



DST 10-CA

English



# **DST 10-CA**

**Original operating instructions**



# Original operating instructions

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# 1 Information about the operating instructions

## 1.1 About these operating instructions

- Read these operating instructions before the product is used or operated for the first time. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in these operating instructions and on the product.
- Always keep the operating instructions with the product and make sure that the product is accompanied by these operating instructions only, when the product is given to other persons.

## 1.2 Explanation of symbols used

### 1.2.1 Warnings

Warnings alert persons to hazards that occur when handling or using the product. The following signal words are used:

#### **DANGER**

#### **DANGER !**

- ▶ Draws attention to imminent danger that will lead to serious personal injury or fatality.

#### **WARNING**

#### **WARNING !**

- ▶ Draws attention to a potential threat of danger that can lead to serious injury or fatality.

#### **CAUTION**

#### **CAUTION !**

- ▶ Draws attention to a potentially dangerous situation that could lead to personal injury or damage to the equipment or other property.

### 1.2.2 Symbols in the operating instructions

The following symbols are used in these operating instructions:

	Comply with the operating instructions
	Instructions for use and other useful information
	Dealing with recyclable materials
	Do not dispose of electric equipment and batteries as household waste

### 1.2.3 Symbols in illustrations

The following symbols are used in illustrations:

<b>2</b>	These numbers refer to the illustrations at the beginning of these operating instructions.
3	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text.
⑪	Item reference numbers are used in the <b>overview illustration</b> and refer to the numbers used in the key in the <b>product overview</b> section.





These characters are intended to specifically draw your attention to certain points when handling the product.

### 1.3 Product-dependent symbols

#### 1.3.1 General symbols

The following symbols are used on the product:

$n_0$	Rated speed under no load
/min	Revolutions per minute
$\varnothing$	Diameter
	Saw blade direction of rotation (arrow on the blade guard holder)
	Suspension point provided for lifting by crane

#### 1.3.2 Obligation symbols

The following obligation symbols are used on the product:

	Read the operating instructions
	Wear eye protection
	Wear ear protection
	Wear protective gloves
	Wear safety shoes

#### 1.3.3 Prohibition symbols

The following prohibition symbols are used on the product:

	Lifting by crane prohibited
	Use of high-pressure cleaning equipment prohibited

#### 1.3.4 Hazard symbols

The following hazard symbols are used on the product:

	Warning: risk of cutting injury
--	---------------------------------

### 1.4 Stickers

#### Stickers on the product

	<p><b>On the transport trolley</b> Using the transport trolley</p>
--	--



	<b>On the saw head</b> Maximum water pressure and action to be taken in the event of risk of frost
	<b>On the saw head</b> The machine is equipped with the <b>Cut Assist</b> function.

## 1.5 Product information

Hilti products are designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be specifically informed about the possible hazards. The product and its ancillary equipment can present hazards if used incorrectly by untrained personnel or if used not in accordance with the intended use.

The type designation and serial number are printed on the rating plate.

- ▶ Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to inquire about the product.

### Product information

Electric wall saw	DST 10-CA
Generation	02
Serial no.	

## 2 Safety

### 2.1 General safety rules (acc. to UL 745-1)

**WARNING! Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

**SAVE THESE INSTRUCTIONS.**

#### Work area

- ▶ **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- ▶ **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
- ▶ **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

#### Electrical safety

- ▶ **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- ▶ **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- ▶ **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.



- ▶ **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These cords are rated for outdoor use and reduce the risk of electric shock.

### Personal safety

- ▶ **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- ▶ **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- ▶ **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
- ▶ **Remove adjusting keys or switches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- ▶ **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

### Tool use and care

- ▶ **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- ▶ **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- ▶ **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- ▶ **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- ▶ **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- ▶ **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- ▶ **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

### Service

- ▶ **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- ▶ **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.



## 2.2 General power tool safety warnings

**⚠ WARNING** Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.**

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### Work area safety

- ▶ **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- ▶ **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- ▶ **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

### Electrical safety

- ▶ **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- ▶ **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **Do not abuse the cord. 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.
- ▶ **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- ▶ **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

### Personal safety

- ▶ **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- ▶ **Prevent unintentional starting. Ensure 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 energising power tools that have the switch on invites accidents.
- ▶ **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- ▶ **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.



- ▶ **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- ▶ **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

### **Power tool use and care**

- ▶ **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- ▶ **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- ▶ **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- ▶ **Store idle power tools out of the 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.
- ▶ **Maintain power tools and accessories. 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.** Many accidents are caused by poorly maintained power tools.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- ▶ **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

### **Service**

- ▶ **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

## **2.3 Additional safety instructions for wall saws**

- ▶ **Operate power tool by insulated grasping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** A cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- ▶ **Wear ear protectors when diamond sawing.** Exposure to noise can cause hearing loss.
- ▶ **When sawing through the workpiece, ensure to protect persons and the work area on the other side.** The diamond wheel may protrude through the workpiece.
- ▶ **Never leave the wall saw unattended during operation.** This reduces the risk of the diamond wheel jamming, which could cause loss of control or damage to the wall saw.
- ▶ **Ensure that the method of securing the track guiding system to the workpiece is capable of holding and restraining the machine during use.** If the workpiece



is weak or porous, the anchor(s) can pull out, causing the track guiding system to release from the workpiece.

- ▶ **If the diamond wheel becomes jammed, stop applying feed force and turn off the tool. Investigate and take corrective action to eliminate the cause of the diamond wheel jamming.** Attempting to continue operation with a stalled diamond wheel can lead to loss of control or damage to the wall saw.
- ▶ Before starting, make sure that the AC supply voltage, AC supply frequency and fuse rating correspond to the specification given on the type identification plate.
- ▶ Check the machine's electric supply cable at regular intervals and have it replaced by a qualified electrical specialist if found to be damaged.
- ▶ Check extension cords at regular intervals and replace them if found to be damaged.
- ▶ If the electric supply cable to the saw is damaged while working, do not touch the supply cable or the saw. Switch the wall saw off at the on/off switch or press the **EMERGENCY STOP** button and unplug the supply cord from the power outlet.
- ▶ Use only extension cables of a type approved for the application and with conductors of adequate gauge.
- ▶ Do not work with rolled-up extension cables. A rolled-up cable may cause a drop in power and may result in the cable overheating.
- ▶ Disconnect the power cable before beginning cleaning and maintenance work or in the event of an interruption between periods of operation.
- ▶ Drilling and sawing work on buildings and other structures may influence the statics of the structure, especially when steel reinforcing bars and/or load-bearing components are cut through. Approval must always be obtained from the site engineer or site management before beginning drilling and sawing work.
- ▶ Make sure that the workplace is adequately ventilated. Exposure to dust at a poorly ventilated workplace may present a health risk.
- ▶ Install suitable supports to ensure that the part cut out does not move. Blocks slipping or falling when cut free could cause serious injury and/or damage.
- ▶ Install suitable supports to ensure that the structure retains its stability while cutting work is in progress and also after removal of the part cut away.
- ▶ In cooperation with the site engineer or architect, check to ensure that no gas, water, electricity or other supply lines are located in the cutting area. Supply lines of these kinds present a serious risk of accident if damaged during the course of the work. External metal parts of the machine could become live if, for example, an electric supply cable is damaged.
- ▶ Avoid skin contact with drilling and sawing slurry. In the event of contact with the eyes, rinse immediately with clean water and consult a doctor if necessary.
- ▶ Dust produced by grinding, sanding, cutting and drilling can contain dangerous chemicals. Some examples are: lead or lead-based paints; brick, concrete and other masonry products, natural stone and other products containing silicates; certain types of wood, such as oak, beech and chemically treated wood; asbestos or materials that contain asbestos. Determine the exposure of the operator and bystanders by means of the hazard classification of the materials to be worked. Implement the necessary measures to restrict exposure to a safe level, for example by the use of a dust collection system or by the wearing of suitable respiratory protection. The general measures for reducing exposure include:
  - ▶ working in an area that is well ventilated,
  - ▶ avoidance of prolonged contact with dust,
  - ▶ directing dust away from the face and body,
  - ▶ wearing protective clothing and washing exposed areas of the skin with water and soap.



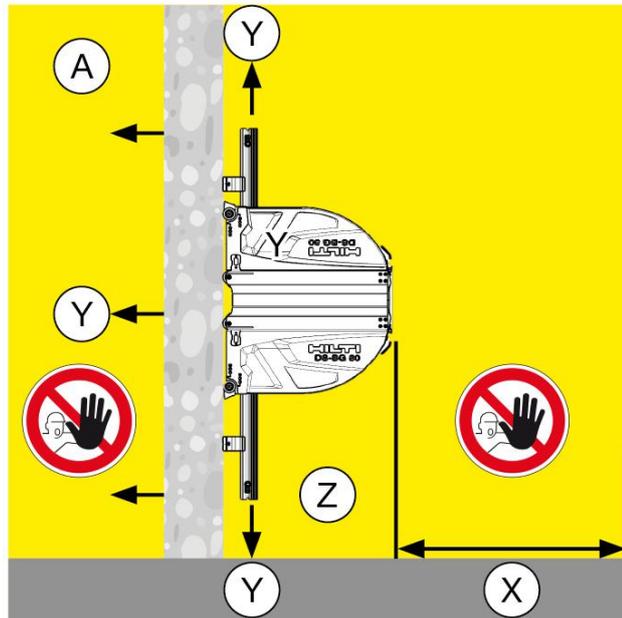
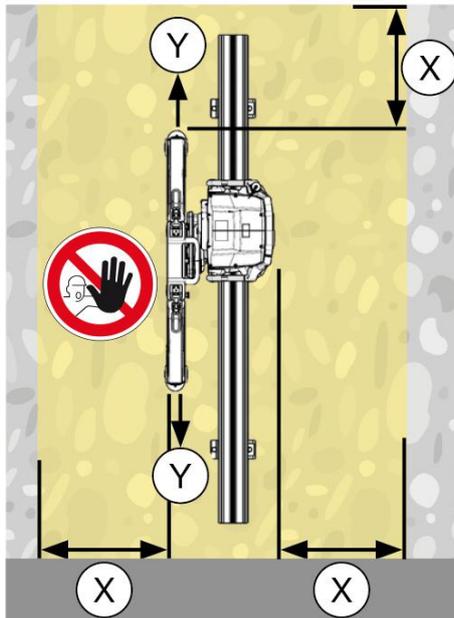
- ▶ When working in dusty conditions, use a suitable dust removal system whenever possible. Dust from materials such as concrete, masonry and stone containing quartz, as well as minerals and metals, may present health risks. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory or other diseases to the operator or bystanders.
- ▶ Always lead cables and hoses flat on the ground or floor away from the machine. This will help to reduce the risk of tripping while working.
- ▶ Keep cables and hoses away from rotating parts.
- ▶ Make sure that the cooling water used is drained away or collected (vacuum) in a suitably controlled manner. Water that's allowed to flow away or spray around in an uncontrolled manner can lead to damage or accidents. Also remember that water could drain away into internal, hidden cavities.
- ▶ Don't work from a ladder.

## 2.4 Safety measures at the danger areas

### WARNING

**A risk is presented by moving parts, by falling objects or debris that may fly off!** Falling or flying objects could cause serious injury.

