

DAKO



AFFRI

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INNOVATIVE VERTICAL MEASURE

DAKOMASTER AFFRI system Hardness Tester achieves the highest level of depth accuracy and resolution of measurement available for Rockwell test.

This Hardness Tester is equipped with a unique closed-loop electronic force measuring system and a highly accurate "in-line" depth measuring technology for a fast, precise and reliable testing.



AFFRI[®]



QUICK AND AUTOMATIC

AFFRI system DAKOMASTER offers a very easy approach towards testing so that pressing just a single button, it starts operating, automatically clamping the test piece even if its surface is oiled, unstable or bended

INFINITE TEST AREA CAPACITY

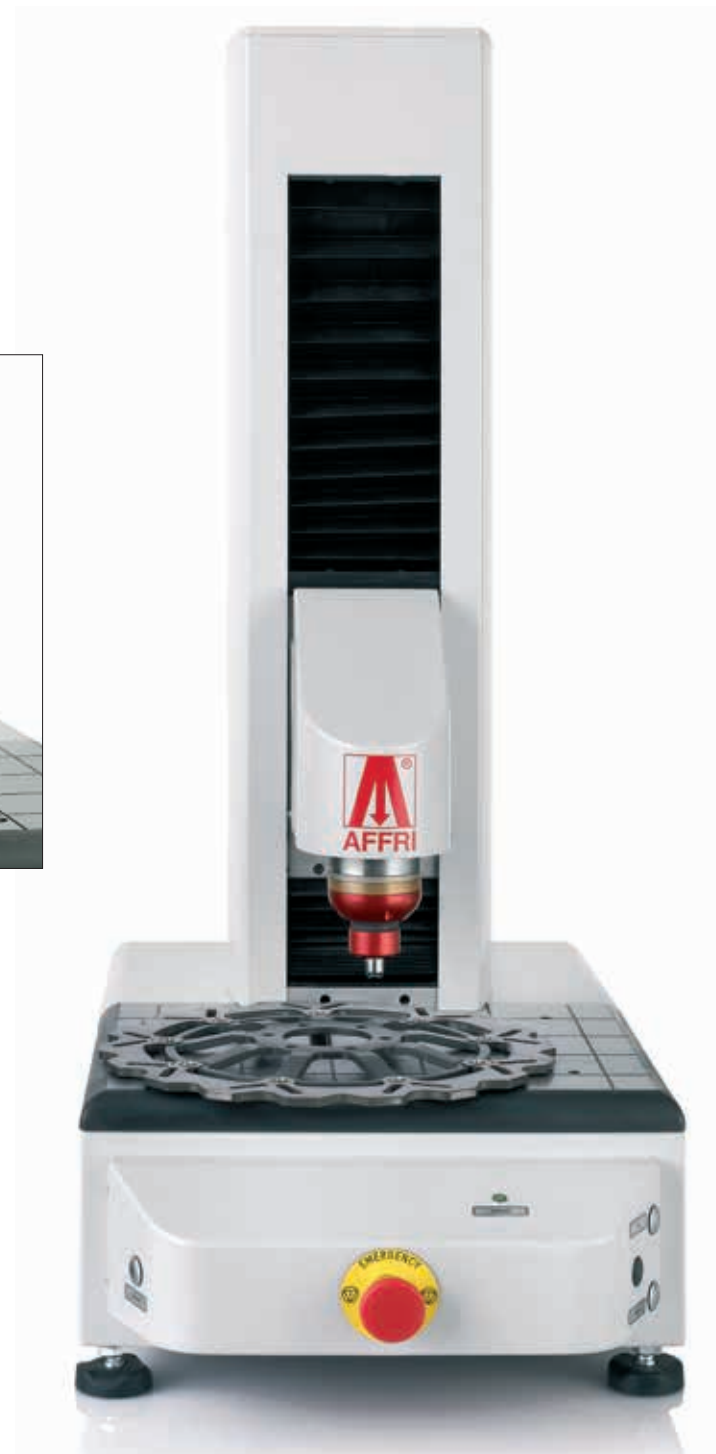
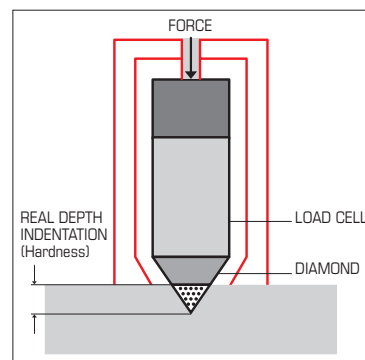
DAKOMASTER includes a large base table to offer an easy accommodation to various sample sizes, for secure stability. There's no need for extra supports, even for large parts.

