



STH600

Automatic Portable Hardness Tester



STH600



Automatic Portable Hardness Tester

The **STH600 Portable Leeb Hardness Tester** is an intelligent tool designed for quick and easy on-site metal hardness testing. **IP65 Environmental** rated against corrosion from oil, dust, and harsh field environments. It features multi-point calibration to **reduce errors** and **automatically identifies the measuring direction**, issuing alarms for out-of-range results. With support for **multiple hardness scales** and **low power consumption**, it's versatile and efficient. Widely used in **metal processing, equipment failure analysis, and inspections**, it's especially suited for testing large, non-removable components, enhancing production quality and cost-efficiency as a **crucial precision instrument**.

The STH600 is provided with "D" type impact device , as standard.

Features:

- **Versatile Compatibility:** Can measure the Leeb hardness of all metallic materials.
- **6 impact devices** can be matched to **one main unit**.
- **360° Measurement:** Automatic direction detection for versatile hardness testing.
- **Color Display:** 320x240 TFT LCD offers rich data, intuitive visuals, adjustable brightness. Ideal for diverse lighting conditions.
- **Portable and rugged design** for field operations.
- **Stable performance** in harsh environments, **resistant** to vibration and shock
- **Data Storage:** Stores 500 groups of detailed hardness data, including measurements and context.
- **Long-lasting power** with 2 AA batteries, **100+ hours usage**, **smart power-saving**.

Functions:

Standard Supply Includes



STH600

Automatic Portable Hardness Tester



HD Blacklight, Clear and Stable

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



360° Full Angle

- Correct Probe Direction Detection
- Efficiency Enhancement through Result Modification

Original multi-point calibration function

- Curve adjustment for error reduction.



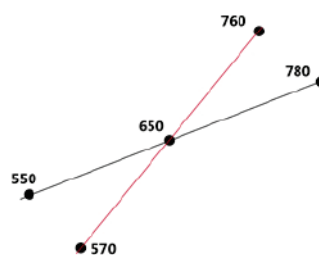
Integral Casting, Reliable and Durable

- Reduce the fault rate effectively

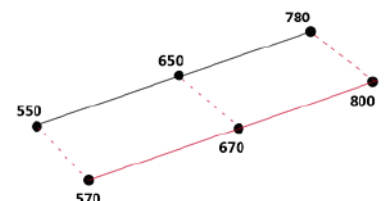


Application across all impact devices

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



Multi-point calibration



Single-point calibration

STH600

Automatic Portable Hardness Tester



Configuration

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.

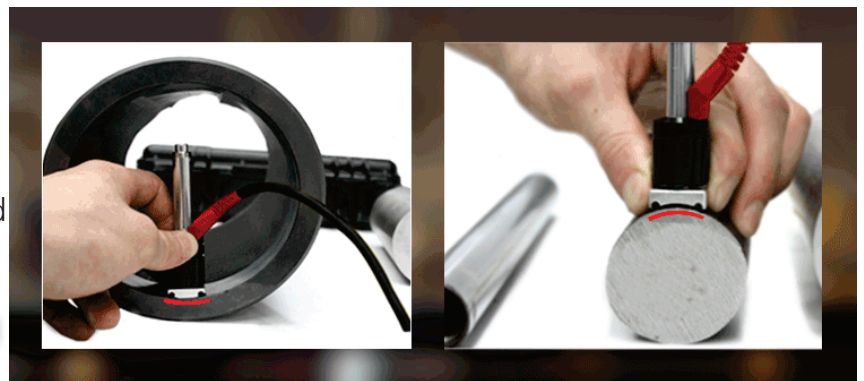
Physical Specifications:

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



Small support ring

Support Rings for Precision: Small support ring as standard for curved work pieces with radius $R < 30\text{mm}$, ensuring stability, accurate connection, and precise hardness measurements.



Nylon brush (A)

It is used for **cleaning the inner wall of the impact devices** except for the G type impact device.



Automatic Portable Hardness Tester

Impact Device

D Type: Provided with instrument, for normal measurement.

