NR3D Rockwell principle bench hardness tester



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# NR3D

Operates according to Rockwell principle Superficial Rockwell test head on request Possibility of direct reading of Brinell points on display Ideal for tests on a wide range of materials Robust and easy to maintain



#### NR3D

The hardness tester NR3D works according to the Rockwell principle with standard preload and load. It has also been designed to carry out Brinell testing with direct reading on digital display, thereby achieving in a few seconds the kind of control which would normally take a considerable amount of time.



The NR3D hardness tester has a diversified application field. With the different available combinations of standard loads and indenters, it is possible to test very hard materials as well as soft and plastic ones, of different shapes and dimensions.

This is why the NR3D is the ideal hardness tester for those industries who need to test many different materials, before and after processing and heat treatment.

If testing at 15kp, 30kp and 45kp is required, it is only necessary to add the Superficial Rockwell head to the existing stand and accessories, thereby avoiding the necessity to purchase a complete new instrument.

## NR3D - WORKING PRINCIPLES AND MAIN CHARACTERISTICS

The NR3D hardness tester works according to the Rockwell principle with load application achieved by a preload spring system, set in such a way that the load is constant and does not require periodic calibration or special adjustment. NR3D can be certified by any licensed certifying body.





NR3D Ideal for the testing of plastic materials, from rubber to plexiglass, according to the prescribed norms

### DATAVIEW32 - SOFTWARE (Optional)

Captures and stores hardness testing data on a computer and generates files, which are compatible with standard pc programs. Provides tolerance indicators, generates control limits and average values, generates X-bar and R charts, histograms, CPk, etc. Provides scale conversion, minimum thickness values and round correction; builds historical data files with descriptive information for true process control

## NR3D

*(Optional)* The C-form extension, designed according to customers spoecific needs, allows easy measurement of internal surfaces

44.0 OK





### NR3D

Is a very robust instrument and requires very little service, since the load application and testing system is contained in the test head

## NR3D - TECHNICAL DATA

#### Conforms to DIN, ISO and ASTM Standards

TEST HEAD TYPE DR (Rockwell standard load) TEST HEAD TYPE DSR (Rockwell superficial load)

preload	10kp (98N)	preload	3kp (29.4N)
Rockwell loads	60kp (588N)	Rockwell loads	15kp (147N)
	100kp (980N)		30kp (294N)
	150kp (1471N)		45kp (441N)
Brinell loads	62.5kp (612N)	Brinell loads	10kp (98N)
	125kp (1226N)		15.6kp (153N)
	187.5kp (1839N)		31.2kp (306N)
scales to select	HRA - HRB - HRC - HRD	scales to select	HR15N - HR30N- HR45N
	HRE - HRF - HRG - HRH		HR15T - HR30T - HR45T
	HRK - Brinell HB30		HR15W - HR30W - HR45W
scales on request	HB2.5 - HB5 - HB10		HR15X
	HV60 - HV100	scales on request	HB2.5 - HB5
	SHORE D		HV10 - HV15 - HV30

#### **CE Conformity**

#### NR3D STANDARD ACCESSORIES

In polished wooden box

Rockwell conical diamond indenter
Rockwell ball indenter 1/16
Brinell ball indenter 2.5mm\*
Rockwell test block
Brinell\* test block
Flat anvil Ø 60mm
Flat anvil Ø 10mm
Large V anvil
small V anvil
Plastic cover
Spare balls Ø 1/16 \*
Printer output

\* accessories not included for the NR3D SR version (Superficial Rockwell)

#### NR3D ACCESSORIES ON REQUEST

Flat anvil Ø 200mm V-anvil for rounds max Ø 150mm Rockwell ball indenters 1/8", 1/4", 1/2" Brinell ball indenters 1mm, 5mm C-form extension for measuring internal parts

(See accessories catalogue code n° 801-120EN01)

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