- ▶ Make sure that the area is cordoned off and that warnings to third parties are displayed.
- ▶ Make sure that no one is present in the area immediately beneath the workplace while work is in progress.

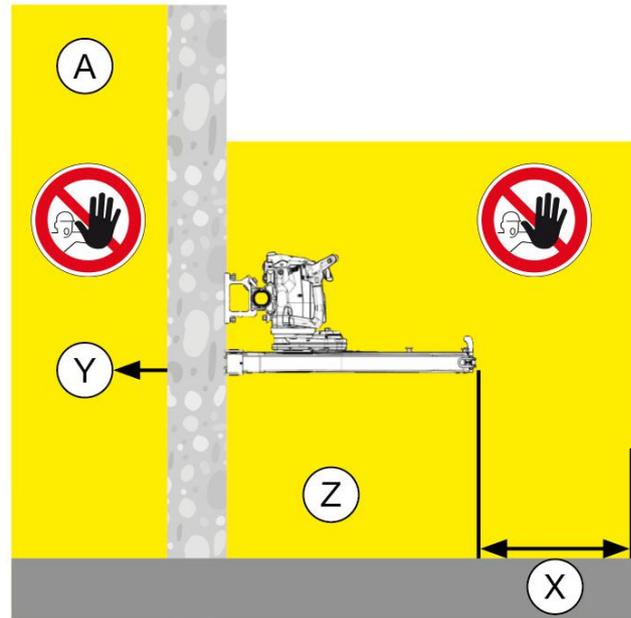
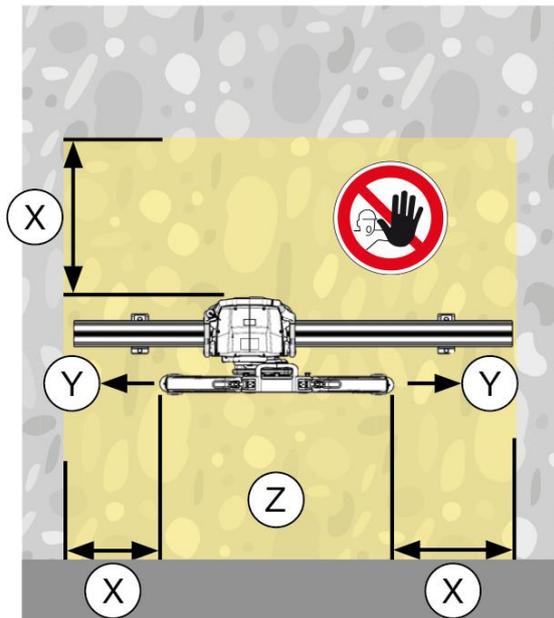


#### View: Vertical cut in the wall

- |   |   |
|---|---|
| <p>X Keep a safe distance of at least 1.5 m away from all moving parts.</p> <p>Y Never stand in line with the rotating saw blade.</p> | <p>Z Never stand below the working area</p> <p>A Never stand on the other side of the working area.</p> |
|---|---|

Secure the working area. Make sure that persons cannot be injured and property cannot be damaged by falling, flying or moving parts.





### View: Horizontal cut in the wall

- X Keep a safe distance of at least 1.5 m away from all moving parts.
- Y Never stand in line with the rotating saw blade.

- Z Never stand below the working area
- A Never stand on the other side of the working area.

Safety measures must also be implemented in the area not directly visible to the operator, i.e. at the rear of objects being cut.

Never loiter in a position directly below the equipment.

## 2.5 Safety during operation

- ▶ Check the flange and saw blade for damage and degrease the blade holder each time before putting the saw into operation.
- ▶ Begin work with the saw only when the track supports are securely and rigidly fastened to a solid surface and when the wall saw system has been correctly installed (all screws tightened securely, the saw head locked securely on the track and the end stops correctly installed).
- ▶ Use only suitable fastening materials of adequate dimensions to fasten the track supports and to secure the parts of the object being cut.
- ▶ As a basic rule, never stand directly in line with the rotating saw blade.
- ▶ Always use the appropriate, correctly fitting blade guard (type **BG** for normal cutting, type **BGFT** for flush cutting). For dry cutting, use the blade guard for dry cutting with dust extractor.
- ▶ When making corner cuts that require use of a partly open blade guard, operate the machine from the side at which the blade guard is closed, i.e. from the protected side. When necessary, the operator must implement suitable additional safety measures.
- ▶ Before entering the danger area, switch the wall saw off at the on/off switch or press the **EMERGENCY STOP** button. Persons may enter the danger area only after the blade drive unit has been switched off and the blade has come to a standstill.
- ▶ Adhere to the permissible drive unit parameters and recommended guide values for blade rotation speed and advance speed while sawing.
- ▶ Use only saw blades that comply with the requirements of EN 13236. Observe the information on the diameter of the arbor hole and the maximum saw blade disc thickness in the section headed **Technical data**. Mount the blades the right way



round (observe correct direction of rotation). **Use of saw blades of a size outside the specified diameter range is prohibited!**

- ▶ Always wear working gloves when touching the saw blade. The saw blade is sharp and can get hot.
- ▶ Stay alert at all times while working. Monitor the progress of the sawing operation and keep an eye on the cooling water system and the area surrounding the workplace. Do not operate the machine if your full attention is not on the job.

## 2.6 Safety during transport

- ▶ Transport only tracks of length up to max. 1.5 m on the transport trolley. The higher center of gravity of tracks longer than 1.5 m would increase the risk of the transport trolley tipping over.
- ▶ Use the transport trolley only to transport the saw system and its specified accessories. Do not use the trolley to transport other items or materials.
- ▶ Before transporting, make sure that all removable items of equipment are securely fastened to the transport trolley or locked in position.
- ▶ Avoid lifting and carrying heavy objects. Use suitable lifting equipment and means of transport and share heavy loads between several people as necessary.
- ▶ Use the grips provided for transportation. Keep the grips dry, clean and free from oil and grease.
- ▶ Bear in mind that the transport trolley can topple. Stand the transport trolley only on a solid, level surface.
- ▶ Secure the saw system and its components to prevent inadvertent movement or falling over during transportation.
- ▶ Bear in mind that only tested and approved lifting gear correctly secured to the points provided for the purpose may be used for crane-lifting the transport trolley.
- ▶ Never loiter beneath a load suspended by a crane or lifting equipment.



### 3 Description

#### 3.1 Product overview



- |   |                            |   |  |
|---|----------------------------|---|--|
| ① | Saw head                   | ⑧ | Toolbox  |
| ② | Remote control unit        | ⑨ | Saw blade  |
| ③ | Transport trolley          | ⑩ | Inner flange (saw blade: normal cutting)   |
| ④ | Blade guard center section | ⑪ | Outer flange (saw blade: normal cutting and dry cutting with clamping screw M12×25 10.9) |
| ⑤ | Guide track                |   |  |
| ⑥ | Blade guard side section   |   |  |
| ⑦ | Accessories box            |   |  |



- ⑫ Inner flange (saw blade: flush cutting)  
with countersunk-head screws (6 of)

- ⑬ Inner flange (saw blade: dry cutting)

### 3.2 Intended use

The product described is a water-cooled, electrically powered wall saw with wireless remote control. It is designed for cutting lightly to medium-heavily reinforced concrete as well as stone or masonry structures using diamond-tipped saw blades with a diameter of between 600 and 1200 mm.

In addition to these operating instructions, the operating instructions for the remote control unit must also be observed.

- Diamond-tipped saw blades with a diameter up to 1200 mm must be approved for a cutting speed of at least 63 m/s.
- Use only clean tap water as a dust-binding agent and to cool the blade and the motor.
- The product may be operated only when connected to an electric supply and water supply that provide an AC supply voltage, electric current rating, AC frequency, fuse rating and water pressure in compliance with the technical specifications given on the rating plate or in these operating instructions.
- Overhead work is permissible only when additional safety measures are implemented. No-one is permitted underneath the saw when overhead work is undertaken.
- Before carrying out work, consult your **Hilti** sales adviser.
- Up to a maximum saw blade diameter of 650 mm, with the accessories for dry cutting the saw can also be used for dry-cutting masonry and lightly reinforced concrete.

### 3.3 Possible misuse

- Do not use saw blades with a diameter greater than 1200 mm.
- Work in the correct speed range.
- Do not use the saw to cut materials which, when being worked on, can give off hazardous and/or flammable dust or vapors.
- Work only with guide tracks connected by means of the track connector designed for the purpose.

### 3.4 Items supplied DST 10-CA

Other system products approved for use with this product can be found at your local **Hilti Store** or at: [www.hilti.group](http://www.hilti.group)

Qty.	Designation	Qty.	Designation
1×	Saw head	1×	Saw head operating instructions
1×	Remote control unit	1×	Remote control unit operating instructions
1×	Tool set	1×	Transport trolley
1×	Tapered connector	1×	Transport box
4×	Rail supports	1×	blade guard <b>DS-BG80</b> (up to Ø 900 mm/34 in)



Qty.	Designation	Qty.	Designation
3×	eccentric pin	1×	flush-cutting flange
1×	Standard flange		

### 3.5 Accessories

#### Accessories for the rail system

Item number	Designation	Description
284808	DS-R100-L guide rail	Saw head guide, long 100 cm
284809	DS-R200-L guide rail	Saw head guide, long 200 cm
284810	DS-R230-L guide rail	Saw head guide, long 230 cm
371703	DS-ES-L end stop	Safety stop for saw head
207137	DS-CP-ML Rail clamp	Fastening rails
284814	DS-RF-L rail support	Fastening rails
284816	DS-RFP-L rail support	For cutting at an angle or on stairs

#### Accessories for the blade guard for normal cutting

Item number	Designation	Description
238000	DS-BG65 saw blade guard	Blade guard, saw blades up to $\varnothing \leq 650$ mm
2051935	DST-BG80 saw blade guard, small	Blade guard, saw blades up to $\varnothing 600$ mm ... 800 mm
238002	DS-BG80 middle section	Blade guard, saw blades up to $\varnothing 600$ mm ... 900 mm
238003	DS-BG80 side section, set	Blade guard, saw blades up to $\varnothing 600$ mm ... 900 mm

#### Accessories for the flush-cutting blade guard

Item number	Designation	Description
2135201	DS-BGFT80 middle section	Saw blade guard for flush cutting, $\varnothing 600$ mm ... 900 mm
2135202	DS-BGFT80 side section, set	Saw blade guard for flush cutting, $\varnothing 600$ mm ... 900 mm
2135203	DS-BGFT120 middle section	Saw blade guard for flush cutting 1,000 mm ... 1,200 mm
2135204	DS-BGFT120 side section, set	Saw blade guard for flush cutting 1,000 mm ... 1,200 mm

#### Accessories for flanges

Item number	Designation	Description
2328063	DST-FCF 60-110	flush-cutting flange
2330150	DST-FCF 1 3/8''/4	Flush-cutting flange (USA version)



Item number	Designation	Description
2330128	DST-CF 60 6kt -45	Normal-cutting flange
2330129	DST-CF 1 3/8"	Normal-cutting flange (USA version)
221343	Hex screw M12×25 10.9	Clamping screw (inner flange, normal cut)

#### Accessories for dry cutting

Item number	Designation	Description
2328064	DST-CF 60 6kt -45	Dry-cutting flange
2330151	DST-CF 1 3/8" 6kt	Dry-cutting flange (USA version)
2330152	DS BG65 dry	Blade guard (dry cutting)
2330153	Dust removal hood (set) 1.1-2.0	Dry-cutting set

## 4 Technical data

### 4.1 Saw head

Rated values guaranteed at an ambient temperature of max. 18 °C and at an altitude of max. 2000 m above sea level.

