



# PENDULUM IMPACT TESTING MACHINE

Model :AIT-300-N, AIT-300-EN  
&AIT-300-D



## Features :

- Suitable for Charpy and Izod Impact Tests on various materials.
- Rigid designs of machine frame and other parts assure minimum energy absorption during fracture which results in improved test accuracies.
- The highly stressed and wearing parts like support blocks and strikers are of special alloy steels duly heat treated.
- Model :AIT-300-N Conforms to IS: 3766-2003, IS: 1598-1977, IS:1757-1999, IS:1499-2003 & BS:131 Part I,II,III,IV.
- Model :AIT-300-EN Conforms to IS, BS Standards as above & also conforms to BS EN:10045-1993 (for charpy).
- Model :AIT-300-D is a digital version of model AIT-300-EN.
- Works on pendulum principle, difference between height of drop of pendulum before rupture and height of rise after rupture of specimen is directly proportional to impact energy absorbed.
- Direct indication of impact energy absorbed by specimen in large dial for AIT-300-N & AIT-300-EN, and digital display for model AIT-300-D.
- Safety guard for the Operator.

## Standard Accessories of Model AIT-300-N, AIT-300-EN & AIT-300-D :

Charpy Striker	1 No
Izod Striker	1 No
Combined Charpy/Izod (10X10 specimen) Support Block	1 No
Specimen Setting Gauges (for Charpy and Izod)	2 Nos
Set of Spanners	1 Set

*Mastering the fine art of testing*

# Technical specifications of Models AIT-300-N, AIT-300-EN & AIT-300-D:

Parameters	Tests	
	Charpy	Izod
Initial Potential energy (Joules)	300	170
Minimum scale graduation for AIT-300-N and AIT-300-EN (Joules)	2	2
Resolution for AIT-300-D (Joules)	0.5	0.5
Pendulum drop angle (Degree)	140	90
Impact velocity (m/sec)	5.308	3.994
Distance between axis of rotation and centre of strike (mm)	813.5	813.5
Effective weight of pendulum (kg)	21.300	21.300
Max. total friction and windage losses (% of initial potential energy)	0.5%	0.5%
<b>Striking edge :</b>		
Angle at tip (Degree)	30	75
Radius of curvature (mm)	2	0.7
Width of tip (mm)	18	-
Horizontal relief (Degree)	-	10
Vertical relief (Degree)	-	5
<b>Test Piece Supports:</b>		
Suitable for specimen (Max) (mm)	10x10	10x10
Distance between supports (mm)	40 (+0.5, -0.0)	-
Taper of supports (Degree)	11±1	-
Radius of curvature at edge (mm)	1 to 1.5	-
<b>Overall size (mm) approx</b>	760 (L) X 440 (W) X 1925 (H)	
<b>Net weight (kg) approx</b>	AIT-300-N	300
	AIT-300-EN & AIT-300-D	450

## Optional Accessories of Models AIT-300-N, AIT-300-EN, AIT-300-D:

- Specimen setting and centering tong for Charpy test (useful particularly for carrying out tests at sub-zero temperature).
- Gauge for checking distance of specimen notch from both ends for Charpy and Izod test specimen (out gauge for Charpy and one gauge for Izod)
- Specimen clamps for round Izod specimen.
- Gauge for checking standard 'U' notch on specimen.
- Gauge for checking standard 'V' notch on specimen.
- Gauge for checking depth below the standard 'U' notch on specimen.
- Gauge for checking depth below the standard 'V' notch on specimen.
- Template for checking cross section of 10X10 mm, for Izod & Charpy square test specimen.
- 'U' notch milling cutter.
- 'V' notch milling cutter.

We can also supply universal Testing Machines, Compression Testing Machine, Tensile Testing Machine, Spring Testing Machine, Vickers Hardness Testers, Rockwell Hardness Testers, Dynamic Hardness Testers, Brinell Hardness Testers and special purpose Material Testing Machines, etc.

We reserve the right to change the above specifications without any notice due to constant improvements in design.