



PCE Americas Inc.
711 Commerce Way
Suite 8
Jupiter
FL-33458
USA
From outside US: +1
Tel: (561) 320-9162
Fax: (561) 320-9176
info@pce-americas.com

PCE Instruments UK Ltd.
Units 12/13
Southpoint Business Park
Ensign way
Hampshire / Southampton
United Kingdom, SO31 4RF
From outside UK: +44
Tel: (0) 2380 98703 0
Fax: (0) 2380 98703 9
info@pce-instruments.com

www.pce-instruments.com/english
www.pce-instruments.com

Technical Material Tester PCE-3000UL

UCI hardness tester PCE-3000UL series Mobile UCI hardness tester / hardness scales HRC, HB and HV / NDT device for measuring tensile strength Rm suitable / for parts starting with a thickness of 1 mm

The UCI hardness tester PCE-3000UL can be used for quickly checking the hardness of components even after installation. The device offers a wide measurement range, easy handling, robust design and a temperature resistance up to 40 °C. In addition to the hardness in Rockwell, Brinell and Vickers, the UCI hardness tester can test the tensile strength of steels up to 1740 MPa. The UCI hardness tester comes standard with a manual probe with a test force of 50N, with this probe can be measured independent of direction from all directions with no correction factor.

Another advantage of the hardness tester is its non-destructive testing or NDT property. There is a Vickers diamond, which is excited in the ultrasonic frequency range at the probe tip. Touching the diamond to the specimen surface dampens the vibrations. The resulting frequency shift is directly related to the surface hardness of the test piece. Due to the low test loads, the penetration depth of the diamond is very low, which is why only an almost invisible impression remains.

The UCI hardness tester is therefore used for the control of small thin-walled components, for surface hardened specimens or nitrided components. The hardness tester has also been effective in the measurement of welds and control of components with complex geometry.

In addition to the UCI method measuring the PCE-3000 can be equipped with a rebound probe. This allows the UCI hardness tester can be upgraded to a Rebound hardness testers. So the users of hardness tester are two models to choose from the PCE-3000U with UCI Hardness Tester and the PCE-3000UL, which is complemented by the rebound hardness probe.

- Non-destructive hardness testing
- different hardness scales
- 5 materials testable
- Battery operation
- USB interface
- different measuring probes can be connected

Technical specification for UCI hardness tester PCE-3000UL

Measuring Range	Rockwell 20 ... 70 HRC Brinell 90 ... 450 HB Vickers 230 ... 940 HV tensile strength 370 ... 1740 MPa
Measurement Accuracy	± 1.5% HRC ± 3% HB ± 3% HV
Maximum Materialrauhigkeit	10 N probe: 1.5 Ra 50 N probe: 2.5 Ra rebound probe: 3,2 Ra
Maximum Curvature Radius of the Surface	UCI probes: 5.0mm / 0.19 in rebound probe: 10 mm / 0.39 in
Minimum Weight of the Specimen	UCI probes: 0.1 Kg / 0.2 lbs rebound probe: 5 kg / 11 lbs
Minimum thickness of the test specimen	UCI probes: 1 mm / 0.03 in rebound probe: 10 mm / 0.3 in
Working Conditions	- 20 ... 40 ° C / -4 ... 104 ° F
Dimensions	Unit: 122 x 65 x 33 mm / 4.8 x 2.5 x 1.2 in UCI probe: Ø25 x 140 mm / 0.9 x 5.5 in rebound probe: Ø20 x 150 mm / 0.7 x 5.9 in
Weight	Device: 200g / 7.05 oz UCI probe: 250 g / 8.8 oz rebound probe: 100 g / 3.5 oz
Power Supply	2 x 1.5 V battery
Battery Life	20 h

Delivery UCI hardness tester PCE-3000UL

- 1 x UCI hardness tester PCE-3000
- 1 x 50 N UCI probe
- 1 x Rebound Probe Leeb Type D
- 2 x 1.5 V NiMH battery
- 1 x Charger
- 1 x Manual
- 1 x USB cable
- 1 x Software