

Vickers, Knoop, Brinell



INNOVATIVE VERTICAL FOCUS DRIVE

AFFRI® System Hardness Tester achieves the highest level of depth accuracy and measurement resolution available for hardness tests.

Up to 300 mm elecrtonically controlled height capacity for fast or slow vertical movements. Very rapid and ultra-sensitive drive for a perfectly accurate autofocus. Indenters and objectives protected from accidental collision.







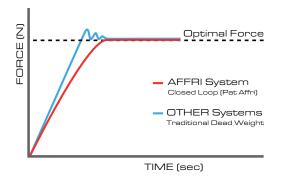
6 SLOTS ROTATING TURRET

All optical microscope objectives can be pre-installed and combined with indenters for Vickers and Knoop. Optical objectives selection of 2.5x - 5x - 10x - 20x - 40x - 50x - 100x.



CLOSED LOOP AND LOAD CELL TECHNOLOGY

Each load force is automatically programmed and controlled assuring perfect linearity in every range eliminating the problems associated with traditional dead weight system testers. The test is not affected by any external sources of deflection, misalignment or vibration. The AFFRI system can also operate in an inclined position.



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ONE BUTTON MULTI MEASUREMENTS

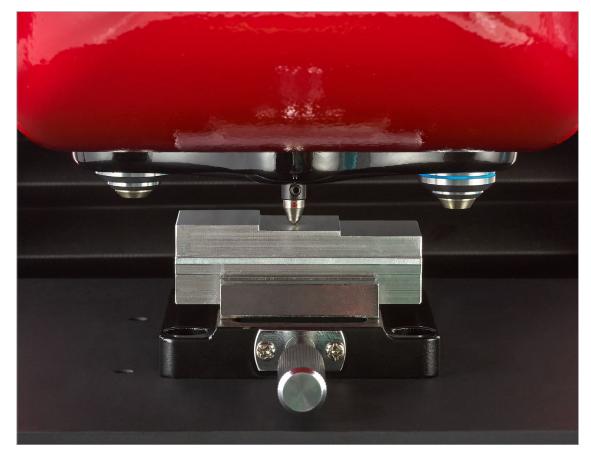
Push the START button and the instrument head will approach the specimen and begin the test, following every predefined patterns and performing each indentation, no matter the amount. Auto focusing, automatic measuring and reporting, allow this system to function unattended for hours without interruption, saving time and money, thus increasing throughput and productivity.

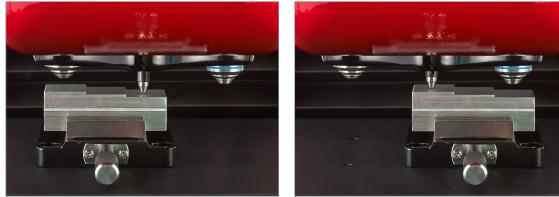


INDENTER STROKE

Reliable test even on unlevelled or misaligned test surfaces. The indenter stroke permits easy tests on different height levels of the test's samples.

The indenter automatically goes downwards to contact the specimen and perform the indentation.









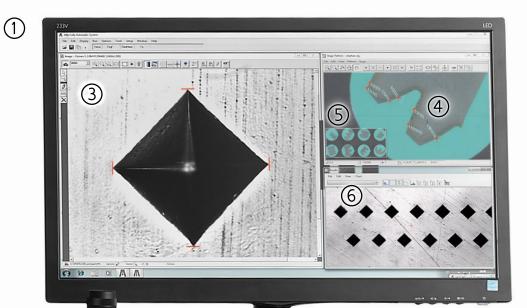
ACCESSORIES

Large variety of indenters for each hardness scale.

A series of different anvils is available to test every size of test piece. Consult our web database for more information. Customized solution based on your needs can be made for perfect tests on rough pieces.



WIKI JS SOFTWARE

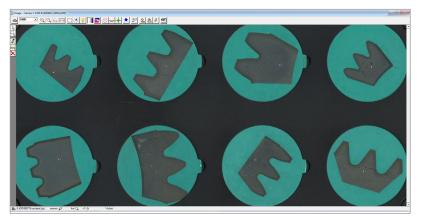


- 1. High definition monitor 24"
- 2. Joystick for dinamic movements on X/Y/Z axis at fast or slow speed. Accuracy of 0,5 μ/m per step
- 3. Clean vision of the indent with autofocus and auto cleaning of the surface's image
- 4. Visual controll of each sample
- 5. Place patterns where you need to perform the case depth indentations
- 6. See every pattern's indents



