EIBENSTOCK
Elektrowerkzeuge

Original Instructions

ETN 162/3

Important Instructions

Important instructions and warning notices are put 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 a helmet

Use protective gloves

Wear protective boots

Warning of dangerous voltage

Warning of hot surface

Danger of being crushed

Danger of being ripped or cut

Technical Characteristics

Diamond Core Drill ETN 162/3

Nominal voltage	120 V ~
Rated current	19,5 A

Frequency: 50/60 Hz
Max. drilling diameter in concrete (wet drilling): 6 3/8”
in brickwork (dry drilling): 8”
Bit holder: 1 ¼“ UNC - R½¨ i
Protection class: I
Degree of protection: IP 20
Weight: approx. 15 lbs
Interference suppression acc.to: EN 55014 and EN 61000

Gear	Load speed	Max. drilling diameter	
		Concrete	Brickwork
1	510 rpm	6 3/8”	8”
2	1150 rpm	3”	4 3/4“
3	2500 rpm	1 3/4”	2 3/4”

Available add-ons:

Item	Order No.
Diamond drill rig BST 182 V/S	09646000
Fastening set concrete/stone	35720000
Diamond drill bit dia. 1 1/4” – 6 3/8” (wet)	
Diamond drill bit dia. 2” – 8” (dry)	
Drill bit extension	
Copper ring for easier drill bit removal	35450000
Centring rod	36391000
Water suction ring WR 202	35810000
10 litres metal water pressure vessel	35810000
Wet/dry deduster DSS 25 M	09917000
Vacuum pump VP 05	09207000
Vacuum hose	35855000
Vakuum Set BST 182 V/S	3588F000

Supply

Diamond core drill with PRCD protective switch integrated in the cable, wet-type connector with ball valve and GARDENA connector, adapter for deduster connection (dia. 35 mm), 2 open-end wrench (SW32 and SW41) and instruction manual in transport case.

Application for Indented Purpose

The diamond core drill **ETN 162/3** is indented only for professional use and may be used only by instructed personnel.
It may be used either with or without a suitable diamond drill rig. With an appropriate drill bit, the tool can be used for wet cutting of concrete and stone and dry cutting of bricks, sand-lime bricks and pore concrete.
For wet drilling jobs with diameters above 3" and drilling in the 1st gear, it is a must to use a suitable drill rig.

Drilling in the 1st gear without drill rig is prohibited!

On careless use, counter torques may cause danger to the user!

Safety Instructions

Safe use of the tool is only possible if the user had studied the instruction manual and safety instructions completely and is strictly following the instructions contained therein. 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.

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.

Prior to drilling in walls and ceilings, check them for hidden cables, gas and water pipes and other media. Check the working area, e.g. using a metal detector. Prior to the start of your work, consult a statics specialist to determine the exact drilling position. If drilling through ceilings, secure the place below, because the may fall downward.

Do not expose power tools to rain or wet conditions.

Water entering a power tool will increase the risk of electric shock.

- Do not use the tool in an environment with danger of explosion.
- Do not use the tool standing on a ladder.
- Do not drill into asbestos-containing materials.
- Do not carry the tool at its cable, and always check the tool, cable and plug before use. Have damages only repaired by specialists. Insert the plug into the socket only when the tool switch is off.
- Modifications of the tool are prohibited.
- Unplug the tool and make sure that the switch is off if the tool is not under supervision, e.g. during preparation and take-down works, at power failures, for insertion or mounting accessories.
- Unplug the tool if it stops for any reason. So you avoid sudden starts in unattended condition.

- 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.
- Always lead the mains and extension cables as well as the dedusting hose from the tool to the back.
- Electrical tools have to be inspected visually by a specialist in regular intervals.
- On using the tool, in no case cooling water may seep into the motor or the electric components.
- If water comes out of the drainage hole at the gear neck, stop your work and have the tool repaired by an authorised service centre.
- Perform overhead drilling only with suitable protective appliances (water catcher).
- After interruption of your work, restart the tool only after having made sure that the drill bit is moving freely.
- The tool may be used only in two-hand operation or with the drill rig.
- Keep the handles dry, clean, and free of oil and grease.
- Do not touch rotating parts.
- Persons under 16 years are not allowed to use the tool.

- During use, the user and other persons standing nearby have to wear suitable goggles, helmets, ear protectors, dust mask, protective cloves and boots.
- **During manual operation, always hold the tool with both hands and be fall-safe. Consider the tool’s reaction torque in case of blocking.**
- **Always work in a carefully considered way and do not use the tool if you are lacking consideration.**
- **During manual operation, work with a special circumspection when dry drilling with dimensions between 100 and 200mm!**

For further safety instructions, see the enclosure.