<b>Weight in accordance with EPTA-Procedure 01</b>	33.7 kg
<b>Rated speed</b>	118 /min ... 940 /min
<b>AC frequency</b>	50 Hz ... 60 Hz
<b>Mains connection (phase requirements)</b>	3~ + PE
<b>Mains fuse rating</b>	16 A
<b>Generator power requirements</b>	≥ 20 kVA
<b>Leakage current</b>	≤ 10 mA
<b>Storage temperature</b>	-25 °C ... 63 °C
<b>Cooling water temperature</b>	4 °C ... 25 °C
<b>Protection class in accordance with IEC 60529</b>	IP 65

### 4.2 Saw blade

<b>Permissible saw blade diameter</b>	600 mm ... 1,200 mm
<b>Maximum blade diameter for guide cut</b>	800 mm
<b>Maximum cutting depth</b>	530 mm
<b>Arbor hole diameter</b>	60 mm
<b>Maximum saw blade disc thickness</b>	5 mm

### 4.3 Transport trolley

<b>Dimensions (L×W×H)</b>	1,100 mm × 690 mm × 1,180 mm
---------------------------	------------------------------



#### 4.4 Noise information in accordance with EN 15027

The sound pressure and vibration values given in these instructions have been measured in accordance with a standardized test and may be used to compare one power tool with another.

Sound emissions in operation can vary up to 10 dB(A) from the stated measured values, depending on the type of diamond saw blade used and the operating conditions. Adapt ear protection and other noise-control measures to the specific operating conditions.

**i** The noise pressure level can be reduced by approx. 10 dB(A) when noise-reducing (silent) saw blades are used.

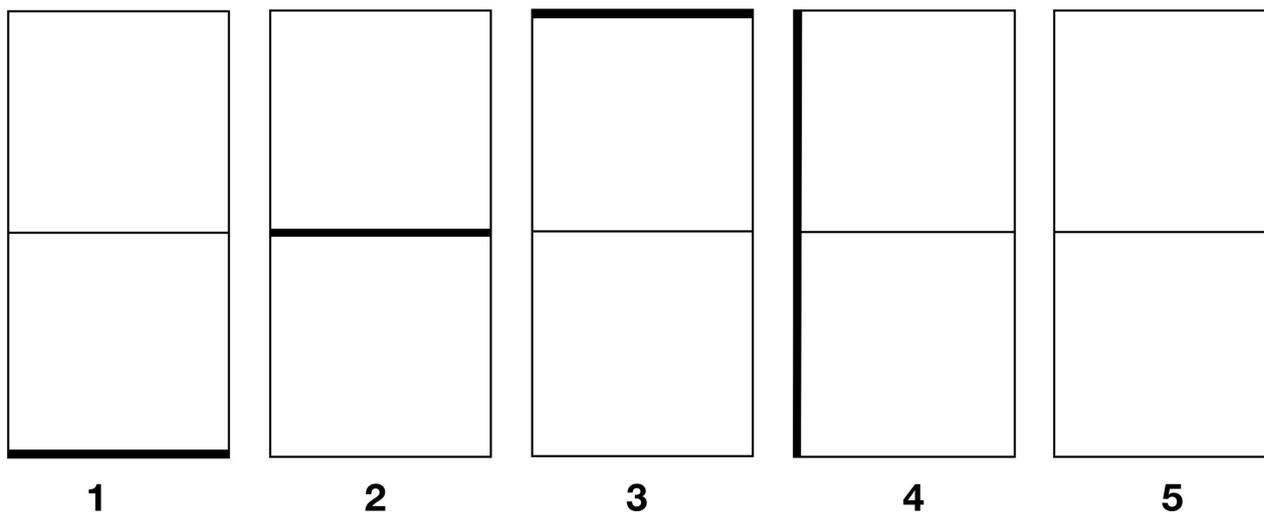
	DST 10-CA
Sound power level ( $L_{WA}$ )	114.5 dB(A)
Sound pressure level ( $L_{pA}$ )	96.9 dB(A)
Sound level uncertainty ( $K_{pA}$ ) (EN 15027)	3 dB(A)

## 5 Planning

### 5.1 Cutting sequence

- ▶ Make dividing cuts to adjust the maximum size and weight of the concrete blocks to the prevailing conditions (i.e. the lifting capacity of the crane or the maximum permissible floor loading capacity and size of doors).

**i** A rational cutting sequence can be achieved by appropriate spacing of the track supports.

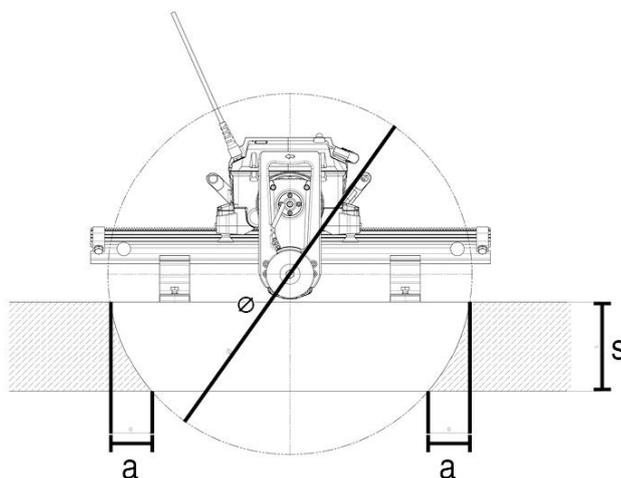


The illustration shows an example of the cutting sequence for a door opening with a dividing cut

- ▶ Secure the parts to be cut away so that they cannot move. Movement of the parts being cut can cause the saw blade to jam, presenting a risk of injury!



## 5.2 Overcut or uncut distances

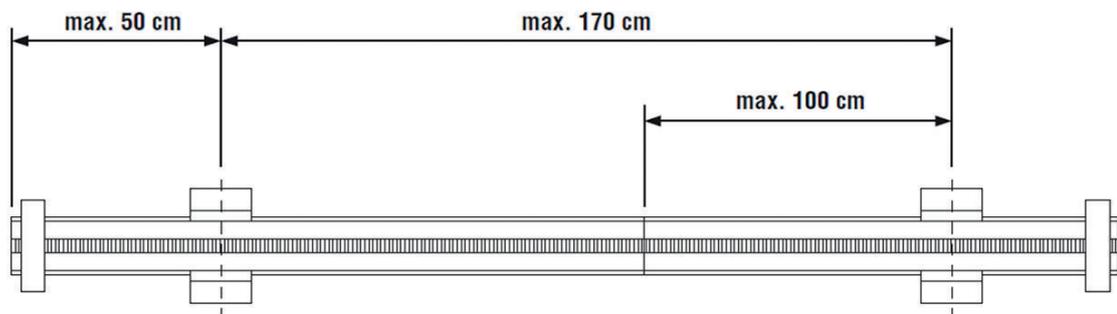


a [mm]						
s	with saw blade diameter (ø)					
	660 mm	710 mm	810 mm	910 mm	1,010 mm	1,210 mm
120 mm	53 mm	48 mm	41 mm	36 mm	32 mm	27 mm
130 mm	60 mm	55 mm	47 mm	41 mm	36 mm	30 mm
140 mm	68 mm	62 mm	53 mm	46 mm	41 mm	34 mm
150 mm	77 mm	69 mm	59 mm	51 mm	46 mm	37 mm
160 mm	86 mm	78 mm	66 mm	57 mm	51 mm	41 mm
170 mm	96 mm	86 mm	73 mm	63 mm	56 mm	46 mm
180 mm	107 mm	96 mm	80 mm	69 mm	61 mm	50 mm
190 mm	119 mm	106 mm	88 mm	76 mm	67 mm	55 mm
200 mm	133 mm	118 mm	97 mm	83 mm	73 mm	60 mm
210 mm	148 mm	130 mm	106 mm	91 mm	80 mm	65 mm
220 mm	165 mm	143 mm	116 mm	99 mm	87 mm	70 mm
230 mm	185 mm	158 mm	127 mm	107 mm	94 mm	76 mm
240 mm	209 mm	175 mm	138 mm	117 mm	101 mm	81 mm
250 mm	242 mm	194 mm	151 mm	126 mm	109 mm	87 mm
260 mm	322 mm	217 mm	164 mm	136 mm	118 mm	94 mm
270 mm		246 mm	179 mm	147 mm	127 mm	101 mm
280 mm		289 mm	195 mm	159 mm	136 mm	107 mm
290 mm			213 mm	171 mm	146 mm	115 mm
300 mm			234 mm	185 mm	156 mm	122 mm
310 mm			259 mm	199 mm	168 mm	130 mm
320 mm			290 mm	215 mm	179 mm	138 mm
330 mm			335 mm	233 mm	192 mm	147 mm
340 mm				252 mm	205 mm	156 mm
350 mm				275 mm	220 mm	165 mm
360 mm				301 mm	235 mm	175 mm
370 mm				334 mm	252 mm	186 mm
380 mm				382 mm	271 mm	197 mm



a [mm]						
390 mm					292 mm	208 mm
400 mm					315 mm	220 mm
410 mm					343 mm	233 mm
420 mm					378 mm	246 mm
430 mm					429 mm	260 mm
440 mm						275 mm
450 mm						292 mm
460 mm						309 mm
470 mm						328 mm
480 mm						349 mm
490 mm						372 mm
500 mm						398 mm
510 mm						429 mm
520 mm						467 mm
530 mm						523 mm

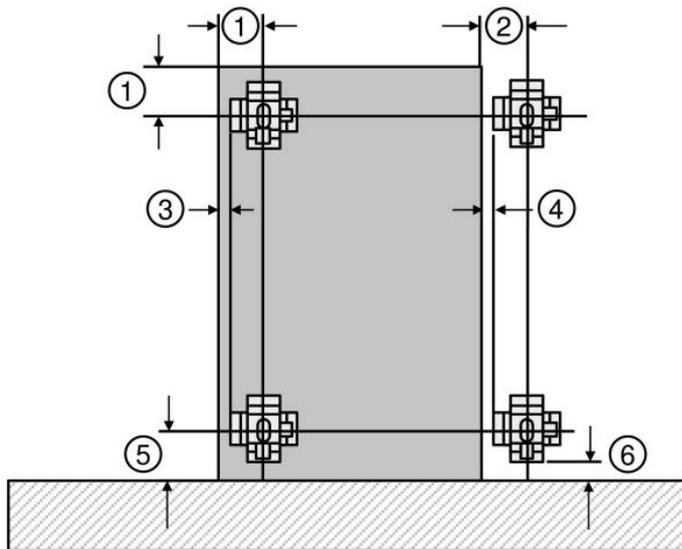
### 5.3 Distance between rail supports



- a Max. distance between 2 track supports = 66.9 in (170 cm)
  - b Max. track end projection = 19.7 in (50 cm)
  - c Max. distance between track support and track joint = 39.4 in (100 cm)
- The maximum permissible distance between rail supports, as shown in the illustration, must be observed.



