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# Translation of the Original Operating Manual Drill Chuck EXTRA-RV



Store for reference

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## 1 About this Operating Manual

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This Operating manual describes in detail the use, installation, assembly and maintenance of the drill chuckEXTRA-RV. The efficiency of the drill chuck depends primarily on correct use and careful maintenance. This Operating manual serves as the leading document and is provided on delivery of the product. The personnel must have carefully read and understood the Operating manual before beginning any work. Observance of all safety instructions and instructions for use in these Operating manual is the basic prerequisite for safe work with the drill chuck. In addition to the regulations listed here, the operating manual of the machine manufacturer, the local and user-related operating instructions and professional accident prevention regulations are to be observed.

### 1.1 Manufacturer Details

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### 1.2 Copyright

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This Operating manual is protected by copyright and is intended for internal purposes only.

The forwarding of the Operating manual to third parties, reproduction by any means – even in part – as well as use and/or communication of the content without the permission of RÖHM are prohibited (except for internal purposes).

Infringements will lead to claims for compensation. We reserve the right to assert further claims.

### 1.3 Warranty and Liability

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All information and instructions in this Operating manual are given in good faith on the basis of our experience and knowledge to date. The products of RÖHM are constantly developed. RÖHM therefore reserves the right to make any modifications and improvements deemed useful. However, there is no obligation to extend these modifications and extensions to any previously delivered drill chucks. The drill chuck is constructed exclusively for the purpose specified under “Intended Use”. Any use beyond this is deemed to

be inappropriate. RÖHM is not liable for damage resulting from such use. The risk is borne solely by the operator. Product liability for consequential damage of any type is excluded for damage and operational interruptions resulting from operating errors, failure to observe this Operating manual or incorrect maintenance by unauthorised personnel.

All unauthorised conversions, modifications to the drill chuck and/or changes in conditions are not permitted for safety reasons and exclude RÖHM from any liability for any damage which may result. If modifications to the drill chuck are necessary or the area of use differs from the intended use, this must be agreed with the express permission of RÖHM.

The statutory and contractually agreed terms and conditions apply.

The following damage or defects are excluded from the warranty:

- caused by the operator due to non-compliance with the written instructions of RÖHM with regard to
  - commissioning (e.g. incorrect construction and assembly work),
  - operation and
  - maintenance of the equipment (insofar as this maintenance has not been contractually taken over by RÖHM).
- caused by technical operating conditions unknown to RÖHM (e.g. chemical or electrolytic influences) and/or machine specifications.
- caused by natural wear.
- caused by force majeure.
- caused by incorrect operation of all types or by incorrect use or operation of the drill chuck. This also includes loading beyond the specified load limits (e.g. speed, pressure, force, etc.).

This also includes damage caused

- if the operator or third parties carry out modifications or repairs to the services / products without prior permission of RÖHM. Excepted from this are damage or defects which have occurred and which were demonstrably not due to these modifications or repairs.
- which occur due to use of the drill chuck under altered operating conditions (e.g. materials, tools, cutting parameters, programs, etc.), in particular without consulting and obtaining written authorisation from the seller or RÖHM.
- which are due to altered environmental conditions.

## 1.4 Conventions of Presentation

### 1.4.1 Text Display

To improve legibility and comprehension of the text, the following conventions were agreed:

Text type	Marking	Function
Operating instruction	1. 2., etc.	Marks a sequence of actions
	•	Marks an individual operating instruction
	➤	Marks an intermediate result of an operating instruction
	✓	End result of an operating instruction
List	▪	Marks elements of a list
	○	Marks comments within a list










Contains useful information or further information.

## 1.4.2 Display of Safety and Warning Instructions

Safety and warning instructions are marked by pictograms. The signal word and the colouring show the level of danger.

Observe the safety instructions to prevent personal injury and damage to property.

