



*PATENTED*



## **MAGNETIC PORTABLE HARDNESS TESTER RS-MAG**

## A standardized portable hardness tester

Unbelievable performance never seen before with the Affri Hardness Tester RS-MAG.

A conventional hardness tester including conformance to any standard is available, as a portable system for onsite testing when test pieces are too large or too heavy that a bench hardness tester is not capable to accommodate it. The AFFRI magnetic portable hardness tester solves all such type of necessities.

AFFRI' state of the art technology permits different tests at different load forces.

The load cell inside has no impact force, while the Affri vertical movement permits a fully automatic test cycle.

It conforms to all Rockwell, Brinell, hardness standard methods.

The standardized high pressure on the indenter creates depth indentations on the surface. Thus eliminating the need for special surface preparation; a simple grinding of 180 grit on a small area just where the indenter will indent.

## Follow the profile of test piece

The Affri vertical stroke system of the measuring head, 50 mm (2") follows the profile of test sample, it assures a very accurate and absolute measurement even when sample retracts during test cycle. (Original Affri Patented System)

It has been designed and studied by AFFRI engineers which create the state of the art, in hardness test systems for over 55 years experience.

The AFFRI -RS MAG is completely uninfluenced by direction so that it is operative up to 360° positioning and is not affected by any external source of vibration; It does not need to be leveled.

It is absolutely fantastic difficult to believe.

On digital model the internal battery assures 20 hours operation use.

The state of the art Affri system protects the indenter by accidental shock before and during test, thus increasing the life of indenter especially for diamond cone 120° Rockwell C test.



Sliding 2 " 50 mm indenter take contact with different surfaces or misaligned surface



Vertical sliding indenter 50mm (2") range action assures easy test at different distance between test surface and indenter

## Easy to operate

It is so easy to manipulate, pull one single start lever and the measure will appear in a few seconds; there is no motor inside but at same time it's a totally automatic system.

It is so simple and easy to use that there is no need for any particular preparation by the operator.

Identify the test area and place the hardness tester on the test sample, then lock the magnetic lever, the tester will strongly adhere to the test piece and remain clamped for the entire test cycle: you pull the single start lever for few seconds and the head moves down dynamically until it makes contact with test surface and generates the measure cycle.

In 4 second the result will appear on the display scale or dial gauge.



The Affri RS MAG can be clamped on flat or round surfaces. The automatic vertical movement of the indenter including clamping system takes contact with the test surface automatically so that need pull one start lever only to perform the entire test cycle.





## TECHNICAL DATA

Conforms to standards:	ISO 6508, ASTM E-18
Test load	60 - 100 - 150 for Rockwell* 15 - 30 - 45 for superficial
Readout	on Rockwell unit on dial scale or digital display
Accuracy	conform to the relevant standards $\pm 0,3$ HRC on digital
Readout resolution	0.1 digital / 0.5 analogue
Indenters	120° in diamond stone for Rockwell C, A, N 1/16" W ball indenter for Rockwell B, F, T
Operative distance	from 0 to 50 mm(2") to follow the profile of sample surface
Protection indenter	standard
Clamping piece	standard
Magnetic support	standard 100 x 50 mm
Power source	6 V battery (digital model only) + charger
Weight of the system	25 Kg

\* Load forces: A) model equipped with a single force B) model equipped with Rockwell force C) model equipped with a Brinell force

## KEY DATA

- Portable standardized hardness tester with variable test force for Rockwell- Brinell
- Test load selectable from 60 - 100 - 150 Kp or 15 - 30 - 45 Kp
- Automatic test cycle in one single operative movement including: contact with test surface from any distance 2" - 50mm, automatic clamping surface, automatic preloading, automatic loading, automatic reading, automatic return to zero.
- Absolute exact measurement even if the test piece deflects or shifts down during the test cycle
- It follows the profile of test surface for 50 mm / 2" automatically during the test cycle
- Analogue or Digital direct Rockwell A-B-C-D-F-G, N-T
- It is accurate in any angle positioning for 360° without need of any adjustment
- It is accurate even if there is some vibration during the test cycle
- Analogue on A or digital readout on D model

RS-MAG-A1 a single test force between 60 - 100 - 150 Kp  
RS-MAG-A2 all test forces selectable inside 60 - 100 - 150 Kp  
Analogue direct readout scale in Rockwell units

RS-MAG-D1 a single test force between 60 - 100 - 150 Kp  
RS-MAG-D2 all test forces selectable inside 60 - 100 - 150 Kp  
RS MAG-D3 a single test force between 15 - 30 - 45 Kp  
RS MAG-D4 all test forces selectabe inside 15 - 30 - 45 Kp  
Digital direct readout scale Rockwell units

## STANDARD ACCESSORIES

Magnetic clamping system  
Clamping piece  
Protective cup for indenter  
Lever for automatic test cycle  
Direct readout scale



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