

AT 350

automatic hardness tester



www.ernsthardnesstesters.com

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AT 350 | 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 ISO, UNI and ASTM 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 (manually or by pedal) of the lever pre-load and load are automatically applied.

With the return movement load is taken away and the result will be displayed.
Measuring takes no more than 3 seconds (a few more for very soft materials).

AT 350 | ADVANTAGES

- Can test overhanging test pieces without extra support
- Special patented indenter shroud travels with the test surface, maintaining accurate and reliable results unaffected by deflection or bending of the test piece.
- Motorized load application and height adjustment of the work plane
- Large basement enables testing of bulky specimens
- Illumination of the test point
- Fast and reliable (tests in three seconds)
- Direct reading of Rockwell, Brinell and Vickers scales (with standard penetrators and loads)
- Most versatile with a wide range of interchangeable accessories
- Possibility of automatic execution of the Jominy test from 1 to 6 samples
- Most suitable for heat treatment
- Conforming to ISO, DIN, ASTM standards

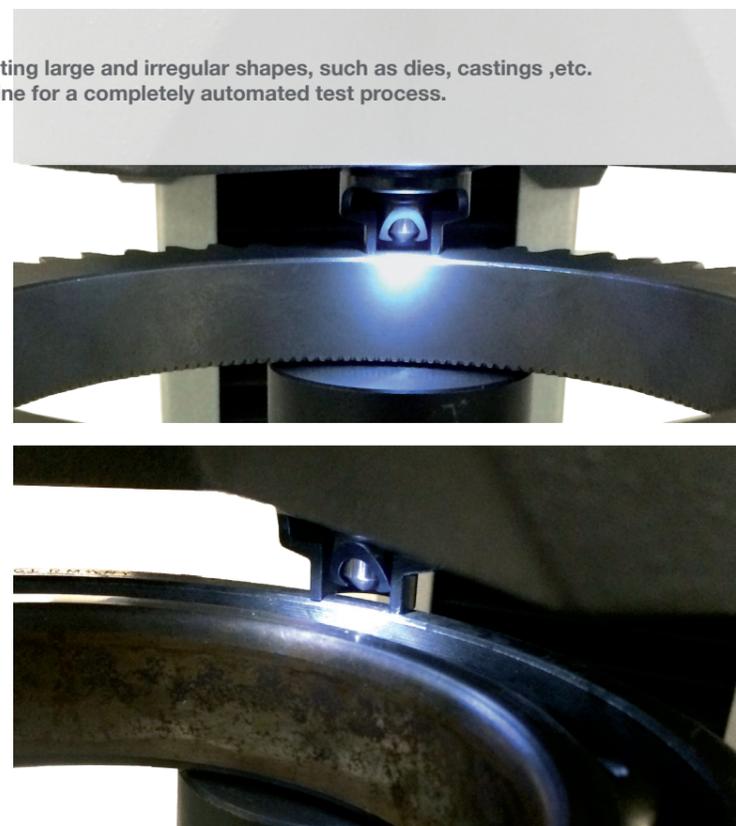
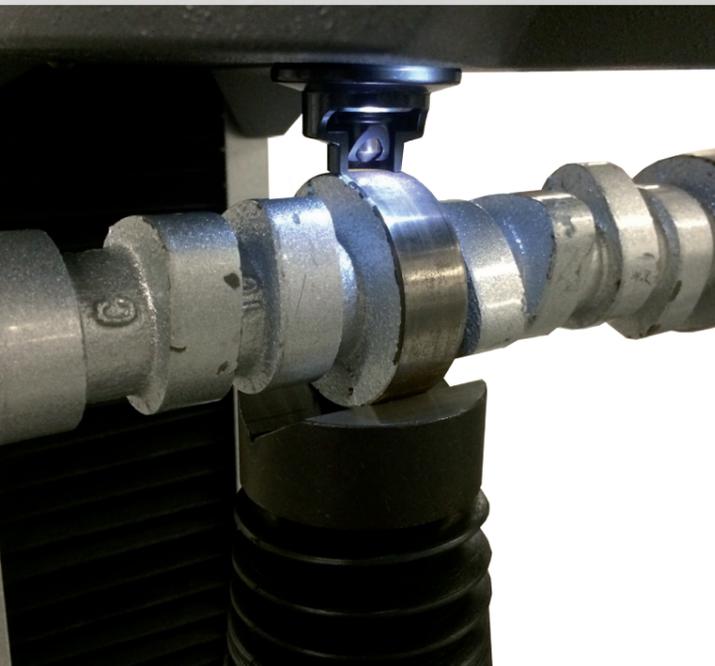
STANDARD ACCESSORIES

- 1 Spot anvil Ø 10 mm
- 1 Flat anvil Ø 60 mm
- 1 V-anvil for round specimens Ø 8÷60 mm
- 1 V-anvil for round specimens Ø 5÷20 mm
- 1 Adapter for standard anvil stand T
- 1 Handwheel locking tool
- 2 Needles to remove penetrator
- 1 Short spanner 17
- 1 Set of Allen wrenches
- 1 1/16" ball penetrator
- 1 2.5mm ball penetrator
- 1 1/16" hard metal ball
- 2 Ernst hardness test block
- 1 Vinyl protection cover

