



750 joule Charpy impact testing machine

Zwick PSW 750

Pendulum impact tester used to determine the impact toughness of metallic materials.

Features and benefits

- High capacity enables accurate testing of very tough materials
- Test temperature ranges from -180°C to $+600^{\circ}\text{C}$
- Easy specimen insertion and automatic specimen loading
- Electromagnetic pendulum release with full interlock protection
- Produces results in both analogue and digital forms
- Dual accreditation supports tests to both ISO and ASTM standards

Some applications

- Charpy tests often form part of material characterisation and approval, and weld procedure qualification
- Application specifications and standards often give minimum Charpy values that materials must meet
- Nuclear power applications, where Charpy tests are required at temperatures exceeding 300°C
- Characterisation of full ductile–brittle transition behaviour for very high toughness steels, such as those developed for oil and gas applications

Technical specification

- Testing conforms with standards including ISO 148-1, EN 10045-1, DIN 50115 and ASTM E23
- Pendulum weight of approximately 50kg enables Charpy impact tests up to 750J
- Impact velocity 5.42m/s
- Environmental chamber allows high- and low-temperature testing

