

Bäumr-AG®



Electric Core Drill (Hand-Held)

User Manual

[Revision 4.0 October 2017]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

Safety

Read and understand all safety warnings before using the tool.

- Avoid dangerous environments. 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 dust or fumes.
- Do not use this product if it is not completely assembled or if any parts appear to be missing or damaged. Use of a product that is not properly and completely assembled could result in serious personal injury.
- Inspect the tool carefully to make sure no breakage or damaged occurred during shipping.
- If any parts are damaged or missing do not operate this tool until the missing parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.
- Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any alteration or modification is misuse that will void product warranty and could result in a hazardous condition leading to possible serious personal injury.
- To prevent accidental starting that could cause injury, always disconnect the tool from the electrical supply when assembling parts.
- Keep the tool and all components away from children.
- Keep children and bystanders away while operating power tools.
- Keep the work area clean and well lit
- Keep the tool pointed away from yourself and others at all times. Keep hands and body parts away from moving parts and use safety guards.
- Do not allow persons unfamiliar with the tool or its operation to use the tool.
- Use safety equipment. Always wear eye and ear protection. Safety equipment such as dust mask, non-skid safety shoes and hard hat should be used in appropriate conditions.
- Only use parts and accessories recommended by manufacturer.
- Do not modify any part of the tool or its safety mechanisms.
- Do not use the tool outside of its operating parameters. For example, drilling extremely hard materials or using large diameter drill bits.
- Bits may become hot during use – wear suitable protective gloves when handling bits.
- Never use the tool if the electrical cable is damaged in any way – have the cable replaced at an authorised service centre.
- Use extreme caution to avoid drilling into electrical cabling, gas or water pipes concealed in the work area. Use suitable detection devices to help locate wiring / plumbing prior to starting work.
- If drilling through ceilings or walls, secure the piece of material that will be cut out to prevent it falling.
- Do NOT operate the tool in rain or wet conditions.
- Do NOT leave the tool unattended while the motor is running.
- Do NOT operate this machine if you are tired or fatigued or under the influence of alcohol, medication or drugs.
- Do NOT operate the tool if you are uncertain of how to use it correctly and safely.
- Do NOT use the tool if it is malfunctioning, leaking water or any other fluid or is damaged in any way.
- Do NOT allow electrical cords to be near or in any water.
- Do NOT use this machine standing on a ladder.
- Do NOT drill into materials that contain asbestos.
- Do NOT touch rotating parts.
- Do NOT allow minors or untrained persons to operate the tool.
- If the machine stops for any reason, switch it OFF to avoid any sudden starts.
- When using water as coolant, do NOT allow water to get into the motor.

- Overhead drilling is allowable only when suitable safety measures are taken (water collection etc).
- Stop working if water starts dripping from overrunning bore hole. Have the machine serviced.
- Wear eye, breathing, ear and head protection.
- The tool is intended for professional use and may be used only by trained personnel.
- The tool may be used only for wet cutting of concrete stone and masonry with an appropriate drill bit.

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Set-Up and Operation

Ground Fault Circuit Interrupter (GFCI)



The machine **MUST** be connected to a properly earthed 240VAC mains electrical socket. Do NOT use the machine with a non-earthed electrical supply. Do NOT use the machine with an extension cord that is not properly earthed. If there is any doubt regards proper earthing of the electrical supply, have a qualified electrician inspect and verify it. • If the GFCI green indicator light does not switch off when **TEST** is pushed, do not use the machine until it is properly tested and repaired. • If the appliance does not start, or stops while running, or if you experience an electric shock, switch the machine OFF and disconnect it from the electrical supply immediately. Do NOT use the machine until it is properly tested and repaired. • The electrical cable is not protected by the GFCI device from the GFCI device to the electrical cable plug.

The tool is equipped with a ground fault circuit interrupter (GFCI), which reduces the risk of electric shock. Check that the electrical mains socket that the machine is connected to is properly grounded and test the GFCI before each use. To test:

- Connect the machine into a grounded 240VAC electrical outlet and switch the power ON.
- Press the **TEST** button on the GFCI – the green indicator light should switch off and power to the appliance should cut off.
- To restore power after testing, push the RESET button.

If the GFCI is tripped due to an earth leakage situation, the power is cut to the machine, the green indicator lamp switches off and the red warning lamp illuminates. Switch the machine OFF and disconnect it from the electrical supply immediately. Do NOT use the machine until it is properly tested and repaired.



Extension Leads

When using an extension lead, ensure it is a 3-wire (grounded) type with wiring of sufficient gauge. The usage of a smaller gauge wire could lead to excessive overheating of the motor and the cable.

