HARDNESS TESTERS

HZ BY PRESI



PRESI

THE RANGE OF

7 HZ HARDNESS TESTERS

BY PRESI



HZ2-2 **HZ10-2** **HZ30-2**

3 **SEMI-AUTOMATIC** HARDNESS TESTERS



HZ2-4 **HZ10-4** **HZ30-4** **HZ50-4**

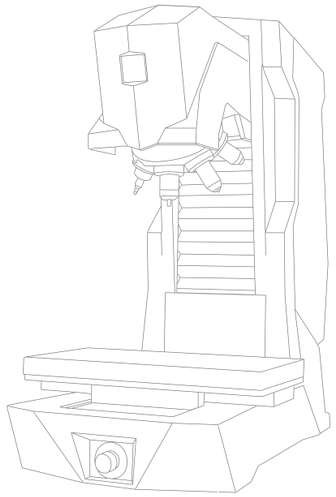
4 **AUTOMATIC** HARDNESS TESTERS

HZ HARDNESS TESTERS

THE HARDNESS TESTERS RANGE BY PRESI

Semi-automatics or automatics, HZ hardness testers are instantly recognizable. 100% made in France, its original design along with its robustness and highly technical capacities make it an essential work tool.

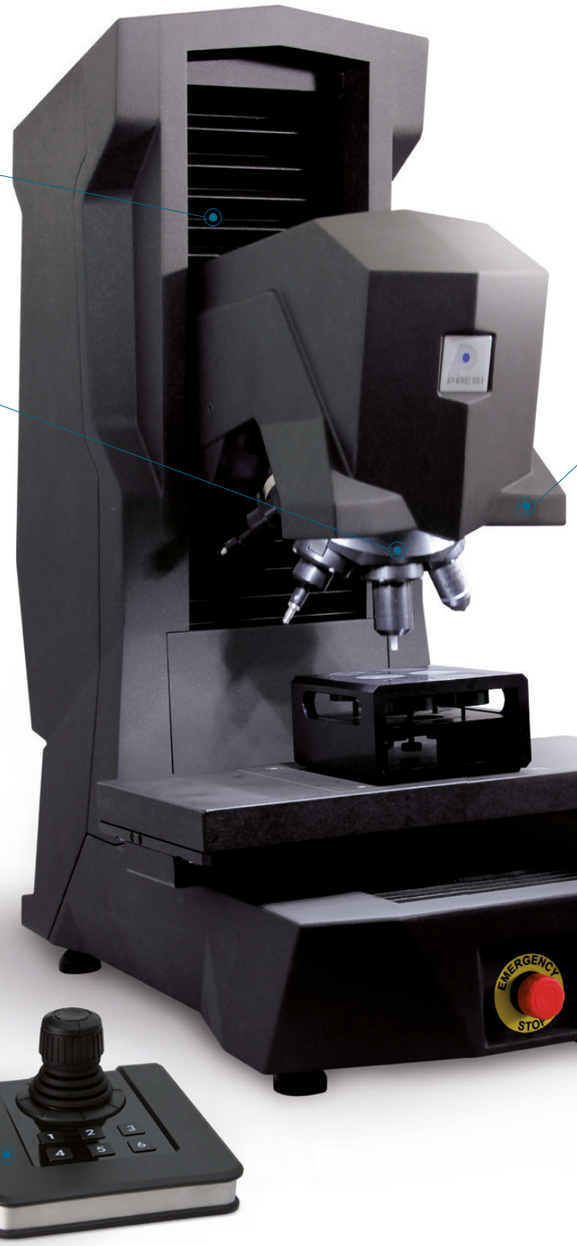
- OPTICAL QUALITY
- PRECISION
- RELIABILITY

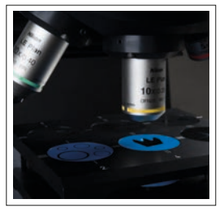


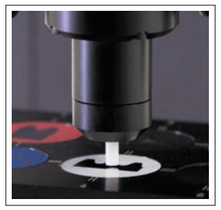
800mm
700mm
370mm
80kg

Large work space
Thanks to a major vertical extension.

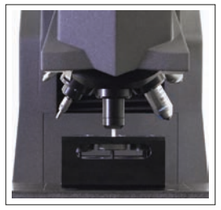
Motorized turret
Up to 7 positions, with touch sensor.



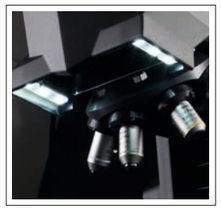




Nikon objectives
with a magnification up to 2000x.



