



Bionix® EnviroBath

Accurately and efficiently test a wide range of biomedical specimens in fluids heated to body temperatures

- » Available in 1-, 6- and 10-liter volume configurations
- » Supports saline (standard) and protein-based (optional) fluids
- » Compatible with a broad selection of Bionix grips and fixtures
- » Compatible with both static and dynamic frame hardware
- » Supports low force, high force and torsional test applications
- » Compatible with video or laser extensometers
- » Optional horizontal configuration
- » Optional sprayer

Versatile and easy-to-use, MTS' Bionix EnviroBath facilitates the efficient and accurate mechanical testing of biomedical and general material specimens in fluids heated to body temperatures.

The EnviroBath is designed to streamline biomaterial and component test operations. Convenient, leak-proof front and back access panels enable the easy installation and change out of grips, fixtures and test specimens. Filling and draining the EnviroBath is both controlled and quick, and easy disassembly simplifies cleaning and regular maintenance. A highly reliable fluid temperature control system ensures that specimen temperatures remain constant throughout the duration of the test.

The versatile EnviroBath is available in a variety of volume configurations to accommodate a wide range of test requirements and specimen sizes. A universal adapter design ensures full compatibility with MTS electromechanical, electrodynamic and servohydraulic load frames, a wide variety of Bionix grips and fixtures and even electromechanical test systems from other manufacturers.

A host of optional features further extend the utility of the EnviroBath; these include a protein-based fluid handling system and bath-mounted temperature monitoring.

Contact MTS today to learn how the versatile, easy-to-use and reliable Bionix EnviroBath can help you address a full spectrum of biomedical and general material mechanical testing requirements.

be certain.

EASY-TO-USE

- » Easy to install/change out grips, fixtures and specimens
- » Convenient front and back access panels
- » Quick, controlled fill and drain
- » Easy to disassemble, clean and maintain

RELIABLE

- » Precision fluid temperature control system
- » Optional bath-mounted digital temperature monitor
- » Leak-proof sealing

General Specifications

| Temperature | Optional Features | 1 liter | 6 liter | 10 liter |
|------------------------------------|-----------------------------|---------|---------|----------|
| Range: 5°C above ambient to 40°C | Sprayer Option | | √ | √ |
| Stability: ±2°C at 37°C | Protein-Based Fluid | √ | √ | √ |
| | Horizontal | √ | √ | |
| Power (V AC, Hz, A) Options | Digital Temperature Monitor | √ | √ | √ |
| 120 V AC, 60 Hz, 11 A | Upper Pull Rod (SST) | √ | √ | √ |
| 240 V AC, 50 Hz, 10 A | | | | |

| Volume | Axial Force | Torsional Force | Internal Dimensions WXHXD | External Dimensions WXHXD |
|----------|-------------|-----------------|---|--|
| 1 liter | 2.4 kN | 28 N.m | 100 x 200 x 56 mm 4 x 8 x 2.2 in | 180 x 295 x 95 mm 7 x 11.5 x 3.65 in |
| 6 liter | 2.4 kN | 28 N.m | 130 x 480 x 100 mm 5 x 19 x 3.9 in | 205 x 575 x 140 mm 8 x 22.5 x 5.5 in |
| 10 liter | 10 kN | 100 N.m | 215 x 305 x 150 mm 8.5 x 12 x 5.8 in | 295 x 395 x 190 mm 11.5 x 15.5 x 7.4 in |

Compatibility Matrix*

| Grips and Fixtures | 1 liter | 6 liter | 10 liter | Part Number |
|---|---------|---------|----------|--|
| Bionix Vise Action Grips, 100 N | √ | √ | √ | 100-186-411 |
| Model 642.001 Bend Fixture (SST) | √ | √ | √ | 100-201-458 (E/M) 100-201-456 (S/H & E/D) |
| Bionix Manual Thumb Screw Grip, 100 N | √ | √ | √ | 100-167-987 |
| Bionix Compression Platens, 40 mm | √ | √ | √ | 100-203-455 |
| Bionix Spring Action Grips | | √ | √ | 056-077-50x |
| Bionix Compression Platens, 50 mm | | √ | √ | 100-182-229 |
| Bionix Vise Action Grips, 2 kN | | √ | √ | 100-174-783 |
| Bionix Roller Action Grips, 1 kN | | √ | √ | 100-185-262 |
| Model 642.01 Bend Fixture (SST) | | | √ | 100-203-454 (E/M) 100-203-453 (S/H & E/D) |
| Bionix Compression Platens, 100 mm | | | √ | 100-182-227 |
| Model 686.01A-31 Axial Torsional Grips (SST) | | | √ | 051-882-201 |

Note: EnviroBath 10 is compatible with customer-supplied spinal fixture per ASTM F1717-01.

Some grips available in titanium. Contact MTS for additional information.

* Vertical orientation

| Electromechanical Load Frames | 1 liter | 6 liter | 10 liter |
|---|-------------|-------------|-------------|
| MTS Single Column Standard Length | √ | | √ |
| MTS Single Column Extended Length | √ | √ | √ |
| MTS Dual Column Standard and Extended Length | √ | √ | √ |
| Legacy MTS load frames and Instron E/M load frames | Contact MTS | Contact MTS | Contact MTS |

| Electrodynamic Load Frames | 1 liter | 6 liter | 10 liter |
|----------------------------|---------|---------|----------|
| MTS Acumen 1 | √ | | √ |
| MTS Acumen 3 | √ | | √ |
| MTS Acumen 3 A/T | √ | | √ |
| MTS Acumen 12 | √ | √ | √ |
| MTS Acumen 12 A/T | √ | | √ |

| Servo-hydraulic Load Frames | 1 liter | 6 liter | 10 liter |
|---|-------------|-------------|-------------|
| Bionix Tabletop Axial or Axial/Torsional | √1 | √1, 2 | √ |
| MTS Landmark™ 3 | √ | √ | √ |
| Legacy MTS load frames3 | Contact MTS | Contact MTS | Contact MTS |

1 Additional adapter required.

2 Extended columns required.

3 Cross-head mounted actuator.

Specifications subject to change without notice.

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The Bionix EnviroBath is easy to disassemble, clean and maintain.



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