

Product Information

Rockwell hardness tester Zwick ZHR 4045/4150/8150



Range of application

The hardness testers of the ZHR product family cover the following methods:

- **Classical Rockwell methods (ZHR 4150)**

Test load: 60 - 150 kg

or

- **Super Rockwell (ZHR 4045)**

Test load: 15 - 45 kg

or

- **Universal Rockwell (ZHR 8150)**

Test load: 15 - 150 kg

Special characteristics

- Simple operation via:
 - Automatic operation
 - Loading weight selection via a rotary knob
 - Automatic load application/removal
 - Automatic evaluation inclusive of conversion
- High precision
- Robust construction with a play free screw spindle running on ball-bearings
- Storage space for accessories behind side „doors“
- Workspace up to 292 mm high enables large workpieces to be tested
- Tolerance preselection
- RS232 interface as standard
- Extended range of applications by means of free-standing indenter

Indenter holder enables hardness tests on measuring locations that are hard to gain access to



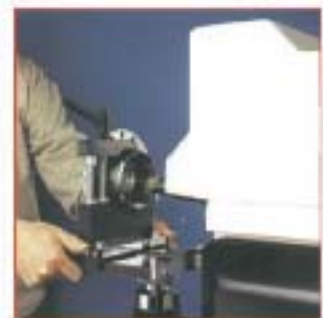
Measuring of the inner contact surface of a cardan shaft driver



Measuring of the inner contact surface of a bearing's outer ring with 23 mm diameter



Measuring of the contact surface of a high-strength screw



Preparation to measure inside of a gear box part

Product Information

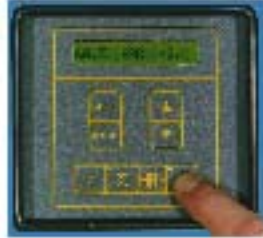
Rockwell hardness tester Zwick ZHR 4045/4150/8150

Operating concepts



AK + BK

One button operation
Equipment for
standardised Rockwell
measuring



LK

Membrane key pad
Additional: automatic
conversion of hardness,
correction of inner and
outer curves



SK

Touchscreen, basic
Additional: many statistical
possibilities of calculation,
monitoring the minimum
material thickness



TK

Touchscreen, advanced
Additional: many graphical
possibilities of evaluation
for large test series and
higher resolution

Features	AK	BK	LK	SK	TK
Automatic loading control	•	•	•	•	•
Resolution					
0.01 digits (e. g. 62.08 HRC)					•
0.1 digits (e. g. 62.1 HRC)	•	•	•	•	•
Pre-load setting with optical and acoustic support	•	•	•	•	•
Automatic display of the selected hardness method			•	•	•
Data calculation					
Average value R calculation (display + output)	•	•	•	•	•
Average value R card + diagram (display + output)					•
Test series save to a file					•
Histogram (display + output)				•	•
SPC characteristic numbers (display + output)				•	•
Standard deviation (display + output)				•	•
Go / No go evaluation (display + output)				•	•
Automatic conversion of hardness values into Vickers, Brinell, Rockwell, Knoop			•	•	•
Automatic correction of curves (D = 3 – 20 mm)			•	•	•
Automatic tolerance detection	•	•	•	•	•
Monitoring minimum material thickness				•	•
Adjustable dwell time (1 – 50 sec)	•	•	•	•	•
Twin RS232 C connection				•	•
Single RS232 C connection	•	•	•		
Storage space for accessories behind side „doors“		•	•	•	•
Internal clock				•	•

Standard accessories	4045 AK	4150 AK	4045 BK, LK, SK, TK	4150 BK, LK, SK, TK	8150 BK, LK, SK, TK
1 Diamond indenter	•	•	•	•	•
1 Ball indenter 1/16“	•	•	•	•	•
10 Replacement balls 1/16“	•	•	•	•	•
1 Round support table of dia. 70 mm for flat specimen			•	•	•
1 V-test support table for round specimen, 6mm			•	•	•
1 Combined support table of dia. 19 mm, prisma for max dia. 30 mm	•	•			
1 HRB hardness comparison plate		•		•	•
1 HRC hardness comparison plate		•		•	•
1 HR30N hardness comparison plate	•		•		•
1 HR30T hardness comparison plate	•		•		•