

# FALLING WEIGHT IMPACT TESTER TORONFWI™ -ASTM



## ASTM D 2444

ToronFWI™ -ASTM Falling Weight Impact Tester is designed to assess the external impact resistance of thermoplastic pipes using either the staircase or round-the-clock method.

During testing, a striker with a defined mass and shape is dropped from a known height onto specific points around the pipe's circumference. This process helps estimate the actual impact resistance of a production batch or extruder run.

To perform the test, place the sample on the V-block, close the chamber, and start the process. The system automatically lifts the striker into position within the falling tube.

Two testing methods are available: the round-the-clock method and the staircase method.

## APPLICATIONS

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- **Plastic Pipe Manufacturers & Extrusion Plants** - Applied for external impact resistance testing of thermoplastic pipes during production and quality control to ensure compliance with ASTM D 2444 standards.
- **Quality Assurance & Certification Agencies** - Used for independent verification, certification audits, and compliance testing for impact resistance in accordance with international standards.
- **Research & Testing Laboratories** - Supports studies on impact performance, fracture mechanics, and material behavior under sudden external loads.

- **Water Supply & Irrigation Industry** - Ensures PE, PVC, and PP pipes meet durability requirements for potable water and irrigation systems, preventing failures during handling and installation.
- **Gas Distribution & Energy Industry** - Evaluates the resilience of thermoplastic gas pipes against accidental impact, improving safety and reliability in distribution networks.
- **Construction & Infrastructure Projects** - Used for acceptance testing of pipes in sewage, drainage, and municipal infrastructure to confirm long-term resistance to mechanical damage.
- **Pipeline Maintenance & Failure Analysis Centers** - Enables detailed investigation of damaged or failed pipes by replicating external impact conditions to determine root causes.
- **Universities & Technical Institutes** - Provides practical training for students and researchers in ASTM D 2444 testing methods, impact resistance evaluation, and material characterization.

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FEATURES

Falling Weight Impact Tester ToronFWI-ASTM Features

- 1. The anti-rebound device ensures a 100% catch rate.
- 2. User-friendly operation with a clear, integrated touch display.
- 3. Two-hand control is required to start the test, ensuring operator safety.
- 4. Built-in safety features prevent the impact weight from releasing unless all doors are securely closed.

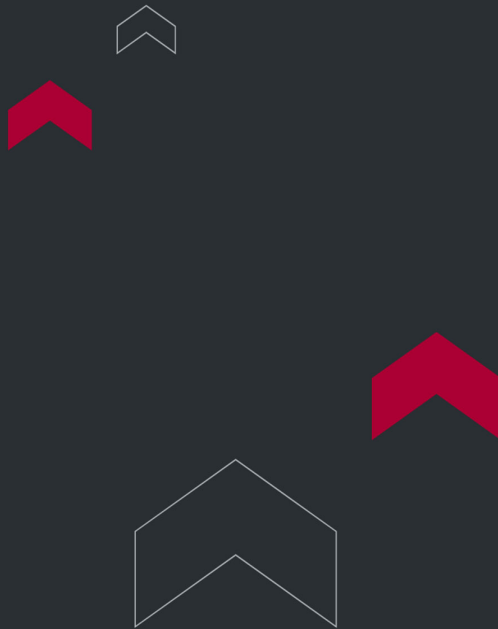
TECHNICAL SPECIFICATIONS

| Parameter     | Specification                              |
|---------------|--------------------------------------------|
| Impact height | 50mm to 3000mm                             |
| Height error  | Within ±2mm                                |
| Energy losses | <0.25%                                     |
| Masses of tun | 6, 12, 20 and 30lb (2.7, 5.4, 9.1, 13.6kg) |

| Parameter                  | Specification                                     |
|----------------------------|---------------------------------------------------|
| Tup nose                   | Tup A/B/C                                         |
| Anti-rebound catching rate | 100%                                              |
| Specimen fixation          | Pneumatic control                                 |
| Automatic mode             | Tup zeroing, test specimen zeroing, tup resetting |
| Test specimen              | Φ10mm to Φ630mm                                   |
| Test standards             | ASTM D 2444                                       |
| Display                    | Touch Screen                                      |

### Installation Requirements:

1. Air source (8bar)
2. Voltage 220V 50HZ (110V is also available)
3. Lab height : 5m
4. Lab ground shall be flat and solid.



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