Optional (Extra)

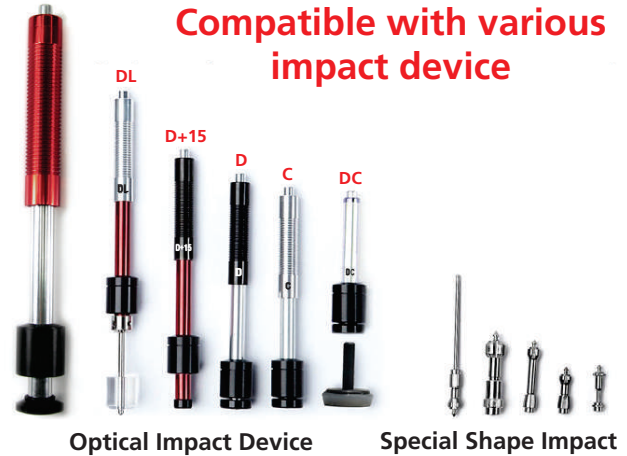
DC type: Optional Configuration for testing hole or hollow cylindrical.

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.

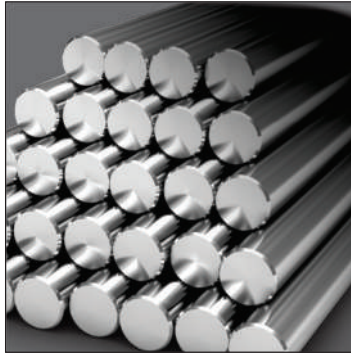
Compatible with various
impact device



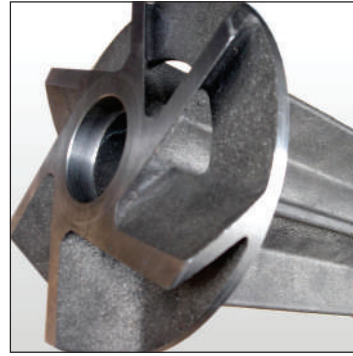
Applied Materials



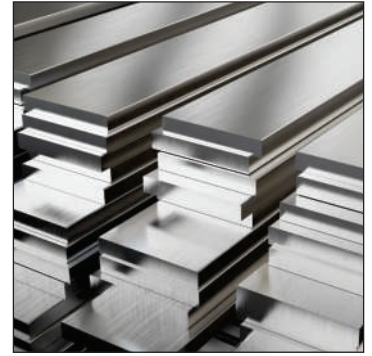
• Alloy Steel



• Steel and Cast Steel



• Cast Steel Workpiece



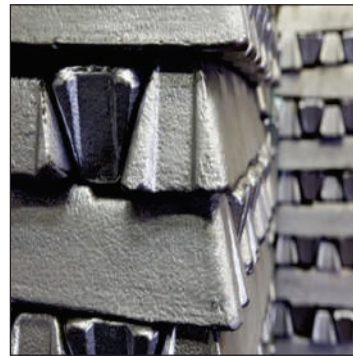
• Stainless



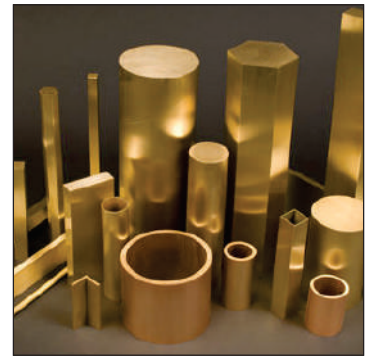
• Copper-Tin-Alloy



• 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.

Automatic Portable Hardness Tester

Specifications							
Measuring Range	(170~960) HLD						
Measuring Direction	vertically downward, oblique, horizontal, oblique, 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 alu						
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 and multi-point calibration function						
Auto Power Off	About 100h (without backlight)						
Communication Port	USB1.1						
Shell Material	ABS plastic						
Power	3V(two AA size, alkaline batteries)						
Display Type	Color TFT, 320×240 dots, dot-matric LCD						
Data Storage	500 measurement series						
Product Dimensions	150mm×76mm×38mm						
Product Net Weight	230 grams						
Environmental	IP 65						
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
	HRB	38.4~99.6			47.7~99.9		37.0~99.9
	HRA	59.1~85.8				61.7~88.0	
	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
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					



**Professional
Grade
Products**

**Best In Class
Warranty
Programmes**

**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

Sales Channel Locations: • Chennai

Catalogue Version: ST/STH600/2023

www.stanlay.in

**Quality
Management
System**

ISO 9001: 2015

1-QSC202101102