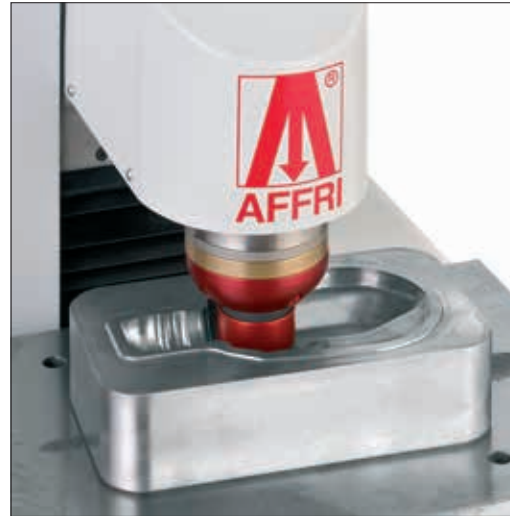
DOUBLE MEASUREMENTS

With AFFRI system hardness tester, usage possibilities are extended; in addition to hardness detection, this tester can measure test piece height (width). This is really useful to define, in one step only, the dimensional measures and hardness.

FUNCTIONING PRINCIPLE:

Thanks to the AFFRI system, the real indentation measurement is guaranteed without any external interference in any condition





INFINITE MEASUREMENTS POINTS

It automatically takes contact with any test area, up or down, outside or inside it. The exclusive AFFRI System assures fast adjustment on any test surface, even on difficult areas. The indenter can take contact with any test point.

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SO STRONG

The clamping system assures a perfect and secure stability on heavy and unstable parts. Different supports for any dimension of test piece are available

The head automatically adapts to any sample size, even on round surfaces variable diameters



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EASILY ADAPTS TO ANY TEST POSITION

DAKOMASTER 300 includes a dynamic and intuitive movement to better adapt to any test sample size. DAKOMASTER's head moves down to take contact with any test surface from any distance and performs the test cycle. All the process is automatic and easy to operate.

INSIDE TESTING

The compact goose head allows you to reach deep points inside pipes so far unreachable by common hardness testers. Moreover deflections during test cycle don't affect the measurement accuracy.

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UNBELIEVABLE ACCURACY

The "in-line" depth measuring AFFRI technology assures a perfect and absolute accuracy on any test condition, even if test sample deflects during testing cycle. There is no need to repeat a second test. The first one is ABSOLUTELY precise.



MANUAL OR MOTORIZED X Y TABLE



Different sizes are available for Jominy single or multiple test.
X Y movement is programmable directly through the keyboard

USER FRIENDLY PROGRAM

A user-friendly LCD multicolor and touch panel for method set up and configuration.
Graphic icons and Windows® software offers many information.
"Inline" statistic and listed tests with instant vision of all test results.