2 LED lighting systems
for micro and macroscopy use



Ergonomic joystick
with customizable sensitivity



A wide load range from 5g to 65kg.

Very high image quality.

Accuracy and repeatability of the measurements.

Work and reading comfort.

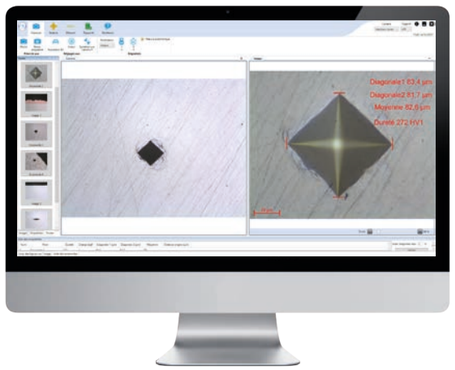
SOFTWARE
FOR SEMI-AUTOMATIC HZ

PRESI TOUCH ESSENTIAL

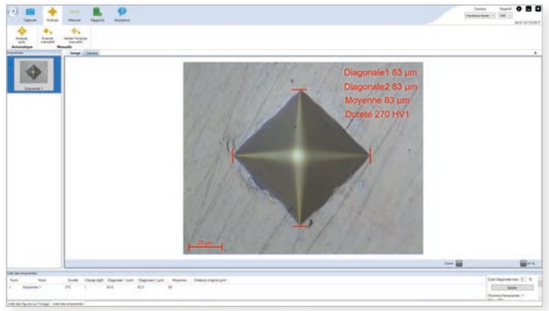
Intuitive software with a graphic menu.
100% customizable interface.
Permanent overall view of the results and data.
Built-in search engine.
Automatic or manual indent measurement.
Single indent.

Also available in version
PRESI TOUCH MANUAL

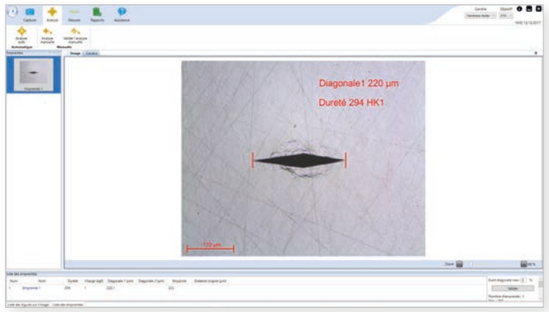
Higher version of the software that integrates **manual pattern.**



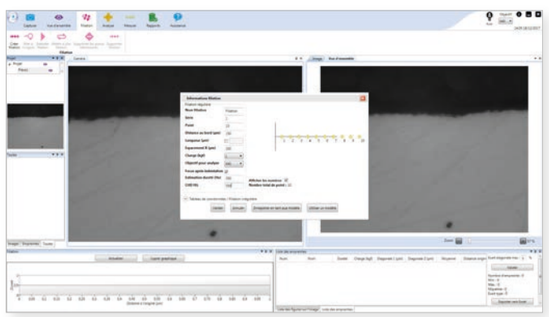
EASY AND INTUITIVE
IMAGE FLUIDITY
DATA STORAGE



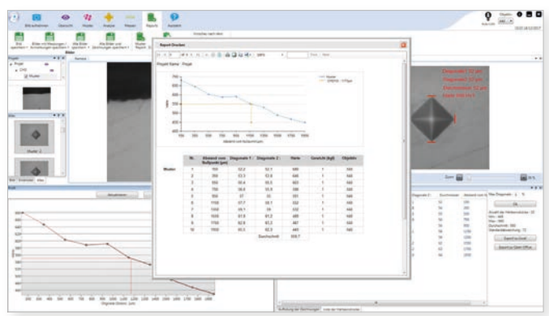
PRESI Touch Essential
Automatic or manual measurement of Vickers indents.



PRESI Touch Essential
Automatic or manual measurement of Knoop indents.



PRESI Touch Manual
Pattern creation. A graphic and dynamic assistant allows pattern visualisation during its programing.



PRESI Touch Manual
Automatic report. In one click, a report formats the results. This report is printable or recordable in many formats.

