Zwick / Roell

Indentec
Hardness Testing

Product Information

Rockwell hardness tester ZHR8150CLK for metals and plastics

Hardness tester ZHR8150CLK

Special characteristics

- Closed loop force application for test forces upto 250 kg
- Colour touchscreen user interface for simple selection of test methods, test configuration and result output
- User defined automatic cyclic testing function, define number of tests, interval between tests, then Start
- Nose mounted indenter for access to and visibility of awkward test points
- High level of test point repeatability and reproducibility
- Robust construction with pre-tensioned leadscrew
- Standard 250 mm vertical test space, extended test space is available
- Extensive range of support anvils for testing of different materials
- Special purpose component fixtures are available

Range of applications

- **Rockwell Metals (ISO 6508, ASTM E 18)**
  Test loads: 15, 30, 45, 60, 100, 150 kg
  Scales: A B C D E F G H K L M N P R S T V W X Y
- **Rockwell Plastics**
  (HRα (Alpha), ISO 2039-2, ASTM D785)
  Test loads: 60, 100 kg. Scales: E L M R
- **Rockwell Carbonaceous Materials (DIN 51917)**
  Test loads: 7, 20, 40, 60, 100, 150 kg
- **Ball Indentation Plastics (ISO 2039-1)**
  Test loads: 49, 132, 358, 961 N
- **Rockwell Ball HR2.5**
  Balls: 2.5 mm. Test loads: 62.5, 187.5 kg
- **Brinell (Depth Method) HBT**
  Balls: 2.5, 5 mm. Test loads: 62.5, 187.5, 250 kg
- **Brinell (ISO 6506, ASTM E 10)**
  Balls: 1, 2.5, 5, 10 mm. Test loads: 6.25 to 250 kg
  (Indentation only. Requires microscope for measurement)
- **Vickers (Depth Method) HVT**
  Test loads: 10, 20, 30, 50, 100 kg

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Indentor fixturing enables hardness tests on locations which are difficult to access:

Measuring the inner contact surface

Measuring bearing ring with 23 mm diameter

Measuring a high-strength bolt

Preparation to measure inside of a gear box part

Type	Item number
ZHR8150CLK	**2112414**

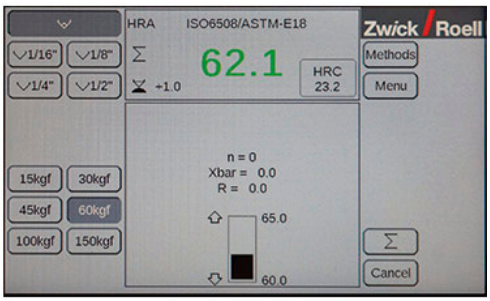
Features and technical data	
Loading technology	closed loop force control
Loading control (application, holding, and removal)	automatic
Resolution	0.1 (e. g. 62.1 HRC)
Pre-load setting	with optical and acoustic indication
Starting test action	automatic
Test area (height x depth)	standard: 250 x 150 mm; extended: 379 x 150 mm
Dimensions (height x width x depth)	800 x 260 x 670 mm (extended h = 950 mm)
Weight	approx. 60 kg
Power supply	120 or 240 V (50 - 60 Hz)
Accreditation / Quality / Traceability	UKAS lab # 0232 / ISO 17025 / UKAS and ILAC

Test setup

1) Select method

2) Define test

3) Define sequence



4) Results

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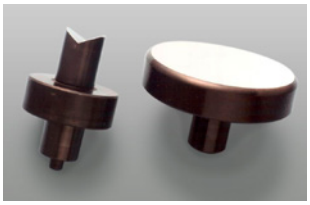
Accessories for all Zwick ZHR hardness testers

Indenter



Support tables

Support tables for round specimens

Hardness comparison plate with certificate

Standard accessories	Item Number
1 70 mm diameter flat anvil	**2111157**
1 User manual	
1 UKAS calibration certificate to ISO 6508 and ASTM E18	

Optional accessories		Item Number
Diamond indenter (UKAS certified)		**2111128**
Ball indenter 1/16“ Ø (UKAS certified)	tungsten carbide / steel	**2111137** (tungsten carbide) **/ 2112343** (steel)
1/16“ Ø ball (UKAS certified)	tungsten carbide / steel	**2111136** (tungsten carbide) **/ 2112342** (steel)
Ball indenter 1/8“ Ø (UKAS certified)	tungsten carbide / steel	**2111141** (tungsten carbide) **/ 2112345** (steel)
1/8“ Ø ball (UKAS certified)	tungsten carbide / steel	**2111140** (tungsten carbide) **/ 2112344** (steel)
Ball indenter 1/4“ Ø (UKAS certified)	tungsten carbide / steel	**2111144** (tungsten carbide) **/ 2112347** (steel)
1/4“ Ø ball (UKAS certified)	tungsten carbide / steel	**2111143** (tungsten carbide) **/ 2112346** (steel)
Ball indenter 1/2“ Ø (UKAS certified)	tungsten carbide / steel	**2111146** (tungsten carbide) **/ 2112349** (steel)
1/2“ Ø ball (UKAS certified)	tungsten carbide / steel	**2111145** (tungsten carbide) **/ 2112348** (steel)
Ball indenter 1 mm Ø (UKAS certified)	tungsten carbide	**2112311**
1 mm Ø ball (UKAS certified)	tungsten carbide	**2111470**
Ball indenter 2.5 mm Ø (UKAS certified)	tungsten carbide / steel	**2112310** (tungsten carbide) **/ 2112350** (steel)
2.5 mm Ø ball (UKAS certified)	tungsten carbide / steel	**2111472** (tungsten carbide) **/ 2112351** (steel)
Ball indenter 5 mm Ø (UKAS certified)	tungsten carbide / steel	**2112309** (tungsten carbide) **/ 2112352** (steel)
5 mm Ø ball (UKAS certified)	tungsten carbide / steel	**2111474** (tungsten carbide) **/ 2112353** (steel)
Ball indenter 10 mm Ø (UKAS certified)	tungsten carbide / steel	**2112307** (tungsten carbide) **/ 2112354** (steel)
10 mm Ø ball (UKAS certified)	tungsten carbide / steel	**2112308** (tungsten carbide) **/ 2112355** (steel)
High resolution Brinell microscope		**2112437**
Hardness test blocks can be supplied to order (ISO, ASTM, UKAS)		**various**

A full range of optional accessories is available, please see our brochure.

Test software testXpert® III Measurement value logging

Description	Item number
testXpert III - Standard Test Program - Data Communication for Hardness tester - Via RS232 interface	**9035143**
testXpert III - Master Test Program - Data Communication for Hardness tester - Via RS232 interface	**9035512**

Measured values determined on the hardness tester are transferred to testXpert III via the serial port for logging, data archiving and processing.

All data at ambient temperature.