Electrical Connection

The **ETN 162/3** is made in protection class 2. For protection purposes the machine can only be run with a GFCI. The machine is standard equipped with a PRCD switch in the cord which allows to connect the unit direct to a socket.

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.**

Prior to putting the tool into operation, check the mains voltage for conformity with the requirements of the tool’s nameplate.

Voltage variations between + 6 % and – 10 % are permissible.

Use only extension cable with sufficient cross-section (min. 2,5 mm^2). A cross-section which is to small could lead to excessive power loss and to overheating the motor and the 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 Raiting	*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 includes a start-up speed limiter to prevent fast expulsion fuses from unindented responding.

Additional Handle

For manual drilling, the **ETN 162/3** may be used only together with its additional handle which comes with the tools.

Place it on the gearing collar from the front and fix it by turning the handle in direction of the arrow.

Switching ON and OFF

Short-time operation

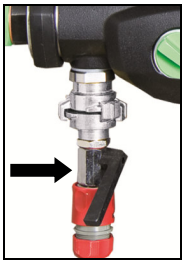
ON: Press the ON/OFF switch
OFF: Release the ON/OFF switch

Long-time operation

ON: Keeping the ON/Off switch pressed, push in the arrestor button.
OFF: Press and release the ON/OFF switch again.

Attention!
Use the arrestor button only during operation with drill rig. Its use during manual operation is not allowed. If the machine stops for any reason or due to power failure, immediately release the arrestor button by pressing the ON/OFF switch. If this button is not released, the tool may unintendedly restart if the PRCD protective switch is operated and cause a danger to the user.

Water Supply



Place the adapter with the ball valve onto the tool's connector and turn into the direction of the arrow up to the stop. Connect the tool to the water supply system or a water pressure vessel using the push fit nipple.
Attention! The maximum water pressure should not exceed 3 bars. In case of higher water pressure, a pressure relieve valve must be used.

The connector for the tool should be a GARDENA hose connector. You can obtain it from your local dealer. Use only pure tap water.
If water comes out of the drainage hole at the gear neck, stop your work and have the tool repaired by an authorised service shop.

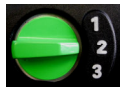
Dust Exhaustion

Dust which occurs during your work is hazardous to health. That is why it is advisable to use a deduster and to wear a dust mask on dry drilling. Place the adapter for the dedusting unit onto the tool's connector and turn into the direction of the arrow up to the stop. As a suitable wet/dry deduster, our DSS 25 M is available as add-on. The use of a dedusting system is also a prerequisite for optimal cutting performance of the bit (air cooling).

Changing Gears

1st gear
510 min $^{-1}$

2nd gear
1150 min $^{-1}$



3rd gear
2500 min $^{-1}$

The **ETN 162/3** is equipped with a 3-gear oil-bath gearing. Select the speed according to the drilling diameter.
Use the gear selector to change to next higher or lower gear.

If gear changing is too heavy, slightly turn the working spindle to ease gear changing.

Warning!

- **Only change gears whilst the tool is not in operation!**
- **Never apply force**
- **Never use tools, such as hammers or pliers to change the gear.**

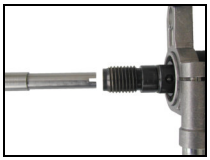
	Diameter mm	Gear
Manual Drilling		
wet drilling	1 3/4" – 3"	2
	1/2" – 1 3/4"	3
dry drilling	4 1/4" – 8"	1
	2 1/4" – 4 1/4"	2
	1/2" – 2 1/4"	3

Rig drilling		
wet drilling	3" – 6 3/8"	1
	1 3/4" – 3"	2
	1/2" – 1 3/4"	3

Manual Drilling

Dry drilling

Mount the appropriate adapter for dedusting. (refer to illustration at p. 6)



Insert the centering point so that the recesses in the centering point latch on the catches of the working spindle.

Fix the required dry drill bit on the working spindle. Check for appropriate gear selection. Operate the ON/OFF switch and drill until the segments are approximately 5 mm in the material. Remove the centering point. Refix the drill bit to the existing groove and complete your drilling.