 <b>DANGER</b>	
	<p><b>Indicates an imminently dangerous situation</b> which may lead to death or permanent personal injury if not avoided.</p> <ul style="list-style-type: none"> <li>➤ List of all measures which must be taken to prevent consequences.</li> </ul>
 <b>WARNING</b>	
	<p><b>Indicates a possible danger</b> which may lead to permanent personal injury or death if not avoided.</p> <ul style="list-style-type: none"> <li>➤ List of all measures which must be taken to prevent consequences.</li> </ul>
 <b>CAUTION</b>	
	<p><b>Indicates a possible danger</b> which may lead to minor reversible injuries if not prevented.</p> <ul style="list-style-type: none"> <li>➤ List of all measures which must be taken to prevent consequences.</li> </ul>
<b>NOTICE</b>	
	<p><b>Indicates a possible danger</b> which may lead to damage to property if not avoided.</p> <ul style="list-style-type: none"> <li>➤ List of all measures which must be taken to prevent consequences.</li> </ul>

## 2 Safety

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Safety instructions and safety equipment serve to prevent accidents and damage when working on the drill chuck. The safety instructions contain warnings and basic safety instructions. In addition to the safety instructions in this chapter, the following chapters contain action-related warnings. Maximum protection of personnel and the environment from dangers and trouble-free operation is only possible when all safety instructions and warnings in this operating manual are observed.

### 2.1 Intended Use

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The drill chuckEXTRA-RV may only be operated with hand-held corded drills and cordless drills with and without a spindle stop. To operate on a machine without a spindle stop, a version with a holding ring is recommended.

Only suitable rotationally symmetric tools may be clamped in the drill chuck-EXTRA-RV.

The permissible usage and environmental conditions must be observed (**Technical data** [▶ 11]).

### 2.2 Improper Use

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If the drill chuck is operated for a purpose other than the intended use as specified in this Operating manual, this is deemed to be improper use.

Any utilisation beyond the scope of the “intended use” poses risks and is not approved by RÖHM.

Improper use refers to the following:

- Use of the drill chuck to clamp unsuitable materials (compressible materials);
- Clamping and releasing the drill chuck with an aid.
- Use of the drill chuck with missing or damaged components.
- Use of the drill chuck as load-bearing equipment, workpiece chuck or holding device, e.g. gripper;
- Loading of the drill chuck beyond the defined limits;
- rotation with the workpiece inserted but not clamped;
- clamping of rotating workpieces with a great imbalance;
- Assembly of the drill chuck and accessory parts with incorrect torque (see **Disassembly/assembly of the drill chuck** [▶ 13]).
- Operation with modifications not approved by the manufacturer.



## 2.3 Obligations of the operator

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Before all work on and with the drill chuck, the operator is to ensure:

- that the operating instructions are available to the responsible personnel.
- that the responsible personnel are sufficiently qualified for their work.
  - This applies in particular to assembly, maintenance and repair.
- that the responsible personnel have read and understood the operating instructions.
  - RÖHM recommends that this be documented in a suitable form.
- that the drill chuck is in perfect working order.

## 2.4 Qualification of Operating and Specialist Personnel

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### Trained personnel

Trained personnel have been instructed in correct handling and possible dangers when using the drill chuck. In particular, the personnel must have been instructed in the safety equipment.

## 2.5 Personal Protective Equipment and Personnel Qualification

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When working on and with the drill chuck, personal protective equipment must be worn. The owner is responsible for providing personal protective equipment.

- Personal protective equipment must be in perfect condition when carrying out work. Defective protective equipment is to be replaced immediately.
- Observe information on personal protective equipment posted in the working area.



Wear safety goggles



Wear ear protection

Work on and with the drill chuck may only be carried out by qualified operating and specialist personnel (see **Qualification of Operating and Specialist Personnel** [▶ 9]).

## **2.6 General Dangers**

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When using the device there is a special potential of residual risks

- during assembly and set-up work,
- during operation and
- during maintenance and service work.

This potential risk cannot be completely eliminated considering the functional availability of the operating manual. Therefore, all individual regulations of this Operating manual are to be observed.

### **2.6.1 Procedure in the Event of Danger and Accidents**

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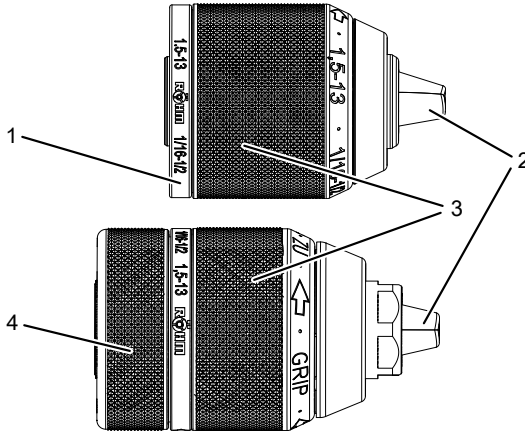
In the event of danger and accidents, it must be ensured that first aid measures can be taken immediately.

