GenBally Flex – Resistance Flexing Tester

Standards: SATRA TM 55, IULTCS / IUP 20-1, ISO 17694, EN 13512, EN 344-1 Section 5.13.1.3 and Annex C, GB/T 20991 Section 6.6.2.8, AS/NZS 2210.2 Section 6.6.2.8, JIS K 6545, BS 3144 Clause 13, ISO 32100, DIN 53351, ISO 5402-1, GE-24, ASTM D6182, EN ISO 20344:2021 Section 6.6.3

- ULTIMATE USER-FRIENDLINESS
- LEADING DEPENDABILITY AND RELIABILITY
- STRICT COMPLIANCE WITH INDUSTRY STANDARDS
- STOCKED CONSUMABLES AND SPARES
- TRUSTED AFTER SALES TECHNICAL SUPPORT
- LIFETIME PRODUCT SUPPORT ADVANTAGE

Description

GenBally Flex is a multi-station resistance flexing tester designed to determine how flexible materials perform when repeatedly bent at a defined angle over extended test cycles. It is used to evaluate cracking, crease failure, and flex-related damage in leather, coated fabrics, and textile materials commonly used in footwear uppers and other flexible constructions. With adjustable cycle counting, touchscreen control, multiple station configurations, and defined clamping geometry, GenBally Flex gives laboratories a controlled method for assessing long-term flex durability under standardized conditions. It is well suited for footwear and leather testing programs where repeatable crease formation and failure resistance are critical indicators of material performance.

GET A QUOTE

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Main Features

GenBally Flex is designed for labs that need repeatable cyclic flex testing, controlled specimen clamping, and practical throughput options for leather and footwear material evaluation.

- **Resistance Flexing Evaluation:** Designed to determine resistance to cracking and other failure types that develop at flexing creases under repeated bending.
- **Applicable to Flexible Material Systems:** Particularly suited for leather, coated fabrics, and textiles used in footwear uppers and similar flexible constructions.
- **Defined Bally Flex Test Geometry:** The specimen is folded, clamped, and flexed through a controlled angle to create repeatable crease stress during the test cycle.
- **Multiple Station Configurations:** Available in 6-station, 12-station, and 24-station versions to support different throughput levels in routine testing.
- **Touchscreen Control:** Uses touchscreen control for parameter setup and routine operation.
- **Adjustable Counter:** Supports programmable cycle counting up to 999,999 for longer-duration durability testing.
- **Controlled Flexing Conditions:** Operates at a defined flexing angle and speed to improve repeatability across test programs and material comparisons.
- **Upper Grip Configuration Options:** Supports different upper grip types depending on the standard and method being used. Supported methods are grouped by A-type and B-type upper grips in the standards section below.
- **Compact Multi-Position Layout:** Provides higher testing capacity without requiring a large overall footprint, especially in the 6-set and 12-set configurations.

Applications

GenBally Flex is intended for laboratories and manufacturers that need to evaluate how flexible materials respond to repeated creasing and bending over time. It is especially useful where crack resistance, fold durability, and upper-material performance are key quality indicators. Bally flexing methods are widely used in leather and footwear testing because they provide a controlled way to compare flex-related failure resistance across materials and finishes.

- **Leather Upper Testing:** Flex durability evaluation for leather used in footwear uppers and related products.
- **Coated Fabrics:** Crack resistance testing for coated materials subjected to repeated bending in service.
- **Footwear Materials:** Useful for comparing upper constructions, finishes, and flexible components under cyclic flexing.
- **Material Qualification and Benchmarking:** Supports comparison of materials, finishes, and suppliers during development and sourcing programs.
- **Quality Control and Durability Programs:** Appropriate for routine verification of flex resistance in manufacturing and lab settings.

Who This System Is For

GenBally Flex is well suited for organizations that need repeatable flex resistance data as part of a leather, coated-fabric, or footwear testing workflow.

- Footwear manufacturers
- Leather material suppliers
- Coated fabric manufacturers
- Footwear and leather quality laboratories
- Product development and material engineering teams
- Independent testing laboratories
- Brands and sourcing teams reviewing upper-material durability

Technical Specifications

For labs comparing Bally flexing systems or planning installation, the specifications below summarize the main station options, operating parameters, and physical requirements of the system.

Model	GenBally Flex-6	GenBally Flex-12	GenBally Flex-24
Test Position	6 Sets	12 Sets	24 Sets
Control Mode	Touchscreen control		
Type of Upper Grips	Selected according to the applicable standard and method		
Flexing Angle	22.5° +/- 0.5°		
Flexing Speed	100 +/- 5 cycles per minute		
Counter	0 - 999,999 (adjustable)		
Sample Size	2.8 x 1.8 in. (70 +/- 5 x 45 +/- 5 mm)		
Power Supply	1-phase AC 220 V, 50/60 Hz		
Dimensions (L x W x H)	27.6 x 11.8 x 13.4 in. (700 x 300 x 340 mm)	30.7 x 17.7 x 14.2 in. (780 x 450 x 360 mm)	43.3 x 20.1 x 8.7 in. (1100 x 510 x 220 mm)
Weight	Approx. 99.2 lb (45 kg)	132.3 lb (60 kg)	154.3 lb (70 kg)

Standards

GenBally Flex supports recognized flex resistance methods used in leather, coated fabric, and footwear material testing programs. The supported methods are grouped by upper grip type.

A-Type Upper Grips

- SATRA TM 55
- IULTCS / IUP 20-1
- ISO 17694
- EN 13512
- EN 344-1 Section 5.13.1.3 and Annex C
- GB/T 20991 Section 6.6.2.8
- AS/NZS 2210.2 Section 6.6.2.8
- JIS K6545
- BS 3144 Clause 13

B-Type Upper Grips

- ISO 32100
- DIN 53351
- ISO 5402-1
- GE-24
- ASTM D6182
- EN ISO 20344:2021 Section 6.6.3

Standard Accessories

GenBally Flex is supplied with the basic components required for standard system operation.

- **Power Line:** 1 pc

Optional Accessories

Optional accessories are available for labs that want to streamline specimen preparation for Bally flex testing.

- **Pneumatic Sample Cutting Machine:** Cutter size 2.8 x 1.8 in. (70 +/- 5 x 45 +/- 5 mm)

Need a Bally Flex Tester That Matches Your Material and Throughput Requirements?

If your lab is testing leather, coated fabrics, or footwear upper materials for flex cracking and crease durability, GenBally Flex can be configured to match your workflow and applicable method. Send NextGen Material Testing your material type, target standards, preferred station count, and sample requirements, and our team will help you review the right setup and prepare a quote for your application.

GET A QUOTE