

# ROTHENBERGER

## RODIADRILL 500

RODIADRILL 500



DE Bedienungsanleitung  
EN Instructions for use  
FR Instruction d'utilisation  
ES Instrucciones de uso  
IT Istruzioni d'uso  
NL Gebruiksaanwijzing  
PT Instruções de serviço  
DA Brugsanvisning  
SV Bruksanvisning

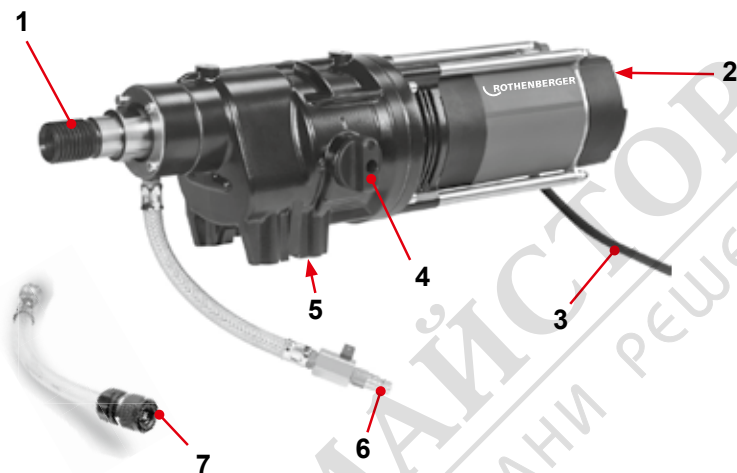
NO Bruksanvisning  
FI Käyttöohje  
PL Instrukcja obsługi  
CS Návod k používání  
TR Kullanım kılavuzu  
HU Kezelési útmutató  
HR Upute za uporabu  
EL Οδηγίες χρήσεως  
RU Инструкция по использованию



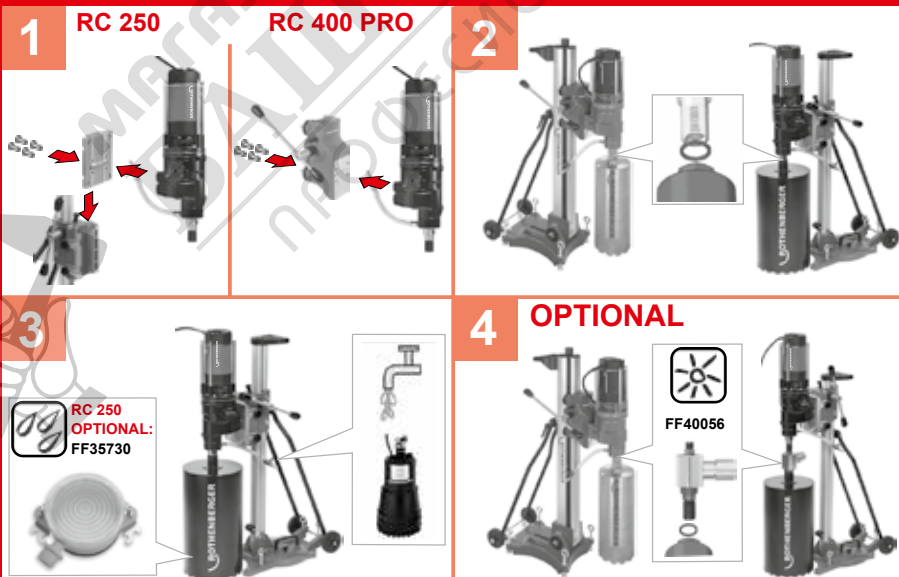
[www.rothenberger.com](http://www.rothenberger.com)

# A Overview

RODIADRILL 500 no.: FF40400 (EU)  
RODIADRILL 500 no.: FF40400Z (CH)



# B Start of operation



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**Markings in this document:**



**Markings in this document!**

This sign warns against the danger of personal injuries.



**Caution!**

This sign warns against the danger of property damage and damage to the environment.



**Call for action**



## 1.1 Intended use

The RODIADRILL 500 diamond drill is to be used for wet drilling in reinforced concrete and brickwork with an appropriate diamond drill bit and water supply.

