

DIAMOND CORE DRILLS



INSTRUCTION MANUAL

DB-132

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1. INTRODUCTIONS

·Read and understand this manual before start working with diamond core drill motors. Save this instruction manual for future reference!

·Consult to specialists when you still feel uncertain about operating procedures after reading these instructions. If you have more questions about the use of our products, do not hesitate to contact us or our authorized distributors for more information.

·The DB-132 drill motor is designed for diamond core drilling of concrete, masonry, stone and similar materials. It's intended for professional use and may be used by trained personnel only.

·The use of products such as cutters, grinders, drills, that sand or form material can generate dust and vapors which may contain hazardous chemicals. Check the nature of the material you intend to process and use an appropriate breathing mask. Unauthenticated spare parts and any modification are prohibited on our products.

·Please note: We reserves the right to modify the design and appearance of products and their instruction manuals. Future amendations of the manuals will be made without prior notice.

·Thank you for choice!

2. SYMBOLS USED IN THIS MANUAL



Warning of general danger. Failures in the compliance with these safety precautions and instructions can cause electric shock, fire and/or heavy injuries



Before start working, read **all** safety warnings and instructions carefully



In order to protect the operator, always wear approved personal protective equipment.



Always wear appropriate protective gloves



Don't dispose of power tools, accessories and packaging together with household waste material. Used power tools must be collected separately and returned to an environmentally compatible recycling facility

SYMBOLS USED IN THIS MANUAL



See Declaration of Conformity section for detailed info



Before the beginning of the maintenance or repair works, make sure the plug disconnected from the mains



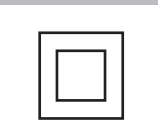
Warning of dangerous voltage



Danger of being ripped or cut



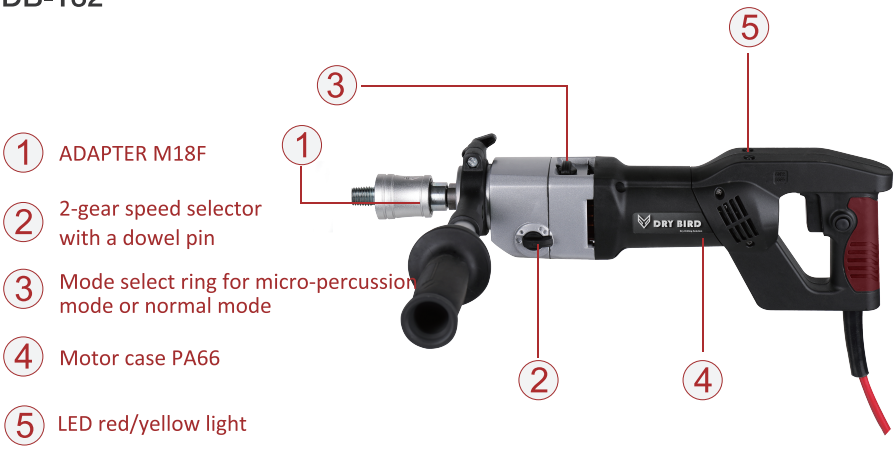
Warning of hot surface



Class II tool

3. TECHNICAL DESCRIPTION

DB-132



Specification

Model:	DB-132	
Art No:	1123132	
Power:	1500W	
Voltage:	230V	120V
Current:	10A	15A
N.W:	4.2KG	
Frequency:	50-60HZ	
Max Drilling Diameter:	132MM	
No-Load Speed:	1500/3000RPM	
No-Load Impact Speed:	24000/48000BPM	
Spindle Thread:	M18	

4. SAFETY INSTRUCTIONS

4.1 Work area safety

4.1.1 Keep working area clean and well lit. Cluttered or unilluminated working areas can cause accidents.

4.1.2 Do not operate power tool in explosive environment, such as in the presence of flammable liquids, gases or dust. Power tool emits sparks which may ignite the dust and fumes.

4.1.3 Keep children and other persons away while operating a power tool. When being distracted, operator may lose control on the power tool.

4.2 Electrical safety

4.2.1 Power tool's plug must match the outlet. Never modify the plug under any circumstance. Do not use any adapter plugs with earthed (grounded) powers. Unmodified plugs and matching outlets will reduce the risk of electric shock.

4.2.2 Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.

4.2.3 Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

4.2.4 Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

4.2.5 When operating outdoor with a power tool, only use an extension cord that is suitable for outdoor use. The use of a cord suitable for outdoor use reduces the risk of electric shock.

4.2.6 If operating a power tool in a humid environment is inevitable, use a residual current device (PRCD). The use of an PRCD reduces the risk of electric shock.

4.3 Personal safety

4.3.1 Stay alert and pay attention when operating a power tool. Do not use power tool while you are tired or under the influence of drugs, alcohol or medication. One moment of carelessness while using power tool may result in serious personal injury.

