

HST-HT05 Horizontal Fully Automatic Tensile Strength Tester



Scope of Application:

This instrument features a unique horizontal design, characterized by its compact structure, comprehensive functions, and ease of operation. Specifically developed for measuring the tensile strength of paper products, it provides more accurate results and better guarantees the tensile performance of paper products. Its paper-specific clamps and dedicated tensile strength measurement and control program distinguish it from instruments modified from general tensile and compressive testing machines. The instrument is designed according to the requirements of the new national standard GB/T 12914, and also references national and industry standards such as GB13022 , GBT1040 , GB2792, GBT24328.4, GBT14344-9 , GBT2191 , QBT2171 , and ISO1924-2 . It measures paper tensile strength, elongation, breaking length, tensile energy absorption, tensile index, and tensile energy absorption index, and is particularly capable of sensing minute values, uniquely possessing the ability to determine various parameters (including wet strength) of toilet paper.

Technical Specifications:

Force discrimination: 1/100000

Data analysis sampling: Sampling frequency 400 times/second

Force accuracy: $\pm 0.1\%$ of the indicated value (20 -- 100% FS)

Accuracy : $\leq \pm 0.5\%$

Deformation resolution: $\leq 0.1\text{mm}$

Sample clamping method: Pneumatic automatic clamping

Clamping pressure: 0.2 -- 0.7 MPa (adjustable)

Sample size range: 1 -- 25 mm

Test force range: 0.4% ~ 100%FS

Elongation measurement range: 45 -- 260 mm

Test speed accuracy: (1 -- 10 0) mm/min: ± 0.1 mm/min

Clamp spacing positioning error $\pm 0.2\text{mm}$

Moving chuck reset error $\pm 0.1\text{mm}$

Clamp spacing: The test length can be arbitrarily selected within the range of (1~250) mm.

Tensioning speed: (1~500) mm/min stepless speed regulation.

Return speed: 100mm/min

Measurement range: (3~30) N (for household paper), (6~500) N for cultural paper, packaging paper, specialty paper, paper-based composite materials, etc.

Sensor system protection: Rapid sensor protection device

Wet tensile testing configuration: Wet tensile strength testing tank (optional)

Transmission screw: Adopts a Taiwan single-column precision ball screw

Human -Machine Interface: 7.0-inch touchscreen operating platform with detection status displayed as a graph.

Software program: Can be connected to a computer for computer-controlled testing, and print reports for computer output (**optional**).

Print output: Modular all-in-one thermal printer.

External dimensions: 650*500*400mm

Weight: **40kg**

HST-TS15 Tensile Sampling Tool (Optional)



Technical parameters :

- Sampling size: 15*300mm
- Sampling thickness: 0.1-1.0mm
- Parallelism error on both sides: <0.03mm

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