Wet drilling

Open the ball valve and switch the tool on. Hold the tool tight with both hands. Locate the tool slightly inclined. Once the drill bit is in the material (approx. 1/8 to 1/4 of the circumference), bring the tool into an angle of 90 degrees and continue drilling. Take care that the drill bit is not out of line. Advance the tool according to bit diameter and machine power. Observe the LED in the handle. If it lights red, reduce your pressing force. **In case the bit gets jammed, to not dry to release it by switching the tool on and off.** This would cause premature wearing of the safety clutch. Switch the tool off immediately and unfix the drill bit by turning to the left or right using an appropriate open-end wrench. Cautiously pull the tool out of the borehole. **Use of a water suction ring is mandatory for „overhead drilling".**

Drill Bits

Diamond drill bits with a 1 ¼" UNC female thread and R ½" male thread can be screwed directly onto the working spindle. Use only appropriate drill bits for the material to be drilled in. You can protect your tool by using only well balanced drill bits without deformation. Make sure that the diamond segments have sufficient cutting clearance towards the bit body.

Changing Drill Bits




Attention!
When you use or sharpen the machine, it might heat up enormously. You could burn your hands or get cut or ripped by the segments. Therefore, always use protective gloves when changing the drill bit.
The drilling spindle has a right-hand thread. To ease screwing on and off, always use a SW 32 open-end wrench at the drilling spindle. Never use a hammer, because this may damage both the drill bit and the tool.
Some water-resistant grease on the drilling spindle threat or a copper ring between spindle and drill bit will simplify removal of the drill bit.

After Drilling

When you have finished drilling:

- Pull the drill bit out of the hole.
- Turn the motor off by using the motor switch and not the PRCD switch.
- Close the water supply.

Removal of the core when it sticks in the drill bit:

- Separate the drill bit from the motor (if possible).
- Put the drill bit in a vertical position.
- Knock carefully on the pipe by using a wooden hammer shank till the drilling core slips out. Never throw the drill bit against a wall by force or set about it with tools, such as hammer or jaw wrench. Otherwise, the pipe could go out of shape and neither the drilling core can be extracted nor the drill bit is reusable.

Removal of the core by blind holes:
Break off the core with a cotter or lever, or in pieces. Lift the core out with appropriate tongs or drill a hole with a dowel in the core, screw an eyebolt in and pull the core out.

Rig Drilling

Since the drill rig does not belong to the supply, some of its most important features are described here.
For this purpose, please refer to the drill rig's operating instructions.

Fixing to Drill rig

The **ETN 162/3** is equipped with a special accomodation for the diamond drill rig BST 182 V/S. For mounting the tool to the drill rig, the handle may remain at its place.
Move the machine holder upwards until it locks in the top position.
Open the fixing by turning the locking screw with the feed lever until the guideway is free

Insert the tool into the drill rig.
Fix the tool by turning the locking screw with the feed lever.

In doing so, the screw must engage the hole in the v-block.

Vacuum fastening:
For the **vacuum**, make sure that it is sufficient (minimum -0.8 bar). Make sure that the gaskets are not worn.

Attention! Do not use the vacuum fastening on the wall or overhead!
Please ensure that the leveling screws are adjusted in such a way that they do not protrude from the underside of the drill stand foot, otherwise the vacuum is affected and the stand may come away from its support.

Dowel fastening:
The most common way of fixing is **dowel fixing**.
If possible, use only metal dowels. The dowel diameter must not be smaller than 12 mm.

- In order to fasten the drilling unit correctly, you need the fastening set (order number 35720000).
- Drill a hole with a diameter of 16 mm, 50 mm deep. Make sure that the hole is free of dust.
- Insert a dowel and open it with an expanding mandrel.
- Screw the thread rod into the dowel.
- Put the drilling unit with the deep hole in the base onto the thread rod.
- Place the washer and screw the butterfly nut very tightly.
- Adjust the drilling unit in the platform by using the four screws.

Overload Protection

To protect the user, motor and drill bit, the **ETN 162/3** is equipped with a mechanical, electrical and thermal overload protection.

Mechanical: In case of sudden jamming of the drill bit, the drilling spindle is unclutched from the motor by means of a slip clutch.

Electrical: To warn the user against overstressing the tool by applying to high an advance force, the handle includes a LED 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

most be stress-relieved. In case of longer non-observation of the rad 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.

Safety Clutch

The safety clutch should absorb shock and excessive stress. It is an aid and not an absolute protection. Therefore you have to handle and drill carefully. **To keep it in good condition, the clutch should slip for a very short time (max. 2 seconds) in each case only. Slipping for longer periods destroys the safety clutch. After excessive wearing the clutch has to be renewed by an authorized service shop.**

Care and Maintenance

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

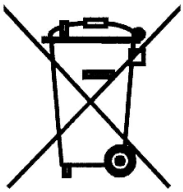
Repairs may be executed only by appropriately qualified and experienced personnel. After every repair, the unit has to be checked by an electrical specialist. According to its design, the tool requires a minimum of care and maintenance. However, the following maintenance works and component checks have to be performed in regular intervals:

- Clean the tool after completion of your work. Apply some grease onto the drilling spindle thread. The ventilation slots must always be clean and unclogged. Make sure that now water gets into the tool during cleaning.
- After the first 150 hours of operation, the gearing oil must be changed.
  Gearing oil changes bring about an essential increase of the tool's lifetime.
- After approx. 250 hours of operation, the carbon brushes must be checked and, if necessary, be replaced by an authorized specialist (use only original carbon brushes).
- Once per quarter of a year, an electrical specialist should check the switch, cable and plug.

