



Premium UCI hardness testing device for Rockwell, Brinell and Vickers

Features

- Application: This ultrasound hardness testing device is ideally suited for mobile hardness testing, where the main emphasis is on obtaining rapid and precise results.
- Principle: The SAUTER HO measures by using a vibrating rod which vibrates at ultrasonic frequency and is pressed onto the sample at a defined test force. At the lower end there is a Vickers indenter. Its resonant frequency increases as soon as an indentation is created when it comes into contact with the sample. Through appropriate adjustment of the device, the resulting change in resonant frequency is matched with the corresponding Vickers hardness.
- Examples: The HO ultrasound hardness testing system is primarily used for measuring small forgings, castings, welding points, punched parts, casting tools, ball bearings and the flanks of gear wheels as well as for measuring the influence of warmth or heat
- Advantages compared with Rockwell and Brinell: Means that the testing is almost nondestructive, small penetrations means that the testing is less destructive
- Advantages compared with Vickers: Demanding optical measuring is not required. You can therefore carry out measurements directly on-site, for example, on a permanently installed workpiece
- Advantages compared with Leeb: The high requirements on the weight of the test object can be widely omitted
- Standards: The device meets following technical standards: DIN 50159-1; ASTM-A1038-2005; JB/T9377-2013
- Measurement data memory saves up to 1000 measurement groups each with 20 individual values
- 2 Mini statistics function: Display of the measuring result, the number of measurements, the maximum and minimum value as well as the average value and the standard deviation
- Calibration: The device can be set to both standard hardness test blocks and also to up to 20 reference calibration values. When doing this it is possible to measure different materials quickly, without having to re-adjust the device to the individual materials
- 1 Scope of delivery: Standard block for calibration (approx. 61 HRC), USB cable, Display unit, UCI sensor unit, transport case, software to transfer the saved data to the PC, accessories

Technical data

- Measuring ranges: HRC: 20,3–68; HRB: 41–100; HRA: 61–85,6; HV: 80–1599; HB: 76–618; Tensile strength: 255–2180 N/mm²
- Measuring precision: ± 3 % HV; ± 1,5 HR; ± 3 % HB
- Display units: HRC, HV, HBS, HBW, HK, HRA, HRD, HR15N, HR30N, HR45N, HS, HRF, HR15T, HR30T, HR45T, HRB.
- Rechargeable battery integrated, standard, operating time up to 12 h without backlight, charging time approx. 8 h
- Minimum weight of the test object: 300 g for direct measurement with the sensor (included); 100 g with support ring (optional)
- Minimum thickness of the test object: 2 mm
- Minimum dimensions the test surface size around: approx. 5×5 mm (recommended)
- Overall dimensions W×D×H 160×83×28 mm
- Permissible ambient temperature -10 °C/40 °C
- Net weight approx. 0,93 kg

08

Mobile ultrasound hardness testing device SAUTER HO



Accessories

- External impact sensor Type D, Leeb standard sensor, can be reordered at any time, SAUTER AHMO D, € 340,-
- **7** Calibration and adjustment plate (hardness test blocks) with defined and tested steel hardness for regular testing and adjustment of hardness testing devices. The hardness values are indicated. A key feature of the plates is the low-granular, homogenous finish of the steel, Ø 90 mm, including calibration certificate, each, € 395,-
 28 to 35 HRC: SAUTER HO-A09
 38 to 43 HRC: SAUTER HO-A10
 48 to 53 HRC: SAUTER HO-A11
 58 to 63 HRC: SAUTER HO-A12

- **8** Test stand for repeatable movements during testing. In this way you can avoid errors which could occur with manual handling of the sensor. This ensures even more stable measurements and more precise measuring results. Smooth-running mechanical system, stroke length 34 mm, maximum height of the test object within the test bench 240 mm, swivel probe device for measurements outside the base plate, very robust construction, net weight approx. 9 kg, SAUTER HO-A08, € 1490,-
- Motorised probe. Enables testing at the touch of a button while maintaining the same procedure (while stocks last)
 HV 0,3, SAUTER HO-A15, € 3900,-
 HV 0,5, SAUTER HO-A16, € 3900,-
 HV 0,8, SAUTER HO-A17, € 3900,-
 HV 1, SAUTER HO-A18, € 3900,-

SAUTER HO 5K, HO 10K:

- **3** Support ring, flat, SAUTER HO-A04, € 460,-
- **4** Support ring, small cylinder, Ø 8-20 mm, SAUTER HO-A05, € 450,-
- **5** Support ring, large cylinder, Ø 20-80 mm, SAUTER HO-A06, € 450,-
- **6** Deep-hole protective cover, SAUTER HO-A07, € 235,-

SAUTER HO 1K, HO 2K:

- **3** Support ring, flat, SAUTER HO-A04N, € 460,-
- **4** Support ring, small cylinder, Ø 8-20 mm, SAUTER HO-A05N, € 460,-
- **5** Support ring, large cylinder, Ø 20-80 mm, SAUTER HO-A06N, € 460,-

STANDARD



OPTION



Model	Hardness scale	Min. weight of test item	Min. thickness of test item	Price excl. of VAT ex works €	Option Factory calibration certificates	
					KERN	€
SAUTER		g	mm			
HO 1K	HV 1	300	2	4900,-	961-270	285,-
HO 2K	HV 2	300	2	4900,-	961-270	285,-
HO 5K	HV 5	300	2	4900,-	961-270	285,-
HO 10K	HV10	300	2	4900,-	961-270	285,-