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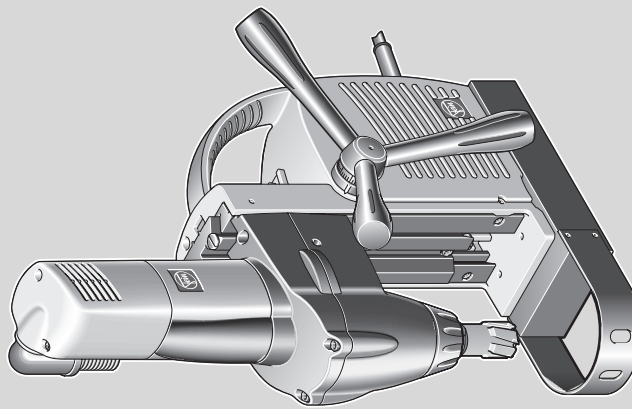
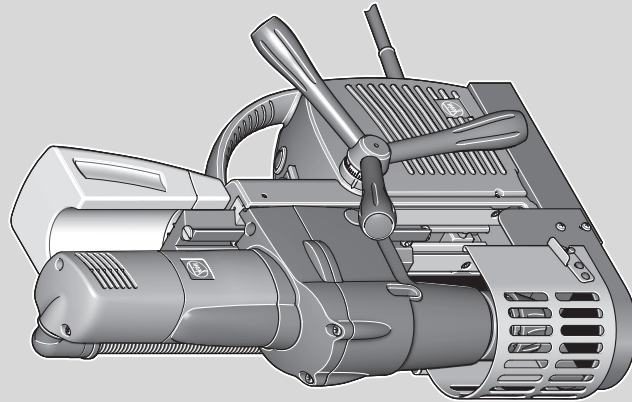

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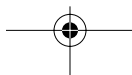


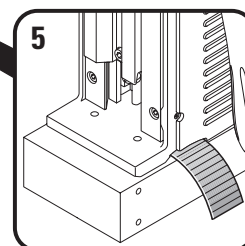
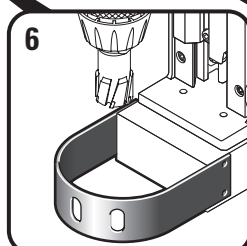
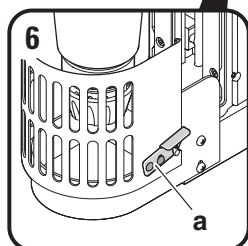
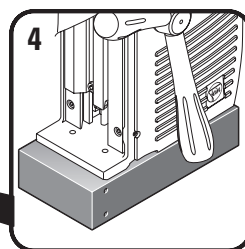
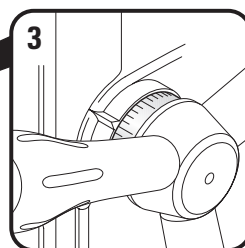
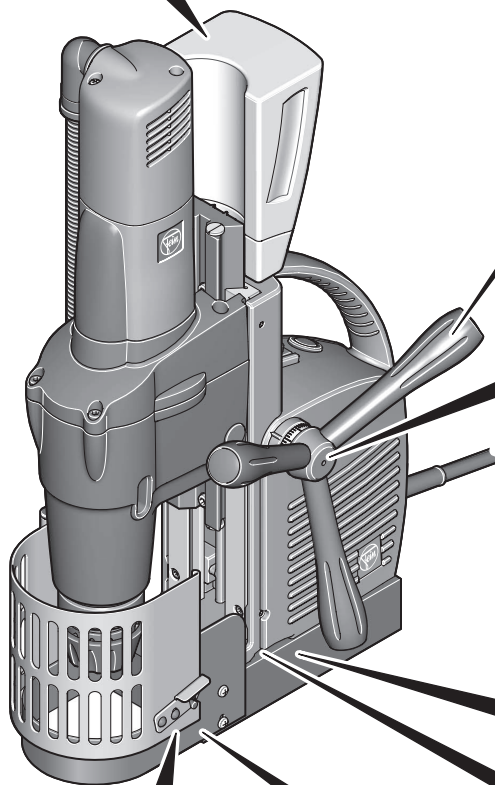
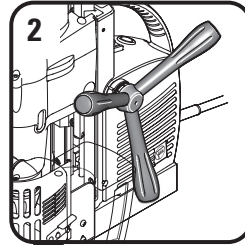
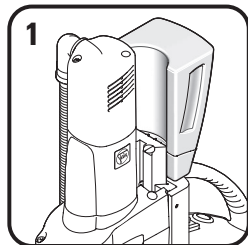
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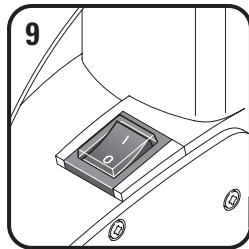