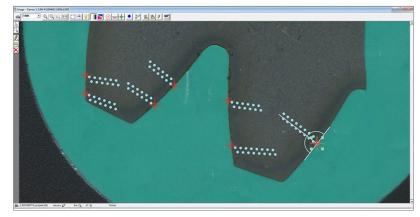
AUTOMATIC MEASUREMENT CYCLE

1 - SEE THE FULL AREA



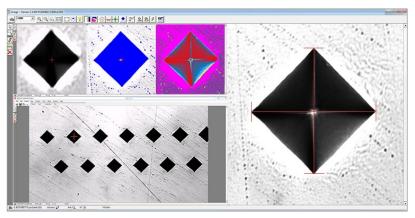
Obtain a perfect, detailed, high resolution, and evenly illuminated view of the whole sample holder.

2 - SETUP PATTERNS



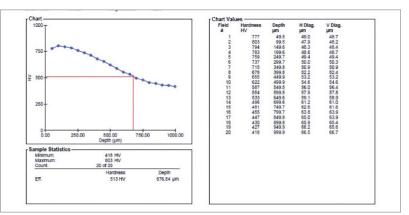
Save, copy and paste or create new patterns to predefined locations with a simple click.

3 - PUSH START



The software follows the patterns, indents the sample, measures, and generates data dynamically.

4 - GET RESULTS



Obtain statistically relevant results. Review results in graphical and/or tabular format.



EXCLUSIVE DESIGN

The innovative design of WIKI JS is AFFRI's unique and exclusive. Comfortable and ergonomic working station built for facilitate operator's movements, allowing an organized and well-ordered work. Built-in side case for preserve tester's accessories.





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WORKING STATION

10 - H + P + A A P

> Solid and compact workbench with a large locker to accomodate computer, console and cables. Wide side table, suitable right or left, to be all within operator's reach.



Made by: OMAG di AFFRI D. S.r.I. Via M. Tagliaferro, 8

I-21056 INDUNO OLONA - CEE (VA) - ITALY Tel. +39 0332 200546 Fax +39 0332 203704 info@omagaffri.com

Europe/Asia: AFFRI®

Via M. Tagliaferro, 8 I-21056 INDUNO OLONA - CEE - (VA) - ITALY Tel. +39 0332 201533 +39 0332 206289 Fax +39 0332 203621 info@affri.com - www.affri.com

America: AFFRI Inc. 111 S. Lombard Rd Unit #4

ADDISON, IL 60101 - USA Tel. 224 374 0931 - 630 303 1588 sales@affriusa.com www.affri.com

	WIKI 200 JS WIKI 200 JS2 WIKI 200 JS3	WIKI 100 JS WIKI 100 JS2 WIKI 100 JS3
Action	Automatic indentation on different height level of the sample. Autofocus, anti-collision system (patent pending)	
Accuracy	Better than 0.1 %	
Temperature Range	From 10 °C to 35 °C	
Data Output	USB / RS 232 C / Ethernet	
Power Supply	110 o 220 V / 50-60 Hz	
Software	Affri - OMAG	
Principle of Operation	Load cell and closed loop	
Force Range	From 0,098 to From 0,0098 to From 0,981 to 98,1 N 409,5 N 306,47 N (10 gf - 10 kgf) (1 gf - 50 kgf) (100 gf a 31,25)	From 0,098 to From 0,0098 to From 0,981 to 98,1 N 409,5 N 306,47 N (10 gf - 10 kgf) (10 gf - 50 kgf) (100 gf - 31.25 kgf)
Feasible Tests	Vickers - Knoop - Brinell	
Standards	EN-ISO 6506 / EN-ISO 6507 / EN-ISO 4545 / ASTM-E92 / ASTM-384 / JIS-Z231	
Turret	Automatic – 6 positions	
Indenter	Vickers - Knoop - Brinell	
Objectives	2.5x - 5x - 10x - 20x - 40x - 50x - 100x	
Camera	1.3 MP USB2 B/W HD	
Focus and Reading	Automatic and Manual (both) Manual focus with auto reading	
Lighting	Energy Efficient Cool LED Light Source	
Dwell Time	Programmable	
Head Stroke	300 mm - automatic	
Depth Capacity	135 mm	
X-Y Table	250 x 300 mm	
Table (automatic or manual)	X -Y: 100 x 50 mm or 200 x 100 mm (automatic) with 0.5 µm step	X-Y: Manual 100 x 100 mm with 10 μm step
Tolerable Weight	50 kg	
Network	Wire connection for technical assistance auto diagnosis	
Fields Of Use	For vickers and micro-Vickers automatic single or multiple sample cycle	
Packing Weight	160 kg	
Packaging Measurements	120 x 120 x 160 cm	