4.3.2 Always wear personal protective equipment. Protective equipment such as dust mask, boots with non-slip sole, protective helmet or hearing protection used for appropriate conditions will reduce personal injuries.

4.3.3 Avoid unintentional startup. Make sure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on would cause injury.

4.3.4 Remove any adjusting tool or wrench before switching on the power tool. A tool or a wrench left attached to a rotating part of the power tool may result in personal injury.

4.3.5 Do not overreach. Keep proper footing and balance at all times. This will ensure a better control of the power tool in unexpected situations.

4.3.6 Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

4.3.7 When a dust exhauster and colleting device is needed, ensure they are connected and used correctly. The use of dust exhauster can reduce dust-related hazards.

4.4 Power tool use and care

4.4.1 Do not overload the power tool. Use an appropriate power tool for your work. With an appropriate one, you will work in better and safer situation with its declared range of performance.

4.4.2 Do not use a power tool with a damaged switch. A power tool which can not be turned on and off by its own switch is dangerous and has to be repaired.

4.4.3 Disconnect the plug from the power source and/or remove the battery before making any adjustments, changing accessories, or storing power tools. This safety measure can prevent the power tool from starting up unintentionally.

4.4.4 Keep idle power tools out of reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

4.4.5 Maintain the power tool periodically. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.

4.4.6 Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to jam and easier to guide.

4.4.7 Use the power tool, accessories and drill bits etc. in accordance with this instruction manual, taking into account the working conditions and the work to be performed as well. Use of the power tool for operations different from those intended use could result in dangerous situation.

4.5 Service

4.5.1 Have your power tool repaired by qualified personnel and with original spare parts only.

4.6 Drill motor safety Precautions

4.6.1 Always wear hearing protection. While using drill motors, the noise in working area would cause hearing loss.

4.6.2 While drilling, keep a sufficient distance to the drill bit and do not touch rotating parts. Protect the danger zone and keep children and other persons away from it. Falling and splashing parts can cause injuries

4.6.3 This diamond core drill is only intended for professional use and may only be operated by trained personnel. The use of its intended purpose is only to the drilling of rock, concrete and masonry.

4.6.4 While in operation, the relevant regulations must be obeyed.

4.6.5 Drill motor must be checked regularly (approx. 6 months) by a specialist.

4.6.6 Vertical drilling requires the use of suitable vacuum equipment.

4.6.7 Switch the power tool off if it stops for whatever reason, only to switch it on again after you make sure the drill bit can rotate freely.

5. OPERATING INSTRUCTIONS

5.1 Check before starting

5.1.1 Inspect the power tool visually, and check if the network voltage conforms to the voltage indicated on the tool's name plate.

5.2 The using and changing of drill bit

5.2.1 The diamond core drill bit is a hollow drill tube which is fitted with soldered-on or welded-on segments impregnated with diamonds. Our Hand held drill motor

DB-132 is for dry drill purpose only, the drill bit has to be dry drill type bit . Hand-held type drill motor DB-132 can do dry drilling.

5.2.2 With water-proof grease on both drill bit thread and spindle thread to provide with rust protection and easy drill bit removal.

5.2.3 Before the beginning of sharpen and change works on the drill bit, make sure you disconnect the plug from the mains.

5.2.4 The power tool and the drill bit are heavy, always wear protective gloves to prevent your hands from getting cut or ripped by the segments.

5.2.5 Use a 22mm wrench on the drill spindle and a 24mm wrench on the drill bit the same time to change the drill bit.



5.2.6 For drill bits with different male thread, adapters are available as accessories.

5.2.7 Let the drill bit rotate with no load after mounting it on. The radial runout must meet the requirement.

5.3 The cooling methods of drill motor

5.3.1 The gears inside the drill motor gearbox are greased for cooling.

5.3.2 The diamond cutter head on the drill bit is cooled by air cooling.

5.3.3 As for the motor, air cooling is used to cool down part of its stator and rotor.

5.4 Electrical connection

5.4.1 Never allow water to get into the motor. It could lead to an electric shock.

5.5 Speeds selecting

5.5.1 DB-132 is equipped with a mechanical 2-speed grease gearbox.



5.5.2 Select the speed according to the drilling diameter (ref. to the tool's name plate).

5.5.3 Speed selecting or gear changing may only be done when the tool is switched off. Turning the gear selector either clockwise or counterclockwise into the desired position until it locks. Slightly turn the drill spindle with a wrench to ease the speed changing.

5.7.4 Indicated max diameters and speeds on name plate are based on average hardness concrete. Speed varies with different material hardness. For reinforced concrete, please select to slower speed.

