



- ▶ **KBM 50 Q** 7 270 41 61
- ▶ **KBM 50 U** 7 270 40 61
- ▶ **KBM 50 auto** 7 270 42 61
- ▶ **KBM 65 U** 7 270 43 61



EN 61029-1:2009 + Cor.:2009 + A11:2010
EN 55014-1:2006 + A1:2009 + A2:2011
EN 55014-2:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
2011/65/EU, 2006/42/EG,
2014/30/EU

i. V. A. Gansen
Director of Product
Development

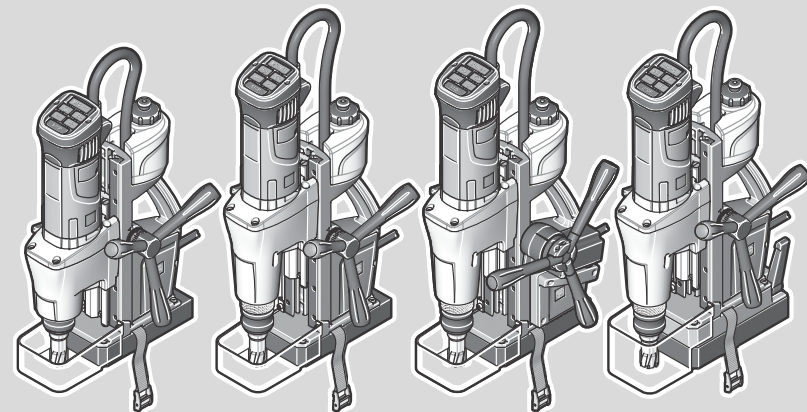
i. V. Dr. Schreiber
Head of Development/
Electronics and Drives








Schwäbisch Gmünd-Bargau, 16.01.2018

FEIN Service

C. & E. Fein GmbH
Hans-Fein-Straße 81
D-73529 Schwäbisch Gmünd-Bargau

www.fein.com

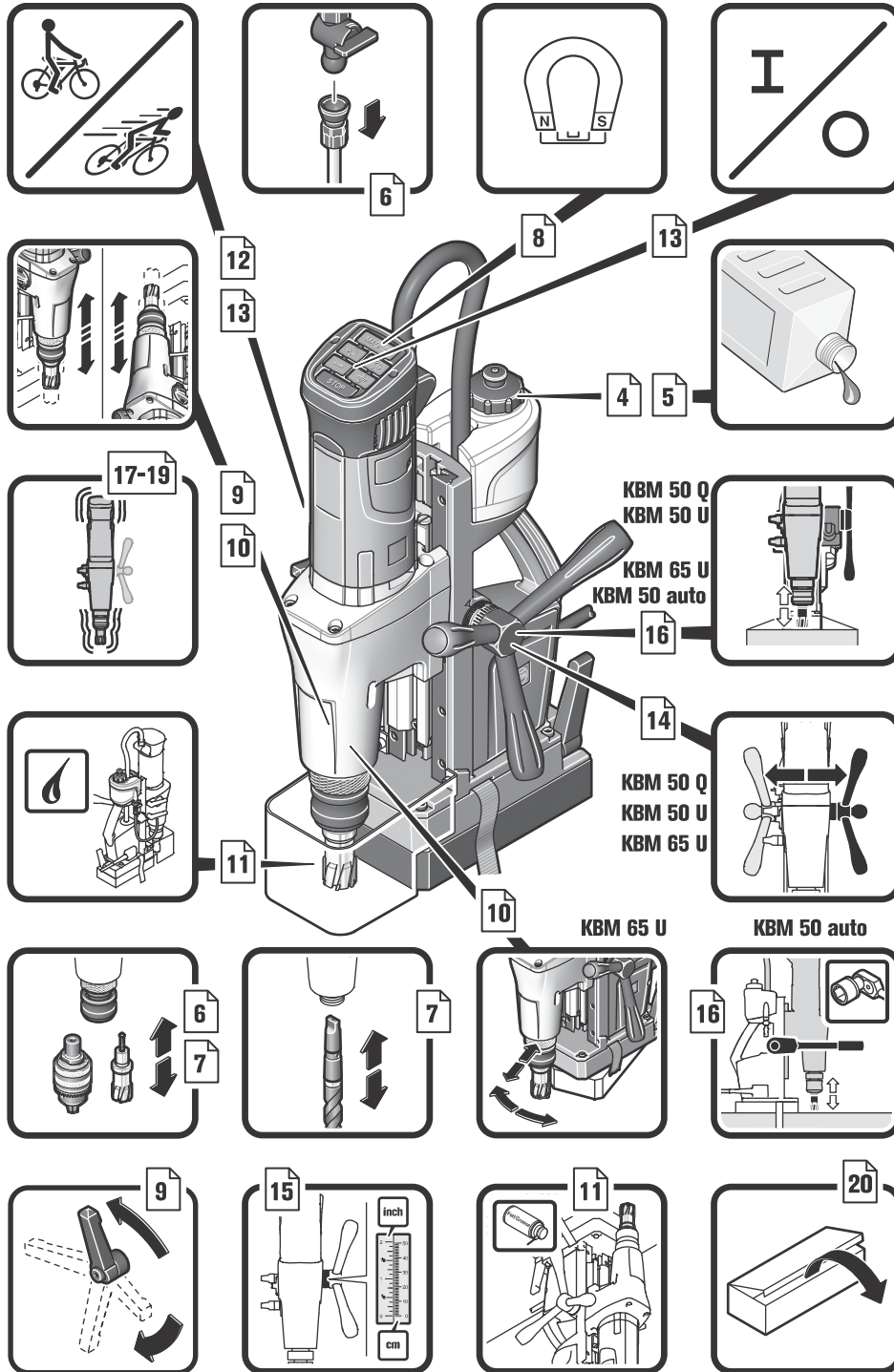


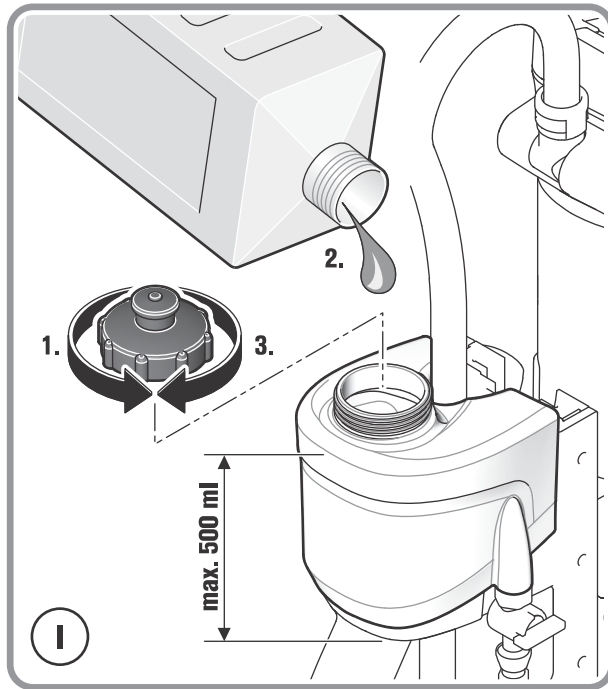
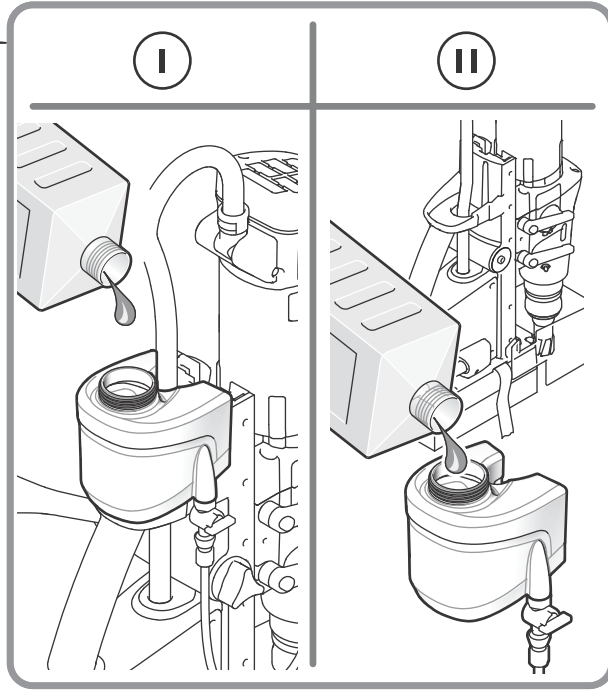
		KBM 50 Q	KBM 50 U	KBM 50 auto	KBM 65 U
		7 270 41 61	7 270 40 61	7 270 42 61	7 270 43 61
P₁	W	1200	1200	1200	1350
P₂	W	610	610	610	730
n_{DR}					
●	/min, min ⁻¹ , rpm, r/min	260	260	260	240
●●	/min, min ⁻¹ , rpm, r/min	520	520	520	520
n_{DL}					
●	/min, min ⁻¹ , rpm, r/min	185	185	185	170
●●	/min, min ⁻¹ , rpm, r/min	370	370	370	370
	kg	13,2	13,9	16,2	16,1
 Fe HM	mm	12–50	12–50	12–50	12–65
 Fe HSS	mm	12–40	12–40	12–40	12–45
 Fe HSS	mm	16	23	23*	25
		M6–M16	M6–M16	M6–M16*	M6–M20
 Ø	mm	16	23	23*	25
 Ø	mm	31	50	50*	50
L_{pA}	dB	82,4	82,4	82,4	82,4
K_{pA}	dB	3	3	3	3
L_{wA}	dB	93,4	93,4	93,4	93,4
K_{wA}	dB	3	3	3	3
L_{pCpeak}	dB	97,0	97,0	97,0	97,0
K_{pCpeak}	dB	3	3	3	3
α_h	m/s ²	< 2,5	< 2,5	< 2,5	< 2,5
K_a	m/s ²	1,5	1,5	1,5	1,5

