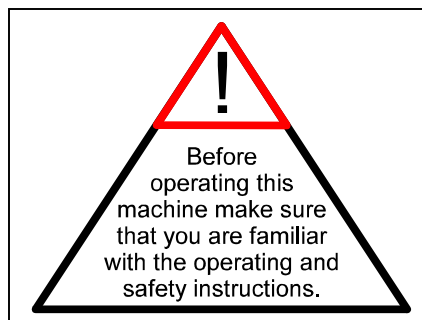


MODEL ETN 2000 P CORE DRILL



OPERATING MANUAL



Operating Instructions

Wet and Dry Diamond Core Drill ETN 2000 P

Technical Characteristics

rated voltage	110 / 120 V AC
rated power input	1500 W
load speed	
1 st speed	0-800 min ⁻¹
2 nd speed	0-1570 min ⁻¹
maximum drilling capacity	
1 st speed	132 mm
2 nd speed	70 mm
protection class	II
interference suppression	as per DIN VDE 0875, EN 55014 and 89/336/EWG
collet	M 18
weight(net)	ca. 6,8 kg
collar clamping diameter	53 mm
available special accessories	drill stand B 150 for drilling up to 132 mm adapter M18i – 1 ¼" a + R ½ "i

This machine is meant for professional use only!

The conformity with the 73/23/EEG and 89/336/EEC guidelines is indicated by the CE - symbol.

All rights of changes due to technical development reserved.

Safety Instructions



1. Safe work with the machine is only possible if you read this operating instruction completely and follow the instructions contained strictly.
2. When drilling in ceilings or walls make sure you will not cut through electrical mains, gas or water pipes. Use metal detection systems if needed.
3. Before using the machine you need to check cable and plug. Damages should only be eliminated by an authorized specialist. Take care that the tool is switched off when plugged into a power receptacle.
4. Do not expose power tools to rain. Do not use power tools in damp or wet locations.
5. Be careful with long hairs. Only work with tight clothes and safety glasses.
6. The machine should only work under supervision of somebody. Plug and switch the machine off if it is not under supervision, in case of putting up and stripping down the machine, in case of voltage drop or when fixing or mounting an accessory.
7. Switch the machine off if it stops for whatever reason. You avoid that it starts suddenly and not under supervision.

Attention ! Do not damage the seal rings during the mounting.

The machine has an external water supply through the work spindle. With the help of the water tap you can regulate the water quantity.

The water supply is equipped with a connector for Gardena-hose coupling.

Attention! Water pressure not higher than 3 bar.

In case of drilling "overhead" you have to exhaust the leak out water at the drill hole by suction ring and wet-vacuum cleaner for reasons of safety at work and reliability.

Electrical Safety

The ETN 2000 P machine has a class II protection.

For operator full protection this machine must only be used by wet drilling with fault current protection device.

Therefore the ETN 2000 P is standard equipped with PRCD protection switch be used on a grounded socket.

Care and Maintenance

Due to it's design, the machine needs a minimum of care and maintenance.

Nevertheless, you should always observe the following:

- Keep the electric tool clean
- Avoid any particle or part to penetrate inside the tool
- If the machine is defect let carry out a repair only through an authorized workshop.

Environmental Protection



Raw Material Recycling instead of Waste Disposal

In order to avoid damages on transportation, the tool has to be delivered in solid packaging.

Packaging as well as unit and accessories are made of recyclable materials and can be disposed accordingly.

Plastic components are marked which makes it possible to remove environmental friendly and differentiated because of available collection facilities.

Noise Emission

The indication of noise emission is measured after DIN 45 635, part 21. The level of acoustic pressure on work site could exceed 85 dB (A); in this case protection means must be used.

Warranty

Tools from EIBENSTOCK are covered by a warranty according to the legal and national regulations. (to be verified by invoice or delivery note).

Damages caused by natural wear, overload and incorrect use are excluded from warranty. Only damages in the result of material and manufacturing faults will be eliminated free of charge, either by replacement or repair.

Complaints will be recognised only when the tool was transferred in assembled condition to the supplier or one of EIBENSTOCK'S authorised service workshops.

8. Don't use the machine if a part of the housing is damaged or in case of damages on the switch, the cable or plug. (check it every day!)
9. When using the drill, cooling water is not allowed to get into the motor and all electrical parts.
10. Stop working when water leaks between the water supply ring and the gearbox housing and take the machine to an authorised service shop.
11. Overhead-drilling only with suitable safety equipment (water collection).
12. After a breakdown the machine should only be switched on again if the drill bit can be turned. Safe work with the machine is only possible if you read this operating instruction completely and strictly follow the instructions contained herein.
13. Do not touch rotating parts.
14. Persons under 16 years are not allowed to handle the machine.
15. During handheld operation hold the machine always with both hands and take up a secure position. Pay attention to the reaction torque.

For further safety instructions, refer to the enclosure.

Main Instructions

The ETN 2000 P is in connection with diamond core drill bits meant for drill in bricks, brickwork and lime-sand-stone for dry cut and in concrete and stone for wet cut.

The plastic cap stays also during the dry cut on the spindle and is only to remove for replace the shaft seals.

For drill about more than 40 mm and operating in the 1st speed the use of the drill stand is absolute necessary. The user is responsible for damages caused by inappropriate use.

Hand drilling in the first speed forbidden! Counter torque can lead to risk in case of careless use.

Auxiliary Handle

In hand held drilling operations, only use the ETN 2000 P machine with the auxiliary handle fixed. This handle must be tighten on the collar, by turning the lever.

