

SUBMERSIBLE SIDE ACTION GRIPS AND TEMPERATURE-CONTROLLED BIOBATH

The submersible pneumatic side action grips and temperature controlled BioBath are the ideal solution for a wide variety of biomedical testing applications, such as hydrogels, contact lenses, native tissue and fibers. These ultra-lightweight grips are pneumatically driven for easy specimen loading and to prevent slippage during the test. Interchangeable jaw faces make these grips adaptable to a wide range of testing needs.

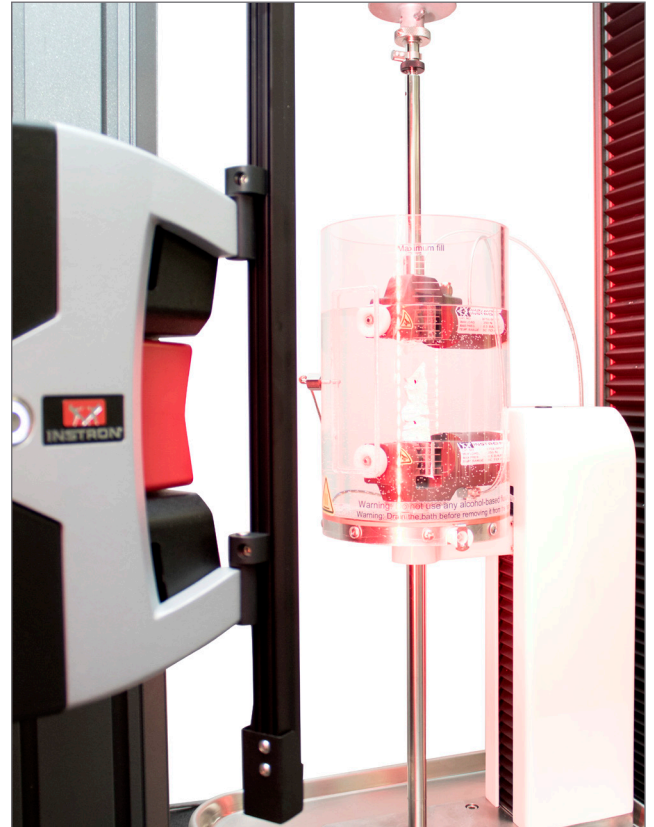
The temperature-controlled BioBath accurately simulates in vivo conditions for biomedical testing. The bath is easily raised and lowered using a pneumatic mechanism that increases productivity and minimizes the risk of spilling fluid on the surrounding test equipment. The BioBath was specifically designed for compatibility with our video extensometers, providing unparalleled accuracy in strain measurement.

GRIP FEATURES

- Rated capacity: 250 N
- Compatible with 5.0 N load cell
- Open front design to facilitate specimen loading
- Pneumatic clamping to reduce specimen slippage
- Automatic air kit or footswitch for easy, hands-free specimen loading and increased efficiency
- Interchangeable jaw faces and adjustable gripping force to accommodate a variety of specimens and testing requirements
- Upper pull-rod designed to minimize buoyancy changes during testing
- Minimal maintenance and cleaning

BATH FEATURES

- Uses distilled water or saline solution
- Easy-to-use pneumatic mechanism smoothly raises and lowers the bath
- Accurate closed-loop control of bath temperature at $+37^{\circ}\text{C} \pm 1^{\circ}\text{C}$
- Compatible with the Standard and Advanced Video Extensometers (SVE2 and AVE2) for axial strain measurements
- Axial strain measurement verification possible
- Maximum travel using video extensometer: 100 mm with 25 mm grip separation and 10 mm gauge length marking
- Maximum travel within bath: 80 mm with pneumatic submersible grips and 25 mm grip separation
- Easy drainage
- Protective cover provided to shield machine from fluid spillage



PRINCIPLE OF OPERATION

Pneumatic grips allow hands free operation and maintain appropriate clamping pressure even as the specimen thickness changes. The gripping force can be adjusted to accommodate different material types, even those that are often difficult to hold. Jaw faces are interchangeable to suit various materials. Surfalloy faces simulate 100-grit sandpaper and are usually best for thin and low force specimens, while serrated faces are recommended for thicker, higher strength tissues and plastics.

The pneumatically powered lifting mechanism of the BioBath uses a small hand lever to raise and lower the heated bath at a user-adjustable speed. The lower pull-rod has a Dehrlin slider and seal which allows repetitive lifting and lowering without leakage. A durable, protective cover shields the machine from any spillage that may occur during preparation, testing or clean-up. The temperature controller has an accuracy within $\pm 1.0^{\circ}\text{C}$ of the desired temperature reading and is CE certified to EN 61326-1.

GRIPS

Catalog Number	2752-005
Description	Submersible Pneumatic Grips
Maximum Capacity	250 N (25.5 kfg, 56.2 lbf)
Composition	Teflon sealed, hard-coated aluminum
Weight Per Grip	400 g (0.88 lb)
Weight Per Grip Fully Submersed	277 g (0.61 lb)
Temperature Range	+5 °C to +65 °C (+40 °F to +150 °F)
Clamping Force	40 N per 10 psi of supply
Maximum Operating Pressure	8.5-Bar (120 psi)
Working Principle	Single cylinder pneumatic side clamping

Mechanical Connection

Upper Fitting	Single M6 screw to upper pull rod (Type Om optional)
Lower Fitting	Single M6 Screw to lower pull rod (Type Om optional)

Notes:

1. Grip catalog number provides two grips.
2. Grips require a coupling to connect to load cell or machine base without pullrods.
3. Grips require a footswitch to operate.
4. Catalog number does not include grip faces.

BIOBATH

Catalog Number	3130-100
Description	Temperature-Controlled bath with pneumatic lifting and lowering mechanism
Temperature Range	Ambient to +40 °C
Frame Compatibility	6800, 3400, 5900, 3300 & 5500 (except for 500N capacity frames); ElectroPuls frames
Vertical Bath Travel	200 mm
Time to Heat Water from +22 °C to +37 °C	Approximately 30 minutes
Bath Volume to Fill Line	3.1 Liters
Bath Inner Diameter	5.5 in
Controller Supply Power	120 VAC to 240 VAC 50/60 Hz

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