

Metal Hardness Tester RHL70



- High-contrast color display (320×240 TFT) with adjustable backlight
- Expanded hardness scales for D probe: HRA, HB for steel, hammered steel and tool steel, HV for cast aluminum alloy
- New user-defined material functions for users testing special materials
- Upper-lower limit setting
- User calibration
- Can attach a wristlet or a lanyard to the shell

Features:

Measuring accuracy	±6 HLD of reading at HLD=760
Repeatability	6 HLD of reading at HLD=760
Measuring range	170-960 HLD (20.0-68.0 HRC)
Impact direction	0°, ±45°, ±90°
Hardness measurement value	HL, HRC, HRB, HRA, HB, HV, HS, UTS (σ)* for steel
Onboard memory	600 data
Optional impact device	D, DC, DL, D+15, C, G
Power supply	3.7 V Lithium Ion battery
Charging time	2-3.5 hours
Continuous working hours	Approx. 200 hours (without backlight)
Communication interface	USB
Operating temperature	14 °F-104 °F (-10 °C to 40 °C)
Dimensions	6"×3.2"×1.4" (154×82×35 mm)
Weight	10 oz (with probe D)
Backlight	

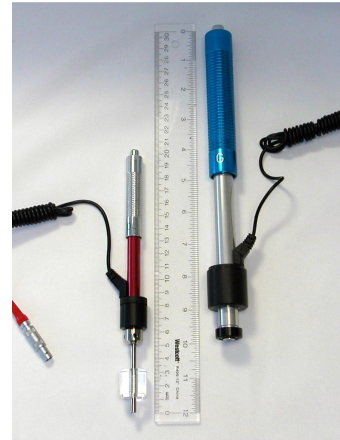
* Tensile strength is converted from hardness value.

Features of External Impact Devices:



On left (from left to right):
DC probe, C probe, D probe,
& D+15 probe (with oval ring
instead of round ring).

On right (from left to right):
DL probe & G probe



D probe is for standard use.

DC probe is short and is convenient in small space.

DL type is used in confined surfaces such as gear wheels.

D+15 type is for measuring in grooves or recessed surfaces, or welded corners.

C type is used on surface-hardened, coated, thin-walled or impact sensitive components.

G type is used on heavy and rough cast and forged work pieces.

Specifications of impact devices:

Model	D/DC/DL	D+15	C	G
Impact energy	11 Nmm	11 Nmm	2.7 Nmm	90 Nmm
Mass of the impact body	5.5 / 5.5 / 7.3 g	7.8 g	3.0 g	20 g
Probe diameter	20/20/5 mm	20 mm	20 mm	30 mm
Probe length	147 / 86 / 202 mm	162 mm	141 mm	254 mm
Probe weight	75/50/87 g	80 g	75 g	250 g
Max. hardness of sample	940/940/950 HV	940 HV	1000 HV	650 HB
Preparation of surface				
Average roughness Ra	1.6 μ m	1.6 μ m	0.4 μ m	6.3 μ m
Min. weight of sample				
Of compact shape	5 kg	5 kg	1.5 kg	15 kg
On solid support	2 kg	2 kg	0.5 kg	5 kg
Coupled on plate	50 g	50 g	20 g	500 g
Min. thickness of sample				
Coupled	5 mm	5 mm	1 mm	10 mm
Min. thickness of layers	0.8 mm	0.8 mm	0.2 mm	1.2 mm
Material of test tip	Tungsten carbide			

Measuring range of impact devices:

Sample material	Scale	Impact devices				
		D/DC	D+15	C	G	DL
		LD:170-960	LD+15:300-900	LC:350-950	LG300-750	LDL:560-950
Steel and cast steel	HRC	17.9-68.5	19.3-67.9	20.0-69.5		20.6-68.2
	HRB	59.6-99.6			47.7-99.9	37.0-99.9
	HRA	59.1-85.8				
	HB	127-651	80-638	80-683	90-646	81-646
	HV	83-976	80-937	80-996		80-950
	HS	32.2-99.5	33.3-99.3	31.8-102.1		30.6-96.8
Hammered steel	HB	143-650				
Cold work tool steel	HRC	20.4-67.1	19.8-68.2	20.7-68.2		
	HRA	60.7-92.6				
	HB	232-625				
	HV	80-898	80-935	100-941		
Stainless steel	HRB	46.5-101.7				
	HB	85-655				
	HV	85-802				
Gray cast iron	HB	93-334			92-326	
Nodular cast iron	HB	131-387			127-364	
Cast aluminum alloys	HB	19-164		23-210	32-168	
	HV	83.2-648.2				
	HRB	23.8-84.6		22.7-85.0	23.8-85.5	
Brass	HB	40-173				
	HRB	13.5-95.3				
Bronze	HB	60-290				
Copper	HB	45-315				

Standard accessories

Main unit
 Impact device D
 Standard test block
 Large support ring
 Small support ring
 Cleaning brush
 Charger with USB cable
 NIST calibration certificate
 Instruction manual
 Carrying case

Optional accessories

Mini printer
 Special support rings
 NIST calibration certificate for test block
 Optional impact devices (probes)



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