

Hardness Testing



Impact™ TH-Series

TH-170®, TH-172®, TH-174®

- portable, dynamic hardness testers with integrated impact device for metallic materials
- Data memory for up to 270 values
- 9 group files
- no cables, easy-to-use
- low test expenditure

Hardness Testing – Impact™ TH-Series

Impact TH-170®

- Integrated impact device D, no cables
- Data memory for up to 270 readings, storable in 9 group files
- Automatic identification of the impact test direction
- Upper/lower limit setting
- Automatic or manual delete function of the last reading
- Battery level indicator
- Large LC display with backlight
- USB data output to connect directly to computer
- Direct display of hardness values according to material in Rockwell HRB, HRC, Vickers HV, Brinell HB, Shore HS or Leebs HLD scale
- For steel and cast steel, aluminium casting, brass, bronze, copper
- Tests at any angle, even upside down

Scope of Delivery

- Hardness tester with integrated impact device D
- Test block with HLD value
- Cleaning brush
- 2 pcs AAA battery, 1.5 V
- Software to connect to a computer via USB port
- Certificate
- Manual
- Carrying case

Specifications Hardness Tester TH-170®

Standard impact device	Integrated impact device D					
Hardness scales	HLD, HB, HRC, HRB, HV, HS					
Measuring ranges/materials	see table below					
Test direction	360°					
Accuracy	± 6 HLD (760 ± 30 HLD); ± 10 HLD (530 ± 40 HLD)					
Data memory	270 mean values, 9 group files					
Data output	USB 2.0 port					
Minimum surface roughness of workpiece	1.6µ (Ra)					
Maximum hardness of workpiece	900 HLD					
Minimum workpiece radius	(convex/concave): R _{min} = 50 mm (with support ring R _{min} = 10mm)					
Minimum weight of workpiece	2 to 5 kgs on stable support; 0.05 to 2 kgs with compact coupling					
Minimum thickness of workpiece, coupled	5 mm					
Minimum thickness of hardened layers	0.8 mm					
Continuous operating time	150 hours continuous operation (without backlight)					
Power supply	1.5 V AAA battery (2 pcs)					
Operating temperature	0 to 40 °C					
Dimensions/weight	155 x 55 x 25 mm/approx. 166 g					
Material	HLD	HRB	HRC	HB	HV	HS
Steel and cast steel	300 – 900	38 – 100	20 – 68	81 – 654	81 – 955	32 – 100
Cold work tool steel	300 – 840	–	20 – 67	–	80 – 898	–
Stainless steel	300 – 800	46 – 101	–	85 – 655	85 – 802	–
Grey cast iron	360 – 650	–	–	93 – 334	–	–
Nodular cast iron	400 – 660	–	–	131 – 387	–	–
Cast aluminium	170 – 570	23 – 84	23 – 84	19 – 164	–	–
Brass	200 – 550	13 – 95	13 – 95	40 – 173	–	–
Bronze	300 – 700	–	–	60 – 290	–	–
Copper	200 – 690	–	–	45 – 315	–	–

Accessories

- UKAS certified test blocks with various hardness parameters
- Support rings for convex and concave surfaces

Further models

Impact TH-172®

Portable dynamic hardness tester with integrated impact device C for all metallic materials. Particularly suitable for thin and lightweight components.

Impact TH-174®

Portable dynamic hardness tester with integrated impact device DL for all metallic materials. Particularly suitable for narrow spaces and hardly accessible parts and components.

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