## 5.4 Position of holes drilled for fastening the rail supports



- |   |   |
|---|---|
| <p>① Distance between anchors with track support positioned on the inside = 9.3 in (235 mm)</p> <p>② Distance between anchors with track support positioned on the outside = 9.1 in (230 mm)</p> <p>③ Distance between track supports with support positioned on the inside = 5.7 in (144 mm)</p> | <p>④ Distance between track supports with support positioned on the outside = 5.5 in (139 mm)</p> <p>⑤ Distance between anchors for flush-cutting = 10.8 in (274 mm)</p> <p>⑥ Distance between track supports for flush-cutting = 7.2 in (183 mm)</p> |
|---|---|

- ▶ The holes drilled for fastening the rail supports should be positioned as shown in the above illustration.

## 5.5 Power source

### WARNING

**Risk of electric shock!** Severe injury and burns can result if any attempt is made to operate the tool without an earth/ground conductor and ground fault circuit interrupter correctly connected.

- ▶ Irrespective of whether mains power or generator power is used, always make sure that an earth/ground conductor and ground fault circuit interrupter are present in the power supply and that these are correctly connected.
- ▶ Do not use the product unless these safety measures are in place and fully operational.

### Fuse rating

Make sure that the electric supply installation on the jobsite (3 x 480 ... V) has the following fuse rating:

Technical data	
Mains fuse rating	16 A
Ground fault circuit interrupter (GFCI)	Type A, 30 mA



## Pin assignment 3~ + N + PE

	X	Phase 1
	Y	Phase 2
	Z	Phase 3
	G	Earth / ground conductor

## 5.6 Use of extension cables

### WARNING

**A damaged supply cord presents a hazard!** Do not touch the supply cord or extension cord if damaged while working. Disconnect the supply cord plug from the power outlet.

- ▶ Check the appliance's supply cord at regular intervals and have it replaced by a qualified specialist if found to be damaged.
- ▶ Use only extension cables of a type approved for the application and with conductors of adequate gauge (cross section). The machine may otherwise suffer a drop in performance and the extension cable may overheat.

### Recommended minimum conductor cross-sections and maximum power cord lengths

Extension cables	AWG 16	AWG 14	AWG 12	AWG 10
Extension cable conductor cross-section	1,3 mm <sup>2</sup>	2,1 mm <sup>2</sup>	3.3 mm <sup>2</sup>	5.3 mm <sup>2</sup>
Extension cable conductor cross-section	2,58 kcmil	4.11 kcmil	6.53 kcmil	10.4 kcmil
Extension cable length	≤40 m	>40 ... ≤70 m	>70 ... ≤110 m	>110 ... ≤180 m
Extension cable length	≤130 ft	>130 ... ≤230 ft	>230 ... ≤360 ft	>360 ... ≤590 ft

The data apply at ambient temperatures below 30 °C (86 °F).

- ▶ Check to ensure that an extension cable is fully unrolled before the saw is put into operation.
- ▶ Check the extension cable for damage at regular intervals.

## 5.7 Cooling water supply

At a cooling-water temperature of 77 °F (25 °C), a flow rate of at least 0.5 liq gal<sub>US</sub>/min (2 l/min) is required to cool the saw head.

The power of the wall saw will be reduced in the event of inadequate cooling. If this is not sufficient, the wall saw's automatic cut-out will be activated.

- ▶ Use only clean cooling water.
- ▶ Do not use salt water, i.e. sea water.
- ▶ Where pressure in the water supply line is low, a non-return valve should be fitted in order to prevent dirty water finding its way into the water supply.
- ▶ Use a pressure reduction valve if the supply line pressure is greater than 90 psi (6 bar).



## 6 Assembling the saw system

### 6.1 Installing the anchors for the track supports

#### WARNING

**Inadequate fastening presents a hazard!** A basic prerequisite for safe and efficient use of the saw system is that it must be secured using a means of fastening suitable for the applicable material and of adequate dimensions.

- ▶ Use a fastening system suitable for the material on which you are working and observe the fastening system manufacturer's instructions.
- ▶ For fastening on uncracked concrete use **HKD-D M12** flush anchors or anchors of an equivalent type with a minimum tensile loading capacity of 8.5 kN. Note that the **HKD-D M12** flush anchor is not suitable for use in masonry, man-made or natural stone and similar materials.
- ▶ Please contact **Hilti** Technical Service if you have any questions about secure fastening.

The following instructions apply to use of the **HKD-D M12** flush anchor. If you use a different type of anchor, please follow the anchor manufacturer's instructions.

1. Mark the positions where the anchor holes are to be drilled. Attention must be paid to the instructions given in the "Planning" section regarding the position of the anchor holes. → page 20
2. Drill the anchor holes.
3. Remove the drilling dust from the anchor holes.
4. Insert the anchors in the holes and use the setting tool to expand the anchors.
5. Screw the fastening bolts into the anchors by hand, to the full depth of each anchor, and then unscrew the bolts one complete revolution.

### 6.2 Fastening the rail supports

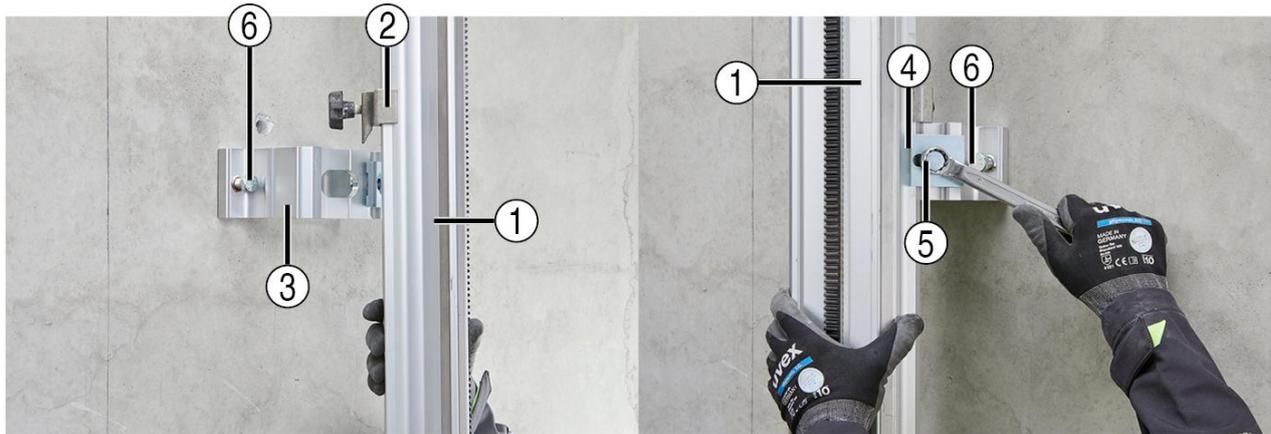


- |                                |                |
|--------------------------------|----------------|
| Securing screw with collar nut | Leveling screw |
| Rail support                   |                |

1. Turn back the two leveling screws until they no longer project.
2. Place the rail support over the fastening bolt.
3. Align the rail support at right angles to the line of cut and then tighten the collar nut slightly.



### 6.3 Mounting the rail on the rail supports for normal cutting



- |                |                       |
|----------------|-----------------------|
| ① Rail         | ④ Rail clamping plate |
| ② Rail clamp   | ⑤ Rail clamping screw |
| ③ Rail support | ⑥ Leveling screw      |

1. Fit rail hooks on the rail.

---

**i** Rail hooks may be used only together with rail supports for normal cutting.

---

2. Engage the rail with the rail hooks in the rail supports and slide the clamping plates over the edge of the rail.
3. Bring the rail supports into alignment at right angles to the rail and then tighten the rail clamping bolts.
4. Check and adjust the offset distance of the rail from the cutting line and then tighten the rail support fastening bolts.
5. Use the leveling screws to compensate for differences in level.
6. Fit end stops at the ends of the rail.

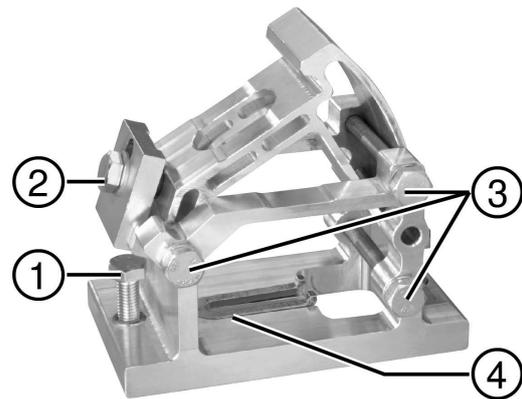


## 6.4 Mounting track on track supports for bevel cutting and adjusting cutting angle

1. Slacken the clamping screw for the clamping plate on all track supports.
2. Slacken the bottom clamping screw for the bevel-cut angle.

**i** To set a 45° cutting angle, the bottom screw has to be completely removed from the track support. Re-install the screw after setting the track support to 45°.

3. Slacken the top clamping screw for the bevel-cut angle.



- ① Leveling screw
- ② Clamping plate with clamping screw
- ③ Clamping screws for bevel-cut angle
- ④ Slot for securing screw



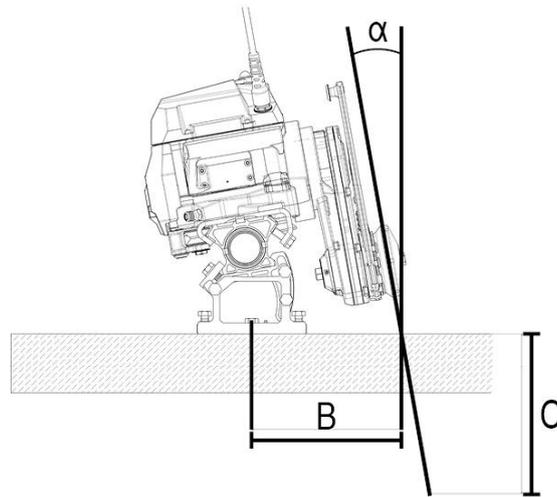
4. Fit the track onto the track supports.
5. Slide the clamping plate over the edge of the track and tighten the plate clamping screw.
6. Adjust the track to the desired cutting angle.
7. Retighten the clamping screws for the bevel-cut angle.
8. Check and adjust the offset distance of the track from the cutting line and then tighten the track support securing screws.

