AT 250
Rockwell principle bench hardness

The proper solution for any hardness control issue

ernst

AT 250 - Rockwell principle bench hardness tester

AT 250 X

No deflection or vibration
Large and irregular components can be clamped
Rockwell and Brinell value direct read-out according to international standards
SDM technology with 8core processor
User friendly touchscreen display
Integrated USB

AT 250 TX

AT 250 - Rockwell principle bench hardness tester

AT 250 - THE PRINCIPLE

The reference point for the measure is the surface of the component itself, so even if operating following the Rockwell principle according to the international standards, measuring is not influenced by deflections due to incorrect placement, oxidation, grease, dust ect. as in traditional Rockwell testers.
Surface preparation is needed only where measuring takes place.
With the simple movement of the lever pre-load and load are applied, with the return movement load is taken away and the result will be displayed.
Mesauring takes no more than 3 seconds (a few more for very soft materials).

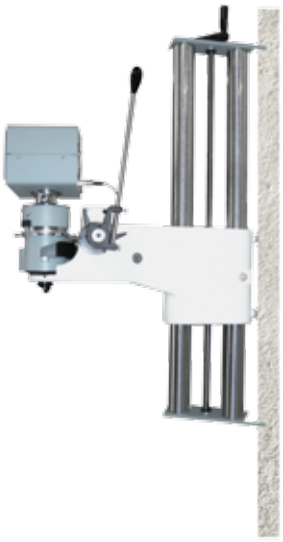
AT 250 - ADVANTAGES

- It clamps difficult shaped overhanging pieces frimly to clamping cap
- Fast batch testing, components can be loaded on the anvil without moving the handwheel
- 4 stands available

NX

TX

CAR



MUR

4 STANDS TO CHOOSE FROM

- Stand NX - conventional Stand
- Stand TX - the most versatile
- CAR - mobile Stand
- MUR - wall mounting

Technical data concerning the stands is illustrated on the back of the brochure

AT 250 - Rockwell principle bench hardness tester

AT 250 FUNCTIONS

This menu gives information on the operation conditions, such as: date, time, language.

Pull the proper lever to perform a test.

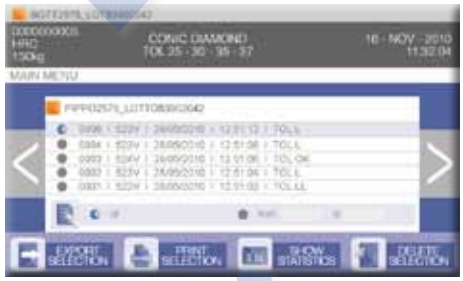
This menu enables setting a password to protect some functions, which Operator Setting, File Setting, Instrument Setting, Edit File.

This menu enables creating and editing the different operation environments, which are called files. After entering, the list of existing files is displayed.

At the end of the test, hardness result, unit of measure and tolerance range are displayed. Further information, such as minimum measurable thickness or the presence of a calibration, can be viewed if the proper function has been previously activated.

This menu enables setting the parameters of the hardness test such as Load Time, Minimum Thickness, Calibration adjustment.

Press “NEW FILE” to create a new file, or press “EDIT FILE” to modify an existing file; in this case, simply select the desired file by clicking on it.



After having selected a file, click TEST ARCHIVE to display the list of the tests stored in the file. You can export, print or delete your selection.
Or press “SHOW STATISTIC” to display statistics of the selected tests:

AT 250 - Rockwell principle bench hardness tester

AT 250 TX
Measuring on components of large dimensions is possible.
In this case the indentor has an extension of 50mm.
The base assembly has been removed.
On request the vertical capacity can be increased by
100mm - 300mm - 500mm, hence it is possible to carry out,
according to the standards, testing of components with a weight
of 200kg or 300kg.

AT 250 TX
Measuring on bottles.
In AT 250 series measuring
is not influenced by deflections.