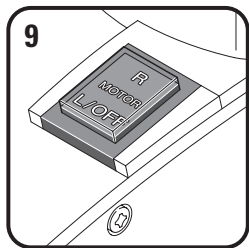
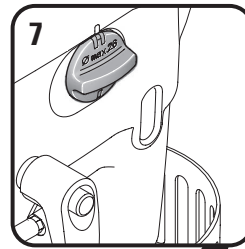
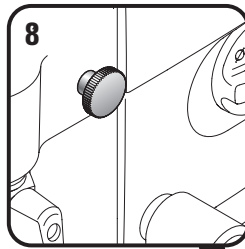
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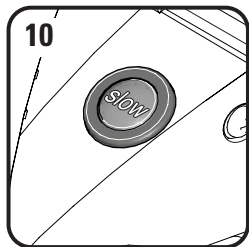




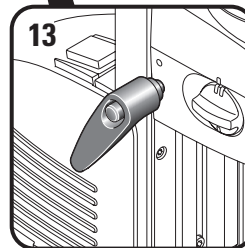
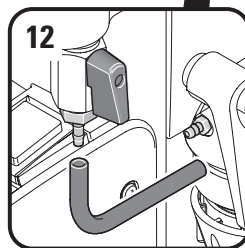
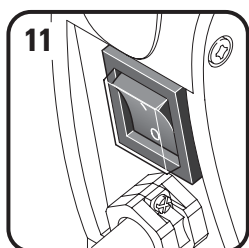
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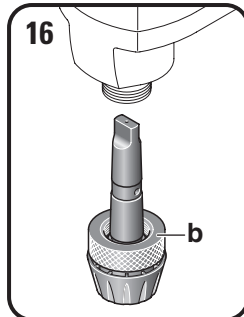
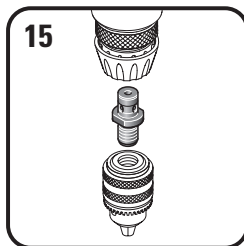
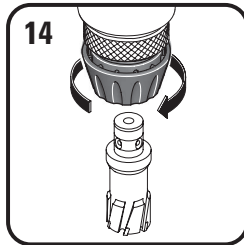


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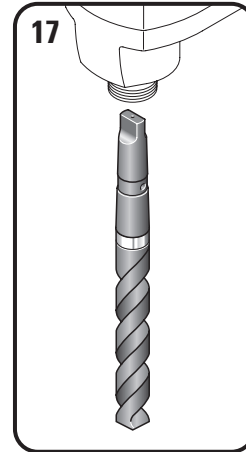


