring the separation of tissue preparations in individual baths.