AT 250 NX
The use of the clamping cap and the insensibility to deflection
and vibration, allows measuring even on large components.
Removing the base assembly, in the AT 250 version (picture 1),
the component can be located directly on the base.

AT 250 - Rockwell principle bench hardness tester

AT 250 - TECHNICAL DATA

- Direct read-out on touchscreen
  of the following hardness scales:
  Rockwell: A - B – C
  Brinell: D^2 30 for ferrous metals
  D^2 10 - D^2 5 for non-ferrous metals
  Resistance scale Kg mm^2
  Resistance scale N mm^2
  (other scales on request)
- Storage capability of 400 files
  (for every file the parameters: code, client name,
  hardness scale tolerance values ect. can be stored)
- Storage capability of 2500 values for every file
- Possibility to set 5 tolerance values in batch testing
  and statistic evaluation of test results
  through 8core micro processor.
- Statistics and histogram also on display
- USB plug for printer connection
- USB plug for direct export on USB pendrive
- Test loads:
  Rockwell: Kp 60 (N 588,40) 100 (N 980,70) 150 (N 1471)
  Brinell: Kp 62,5 (N 612,90) 125 (N 1226) 187,5 (N 1839)
- Automatic preload which reduces the testing time
  and operator errors
- Testing not influenced by bending or deflection
- Possibility to control overlapping pieces
- Integrated accessories case

STANDARD ACCESSORIES

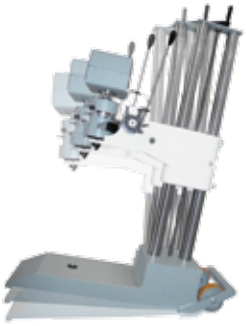
1 Rockwell conical diamond indenter
1 Rockwell ball indenter 1/16”
1 Brinell ball indenter 2,5mm
1 Rockwell test block
1 Brinell test block
1 Flat anvil Ø 60mm
1 central raised anvil Ø 8mm
1 V-anvil for rounds Ø 3mm-12mm
1 V-anvil for rounds Ø 12mm-90mm
1 Plastic cover

ON REQUEST

Optional output modules:
RS232, Bluetooth, Ethernet, Profibus, etc.
(maximum of installable modules: 2)
USB printer with connection cable
Set of 3 calibrated testblocks YAMAMOTO HRC
according to EN 10004: 25 HRC - 45 HRC - 62 HRC
certificated SIT, UKAS or equivalent
Flat anvil ø 200mm
Flat anvil ø 120mm
V-anvil for rounds up to ø 200mm
Adjustable anvil
Rockwell ball indenter 1/8”
Rockwell ball indenter 1/4”
Brinell ball indenter 5mm
Vickers indenter
Bench for AT 250
Software Dataview™
for hardness test data management
in Windows™ environment on external PC.
Dataview™ basic kit contains:
1 installation cd
1 USB protection pendrive
1 users manual
Serial cable for Dataview™ connection

NX

TX



CAR

MUR

STAND NX
depth 220mm - height 215mm - weight 53kg - base dimensions 200mmx520mm base height 620mm
standard equipment: 4 anvils, 1 clamping cap, 1 cover

STAND TX
depth 220mm - height 270mm (420mm without base assembly) - height on request
(+100mm +300mm +500mm) - weight 87kg - base dimensions 240mmx560mm - base height 857mm -
longer columns can be supplied on request
standard equipment: 4 anvils, 1 clamping cap, 1 cover

STAND CAR
depth 300mm - height 750mm - weight 140kg - base dimensions 250mmx970mm base height 1350mm standard
equipment: 1 clamping cap, 1 cover

STAND MUR
depth 300mm - vertical adjustment 550mm - weight 90kg - dimensions: 200mmx700mmx1050mm
standard equipment: 1 clamping cap, 1 cover

ERNST HÄRTEPRÜFER SA
www.ernstsa.com
Strada Cantonale CH-6814 Lamone Switzerland
Tel. +41 91 966 21 81 Fax. +41 91 966 97 35 info@ernstsa.com

801-110EN05