





# 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.

# 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	
Range:	5°C above ambient to 40°C
Stahility:	+2°C at 37°C

# Power (V AC, Hz, A) Options

120 V AC, 60 Hz, 11 A 240 V AC, 50 Hz, 10 A

Optional Features	1 liter	6 liter	10 liter
Sprayer Option		$\sqrt{}$	$\sqrt{}$
Protein-Based Fluid	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Horizontal	$\sqrt{}$	$\sqrt{}$	
Digital Temperature Monito	or √	$\sqrt{}$	$\sqrt{}$
Upper Pull Rod (SST)	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$

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

# 6 Liter 10 Liter 1 Liter

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



# **MTS Systems Corporation**

14000 Technology Drive Eden Prairie, MN 55344-2290 USA

Telephone: 1-952-937-4000 Toll Free: 1-800-328-2255 Fax: 1-952-937-4515 E-mail: info@mts.com www.mts.com ISO 9001 Certified QMS

# 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)	V	$\sqrt{}$	$\sqrt{}$	100-201-458 (E/M) 100-201-456 (S/H & E/D)
Bionix Manual Thumb Screw Grip, 100 N	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	100-167-987
Bionix Compression Platens, 40 mm	$\sqrt{}$		$\sqrt{}$	100-203-455
Bionix Spring Action Grips		$\sqrt{}$	$\sqrt{}$	056-077-50x
Bionix Compression Platens, 50 mm			$\sqrt{}$	100-182-229
Bionix Vise Action Grips, 2 kN		$\sqrt{}$	$\sqrt{}$	100-174-783
Bionix Roller Action Grips, 1 kN		$\sqrt{}$	$\sqrt{}$	100-185-262
Model 642.01 Bend Fixture (SST)			$\sqrt{}$	100-203-454 (E/M) 100-203-453 (S/H & E/D)
Bionix Compression Platens, 100 mm			$\sqrt{}$	100-182-227
Model 686.01A-31 Axial Torsional Grips (SST)			$\sqrt{}$	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.

<sup>\*</sup> Vertical orientation

Electromechanical Load Frames	1 liter	6 liter	10 liter
MTS Single Column Standard Length	√		√
MTS Single Column Extended Length	$\sqrt{}$	$\checkmark$	$\sqrt{}$
MTS Dual Column Standard and Extended Length	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
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	$\sqrt{}$		$\sqrt{}$
MTS Acumen 3			$\sqrt{}$

Servohydraulic Load Frames	1 liter	6 liter	10 liter
Bionix Tabletop Axial or Axial/Torsional	√1	√1,2	$\sqrt{}$
MTS Landmark™3	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Legacy MTS load frames <sup>3</sup>	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.

MTS and Bionix are registered trademarks and MTS Criterion and MTS Acumen are trademarks of MTS Systems Corporation in the United States. These trademarks may be protected in other countries. RTM No. 211177.

Instron is a registered trademark of Instron Corporation.

© 2015 MTS Systems Corporation.

100-208-674d EnviroBath Printed in U.S.A. 7/15