1. Remove the person involved from the danger zone and sit or lay the person down.
2. Call a doctor.
  - Do not make any changes to the accident site.
3. Administer first aid.
  - Stop any bleeding.
  - Cool burns.
4. Report all accidents to a superior.

### 3 Product Description

#### 3.1 About this drill chuck

The drill chuck EXTRA-RV is a manually operated drill chuck for use with hand-held corded drills and cordless drills with and without a spindle stop.



1	Disk	3	Clamping sleeve
2	Clamping jaws	4	Holding ring

For clamping/releasing, the clamping sleeve (3) is rotated in the direction shown on the disk (1) or the clamping sleeve. For locking, the clamping sleeve is rotated in the “ZU (CLOSED)” direction of rotation until further rotation is no longer possible. The clamping jaws (2) fix the clamped tool in place. In machines without a spindle stop, the holding ring (4) is used for holding during clamping/releasing.

#### 3.2 Technical data

Type	EXTRA-RV
Weight [g]	approx. 150 to 350
Clamping diameter [mm]	1 to 10 and 1.5 to 13
Interfaces to the machine spindle	9/16" – 18 UNF, 1/2" - 20 UNF, 3/8" – 24 UNF
Service life	10,000 interlocking switching cycles
Dimensions and further information	See packaging/catalogue

### 3.2.1 Environmental and operating conditions

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The drill chuck is designed for the following environmental and operating conditions:

Ambient medium	Air, non-corrosive/non-aggressive fluids and gases
Place of use	Indoors and outdoors. For further information, please refer to the operating manual of your hand-held power corded drill or cordless drill.
Relative humidity (at 40 °C)	< 100% Use in very humid conditions may lead to faster corrosion and may reduce the useful life.
Potentially explosive environments	No
Ambient temperature at place of use	- 25 °C to + 80 °C
Storage conditions	The drill chuck should not be subject to greater fluctuations in temperature and humidity during storage. Please also observe the information on the storage of your hand-held corded drill or cordless drill.

Pollution of the machine's surroundings caused by the machine itself is permitted. However, perfect operation of the drill chuck must be ensured and checked regularly. In addition, the drill chuck must be cleaned in case becomes excessively dirty.

## 4 Disassembly/assembly of the drill chuck

### WARNING



#### Starting machine during assembly.

Hand injuries.

- Prior to assembly, disconnect the power supply of the corded or cordless drill (pull the mains plug/remove the battery).

The following assembly of the drill chuck is a recommendation of RÖHM. The assembly must be carried out in accordance with the machine manufacturer's operating manual. If damage occurs, RÖHM shall not be liable.

### 4.1 With spindle stop

#### Disassemble the drill chuck

- Power supply disconnected (mains plug pulled/battery removed).
1. Open the clamping jaws of the drill chuck.
  2. If installed, screw out the retaining screw (left-hand thread) and remove it (Figure A, page 14).
  3. With the short shank forward, clamp an Allen key with a key width of 8 - 10 mm into the drill chuck (Figure B, page 14).
  4. Use an angle screwdriver for screws with hexagon socket to loosen the drill chuck and unscrew it from the machine spindle (right-hand thread) (Figure C, D page 14).
    - ✓ drill chuck disassembled.