5.6 Drilling

5.6.1 Always switch on the machine with no load.

5.6.2 After turning on the machine, turn on the vacuum cleaner switch first.

5.6.3 Using hand-held drilling, start the cut by approaching at certain angle to the cutting surface. Once a V notch cut is drilled on the cutting surface, straighten the bit to the correct perpendicular angle while keeping enough feed pressure on the bit.

5.6.4 Increase the feed pressure when the cut depth is approx. 10mm.

5.6.5 Pay attention to the motor speed, if it is significant slower while drilling, reduce the feed pressure to keep the bit from sticking.

5.6.6 Also keep an eye on the motor's condition. If it is smoking and you smell the fumes, slowly pull up the power tool by its feed handle and then continue your drilling slowly and gently again to prevent the drill motor from burning down because of longstanding overload.

5.6.7 When the cut is almost finished, please reduce feed pressure at this point. Apply the power tool slowly and evenly until its bit breaks through.

5.6.8 There are vertical drilling and angular drilling. When performing an angular drilling, use drill stand's angle adjustment function.

5.6.9 The drill bit is more likely to get stuck when your drilling speed is too fast or feed pressure is too high.

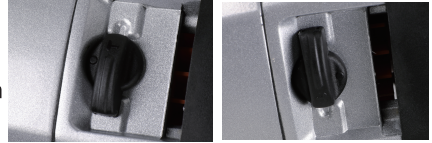
5.6.10 Low initial feed pressure is suggested, using DB-132 micro percussion drill motor. When iron filings begin to emerge, it suggests that the reinforced steel is encountered. If it occurs, the working core drill motor will vibrate. Reduce the feed pressure and let the drill bit go at its own pace to cut through the rebar.

5.6.11 When cut through wood plank, thick asphalt or asphaltic felt, the current will increase. At this point, reduce the propulsive force and apply it slowly to continue drilling.

5.6.12 If you have to drill deeper than the usable length of your drill bit is, please do not forget the optional drill bit extension is available.

5.7 Mode Selecting Ring

5.7.1 DB-132 core drill motor has a mode-select knob for selecting 2 different operation modes: featured micro-percussion and normal drilling mode. To select these 2



modes, first turn the knob so that the hammer icon is perfectly aligned with the socket. You could see a small dot on the select knob, if the dot is facing the backend of the motor, then this is the micro-percussion mode as in the left picture. If the dot is facing the vent hole as in the right picture, then this is the normal working mode. Micro-percussion mode is preferred when dry drilling the reinforced concrete.

6. OVERLOAD PROTECTION

6.1 Mechanical protection

6.1.1 This machine is equipped with a mechanical clutch to protect the operator and machine from excessive torque forces. If the drill bit suddenly stuck in the bore, this safety clutch will slip disengaging the drill spindle from the motor.

6.1.2 Make sure the slipping time of clutch is no more than 3-4 seconds. Otherwise, the wear and heat will increase rapidly and destroy the safety clutch. Please avoid drill bit sticking while operating.

6.1.3 Worn-out clutch must be replaced by a specialist in authorized repair station.

6.2 Overcurrent protection

6.2.1 There are 2 LED indicators on DB-132 drill motor. When power tool reaches peak load the first time during the operation, it will begin to lower its speed. If you continue use it at full load and reaches the peak load again, the red LED



indicator will blink as warning, further use of the power tool in overload condition will cause the protection mechanism kick in and shut down the power.

6.2.2 When the red light is on, the overcurrent protection will kick in and shut the motor down immediately. Before restarting the motor, a total inspection needs to be carried out. And the power tool must be discharged. Otherwise it may damage the motor and/or result in hazardous situation.

6.3 Overvoltage Protection

6.3.1 Higher voltages can cause irreparable damages. Please note that when operating the machine via a generator, once the voltage of the machine reaches peak voltage, it will not generate higher voltage peaks.

6.3.2 While operating drill motor DB-132, if the power tool is in overvoltage condition, the overvoltage protection will kick in and shut down the power tool entirely. Then check the voltage of the power supply, replace it with an appropriate one if necessary.

6.4 Overheat Thermal Protection

6.4.1 If the temperature of the motor gets too high, the thermal protection will kick in with LED indicators' yellow light on and shut the motor down. When this happens, do not restart the motor immediately. Always let the motor cool down for about 2-3 mins.

6.5 Control unit protection

6.5.1 When power tool working under unfavorable condition with issues like overload, phase loss, short circuit or even rotor-stator interference, the control unit of power tool will shut down the power and send out the error code.

7.DECLARATION OF CONFORMITY

We declare under our sole responsibility that our diamond core drill motor model: DB-132 conform with following standards or standardization documents: in accordance to the regulations of directives 2006/42/EC, 2014/30/EU.