TIME 5100 SERIES

Portable Hardness Testers

LEEB REBOUND





TIME **5100**

ABOUT

The TIME5100 Series provides in portable hardness inspection of almost any object, polished parts and heat-treated surfaces. The hardness measurements are made by using the dynamic rebound testing method according to Leeb.

Leeb hardness testing was invented in 1975 in Switzerland and has become one of the most popular portable testing methods currently available.

The TIME Leeb Hardness testers are supplied to the industry since 1991 and can be seen as the current global standard for Portable hardness testing.



TECHNICAL SPECIFICATIONS

Hardness parameter	HRC, HRB, HRA, HV, HB, HL, HS
Accuracy	0.5% ± 3HL
Max. Surface roughness of workpiece	≤1.6µm(Ra)
Impact device integrated	D integrated
Max. hardness value	940HV (Vickers)
Workpiece minimum weight	5kg - 2kg on solid support
Workpiece min. thickness coupled	5mm
Workpiece min. case hardened depth	0.8mm
Continuous working time	>8 hours
Power	2 AA batteries
Operating temperature	0°C to 40°C
Overall dimensions	$155mm \times 24mm \times 55mm$
Weight	180gr

HIGHLIGHTS

- 1 Excellent portability for testing anywhere, anytime. 2 Automatic gravity compensation for testing at any angle. 3 Extra large LCD display. 4 Real-time measurement USB data output.
- 5 Mini printer available.
- 6 Easy calibration function.
- 7 Simple to replace AA batteries.

D TYPE

Medium impact energy, suitable for regular workpieces of 5 kg or more having grinded or polished test surfaces.

COMPACT & EASY TO USE...

The D impact device and data processing electronics are integrated into one compact and ergonomic handheld device. The TIME TH170 has a USB connection for data output or connection to a mini printer.

2 YEARS WARRANTY

Warranty does not apply to consumeables such as batteries, impact body or improper use.



STANDARD DELIVERY

- Instrument with integrated impact device type D
- HLD Hardness test block with a traceable **ASTM/ISO calibration certificate**
- Cleaning brush
- Support ring
- INNOVATEST[®] certificate

OPTIONAL ACCESSORIES

- Additional Support rings
- USB data cable (TH 170/136)
- Mini printer (TA 230)
- Power adapter printer (TA-220/0600)

ORDER DETAILS

TIME 5100 Dynamic hardness tester with integrated impact device D

AT ANY ANGLE

PERFORM TESTS





3

TIME **5102**

ABOUT

The TIME 5102 Series provides in portable hardness inspection of almost any object, polished parts and heat-treated surfaces. The hardness measurements are made by using the dynamic rebound testing method according to Leeb.

Leeb hardness testing was invented in 1975 in Switzerland and has become one of the most popular portable testing methods currently available.

The TIME Leeb Hardness testers are supplied to the industry since 1991 and can be seen as the current global standard for Portable hardness testing.



TECHNICAL SPECIFICATIONS

Hardness parameter	HRC, HRB, HRA, HV, HB, HL, HS
Accuracy	1% ± 6HL
Max. Surface roughness of workpiece	≤0.4µm(Ra)
Impact device integrated	C integrated
Max. hardness value	1000HV (Vickers)
Workpiece minimum weight	1.5kg - 0.5kg on solid support
Workpiece min. thickness coupled	1mm
Workpiece min. case hardened depth	0.2mm
Continuous working time	>8 hours
Power	2 AA batteries
Operating temperature	0°C to 40°C
Overall dimensions	$155mm \times 24mm \times 55mm$
Weight	180gr

C TYPE

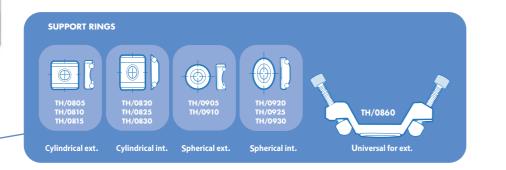
Low impact energy, suitable for workpieces of 1.5 kg or more having polished test surfaces.

COMPACT & EASY TO USE...

The C impact device and data processing electronics are integrated into one compact and ergonomic handheld device. The TIME 5102 has a USB connection for data output or connection to a mini printer.

2 YEARS WARRANTY

Warranty does not apply to consumeables such as batteries, impact body or improper use.



