



OMNITEST  
universal hardness tester



The proper solution for any hardness control issue

OMNITEST

## OMNITEST

Omnitest is a universal hardness tester for test methods such as Rockwell, Superficial Rockwell, Brinell, Vickers (and Knoop on request).

Omnitest is particularly suitable for laboratory use and for all those companies whose fundamental production concern is quality.



The special internal and external structure of the stand eliminates deflection during testing

**OMNITEST – THE UNIVERSAL**

Omnitest performs hardness testing with loads from 9.8 N to 2451,6 N (1-250 kp) and permits a fast and easy selection of the test procedure.  
 All procedures comply with the standards DIN & ISO EN 6506, 6507, 6508, 2039, BS and ASTM.  
 Vickers ISO-EN 6507, ASTM E92  
 Brinell ISO-EN 6506, ASTM E10  
 Rockwell ISO-EN 6508, ASTM E18  
 Knoop ISO-EN 4545  
 Scale conversion according to ISO-18625 standards



120° HRC

136° HV

Ø 1/16 mm

Ø 2,5 mm

Ø 5 mm

Omnitest is equipped with an integrated PC with a Windows XP operating system, with high resolution (3 mega pixel) USB camera, with LED light source.  
 Fully automatic testing of all indentations with the option to operate manually.  
 Test results are displayed on 12" touch screen display.

Omnitest can send test results to a printer or to a local network at any time.  
 The indentation image can be captured and memorized, with the possibility to be recalled even long after the issue of the test protocol net transmission.

5 languages available: English, German, French, Italian and Czech. Further languages on request

It is possible to manufacture different types of anvils and fixing devices, to suit customer needs.

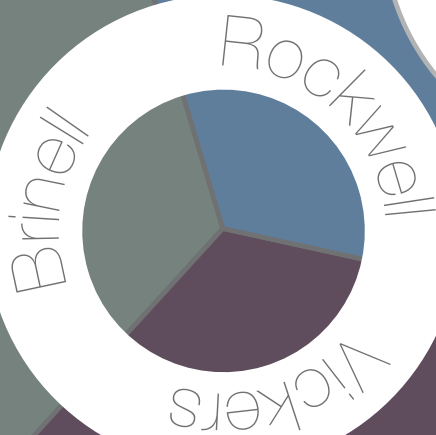
### OMNITEST - CHARACTERISTICS

- Integrated PC, Windows XP platform
- 12" touch screen
- Software for Omnitest Universal Hardness Tester
- Automatic scan reading of Brinell or Vickers indentations
- Automatic software for Rockwell and Superficial Rockwell reading by means of an electronic probe for depth measurement
- Load choice, speed and application time are automatically defined according to the standards.
- Storage of test results
- Automatic testing process with display of the test method.
- Automatic correction for round surfaces.
- Statistics with immediate graphical and numerical display of result.
- Min. and max. hardness values, average, standard deviation, cp and cpk coefficients.
- Histogram.
- Protocol printout in A4 with data and logo of the operator.
- Possibility to export data in CSV format.
- Possibility to enter alphanumeric data via LCD screen.
- Possibility to connect a remote keyboard and mouse.
- The system is built to accommodate future additions and upgrades,

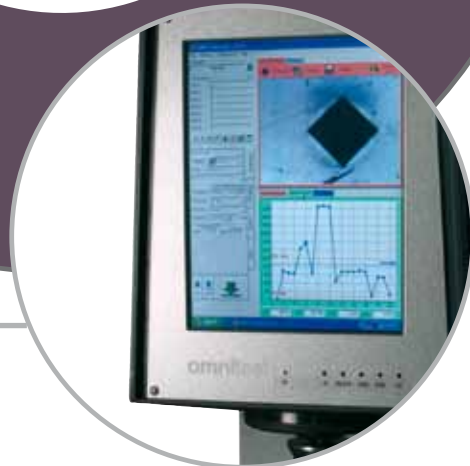
Automatic scan reading of Brinell hardness with 33x and 135x interchangeable objectives.



