

NEMESIS 9000R[™]



NEMESIS 9000RS™

Rockwell standardizing hardness tester



• Load cell, closed loop, linear force actuator, fixed workpiece position

• Flexible modular design

• Force configuration for maximum 250kgf/2.45kN

High performance PC, MS Windows driven operating system

The indentation depth is measured with a transducer accurate to 0.05 micron

Extended indenter base with high force clamping attachment and indenter protection

Extended anvil base (two levels). Pictures shows highest level.

15" high resolution industrial touch-screen

ABS shockproof machine covers, available in multi-colors

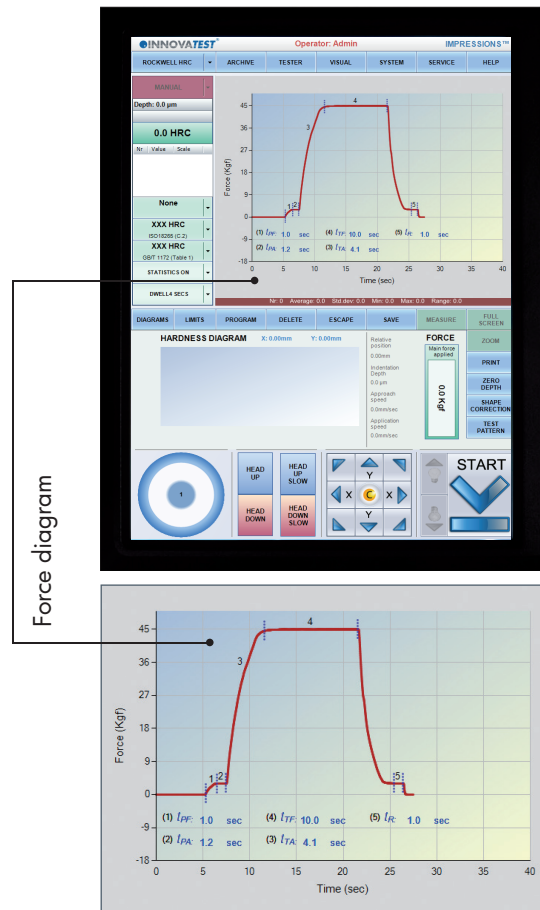
General information

NEMESIS 9000RS™, represents the latest top of the range development of high speed production Rockwell hardness testing. Modern design, innovated technology, multi-purpose hardness testing instrument, based on the application of precision mechatronic components. A superior level of precision combined with advance graphic images for maximum test procedure control. Unparalleled GR & R results.

The NEMESIS 9000RS™ represents Rockwell hardness testing at the highest possible standard. Aircraft engine parts, automobile parts, production lines, general quality assurance and laboratory use, are all fields covered by the NEMESIS 9000RS™.

DEPTH MEASURING HARDNESS TESTING METHODS:

- Rockwell (HR) ISO 6508, ASTM E 18
- Vickers depth measurement HVT VDI/VDE 2616-1
- Brinell depth measurement HBT VDI/VDE 2616-1
- Ball indentation hardness (H) (ISO 2039-1) (plastics)



Force diagram

Features

- Rockwell standardizing Hardness Tester
- Exceeds, ISO, ASTM, JIS (Nadcap) standards
- Rockwell, Superficial Rockwell, HVT, HBT & Ball indentation for plastic ISO 2039/1
- Superior range of testloads/force application ranging from 1kgf/9.8N to 250kgf/2.45kN
- Fixed workpiece position (no spindle)
- Descending test head with automatic workpiece detection
- Extended indenter base with high force clamping attachment and indenter protection
- PC based INNOVATEST IMPRESSIONS™ hardness testing firmware and database file system, standard
- Large, adjustable 15" industrial touch screen
- Built-in industrial SSD hard drives offer nearly endless file storing
- LAN, WLAN, USB-2, RS-232, Printer and DVI connectivity
- Optional: On board built-in driver for motorized Y-stage (Jominy testing) or X-Y stage (Pattern testing)
- Free definable test patterns case depth, traverse, free style, etc. (optional)
- Machine covers made of shock, damage and fire proof recyclable ABS
- Large range of optional accessories
- Large testpiece accommodation H=380mm, D=220mm

NEMESIS 9000RS™ has a rigid linear force actuator to move the test head in the required position. This can be done in 2 different ways. The test head will decent to the workpiece after pressing the start button. The descending can also be realized in a manual high speed mode or slow movement mode.

