AFFRI

ROBOTIZED UNIT



HOW MANY POSSIBILITIES

Thanks to the versatility and to the technology of the hardometers manufactured by OMAG AFFRI, exclusively using many technical patents, the ARM measuring instrument sees the lights of day. It represents the essence of automation applied to a hardometer. Its peculiar characteristic is having the measuring head anchored to a robotic arm, thus allowing to perform tests in areas that otherwise would be difficult to reach. It is also an optimal solution for testing, even in series, camshafts or particular profiles where it can be hard to handle the piece. Thanks to the use of a motor-driven system for rotating the shafts, it will be possible in fact to perform tests distributed on 360°. This versatile instrument can be used in many fields and allows Rockwell, Brinell and Vickers tests. The wide range of OMAG AFFRI products also makes it possible to design complex robotized hardometers with other functions: from marks optical recogni-tion to pieces handling.

HARDOMETER & AUTOMATION

The robotized arm used by the hardometer is char-acterized by 6 rotation axes allowing the instru-ment to perform high precision measurements in any area of the piece, diminishing the time neces-sary for testing and increasing precision thanks to the specific software used for controlling the robot. The absolute control of the robot movements and the powerful included software (internal program-ming OMAG AFFRI) using Bluetooth technology for transferring data, allow to quickly measure the different points of the piece, which were before-hand hard to reach. This is a very useful character-istic for companies and production lines where there are many tests to perform and the pieces have shapes that complicate tests. According to customer's needs, the hardometers can change and adapt to the different scales and loads requested as well as the robotic arms.

IL SOFTWARE

The included analysis software has a simple and user friendly graphic interface, with quick choice of the testing scale, the possibility to modify the tolerances, the direct conversion into other scales, the real time generation of curves and graphs apart from the statistic sessions that are real time updated and the automatic test saving. The software allows to create more user accounts in order to handle the best the testing sessions; the setup sections allow to set the testing parameters, as well as to choose the language and other customizations. All the relevant data are transferred in wireless mode via standard Bluetooth. The software directly gives the chance to print data via a USB printer connected to the PC. Furthermore, the different connections available such as Ethernet and USB ports and standard Bluetooth allow to connect more peripherals to the hardometer.

Technical characteristics	
Standards	ISO 6508 / ISO 6506 / ASTM E-18 / ASTM E-10 / ASTM B 724 / DIN 50157
Feasible test	Feasible Test Rockwell, Rockwell Superficial, Brinell
Force Range(One of each)	Rockwell 98,10 - 588,60 - 981 - 1471,50 N (10 - 60 - 100 - 150 kgf)
	Superficial Rockwell 29,43 - 147,15 - 294,30 - 441,45 N (3 - 15 - 30 - 45 kgf)
	Micro-Rockwell 49.05 N (5 kgf)
	Brinell 98,1 - 153,23 - 245 - 294,43 - 306,5 - 613 - 1226 - 1839.37 - 2452.5 N (10 - 15,6 - 25 - 30 - 31,2 - 62,5 - 125 - 187,5 - 250 kgf)
Accuracy	± 0,1 %











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