



EIBENSTOCK

Elektrowerkzeuge

Original Instructions



ETR 400.2 P

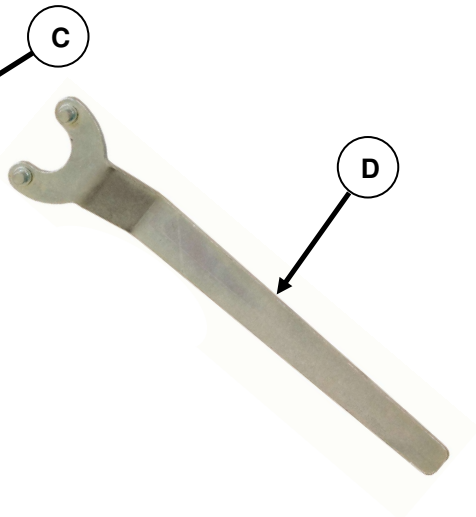
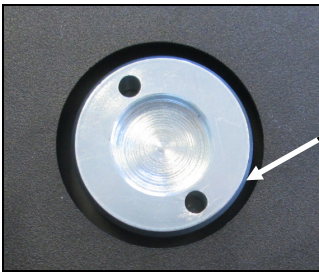




WARNING:

This product can expose you to chemicals including METHANOL, which is known to the State of California to cause birth defects or other reproductive harm.

For more information, go to:
www.P65Warnings.ca.gov



Important Safety Instructions

Important instructions and warning notices are allegorized on the machine by means of symbols:



Before you start working, read the operating instructions of the machine.



Work concentrated and carefully. Keep your work-place clean and avoid dangerous situations.



In order to protect the user, take precautions.

In order to protect yourself, implement the following actions:



Use ear protection



Wear safety goggles



Wear protective gloves



Wear a helmet



Wear protective boots



Warning of general danger



Warning of dangerous voltage



Warning of hot surface



Danger of being ripped or cut

Specifications

Cutting system ETR 400.2 P

Rated voltage:	120 V ~
Rated current:	20 A
Order n no.:	0682H000

Frequency:	50 / 60 Hz
Load speed:	1950 rpm
Max. disc diameter:	15,7 “
Max. cutting depth:	5,9 “
Spindle connection:	Ø 1”
Protection class:	II
Degree of protection:	IP 20
Net weight:	ca. 25,1 lbs
Interference suppression:	EN 55014 and EN 61000

Available accessories:

	Ordernumber:
Diamond cutting disc Premium Ø400mm	3744T000

Content of Delivery

ETR 400.2 P with diamond cutting disc, tool kit and operating instructions in a carton.

Application for Indented Purpose

The **ETR 400.2 P** cutting systems is intended for professional use.

With the correct diamond cutting wheel, it is designed for cutting concrete, stone and masonry in wet cutting.

Only in conjunction with the diamond cutting disc developed especially for the cutting system (refer to Accessories) can an optimal work progress be guaranteed.

Use only diamond cutting discs recommended by the manufacturer.

The diamond cutting disc must be cooled with water from the available water supply.

Safety Instructions



Safe work with the machine is only possible if you read this operating instruction completely and follow the instructions contained strictly. Additionally, the general safety instructions of the leaflet supplied with the tool must be observed. Prior to the first use, the user should absolve a practical training. Save all warnings and instructions for future reference.



If the mains cable gets damaged or cut during the use, do not touch it, but instantly pull the plug out of the socket. Never use the tool with damaged mains cable.



The tool must neither be wet nor used in humid environment.

Cut-off machine safety warnings

- **The guard provided with the tool must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator. Position yourself and bystanders away from the plane of the rotating wheel.** The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.
- **Use only diamond cut-off wheels for your power tool.** Just because an accessory can be attached to your power tool, it does not assure safe operation.
- **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- **Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- **Always use undamaged wheel flanges that are of correct diameter for your selected wheel.** Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage.
- **Do not use worn down reinforced wheels from larger power tools.** Wheels intended for larger power tools are not suitable for the higher speed of a smaller tool and may burst.
- **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- **The arbour size of wheels and flanges must properly fit the spindle of the power tool.** Wheels and flanges with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- **Do not use damaged wheels. Before each use, inspect the wheels for chips and cracks. If power tool or wheel is dropped, inspect for damage or install an undamaged wheel. After inspecting and installing the wheel, position yourself and bystanders away from the plane of the rotating wheel and run the power tool at maximum no load speed for one minute.** Damaged wheels will normally break apart during this test time.
- **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear hearing protectors, gloves and shop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of

stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

- **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
- **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning wheel.
- **Never lay the power tool down until the accessory has come to a complete stop.** The spinning wheel may grab the surface and pull the power tool out of your control.
- **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- **Regularly clean the power tool’s air vents.** The motor’s fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

