MT 3016 Impact Tester

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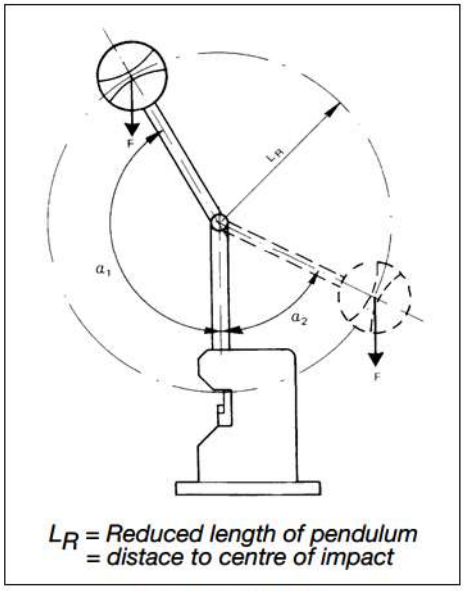
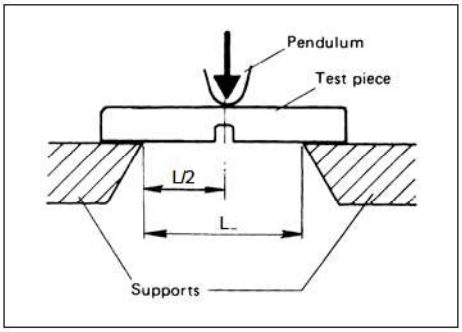


L_R = *Reduced length of pendulum*
= distace to centre of impact

Impact strength



MT 3016 is a robust, easily handled bench impact tester (Charpy) made to standard specifications.
It demonstrates in a simple and reliable manner how the impact strength characteristics of a material are affected at, for example, low temperature. This is of great importance for the choice of material in applications subjected to heavy temperature fluctuations.
It is also useful when a teacher wishes to demonstrate how the impact strength of a material is affected by different kinds of heat treatments, e.g. hardening, tempering, and normalizing.
With MT 3016 the student can do his laboratory exercises without difficulty.

Description

The machine has a heavy and stable cast iron mounting with holes for bench attachment. The stand consists of two robust steel bars.
The pendulum is mounted in ball bearings and precision balanced. The test piece supports are hardened and ground. The distance between supports can easily be adjusted. The scale is graduated in joules and shows directly the energy required to break off the test piece. The pendulum is braked with a friction brake.

Examples of experiments

- Investigate the effect of carbon content on impact strength
- Investigate the effect of temperature on impact strength
- Investigate the effect of normalization on impact strength

The equipment

- Impact Tester
- 5 sets test pieces of 3 different steel qualities (Tot 15 pieces)
- Laboratory Manual

Test pieces for MT 3016

- MT 3027-1, Impact Test Piece 1, red (construction steel)
- MT 3027-2, Impact Test Piece 2, yellow (engineering steel)
- MT 3027-3, Impact Test Piece 3, green (tooling steel)

Technical data

Max. impact energy	15 joule (1 J= 1 Nm)
1 Scale graduation	0.1 joule
L_R	358 mm
Dimensions of test pieces	6x6x44 mm
Dimensions	170x290x615 mm
Weight	30 kg