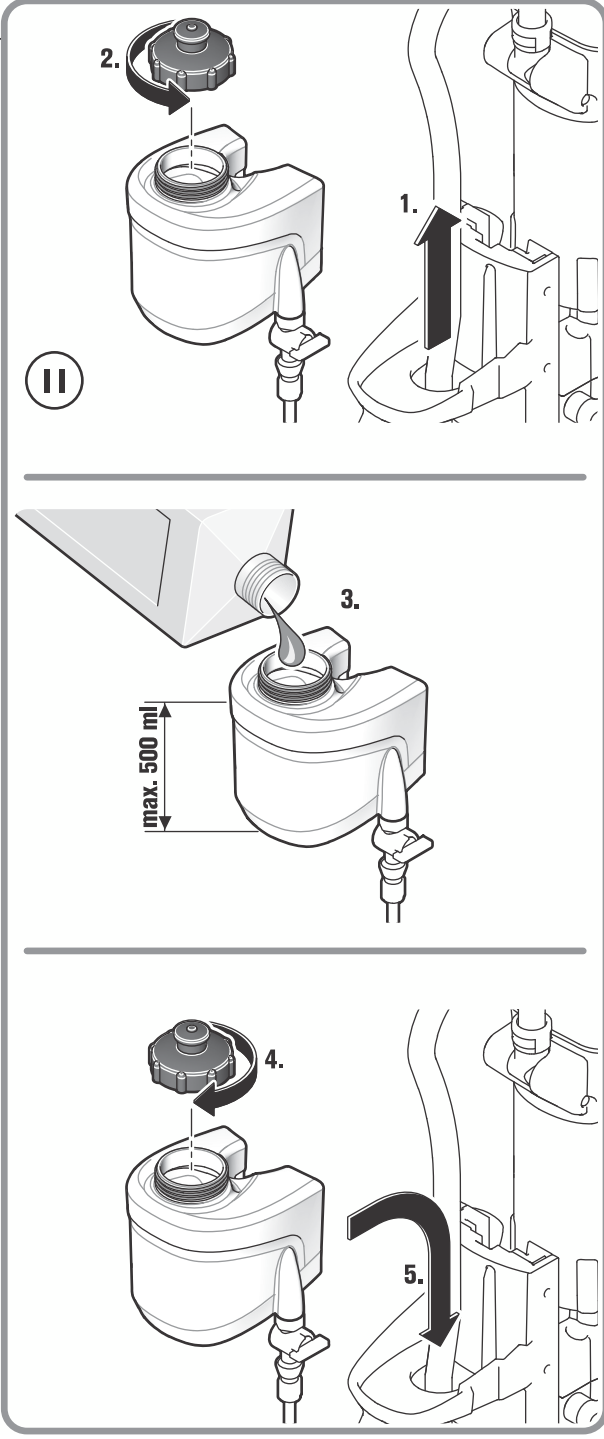


3

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en	25	el	49	hu	74	sr	99	lt	126	ja	152
fr	29	da	54	cs	78	hr	103	lv	130	hi	156
it	33	no	58	sk	82	ru	107	zh(CM)	134	ar	163
nl	37	sv	62	pl	86	uk	112	zh(CK)	139		
es	41	fi	66	ro	91	bg	117	ko	143		

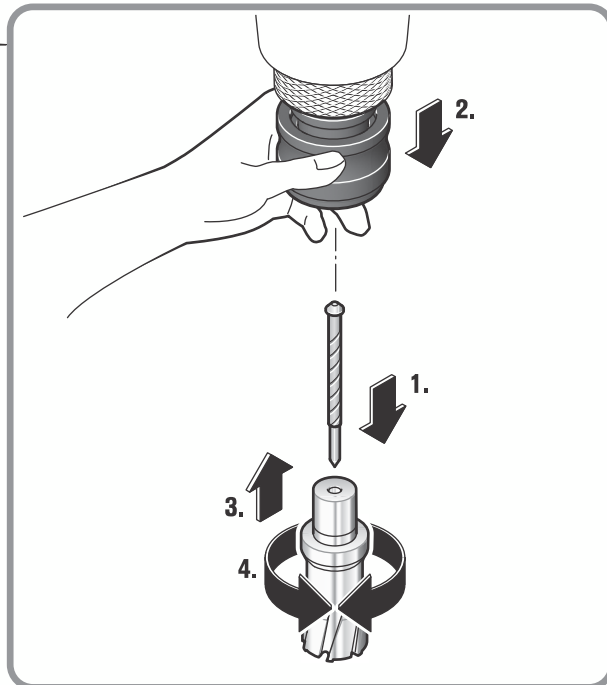
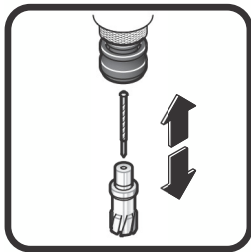
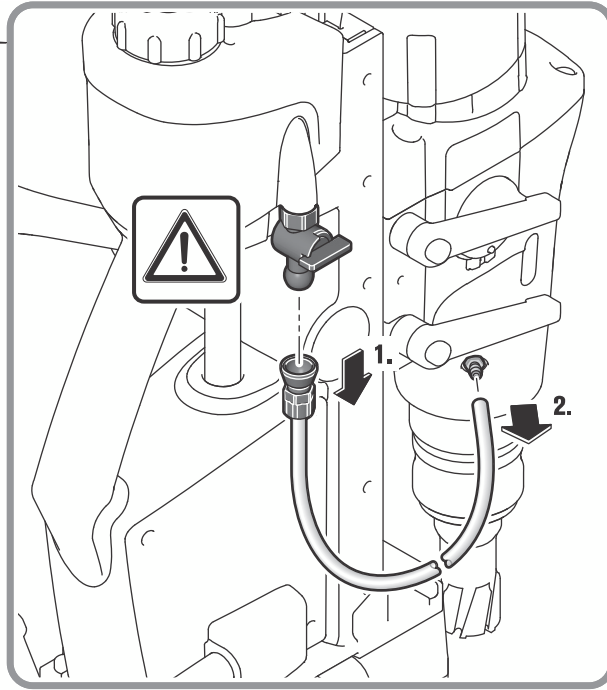
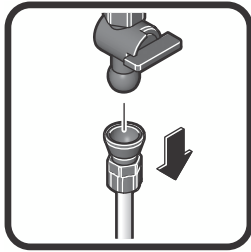


