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Analysis & Testing Instruments



Electronic Tensile Tester GBH-2



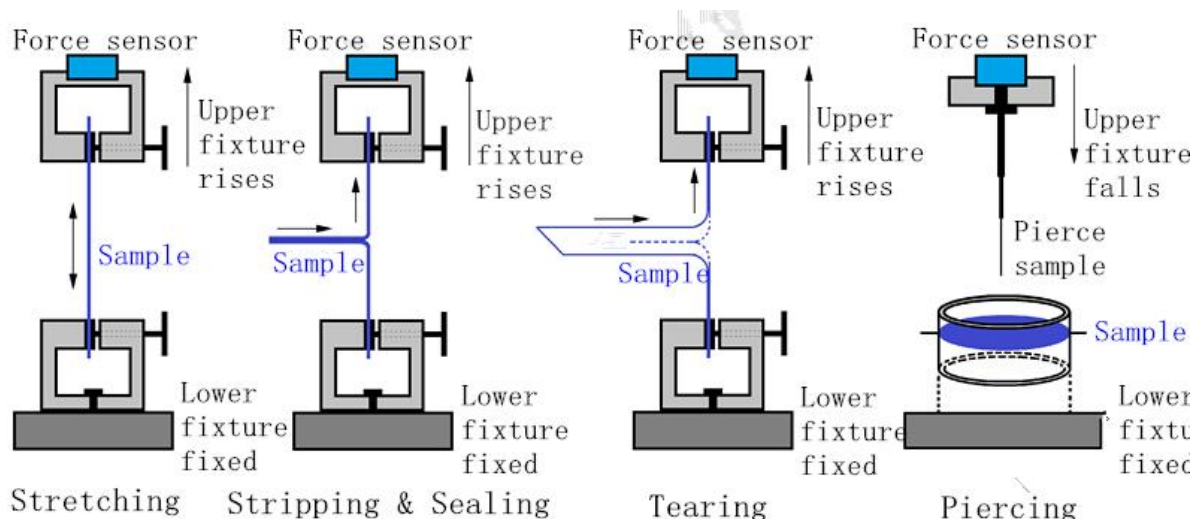
Product introduction

The multi-functional single-column electronic tensile testing machine GBH-2 is a mechanical property testing machine developed and manufactured by the Guangzhou Biaoji R&D team based on GB, JIS, ASTM, DIN and other standard requirements and market demands. The instrument uses high-precision sensors, and the force measurement accuracy is within $\pm 0.5\%$ FS; high-precision ball screws are used for loading, stable loading, and long life of the testing machine; professional software support, fully automatic operation, equipped with color touch screen, real-time display of test curves. Data and test reports can be queried, and the test is convenient and fast; the control measurement unit can be built-in or external, with perfect limit protection, overload protection, emergency stop and other safety protection functions.

It is suitable for tensile, peeling, heat sealing, tearing, puncturing, compression, bending, shearing and other tests of various metal and non-metallic materials, and then calculates parameters such as breaking strength and elastic modulus of materials, and can also be used in the medical industry. It is an indispensable testing equipment for physical property testing, teaching research, quality control, etc.

Test principle

Fix the processed sample between the two chucks of the fixture, start the instrument to make the two chucks move relative to each other, the force value sensor located on the movable chuck collects the force value change during the test, and the built-in displacement sensor of the machine collects the displacement change to calculate the tensile, tear, deformation rate and other performance indicators of the sample.



Tensile test principle diagram

Standards

GB/T 8946、GB 8808、GB 13022、GB/T 1040、GB 4850、GB/T 7753、GB/T 7754、GB/T 453、GB/T 17200、GB/T 16578.1、QB/T 1130、GB/T 2791、GB/T 2790、GB/T 2792、GB/T 7122、GBT 10004、GB/T 17590、JJG 139、GB/T 6344、GB 10808、YBB 00112003、YBB 00102003、YBB 00132002、YBB 00202004、ASTM D828、ASTM E4、ASTM D882、ASTM D1938、ASTM D3330、ASTM F88、ASTM F904、ISO 37、JIS P 8113、QB/T 2358 etc.

