AFFRI

MICRO + MACRO VICKERS

WIKI JS Is a hardness tester for absolute measurements Vickers and Knoop with many automations.





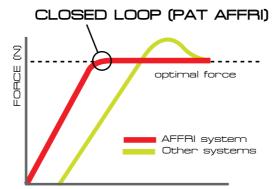
Multiple objectives and indenters automatic selection.



Wide range of motorized tables with high precision movements 1 µm.



Automatic measurements Vickers Knoop with preset cycles for CHD.



TIME (sec)

The forces fully controlled by a load cell in closed loop, assure a perfect precision already at very low loads from 0,098 N forward, there's no need to level without inertia.

20





Motorized table area 350 x 220 mm, range 300 x 200 mm, div. 1 μ/m step.



Motorized table area 150 x 150 mm, range 98 x 98 mm, div. 1 μ/m step.



Manual Table area 100 x 100 mm, range 25x25 mm, div. 0,01 mm.



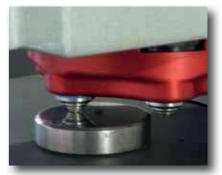
New rotary selector. All objectives and indenters can be installed and automatically combined on rotary turret. It performs a quick test cycle that optimizes the magnification.



Choice of objectives: 2,5x - 5x - 10x - 40x - 50x - 100x



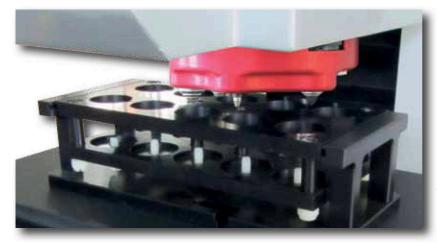
Double indenters Vickers and Knoop can be easily installed and automatically selected.



Automatic matching with the best magnification to optimize the resolution of optical measurement.

AFFRI

MICRO + MACRO VICKERS



Multiple test block holders for preset automatic sequence tests, with interchangeable templates for different test block diameters (25, 30, 40 and 50 mm) and variable number of test blocks (2, 4, 6, 8, 12 and 16) all with self-leveling system.



Multi sample holder with interchangeable base, 240 x 100 mm.



Support for single test piece at variable diameter + test block.

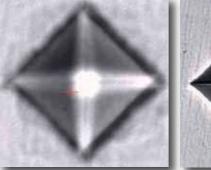


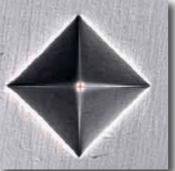
Self-leveling single base vision, it can bear high loads.



Panoramic and automatic scan of the test piece images are captured by software in a few seconds.

With an immediate screen view of a large area and perfectly linear of 240 x 100 mm with an accuracy of 1 μ m completely distortion free.





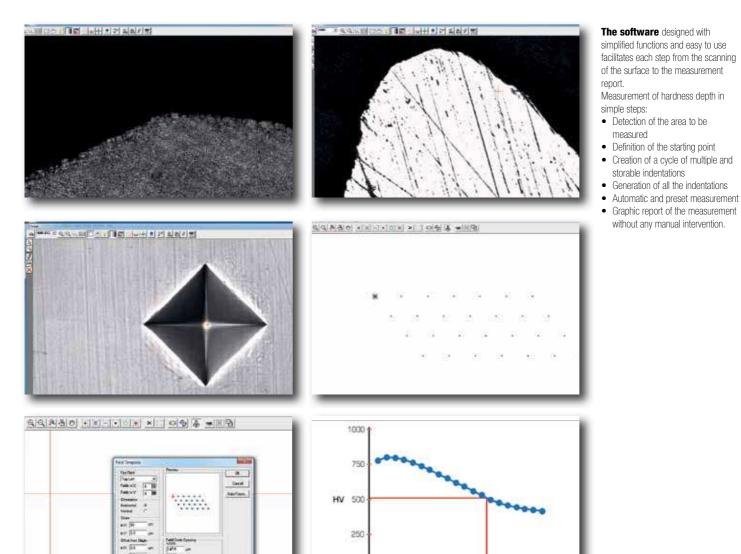
The focus of unparalleled scanning accuracy generates perfect images even in low light conditions or poor preparation of the surface.



Easy and simple vision of indentations on every type of material with cleaning function of external dirt for perfect measurement.

MICRO + MACRO VICKERS

AFFRI



0

0

500.00 Depth µm

250,00

1.000,00

750,00

Identification of the area to be examined with panoramic 5x magnification.

The different indentations are generated in preset sequence, concerning the ZIG ZAG single-row generated on gear section.