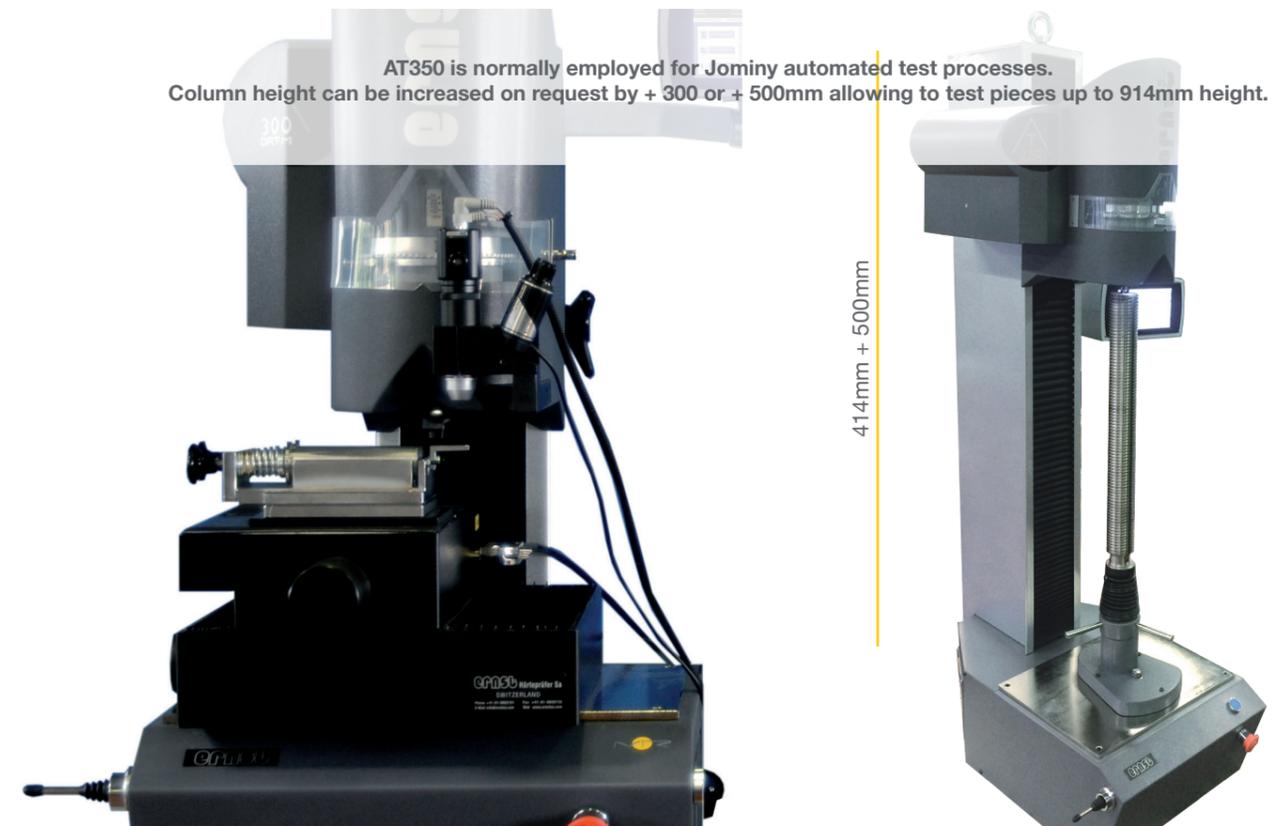
ACCESSORIES ON REQUEST

- Optional output modules:
RS232, Bluetooth, Ethernet MODBUS-TCP, 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 E-Datacapture ERNST

The elevating screw assembly can be removed when testing large and irregular shapes, such as dies, castings ,etc.
AT350 can be inserted into a production line for a completely automated test process.



AT350 is normally employed for Jominy automated test processes.
Column height can be increased on request by + 300 or + 500mm allowing to test pieces up to 914mm height.



AT350 | TECHNICAL DATA

- Operating principle
MOD DR: Rockwell
MOD DSR: Superficial Rockwell
- Norms and certifications
ASTM E 18 - ISO6508
- Preloads
MOD DR: 10kgf (98.1N)
MOD DSR: 3kgf (29,4N)
- Preload and load application method
automatic
- Minimum measurable diameter
4mm (cod. PENETRATORE 048 + and cod. GRUPPO 022)
- Storage
400 files with 2500 results each
- Languages
English, German, Italian, French, Spanish - other languages on request
- Power supply
autosetting from 100VAC - 240VAC
- Working area dimensions
255mm (414mm without elevating screw)
depth: 210mm
(longer columns on request: +300mm or +500mm for heights up to 920mm)
- Weight
200kg
- Test loads
MOD DR: 60kgf, 62.5kgf, 100kgf, 125kgf, 150kgf, 187,5kgf (N 588, 613, 981, 1226, 1471, 1839)
MOD DSR: 10kgf, 15kgf, 15.6kgf, 30kgf, 31.2kgf, 45kgf (N 98, 147, 153, 294, 306, 441)
- Loading time
selectable by touch-screen
- Standard scales
MOD DR: HRA, HRB, HRC, HRD, HRE, HRF, Brinell HB30
(HRG, HRH, HRK with optional penetrator cod. PENETRATORE 013)
MOD DSR: HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
(HR15W, HR30W, HR45W with optional penetrator cod. PENETRATORE 013)
other scales on request
- Reading
direct on touch-screen display
- Display
800 x 480 pixel 150 X 90 mm
- Selectable functions
hardness scale - load time - minimum thickness - mm/inch - round correction - calibration
language - date/time - tolerances - indenter - file - print - statistics - icons - conversion
sequence - measures archive - pwd - start test
- Output interfaces
USB Printer - export on USB key
OPTIONAL:
RS232 - RS485 - PROFIBUS - Ethernet MODBUS-TCP - Bluetooth
- Working conditions:
0°C-50°C
- Dimensions
73cm x 108cm x 85cm
- Note
20 X ANTARES ERNST microscope available on request for Brinell indentation reading