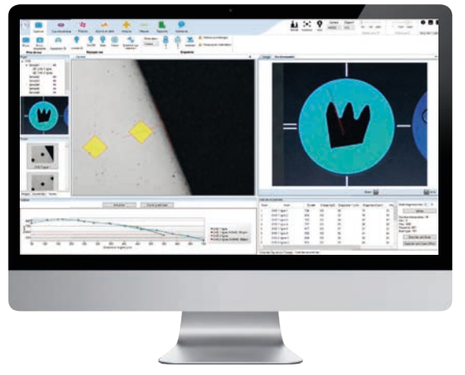
SOFTWARE
FOR AUTOMATIC HZ

PRESI TOUCH AUTOMATIC " FULL"

User-friendly, intuitive and customizable software.
All the features directly accessible.
Permanent overall view of the results and data.
Comprehensive software with all available applications.
Single indent, regular or irregular pattern.
Mapping with 2D / 3D image.

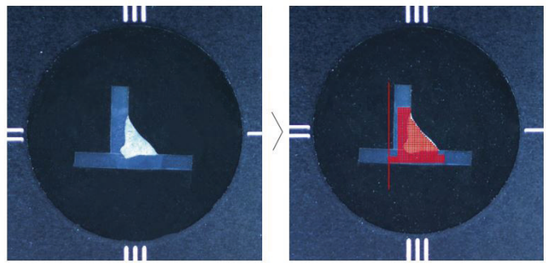
Also available in version
PRESI TOUCH PATTERN

