Novascan R630A

Multifunction rebar locator to ensure maximum precision in structural investigations

Novascan R630A is used to determine the localization and distribution of rebar, the measurement of the thickness of rebar cover and the diameter of bars.
The multi-functional rebar detector Novascan R630A, is used to determine:

1. Localization and distribution of rebar [General-Scan];
2. Measure the thickness of rebar cover [General-Scan];
3. Measure the diameter of bars and stirrups [General-Scan];
4. Graphic reconstruction of the grid [Grid-Scan];
5. Display the rebars in section for assessing the deviation from the known rebar cover to each bar or stirrup [Profile-Scan].

NOVATEST Engineering Solutions

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Multifunctional detector

General-scan
Standard scan for the localization of rebars, measuring rebar cover and estimate diameter bars and stirrups. The “General-Scan” is available (independently) with the probe “Small” or the probe “Large”;

Profile-scan
This acquisition mode provides a view in section of the rebars. By entering the knowing cover value you can evaluate the deviation from this value for each bar or stirrup. The “Profile-Scan” is available only with the probe “Large”;

Grid-scan
Scan that allows to reconstruct the mesh of the rebars and evaluating their distribution within the element under investigation. The “Grid-Scan” is available only with the probe “Large”.

The acquired data are stored on the device’s internal memory. The export is carried on USB device for transferring data processing software for data analysis and report generation test.

Technical features:

Model	Novascan R630A
Applicable range	Ø 6mm ~ Ø 50mm
Protective layer thickness range (mm)	• First range: 3 ~ 98 • Second range: 3 ~ 196
Maximum allowed error for protective layer thickness	• ±1 mm: First range: 3 ~ 56; Second range: 3 ~ 79 • ±2 mm: First range: 57 ~ 69; Second range: 80 ~ 119 • ±4 mm: First range: 70 ~ 98; Second range: 120 ~ 196
Maximum allowed error	±1 rebar standard
Data transmission	Thumb drive storage available
Power	Built-in chargeable lithium battery
Battery time	>38 hrs
Size	212mm x 134mm x 50mm
Weight	0,9 Kg

Accessories:

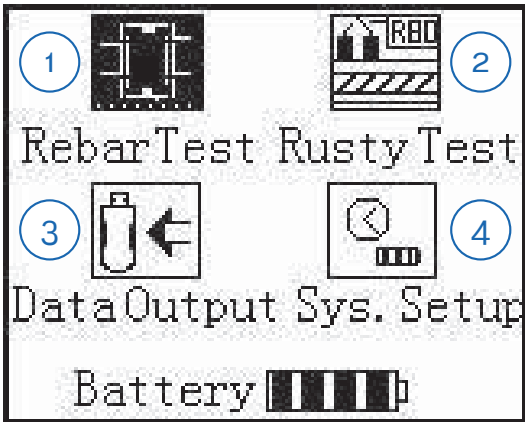
- Central unit Novascan R630A;
- Small probe;
- Large multi-parameter probe;
- Professional software for analysis and reporting;
- Battery charger;
- USB drives with instruction manual;
- Pencil;
- Certificate of conformity;
- Rigid suitcase for transport.

Fast guide:

Device components

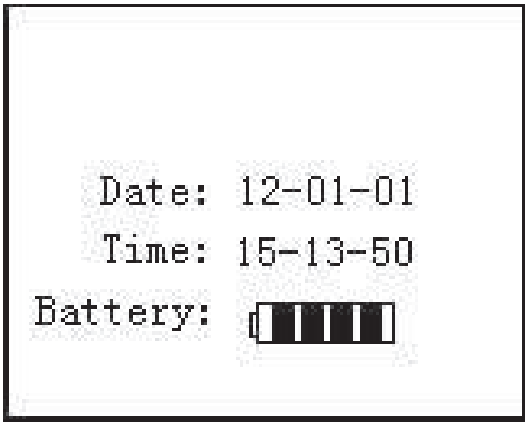
1. Central unit for data acquisition;
2. Pacometer A;
3. Pacometer B;
4. Copper sulfate single electrode for rust test;
5. Copper sulfate double electrode for rust test;
6. Copper sulfate solution.

