Impact Testing Machines

*Over **60** years of consistent excellence*

- IT-30
- IT-30 (D)
- IT-30 / 40 (ASTM)
- Auto Impact-30
- Auto Impact-40
- Auto Impact-75

Model: IT-30

General Description :

The pendulum Impact Tester, Model IT-30 is designed for conducting Izod, Charpy test.

The pendulum is mounted on antifriction bearings. It has two starting positions, the upper one for Charpy the lower one for Izod testing. On release, the pendulum swings down to break the specimen & the energy absorbed in doing so is measured as the difference between the height of drop before rupture of the test specimen and is read from the maximum pointer position on the dial scale.

(It is read on digital readout in case of electronic machines).

There are two strikers and one combined support anvil available for fitting in to the pendulum and on the base of machine for the Izod, Charpy test respectively.

Changing from one striker to another is achieved simply by fixing the new striker into it's position.

Model : IT-30

Charpy Test :

The Charpy test piece rests on alloy steel support anvils, fitted on the base of the machine rigidly held in position by Allen screws. End stopper is provided for quickly and accurately locating the test piece centrally between the supports.

Izod Test :

The Izod Test piece is clamped vertically in Izod support fitted on the base of the machine. The support is provided with a machined vertical groove to suit the test piece size. The front clamp piece and the Allen screw enable clamping of the test piece in correct height with the help of Izod setting gauge supplied.

Model : IT-30 (D)

Model : IT - ASTM

Model: IT - ASTM

The Impact Tester offered with 300 & 400 J energy exclusively for Charpy test. This machine is geometrically checked in the works to the more stringent requirements of the American standard.

The accuracy of the machine is then verified by PROOF TEST by testing standard test specimens supplied by the NIST, USA. Two sets (Low & high energy-1 Set (4 Nos.) each.) must agree with the normal values within certain tolerance specified.

Model : Auto Impact - 30/40

General Description :

The pendulum Impact Tester, Model : Auto Impact-30/40 is designed for conducting Izod, Charpy test.

In Auto Impact Tester, pendulum will lift, specimen will get loaded manually and pendulum will release automatically through pecise elecro-mechanical disc friction clutch. Once specimen breaks, result will display on digital panel, and auto brakes will apply immediately.

The pendulum is mounted on antifriction bearings. It has two starting positions, the upper one for Charpy and the lower one for Izod testing.

On auto release, the pendulum swing down to break the specimen and the energy absorbed in doing so is measured as the difference between the height of drop before rupture and height of rise after rupture of the test specimen and is read on digital panel in Joules.

Charpy Test :

The Charpy test piece rests on support anvils, fitted on the base of the machine rigidly held in position by Allen screws.

End stopper is provided for quickly and accurately locating the test piece centrally between the supports.

Izod Test :

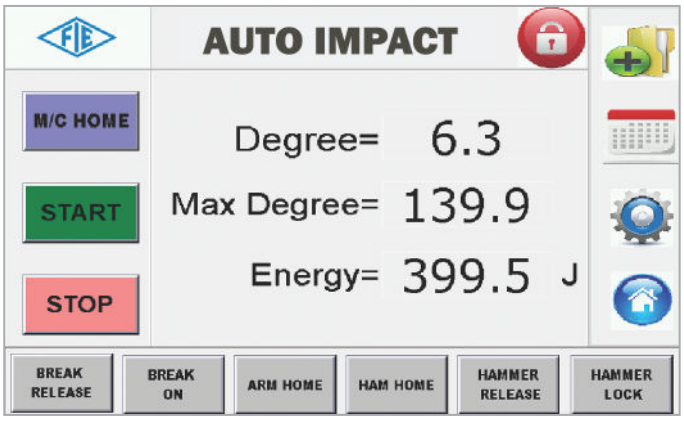
The Izod Test piece is clamped vertically in Izod locating groove fitted on the base of the machine.

The support is provided with a machined vertical groove to suit the test piece size.