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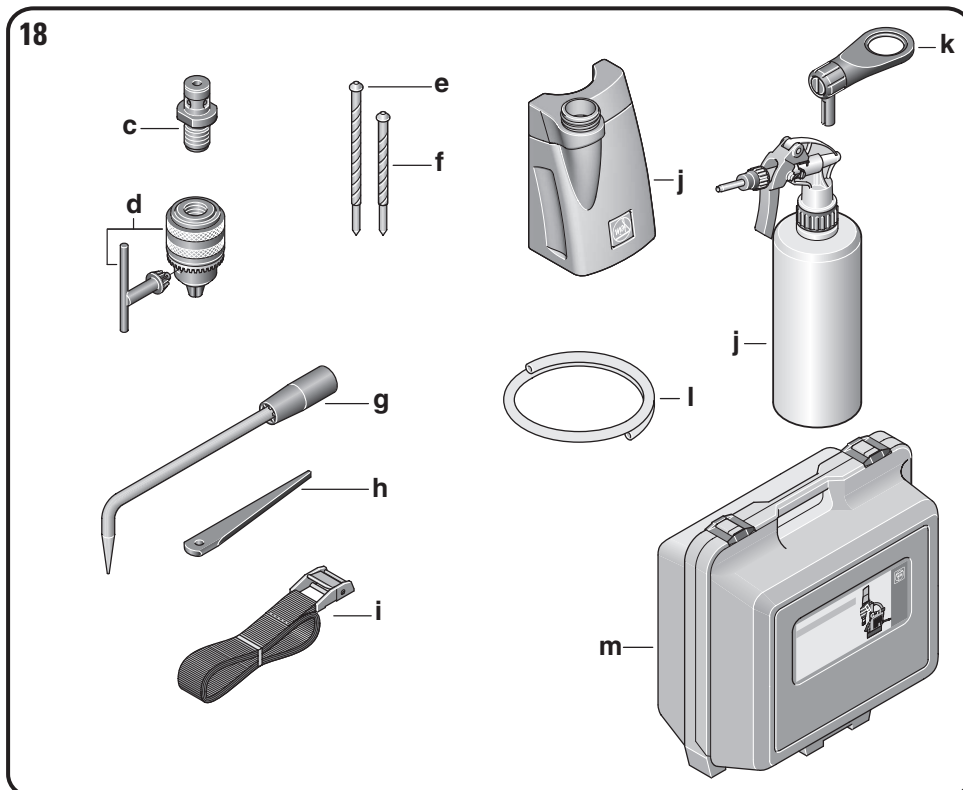




KBM 52 U



KBM 52 U


















Instruction manual for core drill.**Symbols, abbreviations and terms used.**

The symbols used in this Instruction Manual and where necessary on the power tool, serve to draw your attention to possible hazards when working with this power tool.





It is mandatory for you to understand the symbols/information and to act accordingly, in order for the power tool to be implemented more efficiently and more safely.

The safety warnings, information and symbols do not serve as a substitute for the measures to be taken according to the regulations for the prevention of accidents.

Symbol	Term, meaning	Explanation
	Action	Action to be taken by the user
	General prohibition sign	Follow the instructions in the adjacent text!
	Touching prohibited	Do not touch the rotating parts of the power tool.
	Secure against falling	Secure the power tool with the clamping strap if there is danger of it falling.
	General mandatory sign	Follow the instructions in the adjacent text!
	Read documentation	Be absolutely sure to read the enclosed documentation such as the Instruction Manual and the General Safety Instructions.
	Open the folding page	For a better understanding, unflip the folding page at the beginning of this Instruction Manual.
	Pull out mains plug	Before commencing this working step, pull the mains plug out of the socket. Otherwise there will be danger of injury if the power tool should start unintentionally.
	Use eye-protection	Use eye-protection during operation.
	Wear ear protection	Use ear protection during operation.
	Use dust mask	Use a dust mask during operation.
	Use protective gloves	Use protective gloves during operation.
	Danger warning	Observe the information in the adjacent text!
	Hot surface warning	An exposed surface is very hot if touched and therefore dangerous.
	European conformity symbol	Confirms the conformity of the power tool with the directives of the European Community.

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Symbol	Term, meaning	Explanation
	DANGER	This sign warns of a directly imminent, dangerous situation. A false reaction can cause a severe or fatal injury.
	WARNING	This sign indicates a possible dangerous situation that could cause severe or fatal injury.
	CAUTION	This sign warns of a possible dangerous situation that could cause injury.
	It is forbidden to dispose of the product in the unsorted household waste.	Worn out power tools and other electrotechnical and electrical products should be sorted separately for environment-friendly recycling.
	Class of protection I	Product with basic insulation and additional connection to the earth conductor of all touchable and conductive parts.
mm	Millimeter	Unit of measure for length, width, height or depth
kg	Kilogram	Unit of measure for the mass
V	Volt	Unit of measure for the electric voltage
A	Ampere	Unit of measure for the electric current intensity
W	Watt	Unit of measure for the output
N	Newton	Unit of measure for the force
min	Minutes	Unit of measure for the time
~ or a. c.	Current type	Alternating current
== or d. c.	Current type	Direct current
1 ~	Power supply type	Alternating current single-phase
n ₀	No-load speed	Revolution speed at no-load
1/min	per minute	Unit of measure for number of revolutions, strokes, impacts or oscillations per minute
Ø	Diameter	Diameter of a round part

For your safety.