Main menu



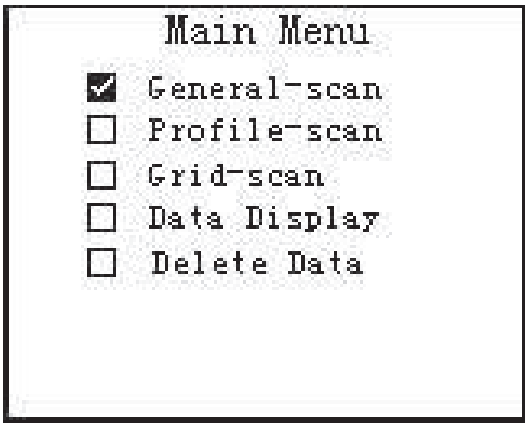
The main menu screen appears on the display when the R660 pacometer starts, and allows access to the instrument functions:
1. Magnetometric tests;
2. Investigation of the corrosion potential;
3. Data management;
4. System settngs.

Settings

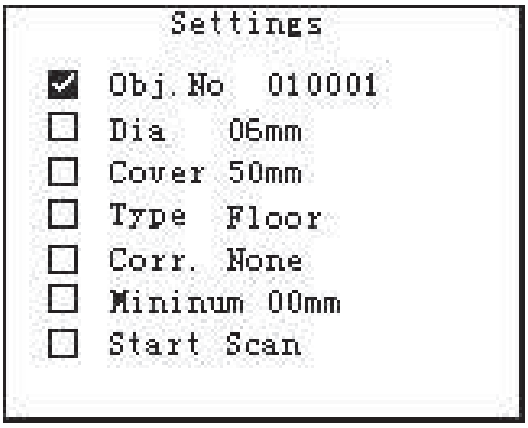


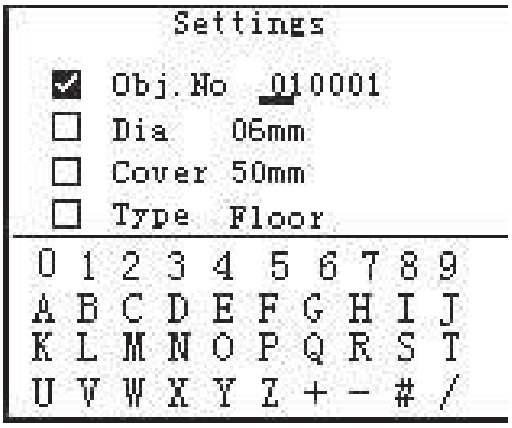
Magnetometer survey

The R800 pacometer allows magnetometric tests to be performed according to 5 different methods, to adapt to the different needs of the user:



Selecting the desired function, a menu opens in which it is possible to set the test parameters and name the file to be stored in the internal memory of the instrument.

