

This series is widely used for Izod and Charpy impact tests on plastics. Equipped with suitable pendulums and fixtures, it can carry on tensile impact on plastics, impact tests on plastic pipe and cast iron materials. WANCE offers the most cost-effective configuration to address Charpy test from 1J to 50J, and Izod test from 1J to 22J.

### Standards

ISO 179, ISO 180, ISO 8256, ISO 9854.1, ISO 148.1, ASTM D 256, ASTM D1822

### Features

#### Reliability

- One-body cast frame design of seat and column provide high stability and rigidity
- The pendulum is designed by 3D CAD software and Finite Element Modeling (FEM) calculations, ensuring the accuracy of striking center, the accuracy of pendulum moment, and the accuracy of the test data
- Pendulum is chrome plated with good appearance
- Imported high precision ball bearing efficiently reduces energy losses
- Japanese NEMICON encoder is for precise angle measurement with angle resolution to 0.1 °

#### Flexibility

- A wide ranges of pendulums/hammers are available to address various kinds of tests, such as Charpy, Izod, and tensile impact
- Interchangeable anvils/vices can be quick changed according to different specimens

#### Standard safety guard

- Standard configured safety shield secures operation

#### Usability

- Manual raise and release of pendulum: pendulum release is triggered by electromagnet, easy and convenient to use
- LCM is employed for data display and processing. Maximum 12 groups of test data can be stored. Test data can be printed out manually or automatically.
- The soft-touch keypad on the control panel allows the user to set testing parameters including energy, velocity, specimen dimensions, material data, and comments, etc. It also controls the calibration system, friction, windage correction, language selection, and data print-out
- Optionally it can be connected to PC with our test software for data print-out and storage.



### Optional test software

- It can work under X86 OS, like Windows XP, Vista, and Win7.
- Real-time display of pendulum current angle and energy, angle after impact and absorbed energy, and striking angle.
- Test report includes test date, test specimen information, absorbed energy, and impact toughness.
- Automatically judge pass or no-pass according to preset criterion.
- Test report can be reviewed and exported to EXCEL.

### Parameters

1. Max energy

Model	PIT550	PIT501
Type	B-2 B-3	B-2 B-3 B-4
Charpy	1J,2J,4J	7.5J,15J,25J,50J
Izod	1J,2.75J,5.5J	5.5J,11J,22J
Tensile impact	\	7.5J,15J,25J
B-2: LCD display    B-3: Computer display    B-4: Instrumented impact PIT501 B-4 Instrumented pendulum: Charpy:15J, 25J, Izod: 11J,22J		

2. Angle of striking: 150°

3. Angle resolution: 0.1°

4. Charpy test parameter

- Velocity of striking: 2.9m/s(≤5J), 3.8m/s(>5J)
- Distance from the axis of support to the center of percussion : 230mm(≤5J), 395mm(>5J)
- Angle of striking tip: 30°
- Radius of striking edge: 2mm
- Radius of curvature of supports: 1mm
- Angle of slope of supports: 5°
- Angle of taper of supports: 10°
- Angle of supports: 90 °
- Support span: 40mm, 60mm, 70mm
- Specimen dimension (length x width x thickness)  
 80mm×10mm×4mm  
 50mm×6mm×4mm  
 120mm×15mm×10mm

5. Izod test parameter:

- Velocity of striking: 3.5m/s
- Distance from the axis of support to the center of percussion: 335mm
- Angle of striking tip: 75°
- Radius of striking edge: 0.8mm
- Front angle of striking edge: 5°

- Back angle of striking edge: 10°
  - Location of striking edge above top surface of support: 22±0.2mm
  - Specimen dimension (length x width x thickness)
    - 80mm×10mm×4mm
    - 63.5mm×12.7mm×12.7mm
    - 63.5mm×12.7mm×6.4mm
    - 63.5mm×12.7mm×3.2mm
6. Tensile impact test parameters:
- Velocity of striking: 3.8m/s
  - Distance from the axis of support to the center of percussion: 395mm
  - Crosshead mass: 60±1g, 120±1g
  - Maximum specimen thickness:4mm
7. Pipe impact test parameters:
- Radius of curvature of supports for bar test specimen: 1mm
  - Angle of taper of supports for bar test specimen: 10°
  - Angle of slope of supports for bar test specimen: 5°
  - Angle of taper of supports for convex test specimen: 0°
  - Angle of slope of supports for convex test specimen: 60°
  - Radius of curvature of supports for convex test specimen: 2mm
  - Specimen types and dimensions

Length x width x thickness (mm)	Type	Length	Width	thickness	Support span
	1	100±2	Whole pipe		70±0.5
	2	50±1	6±0.2	e	40±0.5
	3	120±2	15±0.5	e	70±0.5
Note: e is the machining thickness of pipe					

8. Cast iron specimen test parameters:
- Radius of curvature of supports: 1~1.5mm
  - Angle of taper of anvil: 11°±1°
  - Support: 40mm
  - Specimen dimension: 55mm×10mm×10mm10(7.5, 5, 2.5)mm
9. Machine dimension (length x width x width) : 740mm×260mm×870mm
10. Weight: 100kg
11. Power requirements: AC 200V, single phase, 50Hz, 0.5kW