Kickback and related warnings

- Kickback is a sudden reaction to a pinched or snagged rotating wheel. Pinching or snagging causes rapid stalling of the rotating wheel which in turn causes the uncontrolled power tool to be forced in the direction opposite of the wheel’s rotation at the point of the binding. For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel’s movement at the point of pinching. Abrasive wheels may also break under these conditions. Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.
- **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.
- **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.

- **Do not position your body in line with the rotating wheel.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- **Use special care when working corners, sharp edges, etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- **Do not attach a saw chain, woodcarving blade, segmented diamond wheel with a peripheral gap greater than 10 mm or toothed saw blade.** Such blades create frequent kickback and loss of control.
- **Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.
- **When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** Investigate and take corrective action to eliminate the cause of wheel binding.
- **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
- **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
- **Use extra caution when making a "pocket cut" into existing walls or other blind areas.** The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.
- **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.

Additional safety warnings:

- **Wear hearing protection, safety goggles and gloves.**
- **Use suitable detectors to determine if utility lines are hidden in the work area or call the local utility company for assistance.** Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage or may cause an electric shock.
- **When working with the machine, always hold it firmly with both hands and provide for a secure stance.** The power tool is guided more secure with both hands.
- Do not make cuts above shoulder level.
- Do not work from a ladder. Use a platform or scaffolding if the cut is made above the shoulder. Ensure that a firm footing.

- **Never use the machine with a damaged cable. Do not touch the damaged cable and pull the mains plug when the cable is damaged while working.** Damaged cables increase the risk of an electric shock.

For further safety instructions, please refer to the enclosure!



Electrical Connection

Before starting the machine check the correspondence between voltage and frequency according to the data mentioned on the identification plate. Voltage differences from + 6 % and – 10 % are allowed.

The angle grinder is made in protection class II.

Only use extension cables with a sufficient cross-section. A cross-section which is too small could cause a considerable drop in performance and an overheating of machine and cable.

Recommended extension cord sizes for use with portable electric tools:

Length of Cord in Feet										
110	V	25 Ft.	50 Ft.	100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	400 Ft.	500 Ft.
Nameplate Ampere Rating	0-2	18	18	18	16	16	14	14	12	12
	2-3	18	18	16	14	14	12	12	10	10
	3-4	18	18	16	14	12	12	10	10	8
	4-5	18	18	14	12	12	10	10	8	8
	5-6	18	16	14	12	10	10	8	8	6
	6-8	18	16	12	10	10	8	6	6	6
	8-10	18	14	12	10	8	8	6	6	4
	10-12	16	14	10	8	8	6	6	4	4
	12-14	16	12	10	8	6	6	6	4	2
	14-16	16	12	10	8	6	6	4	4	2
	16-18	14	12	8	8	6	4	4	2	2
	18-20	14	12	8	6	6	4	4	2	2

The tool is equipped with a start-up speed limiter to prevent that swift automatic circuit breakers are unintentionally triggered.

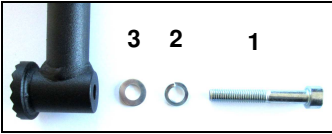
For protection purposes the **ETR 400.2 P** can only be run with a GFCI. The machine is standard equipped with a PRCD protective switch integrated in the cord.

Attention!



- **The PRCD protective switch must not lay in water.**
- **PRCD protective switches must not be used to switch the tool on and off.**
- **Before starting your work, check the proper function by pressing the TEST button.**

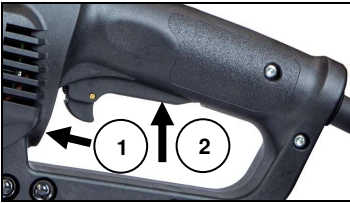
uxiliary Handle



Before the initial commissioning, the auxiliary handle (A) must be installed on the gearbox housing with the cylinder screw (1), lock washer (2) and washer (3).