Special version for **patterns, heat treatments, CHD, NHT.**

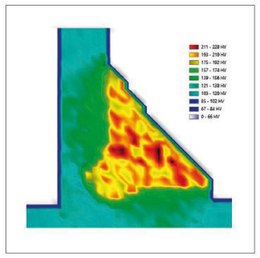


COMPLETE, RELIABLE AND POWERFUL
VERY HIGH IMAGE QUALITY
INTUITIVE NAVIGATION
TIME SAVING

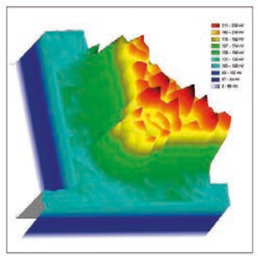
Automatic mapping feature

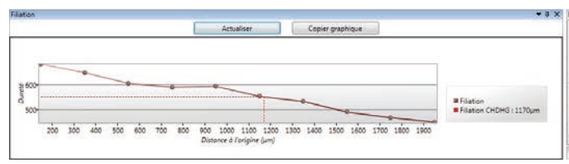


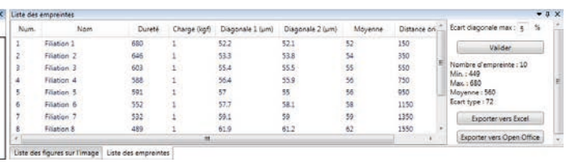
2D mapping



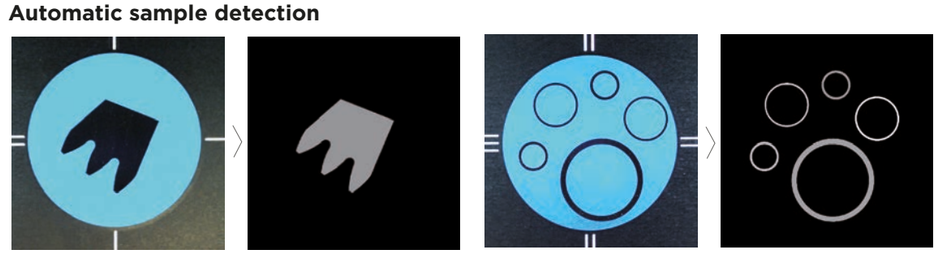
3D mapping







Automatic sample detection



HZ HARDNESS TESTERS

	SEMI-AUTOMATIC			AUTOMATIC			
MODEL	**HZ2-2**	**HZ10-2**	**HZ30-2**	**HZ2-4**	**HZ10-4**	**HZ30-4**	**HZ50-4**
Reference	71218	71216	71200	71219	71217	71201	71123
LOAD APPLICATION							
Load range	5 gf - 2 kgf	10 gf - 10 kgf	100 gf - 30 kgf	5 gf - 2 kgf	10 gf - 10 kgf	100 gf - 30 kgf	5 gf - 65 kgf
Indenter type	Vickers or Knoop	Vickers or Knoop	Vickers or Knoop	Vickers or Knoop	Vickers or Knoop	Vickers or Knoop	Vickers AND Knoop
FRAME							
Load cells	1	1	1	1	1	1	2
Touch sensor	✔	✔	✔	✔	✔	✔	✔
Objectives	up to 4	up to 4	up to 4	up to 4	up to 4	up to 4	4
Magnification	200 to 2000x	200 to 2000x	200 to 2000x	200 to 2000x	200 to 2000x	200 to 2000x	200 to 2000x
Full HD microscopic camera	✔	✔	✔	✔	✔	✔	✔
Full HD macroscopic camera: observable scope 62x50mm	-	-	-	o	o	o	✔
LED light source	✔	✔	✔	✔	✔	✔	✔
Z axis travel	250 mm	250 mm	250 mm	250 mm	250 mm	250 mm	250 mm
TABLES							
Fixed 200 x 200 mm							
Maximum work piece weight: 50 kg	✔	✔	✔	-	-	-	-
Compatible with single place sample holder							
Manual 110 x 110 mm							
XY travels 25 x 25 mm							
Table feeding accuracy with analog micrometers: 10 µm	o	o	o	-	-	-	-
Table feeding accuracy with digital micrometers: 1 µm							
Maximum work piece weight: 50 kg							
Compatible with single place sample holder							
Motorized standard 280 x 200 mm							
XY travels 100 x 130 mm							
Table feeding accuracy: 1 µm	-	-	-	✔	✔	✔	-
Maximum work piece weight: 80 kg							
Compatible with single place sample holder							
Motorized marble 420 x 210 mm							
XY travels 180 x 200 mm							
Table feeding accuracy: 1 µm	-	-	-	o	o	o	✔
Maximum work piece weight: 100 kg							
Compatible with multiple and single place sample holder							
SOFTWARE							
PRESI Touch Essential	✔	✔	✔	-	-	-	-
PRESI Touch Manual	o	o	o	-	-	-	-
PRESI Touch Pattern	-	-	-	✔	✔	✔	-
PRESI Touch Automatic « Full »	-	-	-	o	o	o	✔
External PC and 28'' screen	✔	✔	✔	✔	✔	✔	✔
GENERAL							
Test load tolerance < 1 %	✔	✔	✔	✔	✔	✔	✔
Dwell time: 5 - 999 s	✔	✔	✔	✔	✔	✔	✔
Standard compliance : ISO 6507 & 4545, ASTM E384 and E92	✔	✔	✔	✔	✔	✔	✔

LEGEND - Incompatible ✔ included o option

TABLES



Fixed table



Manual table



Motorized table - Standard



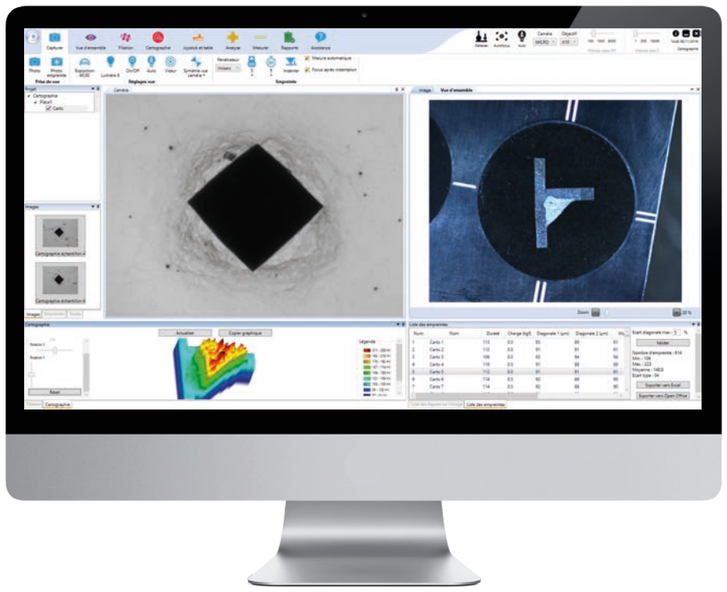
Motorized table - Marble

SOFTWARE

	SEMI-AUTOMATICS HARDNESS TESTERS		AUTOMATICS HARDNESS TESTERS	
	PRESI TOUCH ESSENTIAL	**PRESI TOUCH** MANUAL	**PRESI TOUCH** PATTERN	**PRESI TOUCH** AUTOMATIC « FULL »
INDENT TYPE				
Single indent	✔	✔	✔	✔
Manual pattern	-	✔	✔	✔
Automatic pattern	-	-	✔	✔
Manual mapping	-	-	-	✔
Automatic mapping	-	-	-	✔
FEATURES				
Automatic measure of the indent	✔	✔	✔	✔
Manual measure of the indent	✔	✔	✔	✔
Autofocus	✔	✔	✔	✔
Automatic light	✔	✔	✔	✔
Incorrect measurements alerts	✔	✔	✔	✔
Pattern settings	-	✔	✔	✔
Simulation of the size of the indent	-	✔	✔	✔
Hardness value conversion	✔	✔	✔	✔
Analysis reports	-	✔	✔	✔
Measurement Toolboxes	o	✔	✔	✔
Macroscopic overview	-	-	(1)	(1)
Reconstitution of macroscopic images	-	-	(1)	(1)
Reconstitution of microscopic images	-	-	✔	✔
Automatic storage	✔	✔	✔	✔
Multilingual software	✔	✔	✔	✔
EQUIPMENT				
Full HD digital camera for microscopy	✔	✔	✔	✔
Full HD digital camera for macroscopy	-	-	(1)	(1)
Hardness tester / PC communication	✔	✔	✔	✔
Turret control	✔	✔	✔	✔
XYZ 3-axis joystick	-	-	✔	✔
1 axis Z joystick	✔	✔	-	-
External PC and 28'' screen	✔	✔	✔	✔