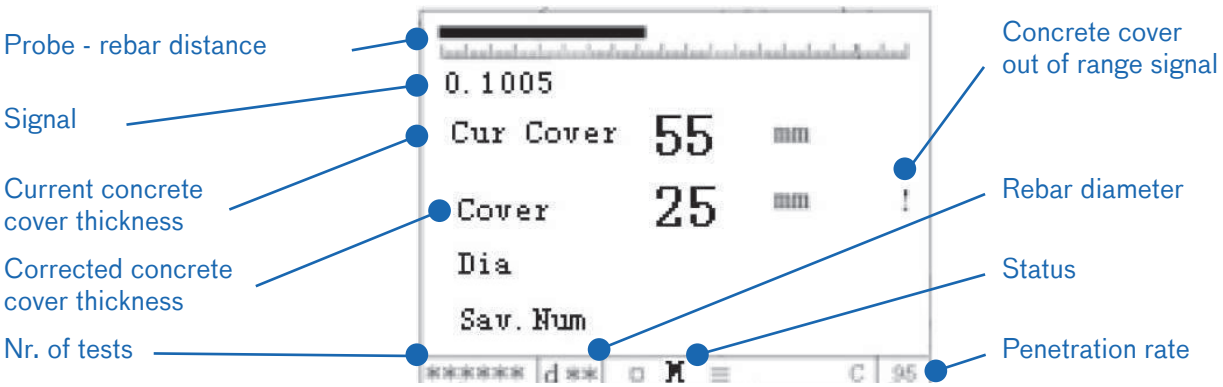




Features

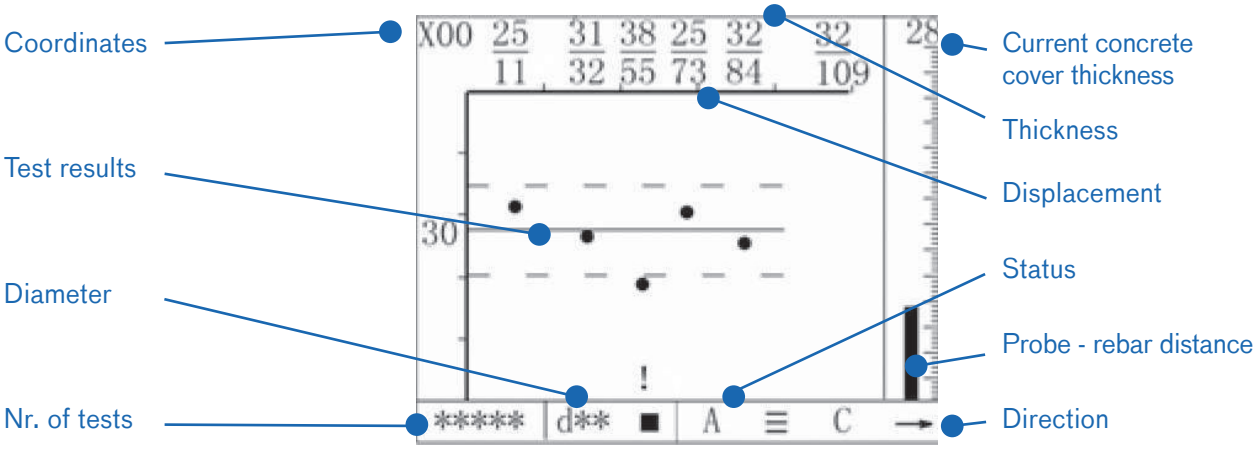
A) General Scan

The “General Scan” mode allows you to identify the position of a reinforcing bar and estimate its thickness. You can estimate the thickness using a single measurement or as an average value between two measurements (depending on the initial setting set by the user).



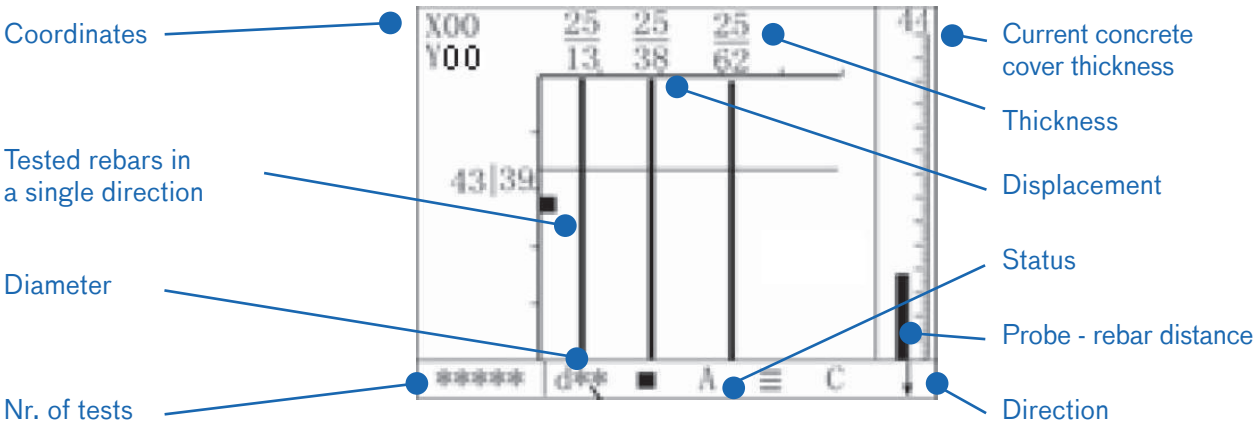
B) Profile Scan

The “Profile Scan” mode makes it possible to identify the thickness of the concrete cover, diameter, position and spacing of the bars and other information on the reinforcement examined through the cross section graph.