Do not use this power tool before you have thoroughly read and completely understood this Instruction Manual and the enclosed "General Safety Instructions" (document number 3 41 30 054 06 1), including the figures, specifications, safety regulations and the signs indicating DANGER, WARNING and CAUTION.

Please also observe the relevant national industrial safety regulations (e.g. in Germany: BGV A2).

Non-observance of the safety instructions in the said documentation can lead to an electric shock, burns and/or severe injuries.

This Instruction Manual and the enclosed "General Safety Instructions" should be kept for later use and enclosed with the power tool, should it be passed on or sold.

Special safety instructions.

Secure the power tool with the clamping strap supplied if there is danger of it falling, especially for work carried out at a height, on vertical construction elements or above the head. If there is a power cut, or the mains plug is pulled out, the magnetic holding power is not maintained.

If work is carried out on vertical construction elements or above the head, prevent any fluid (coolant) from penetrating the power tool. There is danger of an electric shock. Work here using a coolant spray.

Avoid touching the drilled core that is automatically ejected by the centering pin when the working procedure is finished. Contact with the core when it is hot, or if it falls, can cause personal injuries.

Operate the power tool only from earthing contact sockets that comply with the specifications. Do not use any connection cables that are damaged; use extension cables with an earthing contact that are checked at regular intervals. A earth conductor without continuity can cause an electric shock.

Do not rivet or screw any name-plates or signs onto the power tool. If the insulation is damaged, protection against an electric shock will be ineffective. Adhesive labels are recommended.

Wear personal protective equipment. Depending on the application, use a face shield, safety goggles or safety glasses. Wear ear protection. The safety glasses must be capable of protecting against flying particles generated by the various different operations. Prolonged exposure to high intensity noise may cause loss of hearing.

Do not use accessories which are not specifically designed and recommended by the power tool manufacturer. Safe operation is not ensured merely because an accessory fits your power tool.

Clean the ventilation openings on the power tool at regular intervals. The motor blower draws dust into the housing. An excessive accumulation of metallic dust can cause an electrical hazard.

The guard protecting against chippings and accidental contact must always be mounted during operation. Hot, sharp chippings can cause personal injuries.

At a glance.



The following numbering used for the operating elements relates to the figures at the beginning of this Instruction Manual.

1 Coolant container

For storing coolant.

2 Capstan handle

For moving the drill motor up and down.

3 Depth scale

1 segment represents an upward or downward movement of the drill motor of 1 mm.

4 Magnetic foot

For fastening the core drill to a magnetizable base.

5 Slit for the clamping strap

Secure the core drill using the clamping strap.

6 Guard protecting against chippings and accidental contact

For preventing accidental contact with the rotating parts.

Hook for locking (6a).

7 Gear switch

For setting the gear level to slow or fast speed.

8 Fixation screw for coolant container

For fastening the coolant container.

9 Motor switch

For starting and stopping the motor.

10 "Slow" button

For reducing the speed.

11 Main switch

For switching the magnet ON and OFF.

12 Coolant stopcock

For setting the quantity of coolant.

13 Lever for setting the stroke range

For setting the variable stroke range of the motor.

14 Tool holder (Quick IN)

For clamping the tool.

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15 Adapter for geared drill chuck with core drill thread (M 18x6/P 1.5)

For clamping the twist drill and core drill bits.

16 Adapter with securing nut (16b)

Adapter for Quick IN tool holder.

17 Use of spiral bits MK 3**18 Standard accessories**

Adapter (M 18x6/P 1.5) (18c),
Geared drill chuck with drill-chuck wrench (18d),
Long centering pin (119 mm) (18e),
Short centering pin (104 mm) (18f),
Chip hook (18g),
Drift (18h),
Clamping strap (18i),
Coolant container (18j),
Pump holder (18k),
Coolant tube (18l),
Power tool carry case, plastic (18m).

Only part of the accessories described or shown in this instruction manual will be included with your power tool.

For all the parts applicable for your power tool, please see the spare parts list.

Intended use of the power tool.

This power tool is intended for commercial use as a core drill for drilling materials with a magnetizable surface using core drill bits or twist drill bits, and for reaming, countersinking and tapping in a weather-protected environment using the application tools and accessories recommended by FEIN.

The power tool can be used horizontally, vertically or overhead.

Instructions for putting into operation.

Please make sure that the contacting surface for the magnetic foot is level, clean and rust-free. Remove any varnish or primer.

