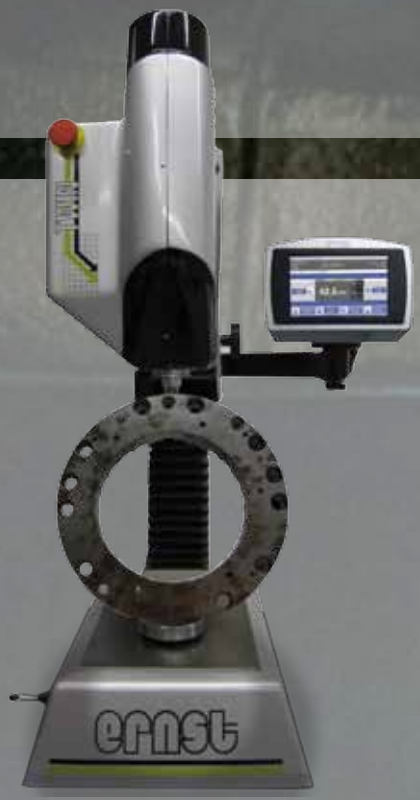
TWIN X

automatic hardness tester



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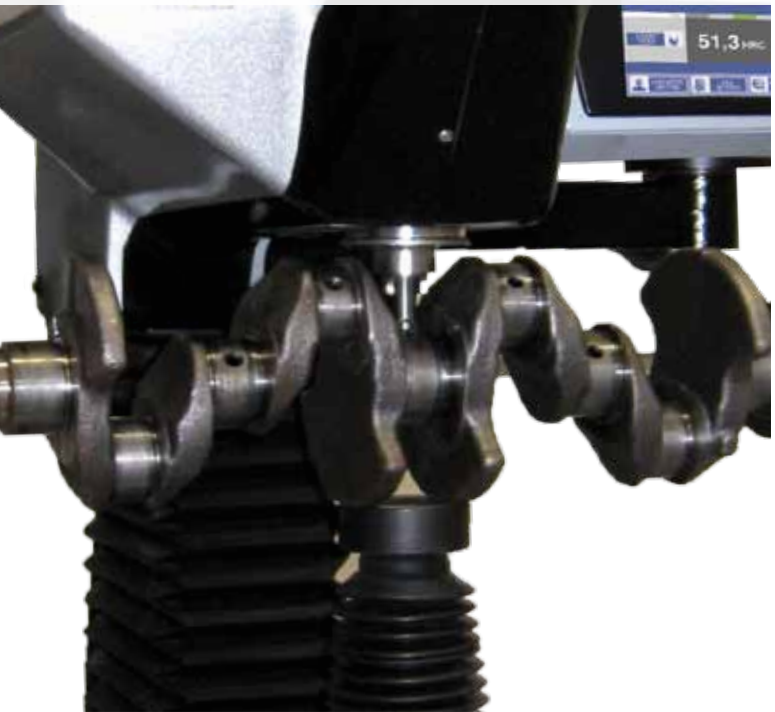
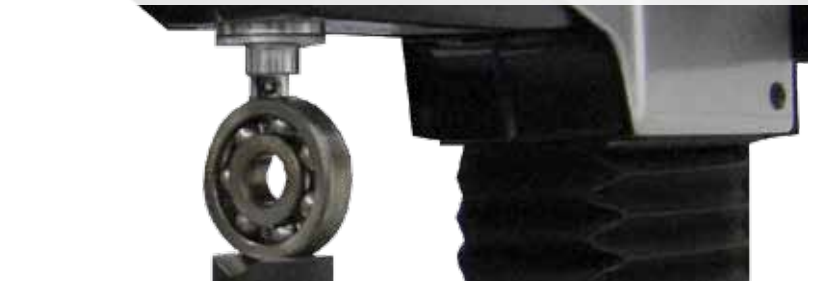
TWIN X I MAIN FEATURES

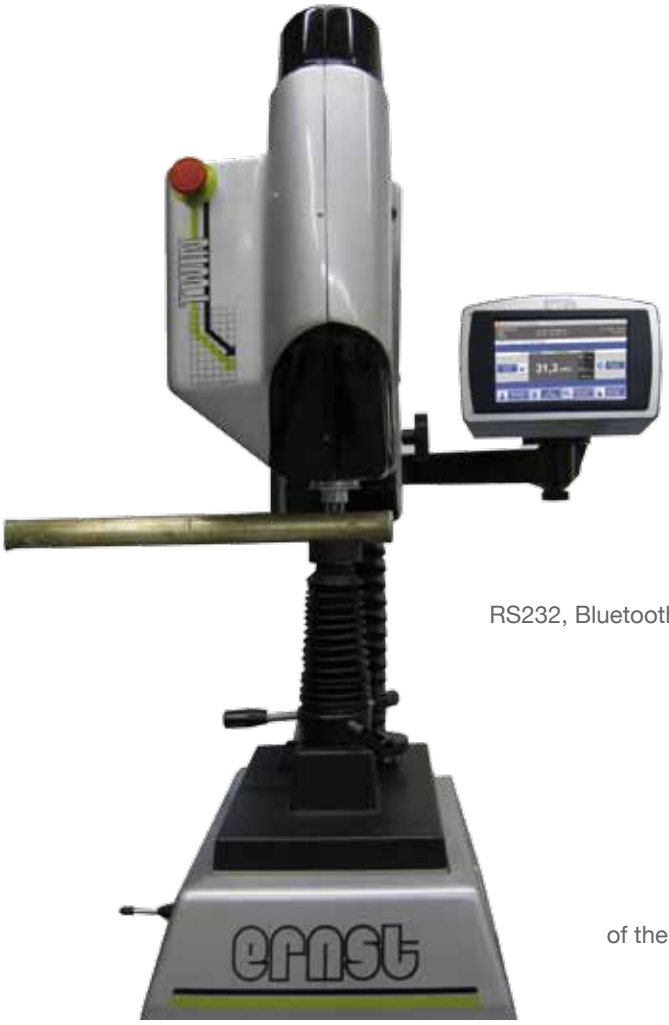
The model TWIN X automatic hardness tester operates according to the Rockwell principle and permits testing either with Rockwell or with Superficial Rockwell test loads and hardness scales.