Dimensions for setting up for angular cutting → page 25

9. Use the leveling screws to compensate for differences in level.
10. Fit end stops at the ends of the track.



## Dimensions for setting up for angular cutting

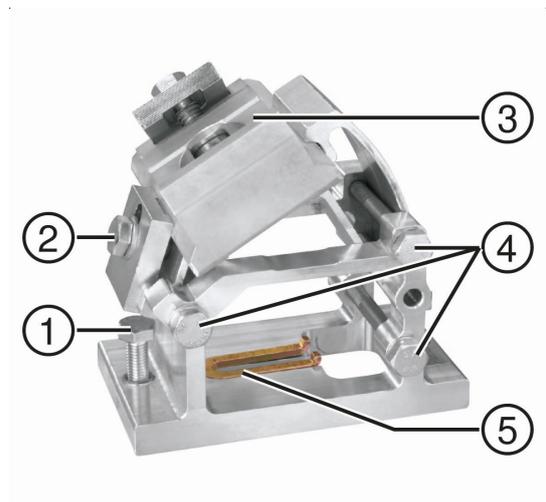


$\alpha$	B	C					
		with blade diameter					
		660 mm	710 mm	810 mm	910 mm	1,010 mm	1,210 mm
0°	232 mm	258 mm	283 mm	333 mm	383 mm	433 mm	533 mm
5°	239 mm	231 mm	256 mm	306 mm	356 mm	406 mm	505 mm
10°	249 mm	202 mm	227 mm	276 mm	325 mm	374 mm	473 mm
15°	262 mm	171 mm	195 mm	243 mm	292 mm	340 mm	437 mm
20°	278 mm	138 mm	161 mm	208 mm	255 mm	302 mm	396 mm
25°	297 mm	103 mm	126 mm	171 mm	216 mm	262 mm	352 mm
30°	320 mm		89 mm	132 mm	175 mm	219 mm	305 mm
35°	349 mm			91 mm	132 mm	173 mm	255 mm
40°	384 mm				88 mm	126 mm	203 mm

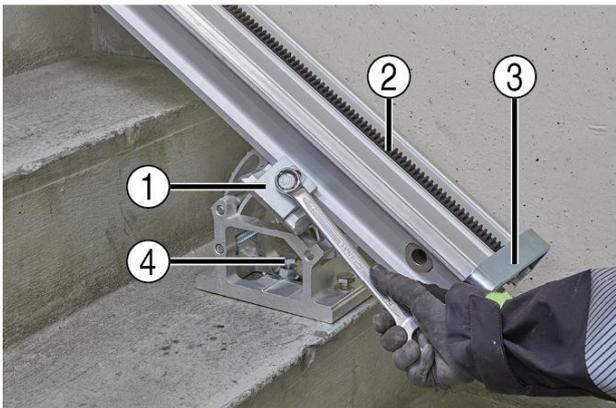


## 6.5 Mounting the rail on the rail supports for cutting on stairs

1. Mount the rail supports for cutting on stairs on the stairs.
2. Attach the clamping insert for cutting on stairs to the rail support.
3. Slacken the clamping bolts for angle adjustment.



- ① Leveling screw
- ② Clamping plate with clamping screw
- ③ Clamping insert for cutting on stairs
- ④ Clamping screws for bevel-cut angle
- ⑤ Slot for securing screw



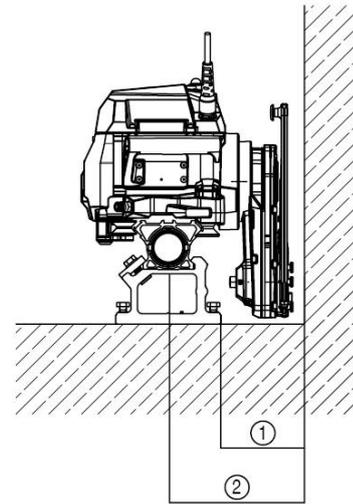
- ① Clamping insert for cutting on stairs
- ② Rail
- ③ End stop
- ④ Securing screw for the rail support

4. Mount the rail on the clamping insert for cutting on stairs.
5. Tighten the clamping bolt for the angle adjustment mechanism.
6. Check and adjust the offset distance of the rail from the cutting line and then tighten the rail support fastening bolts.
7. Use the leveling screws to compensate for differences in level.
8. Fit end stops at the ends of the rail.



## 6.6 Installing the rail and flush-cutting saw head

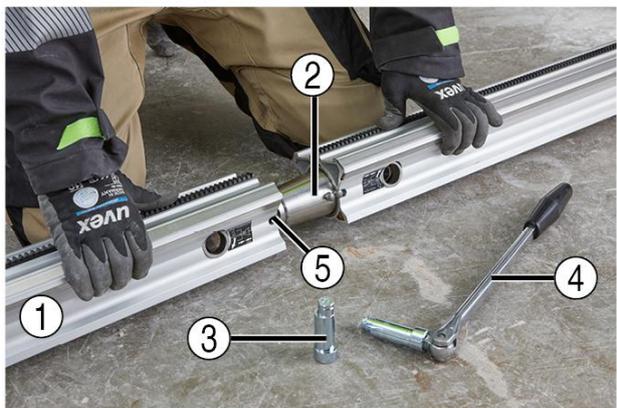
- ▶ When installing, make sure that the saw blade does not come into contact with the material, as otherwise friction losses would reduce the saw's performance.
- ▶ Allow approx. 5 mm of extra clearance between saw blade and material, or use the leveling screws rail support to set the saw to a slight angle.



- ① 144 mm + approx. 5 mm
- ② 235 mm + approx. 5 mm

## 6.7 Extending tracks

Always use only the accessories intended for the purpose to extend the tracks.



- ① Rail
- ② Tapered connector
- ③ Eccentric pin
- ④ 1/2" square pin wrench
- ⑤ Tapered sleeve

1. Clean the tapered connector and tapered sleeves and then grease these parts.
2. Insert the tapered connector in the track and tighten the eccentric pin by turning it in clockwise with the 1/2" square wrench.

**i** The track extension can be removed by releasing the eccentric pin by turning it in counterclockwise and pushing out the tapered connector.



## 7 Preparing the saw system for use

### 7.1 Mounting the saw head

**⚠ CAUTION**

**Risk of injury!** Inadvertent starting of the product.

- ▶ Unplug the supply cord before making adjustments to the power tool or before changing accessories.

**⚠ WARNING**

**Risk of personal injury and damage to the equipment or other property!** The saw presents a hazard if it falls.

- ▶ Before releasing the saw head, make sure that the guide rollers are positioned correctly relative to the rail and that the locking lever is fully engaged.
- ▶ Before releasing the saw head locking levers, make sure you are holding the saw head securely.



- |   |                   |
|---|-------------------|
| ① Clamping lever with integral release button | ③ Guide roller    |
| ② Release button                              | ④ Guiding surface |

1. Press the release button **(2)** and engage the clamping lever **(1)** in the bottom latched position (opened).

**i** If the locking lever cannot be latched on the opened or closed position, do not proceed with the installation operation

2. Lift the saw head by the grips and place the saw head on the previously fastened rail.
  - ▶ Make sure that the guide rollers are positioned correctly: The guiding surface **(4)** of the rail must be the middle of the guide rollers.
3. Press the release button **(2)** and pull the clamping lever **(1)** completely to the top latched position (closed).
  - ▶ If the locking lever does not engage correctly, discontinue the saw head installation operation and remove the saw head from the rail!

**i** When mounted horizontally, with the saw blade positioned below the rail, the saw head must be lifted by hand in order to close the locking lever. Put the product into operation only when it can be locked on the rail correctly and securely.



- Before releasing your grip: Check that the guide rollers are positioned correctly and that the locking lever is fully engaged.

Move the locking lever back and forth to check that engagement is correct.

## 7.2 Connecting the saw to the electric supply and water supply



- ① Electric supply cable
- ② Antenna
- ③ Connection for remote control cable
- ④ Grip with integral release function
- ⑤ Grip (fixed)
- ⑥ Protective cap for plug connector
- ⑦ Securing sleeve
- ⑧ Cooling water hose connector

- ⑨ Mark for determining position (**CUT ASSIST**)
- ⑩ Distance to end of cut in plus direction (**CUT ASSIST**)
- ⑪ Distance to end of cut in minus direction (**CUT ASSIST**)
- ⑫ LED operating-status indicator (green)

### CAUTION

**Risk of accident!** Incorrectly positioned cables and hoses can result in damage to the equipment or other property.

- ▶ Position the cables and hoses so that they can follow the movement of the saw head without being under tension.
- ▶ Take care to ensure that the cable plug connectors don't lie in water.
- ▶ Position the cables and hoses so that they cannot come into contact with the rotating saw blade and cannot be pinched between moving parts.

- Connect the electric supply cable to the electric supply.
  - ▶ The "ready for operation" indicator on the saw head shows.
- If the following conditions are met, also take this action:

**Conditions:** You intend to work without wireless remote control.

- ▶ Remove the protective caps from the plug connectors and sockets for the remote control cable.
- ▶ Bring the plug into alignment with the socket and push it into the socket as far as it will go without applying excessive force.
- ▶ Check that the plug on the wireless remote control engages.
- ▶ Close the protective caps.



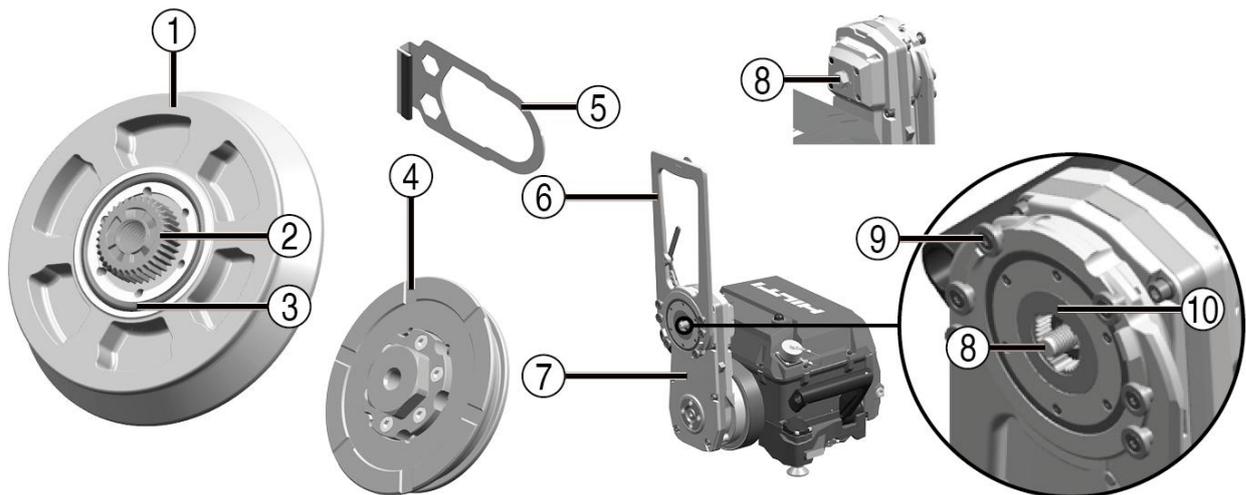


- ▶ Check the O-ring on the inner flange for wear and damage.
- ▶ Before operating the saw, check the saw blade for damage (e.g. cracks, wear at the area of the flange or blue discoloration caused by overheating). Mount the saw blade in the correct direction of rotation.

### 7.4.1 Installing inner flange (normal cut)

For tightening the tie rod, use only the tools described in the instructions. Do not, under any circumstances, use an impact wrench or other, similar power tools to tighten the tie rod.