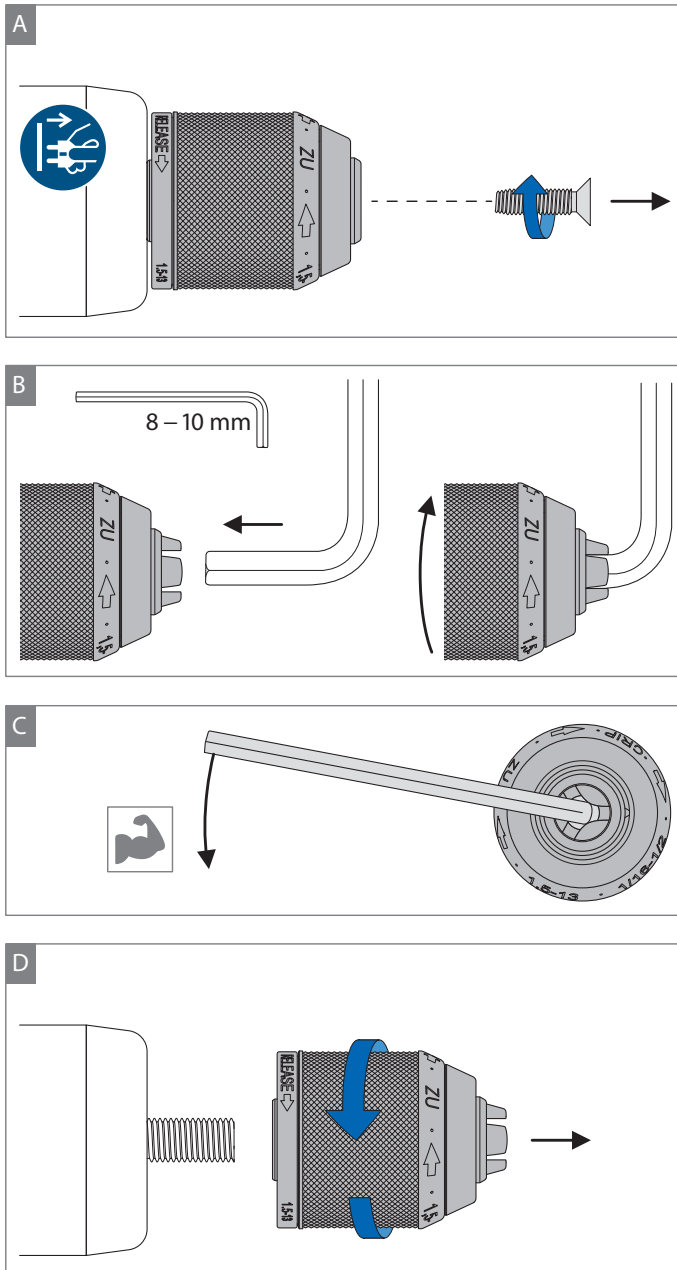


Fig. 1: Disassembling a drill chuck (with spindle stop)

## Assembling the drill chuck

- Power supply disconnected (mains plug pulled/battery removed).
- 1. Check the machine spindle and the new drill chuck for soiling and clean, if necessary.
  - In case of damage at the machine spindle or the drill chuck, the drill chuck must not be mounted.
- 2. Screw the drill chuck onto the machine spindle (right-hand thread). (Figure E, page 16)
- 3. Clamp a torque wrench with hexagon socket adapter into the drill chuck and tighten the drill chuck on the machine spindle (Figures F, G page 16). Observe the permissible torque according to the machine manufacturer.
- 4. Open the clamping jaws of the drill chuck and remove the torque wrench.
- 5. If installed, insert and tighten the retaining screw (left-hand thread) (Figure H, page 16). Observe the permissible torque according to the machine manufacturer.
  - ✓ drill chuck mounted.