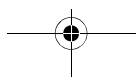
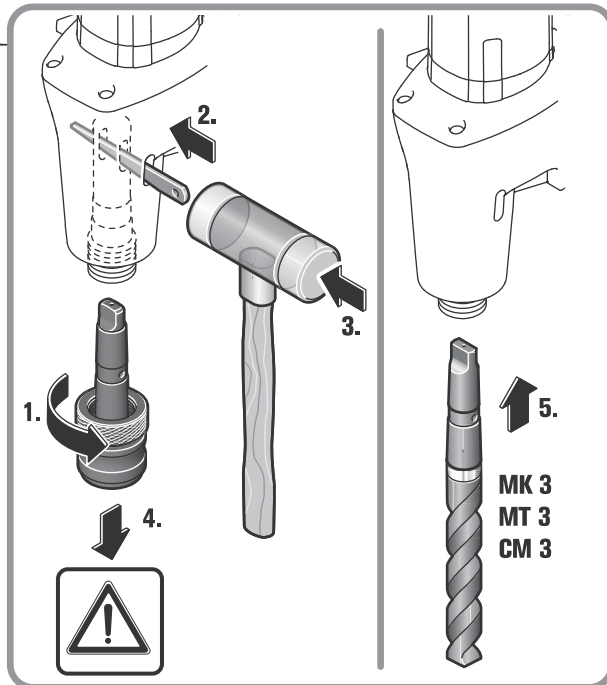
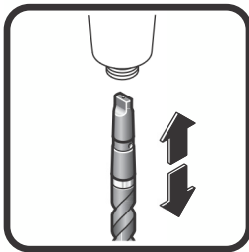
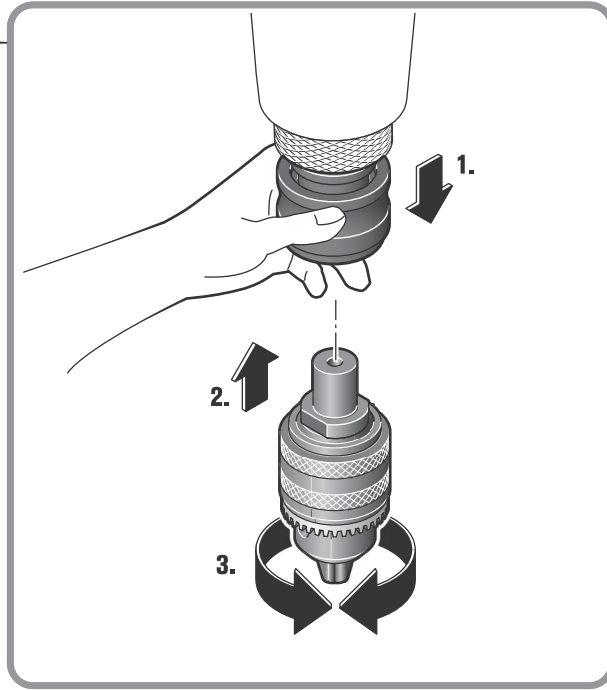
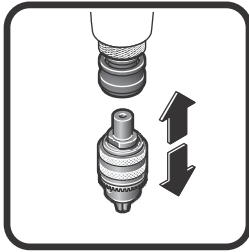


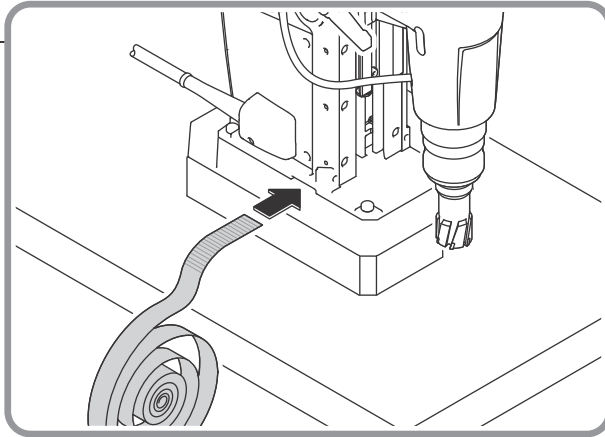
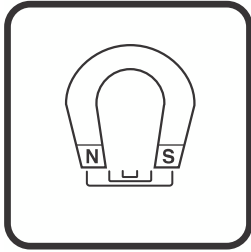




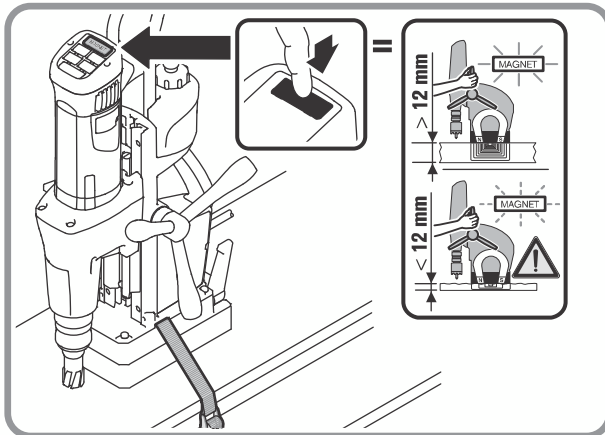
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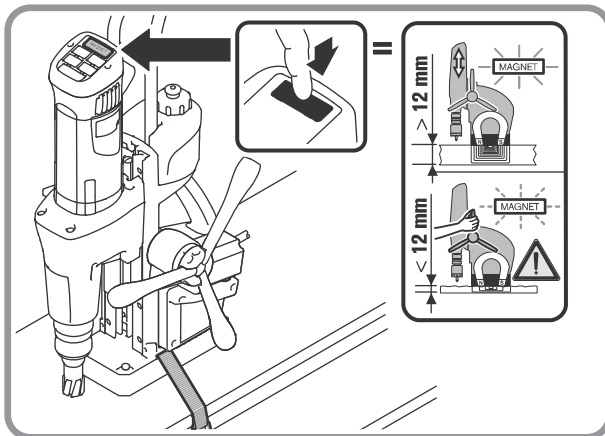


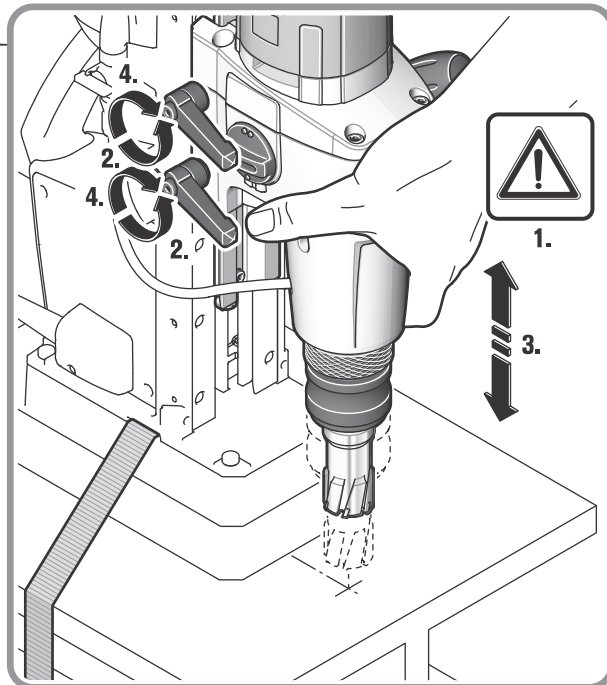
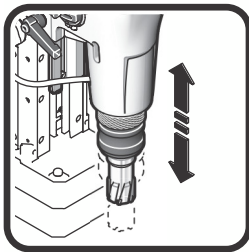
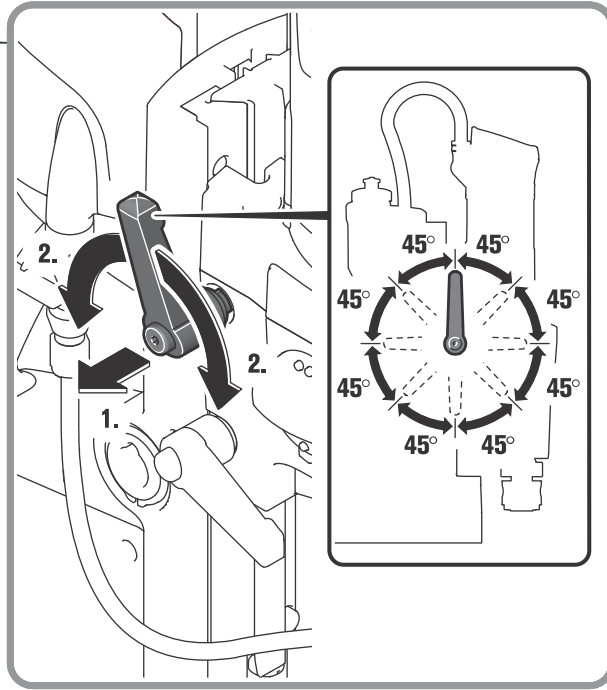


