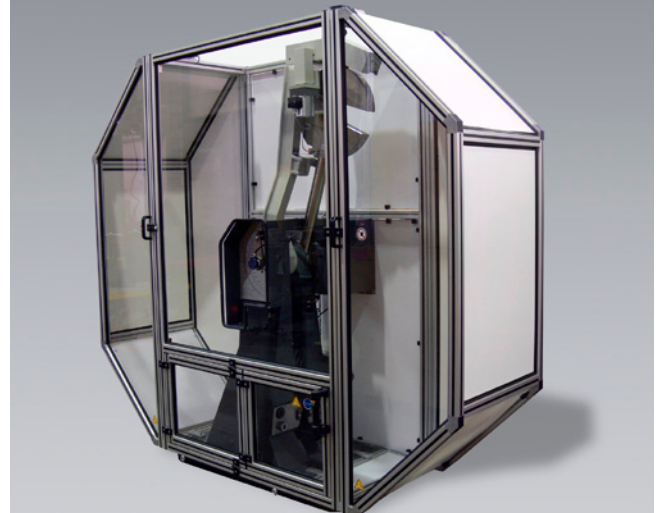
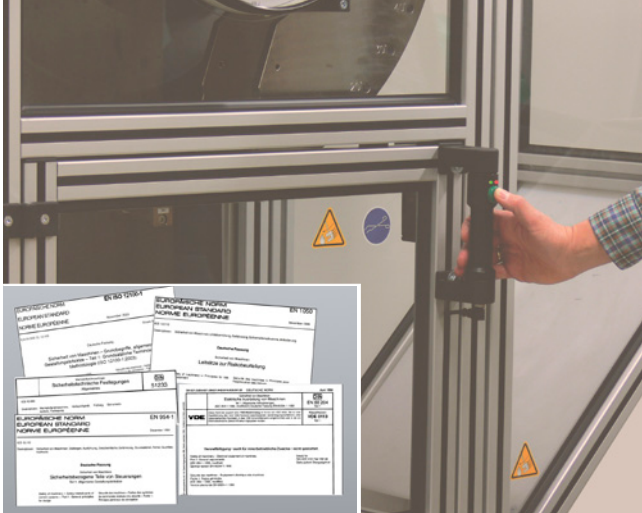


## Product Information

### Pendulum Impact Tester PSW 750



#### Range of application

The PSW 750 is used for Charpy impact tests and for tensile impact tests on metals. Impact tests to Charpy can be performed as conventional and instrumented tests.

An operationally ready instrument includes:

- Basic instrument without pendulum, with electro-magnetic pendulum release and motorized pendulum return, grout and heavy duty screw anchors, electrically monitored safety device and safety housing
- Test specific accessories such as vises, supports and anvils, pendulums, fins
- Optional accessories such as PC equipment or specimen temperature units

#### Basic instrument

The basic instrument is designed to be mechanically stiff and is made of vibration damping cast iron. It is leveled on the foundation with the aid of three leveling planes, then casted with the grout and anchored with four bolts.

#### Safety device

Zwick pendulum impact testers in size category PSW 750 satisfy the EC Machinery Directive 2006/42/EC, the EN ISO 12100 as well as the EN ISO 13849-1/2. This means that the failure of a single safety monitoring element must not pose any risk to the operator. As a result, the PSW 750 has been updated in this area, and the safety device fully complies with the requirements of national and international standards.

Important characteristics and functions of the safety device:

- It is equipped with a double safety protection system using twin, certified, independently operating control units, special safety switches and components.
- It monitors the pendulum impact tester according to its operational mode (e.g. test or set-up mode)
- It recognises incorrect operation and displays this with blinking signals on the operating keys
- It allows the pendulum to be released via a push button integrated into the door handle. The test can then be started immediately after closing the safety door. This is important for tests according to ISO 148 and ASTM E 23 on temperature conditioned specimens, which must be tested less than 5 seconds after removing them from the temperature unit.

#### Safety housing

The design of the safety housing facilitates easy handling during the testing process, changing tools, pendulums or fixtures, re-configuring different test types and maintenance and calibration. Operating components are centralized and illuminated to show the machine status and error messages, making the PSW 750 safe, simple and fast. Front door, side doors and specimen removal slot allow:

- Simple placement of the specimen
- Quick changing of the vise and the pendulum
- Easy access during maintenance, inspection and calibration
- Easy removal of specimen remains

## Product Information

### Pendulum Impact Tester PSW 750

#### Installation

According to international Standards, the base frame should be firmly anchored to the floor. This is done with a steel reinforcement for the foundation. The making of the foundation is performed by the customer. Please pay attention to the remarks in PI 476.

#### Technical data for the basic instrument

Electrical connection 3 x 400 V, 50/60 Hz, 0.5 kW; dimensions with foundation (H x W x D) 2734 x 2500 x 1300 mm; weight<sup>(1)</sup> approx. 3100 kg; impact velocity 5.42 m/s

Corresponds to following safety requirements: EC Machinery Directive 2006/42/EC, EN ISO 12100 and EN ISO 13849-1/2

Following test standards are conformed with: ISO 148-1, EN 10045-1, DIN 50115, ASTM E 23

Indirect verification and acceptance with reference test piece:

- According to ASTM E 23 with NIST specimens in the following energy ranges: low (14-20 J) and high (88-136 J); super high specimens (176-244 J) are not currently available from NIST
- According to ISO 148-2 in the ERM or ZRM specimen range: low (<20 J), mean (30-110 J), high (110-220 J) and super high (>220 J) energy

<sup>(1)</sup> The complete weight of 3100 kg consists as follows: Instrument approx. 780 kg + Pendulum approx. 50 kg + Safety device approx. 130 kg + foundation approx. 2100 kg

#### Basic instruments

Description	Item number
Pendulum Impact Tester PSW 750 AR with analog display: the affordable option for tests without PC	<b>003620</b>
Pendulum Impact Tester PSW 750 GE with digital and analog display: plug and play USB connection to PC for frequent testing	<b>003618</b>
Pendulum Impact Tester PSW 750 IR with analog display and high speed electronics: for instrumented tests	<b>027180</b>

A PC and a Standard or Master Test Program testXpert II are required for the PSW 750 GE and IR models.

#### Accessories for Charpy tests

Description	Item number
Steel reinforcement for construction of on-site foundation	<b>940417</b>
Pendulum head 300 J, mass approx. 20 kg	<b>004929</b>
Pendulum head 450 J, mass approx. 30 kg	<b>004930</b>
Pendulum head 600 J, mass approx. 40 kg	<b>004932</b>
Pendulum head 750 J, mass approx. 50 kg	<b>004933</b>
Tups (instrumented / non instrumented), vises, supports and anvils	<b>on request</b>
Anvils and tups in different quality depending on application's requirements (specimen material, specimen throughput)	<b>on request</b>

#### Accessories for impact tensile tests

Description	Item number
Equipment for impact tensile tests, consisting of impact tensile head 300 Joule and mounting accessories	<b>940418</b>

#### Options

Description	Item number
Temperature chambers from -190 °C to +180 °C	<b>on request</b>
Height adjustment for the pendulum head for tests with stepless variable impact speed	<b>on request</b>
Reference specimen for indirect commissioning of PSW instruments to ASTM E 23, EN 10045-2 (Charpy)	<b>on request</b>
Transformers for adaption to various mains voltage conditions and leakage current reduction	<b>on request</b>