LEGEND - Incompatible ✔ included o option

(1) Available with macroscopic camera



ACCESSORIES

		SEMI-AUTOMATICS HARDNESS TESTERS			AUTOMATICS HARDNESS TESTERS			
MODEL		**HZ2-2**	**HZ10-2**	**HZ30-2**	**HZ2-4**	**HZ10-4**	**HZ30-4**	**HZ50-4**
Reference		71218	71216	71200	71219	71217	71201	71123
Réf.	OBJECTIVES							
71205	Nikon objective x5 (200x)	o	o	o	o	o	o	✔
71206	Nikon objective x10 (400x)	o	o	o	o	o	o	✔
71207	Nikon objective x20 (800x)	o	o	o	o	o	o	✔
71208	Nikon objective x50 (2000x)	o	o	o	o	o	o	✔
71209	Nikon objective x20 (long distance)	o	o	o	o	o	o	o
71210	Nikon objective x50 (long distance)	o	o	o	o	o	o	o
71204	Macroscopic view with color camera - observable scope 62x50mm	-	-	-	o	o	o	✔
Réf.	INDENTERS							
71164	Certified Micro-Vickers indenter	✔	o	o	✔	o	o	o
71202	Certified Vickers indenter for HZ	-	✔	✔	-	✔	✔	✔
71134	Certified Knoop indenter	o	o	o	o	o	o	✔
Réf.	SAMPLE HOLDERS							
71109	Single place sample holder (without removable holder)	o	o	o	o	o	o	o
71174	Removable holder Ø25 mm	o	o	o	o	o	o	o
71144	Removable holder Ø25,4 mm	o	o	o	o	o	o	o
71100	Removable holder Ø30 mm	o	o	o	o	o	o	o
71111	Removable holder Ø31,7 mm	o	o	o	o	o	o	o
71145	Removable holder Ø38,1 mm	o	o	o	o	o	o	o
71125	Removable holder Ø40 mm	o	o	o	o	o	o	o
71173	Removable holder Ø50 mm	o	o	o	o	o	o	o
71175	Sample holder 4 places (Ø25 | Ø25,4 | Ø30 | Ø31,7 | Ø38,1 | Ø40)	-	-	-	(2)	(2)	(2)	o
71176	Sample holder 6 places (Ø25 | Ø25,4 | Ø30 | Ø31,7 | Ø38,1 | Ø40)	-	-	-	(2)	(2)	(2)	o
Réf.	VARIOUS							
71120	Digital micrometers for manual table, accuracy 1 µm (3)	(3)	(3)	(3)	-	-	-	-
71503	Object micrometer	o	o	o	o	o	o	o
71113	Standard certified Vickers test block Ø30x10mm (microhardness up to HV1)	o	o	o	o	o	o	o
71141	Standard certified Vickers test block Ø64x15mm (macrohardness from HV2)	o	o	o	o	o	o	o
71182	Standard certified Knoop test block Ø30x10mm	o	o	o	o	o	o	o
71161	Microsoft Office Pack	o	o	o	o	o	o	o
71181	Protective cover cloth	o	o	o	o	o	o	✔

LEGEND - Incompatible ✔ included o option

(2) Available with the motorized marble table 420 x 210 mm

(3) Available with the manual table 110x110mm

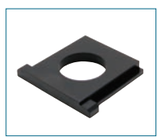


Nikon objectives


Vickers indenter


Knoop indenter


Single place sample holder (without removable holder)

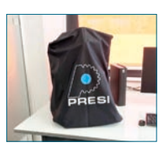

Removable holder


Sample holder 4 places


Sample holder 6 places


Object micrometer


Vickers test block



Protective cover cloth


Digital micrometers for manual table

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