- The tester has been designed to meet the different needs of hardness testing.
- The test head travels automatically on the stand axis, load application and load changing occur automatically.
- The penetrator stroke up to 45mm permits testing in line of parts having different thickness without any adjustment.
- TWIN X unique clamping feature allows holding of difficult-to-test parts without any support. In case of deflection of the test part, the special patented indenter shroud travels with the test surface, maintaining in this way accurate and reliable results.
- Possibility of removing the elevating screw assembly when testing large components, as dies, castings, etc.
- TWIN X is particularly suitable for custom in line applications for a completely automatic test process.
- The electronics provides a series of functions: language selection, minimum measurable thickness, statistics, file configuration, round correction, lot number, product name, print, calibration, tolerances, etc.
- A unique safety feature helps prevent injury by retracting instantly the penetrator when making contact with soft material, such as the operator's hands.

TWIN X allows testing in positions which cannot be reached by conventional hardness testers. The penetrator's stroke (45mm) starts automatically when the indenter comes into contact with the test part, permitting testing of difficult-to test parts without any adjustment. The special clamping shield permits testing overhanging parts whithout any extra support. In case of limited space, the clamping cap can be easily removed.







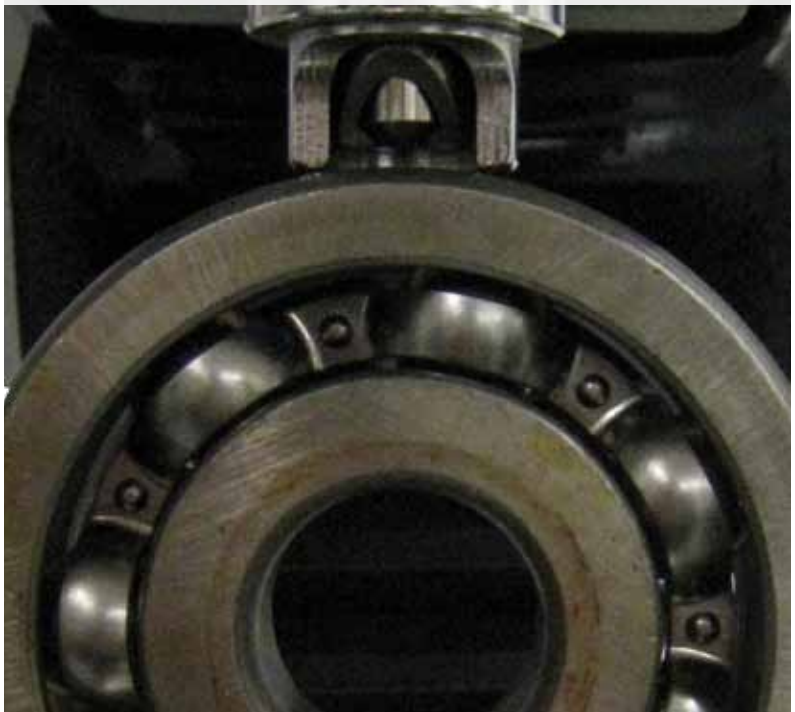
STANDARD ACCESSORIES

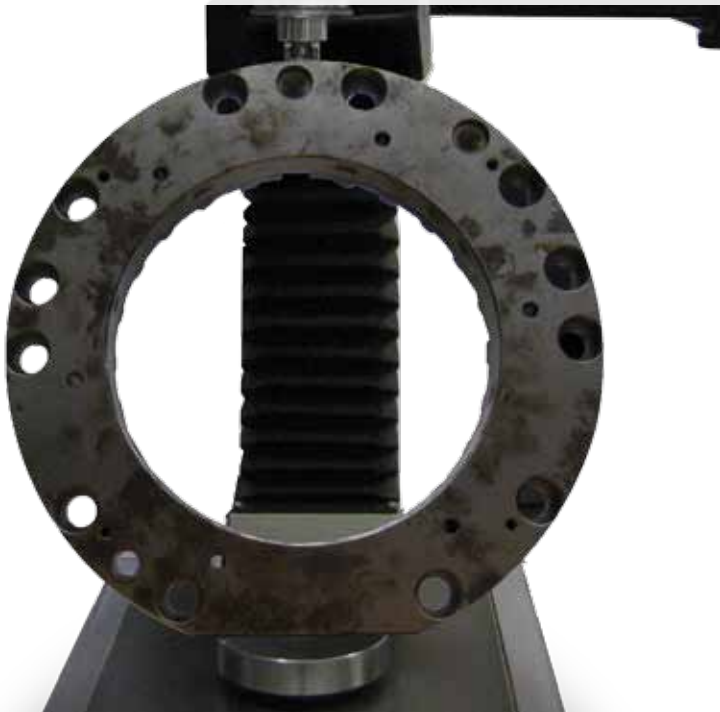
1 Rockwell diamond indenter 120°
1 Rockwell cone diamond indenter 1/16”
with spare balls
1 Brinell penetrator: ball 2,5mm
1 Rockwell ERNST test block HRC
1 Rockwell ERNST test block HR30N
1 Rockwell ERNST test block HRB
1 Brinell ERNST test block HB30
1 Flat anvil ø 60mm
1 Spot anvil ø 8mm
1 V-anvil for rounds ø 3-12mm
1 V-anvil for rounds ø 12-90mm
1 Set of keys
1 Plastic cover

ACCESSORIES ON REQUEST

Bench 100cm x 80cm x h 85cm
Optional output modules:
RS232, Bluetooth, ETHERNET MODBUS TCP, PROFIBUS, etc.
(maximum of installable modules: 2)
USB printer with connection cable
Special hardness scales
Ball penetrators 1/8”, 1/4”, 1/2”
Spare balls
Vickers indenter
3 or 5 way selector
Flat anvil ø 200mm
V-anvil up to ø 200mm
Flattened ball anvil for non-parallel surfaces
