

FEATURES	R650-Pr	R650-ED	R650-EA	R650-Sc
Recording resistance drilling machine with electronics	✓	✓	✓	✓
Internal Memory for 10'000 drillings x50cm	✓	✓	✓	✓
Automatically maximized thrust up to 2cm/sec	✓	✓	✓	✓
25 measured values per millimeter (10Bit)	✓	✓	✓	✓
Void-control-option				✓
High-speed-drilling option 4cm/sec				✓
High-density version for (tropical) hardwoods				✓
High-resolution measuring 100P/mm 12Bit				✓
Calibration for absolute wood density assessment				✓
Re-Calibration-Kit (100x)				✓
ACCESSORIES				
R06 Tool kit	✓	✓	✓	✓
2 R06 battery packs (~50-100 drillings)	✓	✓	✓	✓
R06 battery charger	✓	✓	✓	✓
R06 USB cable	✓	✓	✓	✓
Smartphone App (Graph, Position, GPS, ...)	✓	✓	✓	✓
Bluetooth thermal printer 60mm	✓	✓	✓	✓
CONSUMABLES				
10 Drilling Needles R06 (each ~100 drillings)	✓	✓	✓	✓
10 Drilling Needles R06 (each ~200 drillings)	✓	✓	✓	✓
Drilling Needles R06 density-calbration (~200 dr)	✓	✓	✓	✓
10 Rolls of Thermal Paper 12m	✓	✓	✓	✓
SOFTWARE				
DECOM Pro WIN-PC-Software	✓	✓	✓	
DECOM Scientific WIN-PC-Software				✓
TRANSPORT				
R06 Transport case complete system	✓	✓	✓	✓
R06 Shoulder bag	✓	✓	✓	✓
R06 Carrying belt	✓	✓	✓	✓
TRAINING AND SUPPORT				
Profile evaluation assistance	✓	✓	✓	✓
Introduction/Training	✓	✓	✓	✓

The Next Generation of Resistograph

MORE PRECISE

STRONGER

FASTER

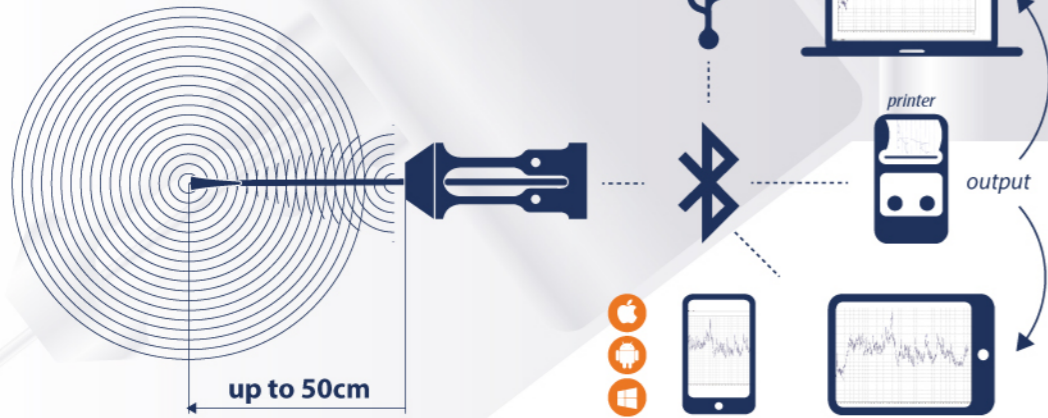


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DISTRIBUTOR INFO

+ Simultaneous Realtime Display on: Printer/Phone/Tablet/Computer



+ One hand operation



+ New strengthened Drill Bit

The drill bit is made of specially treated steel to ensure optimal drilling performance and longer use.

