



## NG-ImpactFall – Falling Weight Impact Tester

### Standards

[ISO 3127](#), [ISO 4422](#), [ASTM D2444](#)



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### Description

The [NG-ImpactFall](#), a falling weight impact tester, finds extensive application in conducting external impact strength tests on plastic pipes, plastic boards, and non-metal materials. Specifically designed for various types of plastic pipes, it accommodates PVC-U water supply pipes, low-pressure water supply pipes, core layer foam pipes, double-wall corrugated pipes, carat pipes, steel belt pipes, PE water supply pipes, MPP electric power pipes, hollow wall winding pipes, CPVC power pipes, among others.

This machine adheres to industry standards such as [ISO3127](#), [ISO4422](#), [ASTM D2444](#), ensuring the accuracy and reliability of its testing procedures.

### Falling Weight Impact Tester Working Principle

To set up the NG-ImpactFall for testing, begin by placing the pipe or profile onto the workbench. Ensure the sample's upper surface aligns precisely with the lower edge of the photoelectric correlation system by adjusting its height. Next, select the appropriate hammer head and weight as per the test standard requirements, assembling the impact hammer accordingly. Adjust the electromagnetic absorb system's height and suspend the hammer in place.

Initiate the test sequence, allowing the hammer to freely descend from the predetermined height, impacting the sample. Examine the resulting rupture or lack thereof in the pipe or profile. If there's one or no rupture observed, it signifies that the pipe or profile meets the standard for impact resistance. However, if there are multiple ruptures, it indicates that the impact performance fails to meet the specified standard.



## Falling Weight Impact Tester Technical Specifications

NG-ImpactFall		
Standards	ISO 3127	ISO 4422
Items	NG-ImpactFall 3127	NG-ImpactFall 2444
Maximum impact energy	300	
Maximum impact height (mm)	50-2000	50-3000
Weight of hammer (kg)	0.5-16 (0.5, 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 6.3, 8, 10, 12.5, 15)	2.7, 5.4, 9.1, 13.6,
Noses of the strikers (mm)	d25 and d90, Rs: 50	Tup A, B and C SPH.R12.7mm, SPH.R50.8mm, SPH.R6.3mm
Diameter of pipe specimen (mm)	φ16-φ4000 (for pipes larger than 500mm, produce a flat specimen with dimensions 200×200mm.)	
Power Supply	220V 50/60Hz 1 Phase	
Overall dimension of the main frame (LxWxH)	43.30" x 22.45" x 146" 1100 x 570 x 3710mm	43.30" x 22.45" x 146" 1100 x 570 x 3710mm
Dimension of control cabinet	17.72" x 16" x 43.30" 450 x 400 x 1100mm	17.72" x 16" x 43.30" 450 x 400 x 1100mm
Weight	882lbs / 400kg	993lbs / 450kg

### Strikes

ISO3127 represents the standard supply and includes two types of strikers: the d90 and d25, both equipped with Rs50 specifications. Alternatively, ASTM D2444 offers a selection of Tup A, B, and C type strikers, providing flexibility as an optional choice for testing purposes.

### Falling Weight Impact Tester Features

The NG-ImpactFall integrates several advanced features:

1. Utilization of high-quality LED displays ensures longevity and excellent visibility.
2. The machine seamlessly incorporates both manual and automatic working methods, simplifying operations for enhanced convenience.
3. Precise control over the entire testing process is achieved through a PLC controller and an intuitive LCD interface, enabling automatic control.
4. Automatic zero-point adjustment of the specimen streamlines setup procedures for precise testing.
5. Employing a pneumatically operated system to prevent secondary impacts enhances reliability, ultimately contributing to more accurate and dependable testing results.

**\* Request a [formal quotation](#) or send an e-mail to [sales@nextgentest.com](mailto:sales@nextgentest.com) for the most up-to-date pricing and applicable discounts and incentives**