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Analysis & Testing Instruments



# Falling Dart Impact Tester GBD-L2



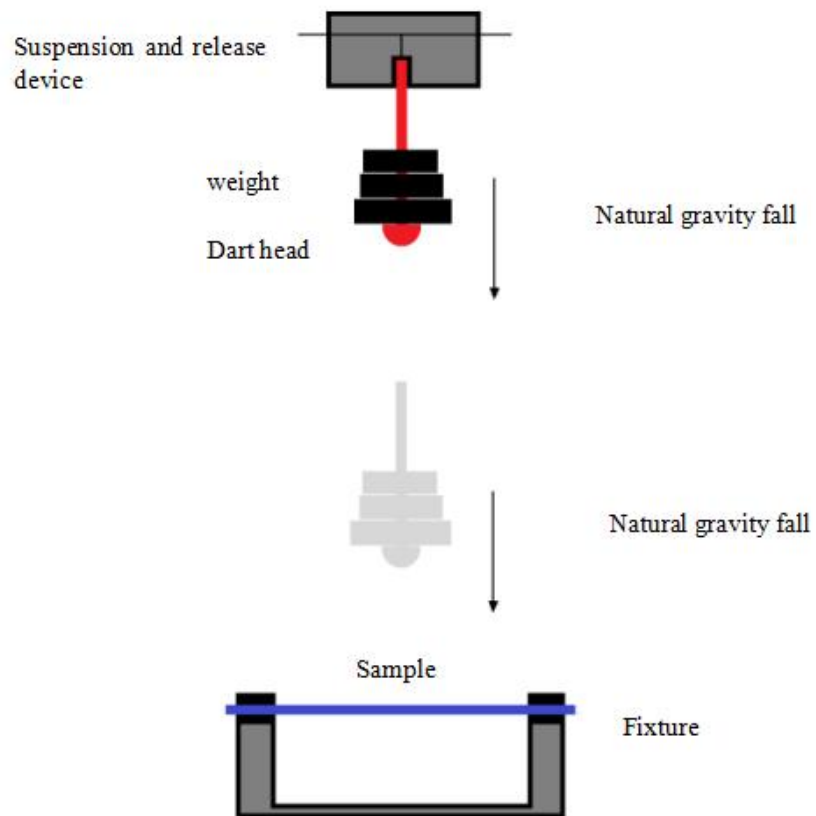
## **Product introduction**

The GBD-L2 falling dart impact tester is suitable for testing plastic films or sheets with a thickness less than 1 mm, as well as steel plate coatings and other materials. Under the impact of a free falling dart at a given height, it can determine the damage of plastic films and sheet specimens and other materials. of energy (result expressed as mass). By testing the impact resistance performance, we can prevent the packaging surface from being damaged due to impact and drop due to insufficient toughness of the packaging material, and effectively avoid damage to the product due to impact or drop during the circulation process. It can be used in scientific research, teaching, industrial and mining enterprises, laboratories, research institutes and quality supervision departments.

## **Test principle**

Select the test method (Method A or B) and estimate an initial mass and  $\Delta m$  value, then start the test. If the first sample is damaged, use weight  $\Delta m$  to reduce the mass of the falling body; if the first sample is not broken, use weight  $\Delta m$  to increase the mass of the falling body. Continue with the samples in sequence. In short, using weights to reduce or increase the mass of the falling body depends on whether the previous sample is damaged. After testing 20 specimens, calculate the total number of damages N. If N is equal to 10, the test is completed; if N is less than 10, continue testing after adding specimens until N equals 10; if N is greater than 10, continue testing after adding specimens until no damage occurs. until the total number equals 10, and finally the system automatically calculates the impact result.

Note: The initial value m is the mass of the dart head when it falls for the first time, and  $\Delta m$  is the mass added or subtracted after each test).



Working principle diagram

## Standards

ISO7765-1, ASTM D1709, JIS K7124, GB/T 9639, GB/T 15267

## Specification

Item	Technical Parameters
Measurement methods	Method A, Method B, single chip test
Test Range	Method A: 50~2000 g; Method B: 300~2000 g
Single chip test test range	20 g, 25 g, 40 g, 60 g, 80 g
Resolution	0.1 g
Dart head size	Method A: $\Phi 38 \text{ mm} \pm 1 \text{ mm}$ , Method B: $\Phi 50 \text{ mm} \pm 1 \text{ mm}$


Weight size	Method A: $\Phi 30$ mm, Method B: $\Phi 45$ mm
A method weight weight	Method A weight weight: 5g, 8 pieces each for 15g, 30g, 80g, 16 pieces for 120g (Method A)
B method weight weight	Method B weight weight: 8 pieces each for 15g, 45g, 90g, 9 pieces for 180g (Method B)
Impact height	1500 mm/660 mm
Fixture	Pneumatic clamp, outer diameter 150 mm, inner diameter 125 mm
Gas source	Compressed air, 0.6~0.8 MPa
Air supply interface	$\Phi 6$ mm gas tube
Dimensions	510 mm $\times$ 440 mm $\times$ 1300 mm
Weight	50 kg
Power supply	AC 220 V, 50 Hz
Power	75 W

## Features

- ◆ The host is equipped with a color touch screen to facilitate users to conduct test operations;
- ◆ The novel mechanical shape and user-friendly design of the operating interface make the instrument simple and convenient to operate;
- ◆ Test method A, method B, single-chip test mode design, one machine for three purposes;
- ◆ Adopts the principle of electromagnetic suction and hanging, which can be automatically released, effectively avoiding system errors caused by human factors;
- ◆ The test process is intelligent, which greatly improves work efficiency;
- ◆ The specimen is pneumatically clamped and released, reducing errors and test time;
- ◆ The test process does not require manual drawing and marking, and the data parameters are displayed on the LCD system;

- ◆ The test data system automatically identifies and calculates without manual intervention;
- ◆ Built-in printer to print test reports;
- ◆ The instrument can perform data query and query the results of each set of data, and can support 30 sets of data queries.

## Application

	<p>Plastic film, sheet</p>	<p>Suitable for free falling dart method impact resistance testing of plastic films and sheets. Such as PE/PP composite film, aluminized film, aluminum-plastic composite film, nylon film and plastic sheet for food and drug packaging bags, etc.</p>
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## Configuration

<p>Standard configuration</p>	<p>Main machine, gas pipe, diameter reducing straight connector (grey), sample holder, impact head, cross screwdriver, hexagonal wrench</p>
<p>Remark</p>	<p>The gas source is provided by the user</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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