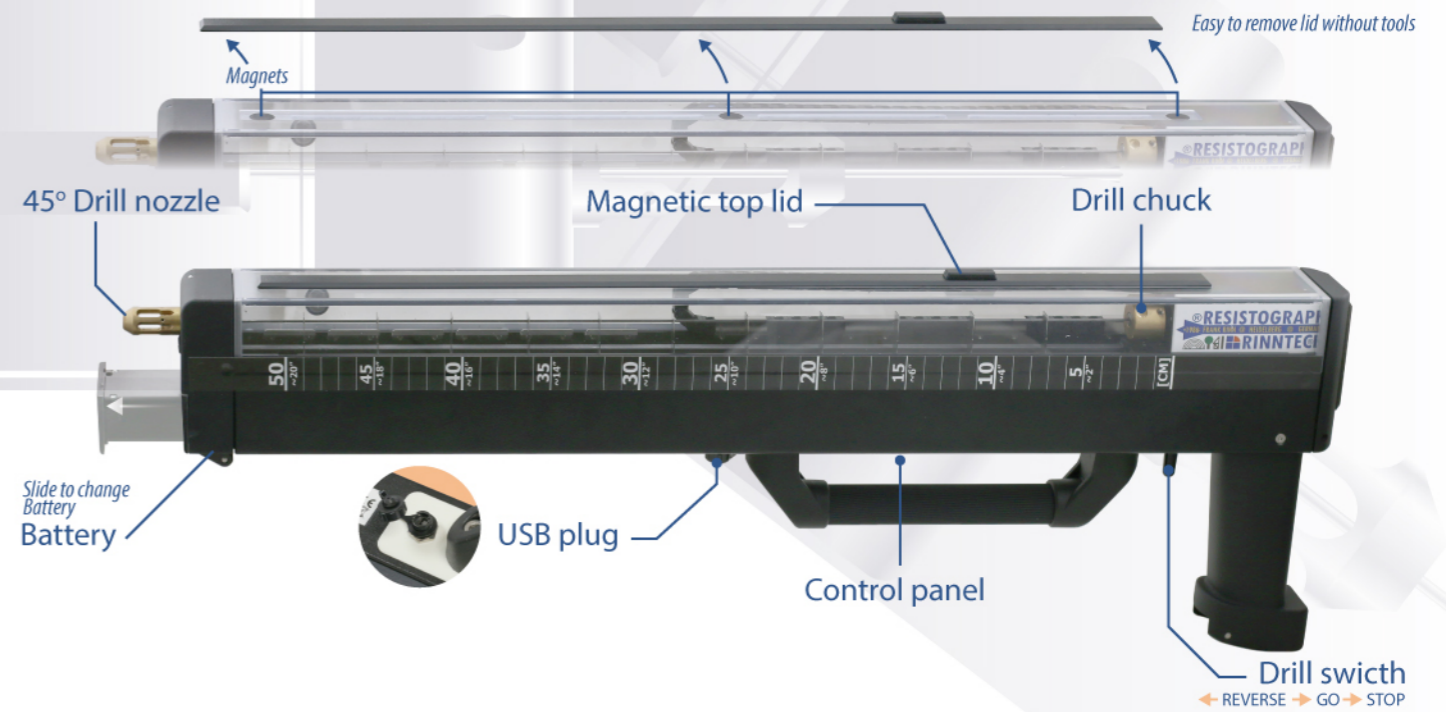


+ Accessories



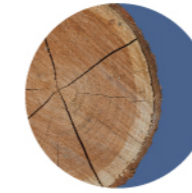
+ SPECIFICATIONS

Drilling Depth	50cm / 20" *Option for 1m / 39" drilling depth extended model
Device Length	70cm/28"
Device Weight	3.9kg Weight incl. Battery
Battery Life	Number of Drillings - 50-100
Charging time	2 hours
Charging cycles	1000
Thrust/Speed	< 5 cm per second
Resolution	of 12Bit .01mm
Precision Correlation	$r^2 > 0.9$ ~wood density
Internal Memory Storage	10'000 x 50cm measurements
Second Printing Scale	range of 1x - 100x zoom factor
One-Hand Operation	
Realtime Simultaneous Display	thermal printer/smartphone/computer



+ Fields of application

Some of the fields of application include tree risk assessment, timber wood quality inspection, timber structure assessment, and dendrochronology.