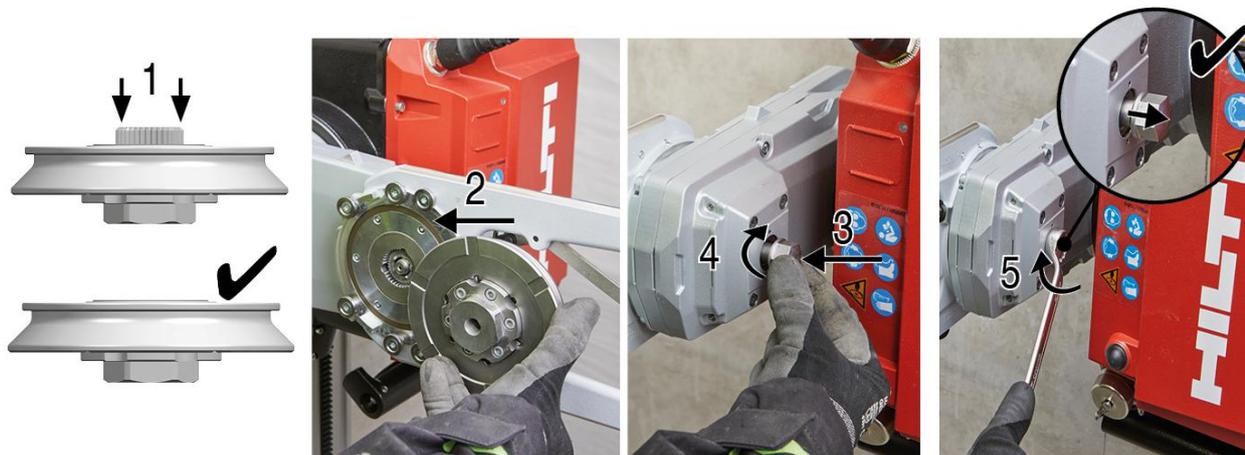
- 
- i** You can leave the inner flange for normal cutting installed until you are going to make a flush cut or a dry cut. The inner flange does not necessarily have to be removed for transport purposes.  
The carrier tool for flush-cut saw blades can be used to counter-hold the tie rod.
- 



- |   |                         |
|---|-------------------------|
| ① Inner flange                          | ⑥ Blade guard holder    |
| ② Flange nut                            | ⑦ Saw arm               |
| ③ O-ring                                | ⑧ Tie rod               |
| ④ Cooling-water slot                    | ⑨ Shouldered guide stud |
| ⑤ Carrier tool for flush-cut saw blades | ⑩ Saw arm arbor         |

1. Turn the blade guard holder up.





2. Press the flange nut fully into the inner flange **(1)**.

**i** The inside face of the flange must form a flat surface. Install the flange only if the flange nut is fully countersunk. Attempting installation with the flange nut protruding can result in damage to the inner flange and mount.

3. Insert the inner flange into the 6 shouldered guide bushes of the saw arm **(2)**.

▶ The shoulder of each shouldered guide stud is seated in the groove in the inner flange.

4. Push the tie rod into mount **(3)** and tighten the tie rod by hand **(4)**.

5. Counter-hold the tie rod in the inner flange with the carrier tool for flush-cut saw blades and tighten the tie rod by hand **(5)** until it is seated.

▶ If tightening by hand is not possible, use a ring/open-ended wrench.

**i** • Tightening the tie rod draws the flange nut out of the parked position into the inner flange, so that it slips into the mount of the saw arm arbor. When the flange nut slips into the mount of the saw arm arbor the tie rod becomes easy to move and spring tension can pull it back to the initial position. At least 6 full turns are necessary for correct installation of the inner flange.

• **IMPORTANT!**

If the tie rod does not turn readily after about 3 full turns, the splines might not be in correct alignment and the flange cannot be installed correctly.

→ Abort installation.

→ Remove the inner flange, eliminate the cause of the difficulty and re-install the inner flange.

6. Tighten the tie rod to the specified torque.

Technical data	
Ring/open-ended wrench (for tie rod)	19 mm
Tightening torque	80 Nm

7. Check that the inner flange is seated flat and with zero play on the saw arm arbor.

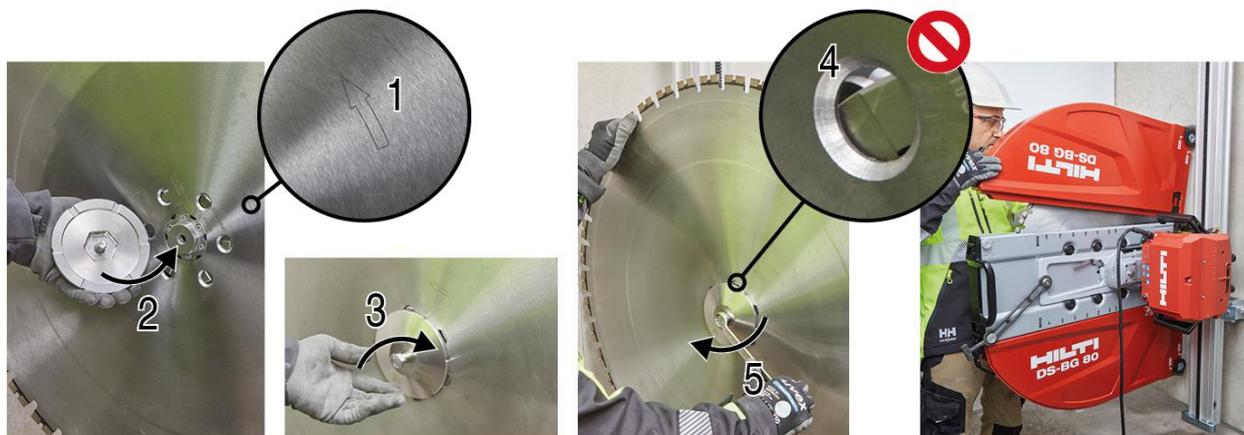
**7.4.2 Installing saw blade (normal cut)**

Before starting installation, switch the wall saw off at the on/off switch or press the **EMERGENCY STOP** button.

Disconnect the supply cord plug from the power outlet.

**i** Always use the genuine **Hilti** M12×25 10.9 clamping screw to secure the saw blade.





1. Fit the saw blade on to the centering device on the flange.
  - ▶ The direction-of-rotation arrow on the saw blade **(1)** must point in the same direction as the direction-of-rotation arrow on the blade guard holder.
2. Position the outer flange on the centering spigot and screw in the clamping screw **(2)**.
3. Turn the saw blade until the cooling-water slots of the inner flange are between the holes (securing screws for flush-cutting flange) in the saw blade.

**i** If the cooling-water slots are open in the holes, correct cooling of the saw blade is not ensured **(4)**.

Grease the thread of the clamping screw with the grease provided for the purpose so that the clamping force necessary to transfer drive to the saw blade is achieved. Be sure to grease only the thread.

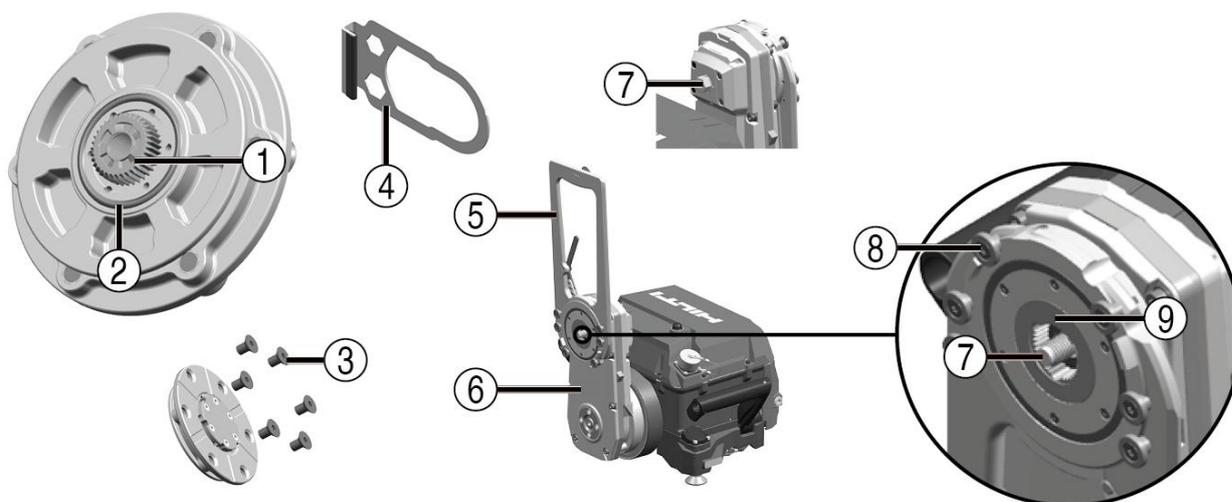
4. Tighten the clamping screw to the specified torque **(5)**.

#### Technical data

Ring/open-ended wrench (for clamping screw)	19 mm
Tightening torque (M12×25 10.9 clamping screw)	80 Nm

5. Fit the blade guard. → page 36

### 7.4.3 Installing inner flange (flush cutting)



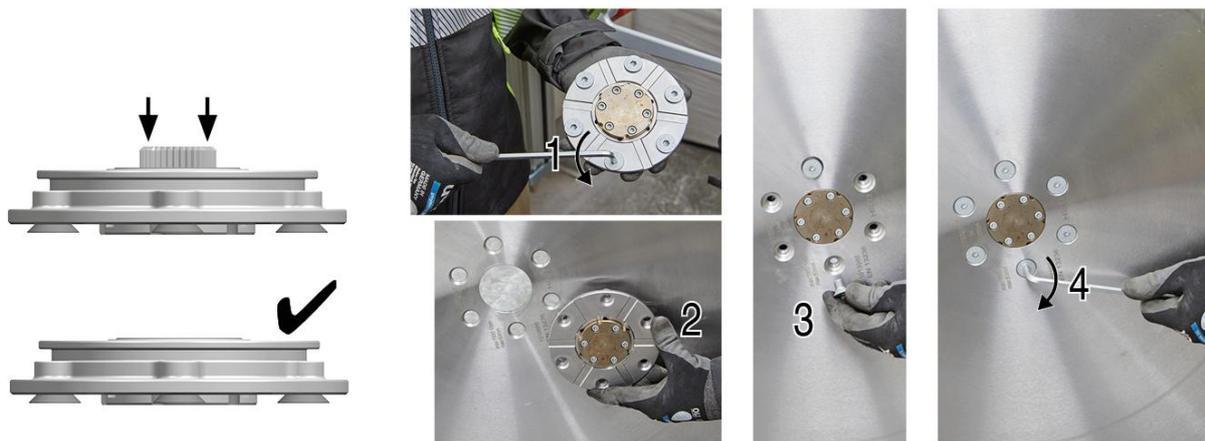
- |   |   |
|---|---|
| ① Flange nut  | ④ Carrier tool for flush-cut saw blades |
| ② O-ring  | ⑤ Blade guard holder                    |
| ③ Countersunk-head screws for securing saw blade (6 of) | ⑥ Saw arm                               |
|   | ⑦ Tie rod                               |



⑧ Shouldered guide stud

⑨ Saw arm arbor

1. Remove the inner flange (normal cutting), if fitted. → page 40



2. Press the flange nut fully into the inner flange.

**i** The inside face of the flange must form a flat surface. Install the flange only if the flange nut is fully countersunk. Attempting installation with the flange nut protruding can result in damage to the inner flange and mount.