The equipment can also be used for dry drilling by installing the suction rotor (accessory) with an appropriate diamond drill bit. The equipment must only be used in connection with the RODI-ACUT 250 and 400 PRO drill rigs.

## 1.2 General Power Tool Safety Warnings



**WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool.**

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.**

The term "power tool" in the warnings refers to your electrically-operated (corded) power tool or battery-operated (cordless) power tool.

## 1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

## 2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors only, use an extension cords suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

## 3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A momentary lack of attention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
  - e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
  - f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
  - g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
  - h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
- 4) Power tool use and care**
- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
  - b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
  - c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
  - d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
  - e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
  - f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
  - g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
  - h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- 5) Service**
- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

### 1.3 Special safety instructions

Please read and be sure to understand the drill rig instruction manual!

Please wear hearing protection. Exposure to noise can lead to loss of hearing.

Power sockets in outside areas must be fitted with residual current circuit-breakers. This is an installation regulation requirement for your electric system. Please be sure to observe this when using the equipment.

Always wear protective goggles when working with the equipment. We recommend protective gloves, sturdy, non-slip shoes and an apron.

Shavings or chips must not be removed when the equipment is running.

Dust that arises during work is often harmful to health and should not be allowed to enter the body. Please wear a suitable dust protection mask.

Please remove the plug from the electric socket before all work on the equipment.

Be sure the equipment is switched off before connecting it to the electric socket.

Always keep the connecting cable away from the sphere of action of the equipment. Always guide the cable away from the equipment to the rear.

Please look out for electric cables, gas and water pipes when working on the wall, ceiling or floor.

## 2 Technical Data

Voltage ..... 230 V a.c. , 50/60 Hz

Nominal acceptance power..... 4000 W

Gear ..... 1. .... 2. .... 3.

Speed (min<sup>-1</sup>) ..... 215 ..... 430 ..... 785

Drilling range (Ø mm)..... 180 - 502 ..... 100 – 180 ..... 32 - 102

Weight ..... approx. 12,1 kg

Speed electronic..... yes

Tool fitting ..... outer 1.1/4" UNC, inner G 1/2"

Drill bit types ..... SPEED STAR DX, Duramant PRO, EUROLASER, DX-HSP

Noise pressure level (L<sub>pA</sub>) ..... 91 dB (A) | K<sub>pA</sub> 3 dB (A)

Sound power level (L<sub>WA</sub>) ..... 102 dB (A) | K<sub>WA</sub> 3 dB (A)

The noise level during operation can exceed 85 dB (A). Wear hearing protection!

Measured values determined in accordance with EN 62841-1.

Vibration total value ..... 2,9 m/s<sup>2</sup> | K= 1,5m/s<sup>2</sup>

The Vibration Total Value quoted in these instructions and the quoted noise emission values were measured according to standardized measurement procedures and can be used to compare one electric power tool with another. They can also be used to make an initial estimate of the loading.



The quoted vibration and noise emissions can vary during actual use of the electric power tool dependent on the way in which the electric power tool is used, in particular what type of workpiece is being processed. Establish additional safety measures to protect the operator which are based upon an estimate of the vibration loading during the actual usage conditions (in doing so taking account of parts of the operating cycle, for example times in which the electric power tool is switched and those in which it is switched on but not running under load).

## 3 Power connection

Connect only to the single-phase alternating current indicated on the rating plate. Connect only to sockets with protective contacts. The machine must be operated only through a ground fault circuit with max. 10 - 30 mA rated leakage current.

Always perform the operational test before starting up the device. If there is a repeated failure, have the connected device inspected.

Please keep in mind that this device cannot replace fundamental safety precautions. To prevent life-threatening hazards, be sure to use electrical devices only as intended.

Reliable personal protection against electric shock. Fault currents are recognized in a fraction of a second, and the current supply is immediately interrupted. The risk to humans and animals is drastically reduced.