TREE



TIMBER
/WOOD



CARPENTRY
/TRUSS

+ Product Features

DESIGN	FEATURE DESCRIPTION
LiMn Battery	The LiMn battery is shockproof, non-explosive, and rechargeable. Unlike Lithium-Ion batteries, this type won't burn or explode if dropped and can be recharged many more times, last longer, and are more reliable.
Hand Grip	The sturdy hand grip allows for inverted drilling when close to the ground. It is also sturdy enough to be clipped onto a climbing harness for doing aerial measurements.
On Board Controls	The series of electronic switches on the device allow for fast and easy adjustment to settings. This makes it much easier than scrolling through menus on a graphic interface.
Shoulder Strap	The shoulder strap makes it easy to carry.
Transparent Casing	This allows the user to see if dirt has accumulated inside or if the internal components may need maintenance. It also allows the user to see everything occurring within the machine to avoid potential damage. Needle breakage even directly in front of the motor is no problem and can easily be fixed by the user.
Trigger	Shock-Proof/Insulated
Trigger	The RESISTOGRAPH® is thermally and electrically insulated in a shock-proof housing (in case the drill hits a power cable). It can be handled without gloves in extreme of hot or cold weather, unlike metal housings.
EASY MAINTENANCE	
Changing the Needle	The needle can easily be changed in any position. The magnetic cover can be removed without the need for tools.
Spare Parts	The nozzle, driving cylinder, and other parts are easily replaced.
PRECISION DRILLING FEATURES	
Absolute Wood Density	Special needles and a self-calibration kit are available for measuring absolute wood density. (R650Sc model)
Automatic Thrust	Fully automatic maximized thrust during every drilling. Drilling too slow leads to non-clear low-sensitive profiles while drilling too fast leads to needle breakage. Additionally, profiles obtained with different drilling speed are difficult, even impossible to compare. The motor automatically drives as fast as possible without endangering the needles while still providing the same and comparable optimal (linear density-correlated) profile scaling. Optionally, it can be controlled manually when traversing through cavities/voids/gaps.
Comparing Profiles	Machine regulation re-adjusts itself automatically while drilling for correct and comparable profiles. Re-calibration is not required for normal applications such as wood condition (decay assessment).
MEASUREMENT OUTPUT	
Bluetooth Printer	The bluetooth thermal printer is automatically connected for simultaneous printout at a 1:1 scale on standard paper rolls (~ 30 print outs per roll of paper). A second printout curve (with user selectable scaling) can be added to show more details on the spot.
Internal Memory	Internal memory can store more than 10,000 drillings.
Mobile Remote Control	The included smartphone APP can control drilling remotely. This is especially helpful in tight spaces or when using one-handed operation.
Smartphone APP	The Smartphone APP provides simultaneous realtime profile display, storage and transmission of data, and (optionally) remote control of the machine. The APP displays more than just the current drilling depth and the profile. It also records GPS location.
USB Connector	The Resistograph can connect to a computer via USB for downloading profiles.
SUPPORT	

Two year warranty for the drill and one year for the batteries. Design and features of the new RESISTOGRAPH® result from Rinntech's own practical and scientific inspections of thousands of trees, palms, poles, and timber structures since Frank Rinn developed the Resistograph in 1986. There is no one else having more experience in this technology.

+ The only Resistograph in the Industry



RINNTECH® is a registered trademark of Frank Rinn.
RESISTOGRAPH® is a registered trademark of Frank Rinn in 28 countries.
The electronic drill resistance measurement was developed by Frank Rinn in the years 1986 to 1989 and was patented in 1990.

Frank Rinn