+300mm and +500mm special extension
of the motorized slide stroke for testing large pieces
Software E-Datacapture Ernst

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





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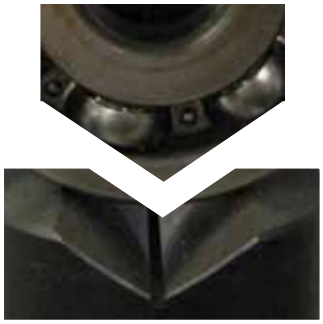
TWIN X I TECHNICAL DATA

- Operating principle:
Rockwell and Super Rockwell
- Norms and certifications:
Rockwell: ASTM E-18 - ISO6508
- Reading:
direct on touch-screen display
- Display:
7” touch-screen - 800x480 pixel - resistive 4 wires type
- Preloads:
3kgf (24.9N) - 10kgf (98N)
- Test loads:
Rockwell 60kgf (588N), 100kgf (980N), 150kgf (1471N)
Super Rockwell 15kgf (147N), 30kgf (294N), 45kgf (441N)
Brinell 15,625kgf (153.2N), 31,25kgf (306.5N), 62,5kgf (612.9N), 125kgf (1226N), 187,5kgf (1839N),
- Preload and load application:
automatic by a motor drive (indenter’s stroke 45mm)
- Load selection:
through touch-screen
- Loading time:
from 1 to 45sec, selectable by touch-screen
- Loading system:
spring system with motorized application
- Scale selection:
through touch-screen
- Incorporated hardness scales:
Rockwell HRA - HRB - HRC - HRD - HRF - HRG
MOD DSR: HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Super Rockwell HR15N - HR30N - HR45N - HR15T - HR30T - HR45T
Brinell HB/30 (ball penetrator 2,5mm/187,5kgf) for ferrous materials
HB/10 (ball penetrator 2,5mm/62,5kgf) for non ferrous materials
HB/5 (ball penetrator 5mm/125kgf) for non ferrous materials
HB/5 (ball penetrator 2,5mm/31,25kgf) for non ferrous materials
HB/2,5 (ball penetrator 2,5mm/15,625kgf) for non ferrous materials
Tensile strength kgf/mm2 (ball penetrator 2,5mm/187,5kgf)
Tensile strength N/mm2 (ball penetrator 2,5mm/187,5kgf)
- Other scales:
on request
- Required surface preparation:
only at the test point
- Vertical stand capacity:
420mm
- Depth stand capacity:
225mm
- Clamping of test part:
clamping shield, no additional support is necessary
- Power supply:
single phase, 230 VAC, 50/60 Hz, (115 VAC on request)
- Power consumption:
350 VA
- Operation temperature:
0°C - 50°C
- Gross weight:
ca. 270kg (hardness tester with bench)
- Tester only:
160kg
- Dimensions:
L90cm x W70cm x H115cm

Storage capability of 400 files (for every file the following parameters can be defined:
code, client name, hardness scale tolerance values etc.)
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 available on display
USB plug for printer connection
USB plug for direct export on USB pendrive



We reserve the right to make modifications