3. If applicable, unscrew the 6 countersunk-head screws from the inner flange **(1)**.

4. Set the inner flange (flush cutting) on the saw blade **(2)**.

5. Screw the 6 countersunk-head screws into the face of the saw blade **(3)**.

6. Tighten the 6 countersunk-head screws to the specified torque **(4)**.

**Technical data**

Tightening torque (countersunk-head screws M10 10.9)	15 Nm
--	-------

7. Check that the inner flange is correctly installed.

**7.4.4 Installing saw blade (flush-cut)**

Before starting installation, switch the wall saw off at the on/off switch or press the **EMERGENCY STOP** button.

Disconnect the supply cord plug from the power outlet.





1. Turn the blade guard holder in the direction from which you want to insert the saw blade with inner flange.

**i** Turn the blade guard holder so that the saw blade is held by the shouldered guide studs.

2. Push the saw blade with installed inner flange into the mount of the 6 shouldered guide studs **(1)**.
3. Press the tie rod on the saw arm into the mount **(2)** and tighten the tie rod hand-tight **(3)**.

**i** • Tightening the tie rod draws the flange nut out of the parked position in the inner flange, so that it slips into the mount of the saw arm arbor. When the flange nut slips into the mount of the saw arm arbor the tie rod becomes easy to move and spring tension can pull it back to the initial position.

At least 6 full turns are necessary for correct installation of the inner flange.

• **IMPORTANT!**

If the tie rod does not start to turn readily after about 3 full turns, the splines might not be in correct alignment and the flange cannot be installed correctly.  
→ Abort installation.

→ Remove the inner flange, eliminate the cause of the difficulty and re-install the inner flange.

4. Tighten the tie rod to the specified torque **(4)**.

Technical data	
Ring/open-ended wrench (for tie rod)	19 mm
Tightening torque	80 Nm

5. Check that the inner flange is seated flat and with zero play on the saw arm arbor.



**7.5 Fitting the blade guard**



- |                              |                           |
|------------------------------|---------------------------|
| ① Blade guard center section | ⑤ Blade guard holder      |
| ② Blade guard side parts     | ⑥ Guide wheels            |
| ③ Clamp                      | ⑦ Tensioning lug          |
| ④ Metal hook                 | ⑧ Rubber tensioning strap |

**⚠ DANGER**

**Risk of injury!** Operating the saw without the blade guard fitted increases the risk of injury.

- ▶ Always work with both side sections of the blade guard fitted (except when making corner cuts).
- ▶ When making a corner cut, remove the side section only immediately before starting work on the corner. Take additional safety precautions.

1. Slide the blade guard middle section onto the blade guard holder.
2. Fit the blade guard side section, inserting the metal hook in the blade guard middle section.
3. Secure the blade guard side section with the tensioning bar.
  - ▶ The blade guard middle section and side section then form a unit that can be removed or refitted to the blade guard holder as a single unit.
4. Secure the complete blade guard to the blade guard holder by pulling the rubber tensioning strap over the tensioning lug.
  - ▶ The blade guard is then ready for use.

**i** If, due to the particular cutting situation, the blade guard cannot be used, alternative safety / protective measures must be implemented to secure the surrounding areas. One possibility is to build an enclosure with formwork boards to contain flying debris.



## 8 Working with the saw

### 8.1 Checks before beginning sawing work

#### WARNING

**Risk of injury!** Using damaged parts or parts that do not function as described is highly dangerous.

- ▶ Do not use parts that evince signs of damage or that are not in full working order.
- ▶ If you find defects, stop work immediately and replace the defective parts.

Before beginning sawing, make sure that all of the following conditions are fulfilled:

- You have read the operating instructions of the saw head and of all system products that will be used and have familiarized yourself with operation of the saw and its components.
- Preparatory work on the jobsite has been completed (supports in place, provision made for collecting water, etc.)
- Danger zones have been cordoned off and all persons are outside these zones.
- The water supply has been connected, water pressure is within the approved range and the water supply system is not leaking.
- The electric power, with earth / ground connection and a ground fault circuit interrupter, is connected.
- The remote control unit is connected to the saw wirelessly or by cable and is within easy reach.
- Water and electricity supply lines and the remote control cable are routed such that they will track the movement of the saw body smoothly and cannot come into contact with moving parts.
- The track supports and tracks are positioned correctly and mounted securely.
- End stops are fitted at both ends of the tracks.
- The saw head is mounted correctly on the track and the locking lever is closed and fully engaged. Check that the lock is securely engaged by moving the locking lever back and forth.
- The saw blade is installed in the correct direction of rotation and the inner flange and, as applicable, the clamping screws (for normal cutting) or the countersunk-head screws (for flush-cutting) are tightened to the required tightening torques.
- The complete blade guard has been fitted and secured or an alternative protective system installed.
- The emergency stop button on the remote control unit functions correctly and it has been pulled out and reset.
- Personal protective equipment, as illustrated on the machine, is worn by the personnel.
- The “ready for operation” indicator on the saw head shows.
- All safety measures have been implemented.

### 8.2 Guidelines and guide values

#### The initial or guide cut

The initial cut is known as the guide cut. This cut should always be made with the saw arm in the trailing position (i.e. pulling the blade).

The depth of the cut depends on the material (hard, soft or masonry).

Technical data	
Cutting depth for the guide cut	≈ 4 cm



- ▶ When making the guide cut, the power of the saw should be reduced in order to ensure a straight cut.

**Technical data**

Power setting for the guide cut	≈ 60 %
---------------------------------	--------

**Subsequent cuts**

Subsequent cuts can be made at full power (100 %) with the saw arm in the trailing or leading position.

The depth of subsequent cuts depends greatly on the material.

**Technical data**

Recommended cutting depth for subsequent cuts	5 cm ... 9 cm
---	---------------

**⚠ WARNING**

**Risk of damage!** The saw may suffer damage if the saw head is advanced along the track while the saw blade is in the kerf but not rotating, and the blade comes into contact with the edge of the kerf.

- ▶ Always pivot a stationary blade out of the kerf before moving the saw head.

**8.3 Dry-cutting application****Important notes for the dry-cutting application:**

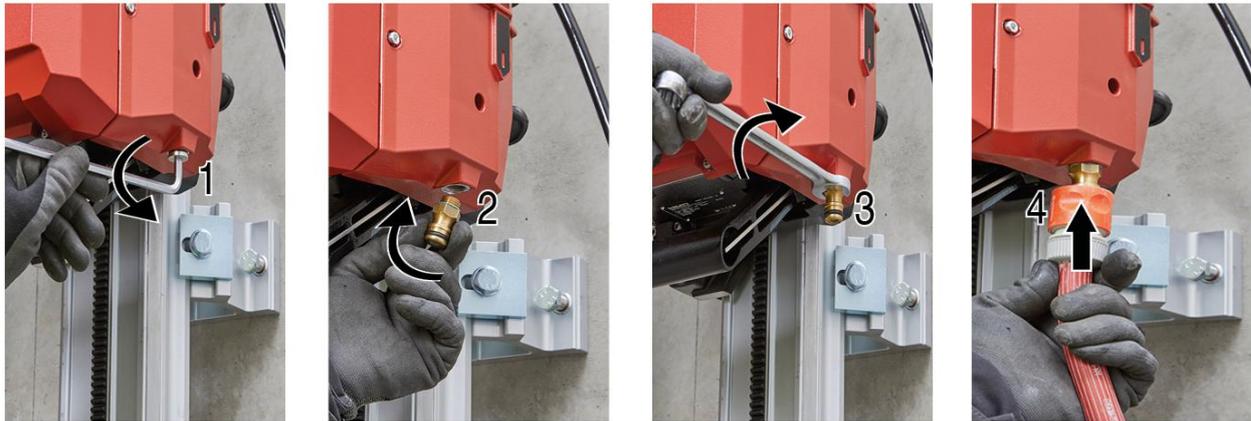
- ▶ Before you connect the cooling water supply to the saw head (or open the main line to the cooling water supply), you must make sure that the water bypass is installed and open. Without the water bypass, the water pressure could damage the system.
- ▶ The water bypass enables continuous cooling of the saw head even in the dry-cutting application. Constant cooling of the saw head in operation must always be ensured.
- ▶ Prevent overheating of the saw blade by complying with the following points for the dry-cutting application:
  - ▶ Saw with reduced power (maximum 50 %).
  - ▶ Saw with a shallow depth of cut.
  - ▶ Interrupt sawing at regular intervals to let the saw blade cool down.

**8.3.1 Installing inner flange and saw blade (dry cutting)**

1. Remove the inner flange (normal cutting, dry cutting). → page 40
2. Install the inner flange (dry cutting). The procedure is similar to that for installing the inner flange for normal cuts. → page 31
  - ▶ Follow the same instructions and perform the same checks as when installing the inner flange for a normal cut.
3. Install the saw blade (dry cutting). The procedure is similar to that for installing the saw blade for normal cuts. → page 32



### 8.3.2 Installing water bypass



1. Remove the screw plug from the water bypass connection **(1)**.
2. Screw the water-connection adapter into the water bypass connection **(2)**.
3. Use a ring/open-ended wrench to tighten the water-connection adapter hand-tight **(3)**.
4. Connect the water drain hose to the water-connection adapter **(4)**.

### 8.3.3 Installing blade guard and dust extractor



1. Install the BG 65 blade guard (dry cutting).
2. Connect a suction hose to each dust removal connector on the blade guard **(1)**.
3. Install the suction channel at the back of the cut **(2)** and connect a dust extractor **(3)**.

## 9 Dismantling the saw system

### 9.1 Removing saw blade (normal cutting)

1. Remove the blade guard.
2. Pivot the saw arm into the 12 o'clock position.
3. Switch the saw off at the on/off switch and press the **EMERGENCY STOP** button.
4. Disconnect the supply cord plug from the power outlet.
5. Slacken the clamping screw of the outer flange and remove the outer flange.
  - ▶ Make sure that the saw blade does not drop off the centering spigot after the outer flange is removed.
6. Remove the saw blade from the centering spigot.
7. Secure the outer flange to the inner flange with the clamping screw.



## 9.2 Removing inner flange (normal cutting, dry cutting)

**i** You can leave the inner flange for normal cutting installed until you are going to make a flush cut or a dry cut. The inner flange does not necessarily have to be removed for transport purposes.

The carrier tool for saw blades with inner flange (flush cutting) supplied with the equipment has a hex socket that you can use to counter-hold the tie rod in the inner flange.

1. Counter-hold the tie rod in the inner flange with the carrier tool for flush-cut saw blades and unscrew the tie rod from the thread of the flange nut.
2. Use the tie rod to press the flange nut fully back into the inner flange.
3. Remove the inner flange from the 6 shouldered guide studs.

## 9.3 Removing saw blade and inner flange (flush cutting)

1. Turn the blade guard holder vertically up.

**i** Make sure (especially after wall cuts) that the opening of the 6 shouldered guide studs is facing up, so that the saw blade cannot drop out after the tie rod has been slackened and removed.

2. Fully unscrew the tie rod from the thread of the flange nut.
3. Disengage the tie rod and use the tie rod to press the flange nut fully back into the inner flange.
4. Lift the saw blade out of the 6 shouldered guide studs.
5. Unscrew the 6 countersunk-head screws in the inner flange.
6. Remove the inner flange (flush cutting) from the saw blade.

