

TIME Precision Measuring Instrument

Digital Portable Hardness Tester TH 130



Features:

- Impact size, easy operation Wide measuring range in HLD, direct display of converted hardness values in HB, HRB, HRC, HRA, HV, HS
- High applicability, can be used for hardness testing of most metals
- Test at any angle even upside down
- Optional printer TA250 available
- Easy measurement on large & heavy workpieces
- Measuring in confined spaces of large workpieces
- TH130: integrated with D impact device for normal hardness testing
- TH132: integrated with C impact device for hardness testing on thin, light and face-hardened workpieces
- TH134: integrated with DL impact device for hardness testing of deep grooves and mould-face (such as tooth surface) workpieces

Technical Specification:-

Impact device	ט integrated		DL Integrated		
Hardness scales	HLD, HB, HRC, HRA, HV.	HLD, HB, HRC, HV, HS	HLD, HB, HRC, HRB,		
	HS		HV, HS		
Measuring range/materials	See table given below				
Tolerance	± 6HLD(760 ± 30HLD) ± 12HLC		± 12HLDL		
Memory	99 average readings	99 average readings	99 average readings		
Output	RS232 to printer	RS232 to printer	RS232 to printer		
Surface Roughness of Work piece	= 1.6µm [Ra]	= 0.4µm [Ra]	= 1.6µm [Ra]		
Min. radius of Workpiece (convex / concave)	Rmin = 50mm(with support ring Rmin = 10mm)	Rmin = 11mm (with support rings)	Rmin = 10mm		
Min. Workpiece weight	2~5kg on stable support 0.05~2kg with compact coupling	0.5~1.5kg on stable support 0.02~0.5kg with compact coupling	2~5kg on stable support 0.05~2kg with compact coupling		
Min. Workpiece thickness with coupling	5mm	1mm	5mm		
Min. Thickness of hardness layers	0.8mm	0.2mm	0.8mm		
Indentation depth	See table given below				
Charging time	3ĥ				
Continuous working time	60 h				
Power	Rechargeable Li-ion batteries				
Operating temperature	0~40°C				
Overall dimensions	155 x 24 x 55mm	155 x 24 x 55mm	210 x 24 x 55mm		
Weight	180g	175g	200g		

Measuring Range:-

Materials	Hardness	Impact Device					
Water lais	scale	D/DC	D + 15	С	G	E	DL
	HRC	17.9-68.5	19.3-67.9	20.0-69.5		22.4-70.7	20.6-68.2
	HRB	59.6-99.6			47.7-99.9		37.0-99.9
Steel and cast	HRA	59.1-85.8				61.7-88.0	
steel	HB	127-651	80-638	80-683	90-646	83-663	81-646
	HV	83-976	80-937	80-996		84-1042	80-950
	HS	32.2-99.5	33.3-99.3	31.8-102.1		35.8-102.6	30.6-96.8
Steel	HB	143-650					
CWT, ST	HRC	20.4-67.1	19.8-68.2	20.7-68.2		22.6-70.2	
Cw1, 51	HV	80-898	80-935	100-941		82-1009	
	HRB	46.5-101.7					
Stainless steel	HB	85-655					
	HV	85-802					
	HRC						
GC, IRON	HB	93-334			92-326		
	HV						
	HRC						
NC, IRON	HB	131-387			127-364		
	HV						
C, ALUM	HB	19-164		23-210	32-168		
C, ALUM	HRB	23.8-84.6		22.7-85.0	23.8-85.5		
BRASS	HB	40-173					
DRASS	HRB	13.5-95.3					

COPPER	HB	45-315					
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Size of im	pact indentation				
Hardness	Indentation diameter	0.54 mm	0.54 mm	0.38 mm	1.03 mm
300HV	Indentation depth	24µm	24µm	12µm	53µm
Hardness	Indentation diameter	0.54 mm	0.54 mm	0.32 mm	0.90 mm
600HV	Indentation depth	17µm	17µm	8µm	41µm
Hardness 800HV	Indentation diameter	0.35 mm	0.35 mm	0.35 mm	-
	Indentation depth	10µm	10µm	7µm	-

Standard Delivery

Main unit 1 • 1

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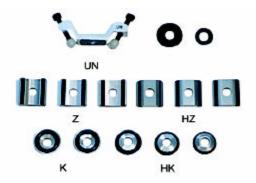
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- Test block •
- Charger • Brush •
- Connecting cable for TH130 •
- Protection pocket •
- TIME certificate •
- Instruction manual •
- Warranty card •

Optional Accessory

- Support rings •
- Printer TA230 •

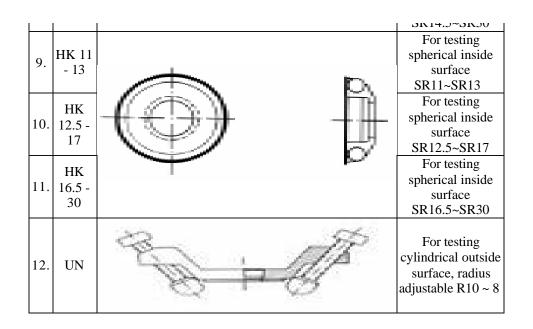
Optional Support Rings: They are used for tested surface whose curvature radius is less than 30mm (D, DC, D + 15, C impact devices) or less than 50mm (G impact device)





Support Rings

No.	Type	Sketch of non-conventional supporting ring	Remarks
1.	Z10 - 15		For testing cylindrical outside surface R10 ~ R15
2.	Z14.5 - 30		For testing cylindrical out- side surface R14.5~R30
3.	Z25 - 50		For testing cylindrical outside surface R25~R50
4.	HZ11 - 13		For testing cylindrical outside surface R25~R13
5.	HZ12.5 - 17	$+ \oplus + \blacksquare$	For testing cylindrical in- side surface R12.5~17
6.	HZ16.5 - 30		For testing cylindrical in- side surface R16.5~R30
7.	K10- 15		For testing spherical out- side surface SR10~SR15
8.	K14.5 - 30		For testing spherical outside



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