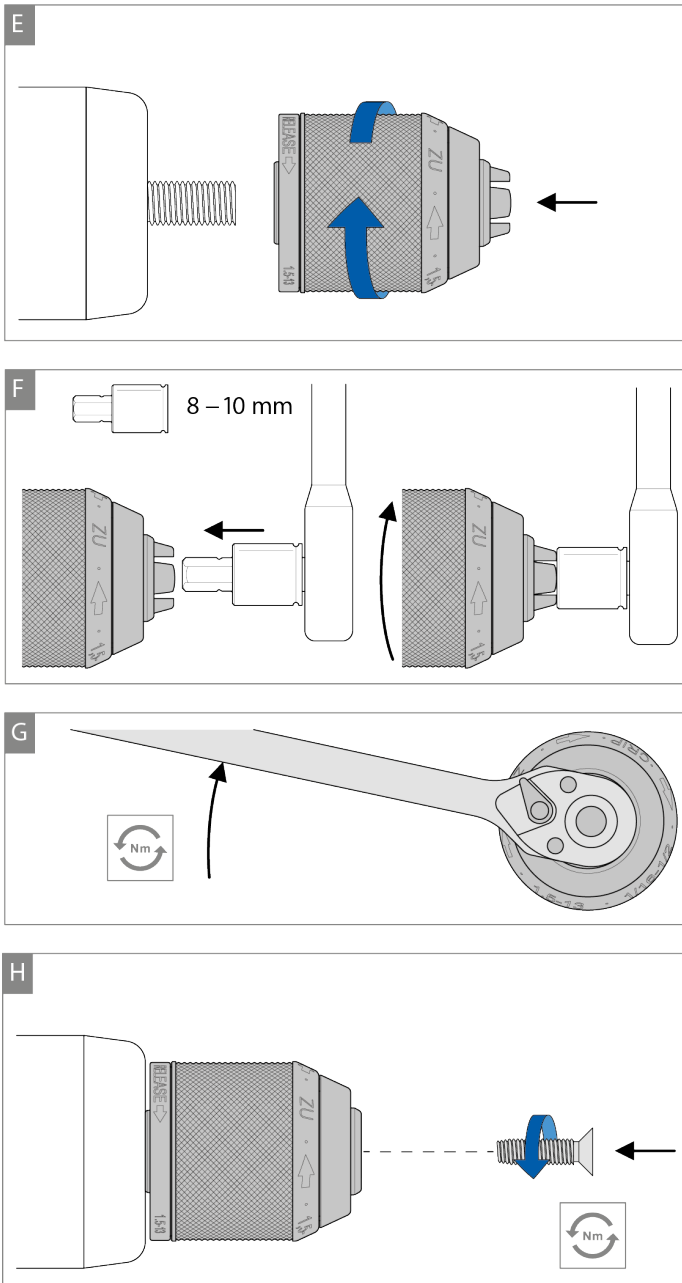


Fig. 2: Mounting a drill chuck (with spindle stop)



## **4.2 Without spindle stop**

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### **Disassemble the drill chuck**

- Power supply disconnected (mains plug pulled/battery removed).
  - 1. Open the clamping jaws of the drill chuck.
  - 2. If installed, screw out the retaining screw (left-hand thread) and remove it (Figure A, page 18).
  - 3. With the short shank forward, clamp an Allen key with a key width of 8 - 10 mm into the drill chuck.
  - 4. Hold the machine spindle with a spanner.
  - 5. Use an Allen key to loosen the drill chuck and unscrew it from the machine spindle (right-hand thread) (Figure B, C, page 18).
- ✓ drill chuck disassembled.

