

## Product Information

Rockwell hardness tester ZHR8150CLK for metals and plastics



Hardness tester ZHR8150CLK



### 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 (HR $\alpha$  (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

### 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

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**Indenter 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

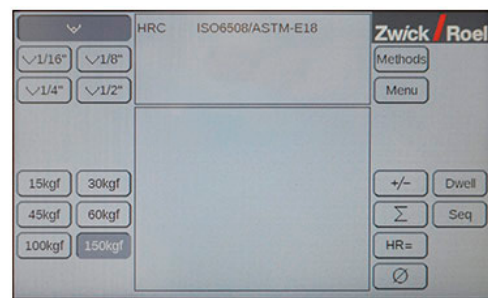
Type	Item number
ZHR8150CLK	2112414

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

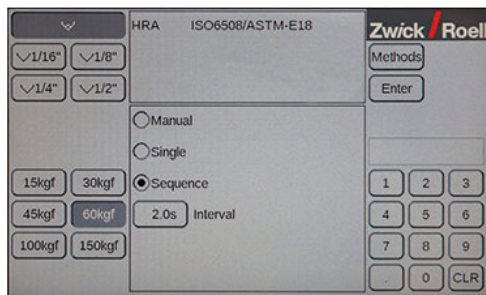
## Test setup



1) Select method



2) Define test



3) Define sequence



4) Results

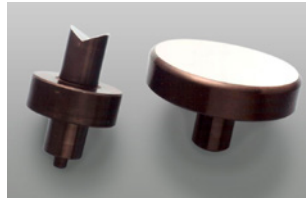
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### Accessories for all Zwick ZHR hardness testers



Indenter



Support tables



Support tables for round specimens



Hardness comparison plate with certificate

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

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

*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	<b>9035143</b>
- Data Communication for Hardness tester	
- Via RS232 interface	
testXpert III - Master Test Program	<b>9035512</b>
- Data Communication for Hardness tester	
- Via RS232 interface	

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