Environmental Protection

Raw material recycling instead of waste disposal

To avoid damages in transit, the tool is supplied in a sturdy packing. The packing as well as the tool and its accessories are made of recyclable materials which enable environmentally friendly and sortwise disposal by the local reception points.



Only for EU countries

Do not dispose of electric tools together with household waste material! In observance of 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

Measured sound values determined according to EN 62841-2-1.
Typically the A-weighted noise levels of the product are:

Sound pressure level	L_{wA}	84 dB(A)
Sound power level	L_{pA}	95 dB(A)
Uncertainty	K	3 dB

Wear ear protectors!

Vibration total values a_h and uncertainty K determined according to EN 62841-2-1:

Vibration emission value	a_h	2,9 m/s^2
Uncertainty	K	0,3 m/s^2

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.

Dust Protection

Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory diseases to the operator or bystanders. Certain kinds of dust are classified as carcinogenic such as oak

and beech dust especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos must only be treated by specialists.

- Where the use of a dust extraction device is possible it shall be used.
- To achieve a high level of dust collection, use industrial vacuum cleaner DSS 25 M for wood and/or minerals together with this tool.
- The work place must be well ventilated.
- The use of a dust mask of filter class P2 is recommended.

Trouble Shooting

In case of breakdown, switch the motor off and disconnect it from the power. Repairs of the electrical parts may only be performed by an authorised service specialist.

Trouble Shooting

Error	Possible Cause	Error Recovery
Machine does not work.	mains current supply interrupted	plug in another electric appliance and check the functioning
	line cord or plug damaged	have it checked by an electric specialist and replaced if necessary
	switch damaged	have it checked by an electric specialist and replaced if necessary
	the PRCD-switch is off	press RESET to switch on
motor runs, drill bit does not rotate	Gear not engaged properly or accidentally disengaged	Operate the gear switch to engage the required gear
	gearbox damaged	have the tool repaired by an authorised service workshop
drilling speed too slow	drill bit damaged	check if drill bit is damaged and replace it if necessary
	A too high water flow rate prevents self-sharpening of the drill bit	regulate the water quantity
	drill bit polished	sharpen the drill bit with a sharpening stick while using the flush
motor shuts down	the tool stops	lead the tool in a straight manner
	the tool overheats, overload protection of the motor has reacted	discharge the tool and restart it by pressing the switch a couple of times
	carbon brushes are worn out - auto-stop brush switch off	both brushes must be replaced with original brushes by an electrical specialist
water drops out of the gearbox housing	shaft sealing rings damaged	have the tool repaired 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 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.

Warranty

According to the general supply conditions 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). Damage 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 was 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, EN 62841-2-1, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3
according to the provisions of the directives 2011/65/EU, 2014/30/EU, 2006/42/EG

Technical file (2006/42/EC) at:

Elektrowerkzeuge GmbH Eibenstock
Auersbergstraße 10
D – 08309 Eibenstock

Lothar Lässig
General Manager

Frank Markert
Head of Engineering

18.11.2025

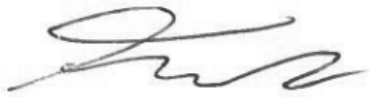
GB - Declaration of Conformity

We declare as the manufacturer under our sole responsibility that the product described under “Technical Data” fulfi lls all the relevant provisions of the following Regulations S.I. 2008/1597 (as amended), S.I. 2017/1206 (as amended), S.I. 2012/3032 (as amended) and that the following designated standards have been used:

BS EN 62841-1, BS EN 62841-2-1, BS EN 55014-1, BS EN 55014-2,
BS EN 61000-3-2, BS EN 61000-3-3

Technical file (S.I. 2008/1597) at:

Elektrowerkzeuge GmbH Eibenstock
Auersbergstraße 10
D – 08309 Eibenstock



Lothar Lässig
General Manager

Frank Markert
Head of Engineering

18.11.2025

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

Your distributor

Elektrowerkzeuge GmbH Eibenstock
Auersbergstraße 10
D – 08309 Eibenstock
www.eibenstock.com