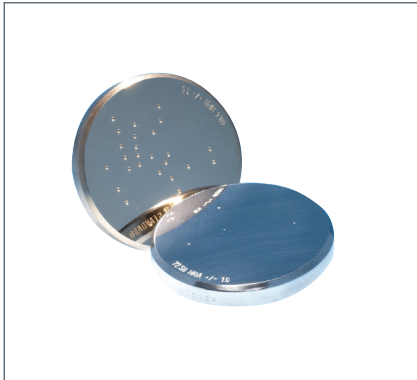
Technical specifications

NEMESIS 9000RS™	
Hardness scales	Rockwell, Superficial Rockwell, HVT, HBT and Ball indentation for plastic ISO 2039/1
Hardness resolution	0.01 Rockwell (hardness round-up figures according to ISO, ASTM E18 or E29)
Load application	Load cell, force feedback, closed loop system
Load range	1kgf/9.8N to 250kgf/2.45kN
Test loads	1kgf/9.8N, 2kgf/19N, 2.5kgf/24N, 3kgf/29N, 4kgf/39,2N 5kgf/49N, 6.25kgf/62N, 10kgf/98N, 15.625kgf/153N, 20kgf/196N, 25kgf/245N, 30kgf/294.2N, 31.25kgf/306N, 50kgf/490N, 62.5kgf/612N, 100kgf/980.7N, 120kgf/1176N, 125kgf/1225N, 187.5kgf/1838N, 250kgf/2.45kN
Rockwell test scales	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V, 15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Indentors (optional)	Brinell Balls: 1mm, 2.5mm, 5mm, 10mm Vickers Diamond: 136° Rockwell Diamond Cone: 120° Rockwell balls: 1/16", 1/8", 1/4", 1/2"
Display	Large high definition industrial touch screen can also be operated by mouse and keyboard
Standards	Meets or exceeds, ISO, ASTM, JIS (Nadcap) standards
Test cycles	Fully automatic, Approach, Pre-Load, Dwelling, Main Load, Dwelling, Recovery, Unload
Force tolerance	Max. < 0.3%
Depth reading accuracy	With a transducer accurate to 0.05µm (reference class)
Force control	1 - 99 seconds
Connectivity	USB-2 (6) RJ-45 LAN, W-LAN, (RS-232)
Tester color (standard)	Black/Metallic silver
Workpiece accommodation	Vertical capacity 380mm, Horizontal capacity 220mm (from center-line)
Operating temperature	10°C to 35°C, non-condensing
Machine dimensions	400mm x 650mm x 1440mm (WxDxH)
Machine weight	190kg
Power supply	100V AC to 240V AC, 50Hz/60Hz, single phase



Standard delivery

- Flat anvil, hardened, $\varnothing 80\text{mm}$
- V-anvil, hardened $\varnothing 80\text{mm}$
- Fuse 3A slow (2 pcs)
- High force clamping attachment and indenter protection
- Power cable
- Wireless mouse and keyboard
- Four adjustable feet
- INNOVATEST® certificate
- Installation and user manual



Optional accessories

- Certified indentors (ASTM, DIN, ISO)
- Certified reference hardness blocks (ASTM, DIN, ISO)
- Testing table, hardened, $\varnothing 180\text{mm}$
- Large testing table 350mm x 250mm with T-slot and spindle adapter
- Extra large testing table 450mm x 350mm with grooves and support
- Custom testing tables
- Goose neck indenter holder
- Precision vice for small parts, jaw width 36mm
- Precision vice for small parts, jaw width 42mm
- Precision vice for small parts, jaw width 75mm
- V-blocks and special clamps
- Manual X-Y stage 100mm x 60mm, micrometer travel 25mm x25mm
- Motorized Y-stage for jominy testing
- Motorized X-Y stage for pattern testing
- Solid tester table and storage cabinet
- 9000STARTKIT/1:
Testing table, hardened, $\varnothing 180\text{mm}$
set of factory reference hardness test blocks,
set of factory indentors