The auxiliary handle (A) can be adjusted according to the application. For this, use the supplied Allen wrench SW6 to loosen the screw (1). Set the auxiliary handle to the desired position and tighten the screw again.

Ein-/ Ausschalten



Switching-on:
Slide the lock (1) in the direction of the arrow and press the trigger switch (2).

Switching-off:
Release the on/off switch (2)

Protective cover



Attention!

Before any work on the tool, disconnect the plug from the mains!

Operate the power tool only with installed protective cover and auxiliary handle.

The position of the protective cover on the machine can be adjusted according on the application.

To do this, loosen the tension lever (E) on the clamping flange. Turn the protective cover to the desired position and retighten the tension lever (E) firmly.

Changing the Cutting Discs



Attention!

The Cutting discs, spacer discs and the flange nut might heat up enormously during operation. You could burn your hands or get cut or ripped by the segments.

Therefore, always use protective gloves when changing the grinding wheel.

Attention!

Before any work on the tool, disconnect the plug from the mains!

Pay attention to the dimensions of the grinding tools. The mounting hole diameter must fit the mounting flange without play. Do not use reducers or adapters.

Changing the cutting wheel:

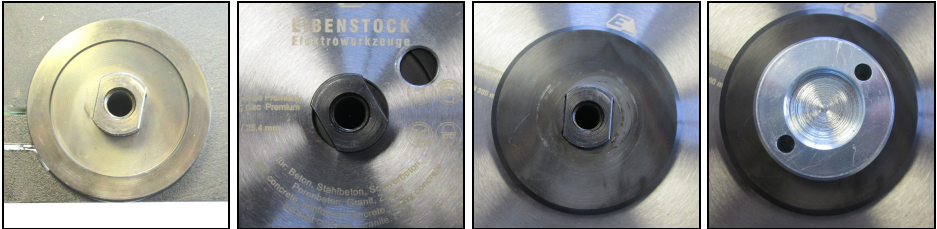
For clamping and loosening the cutting tools, lock the grinder spindle with the spindle lock button (B). Actuate the spindle lock button only when the grinder spindle is at a standstill. Otherwise, the machine may become damaged. With this button depressed rotate the wheel until it has profoundly gone deeper.

The flange (C) can be detached using the supplied wrench (D).

Unscrew the flange completely from the spindle.

Now detach the cutting disc from the machine mount a new disc.

The diamond cutting disc must always be mounted between the two clamping discs!



Screw the flange (C) onto the spindle and tighten it with the help of the assembly tool (D) whilst actuating the spindle lock at the same time.

When using diamond cutting discs, pay attention that the direction-of-rotation arrow on the diamond cutting disc and the direction of rotation of the machine (see direction-of-rotation arrow on the machine head) agree.

In order to check whether the spindle stop is released before you switch on the tool, turn the spindle slightly. Check grinding tools before using. The grinding tool must be mounted properly and be able to move freely.

Carry out a test run for at least one minute with no load. Do not use damaged, out-of-centre or vibrating grinding tools. Damaged grinding tools can burst and cause injuries.

Instructions for Use

- **Exercise caution when cutting slots in structural walls; see Section “Information on Structures”.**
- **Clamp the workpiece if it does not remain stationary due to its own weight.**
- **Do not strain the machine so heavily that it comes to a standstill.**
- **After heavily straining the power tool, continue to run it at no-load for several minutes to cool down the accessory.**
- **Do not touch grinding and cutting discs before they have cooled down.** The discs can become very hot while working.

Protect the cutting disc against impact, shock and grease. Do not subject the cutting disc to lateral pressure.

To supply the machine with water please proceed as follows:

- Connect the tool to the water supply system or a water pressure vessel using the GARDENA connector (H).

- Always make sure that the machine only runs with enough clear water as the seals get damaged when the machine is running dry. The water feed can be regulated via a miniature ball valve.
- Attention! The maximum water pressure should not exceed 3 bar!
- Make sure that the segments are well cooled. If the drilling water is clear, the segments are well cooled.
- In case of frost warning, drain the water system.

Cutting:

Hold the tool firmly with the right hand on the switch handle and the left hand on the additional handle. Activate the tool and wait until the diamond disc has reached full speed. Dip slowly into the material. Now slide the cutting system in a flat and even manner across the surface of the workpiece until the cut is completed.

To achieve a clean cut, maintain a straight cutting line and a steady speed of advance.

