WPM Leipzig
Testing Machines

Pendulum Impact Tester PSd 450

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Pendulum Impact Tester PSd 450

Technical Specification

According to the technical conditions of standard EN ISO 148, part 2

- Notched-bar impact tests based on Charpy on steel and other metals acc. to DIN EN ISO 148 (*successor of EN 10045*), DIN 50 115, ISO 83, GOST 9454-78, GOST 10708 and ISO 148 as well as ASTM E 23

When applying corresponding special accessories for
- Notched-bar impact tests based on Izod acc. to ASTM E 23
- Brugger acc. to ZF 15-53
- Impact tensile tests
- Wedge impact tests acc. to DIN EN ISO 11343

The pendulum impact tester PSd 450 (standard version) consists of:
- Pendulum impact tester PSd 450 (basic unit)
- Safety enclosure
- Pendulum hammer 300 without hammer edge for a max. impact energy of 300 J
- Upgrade to max. impact energy of 450 J
- Hammer edge based on Charpy, 2 mm radius (standard EN)
  (can be exchanged with hammer edge Charpy 8 mm (ASTM/EN))
- Support based on Charpy 10 x 10 x 55 (standard EN and ASTM)
- Exchangeable specimen anvils for the Charpy support
- Centering tong

BASIC	Configuration Basic Unit
PSD450-BE	**Basic unit PSd 450** • Rigid, box-type machine column with optimized vibration absorption • Electromechanical pendulum elevation • Electromechanical pendulum brake • Electrical safety trigger of pendulum (two hand operating acc. to standard) • Digital pre-selection and indication of performance in the range of 20 % to 100 % of the nominal value by means of continuously variable adjustment of pendulum suspension point • Measuring values with scale of high accuracy • Digital indication of applied impact energy 4 digits indication range 0.0 …450.0 J digit increment 0.1 J • PCs can be connected via Ethernet interface or USB upstream interface • Safety box to collect specimen remnants

EH-PSD750	**<u>Safety enclosure</u>** The safety enclosure meets all technical safety requirements. The safety enclosure surrounds the swinging area of the pendulum. It is impossible to trigger the pendulum when the door is open; after triggering the pendulum and opening the door, the pendulum hammer is stopped immediately. The sides are swivel-mounted. Dismantling while calibrating or repairing the device is not necessary. A simple handling for the user is guaranteed. Complete safety enclosure with safety door, complete protection acc. to EN ISO 13489-1 **Electronic locking switch of the door** After inserting the specimen and closing the door of the test area, the door is locked the way that the door is unlocked only when finishing the automatic test cycle.
PH600	**<u>Pendulum hammer 300 without hammer edge</u>** *<u>Pendulum hammer 300 Joule</u>* Weight of the 300 J pendulum hammer 19,964 kg Drop angle, adjustable 52° 19' ... 160 ° Working range 60 ... 300 J Impact velocity 2,45 ... 5,5 m/s Distance from turning axis to the Centre of specimen 790 mm
HS-CH	**<u>Hammer edge Charpy 2 mm acc. to EN</u>** Thickness within the specimen range 16 mm Edge angle 30° ± 1 ° Curvature radius 2 mm
AL-CH-EN/ASTM	**<u>Support based on Charpy acc. to EN/ASTM</u>** On a block, suitable to fix devices for the tests of Charpy and IZOD, the Charpy support is fixed. Exchangeable anvils are fastened in the support. Cross section of specimen 10 x 10 mm Cross section of specimen 40 mm
E-AL-CH	**<u>Anvils Charpy</u>** Exchangeable specimen anvils are mounted on the support. They can be used up to four times by turning the insets in case of wear-out. Free angle 0 ° Relieve cut 11 ° Curvature radius 1 mm

OPTIONAL	On request
PH-AUF	**Upgrade pendulum hammer 300 Joule to 450 Joule** The 300 joule hammer can be upgraded easily to 450 J (supplementary equipment of additional masses) Weight of the 450 J pendulum hammer 29.943 kg Working range, continuously adjustable 90 ... 450 J
FUND-RAH	**Iron frame foundation** Iron frame is mandatorily necessary for tests acc. ASTM
PZ-A-450	**Automatic centring device** Applicable for specimen based on Charpy with different dimensions and different notches; makes it possible to centre automatically when inserting the notched specimen
GEF-AN	**Spring loaded stopper** Usable preferably for specimens brought to a specific temperature with cross-section 10 x 10 mm Makes it possible to centre the standard specimen very fast (length of 55 mm)
T-SS-EVR	**Key-switch for door-handling** Key-switch for deactivating the two-hand-handling (when closing the door, the hammer is triggered; saves time while testing, e.g. cold specimens); Incl. electronic locking switch which allows the door to be opened after the automatic test cycle
HS-ASTM	**Hammer edge Charpy 8 mm acc. to EN/ASTM** Thickness in area of the sample 16 mm Angle of the edge 30° ± 1 ° Width 4 mm Curvature radius 8 mm
ALPL-ASTM7,5	**Charpy bearing plate 7.5** For undersize specimens 7.5 x 10 x 55 mm acc. to EN/ASTM The support for a specimen with cross-section 10 x 10 mm and with distance of 40 mm between the anvils is precondition.
EI	**Accessories for tests based on IZOD** Attachment for specimen acc. to ASTM E 23 Cross-section of specimen 10 x 10 mm for diameter 11.4 mm
ESZ	**Accessories for tension impact test** Impact fork and support inclusive clamping parts for test specimen Specimen diameter 6.4 mm Measurement length 25.4 mm Total length 68.0 mm With thread M10 for fastening

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