



**Portable Hardness Tester**  
**Model No. PHT-1900**



State of the art, digital tester is designed to test the hardness of large hard metal parts. Clean crisp display shows the incredible functions that can only be found on this new model such as auto-probe detection, auto direction detector, single and multi-point calibration make the new 1900 the most versatile portable hardness tester in the industry. Blazing fast test speeds coupled with memory and output, this unit is a must have for virtually any work shop.

**The PHT-1900 can perform tests that easily convert to the most popular hardness scales, including Rockwell, Brinell, Vickers, Shore, etc.**

**Designed to test large hard parts:**  
***Example: Tool steel should be close to 1" thick of solid material***



#### **Operation:**

- Load the impact body
- Place the impact device on your test piece
- Push the button to begin testing and obtain reading

#### **Standard Accessories:**

- Base instrument
- Impact device D
- Calibrated test block
- Custom carry case
- Cleaning brush
- Operation manual

#### **Optional accessories:**

- Impact devices; DC, D+15, DL, G, C
- Special support rings
- Mini Printer

#### **Functions:**

- Easy to use keypad operation
- Auto identification of Impact Device
- Large LCD display with back light
- USB Output
- Automatic conversions to: Brinell, Rockwell B & C, Vickers and Shore
- Automatic mean value as well as Min & Max values
- Battery Indicator
- Large Memory capacity

#### **Specifications:**

- Accuracy: +/- 0.5% (referred to L=800,
- Repeatability accuracy: +/- 4L units) L=Leeb
- Measuring range: 200-960 HL
- Materials: steel & cast steel, alloy tool steel, stainless steel, grey cast iron, spheroidal iron, cast aluminum, brass, bronze, wrought copper alloy
- Battery type: AA alkaline (4)
- Operating temperature: 5-104 degrees F
- Dimensions: 150 x 74 x 32mm
- Weight: 245 grams



### **Special Application Impact Devices**

#### **Impact Device D**

*Universal standard device:*

Use for the majority of hardness testing assignments

#### **Impact Device DL**

*Needle front section .109" diameter x 1.96" length*  
Measurements in extremely confined spaces

#### **Impact Device G**

*Enlarged test tip:* For use on solid heavy components such as; rough castings and forgings. Brinell only.

#### **Impact Device DC**

*Extremely short impact device*

Used for very confined spaces such as holes, cylinders, internal measurements

#### **Impact Device D+15**

*Slim front section with coil set back.*

Hardness measurements in grooves, recessed surface.

#### **Impact Device C**

*Reduced impact energy*

For testing case hardened components



## Impact Device Specifications for PHT-1900

Impact devices →	D/DC/DL	D+15	C	G
<b>Impact energy</b>	11Nmm	11Nmm	3Nmm	90Nmm
<b>Mass of the impact body</b>	5.5g	7.8g	3.0g	20g
	<b>DL: 7.2g</b>			
<b>Test tip</b>				
* Hardness	1600HV	1600HV	1600HV	1600HV
* Diameter	3mm	3mm	3mm	5mm
* Material	Tungsten carbide	Tungsten carbide	Tungsten carbide	Tungsten carbide
<b>Impact device</b>				
* Diameter	20mm	20mm	20mm	30mm
* Length	147/86mm	162mm	141mm	254mm
* Weight	75/50g	80g	75g	250g
<b>Max. hardness of sample</b>	940HV	940HV	1000HV	650HB
<b>Preparation of surface</b>				
* Max. roughness depth Rt	10 μ m	10 μ m	2.5 μ m	30 μ m
* Average roughness Ra	2 μ m	2 μ m	0.4 μ m	6.3 μ m
<b>Min. weight of sample</b>				
* Of compact shape	5kg	5kg	1.5kg	15kg
* On solid support	2kg	2kg	0.5kg	5kg
* Coupled on plate	0. 1kg	0. 1kg	0. 02kg	0. 5kg
<b>Min. thickness of sample</b>				
* Coupled	3mm	3mm	1mm	10mm
* Min. thickness of layers	0. 8mm	0. 8mm	0. 2mm	-
<b>Indentation of test tip</b>				
<b>With 300 HV</b>				
* Diameter	0. 54mm	0. 54mm	0. 38mm	1.03mm
* Depth	24 μ m	24 μ m	12 μ m	53 μ m
<b>with 600 HV</b>				
* Diameter	0. 45mm	0. 45mm	0. 32mm	0. 90mm
* Depth	17 μ m	17 μ m	8 μ m	41 μ m
<b>with 800 HV</b>				
* Diameter	0. 35mm	0. 35mm	0. 30mm	-
* Depth	10 μ m	10 μ m	7 μ m	-

***SUPPORT RINGS: We offer a 12pc set of rings for testing concave or convex parts. PHT1500-300***