The machine must always work in an up-grinding motion. Otherwise, the danger exists of it being pushed **uncontrolled** out of the cut.

For cutting stone, it is best to use a diamond cutting disc.

Information for diamond cutting discs:

Noticeable decreasing work progress and circular sparking are indications of a blunt diamond cutting disc. Briefly cutting into abrasive material (e. g. lime-sand brick or the EIBENSTOCK-diamond-sharpening-stone) can re-sharpen the disc again.

Never use a cutting disc for roughing.

Do not strain the machine so heavily that it comes to a standstill.

Information on Structures:

Slots in structural walls are subject to the Standard DIN 1053 Part 1, or country-specific regulations. These regulations are to be observed under all circumstances. Before beginning work, consult the responsible structural engineer, architect or the construction supervisor.

Overload Protection

To protect the user and motor and drill bit, the **ETR 400.2 P** are equipped with a mechanical, electrical and thermal overload protection.

Electrical: To warn the user against overstressing the tool by applying to high an advance force, the handle includes a LED (J) as a overload indicator. It does not light during idle run or at normal load. At overload, it lights red. In that case the tool must be stress-relieved. In case of longer non-observation of the red indication, the electronics will independently switch the tool off. After relieving be switching the tool off and on, the work can be continued as normal.

Thermal: In case of permanent overload, a thermocouple protects the motor against destruction. Here also, the user is warned by the overload indicator. Shortly before the maximum temperature is reached, the indicator flashes red.
In that case, the tool switches off and can only be restarted after a certain cooling-down period (approx. 2 minutes). The overload indicator flashes until the machine has cooled sufficiently and can be used again. The cooling-down time depends on the temperature of the motor winding and ambient temperature.

Care and Maintenance



Before the beginning of maintenance or repair works you have to disconnect the plug from the mains.

Repairs may be executed only by appropriately qualified and experienced personnel. After every repair the machine has to be inspected by an electric specialist. Due to its design, the machine needs a minimum of care and maintenance. However, the following points always have to be observed:

- Always keep the power tool and the ventilation slots clean.
- During work, please pay attention that no particles get inside the machine.
- In case of failure, a repair has to be carried out by an authorised service workshop.

Auto-stop brushes

In order to protect the motor, this power tool is equipped with auto-stop brushes. When the carbon brushes are worn out, the machine switches itself off. In this case both brushes must be replaced at the same time with original brushes by an electrical specialist.



In addition there is a service indicator (I) on the operating handle which indicates in advance that the machine is about to shut down due to worn carbon brushes. After the indicator lights up, you can use the tool for approximately 1 day. Then the carbon brushes should be replaced.

Environmental Protection



Raw material recycling instead of waste disposal

To avoid damages on transportation, the power tool has to be delivered in a sturdy packing. Packaging as well as unit and accessories are made of recyclable materials and can be disposed accordingly.

The tool's plastic components are marked according to their material, which makes it possible to remove environmental friendly and differentiated because of available collection facilities.

Only for EU countries



Do not dispose of electric tools together with household waste material! In observance of the European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Noise Emission / Vibration

The indication of noise emission is measured according to EN 60745-2-3. The level of acoustic pressure on the work place could exceed 85 dB (A); in this case protection measures must be taken.



Wear ear protectors!

The typical hand-arm vibration is below 2.5 m/s².

Measured values determined according to EN 60745-2-3.

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

Warranty

According to our general terms of delivery for business dealings, suppliers have to provide to companies a warranty period of 12 months for redhibitory defects (to be documented by invoice or delivery note).

Damages due to natural wear, overstressing or improper handling are excluded from this warranty.

Damages due to material defects or production faults shall be eliminated free of charge by either repair or replacement.

Complaints will be accepted only if the tool is returned in non-dismantled condition to the manufacturer or an authorized Eibenstock service centre.

EU - Declaration of Conformity

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with the following standards or standardization documents:

EN 62841-1:2023-03

EN 62841-3-10:2023-05

EN 12418:2021

EN IEC 55014-1:2022-12

EN IEC 55014-2:2022-10

EN 61000-3-2:2023-10

EN 61000-3-3:2023-02

EN IEC 63000:2019-05

according to the provisions of the directives 2011/65/EU, 2014/30/EG, 2006/42/EG

Technical file (2006/42/EC) at:

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01.08.2024

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