- Never use the electric tool without a PRCD.
- The plug or electrical cord should be replaced only by the manufacturer of the electric tool or by its repair service.
- Keep water away from electrical parts of the electric tool and from people in the work area.

### 3.1 Putting the PRCD switch into operation



Only suitable for AC current! Note the mains network voltage!

Perform the following test procedure on the PRCD switch before every putting into operation of the device:

1. Connect the PRCD plug connector with the socket.
2. Press on RESET. The indicator switches to ON.
3. Pull the plug connector out of the socket. The display switches itself off.
4. Repeat 1. and 2.
5. Press on TEST. The indicator switches itself off.
6. Press on RESET to switch the device on.



These protective device protect against faults in the attached device, not against such faults in the preceding plant!

## 4 Function of the Unit

### 4.1 Overview

(A)

1	Drive shaft	5	Drill rig fitting
2	On/off switch	6	Water supply
3	Power cable with PRCD switch	7	Water supply "Gardena"
4	Gear selector switch		

### 4.2 Start of operation

(B)

#### Clamping into the drill rig (picture 1)

##### **RODIACUT 250:**

- Lock the feed gear on the drill rig.
- Use the supplied screws to fasten the swallowtail plate to the drill motor.



Please pay attention to the correct position of the feather key groove, bores and fitting position!

- Slide the motor from the top as far as it will go into the swallowtail guiding on the drill rig and tighten using both star handles.
- Check the tight fit of the motor.

##### **RODIACUT 400 PRO:**

- Remove the feed gear from the drill rig.
- Fasten the feed gear to the drill motor by means of the screws and a T-handle with ball end attached to the drill rig.



Please pay attention to the correct position of the feather key groove, bores and fitting position!

- Slide the motor together with the feed gear from the top into the guideway on the drill rig.
- Check the tight fit of the motor.

For this please read the drill rig instruction manual!

#### Changing the drill bit (picture 2)



Please wear protective gloves when changing the drill bit. The drill can become hot after being in use for a longer period of time!

- Use an open-ended spanner (SW 36) to hold the drive shaft (1) and release and unscrew (right-hand thread) the drill bit using an open-ended spanner (SW 24 for G 1/2" bits; SW 41 for 1.1/4" UNC bits).

**Information:** In the case of drill bits with a 1.1/4" UNC screw thread it is recommended to place a copper ring (No. FF35190) between the drill motor and the drill bit. It is then easier to separate

the drill bits from the motor after drilling and any unevenness between the drill bit fitting and the drive shaft is compensated.

### Wet drilling (picture 3)



Wet drilling is only permitted with a faultless "PRCD". Always carry out work using a water extraction device when wet drilling overhead. Protect the prime mover from splash water!

- Water connection: Water connection (6) to a pressurized water tank (No. FF35028) or connecting a water line directly over a Gardena water hose (7) using a two way adapter.  
(There must at least be sufficient water pressure (**max. 4 bar!**) to move the arising drilling mud from the borehole)
- Use the adjusting screws to fix both arms of the water extraction ring (No. FF35730) to the base plate. Cut a hole into the rubber sheet somewhat larger than the diameter of the drill bit. Connect the water extraction ring to the water extractor.

Concerning this, please read the operating manual for the pressurized water tank or the water extractor appliance!

### Optional: Dry drilling (picture 4)

- Screw the suction rotor (No. FF40056) onto the drive shaft (1).
- Attach the hose adapter and suction hose.
- Connect the vacuum cleaner (No. FF35144) to the mains supply.

For this please read the vacuum cleaner instruction manual!

## 4.3 Handling



Please read and be sure to understand the drill rig instruction manual!

### Overload protection

The green control lamp illuminates during normal operation. The red control lamp illuminates if excessive pressure is applied to the drill bit. Reduce the contact pressure; the green control lamp illuminates again.

The electronic system shuts the equipment down in the case of overloading for a longer period of time. Switch the equipment off and then on again in order to continue working. In the event of jerky overloading (e.g. jamming of the drill bit) the electronically automatic switch off interrupts the force flow.

### Setting the speed

- Set the speed according to the diameter and the type of the material, according to the label.
- Only change gears when the equipment is at a standstill!




