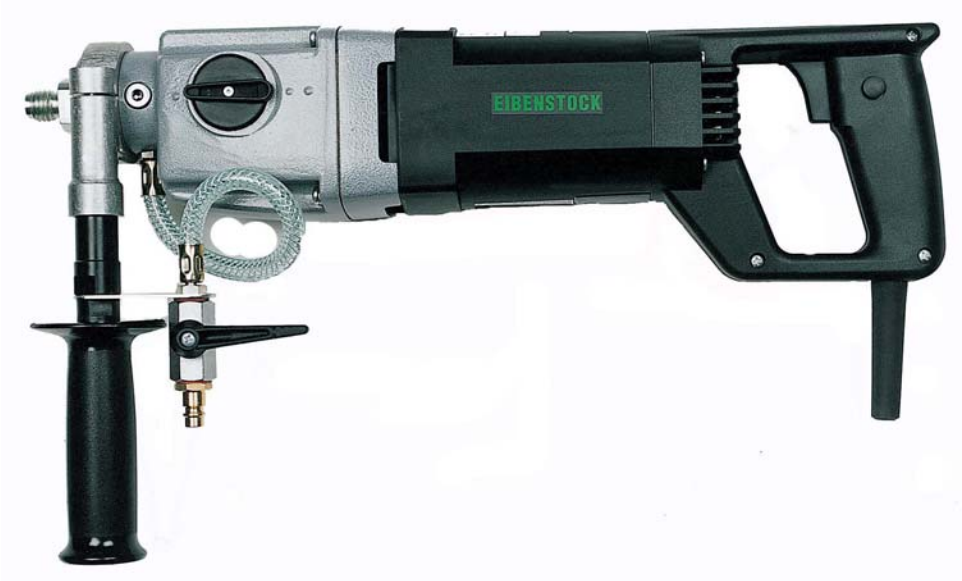
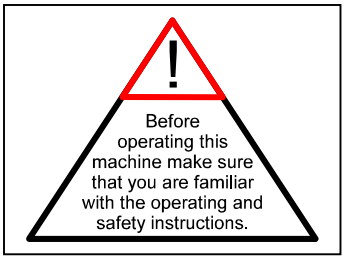
MODEL END 2000 P CORE DRILL



OPERATING MANUAL



CS Unitec, Inc., 22 Harbor Avenue, Norwalk, CT 06850 Toll Free: 800-700-5919 Fax: 203-853-9921

Operating Instructions

Wet Diamond Core Drill

Technical Characteristics

rated voltage:	110/120 V AC
rated power input:	1700 W
load speed:	1st speed : 0 - 1000
	2nd speed: 0 - 2000
drilling capacity hand held up to:	40 mm
drilling capacity in stand up to:	100 mm
protection class:	I
interference suppression:	as per DIN VDE 0875, EN 55014 and 89/336/EWG
collet:	M 18
weight (net):	approx. 5,6 kg
collar clamping diam.:	53 mm

This machine is meant for professional use only !

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

Safety Instructions

1. Safe work with the machine is only possible if you read this operating instruction completely and strictly follow the instructions contained herein.
2. When drilling through ceilings or walls, make sure you will not cut through electric mains, gas or water pipes. Use metal detection systems if needed.
3. Check the drilling machine, cable and plug prior to every use of the tool. Have damages eliminated only by an authorised specialist. Take care that the tool is switched off when the plug is inserted into a power receptacle.
4. The machine must neither be wet, nor be used in humid ambient conditions.
5. Be careful for long hairs. Work only with tight fitted clothes.
6. Extension cords and plugs must be approved for works on the exterior.

For further safety instructions, refer to the enclosure.

Main Intructions

Auxiliary Handle

In hand held drilling operations, only use the END 2000.1 P machine with the auxiliary handle fixed. This handle must be tighten on the collar, by turning the lever.

ON-OFF Setting

The machine is equipped with an electronic ON/OFF switch.
The more the switch is pressed, the higher is the speed. This allows very precise drilling.
In normal working conditions, always work at maximum speed.

Gear Shifting

Choose the proper speed according to the drill bit size used.
Select at the speed selector by pressing-in, shifting and engaging.
If the selector is on "o" position, the speed can vary from 0 to 1000 rpm. This speed is recommended for diam. above 72 mm.
If the selector is on "oo" position, the speed can vary from 0 to 2000 rpm and this speed is recommended for diam. up to 70 mm.

CAUTION:
- ***handheld drilling only with 2nd speed !***
- always check the drill bit manufactures recommendation for use
- gear shifting ***only*** when the machine is stopped and ***clockwise*** !

Starting a Hole

It is always easier to start a hale with centering bit. The electronic switch allows to drill at slow speeds in order to safely introduce the bit in the material (5-10mm). Once engaged in the material the centering device (bit) can be removed from the machine and drilling at full speed can start then.

Overload protection

In order to protect the operator and the machine, the unit is equipped with 3 protections against overload:

- mechanical - electronic - thermal

* mechanical:	If the drill bit is suddenly blocked in the hole, a clutch will slip, disengaging the bit from the motor
* electronic:	If the operator overloads the machine because of excessive penetration speed , the electronic protection will stop the electric supply for a short while.
	After discharge and reengagement, one can drill again.
* thermal:	When continuos overload is applied (despite the electronic device) a thermal protection will protect the motor from destruction.
	When the thermal overload protection has worked, it is not possible to start the machine immediately after
	It is only after some cooling time that the machine can be restarted.
	The time needed to be able to restart the machine will be vary to the overheating of the coil and the ambient temperature.
* acoustic warning:	In case of overload, a continuis acoustic signal sounds.
	When this occurs, it is recommended to decrease the load and/ or cool it down while rotating without load

Important notice: 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 machines are equipped with an integrated water swivel working directly through the motor shaft. According to the type of work to be performed, the adapter can be placed vertically or horizontally to the water hose. The water flow can be adjusted thanks to the tap.
The water connection is equipped with a hose Rico DN 7,2. Water must be pumped with the appropriate mean (main or pressurised tank).
Attention: Water pressure not higher than 3 bar

Electrical Safety

The END 2000.1 P machine has a class 1 protection.

For operator full protection this machine must only be used with fault current protection device. Therefore the END 2000.1 P is standard equipped with PRCD protection switch.

Care and Maintenance

Due to its 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.
- After approx. 300 hours of operation, the carbon brushes have to be checked by a specialist. If they are shorter than 5 mm, they must be replaced by new, original brushes.
  They must be run in by a 20-min idle run of the tool. Also the condition of the commutator must be checked. In case of irregular colouring of the individual blades and surface crashes, send the tool to a service workshop.
- Cleaning of gearbox and motor is needed after approx. 500 hours of operation. Since this is the time of a general check of all components, send the tool to a service workshop.

Environmental Protection

Raw Material Recycling instead of Waste Disposal

In order to avoid damages on transport, the tool has to come in a stable packing.
Packing as well as unit and accessories are made of recyclable materials and can be disposed accordingly. Plastic components are marked; this enables environmentally friendly and differentiated removal through the available collecting facilities.

Noise Emission

The indication of noise emission figures is basing on DIN 45 649, part 2, DIN 45 635, part 21.

- The level of acoustic pressure on work site cannot exceed 85 dB (A).
  If the level exceeds this value, 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 by 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.