



STH180

Portable Leeb Hardness Tester



STH180



Portable Leeb Hardness Tester

STH180 Portable Leeb Hardness Tester, based on Leeb Hardness Measuring principle, for quick, on-site testing the hardness of metallic materials, with free conversion between Leeb, Brinell, Rockwell hardness scale and others. It is widely used in failure analysis of metal processing and manufacturing.

The STH180 is provided with "D" type impact device, as standard.



Features:

- **Measures hardness** in various metallic materials.
- High-contrast segment **LCD**.
- **6 impact devices** can be matched to **one main unit**.
- **Data Storage: 100 Groups** hardness measurement, each set of data includes single test value, average value, measurement data/ time, impact direction, frequency, and other information.
- **Portable and rugged** design for field operations.
- **Stable performance** in harsh environments, **resistant** to vibration and shock

Functions:



Standard Supply Includes



HD Backlight, Clear and Stable

- Tests multiple metals using Leeb principle.
- High-contrast display with various hardness scales (HL, HB, HRB, HRC, HRA, HV, HS).

STH180



Portable Leeb Hardness Tester



Integral Casting, Reliable and Durable

- Reduce the fault rate effectively

Application across all impact devices

- DC test the inner wall of the tube
- DL test the gear

Hardness Tester

D-Type Impact Device

Features:

Built-in Impact Body: Simplifies hardness testing.
Detachable Support Ring: Customizable and maintainable.
Hardened Layer Thickness Requirement: $\geq 0.8\text{mm}$.

Physical Specifications:

Height: 147mm
Weight: 50g
Diameter: 20mm



D-Type Hardness Block

Features:

D type block standard with Leeb testers.
Plating process ensures stable hardness values.

Physical Specifications:

Height: 90mm
Weight: 2.67kg
Diameter: 55mm



Portable Leeb Hardness Tester

Impact Device

D Type: Provided with instrument, for normal measurement.

Optional (Extra)

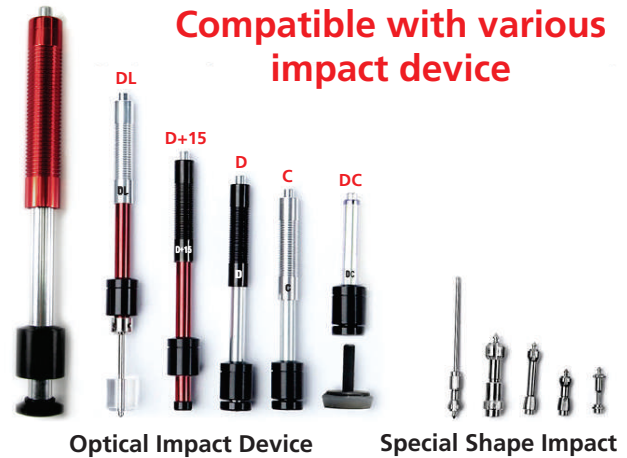
DC type: Optional Configuration for testing hole or hollow cylindrical.

DL type: Optional Configuration for testing Slender narrow groove or hole.

D+15: Optional Configuration for testing groove or reentrant surface.

G type: Optional Configuration for testing Small, light, thin parts and Surface with hardened layer.