When working on materials that are not magnetizable, suitable fixation devices, obtainable as accessories from FEIN, e. g. suction plate, vacuum plate or pipe-drilling device must be used. When work on steel materials with a material thickness of less than 12 mm, the workpiece must be reinforced with an additional steel plate in order to guarantee the magnetic holding power.

Mounting the guard protecting against chippings and accidental contact (Figure 6).

! The guard protecting against chippings and accidental contact must always be mounted during operation.

➤ Mount the guard protecting against chippings and accidental contact (6).

➤ To remove any accumulated chippings, open the guard protecting against chippings and accidental contact (6).

➤ Before commencing operation, fasten the guard protecting against chippings and accidental contact (6) with the hook (6a).

Mounting the coolant container (Figures 1 + 8 + 12).

➤ Place the filled coolant container (1) into the holder provided on the motor housing.

Only use cooling lubricant that is capable of being pumped.

➤ Fasten the coolant container (1) using the fixation screw (8).

➤ Connect the coolant tube (18l).

Operating instructions.

Adjustments.

Set the stroke range (Figure 13).

For changing the tool easily and fast, the setting of the stroke range is infinitely variable.



- Loosen the lever (13) and set to the required stroke range.
- Before commencing operation, tighten the lever (13) firmly again.

Changing the tool.

Core bit (Figure 14).



- Push the centering pin (18e) through the core bit.
- Turn the Quick IN clamping collar (14) of the tool holder anti-clockwise and insert the core bit with the centering pin.
- Let go of the Quick IN clamping collar (14) and turn the core bit in the tool holder until the catch notches.

Twist drill and core drill bits with M 18x6/P 1.5 (Figure 15).



- Screw the adapter (15) onto the geared drill chuck.
- Turn the Quick IN clamping collar (14) of the tool holder anti-clockwise and insert the adapter (15) in the same way as the core bit.

The adapter can also be used for suitable core bits.

Twist drill bit with morse taper arbor (KBM 52 U, Figures 16 + 17).



- Loosen the securing nut (16b) of the tool holder. The securing nut has a left-handed thread.
- Knock the adapter (16) out using the drift (18h).
- Clean the inner taper of the drift shaft and insert the MK 3 spiral bit (17).

General operating instructions.

Selecting the gear level (Figure 7).

Set the gear level to setting "I" for operations requiring a low speed and a high torque. This setting is suitable for drilling with large drilling diameters (26 mm–50 mm) and for tapping.

Set the gear level to setting "II" for operations requiring a high speed and a low torque. This setting is suitable for drilling with small drilling diameters (12 mm–26 mm).

Only switch over the gear level when the motor is at a standstill.

Putting into operation.



First check that the mains supply lead and mains plug are not damaged.



Secure the power tool with the clamping strap (18i) if there is danger of it falling.

KBM 52 U: Note: If permissible, open the coolant stopcock (12).



- Switch on the main (magnet) switch (11) for the magnet to clamp and hold the core drill.

Starting and stopping the motor (KBM 52 U):

Starting the motor in clockwise rotation, full speed:



- Briefly tap the "R" on the motor switch (9) (clockwise rotation).

Stopping the motor during clockwise rotation:

- Briefly tap "L/OFF" on the motor switch (9).

Starting the motor in anti-clockwise rotation:

- Continuously press "L/OFF" (anti-clockwise rotation) on the motor switch (9).

Stopping the motor during anti-clockwise rotation:

- Let go of the motor switch (9).

Starting and stopping the motor (KBM 50 Q):

Starting:



- Switch on the motor switch (9).

Stopping:

- Switch off the motor switch (9).

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Reducing the speed (KBM 52 U, Figure 10):

Changing the speed is only effective for clock-wise rotation. In anti-clockwise rotation the motor runs at a constant reduced speed.

- Start the motor in clockwise rotation.

Reducing the speed:

-  ➤ Press the "slow" button (10).

For maintaining the speed:

- Let go of the "slow" button (10).

For further reducing the speed:

- Press the "slow" button (10) once again.


Storing the set speed value:

The value of the speed last set is automatically stored.

Starting with the stored speed value:

- Press the "slow" button (10) and briefly tap the "R" (clockwise rotation) on the motor switch (9).

Putting out of operation:


-  ➤ Switch the magnet off by pressing the main switch (11).