### Wet drilling




Danger due to electric shock! Always carry out work using a water extraction device when wet drilling overhead. The water extraction device must be in a flawless condition!

- Turn on the water connection and switch on the water extractor.  
(There must at least be sufficient water pressure (**max. 4 bar!**) to move the arising drilling mud from the borehole)
- Switch on the motor.
- Apply the diamond drill bit and continue to drill using light, consistent follow-up pressure.
- Occasionally with draw the drill bit slightly from the bore so that the drilling mud or dust is removed.
- Shut down the motor once the desired drilling depth has been achieved and pull the drilling bit out of the borehole slowly.
- Stop the supply of water and shut down the water extractor.
- If no more boreholes are required, allow the motor to run again for a few seconds without water supply in order to press the remaining water out of the rinsing bush of the motor.



 In case of seizure, start up the drill motor again at low speed using cooling water and withdraw the core bit!

 In case of need, repeat the process or turn the core bit using the SW 41 flat wrench. Please note: Switch off the PRCD switch!

### **Optional: Dry drilling**

 Reinforced concrete only wet drilling!

- Switch on the motor and the vacuum cleaner.
- Apply the diamond drill bit and continue to drill using light, consistent follow-up pressure.
- Occasionally withdraw the drill bit slightly from the bore so that the drilling dust is removed.
- Shut down the motor once the desired drilling depth has been achieved and pull the drilling bit out of the borehole slowly
- Shut down the vacuum cleaner.


### **Removal of the drilling core on through borings**




Please take precautions to prevent physical injuries or property damage!

- Allow the drilling core to fall out of the bit.

If the core should jam in the bit, use a rod to push it out from the rear.

 Avoid damage to the ground!

 On no account use a hammer or spanner to hit the outside of the drill bit in order to release the core. This could deform the pipe and it would then definitely no longer be possible to remove the drilling core from the bit!

### **Removal of the drilling core from tapped blind holes**

- Use a screwdriver, chisel or similar tools to penetrate the annular gap that has emerged and break and remove the core by means of a brief, forceful lateral jerk or hammer blow.

The deeper the borehole, the easier it is to break the cores. Thus, optimal results are achieved if the borehole depth is at least the same as the diameter of the drill bit.

## **5 Care and Maintenance**

In order to avoid damage to the equipment and guarantee trouble-free work, all parts must be cleaned and lubricated regularly.

Rub off the equipment after every drilling job and blow out using compressed air.

If it is foreseeable that the equipment will not be used for a longer period of time, remove the drill bit from the motor. If this is not observed, the drill bit and motor shaft can be corroded together in unfavourable circumstances. It would be very difficult to separate both parts, causing damage.

The following work should be carried out on a weekly basis at least. Carry out on an appropriately more frequent basis in the case of more intensive work.

- Check and replace carbon brushes if necessary approximately every 250 operating
- use a fine brush to clean the collector cavity.

**Important!** All maintenance, overhauling and repair work must only be carried out by trained specialised staff.

## **6 Accessories**

You can find suitable accessories in the main catalog or at [www.rothenberger.com](http://www.rothenberger.com)

## 7 Customer service

The ROTHENBERGER service locations are available to help you (see listing in catalog or online) and replacement parts and service are also available through these same service locations. Order your accessories and spare parts from your specialist retailer or using RO SERVICE+ online: ☎ + 49 (0) 61 95/ 800 8200 📠 + 49 (0) 61 95/ 800 7491 ✉ service@rothenberger.com - www.rothenberger.com

## 8 Disposal

Components of the unit are recyclable material and should be put to recycling. For this purpose registered and certified recycling companies are available. For an environmental friendly disposal of the non-recyclable parts (e.g. electronic waste) please contact your local waste disposal authority.

### **For EU countries only:**



Do not dispose electric tools with domestic waste. In accordance with the European Directive 2012/19/EU the disposal of electrical and electronic equipment and its implementation as national law, electric tools that are no longer serviceable must be collected separately and utilised for environmentally compatible recycling.



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БАШ МАЙСТОР  
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