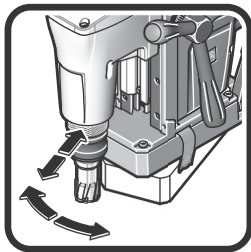
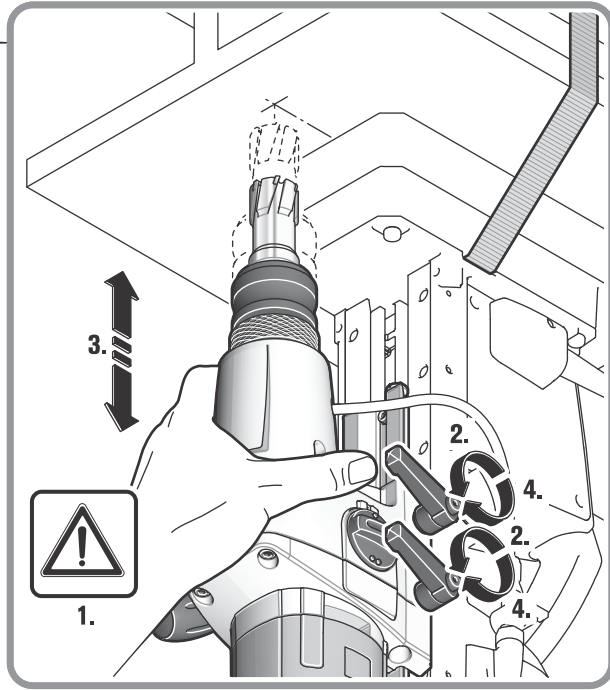
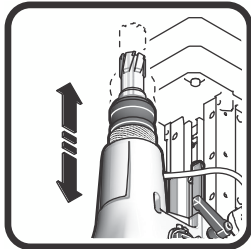
**KBM 50 Q
KBM 50 U
KBM 65 U**



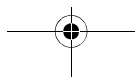
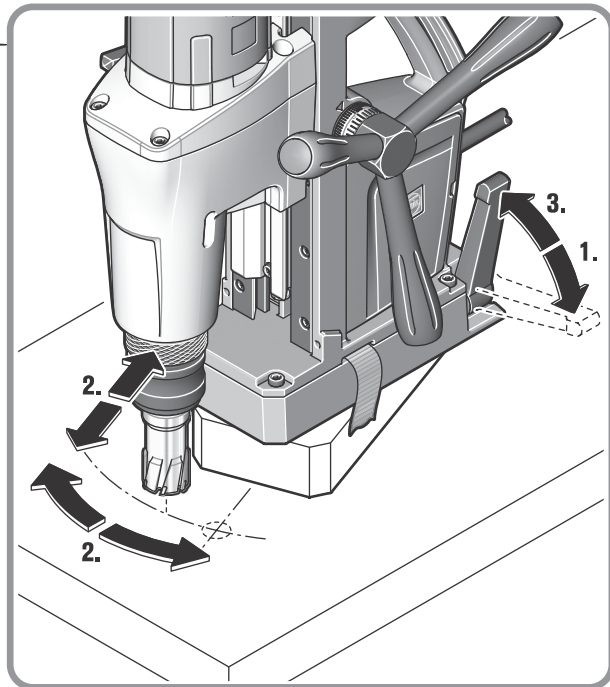
KBM 50 auto

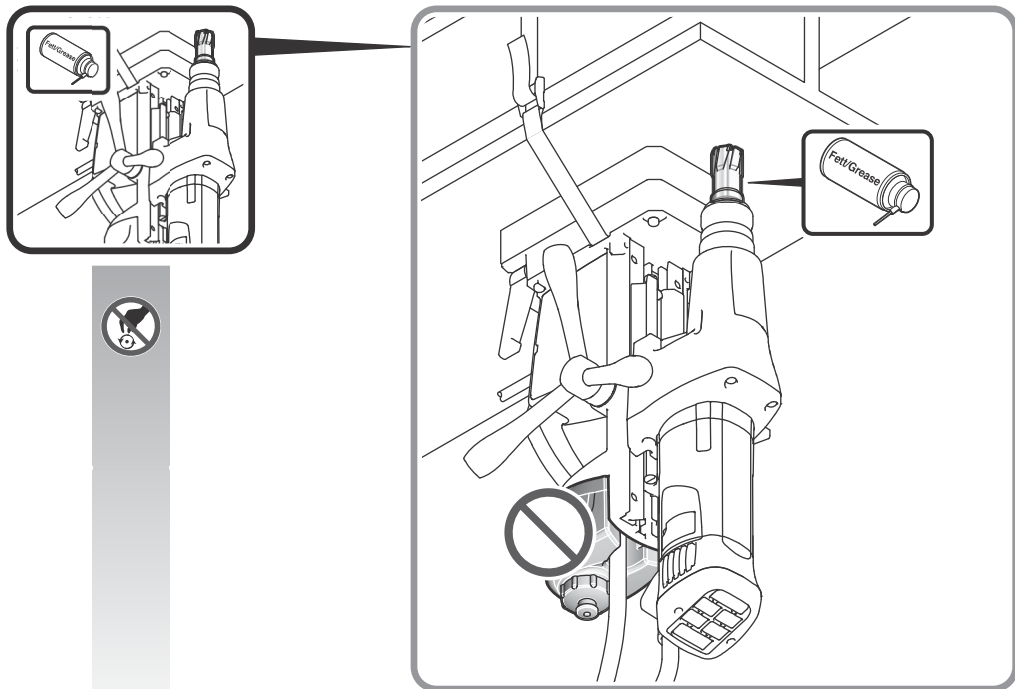
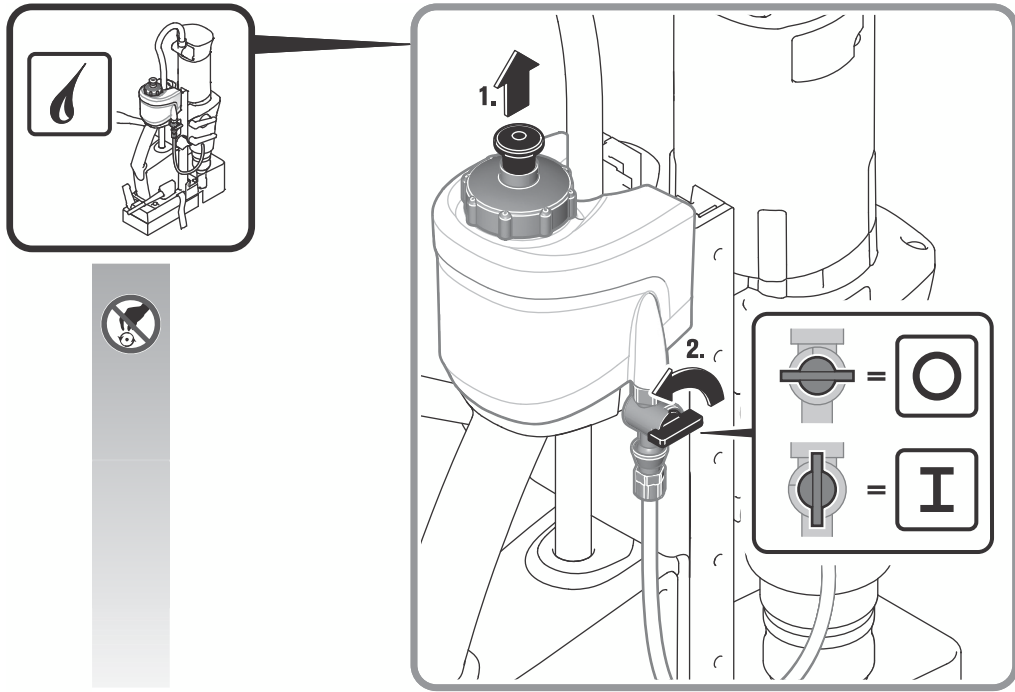