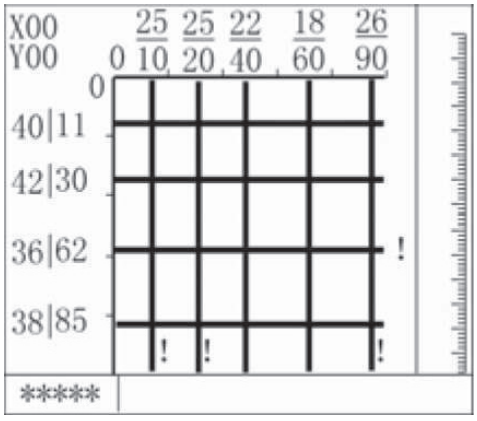
C) Grid Scan

"Grid Scan" is the mode that shows the position and diameter of the bar, the thickness of the cover, the interaxis between the adjacent reinforcements. It is possible to scan in the two directions X and Y and get the graph with the reinforcement grid.



"Grid Scan" mode test results:

Obj	Data		
000001		X	Y
	Dia	12	10
	Num	20	2
	Elig.	96%	96%
	Max	60	50
	Min	40	40
	Ave.	50	45
	Time:12-6-6 12:10		

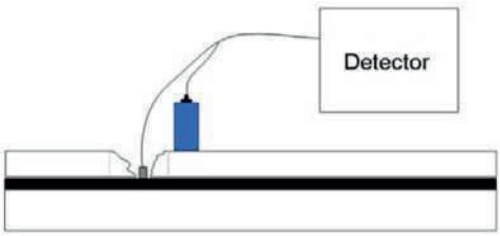


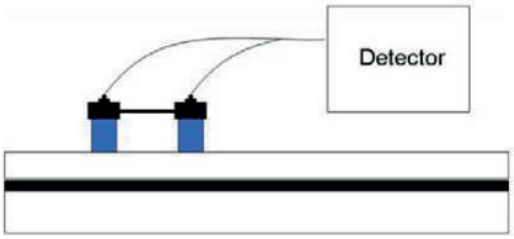
Rust test

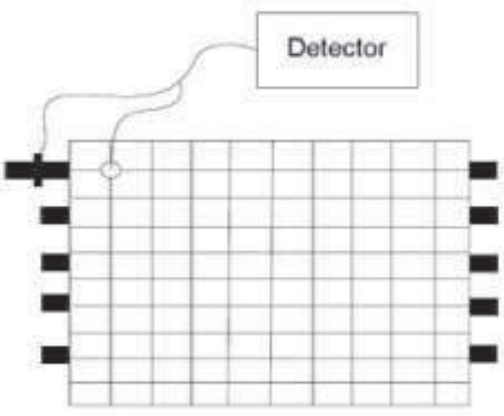
A) Single electrode

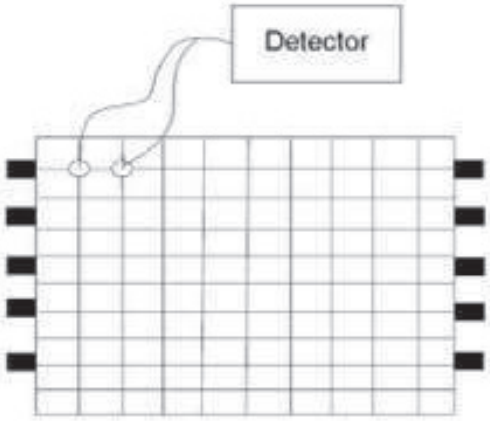
B) Double electrode

Test execution schemes