Specifications

| Item | Technical parameters |
|-----------------------|---|
| Test force range | 0~500 N, (optional 0~1500 N) |
| Test accuracy | Within ± 0.5 %FS of the displayed value |
| Test speed | 0~500 mm/min (infinitely variable speeds) |
| Travel distance range | 750mm(can be customized for 1000 mm) |
| Test width range | 30 mm (can be customized for 50 mm) |
| Displacement accuracy | Within $\pm 0.5\%$ of the displayed value |
| Instrument size | L×W×H: 460 mm×525 mm×1430 mm |
| Weight | 150 kg |
| Power supply | 220 V, 50 Hz |

Features

◆ Rich functional configuration (provide customized services)

- Basic experiments (stretching, puncturing, peeling, shearing, bending, tearing, heat sealing, mobility and other experiments) (extensometers can be equipped).
- Pharmaceutical package material (metal) experiment (aluminum cap opening force, plastic removal force, tearing force, tearing force of tearing sheet, etc.).
- Pharmaceutical package material (plastic) experiment (tab opening force, puncture dynamic retention force, puncture force, etc.).
- Medicine package material (pre-filling type) experiment (needle tip puncture force, piston activity, body tightness, rubber pad force, needle cap pull-out force, needle-needle seat connection force, etc.)

◆ Professional program, operation is more worry-free and safe

Intelligent safety protection functions such as limit protection, overload protection, automatic return and emergency stop ensure the safety and reliability of the test process; unit switching is free, parameters such as test speed, sample size, fixture distance can be freely set, and special test parameters can also be set freely Will meet customer needs.

◆ Advanced configuration, advanced technology

Equipped with professional high-precision force sensor, the measurement accuracy can reach 0.5; high sampling rate (100 times/second), making the test data more accurate; high-precision ball screw loading, stable loading, long life of the testing machine, Good long-term stability and energy saving; load/deformation measurement: with multiple sub-channels, supporting multiple sensors for extended measurement; wide speed range, suitable for high and low speed tests.

◆ Diversified fixture applications

Different sample fixtures can be configured for customers to choose according to their needs; fixtures, pneumatic fixtures, etc. can be customized to meet the needs of multi-scenario testing.

◆ Intelligent operating system

- According to the computer system design of the new version of GMP appendix, the test process parameters are flexibly set, and the audit trail function (test tracking, log tracking) is provided to meet the needs of data traceability and ensure the security and integrity of the test data. System operation authority can be set to different levels.
- Intelligent statistical analysis, supports standard deviation analysis of multiple data. At the same time, the system can be expanded, such as access to laboratory LIMS system.
- Personalized test reports can be set as needed, and data output forms in multiple formats are supported.
- It can be tested independently from the computer, the data is processed automatically, and the built-in micro-printer can print the data in real time. The instrument is equipped with a computer interface, and can also be connected to a computer for online testing.




◆ Lab Intelligent IoT Platform



It can be connected to the IoT platform to realize network digital management:

- You can log in to the IoT platform remotely, directly enter the software interface of the instrument, and perform remote operation;

- You only need to log in to the platform to view all experimental data anywhere;
- It can realize unified management of experimental data of all instruments in the IoT platform;
- A complete laboratory management process can be realized;
- One-click application for after-sales service, and one-click subscription for related accessories; after-sales personnel can perform remote after-sales service through the system. There are complete after-sales records on the platform, which is convenient for after-sales personnel to provide high-quality online services;
- Customers can download the required instrument information, documents, and operation videos on the platform by themselves.

Application

| | | |
|---|---------------------------|---|
|  | <p>Plastic film</p> | <p>It is suitable for tensile, peeling, heat sealing, tearing, puncturing, compression, bending and other performance tests of plastic films, composite materials, flexible packaging materials, tapes and other products.</p> |
|  | <p>Composite film bag</p> | <p>It is suitable for tensile, peeling, heat sealing, tearing, puncture, compression, bending and other performance tests of composite films, co-extruded films, composite bags, retort bags, aluminum-plastic composite bags and other products.</p> |
|  | <p>Paper</p> | <p>It is suitable for tensile strength, peeling, deformation, tearing, heat sealing, bonding and other performance tests of paper, kraft paper, facial tissue, toilet paper and other products.</p> |

| | | |
|---|---------------------------------|---|
|  | <p>Medical Patches</p> | <p>It is suitable for tensile strength, peeling, deformation, tearing, heat sealing, bonding and other performance tests of medical cold compress, plaster and other products.</p> |
|  | <p>Pressure Sensitive Tapes</p> | <p>It is suitable for tensile strength, peeling, deformation, tearing, heat sealing, bonding and other performance tests of cellophane tape, electrical insulating tape, medical zinc oxide adhesive tape and other products.</p> |

Configuration

| | |
|-----------------------|--|
| <p>Spare parts</p> | <p>Host, stretching fixture, professional software, power cord, servo motor, ball screw, professional control system, puncture fixture, international quality sensor</p> |
| <p>Optional parts</p> | <p>Pneumatic clamps, other clamps customized</p> |
| <p>Remark</p> | <p>Computer (Windows system)</p> |

Note: Guangzhou Biaoji has always been committed to the innovation and improvement of product performance and function. For this reason, product technical specifications and appearance will also be changed accordingly. The above situation will not be notified. The company reserves the right of modification and final interpretation.



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