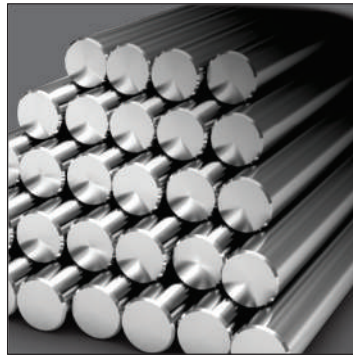
Compatible with various impact device



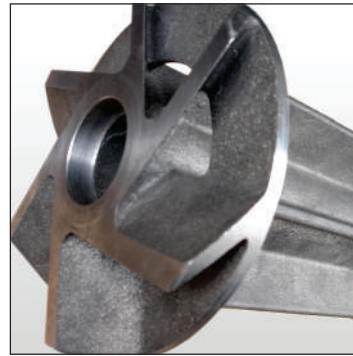
Applied Materials



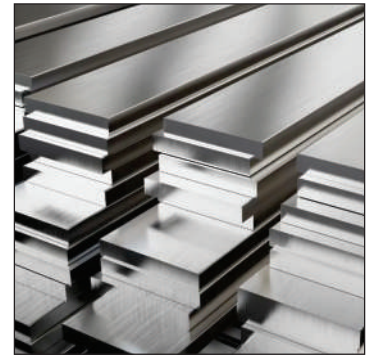
• Alloy Steel



• Steel and Cast Steel



• Cast Steel Workpiece



• Stainless



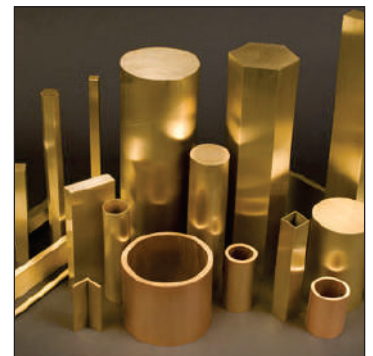
• Copper-Tin-Alloy



• Nodular Cast Iron



• Cast Aluminium



• Copper-Zinc Alloy

Application Fields

- Die cavity of molds.
- Bearings and other parts.
- Failure analysis of pressure vessel, steam generator and other equipment.
- Heavy work piece.
- The installed machinery and permanently assembled parts.
- Testing the surface of a small hollow space.
- Material identification in the warehouse of metallic materials.
- Rapid testing in large range and multi-measuring areas for large-scale work piece.

Portable Leeb Hardness Tester

Specifications	
Measuring Range	(170~960) HLD
Measuring Direction	Vertically download, Oblique, horizontal, vertical upward, automatically identify
Error	D,±6 HLD
Repeatability	D,6 HLD
Material	Steel and cast steel, Cold work tool steel, Stainless steel, grey cast iron, Nodular cast iron, cast aluminum
Hardness Scale	HL,HB,HRB,HRC,HRA,HV,HS
Impact Energy	D----11mJ
Impact Weight	D----5.5g/7.2g
Impact Ball Hardness	D----1600HV
Impact Diameter	D----3mm
Impact Ball Material	D----Tungsten carbide
Sample Surface Roughness	D----1.6µm; C----0.4µm
Min Depth of Harness layer	D----≥0.8mm; C----≥0.2mm
Calibration	Single-point calibration
Auto Power Off	About 100h (without backlight)
Communication Port	USB1.1
Shell Material	ABS plastic
Power	3V(two AA size, alkaline batteries)
Display Type	High-contrast Segment LCD
Data Storage	100 measurement series.
Product Dimensions	150mm×74mm×32 mm
Product Net Weight	245 grams

Measurement range:							
Material	Scale	Impact Device					
		D/DC	D+15	C	G	E	DL
Steel and cast steel	HRC	20~68.5	19.3~67.9	20.0~69.5		22.4~70.7	20.6~68.2
Steel and cast steel	HRB	38.4~99.6			47.7~99.9		37.0~99.9
	HB	27-651	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
C.W. tool steel	HRC	20.4~67.1	19.8~68.2	20.7~68.2		22.6~70.2	
	HV	80~898	80~935	100~941		82~1009	
Stainless steel	HRB	46.5~101.7					
	HB	85~655					
	HV	85~802					
Grey cast iron	HB	93-334					
Nodular cast iron	HB	131-387			127~364		
Cast aluminum	HB	19~164		23~210	32~168		
	HRB	23.8~84.6		22.7~85.0	23.8~85.5		
Brass (copper zinc alloy)	HB	40~173					
	HRB	13.5~95.3					
Bronze (copper al/tin alloy)	HB	60~290					
Wrought copper alloy	HB	45~315					



STANLAY™

**Professional
Grade
Products**

STANLAY™

**Best In Class
Warranty
Programmes**

STANLAY™

**Product &
Service
Training**

Regd. Office:
Asian Contec Ltd.
Asian Centre, B-28, Okhla Industrial Area, Phase-1,
New Delhi -110020, India.

Contact Nos.:
Tel : +91-11-41860000 (100 Lines),
Direct Sales Helpline : +91-11-41406926
Web : www.stanlay.in www.stanlay.com
email: sales@stanlay.com

Works :
Asian Contec Ltd. 13/7,
Mathura road, Faridabad, Haryana, India

Regional Offices :
• Mumbai • Bengaluru • Hyderabad • Vadodara
• Lucknow • Patna • Bhubaneshwar • Guwahati

Catalogue Version: ST/STH180/2023

www.stanlay.in

**Quality
Management
System**

ISO 9001: 2015

1-QSC202101102