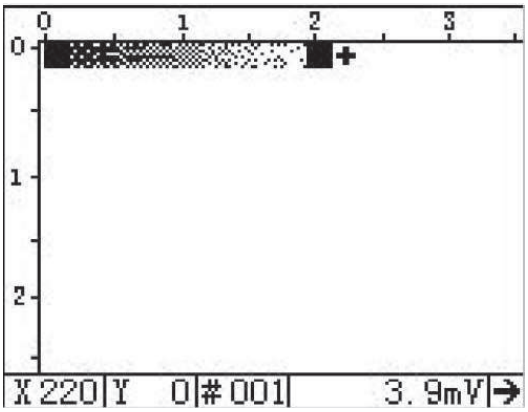




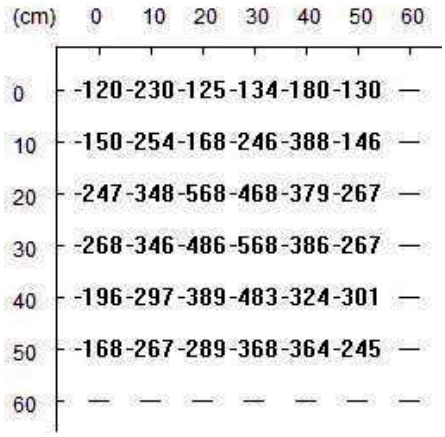




Rust test results



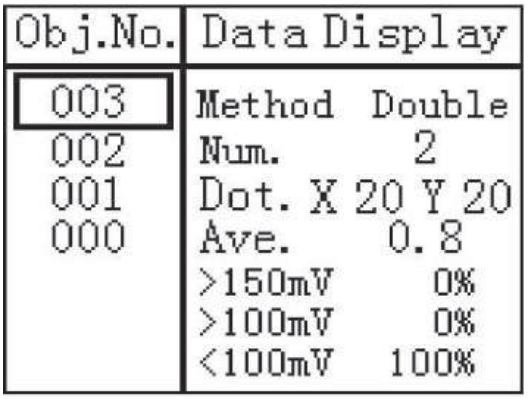
Grey - scale rust test results

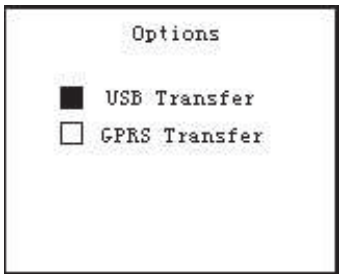


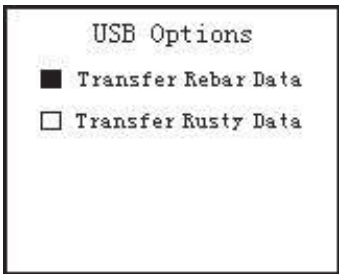
Potential value of every tested points

Data storage

By accessing the device archive it is possible to view/delete the saved results and to transfer them on the Pc for data elaboration.

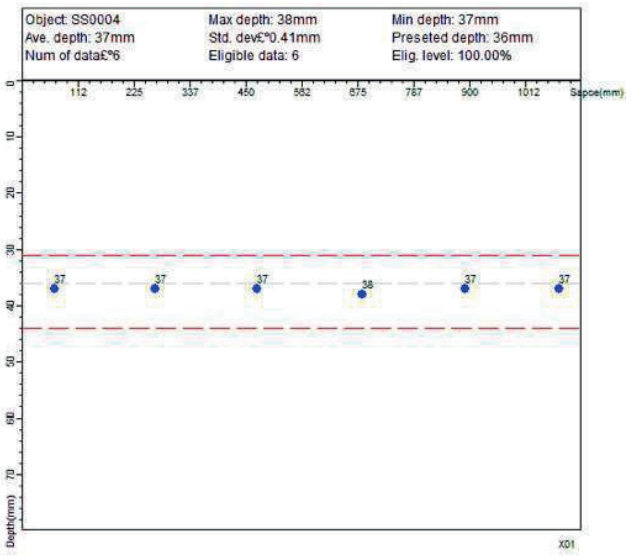




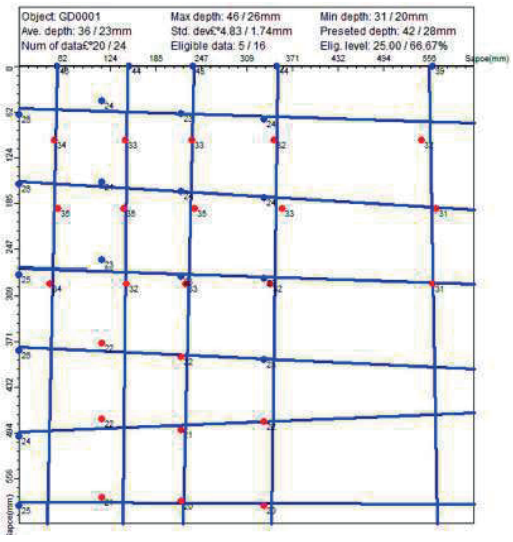


Data elaboration software

A) Magnetometric data elaboration



"Profile Scan" mode



"Grid Scan" Mode

B) Rust test data elaboration