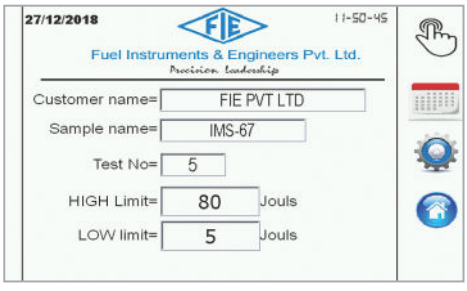
The front clamp piece and the Allen screw enable clamping of the test piece in correct height with the help of Izod setting gauge supplied.

In Auto Impact, Pendulum will lift, specimen will get loaded manually and pendulum will release automatically. Once specimen breaks, result will display on digital panel, and auto brakes will apply immediately.

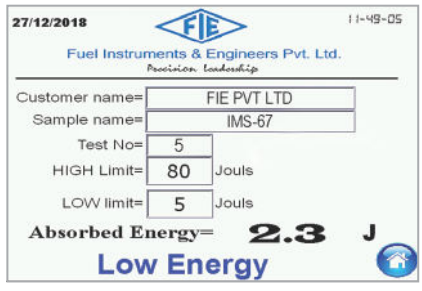
HMI Screens for Auto Impact - 30/40



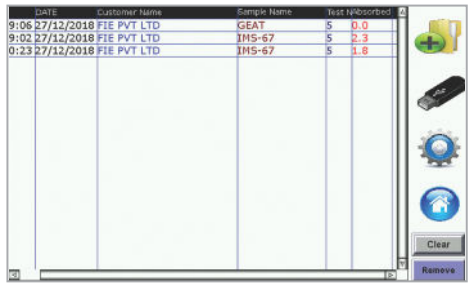
Home Screen



Data Entry



Result



USB Communication

Model: Auto Impact - 75

General Description :

FIE's Charpy pendulum Impact Testing Machine, Model : Auto Impact-75 serves for conducting Charpy impact testing to determine the behaviors of the metal especially of steel casting under impact stresses.

Features :

- Fully automatic machine easy to operate.
- For safety machine cover with enclosure which are having door interlocks so operator can works safely.
- High resolution encoder is fitted in machine which can read the absorbed energy less than 1J.

GUI Features :

- Touch screen HMI.
- USB output data logging.
- Manual operation via touch screen.
- Calibration features.
- New file creation.

Specifications :

MODEL	IT-0.5	IT-1.5	IT-30	IT-30 (D)	IT-30/40 (ASTM)	Auto Impact 30/40	Auto Impact 75
Maximum Capacity	5 J	15 J	Charpy-300 J Izod-168 J	Charpy-300 J Izod-170 J	Charpy-300/400 J	Charpy & Izod 300 J/400 J	Charpy-750 J
Max. Scale Graduation	0.05 J	0.1 J	2 J	0.5 J	2 J	0.5 J	0.5 J
Overall Size (Approx.)	0.5m x 0.3m x 0.52 m (H)	0.5m x 0.3m x 0.52 m (H)	1.1m x 0.45m x 1.65 m (H)	1.32m x 0.45m x 1.05 m (H)	1.4m x 0.5m x 1.9 m (H)	2.3m x 1.2m x 2.2 m (H)	2.3m x 1.5m x 2.3 m (H)
Net Weight (Approx.)	70 kg.	70 kg.	375 kg.	375 kg.	450 kg.	600 kg.	1500 kg.
Standard Accessories							
Izod Striker	1	1	1	1	-	1	-
Charpy Striker (8R)	-	-	1	1	1	1	1
Anvil	1	1	1	1	1	1	1
Self Centering Tong	-	-	1	1	1	1	1
Centering Gauge	-	-	-	-	1	1	1
Spanner Set	1	1	1	1	1	1	1
Instruction Manual	1	1	1	1	1	1	1

Optional Accessories :

- Caliper gauge checking V notch for Izod & Charpy.
- Templates for checking 10x10mm. cross section of Izod/Charpy test specimen.
- Depth notch gauge including V & U notch gauges for checking depth below V/U notch, angle and radius.
- Izod support for 0.450" diameter Izod round specimen.
- Self centering tong for quick and accurate setting of Charpy test specimen.
- 'V' notch milling cutter.
- 'U' notch milling cutter.
- Guards & Covers.

FIE reserves the right to change the specifications without notice due to constant improvement in design.

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