

- *Conform with standard DIN 50157 - ASTM E110 - B 724*
- *Accurate rapid and reproduceable results from measurement of penetration depth and low constant force the most repeatable instrument in the world + / - 0,5 HRC*
- *Indenpence of body dimensions from 0.05 mm thickness can be measured*
- *Direct reasult in 10 different hardness scales and N mm² sigma range to measure from 10 HRB to 1800 HV*
- *A single start input to activate without interruption phase: move down head indenter to take the conatct with test surface, clamp sample and execute the test and goes back*
- *A test is perfomed in only 3 seconds independently from every distance of test sample*
- *Extreme precision and repeatability also on instable surface, not clean surface, deflective surface also for more 50 mm*
- *Large free area to support special fixture for small parts and hev y part till 2000 Kg weight*
- *It is not influnced by vibration source*



AUTO CONTACT WITH TEST PIECE AND AUTOMATIC TEST CYCLE



Field of application for AFFRI® EDA300-MKII

	← soft	hard →	
HRA - Rockwell A	20	92	For hard steel, nitriding, cementation, roller, steel for tools, soft and hard materials
HK - Knoop	25	97	For soft steel, non ferrous metals
HRC - Rockwell C	0	80	For hard steel, nitriding, cementation, roller, steel for tools
HRB - Rockwell B	26	100	For soft steel, non ferrous metals
HR30T - Rockwell 30T	16	83	For soft steel, non ferrous metals
HB5 - Brinell 5	5	205	For aluminium, soft aluminium alloy cast iron, bronze, brass
HB30 - Brinell 30	66	884	For heat treated steel, annealed steel, drawn products, deep-drawn strip
HV - Vickers	13	1865	For all material
R - Tensile module N/mm ²	226	2898	For heat treated steel, annealed steel, drawn products, deep-drawn strip
HR15N - Rockwell HR15N	69	93	For hard steel, nitriding, cementation, roller, steel for tools

The **EDA300-MKII** works with a method similar to the classic unified Rockwell laboratory hardness testers, so it is fully certifiable in accordance with DIN 50157 (EN-ISO 10109 and ASTM B724 standards on request).

The force on the diamond point is electronically controlled by an electronic load micro-cell directly inserted in the indenter (AFFRI® Patent).

The displacement detector includes the diamond and its support guide and it assures an **absolute measurements** with no interference due to movements, flexions and vibrations.

It is possible to measure in an absolutely accurate way **thin layers** such as metal sheets, **chrome plating** only few hundredths of mm thick, very small pieces, nitrided layers and it is possible to measure with ease very large structures such as steel castings and moulds. It does not work using rebound, but with a real measurement of the indentation of the material. It is handy, light and very easy to use.

Technical characteristics

Principle of operation	load with electronic control (49,05 N)
Fields of application	for all metals
Digital scale read out (other scales on request)	Rockwell HRA (20...92); HRB (26...100); HRC (0...80); HR15N (69...93); HR30T (16...83) Brinell HB5 (5...205); HB30 (66...884) Knoop (25...97) Vickers (13...1865) Tensile Module R sigma/Nmm ² (226...2898N) HZA (0...250) Webster B 0 – 20 (on request) Barcol 0 – 100 (on request)
Display resolution	0.1
Repeatability	± 0.3% on reference test block
Storage of test results	300 tests
Data transmission	RS 232 C (USB on request)
Statistics and mean of results	yes
Display	L C D graphic
Printer	Portable, 20 column thermal paper, rechargeable battery, measures (15 x 10 x 4 cm) - on request
Power supply	1 rechargeable battery 110-240V
Operating time	1000 tests
Automatic shut off after a pause of 2 minutes. Button reactivation	
Total height capacity	from 0 to 170 mm
Minimum thickness measurable	0.08 mm 600 Vickers
Ø measurable	from 0.5 mm to 150 mm
Total depth capacity	75 mm
Dimension of electronic box	170 x 90 x 50h mm

- **The EDA300-MKII executes Automatic and immediate microvickers measurements** without the need for optical measurements.

- **Less effort, more accuracy**, 2 seconds to perform a micro-hardness measurement

- **An invaluable help both in the laboratory and in the manufacturing process** for rapid, low cost, non destructive, direct and accurate measurements on parts during production.

- Conversion of the results to different Rockwell Brinell scales showed on the display. Functions such as: tensile strength, calculation of average, statistics, storage of data and output to printer are already included in the micro-tester software.

- **Increase your production quality**

Perfect and effective measurements including the first test by checking your products directly during manufacturing. Selective sampling is ineffective. 100% testing of production is possible at a lower price than the price of sampling.

- **Very high reliability and versatility of use**, with a very wide range of supports pieces of any shape can be tested, from the point of a dentist's drill to razor blades and many other pieces. Simply select the desired hardness scale and pressure to apply the test load. When the audio signal is heard, the test is completed and the results are instantaneously displayed. The EDA300-MKII is now ready for use again. It's that easy.

- **Interface for versatility**. The microprocessor based controller can store more than 300 test results simultaneously, or be connected directly to a computer through the RS-232 interface, to a fixed or portable printer, making the EDA300-MKII a practical and versatile hardness tester.

Applicable accessories

Standard

- Diamond indenter
- "V" anvil for Ø from 1 to 10 mm
- "V" anvil for Ø from 10 to 30 mm
- Flat anvil

Extra

- Printer
- Cable for computer



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