HIGHLIGHTS

- 1 Excellent portability for testing anywhere, anytime. 2 Automatic gravity compensation for testing at any angle. 3 Extra large LCD display. 4 Real-time measurement USB data output. 5 Mini printer available. 6 Easy calibration function.
- 7 Simple to replace AA batteries.

STANDARD DELIVERY

- Instrument with integrated impact device type C
- HLC Hardness test block with a traceable **ASTM/ISO calibration certificate**
- Cleaning brush
- Support ring
- INNOVATEST[®] certificate

OPTIONAL ACCESSORIES

- Additional Support rings
- USB data cable (TH 170/136)
- Mini printer (TA 230)
- Power adapter printer (TA-220/0600)

ORDER DETAILS

TIME 5102 Dynamic hardness tester with integrated impact device C.







TIME **5104**

ABOUT

The TIME 5104 provides hardness testing capacity in hard to reach places. Part of the wide range of TIME portable hardness testing instruments.



TECHNICAL SPECIFICATIONS

Hardness parameter	HRC, HRB, HRA, HV, HB, HL, HS
Accuracy	2% ± 12HLDL
Max. Surface roughness of workpiece	≤1.6µm(Ra)
Impact device integrated	DL integrated
Max. hardness value	950HV (Vickers)
Workpiece minimum weight	5kg - 2kg on solid support
Workpiece min. thickness coupled	5mm
Workpiece min. case hardened depth	0.8mm
Continuous working time	>8 hours
Power	3.7V
Operating temperature	0°C to 40°C
Overall dimensions	210mm × 24mm × 55mm
Weight	200gr

DL TYPE

Specially designed protruding needle impact device to test in narrow or confided spaces. Medium impact energy, suitable for regular workpieces of 5 kg or more having grinded or polished test surfaces.

COMPACT & EASY TO USE...

The DL impact device and data processing electronics are integrated into one compact and ergonomic handheld device. The TIME 5104 has a USB connection for data output or connection to a mini printer.

2 YEARS WARRANTY

Warranty does not apply to consumeables such as batteries, impact body or improper use.

HIGHLIGHTS

- 1 Excellent portability for testing anywhere, anytime.
- **2** Automatic gravity compensation for testing at any angle.
- **3** Extra large LCD display.
- 4 Real-time measurement USB data output.
- 5 Mini printer available.
- 6 Easy calibration function.
- Simple to replace AA batteries.

STANDARD DELIVERY

- Instrument with integrated impact device type DL
- HLD Hardness test block with a traceable
 ASTM/ISO calibration certificate
- Charger
- Cleaning brush
- Needle nose
- INNOVATEST[®] certificate

OPTIONAL ACCESSORIES

- USB data cable (TH 170/136)
- Mini printer (TA 230)
- Power adapter printer (TA-220/0600)

ORDER DETAILS

TIME 5104 Dynamic hardness tester with integrated impact device DL



angle.



CORPORATE HEAD OFFICE

INNOVATEST Europe BV Manufacturing, Distribution & Service Borgharenweg 140 6222 AA MAASTRICHT The Netherlands

Phone: +31 43 3520060 Fax: +31 43 3631168 info@innovatest-europe.com www.innovatest-europe.com

INNOVATEST Deutschland GmbH Sales & Service

Phone: +49 245 670 59 500 info@innovatest-deutschland.com www.innovatest-deutschland.com

INNOVATEST UK Ltd. Sales & Service

Phone: +44 121 274 0105 info@innovatest-uk.com www.innovatest-uk.com

B20TIME-TIME5100/03/EN

INNOVATEST France SARL Sales & Service

Phone: +33 1848 88038 info@innovatest-france.com www.innovatest-france.com

INNOVATEST Polska sp. z.o.o Sales & Service

Phone: +48 697 099 826 info@innovatest-polska.pl www.innovatest-polska.pl

INNOVATEST USA Company Sales & Service

Phone: +1 267 317 4300 info@innovatest-usa.com www.innovatest-usa.com

INNOVATEST Shanghai Co,. Ltd. Sales & Service

Phone: +86 21 60906200 info@innovatest-shanghai.com www.innovatest-shanghai.com

INNOVATEST Japan Co., Ltd. Sales & Service

Phone: +81 3 3527 3092 info@innovatest-japan.com www.innovatest-japan.com

INNOVATEST South East Asia Sales & Service

Phone: +65 6451 1123 info@innovatest-singapore.com www.innovatest-singapore.com