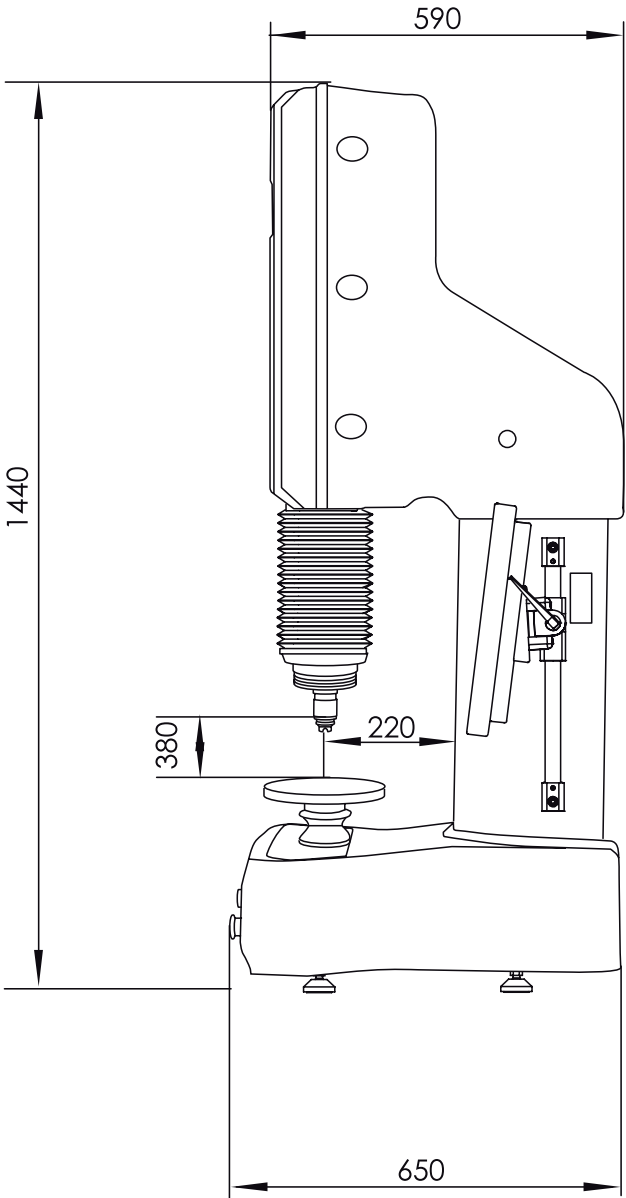
Order details

NEMESIS 9000RS™

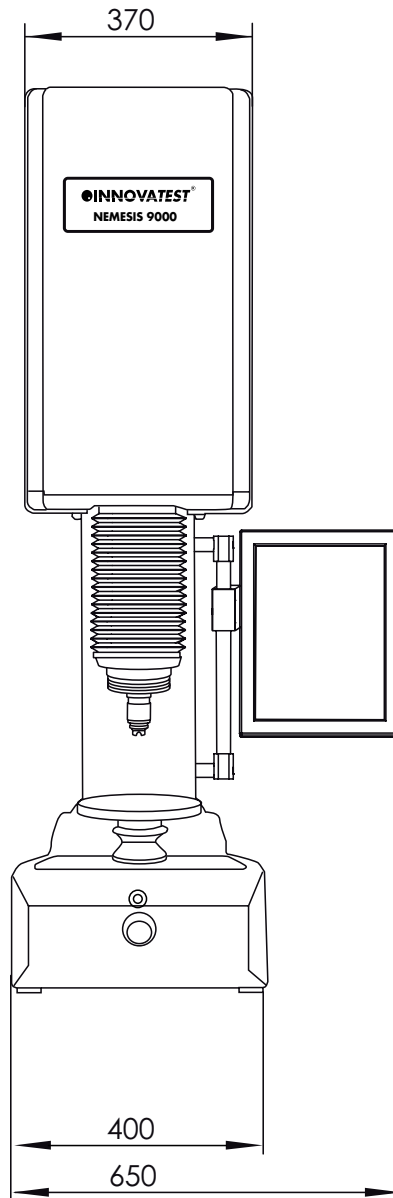
Rockwell, Superficial Rockwell, HVT, HBT, Ball indentation for plastic ISO 2039/1, test forces 1kgf/9.8N to 250kgf/2.45kN

Technical drawing NEMESIS 9000RS™

All dimensions are in mm



All dimensions are in mm



Represented by:

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