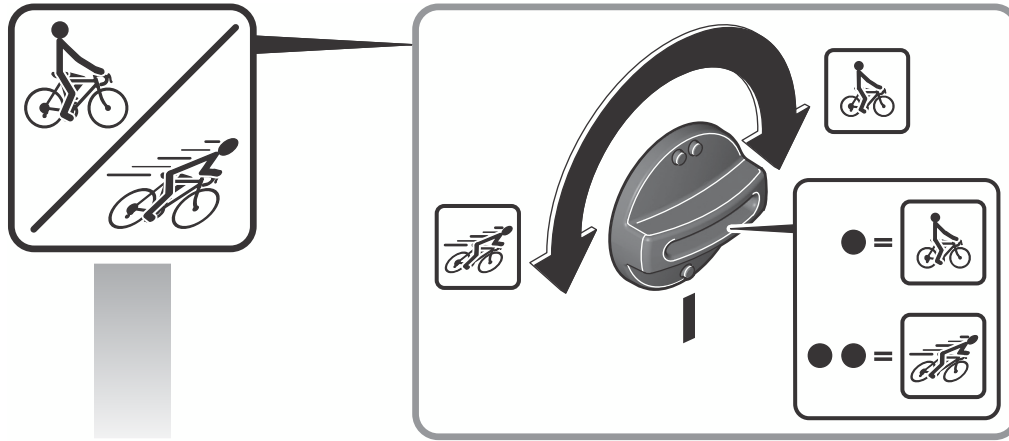










KBM 65 U

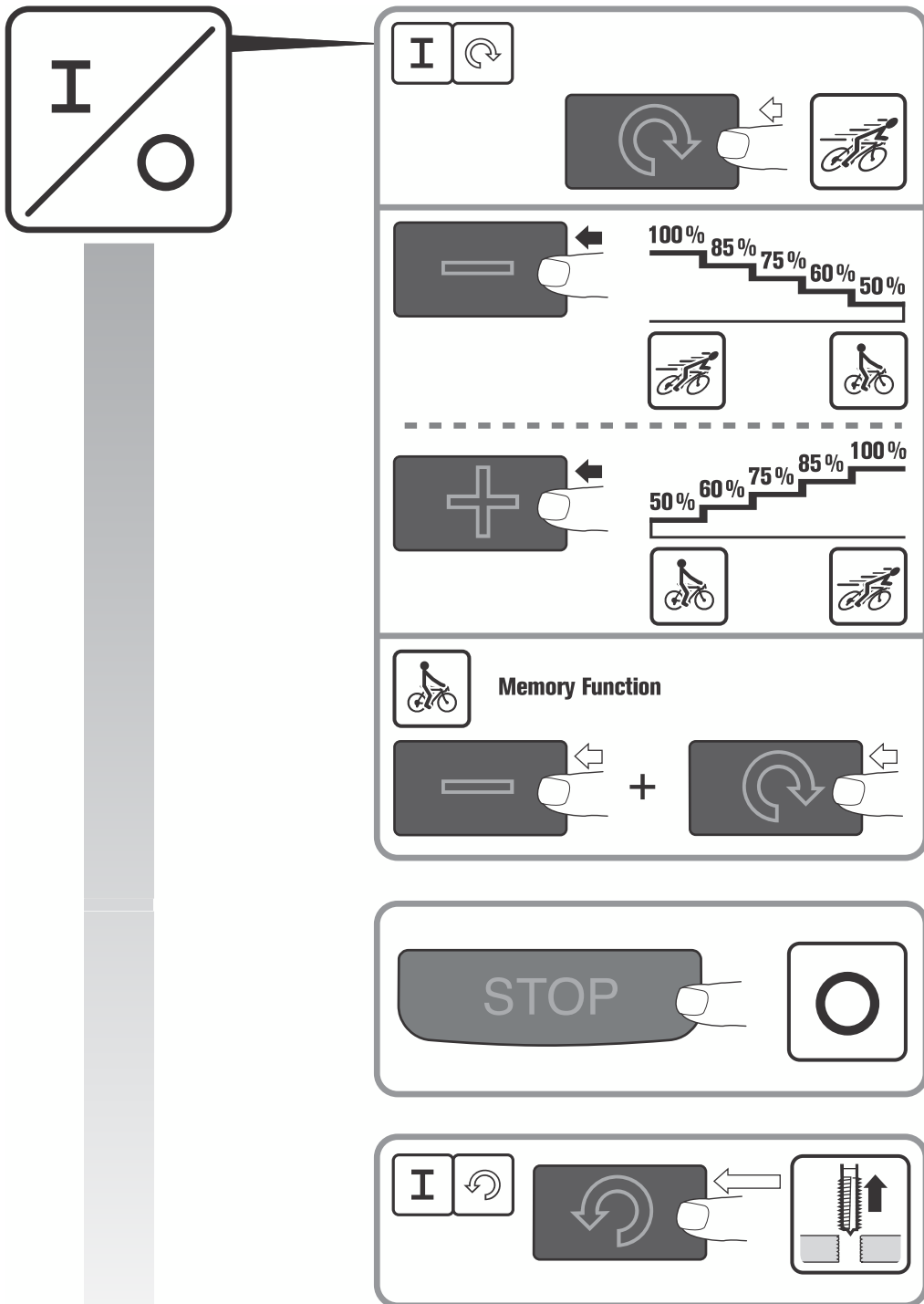


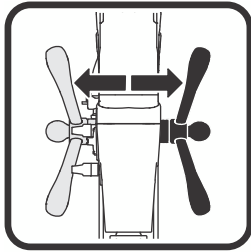




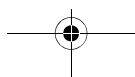
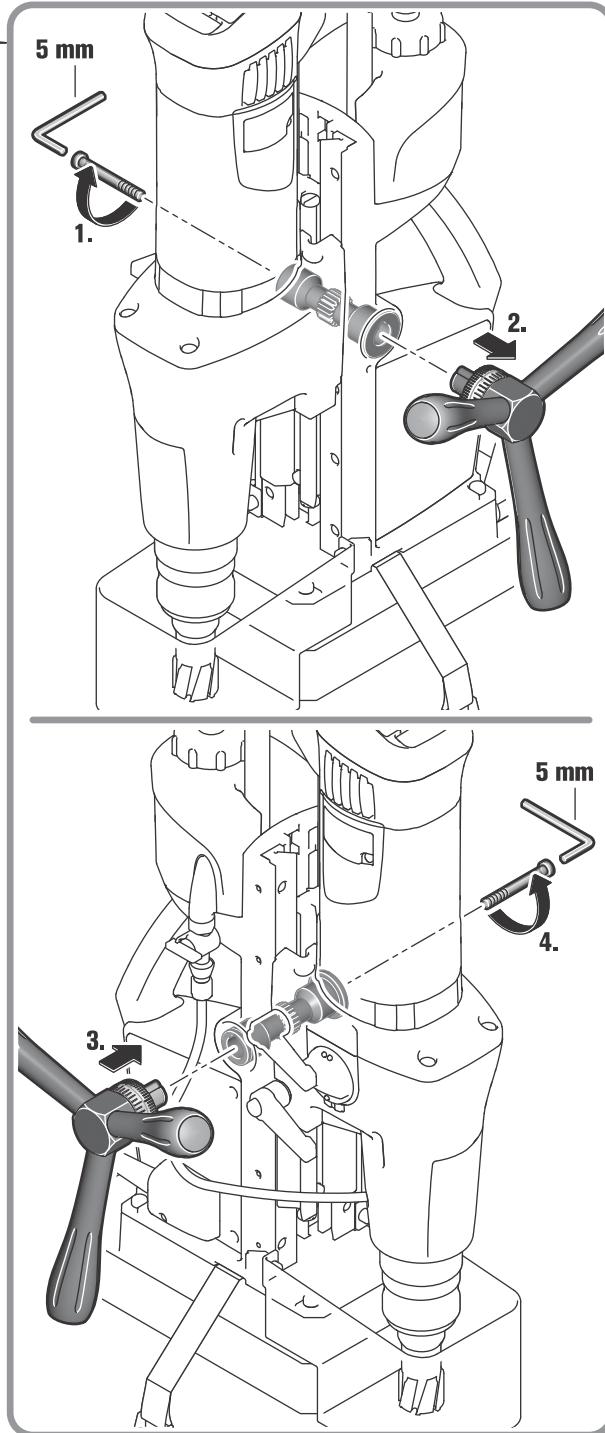
		 Fe HM	 Fe HSS	 Fe HSS	
KBM 50 U, 50 Q, 50 auto	●	27 – 50 mm	21 – 40 mm	16 – 23 mm	M 6 – M 16
KBM 65 U	●	27 – 65 mm	21 – 45 mm	16 – 25 mm	M 6 – M 20
KBM 50 U, 50 Q, 50 auto	●●	12 – 26 mm	12 – 20 mm	1,5 – 15 mm	-
KBM 65 U	●●	12 – 26 mm	12 – 20 mm	1,5 – 15 mm	-