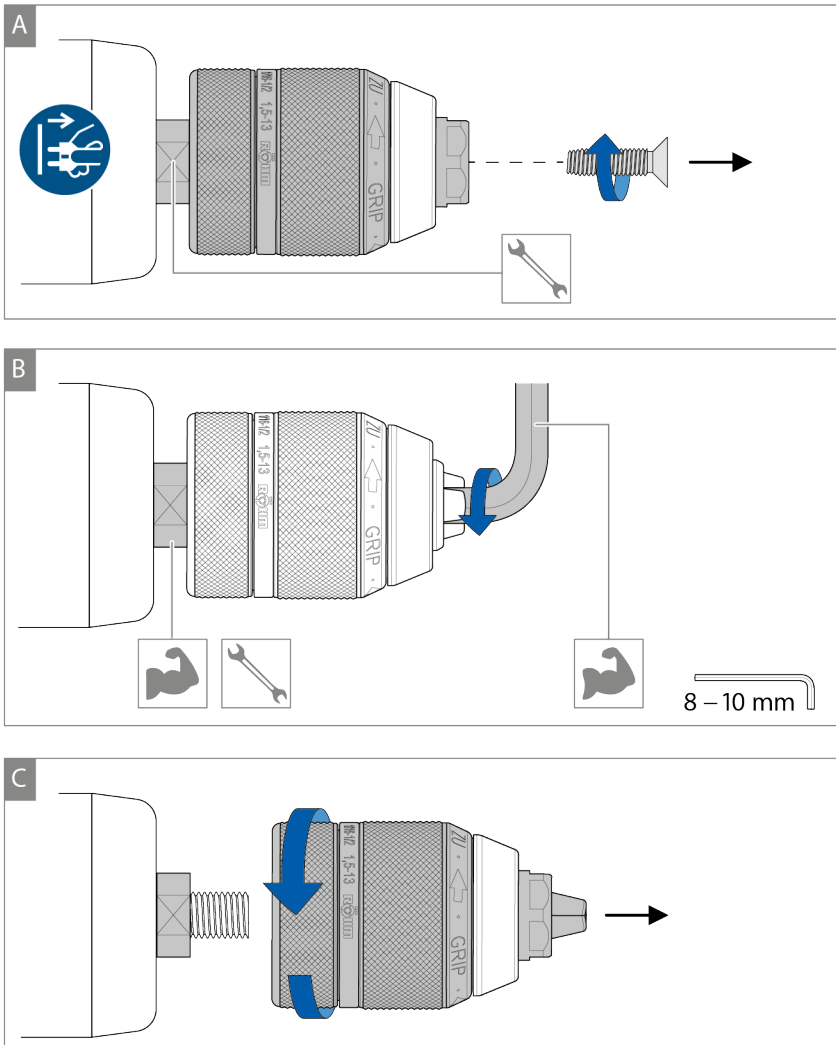


Fig. 3: Disassembling a drill chuck (without spindle stop)

## Assembling the drill chuck

- Power supply disconnected (mains plug pulled/battery removed).
- 1. Check the machine spindle and the drill chuck for contamination and clean, if necessary.
  - In case of damage at the machine spindle or the drill chuck, the drill chuck must not be mounted.
- 2. Screw the drill chuck onto the machine spindle (right-hand thread) (Figure A, page 20).
- 3. Hold the machine spindle with a spanner.
- 4. Clamp a torque wrench with hexagon socket adapter into the drill chuck (Figure B, page 20). Observe the permissible torque according to the machine manufacturer.
- 5. Open the clamping jaws of the drill chuck.
- 6. If installed, insert and tighten the retaining screw (left-hand thread). Observe the permissible torque according to the machine manufacturer (Figure C, page 20).
  - ✓ drill chuck mounted.