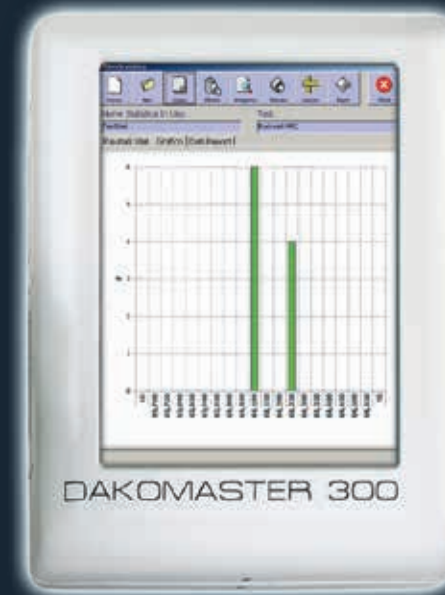
DAKOMASTER 300



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UNIVERSAL USE

Multi-scale conversion conforms to ASTM – ISO – JIS standard for international use.

Rockwell, Superficial Rockwell, Brinell scales are directly measured and generate Vickers indentation.

Each selected scale includes a proper dwell time, speed conforms to ASTM E 18, ASTM E10, ASTM E 384 and ISO 6508 -6507-6506.



Real Time Support. Connect your DAKOMASTER to Internet and we can remotely diagnose any technical issues, provide additional operator training and update software version. Connect to www.affri.com for more details.

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TECHNICAL FEATURES

	DAKO 300
Preload	29.4 - 98.1 N (3 -10 kgf)
Rockwell	588.60 - 981 - 1471.50 N (60 - 100 - 150 - kgf)
Superficial Rockwell	29.43 - 147.15 - 294.30 - 441.45 N (3 - 15 - 30 - 45 kgf)
Brinell	49.05 - 61.3 - 98.1 - 153.23 - 245 - 294.43 - 306.5 - 613 - 1226 - 1839 N (on request 2452) (5 - 6.25 - 10 - 15.6 - 25 - 30 - 31.2 - 62.5 - 125 - 187.5 kg - 250 kgf)
Vickers Knoop	9.81 - 29.43 - 49.05 - 98.1 - 147.15 - 196 - 294.3 - 588.6 - 981 N (1 - 3 - 5 - 10 - 15 - 20 - 30 - 60 - 100 kgf)
Optional test loads	49 - 132 - 358 - 961 N (for plastic, rubber as per EN-ISO 2039 std) - 2452.5 N (250 kgf) Brinell
Shore	A - B - C - D
Action	Pressing just a single button, it starts operating, automatically clamping the test piece even on oiled or unstable or deflective surface.
Actuation	Electronic closed loop with loading cell. freq. 1 KHz (Pat. AFFRI)
Standards	EN-ISO 6506-2 / 6507-2 / 6508-2 / ASTM-E18-08 - EN-ISO 2039 / JIS
Brinell	HB1 / 10 - HB1 / 30 - HB2.2 / 6.25 - HB2.5 / 15.625 - HB2.5 / 31.25 - HB2.5 / 62.5 - HB2.5 / 187.5 - HB5 / 25 - HB5 / 125 - HB5 / 250
Vickers	V1 - HV1.25 - HV2.5 - HV2 - HV3 - HV5 - HV10 - HV30 - HV50 - HV100
Superficial Rockwell	HR15N - HR30N - HR45N - HR15T - HR30T - HR45T - HR15W - HR30WHR45W - HR15X - HR30X - HR45X - HR15Y - HR30Y - HR45Y
Rockwell	HRA - HRB - HRC - HRD - HRE - HRF - HRG - HRH - HRK - HRL - HRM - HRP - HRR - HRS - HRV
Digital reading	Rockwell - Brinell (Vickers conversion)
Resolution	0.1 HR - 0.1 HB (0.01 HR unit. at request)
Automatic compensation of deflection piece	From 0 to 300 mm
Head stroke	340 mm motorized (more upon request)
Depth capacity	130 mm
X-Y table	330 x 400 mm
Weight	300 kg
Outputs	RS232 Standard. PC: 3x USB. 2x Ethernet
Power Supply	110 - 220 V / 50 - 60 Hz
Field of use	Ferrous, non ferrous, sintered, super alloys, plastic materials