

TIME Precision Measuring Instrument

Leeb Hardness Tester TH170



Features:

- USB communication interface
- Automatic identification of impact test direction
- Memory of 270 average readings in 9 files
- Upper and lower limit setting
- Automatically switch off
- Backlight for convenient use in darkness
- AAA 1.5V battery
- Integrated calibration function

Technical Specification:-

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Hardness scales	HLD, HRC, HRB, HV, HB, HS		
Measuring range / materials	See table given below		
Measuring direction	360°		
Tolerance	$\pm$ 6HLD (760 $\pm$ 30HLD)		
Memory	270 average readings in 9 group files		
Output	USB2.0		
Surface Roughness of workpiece	= 1.6µm (Ra)		
Min. radius of workpiece (convex / concave)	Rmin = 50mm (with support ring $Rmin = 10mm$ )		
Min. workpiece weight	$2 \sim 5$ Kg on stable support 0.05 ~ 2Kg with compact coupling		
Min. workpiece thickness with coupling	5mm		
Min. Thickness of hardened layers	0.8 mm		
Indentation depth	See table in page 8		
Continuous working time	150 h (without backlight)		
Power	AAA 1.5V batteries (2pcs)		
Operating temperature	$0 \sim 40^{\circ}$		
Dimensions	$155$ mm $\times$ $55$ mm $\times$ $25$ mm		
Weight	166 g		

# Measuring Range:-

Materials	Hardness	Impact Device					
Iviatel lais	scale	D/DC	<b>D</b> + 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		
	HRB	23.8-84.6		22.7-85.0	23.8-85.5		
BRASS	HB	40-173					
DNASS	HRB	13.5-95.3					
BRONZE	HB	60-290					
COPPER	HB	45-315					

# Standard Delivery

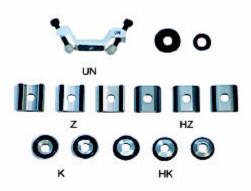
•	Main unit	1
•	Test block	1

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•	Battery AAA 1.5V	1
•	Connecting cable	1
•	TIME certificate	1
•	Instruction manual	1
•	Warranty card	1

#### **Optional Accessory**

• Support rings

)ptional Support Rings: They are used for tested surface whose curvature radius is less than 30mm (D, DC, D + 15, C impact evices) 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

1			
4.	HZ11 - 13		For testing cylindrical outside surface R25~R13
5.	HZ12.5 - 17		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 surface SR14.5~SR30	
9.	HK 11 - 13		For testing spherical inside surface SR11~SR13
10.	НК 12.5 - 17		For testing spherical inside surface SR12.5~SR17
11.	HK 16.5 - 30	$\downarrow$	For testing spherical inside surface SR16.5~SR30
12.	UN	S-F-CP	For testing cylindrical outside surface, radius adjustable R10 ~ 8

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