



MTS Bionix® Accessories

Affordable grips, fixtures, platens and baths for mechanical testing of biomedical specimens

Bionix Accessories support a full spectrum of biomaterial, medical device component, and medical packaging and consumables testing.

- » Affordable and durable
- » Stainless steel – suitable for saline environmental baths
- » Universal adapter design and optional threaded frame adapters for easy installation
- » Anti-rotation features and integrated alignment pins for test accuracy and repeatability

MTS has expanded its Bionix Accessories family to include a new selection of affordable and extremely durable components for accurately replicating biomaterial and medical device service environments. Comprising a variety of grips, fixtures and compression platens, these new accessories provide Bionix electromechanical test system users with a complete set of tools for conducting monotonic testing of biomaterials, medical device components and medical packaging and consumables.

MTS Bionix Accessories are engineered from the highest-quality materials to deliver years of accurate and efficient monotonic testing. Built of durable stainless steel, they can be safely deployed within saline environmental baths. A universal adapter design facilitates easy installation onto both electromechanical and servohydraulic MTS load frame

systems, as well as other electromechanical frames. Optional threaded frame adapters further enhance installation versatility. Integrated anti-rotation features and alignment pins ensure testing accuracy and repeatability.

Establishing a high-quality interface with specimens is one of the challenges to performing meaningful monotonic testing of biomaterials and components. The addition of new Bionix grips, fixtures and platens provides labs with a wider choice of accessories to more effectively – and economically – engage a greater variety of specimens and better meet the requirements of specific tests.

Contact MTS today to learn how the Bionix family of grips, fixtures, platens, baths and environmental chambers can meet your demanding biomedical testing needs.

Bionix Vise Action Grips

Bionix Vise Action Grips are value-priced, miniature, medium- and heavy-duty general purpose tensile grips that use a clamping screw to tighten a vise; each order includes a set of rubber faces. Available in a variety of load capacities and sizes, they are suitable for testing bandages, biotextiles, diapers and plastic films at temperatures ranging from -10° to 50° C.

FEATURES

- » Stainless steel – suitable for saline environmental bath
- » Set of rubber faces standard with each order
- » Universal adapter design
- » Optional threaded frame adapter
- » Anti-rotation features and integrated alignment pins
- » Temperature Range: -10° to 50° C
- » Applications: Bandages, biotextiles, diapers, plastic films



Bionix Manual Bollard Style Grips

Bionix Manual Bollard Grips are value-priced, “horn” style grips designed to reduce stress concentration on specimens and avoid grip-induced failures. They are suitable for testing cords, filaments, fibers, fine wire and yarns at temperatures ranging from -130° to 250° C.

FEATURES

- » “Horn” style design
- » Universal adapter design
- » Optional threaded frame adapter
- » Anti-rotation features and integrated alignment pins
- » Temperature Range: -130° to 250° C
- » Applications: Cords, filaments, fibers, fine wire, yarns



Bionix Scissors Action Grips

Bionix Scissors Action Grips are value-priced, self-tightening and self-aligning grips featuring diamond grip faces. They are suitable for testing irregular biomaterials, bone, cartilage, tendons and replacement biomedical components at temperatures ranging from -130° to 250° C.

FEATURES

- » Stainless steel – suitable for saline environmental bath
- » Self-tightening and self-aligning
- » Diamond grip faces
- » Universal adapter design
- » Optional threaded frame adapter
- » Anti-rotation features and integrated alignment pins
- » Temperature Range: -130° to 250° C
- » Applications: Irregular biomaterial, bone, cartilage, tendons, replacement biomedical components



Bionix Roller Action Grips

Versatile Bionix Roller Action Grips are value-priced, quick-loading and self-tightening roller grips. They are suitable for testing bandages, biotextiles, diapers, synthetics and flexible polymers at temperatures ranging from -10° to 50° C for the 1 kN grips, and -130° to 250° C for the 2 kN and 5 kN grips.

FEATURES

- » Quick-loading, self-tightening
- » Universal adapter design
- » Optional threaded frame adapter
- » Anti-rotation features and integrated alignment pins
- » Temperature Range: -10° to 50° C for 1 kN; -130° to 250° C for 2 and 5 kN
- » Applications: Bandages, biotextiles, diapers, synthetics, flexible polymers



Bionix Spring Action Grips

Bionix Spring Action Grips are a reliable and economical choice for low-force biomedical testing applications. Available with a variety of mounting threads and jaw surfaces, these lightweight grips are suitable for testing films, papers and textiles at temperatures ranging from -75° to 200° C. All Bionix Spring Action Grip sets include two grip assemblies, two spare springs, two spare wires for link pin retainers, experimental jaw pad materials and shipping case.

FEATURES

- » Stainless steel – suitable for saline environmental bath
- » Available with a variety of mounting threads and jaw surfaces
- » Spring action follow-through accommodates specimen neckdown
- » Faces pivot for self alignment and reduced likelihood of breakage at the specimen/face contact
- » Temperature Range: -75° to 200° C
- » Applications: Films, papers, textiles



Model 10A,
fully open



Model 10B,
(with rubber face)
jaws parallel



Model 10A,
jaws parallel



Model 10B,
fully open



Model 10B,
(with rubber face)
fully open



Model 10B
(with no rubber
face material),
jaws parallel

Bionix Stainless Steel Compression Platens

Bionix Stainless Steel Compression Platens are value-priced, compression platens with precision-ground, hardened surfaces. Available in a variety of sizes, they are suitable for testing biomaterials, bone, cartilage, tendons and replacement biomedical components at temperatures ranging from -130° to 250° C.

FEATURES

- » Stainless steel – suitable for saline environmental bath
- » Precision-ground, hardened surface
- » Universal adapter design
- » Optional threaded frame adapter
- » Specimen centering grooves
- » Anti-rotation features and integrated alignment pins
- » Temperature Range: -130° to 250° C
- » Applications: Irregular biomaterial, bone, cartilage, tendons, replacement biomedical components



Bionix EnviroBath

Versatile and easy-to-use, the Bionix EnviroBath facilitates the efficient and accurate mechanical testing of biomedical and general material specimens in fluids heated to body temperatures. Designed to streamline biomaterial and component test operations, the EnviroBath features convenient, leak-proof front and back access panels enabling easy installation and change out of grips, fixtures and test specimens. Filling and draining the EnviroBath is 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

and servohydraulic load frames, a wide variety of Bionix grips and fixtures and even electromechanical test systems from other manufacturers.

FEATURES

- » Available in 1-, 6- and 10-liter volume configurations
- » Compatible with a broad selection of Bionix grips and fixtures
- » Compatible with electromechanical and servohydraulic test systems
- » Supports saline (standard) and protein-based (optional) fluids
- » Reliable fluid temperature control system
- » Optional horizontal configuration
- » Optional bath-mounted digital temperature monitor
- » Compatible with video or laser extensometers
- » Optional sprayer



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For full product specifications, please refer to the MTS Services and Accessories Catalog.

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