Extension Cord Length (Metres)		
10	20	>30
AWG 14	AWG 12	Not recommended

Tool Set-Up



Place the motor switch in the "OFF" position and disconnect the machine from the electrical supply before assembling or making any adjustments to the tool. • Do NOT operate the equipment with any safety device removed. • Use appropriate personal protective equipment while handling and using the equipment. • Before use, check for broken, worn, missing, misaligned or binding parts, cable wear or damage, or any other condition which may prevent safe and normal operation and remedy them before operating the machine..

The tool is designed for wet drilling into concrete and stone using diamond core bits. For drilling diameters larger than 63mm (1.5"), it is recommended to use a suitable drill stand. When hand-held, always use the secondary handle.

1. Check the appliance and cutting tools for wear or damage. If necessary, replace worn or damaged parts before using the machine. Dull or damaged cutting tools can lead to binding, breakage, slower cutting and increased wear and stresses to the tool.
2. Test the GFCI.

Water Connections



The water pressure should not exceed 3 bar (43PSI). • Always ensure that the tool is operated with sufficient water supply, as the seals can be damaged if run dry. This could lead to leakage of water into the gearbox housing – if you detect any water leaking from the gearbox, do NOT use the tool until it is inspected / repaired at an authorised service centre. • When drilling "over-head", use appropriate methods and precautions for water collection to prevent the tool from getting wet.



The tool is equipped with a water supply connection for cooling and lubricating the drill bit. The water supply is equipped with a connector for hose coupling.

Connect the tool to a suitable water supply or pressurised vessel. Use the tap lever regulate the water flow rate.

Overload Protection

The tool is equipped with electronic overload protection, designed to protect the operator, motor and drill bit. In the event of overload due to excessive forces or strain on the motor, the motor will be automatically switched off. Allow the motor to cool before using the tool again.

Drilling Guidelines

- Adjust the flow of water to fully flush material from the bore hole.
- If "mud" is depositing around the bore hole, increase the water flow.
- Ensure the drill bit is securely attached and the base is set-up correctly to drill straight and prevent vibration.
- Use sufficient pressure to cause the drill bit to cut efficiently, without placing undue stresses on the tool. If the tool is slowing noticeably, reduce pressure.
- If the drill bit gets jammed, do not try to release it by switching the tool ON and OFF. Switch the tool OFF immediately and remove the drill bit using an appropriate spanner. Pull the bit from the hole with caution.

Deep Drilling

When drilling holes that are deeper than the drill bit, follow the steps below:

1. Begin drilling the hole as usual. When you have drilled to the length of the bit, retract the bit from the hole and turn off the motor and water as usual.
2. Break off the core by driving a chisel or slender wedge into the circular kerf. Remove the core using core tongs, wire or anchor bolts.
3. After removing the core, attach a bit extension to the bit, then carefully insert the bit into the hole continue drilling as normal.

Drill Bits

- Drill bits with a 1-1/4" UNC female thread can be screwed directly to the tool spindle.
- Always use drill bits that are appropriate for the material you will be drilling. You can extend the life of the tool by using drill bits that are not damaged or deformed. Ensure that enough diamond is exposed in every segment of the drill bit in order to make the drilling more effective.
- The drill bit has a right-hand thread. When attaching drill bits, use a suitable spanner to prevent the spindle from rotating.
- Never strike the drill bit in order to remove it, as this may damage the drill bit or tool.
- It is recommended to grease the drill bit thread to make bit removal easier.



Maintenance



Procedures not specifically explained in this manual must be performed by qualified technicians only . • Before performing any inspection, maintenance, or cleaning procedure, place the motor switch in the "OFF" position and disconnect the machine from the electrical supply. • Do NOT allow water to get into the motor or any other electrical components. • Do NOT use damaged or malfunctioning equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

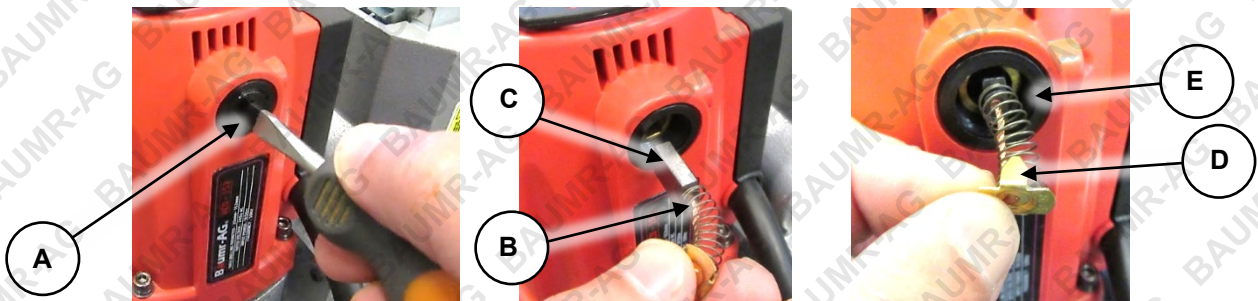
Follow the steps below to maintain your machine in good working order.

