PLANAR BIAXIAL BIO TESTER
BLF-04-0100

Testing and validation of biomaterials used in medical implants and devices is crucial to assure performance and durability. In case of artificial tissues/live tissues, biaxial testing is necessary to negate the effects of mechanical anisotropy inherent in these materials. For this, Instron provides a unique solution through its high precision and modular BLF-XXX Planar Biaxial System. This system is ideally designed for testing of a wide range of materials ranging from polymers, rubbers to animal skin and thus is an ideal instrument for industrial research and development. The BLF-XXX system is well- suited to perform mechanical testing on animal/human or other tissue samples which makes it an attractive instrument for tissue engineering, mechanobiology and regenerative medicine research labs.

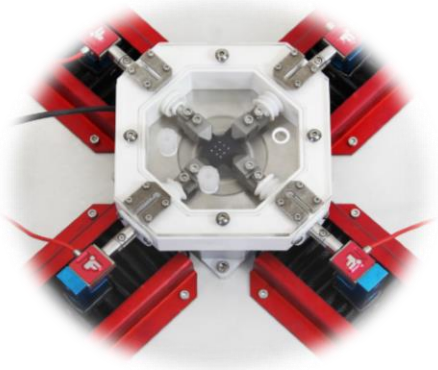
Bioreactor

BLF-XXX is compatible with B6-70T bioreactor for testing under liquid conditions or cell and tissue culture experiments.

- Fully integrated standalone systems rated from100 N
- 50 N force rating chamber fabricated from bioinert materials compatib
- Unique sample lock feature that permits optical microscopic evaluatior
- Allows tension or compression experiments with same chamber
- Easy to assemble, mount and perform biaxial tests maintaining sterility
- Multiple ports to allow media flow around the sample

Grip Options

- Wide variety of grips available including wedge grips, screw action grips and hook/suture grips
- All grips are autoclave and UV sterilization compatible
- Custom grips based on user requirement can also be made as optional items



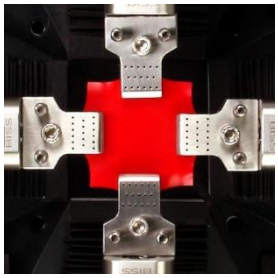
Planar biaxial system bioreactor

Mechanical Stimulator

BLF-XXX is available with upto 500N capacity configurations for wide variety of applications

- High stiffness load frame
- Integrated servo-electric actuators for precision loading
- Can be operated in load and displacement control modes

- Static and dynamic testing can be performed
- Intelligent design with small footprint ensures compatibility with any standard incubators operating at +10°C to +38°C and 95% humidity

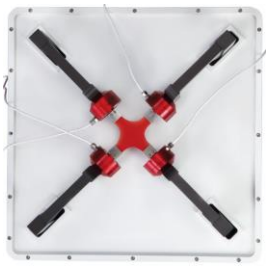


Clamp Type Grip

Control System and 'Growthworks' Software

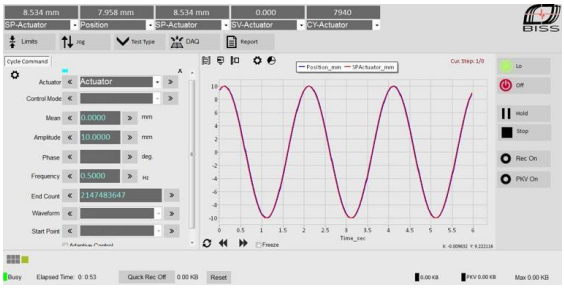
Simple, adaptable and modular GrowthWorks Package provides an ideal control for tissue testing and culture.

- Controller configured for biaxial testing with master-slave configuration.
- Real time visualization of load displacement data and single click report generation for analysis.
- Software allows for static testing as well as dynamic testing with preloaded waveforms. Custom waveforms can also be set according to user requirements.



Perfusion Module

For long term experiments requiring supply of fresh medium, Instron provides a unique perfusion module integrated with the BLF-XXX system. This optional module is designed to provide convective media flow around the sample under user defined conditions.



Tests Possible with BLF-XXX Planar Biaxial System

- Bi/Uniaxial Tension in Air/Liquid
- Bi/Uniaxial Compression of in Air/Liquid
- Stress Relaxation Test
- Creep test
- Cyclic Tension in Air/Liquid medium
- Cyclic Compression in Air/Liquid
- Bend/ Flexure Testing
- Peel Test

This is a list of most commonly used tests. Please contact our product specialists for enquiries about specialized testing applications. They will be happy to help you find the best solution to further your research and development goals with BISS TGT products.

Why Choose Instron?

- Instron offers a fully integrated and a comprehensive thermo mechanical fatigue test solution with a high-performance state of the art controller and a dedicated user-friendly application software. The key benefits include

- A multi-coil induction head that allows more complex designs that optimize coupling between coils and specimen to improve heating rates and specimen temperature gradients
- Integrated extensometer with minimal setup time and roller mount for quick and precise adjustment of extensometer position
- Real time thermal strain compensation where the extensometer readout doesn't change even with change in mechanical strain of the specimen due to the variations in temperature
- Optional multi zone temperature tracking: multi point thermocouple-based temperature tracking with guaranteed uniformity across multi zones
- Adjustable induction coil mount that allows easy and precise movement of the induction system to fit specimen size
- Self-aligning, self-locking, zero backlash water cooled hydraulic grips to test threaded and tubular samples.

NOTE

CE certification on Demand
Specifications are subject to change without prior notice

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