Putting into operation

First, check the correspondence between voltage and frequency against the data mentioned on the identification plate. $\pm 5\%$ voltage difference is allowed.

The machine is supplied with a standard integrated PRCD-protection switch for use at a grounded socket.

Check before every use the proper function of the PRCD-protection switch (see special instruction!)

Attention! Don't use PRCD switch for switching on / off the machine!

Use only 3-wire extension cable with protecting conductor and sufficient cross-section (min. 2,5 mm²). A

cross-section which is too small could lead to excessive power loss and to overheating of motor and cable.

The drilling progress must correspond with the bit diameter and the drive power of the machine so that the rated power will be not exceed.

Gear Shifting

According to the drill bit diameter you have to choose between the both possible speeds.

For drilling up to 70 mm we recommend the 2nd speed •• (pointed side of the gear switch shows towards motor) and for drilling over 70 mm you have to use the 1st speed •

(pointed side of the gear switch shows towards spindle).

If it is not possible in standstill to turn the gear switch in end position just turn the spindle a little bit.

Attention! Gear shifting only when the machine is stopped. Turn in clockwise direction!

On-Off Setting

The diamond drill machine is equipped with an electronic controller with locking device.

The more the switch is pressed, the higher is the speed. This allows very precise drilling when starting a hole.

In normal working conditions, always work at maximum speed. **Attention! Do not lock the switch in case of hand held drilling.**

Short-Time Operation – free-hand drilling

switching-on: press the on/off switch
switching off: release the on/off switch

Permanent Operation – drilling with drill stand

switching-on: press the on/off switch and keeping it pressed, engage the lock button
switching-off: press the on/off switch again and let it go off

Overload Protection

In order to protect the operator, the motor and the drill bit the machine is equipped with a mechanical, electronic and thermal overload protection.

- mechanical: If the drill bit is suddenly blocked in the hole, a clutch will slip disengaging the bit from the motor. Pay attention to the reaction torque.
- electronic: For the warning of the user at overload of the machine in case of too large crowd force there is installed a LED into the hand grip. In no-load operation and normal load occurs no indication. In case of overload the LED glows red. In this case you have to remove the load. For longer disregard of the red LED it follows a self-contained of the machine. After discharge and reengagement one can drill again.
- thermal: When continuous overload is applied (despite the electronic device) a thermal protection will protect the motor. The machine disengages itself in this case and can be put into operation after waiting for cooling down (approx. 2 min.) The time needed to be able to restart the machine will be vary dependent on overheating of the coil and the ambient temperature. To speed up the cooling down of the machine let the machine after the restart run 1-2 min. without load.

The stop of the machine caused by overload protection is no failure. After an adequate time it is possible to restart working!

Water Supply

The ETN 2000 P is designed for wet-and dry core drilling.

The water supply has to stay on the spindle always.

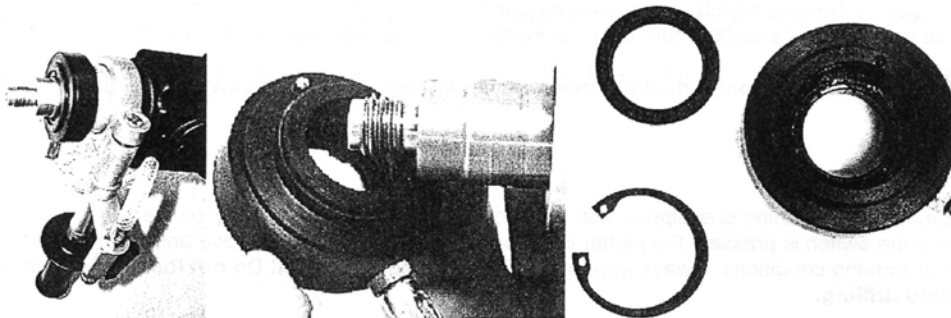
Never drill without water supply due the spindle could be damaged.

If there is water leakage between the water supply ring and the gearbox housing you have to change the water supply respectively replace the shaft seals by new and slight greasy shaft seals. These are available about dealers or manufacturer.

The water supply (black plastic ring) can only remove by pull down.

The mounting of the water supply occurs to push open till it snapped.

Pay attention to the position of the dowel (for protection against twist)



Residual Current Device (RCD)
15 A / 110 V – IP 55
6 mA
AC only !

Interrupteur de sécurité (PRCD)
15 A / 110 V – IP 55
6 mA
Seulement pour courant alternatif !

Testing process

1. Connect RCD plug and mains.
2. Press RESET. The red switch position indicator lights up (condition „ON“).
3. Remove plug from mains, the red switch position indicator extinguishes.
4. Repeat Step 1 and 2.
5. Press TEST and the red switch position indicator extinguishes.
6. Press RESET in order to switch “ ON “ protective device (optical indicator „RED“).

This safety device protects against faults in the connected electrical device. There is no protection from plant fault in fixed installation.

European patent application
no. 92306654.2

Procédure de test

1. Raccorder le fiche du “PRCD” avec la prise de courant.
2. Touche RESET. L'indicateur commute à ROUGE (“ON”).
3. Tirer le fiche de la prise de courant. L'indicateur arrête.
4. Répéter 1 et 2.
5. Touche TEST. L'indicateur rouge arrête.
6. Touche RESET pour mis en circuit l'appareil.

Le “PRCD” protège contre des erreurs d'appareil ne pas contre des erreurs d'annexe devant.

Proposition d'un brevet européen.

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.