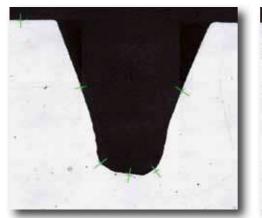


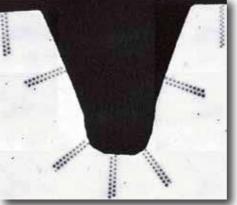


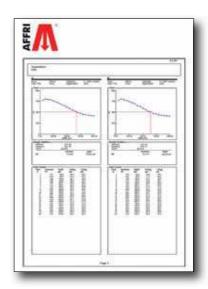


MICRO + MACRO VICKERS









Simple direction of measuring cycles.

Using the mouse cursor, draw a line on the image which appears on the screen, thus identifying the indentations direction. Starting the machine, all the indentations preset at different positions or loads and the following measurements are generated. At the end, the detailed report that includes the diagram CHD appears. It can be exported with the various windows packages.

| Technical characteristic | WIKI 200 JS | WIKI 200 JS 2 | WIKI 200 JS3 | WIKI 100 JS | WIKI 100 JS 2 | WIKI 100 JS 3 | WIKI 200 JS4 |
|-----------------------------|---|----------------------|-----------------------|----------------------|----------------------|-----------------------|--|
| Operation | automatic | | | | | | |
| Turret | automatic – 6 positions | | | | | | |
| Objectives | 2,5x - 5x - 10x - 20x - 40x - 50x - 100x 		50x | | | | | | |
| Auto focus | automatic | | | manual | | | - |
| Head stroke | from 10 gr to 10 kgf | from 10 gr to 50 kgf | from 0,2 gr to 30 kgf | from 10 gr to 10 kgf | from 10 gr to 50 kgf | from 0,2 gr to 30 kgf | from 15 to 150 kg |
| Vertical stroke | 300 mm – automatic | | | | | | |
| Depth | 135 mm | | | | | | |
| X-Y Table | 250 x 300 mm | | | | | | |
| Motorized tables | X Y 100 x 100 - 200 x 100 mm | | | manual 100 x 100 mm | | | X Y 100 x 100 mm 200 x 100 mm |
| Table resolution | 0,5 µm | 0,5 µm | 0,5 µm | 0,01mm | 0,01mm | 0,01mm | 0,5 µm |
| Accuracy | ± 0,1 % | | | | | | |
| Camera | 1,3 Mega Pixel USB2 B/W HD | | | | | | |
| Software | Windows 19" PC HD | | | | | | |
| Supply | 110-220 VAC 50÷60 HZ | | | | | | |
| Standards | EN-ISO 6506 / EN-ISO 6507 / EN-ISO 4545 / ASTM-E92 / ASTM-384 / JIS-Z231 | | | | | | ASTM E18 ISO 6508 |
| Indenters | Vickers - Knoop | | | | | | |
| Lighting | LED | | | | | | |
| Resolution | 0,1 HV – 0,1 HB | | | | | | |
| Start | automatic | | | | | | |
| Forces control | load cells and closed loop | | | | | | |
| Communication | USB – BT – RS 232 C | | | | | | |
| Weight | 160 kg | | | | | | |
| Conformity | CE | | | | | | |
| Country of origin | design and manufacture in Italy | | | | | | |
| Force range | 1.961 - 2.942 - 4.905 - 9.81 - 19.61 - 29.4 - 49.05 - 61.3 - 98.1 - 147.1 - 153 - 196.1 - 245.2 - 294.3 N (0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 5 - 6.25 - 10 - 15 - 15.6 - 20 - 25 - 30 kgf) | | | | | | 147.15 - 294.3 |
| | 0,098 - 0,196 - 0,245 - 0,294 - 0,49 - 0,981 - 1,962 - 2.942 - 4,905 - 9,81 - 19,62 - 29,43 - 49,05 - 98,1 N (10 g - 20 g - 25 g - 30 g - 50 g - 100 g - 200 g - 300 g - 500 g - 1 kgf - 2 kgf - 3 kgf - 5 kgf - 10 kgf) | | | | | | - 441.45 - 588.6 - 981 N |
| | 0,098 - 0,196 - 0,245 - 0,294 - 0,49 - 0,981 - 1,962 - 2.942 - 4,905 - 9,81 - 19,62 - 29,43 - 49,05 - 98,1 - 147.1 - 153 - 196.1 - 245.2 - 294.3 - 306.5 - 490.5 N | | | | | | (15 - 30 - 45 - 60 - 100 - 150 kgf) |
| | (10 g - 20 g -25 g - 30 g - 50 g - 100 g - 200 g - 300 g - 500 g - 1 kgf - 2 kgf - 3 kgf - 5 kgf - 10 kgf - 15 kgf - 15.625 kgf - 20 kgf - 25 kgf - 30 kgf - 31.25 kgf - 50 kgf) | | | | | | 100 - 100 kgl) |