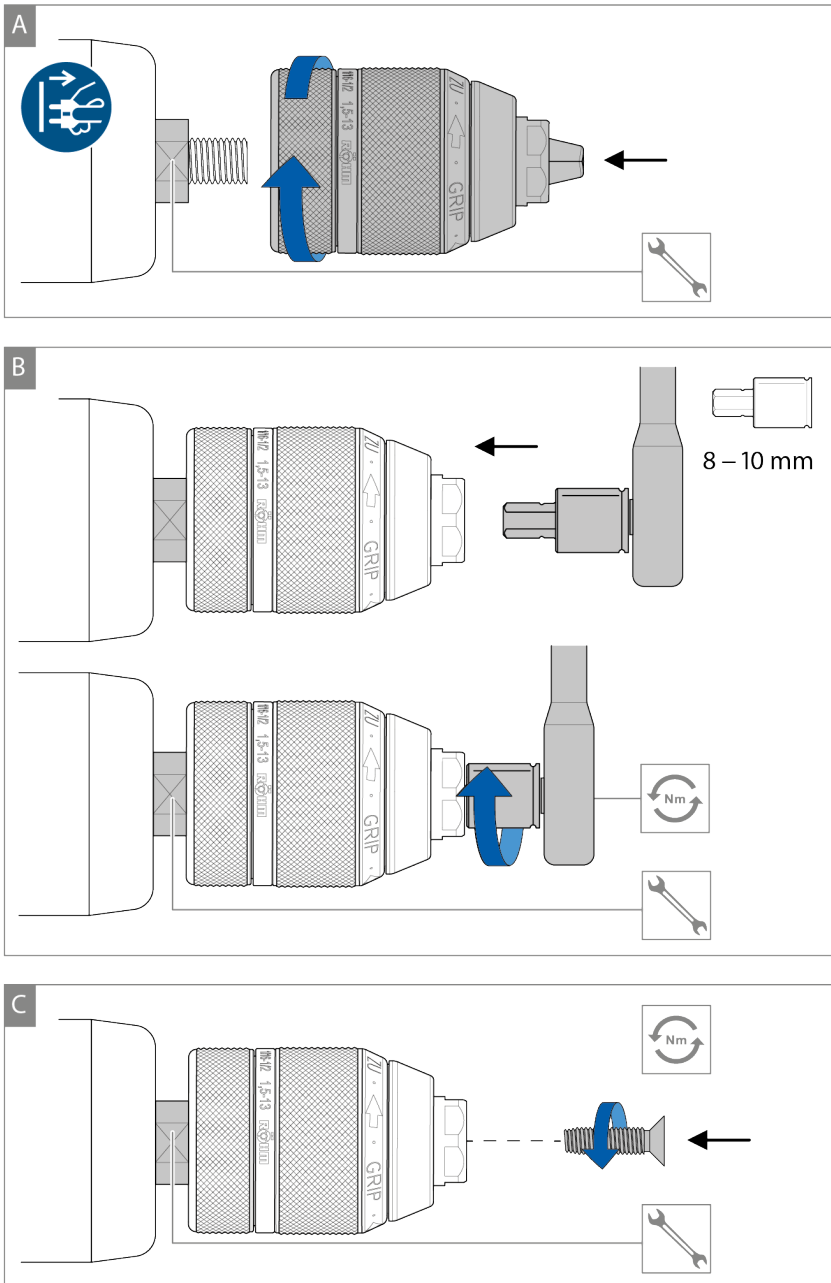




Fig. 4: Mounting a drill chuck (without spindle stop)

## 5 Operation of the drill chuck

<b>⚠ CAUTION</b>	
	<p><b>Do not hold the drill chuck while the machine is running.</b> Hand injuries.</p> <ul style="list-style-type: none"> <li>➤ For machines without spindle stop, only use drill chuck with holding ring.</li> <li>➤ Only open and close the drill chuck by hand; only clamp and release tools when the machine is at a standstill.</li> </ul>
<b>⚠ CAUTION</b>	
	<p><b>Danger of crushing when clamping the drill chuck.</b> Trapping of fingers.</p> <ul style="list-style-type: none"> <li>➤ Do not hold fingers between tool and clamping jaws or between the clamping jaws when clamping the drill chuck.</li> </ul>

### Clamping tools

1. To open, turn the drill chuck in the direction of the arrow “AUF (OPEN)”.
2. Push tool in to the stop.
3. For clamping, turn the drill chuck in the direction of the arrow “ZU (CLOSE)” until you hear a click.
4. Continue turning the drill chuck for locking until further clicking is no longer possible.

### Releasing tools

1. To open, turn the drill chuck in the direction of the arrow “AUF (OPEN)”.
2. Remove tool.

<b>⚠ CAUTION</b>	
	<p><b>Risk of injury due to ejection or falling out of tools during operation of the drill chuck.</b></p> <p>The drill chuck is already unlocked after the first click in “Auf (Open)” direction. During operation in this unlocked condition, unintentional opening of the drill chuck is possible.</p> <ul style="list-style-type: none"> <li>➤ Before each operation of the drill chuck, check the clamped tool for tight seat.</li> </ul>
<p>Click</p>	<p>Click Click Click</p>
<p>Click</p>	

Fig. 5: Clamping and releasing tools

Ensure central clamping of the tool and true running. If the tool is not clamped centrally, the clamping position must be corrected. In case of un-true running, the tool must not be used.

## 6 Maintenance

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The drill chuck is maintenance free.

## 7 Cleaning

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Remove coarse dirt from the drill chuck with a clean cloth or a brush.

## 8 Troubleshooting

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Fault	Possible cause	Measure
Tools are no longer sufficiently clamped or become loose during use.	The drill chuck is soiled. The drill chuck is worn or damaged.	Clean the drill chuck as far as possible. Replace drill chuck.

## 9 Disposal

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After final disassembly, the materials must be disposed of in an environmentally way in accordance with the valid regulations.

- Metal

Metals must be recycled. Disposal must be carried out in accordance with the applicable regulations and local regulations.

- Plastics

They must be disposed of in accordance with the valid regulations and the applicable local provisions. Obtain relevant information from the authorities.

## 10 Notes

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