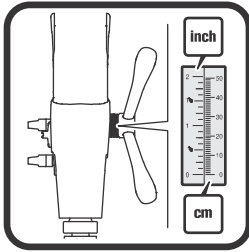
		 ∅	 ∅
KBM 50 Q	●	≤ 16 mm	≤ 31 mm
KBM 50 U / 50 auto	●	≤ 23 mm	≤ 50 mm
KBM 65 U	●	≤ 25 mm	≤ 50 mm



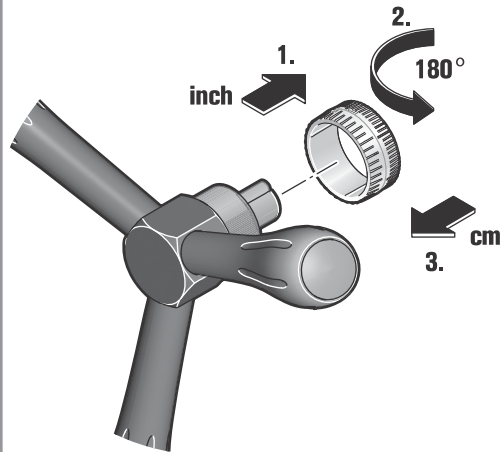
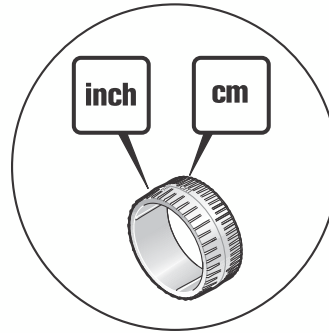


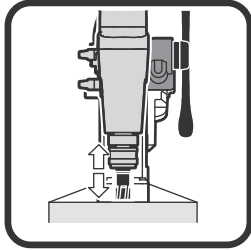
**KBM 50 Q
KBM 50 U
KBM 65 U**



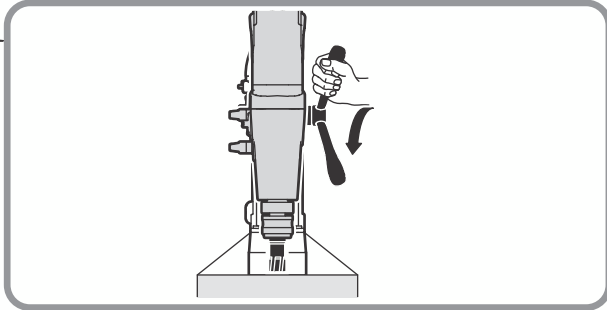


KBM 50 Q
KBM 50 U
KBM 65 U

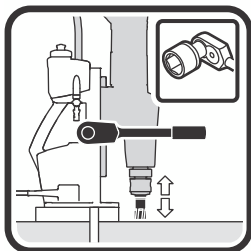
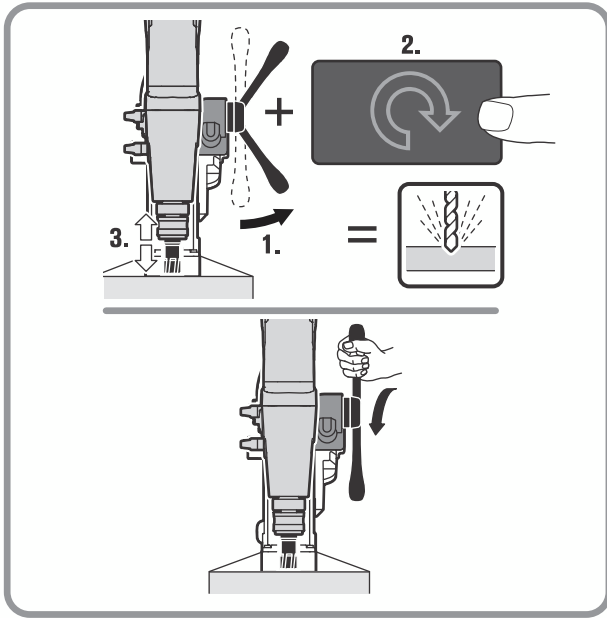




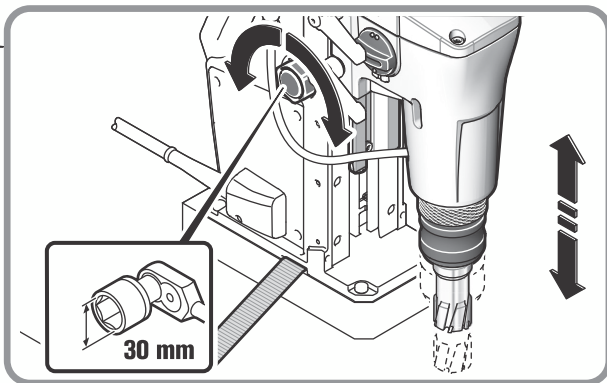
**KBM 50 Q
KBM 50 U
KBM 65 U**

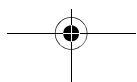
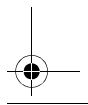
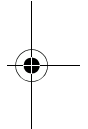
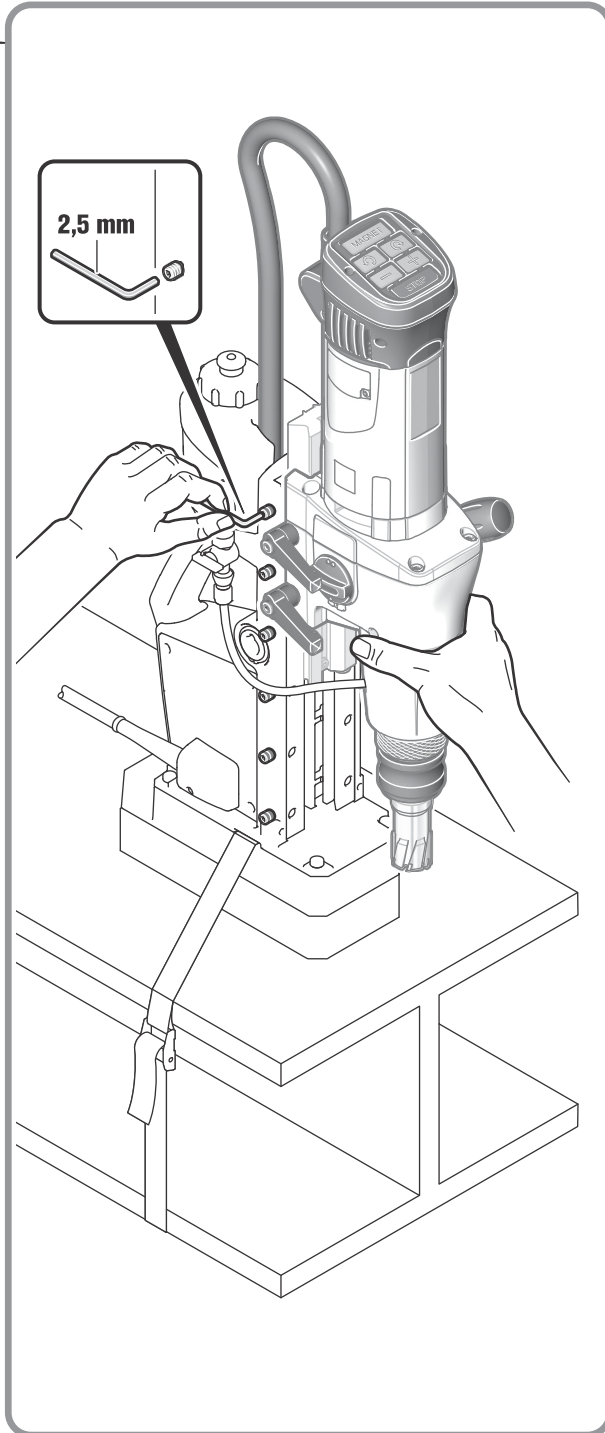
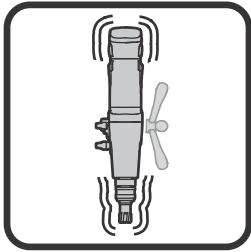