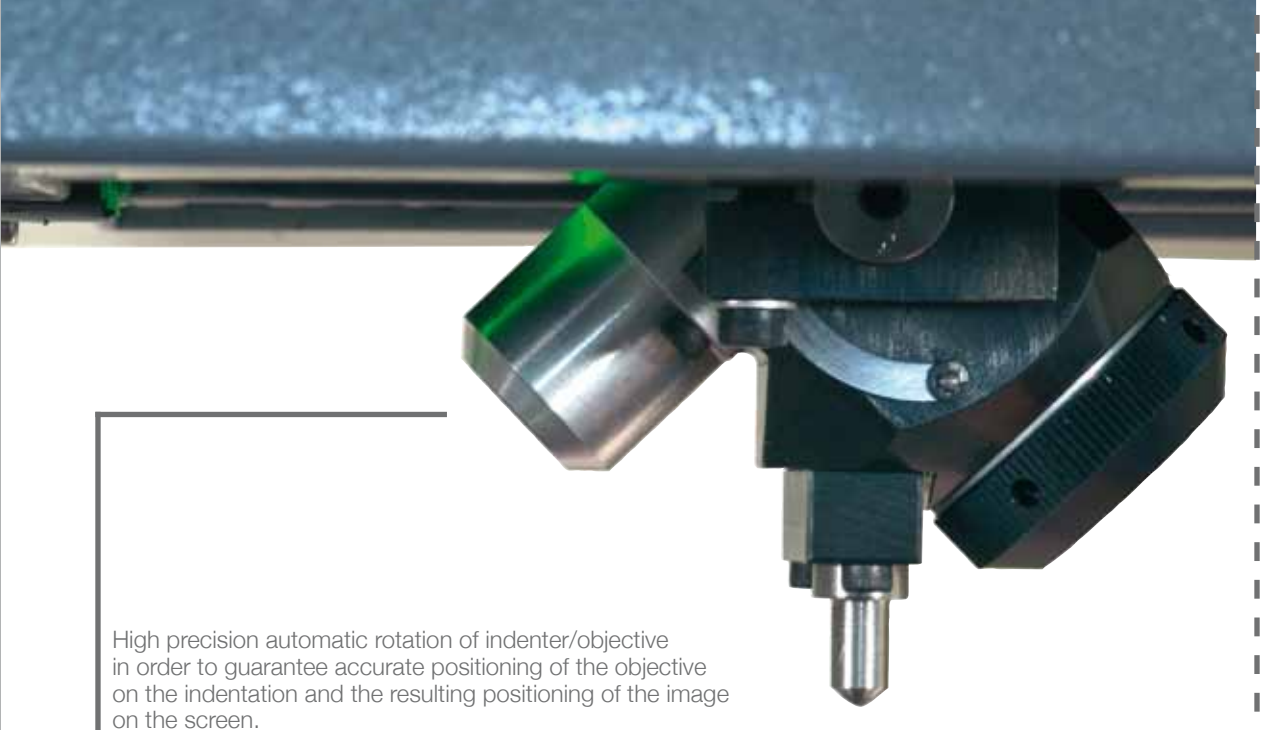
Possibility of Rockwell and Superficial Rockwell testing with loads from 15 kp to 150 kp (147,0 N to 1470,9 N)



Automatic scan reading of Vickers hardness with 135x and 400x interchangeable objectives.



# OMNITEST - universal hardness tester



High precision automatic rotation of indenter/objective in order to guarantee accurate positioning of the objective on the indentation and the resulting positioning of the image on the screen.



The adjustable clamping cap permits fast testing and to save the focus position of the test block.

The base assembly for positioning the specimen, with special thread, is very precise and eliminates deflection and bending during testing.



## OMNITEST - TECHNICAL DATA

### Test loads:

Vickers	1, 2, 3, 5, 10, 20, 30, 40, 50, 60, 80, 100, 120 kg
Brinell	1, 2.5, 5, 6.25, 10, 15.625, 25, 30, 31.25, 40, 62.5, 100, 120, 125, 187.5, 250 kg
Rockwell and Superficial Rockwell	Preload: 3-10 kg Load: 15, 30, 45, 60, 100, 150 kg

### Indenters:

Vickers	Pyramidal indenter 136°
Brinell	Ball indenter 1 mm, 2.5 mm, 5 mm, 10 mm
Rockwell	Conical diamond indenter 120°, Ball indenter 1/16", 1/8", 1/4", 1/2" (on request)

### Optical testing device:

From 33x to 400x with interchangeable objectives (400x on request)  
LED lighting source

### Dimensions:

Max measurable height	260 mm
Max measurable depth	250 mm
Weight	250 kg

### Test load application:

DC motor via closed loop by means of force transducer  
Scale and test load selection by touch screen  
Automatic rotation to indenter/objective

### Results displaying:

Numeric on LCD (with automatic storage)  
Graphic capability for result analysis

### Connections and power supply:

Interface	USB and Ethernet
Power supply	115-230 VAC, 50-60 Hz

### CE conformity

## STANDARD ACCESSORIES

Rockwell diamond indenter: diamond 120°  
Vickers diamond indenter: pyramidal 136°  
Brinell ball indenter: ball 2.5 mm  
Rockwell ball indenter: 1/16"  
33x objective  
135x objective  
Flat anvil 100 mm Ø  
V-anvil for rounds 3 – 12 mm Ø  
V-anvil for rounds 12 – 90 mm Ø  
Special key for easy indenter removal  
Set of wrenches  
Wooden accessory box  
Vinyl dust cover

## ACCESSORIES ON REQUEST

195x objective  
280x objective  
400x objective  
Knoop indenter  
1 mm Ø indenter  
2 mm Ø indenter  
5 mm Ø indenter  
10 mm Ø indenter  
Rockwell indenter 1/2"  
Rockwell indenter 1/4  
Rockwell indenter 1/8  
Set of 3 Yamamoto HRC hardness test blocks with EN 10004 calibration  
V-anvil for rounds up to 200 mm Ø  
Flat anvil 200 mm Ø  
Thin specimen attachment type 1 (0.4 – 3 mm)  
Thin specimen attachment type 2 (0.02 – 0.5 mm)  
Thin specimen attachment type 3 (0.02 – 8 mm)  
Bench support  
Software for Knoop testing  
Software for Jominy testing  
Preinstalled Excel  
Printer  
Printer cable  
Remote mouse  
Remote keyboard

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