

**FBT-01 Falling Ball Impact Tester****Background**

Impact resistance plays an important role in the performance of material subjected to regular shocking load or impact load. This kind of load may cause rupture, cracking or deformation. There are various test procedures to evaluate the impact resistance of a material, such as dart impact, ball impact, pendulum impact, izod, charpy, tensile, etc.

**Application**

Falling ball impact tester measures the resistance performance of plates, sheets, and composites, films foils, paper etc. with less than 2mm thickness. By impact test, the material ability to resist external destruction can be indicated.

User observes the destruction status of the test specimen after it has been hit by a falling weight that fell from a given testing height.

**Test Method**

A steel ball of known mass and diameter is released from a predetermined height, creating a controlled impact force on the test specimen (film or plastic sheet).

The impact energy and the resulting damage or deformation are measured and analyzed to assess the material's impact resistance.

**Factors Influence Result**

1. Drop Height: The height from which the steel ball is dropped is a critical parameter that can be adjusted to simulate different impact scenarios.
2. Ball Size and Mass: The size and mass of the steel ball are selected based on the specific testing standards or application requirements.

**Technical Features**

The FBT-01 Falling Dart Impact Tester is a system with PLC control (maintaining industrial-grade stability) and is operated via an HMI touch screen interface.

**Key Features:**

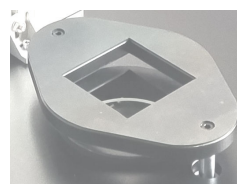
1. Precision PLC control and user-friendly touch screen interface
2. Adjustable impact height with a variety of available ball options
3. Display of test results in multiple units
4. Utilizes electromagnetic suspension for automatic ball release
5. Secure sample clamping through pneumatic mechanisms
6. Convenient manual and foot switch operation
7. Equipped with a dot matrix micro-printer
8. Option for advanced professional software (available as an add-on)

**Main Parameters**

Impact Height	300mm-600mm (can be extended)
Ball Diameters (mm)	23, 25, 28.6, 38.1, 50.8(one equipped)
Accuracy	0.1g (0.1J)
Specimen Clamp	Pneumatic Clamp
Gas Supply	0.6 MPa $\Phi$ 8 mm PU Pipe
Specimen Size	> 150 mm x 150 mm
Power Supply	AC 110~220V 50Hz

**Relative Models**

FBT-01S Falling Ball Impact Tester  
 PIT-01 Film Pendulum Impact Tester  
 FDT-01 Falling Dart Impact Tester  
 Charpy and Izod Impact Tester



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