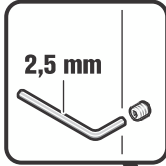
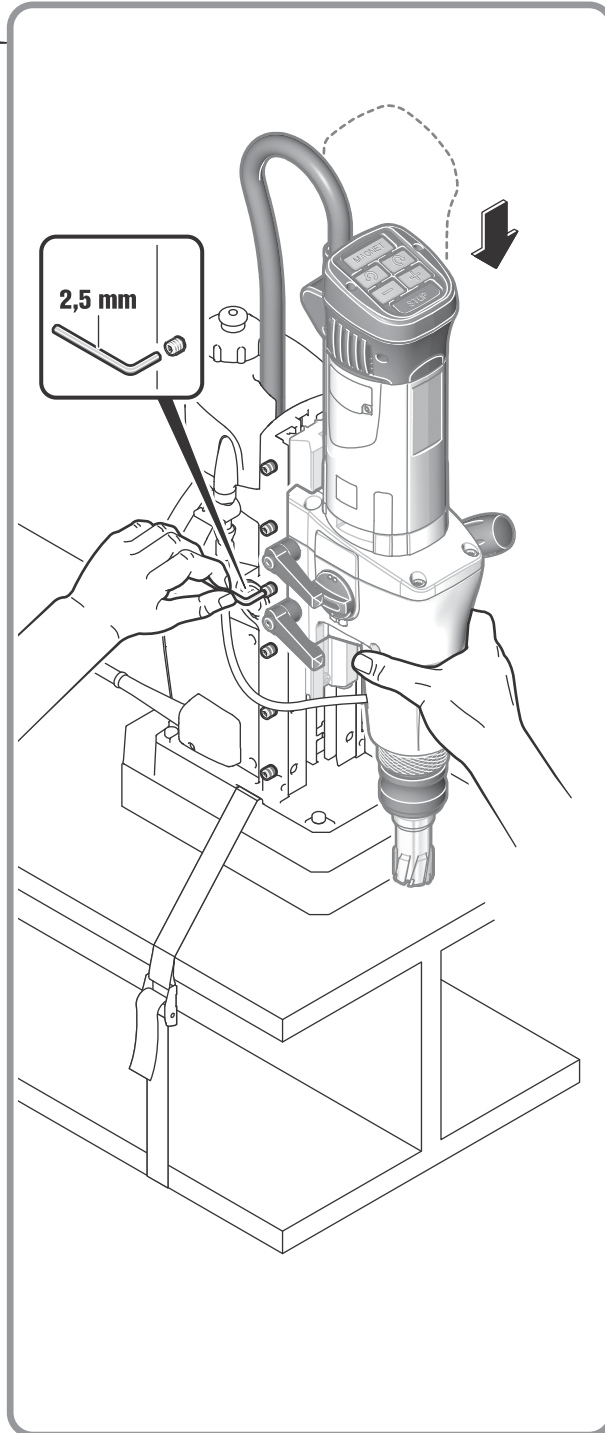
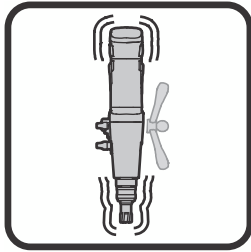
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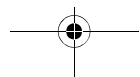
KBM 50 auto

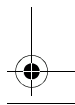
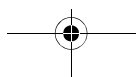
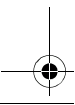
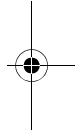
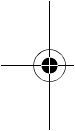
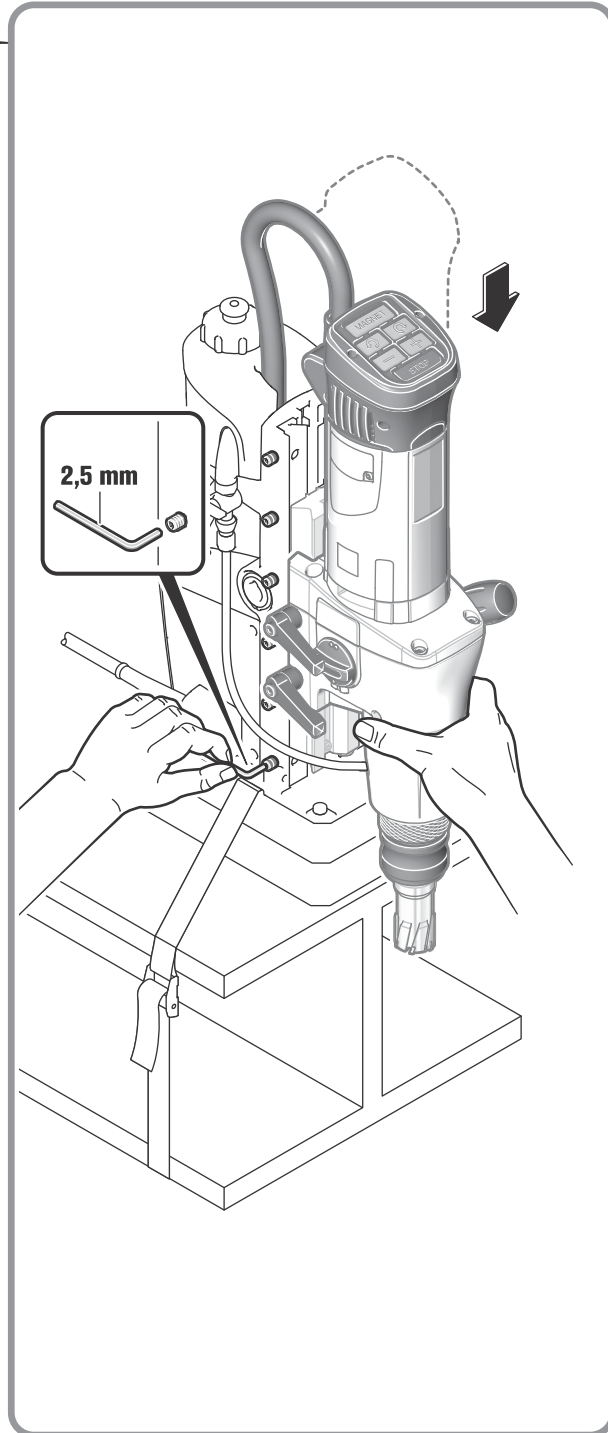
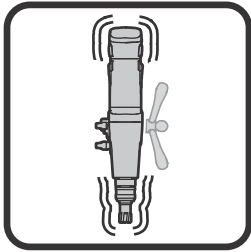


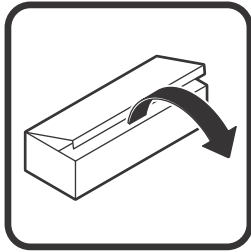




2,5 mm







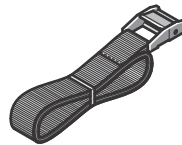
KBM 50 U
KBM 50 auto
KBM 65 U



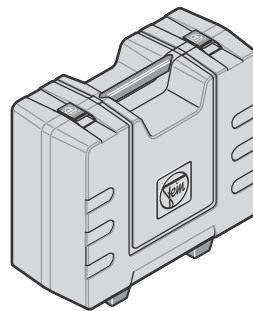
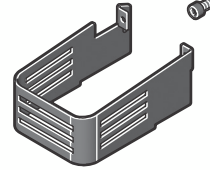
KBM 65 U



KBM 50 U
KBM 50 auto
KBM 65 U





















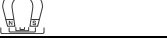
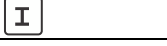






KBM 50 Q
KBM 50 U
KBM 50 auto



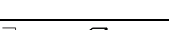
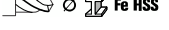
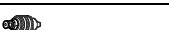
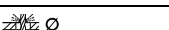
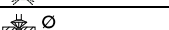


