

PORTABLE HARDNESS PEN TYPE

เครื่องวัดความแข็งพกพา

www.itokin2000.com

MODEL THL-110



THL110: Smart and Portable.

The THL110 series the portable hardness testing instruments, which integrated the smartest NDT technology and the smallest dimension. The Lpad hardness tester is a revolutionary product that can test most of the metal objects. With the pen type design and innovative D/DL impacting probes, the products provide convenient and reliable experience of testing. With its small size, impressive design, competitive price, convenient using experience, The hardness tester can wildly be used in various situations.

SPECIFICATION

Testing direction

Highly accurate in any impact direction

Testing Range

(170-960)HLD(17.9-69.5)HRC(19-683)HB(80-1042)HV(30.6-102.6)HS
(59.1-88)HRA (13.5-101.7)HRB

Hardness Standards

HL、HV、HRA、HRC、HRB、HB、HV、HS

Accuracy

HLD: $\pm 0.5\%$ (800HLD)

Repeatability Value

HLD: 0.8% (800HLD)

Resolution

128×64 OLED display

Dimensions

148mm×40mm×30mm

Power Supply

Rechargeable lithium battery

Working Hours

About 10 hours

Working Conditions

Operating temperature: 10-50 c;

Storage temperature: -30 C -60 C;

Humidity: 90% max;

Testing Range

HLD/HRC/HB/HV/HS/HRA/HRB

Standard Equipped:

The instrument host The nylon brush

Small bearing rings

The ABS instrument

Applicable Materials

Steel and cast steel alloy tool steel stainless steel

gray cast iron

nodular cast iron cast aluminum alloy copper zinc

alloys (brass) an

alloy of copper and tin copper(bronze)



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Material	Hardness Standard	Impact device	
		D	DL
Steel and cast steel	HRC	17.9~68.5	20.6~68.2
	HRB	59.6~99.6	37.0~99.9
	HRA	59.1~85.8	
	HB	127~651	81~646
	HV	83~976	80~950
	HS	32.2~99.5	30.6~96.8
Steel	HB	143~650	
CWT、ST	HRC	20.4~67.1	
	HV	80~898	
Stainless steel	HRB	46.5~101.7	
	HB	85~655	
	HV	85~802	
GC. IRON	HRC		
	HB	93~334	
	HV		
NC、IRON	HRC		
	HB	131~387	
	HV		
C. ALUM	HB	19~164	
	HRB	23.8~84.6	
BRASS	HB	40~173	
	HRB	13.5~95.3	
BRONZE	HB	60~290	
COPPER	HB	45~315	

Application

Bearings and other parts;
Failure analysis of pressure vessel steam turbine generator group and equipment;
Heavy workpieces;
Mechanical or permanent assembly installed;
The test space is very narrow;
The original record of formal requirements on test results;



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Impact device	D/DL
The impact energy	11mJ
Impact of body mass	5.5g/7.2g
Ball hardness:	1600HV
Ball diameter:	3mm
Material of the ball:	tungsten carbide
Impact device diameter:	20mm
Impact device length:	86(147)/ 75mm
Weight of the device:	50g
The maximum hardness:	940HV
Surface average roughness Ra :	1.6 μ m
The minimum weight of specimen:	>5kg
Direct measurement	2~ 5kg
Stable support	0.05~ 2kg
To compact coupling	
The minimum thickness of specimen	5mm
Dense coupling	\geq 0.8mm
The minimum depth of hardened layer	

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Indentation size		
The hardness of 300HV	The indentation diameter	0.54mm 24 μ m
The hardness of 600HV	The indentation diameter	0.54mm 17 μ m
The hardness of 800HV	The indentation diameter	0.35mm 10 μ m
Impact device applicable scope		DL measurements on elongated slot or hole

Application

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Standard Equipped:

The instrument 1
host 1
The nylon brush 1
Small bearing 1
rings
The ABS
instrument



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