- Clean the tool after every use. Make sure that the ventilation slots are clean and free of any obstructions. Do not clean using abrasives, flammable materials or harsh chemicals. Make sure that water does not get into the motor during the cleaning process.
- Grease the drill bit thread on a regular basis.
- After 200 hours of operation, [replace the motor carbon brushes](#).
- Keep the electrical cable, GFCI device and plug in good condition.

Motor Brushes

The electric motor uses 2 carbon "brushes" in order to function. The brushes wear as a result of use – this is normal, and some tools may come with replacement brushes. If the brushes are allowed to wear past the acceptable limit, the motor may produce less power, operate intermittently, or not operate at all. To check brushes:

1. Use a coin or wide flat blade screwdriver to remove the brush cap (A).
2. Pull the brush (B) from the cavity and check the length of the carbon section (the "brush") (C). If the brush is close to being fully worn, replace the brush – always replace both brushes at the same time.



3. Insert the brush into the cavity – the brush has 2 prongs on the electrical conductor (D) – ensure these sit in the slots (E).
4. Re-install the brush cap (rotate right. Do not over-tighten).

Troubleshooting

Problem	Possible Cause	Possible Solution / Recommendations
<i>Overload protection tripping</i>	<p>A. Bit has insufficient cutting clearance.</p> <p>B. Feed rate too high.</p>	<p>A. Replace bit.</p> <p>B. Reduce load.</p>
<i>Low penetration rate</i>	<p>A. Drilling rebar (steel) - fluid not muddy. Evidence of steel cuttings.</p> <p>B. Bit worn, damaged, bent.</p> <p>C. Insufficient load on bit.</p> <p>D. Loose material at bottom of hole.</p> <p>E. Insufficient fluid, causing cuttings to obstruct cutters.</p> <p>F. Bit has insufficient cutting clearance.</p>	<p>A. Reduce feed rate while cutting through steel rebar.</p> <p>B. Replace bit.</p> <p>C. Increase bit load.</p> <p>D. Break core, clean bottom of hole or drill with increased bit load.</p> <p>E. Increase water flow rate. Clean bit face by drilling into a concrete block.</p> <p>F. Replace bit.</p>
<i>Bits wearing rapidly</i>	<p>A. Insufficient fluid, causing cuttings to obstruct cutters.</p> <p>B. Bit or drill not "true".</p>	<p>A. Increase water flow rate. Clean bit face by drilling into a concrete block.</p> <p>B. Replace bit if bent. Ensure to drill straight.</p>
<i>Deep grooves in hole</i>	<p>A. Bit or drill not "true".</p> <p>B. Bit has insufficient cutting clearance.</p>	<p>A. Replace bit if bent.</p> <p>B. Replace bit.</p>
<i>Bit jamming</i>	<p>A. Tool not held straight during drilling.</p> <p>B. Bit has insufficient cutting clearance.</p> <p>C. Bit or drill not "true".</p> <p>D. Feed rate too high.</p>	<p>A. Be sure to hold the tool straight and maintain steady, but not excessive, pressure.</p> <p>B. Replace bit.</p> <p>C. Replace bit if bent. Ensure to drill straight.</p> <p>D. Reduce load.</p>
<i>Bit chattering</i>	<p>A. Bit or drill not "true".</p>	<p>A. Replace bit if bent. Ensure to drill straight.</p>
<i>Excessive sparking from motor</i>	<p>Motor brushes installed incorrectly or require replacement.</p>	<p>Check carbon brushes are serviceable and correctly installed.</p>
<i>Water leaking from gearbox</i>	<p>Seals no longer serviceable.</p>	<p>Have the tool inspected / repaired at an authorised service centre.</p>

Specifications

Voltage	240VAC / 50Hz
Bit Thread Adaptor Size	1 ¼" UNC
Hose Adaptor Size	10mm
Drilling Diameter Range	20 to 152mm
Material Suitability	Masonry and concrete



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

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