105 mm

Original Instructions.**Symbols, abbreviations and terms used.**

Symbol, character	Explanation
	Make sure to read the enclosed documents such as the Instruction Manual and the General Safety Instructions.
	Observe the instructions in the text or graphic opposite!
	Observe the instructions in the text or graphic opposite!
	Before commencing this work 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 during operation.
	Use ear protection during operation.
	Do not touch the rotating parts of the power tool.
	Hot surface!
	Do not reach in!
	General prohibition sign. This action is prohibited.
CE	Confirms the conformity of the power tool with the directives of the European Community.
 WARNING	This sign indicates a possible dangerous situation that could cause severe or fatal injury.
	Worn out power tools and other electrotechnical and electrical products should be sorted separately for environmental-friendly recycling.
● / ● ● ●	1st gear / 2nd gear
	Tap
	Steel
	Low speed
	High speed
	Magnetic holding power, sufficient
	Magnetic holding power, insufficient
	Starts the drill motor. Rotation direction: clockwise
	Stops the motor
	Starts the drill motor. Rotation direction: clockwise
	Starts the drill motor in inch mode. Rotation direction: anticlockwise

Symbol, character	Explanation
	Speed reduction in steps
	Speed increase in steps
	Stops the motor
	Switches the magnet On/Off
*	Value applies for KBM 50 auto in manual machine operation

Character	Unit of measurement, international	Unit of measurement, national	Explanation
P_1	W	W	Power input
P_2	W	W	Output
n_{OR}	/min, min^{-1} , rpm, r/min	rpm	No-load speed (clockwise)
n_{OL}	/min, min^{-1} , rpm, r/min	rpm	No-load speed (anticlockwise)
i_n	inch	inch	Size
U	V	V	Rated voltage
f	Hz	Hz	Frequency
$M_{...}$	mm	mm	Size of metric thread
\emptyset	mm	mm	Diameter of a round part
 Fe HM	mm	mm	Drilling capacity in steel - TCT (core drill bit)
 Fe HSS	mm	mm	Drilling capacity in steel - high speed steel (HSS) (core drill bit)
 Fe HSS	mm	mm	Drilling capacity in steel - high speed steel (HSS) (twist drill bit)
	mm	mm	Max. drill chuck capacity
	mm	mm	Reamer diameter
	mm	mm	Counterboring diameter
	kg	kg	Weight according to EPTA-Procedure 01
L_{pA}	dB	dB	Sound pressure level
L_{wA}	dB	dB	Sound power level
L_{pCpeak}	dB	dB	Peak sound pressure level
$K_{...}$			Uncertainty
a	m/s^2	m/s^2	Vibrational emission value according to EN 60745 (vector sum of three directions)
a_h	m/s^2	m/s^2	Mean vibrational value for core drilling
	m, s, kg, A, mm, V, W, Hz, N, °C, dB, min, m/s^2	m, s, kg, A, mm, V, W, Hz, N, °C, dB, min, m/s^2	Basic and derived units of measurement from the international system of units SI .

For your safety.

⚠ WARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.



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). The documents mentioned should be kept for later use and enclosed with the power tool, should it be passed on or sold.

Please also observe the relevant national industrial safety regulations.

Intended use of the power tool:

Magnetic core drill unit for drilling with core drill bits and solid drill bits, reaming, countersinking and tapping on materials with surfaces suitable for magnets in weather-protected environments using the application tools and accessories recommended by FEIN.

This power tool is also suitable for use with AC generators with sufficient power output that correspond to the Standard ISO 8528, design type G2. This Standard is particularly not complied with when the so-called distortion factor exceeds 10 %. When in doubt, please refer to the generator instruction/specification guide.

These appliances are not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

Special safety instructions.

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.

Replace the protective cable bushing immediately when damaged. A defective protective cable bushing can lead to overheating of the machine and to an emergency stop.

Mount the swarf protector to the machine before beginning to work.

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 outage, or the mains plug is pulled out, the magnetic holding power is not maintained.

When working overhead or on vertical surfaces, the coolant container must not be used. Use a coolant spray instead. Liquids penetrating your electric power tool may cause electric shock.

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 grounded sockets that comply with the specifications. Do not use any connection cables that are damaged; use extension cables with a grounding contact that are checked at regular intervals. A ground conductor without continuity can cause an electric shock.

To prevent injuries, always keep your hands, clothing, etc. away from rotating swarf. The swarf can cause injuries. Always use the chip guard.

Do not attempt to remove the cutting tool if it still turns. This can lead to serious injuries.

Hold power tool by the insulated gripping surfaces, 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.

Beware of any concealed electric cables, gas or water conduits. Check the working area before commencing work, e. g. with a metal detector.

Do not work materials containing magnesium. Danger of fire.

Do not work CFP (carbon-fiber-reinforced polymer) and materials containing asbestos. These materials are considered carcinogenic.

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.

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 using non-metal tools. The blower of the motor draws dust into the housing. An excessive accumulation of metallic dust can cause an electrical hazard.

Before putting into operation, check the mains connection and the mains plug for damage.

Recommendation: The tool should always be supplied with power via a residual current device (RCD) with a rated current of 30 mA or less.

Hand/arm vibrations

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

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.

Operating Instructions.

Only use water-soluble cutting fluids (**oil in water**) as the cooling agent.

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

When working, always use the magnetic foot; pay attention that the magnetic holding power is sufficient:

- When the green button on the control panel lights up permanently, the magnetic holding power is sufficient and the machine can be operated with **manual or automatic feed**.
- When the **Magnet** button on the control panel flashes, the magnetic holding power possibly is insufficient and the machine must be operated **manually with reduced feed**. In this case, the KBM 50 auto cannot be operated in automatic mode.

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 working 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.

The magnetic foot is monitored by means of a power sensor. If the magnetic foot is defective, the motor will not start.

In case of overload, the motor automatically stops and must be restarted again.

When the power supply is disconnected while the motor is running, a protective circuit prevents automatic restarting of the motor. Restart the motor again.

Adjust the gear setting only when the machine is at a complete stop or when the motor is running down.

The last set speed is automatically stored (**memory function**). To start the power tool with the last set speed, press and hold the button with the  symbol, and then press the button with the  symbol.

Do not stop the drill motor during the drilling procedure. Only remove the core bit from the drilled 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 counter-clockwise.

Remove the chips and the drilled core after each drilling process.

- ⚠ Do not touch the chips with your bare hand. Always use a chip hook.
- ⚠ Danger of burning! The surface of the magnet can reach high temperatures. Do not touch the magnet with your bare hands.

When changing a drill bit, pay attention not to damage the cutting edges.

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

Do not use the magnetic core drill unit when the cooling-lubricant system is defective. Each time **before operating**, check for tightness against leaks and for cracks in the hoses. Prevent liquids from entering or penetrating electrical components.

KBM 50 auto: Do not use the automatic feed when drilling, countersinking, tapping and reaming.

The KBM 50 auto magnetic core drill unit is equipped with core-bit break-through detection. Upon completion of the drilling procedure, the machine detects the break-through, and the drill motor automatically returns to the starting position. The drill motor does not switch off until in the starting position.

Repair and customer service.



When working metal under extreme operating conditions, it is possible for conductive dust to settle in the interior of the power tool.

The total insulation of the power tool can be impaired. Blow out the interior of the power tool via the ventilation slots frequently with dry and oil-free compressed air, and connect a residual current device (RCD) on the line side.

After several hours of operation, the play in the dove-tail guide can increase. As a consequence, the drill motor can glide alongside the dove-tail guide by itself. In automatic machine operation, this can lead to a malfunction of the automatic reversing feature. In this case, retighten all set screws of the dove-tail guide correspondingly so that the drill motor can easily be moved manually, yet does not glide by itself (see page 17).

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.

The current spares parts list for this power tool can be found on our website at www.fein.com.

If required, you can change the following parts yourself: Application tools, cooling-lubricant tank

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 warranty declaration.

The delivery scope of your power tool may include only a part of the accessories described or shown in this Instruction Manual.

Declaration of conformity.

FEIN declares itself solely responsible for this product conforming with the relevant provisions given on the last page of this Instruction Manual.

Technical documents at: C. & E. Fein GmbH, C-D1_IA, D-73529 Schwäbisch Gmünd

Environmental protection, disposal.

Packaging, worn out power tools and accessories should be sorted for environmental-friendly recycling.