Instructions:

- The magnetic foot (4) is monitored by a current sensor. If the magnetic foot is defective the motor will not start.
- The motor automatically switches off in the case of overload. It can be restarted with motor switch (9).
- If the current supply is interrupted while the motor is running, a protection circuit prevents the motor from restarting automatically. The motor has to be restarted with motor switch (9).


Working instructions for core drilling.


- Punch-mark the drilling place marked.
- Position the drill bit with the centering pin (18e) on the punch-mark.
- Carefully start boring until a circular cut is formed.


-  Do not stop the drill motor during the drilling procedure.

-  Only remove the core bit from of the drilling hole while the motor is running.

- If the core bit should remain stuck in the material, stop the drill motor and carefully turn the core bit out anti-clockwise.

-  Remove the chippings and the bored core after each drilling process.

-  Do not touch the chippings with your bare hand. Always use a chip hook.

-  Do not damage the cutters when changing the bit.


- When core drilling layered material, remove the core and the chippings after drilling each layer.

Repair and customer service.**Regular cleaning.**

Carry out the following steps once a week, or more often if used frequently:

- Clean the cooling air vents.

-  **Use non-metallic tools to clean the air vents.**


-  ➤ Blow out the interior of the power tool from outside through the air vents with dry, compressed air.


If required, you can change the following parts yourself:

- Application tools
- Coolant container (18j)
- Coolant tube (18l)

For repairs, we recommend our FEIN customer service centre, the FEIN authorised service centres and FEIN agencies. For addresses, see the enclosed "General Safety Instructions".

When carrying out your own repairs by qualified electricians we supply the repair documentation upon request.

-  Repairs may only be carried out by qualified electricians in conformity with the valid regulations.

-  Please always hand this Instruction Manual to the those carrying out the repair.



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! If the supply cord of this power tool is damaged it must be replaced by a specially prepared cord available through the FEIN customer service centre.

Accessories.

Only use accessories recommended by FEIN.

Warranty and liability.

The warranty for the product is valid in accordance with the legal regulations in the country where it is marketed.

In addition, FEIN also provides a guarantee in accordance with the FEIN manufacturer's guarantee. For further details on this, please contact your specialist dealer, your national FEIN representative, or the FEIN customer service centre.

Declaration of conformity.

FEIN declares itself solely responsible for this product conforming with the documents and standards given on the last page of this Instruction Manual.

Environmental protection, disposal.

Packaging, worn out power tools and accessories should be sorted for environment-friendly recycling. Further information can be obtained from your specialist dealer.



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Specifications.

Type	KBM 52 U	KBM 50 Q
Reference number	7 270 31	7 270 30
Power input	1200 W	1200 W
Output	640 W	680 W
Speed, full load		
Clockwise		
1st gear	130–260 rpm	260 rpm
2nd gear	260–520 rpm	520 rpm
Anti-clockwise		
1st gear	160 rpm	–
2nd gear	320 rpm	–
Power supply type	1 ~	1 ~
Weight	13.7 kg	12.0 kg
Class of protection	I	I
Drilling-Ø Steel max.		
Core bit	50 mm	50 mm
Spiral bit	23 mm	16 mm
Tap	M 16	M 16
Magnetic holding power	11 000 N	11 000 N
Max drilling depth with core bits	50 mm	50 mm
Height of drill jig	368 mm	368 mm
Stroke	135 mm	135 mm
Total stroke range	310 mm	310 mm
Magnetic foot plate dimensions	180 x 90 mm	180 x 90 mm

Emission values for sound and vibration

(Two-figure – specifications as per ISO 4871)

Sound emission

Measured A-weighted sound power level L_{WA} (re 1 pW), in decibels	96	96
Measuring inaccuracy K_{WA} , in decibels	3	3
A-weighted emission pressure power level measured at the workplace L_{pA} (re 20 µPa), in decibels	83	83
Measuring inaccuracy K_{pA} , in decibels	3	3

Vibration emission

Rated acceleration, in m/s^2	0.6	0.6
Inaccuracy K, in m/s^2	1.5	1.5

REMARK: The sum of the measured emission value and respective measuring inaccuracy represents the upper limit of the values that can occur during measuring.



Wear ear protection!

For measurement values obtained according to the respective product standard, see the last page of this Instruction Manual.