



# Physical Test Solutions

Innovative Solutions in Material Test Equipment

## Low Capacity Impact Testers



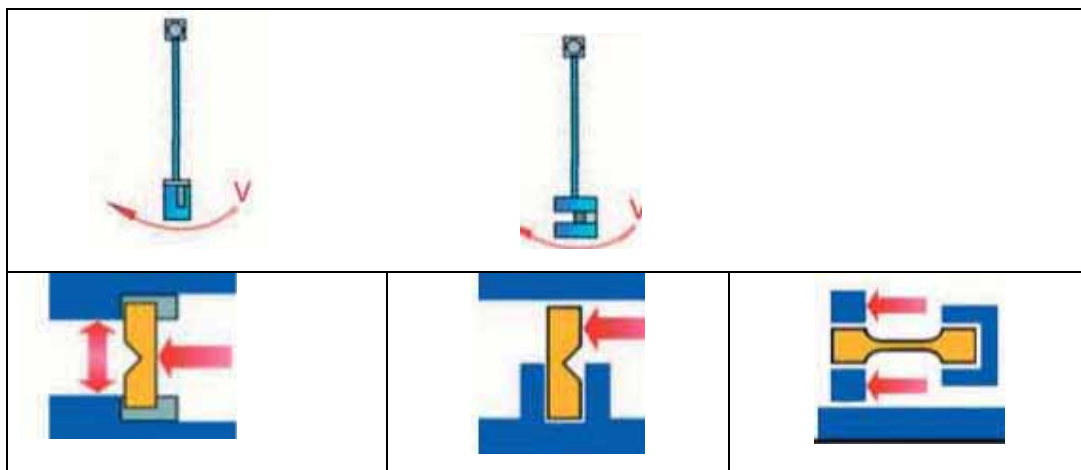
IMPACT  
IMPACT



# IT Series Impact Testers

The **Physical Test Solutions IT Series** of impact testers offers *turn – key solution* packages that include the basic accessories to get started right away. No need to decipher what hammers, tools, and other “recommended” accessories have to be ordered, **PTS** has it all included! Furthermore, **PTS** low capacity impact testers offer automatic release mechanism. All **PTS** impact testers are manufactured in an ISO 9001 certified facility

There are three types of pendulum impact tests; Izod, Charpy and Tensile Impact. The first two are the most common. As a practical guideline, Izod tests are most used in low energy applications for plastics and non-metallic materials, whereas Charpy tests are usually seen in high energy tests in metallic materials.



Charpy

Izod

Tensile Impact

## PTS IT Series of Low Capacity Impact Testers

The **IT Series** of low capacity impact testers are used to determine the impact toughness of plastic, glass steel, plastic pipe, strong nylon, ceramic and electric insulator materials. **Physical Test Solutions (PTS)** impact testers conformed to standards; ISO179, 180, GB/T1043, 1843, ASTM D256, JB8762, JB8761, ISO9854, GB18743.

### ITA-XJU / XJJ Series

The ITA-XJ series is an analog low energy series of testers that is available in capacities of 5 Joules (3.69 ft-lb), 5.5 J (4.05 ft-lb), 11 J (8.11 ft-lb), 22 J (16.22 ft-lb), 25 J (18.43 ft-lb) and 50 J (36.46 ft-lb). The XJU series is for Izod tests and the XJJ is for Charpy tests. Combination Izod and Charpy tests are also offered. Model XJL-50 performs tensile impact tests according to ISO8256.



## ITD-XJU / XJJ Series

The ITD-XJ series of digital impact testers offers the convenience of a digital readout that provides useful information at the touch of a button. Like the ITA-XJ series, this series is available in capacities of 5J, 5.5J, 22J, 25J and 50 J, models XJU for Izod and XJJ for Charpy or combination Izod-Charpy versions. Likewise, a tensile impact tester is also available. The digital display shows the following data:

- Energy in Joules, ft/lbf, kgf/m and kgf/cm
- Impact Strength
- Angle
- Average

### Specifications:

- Striker energy: Depends on model, 5J, 5.5J, 11J, 22J, 25J and 50J.
- Impact speed: 3.5m/s
- Striker elevation: 150°
- Operation temperature: 15~35 Deg C
- Specimen-specimen center distance: 335 mm
- Dimensions: 550x350x700 mm
- Weight: 75kg(net), 90kg(gross)



## ITC-XJU / XJJ Series



The ITC-XJ series of computerized impact testers provides the ultimate step in data acquisition and control. The testers are available in capacities of 5 Joules, 5.5 J, 22 J, 25 J and 50 J. The XJU series is for Izod tests and the XJJ is for Charpy tests. Combination Izod and Charpy tests are also offered. This series features the user friendly "Impactstar" software that takes the pain out of data acquisition and report generation. Through the Impactstar software, the pendulum is automatically released to perform the test.

The ITC-XJJ series is offered in the same capacities and configurations as the rest of the XJ series of impact testers.

## Impactstar Software

The **Impactstar Software** operates in a windows environment and combines a user friendly working operation with powerful data acquisition and control capabilities.

The **Impactstar Software** has the following features:

- Full digital control
- Individual or Batch Testing Capabilities
- Test Curve Analysis
- Convenient and Practical Parameter Settings
- Multilevel Security Management
- Versatile Operating Interface
- Automatic Program Control
- Versatile Test Report Generation
- Practical Database Management



## ITC-50-LTCI

Model ITC-50-LTCI is a low temperature computerized impact testing machine is controlled by a personal computer, with Windows environment. It can automatically calculate the test result, and has the function of storing 5000 history data records that can be read at any time.

### Specifications:

#### Charpy Impact test:

- Impact speed; 2.9m/s, 3.8m/s
- Impact energy (J): 1, 2, 4, 5, 7.5, 15, 25, 50
- Distance between pendulum center and specimen center: 221mm, 380mm
- Raised angle: 160°
- Pendulum moment:
  - Pd1 = 0.5155N.m Pd2 = 1.0311N.m
  - Pd4 = 2.0622N.m Pd5 = 2.5777N.m
  - Pd7.5 = 3.8662N.m Pd15 = 7.7324N.m
  - Pd25 = 12.8888N.m Pd50 = 25.777N.m
- Support distance between grips: 40mm, 60mm, 70mm, 95mm
- Radius of striking edge: 2mm Included angle of striking edge: 30°
- Specimen type & size (Unit: mm)

Specimen	Length	Width	Thickness	Distance type between support
1	80±2	10±0.5	4±0.2	60
2	50±1	6±0.2	4±0.2	40
3	120±2	15±0.5	10±0.5	70
4	125±2	13±0.5	13±0.5	95



#### Izod Impact test:

- Impact speed; 3.5m/s
- Impact energy (J): 1, 2.75, 5.5, 11, 22
- Distance between pendulum center and specimen center: 322mm
- Raised angle: 160°
- Pendulum moment:
  - Pd1 = 0.5155N.m Pd2.75 = 1.4177N.m
  - Pd5.5 = 2.8355N.m Pd11 = 5.6711N.m
  - Pd22 = 11.3419N.m
- Distance between striking edge and upper plane of grip: 22mm
- Radius of striking edge: 0.8mm
- Specimen type & size conforms to ISP180-82

#### Low temperature Chamber:

- Temperature range: room temperature to -40°C
- Temperature accuracy: ±1°C
- Temperature gradient: < 4°C
- Chamber capacity: Specimen box size: 20x130x20 mm
- Chamber Capacity 12 specimens
- Dimension: 460x300x320mm

# Sales Offices

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