

PENDULUM IMPACT TESTER (25J) HSM41



Year 2
study

Features

- High Quality, sturdy 25J Charpy Impact Tester.
- Apparatus fully enclosed behind safety guard.
- Lockable door and brake mechanism.
- Three set positions for impact hammer.
- Mass of Impact hammer adjustable.
- Brake system to stop hammer swing.
- Ideal for small groups of students.
- Two metal specimen sets supplied as standard.
- To EN 10045-1 (1990)

Description

A sturdy bench top mounted unit for the study of notched bar (Charpy) impact strength tests. A heavy base plate with protective guard surrounds all the components, the guard has a lockable door for ease of access when setting the test but also security whilst not in use. The

base plate has an anvil and pillar which have replicable impact profiles for supporting the notched specimens prior to testing.

A heavy hammer swings on a pre-defined radius, set by the hammer arm. The initial energy of the hammer can be varied by changing the starting weight and/or the start height of the hammers' swing. Height variation can be varied between 3 set positions. As the hammer swings through its radius, it impacts on the specimen and the distance it travels passed the specimen is measured on an integral scale shown in degrees. A brake system stops the hammer swing after impact of specimen.

A pointer travels with the hammer upon specimen breakage, thus indicating the change in angle from start position to highest point after fracture. The marker remains in position following specimen fracture to enable the value to be recorded. This can then be used to

calculate the amount of energy absorbed by the specimen.

The release of the hammer is controlled with a plunger. A push block is situated on the protractor face, this facilitates a two handed operation and keeps the user away from the swinging arm for full safety.

A number of test specimens are provided, with further specimens available separately (HSM41a). The specimens are manufactured to specific notched specifications (British Standards EN 10045-1 (1990)) and come in aluminium and brass.

Related laws

- Charpy Test
- Impact Testing
- Strength of Materials
- Potential Energy
- Impact Energy
- Energy Conversion
- Fracture
- Absorbed Energy
- Gravity
- Notched Specimens

Learning capabilities

-

Technical Specification

- Capacity: 6.75J (min) to 25J (max).
- Aluminium and brass specimens (10 of each).
- Specimen cross section: 10 x 7.5mm, Up to 10mm x 10mm and down to 10mm x 5mm available but only for specific materials.
- Bearing support span: 75mm
- Notch cross section of standard samples: 10 x 5.5mm.
- 3 x starting Positions.
- 6 x possible starting weights of hammer head.
- Specimens, Impact tip and Impact plates to British Standards EN 10045-1 (1990).

Recommended Ancillaries

- HSM41a

What's in the Box?

- 1 x HSM41
- 5 x Hammer weight
- 2 x latch keys
- 10 x Aluminium specimen
- 10 x Brass specimen
- 1 x Spanner
- 1 x Hex wrench set
- Instruction manual
- Packing list
- Test sheet

You might also like

- HPM1

Weights & Dimensions

- Weight: 90 kg
- Length: 935mm
- Width: 255mm
- Height: 875mm

Essential Services

- Sturdy Bench top

Ordering information

To order this product, please call PA Hilton quoting the following code:
HSM41

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 2 YEARS