## 9.4 Dismantling the saw system

### **⚠ WARNING**

**Risk of injury!** Avoid starting the saw unintentionally.

- ▶ Unplug the electric supply cable before carrying out any work on the saw.

### **⚠ CAUTION**

**Risk of injury!** A hot saw blade presents a risk of burning injury. Sharp edges present a risk of cutting injury.

- ▶ Wear protective gloves when changing the saw blade.

1. Remove the blade guard.
2. Remove the saw blade:
  - ▶ Removal after normal cutting or dry cutting → page 39.
  - ▶ Removal after flush cutting → page 40.
3. Disconnect the remote control unit from the saw head and fit the protective caps to the connectors / sockets.

**i** If the remote control unit is used without a cable: Switch the remote control unit off.

4. Disconnect the cooling water hose from the saw head.

**i** After a dry cut: Remove the water bypass and re-install the screw plug.



5. Blow out the cooling circuit. → page 41
6. Remove the saw head from the track.
7. Remove the guide track.
8. Dismantle / remove the track supports.
9. Clean all components and check them for damage.
10. Stow the components on the transport trolley and secure them all in position.

## 9.5 Blowing out the cooling circuit

**i** To avoid frost damage when there is a risk of frost, the cooling circuit must be blown out after completion of the work or before long pause between periods of work.



① Blow-out adapter

② Pump hose

1. Push the pump hose onto the blow-out adapter as far as it will go.
2. Connect the blow-out adapter to the water supply connector on the saw head.
3. Applying at least 8 strokes of the pump, blow out the saw head until no further water is ejected.

**i** To release the pump hose from the blow-out adapter, press down the release ring on the adapter and pull the hose out of the blow-out adapter.

## 10 Care and maintenance

### WARNING

**Electric shock hazard!** Attempting care and maintenance with the supply cord connected to a power outlet can lead to severe injury and burns.

- ▶ Always unplug the supply cord before carrying out care and maintenance tasks.

### WARNING

**Risk of personal injury and damage to the equipment or other property!** Water finding its way into the saw may result in damage to the saw and increase the risk of electric shock.

- ▶ Do not use a high-pressure water-jet cleaning system to clean the saw head, remote control unit or cables.
- ▶ Clean the entire set of equipment immediately after finishing work and before long breaks between periods of use. Do not allow slurry to dry and adhere to the parts.



- ▶ Use a medium-hard brush and water to clean the saw head, rails, blade guard system and transport trolley.
- ▶ Keep the operating controls and safety instructions on the product clean at all times.
- ▶ Close the covers on all plugs and connectors.
- ▶ Keep the operating surfaces of all parts such as threads, connectors, gear teeth and moving parts clean at all times.
- ▶ Clean the outer surfaces of the machine with a slightly damp cloth at regular intervals. Do not use cleaning agents containing silicone as these may attack the plastic parts.
- ▶ Check the compatibility of concrete release agents and concrete stain removers before using them. Products that are incompatible can attack seals and housing parts, causing embrittlement.
- ▶ After cleaning and maintenance, make sure that all safety devices are refitted and check that these safety / protective devices function correctly.

### 10.1 Adjusting the guide rollers



- ① Clamping screw
- ② Guide roller

- ③ Eccentric guide roller axle

1. Fasten the track to the wall and then mount the saw on it.
2. Slacken the clamping screw for the guide roller locking mechanism.
3. Adjust the eccentric shaft of the roller axle so that the guide roller is in contact with the track.
4. Retighten the clamping screw.
  - ▶ It must be possible to turn the guide roller by hand.
5. Adjust the second roller in the same way.

### 10.2 Inspection

- ▶ Have the machine checked by **Hilti Service** at intervals of 200 operating hours.

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  - i** The remote control unit shows the number of operating hours remaining until the next service is due.

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- ▶ Check all visible parts and controls for signs of damage at regular intervals and make sure that they all function correctly.



### 10.3 Maintenance

#### **WARNING**

**Danger of electric shock!** Improper repairs to electrical components may lead to serious injuries including burns.

- ▶ Repairs to the electrical section of the tool or appliance may be carried out only by trained electrical specialists.
- 
- ▶ Do not start the wall saw if you find damage and/or malfunctions. Have the wall saw repaired by **Hilti Service** right away.

To help ensure safe and reliable operation, use only genuine **Hilti** spare parts and consumables. Spare parts, consumables and accessories approved by **Hilti** for use with your product can be found at your **Hilti Store** or online at: [www.hilti.group](http://www.hilti.group)

#### Maintenance

Parts	Procedure	Daily	Weekly
Track support	Check the contact and clamping surfaces. Clean if necessary	✓	
	Check the threads for smoothness and ease of operation. Clean if necessary		✓
Track	Check the contact and running surfaces. Clean if necessary	✓	
	Check the splines and the running surfaces for damage and wear; replace the track if necessary		✓
	Check the tapered sleeves, clean and lubricate with oil if necessary	✓	
	Check the means of securing the end stops.	✓	
blade guard	Check and clean inner and outer surfaces. Remove any slurry deposits	✓	
	Check that the guide rollers are free to move. Clean or replace the parts if necessary		✓
	Check the condition of the rubber tensioning straps and replace if necessary	•/•	✓
	Check the clamping lever tension and adjust if necessary by turning the hexagon screw	•/•	✓
Saw head	Check that the locking mechanism moves smoothly and engages securely. Clean and lubricate (grease nipples) or have repairs carried out as necessary	✓	
	Check the guide rollers for ease of operation and excessive play, have them replaced / repaired as necessary		✓
	Clean the threads of the tie rod and inner flange, check condition and if damage is found have the damaged parts replaced.		✓



Parts	Procedure	Daily	Weekly
Saw head	Clean the external splines on the flange nut and the internal splines on the arbor, check condition and if damage is found have the damaged parts replaced.		✓
	Check the freedom of movement of tie rod and carrier; have repairs carried out as necessary.		✓
	Clean and lubricate the external thread of the clamping screw and the internal thread of the inner flange; if damaged, have parts replaced as necessary.		✓
	Check the condition of the shouldered guide studs; have them replaced if damage is visible.		✓
	Check the plug connectors for cleanliness and damage; blow out with compressed air or have them replaced as necessary	✓	
	Check the cable for damage and replace it if necessary	✓	
	Check the saw blade flange and the clamping screw for wear and cleanliness. Clean or replace if necessary	✓	
	Check the saw head for oil or water leakage and have it repaired if necessary		✓
	Check the water flow and replace the mesh filter at the water supply connection if necessary		
	Clean the clamping screw, check it for damage and lubricate		✓
Water hose	Check the plug connectors for cleanliness, ease of operation and freedom from leaks; clean and lubricate (lubricant spray) as necessary	✓	
	Check all hoses for leaks		✓
Cables / plugs	Check the plug connectors for cleanliness, ease of operation and freedom from damage. Blow out with compressed air or have the parts replaced if necessary	✓	
	Check the cables for damage and replace them if necessary	✓	
Transport trolley	Check the tire pressure (see the section headed "Technical data" for details)		✓
Tool set	Check for completeness		✓

## 11 Transport and storage

- ▶ Do not transport the machine with a blade fitted.
- ▶ Always store the machine with the electric supply cable unplugged.
- ▶ Store the machine in a dry place where it cannot be accessed by children or unauthorized persons.



- ▶ Check the machine for damage before use after long periods of transport or storage.

## 12 Troubleshooting

If the trouble you are experiencing is not listed in this table or you are unable to rectify the problem by yourself, please contact **Hilti** Service.

Trouble or fault	Possible cause	Action to be taken
The cut is not straight	Inadequate blade tension.	▶ Change the saw blade.
	The saw blade is blunt.	▶ Change the saw blade. Pay attention to the specification.
	No guide cut made or the guide cut was not straight	▶ Check whether the given guide values were adhered to.
	Flange not correctly tightened	▶ Check that the flange is seated correctly and check the tightening torque of the securing screw. ▶ Repeat the flange installation procedure.
	The play at the guide rollers exceeds the specified value.	▶ Check the play at the rollers and adjust the rollers correctly. If adjustment is not sufficient, replace the rollers or the guide rail.
	The rail fastenings are loose.	▶ Check the fastenings. ▶ Refasten the rails.
	The rail distorts (twists).	▶ Install additional rail supports.
Low sawing performance	Unsuitable blade specification	▶ Check the saw blade specification. ▶ Change to the right specification.
	Depth of cut is excessive.	▶ Reduce the depth of cut.
	Saw advance speed is too low.	▶ Increase the saw advance speed.
	Drop in performance due to the blade wandering off course.	▶ See fault: <b>The cut is not straight.</b>
	Drop in performance due to high reinforcement content.	▶ Make the cut in a different position if the reinforcement content is too high.
	Saw blade speed of rotation is too high or too low.	▶ Set the speed of rotation correctly.



Trouble or fault	Possible cause	Action to be taken
The saw blade is jammed in the kerf and the saw doesn't start.	A piece of steel cut free is jammed in the kerf.	<ul style="list-style-type: none"> <li>▶ Try to lift the saw blade out of the kerf by alternately moving the saw head forward and back (advance / return). Try to start the blade drive as soon as the blade can be moved freely. <b>Caution!</b> Avoid use of excessive force as this could result in damage.</li> <li>▶ If the saw blade can't be moved: Disconnect the saw blade from the saw and use a breaker / jackhammer to chisel away concrete until the blade is free.</li> </ul>
	The part cut free is pressing against the saw blade.	<ul style="list-style-type: none"> <li>▶ Disconnect the saw blade from the saw.</li> <li>▶ Remove the part that has been cut free.</li> </ul>
Saw blade slips	Tightening torque too low	▶ Grease the thread of the clamping screw and tighten the clamping screw to the specified torque.
	Clamping faces of flange and saw blade dirty or oily	▶ Clean and degrease the clamping surfaces.
	Threads of clamping screw and inner flange dirty or damaged	▶ Clean and check the threads of clamping screw and inner flange.
	Thread of the clamping screw is stiff	▶ Grease the thread of the clamping screw.

## 13 Disposal

Most of the materials from which **Hilti** products are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti** Service or your Hilti sales representative for further information.

### Drilling and sawing slurry

Disposing of drilling and sawing slurry directly into rivers, lakes or the sewerage system without suitable pretreatment is problematic from an environmental point of view.

- ▶ Ask the local public authorities for information about current regulations.

We recommend the following pretreatment:

- ▶ Collect the drilling or sawing slurry (for example, using a wet-type vacuum cleaner).
- ▶ Allow the drilling or sawing slurry to stand for some time or add a flocculation agent to help the fine particles in the slurry settle and separate from the water.



- ▶ Dispose of this solid portion of the drilling or sawing slurry at a construction waste disposal location.
- ▶ Neutralize the remaining water from the drilling or sawing slurry (alkaline, pH-value > 7) by adding an acidic neutralizing agent or dilute it by adding a large quantity of water before allowing it to enter the sewerage system.

## **14 Manufacturer's warranty**

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- ▶ Please contact your local **Hilti** representative if you have questions about the warranty conditions.

## **15 FCC statement (applicable in US) / IC statement (applicable in Canada)**

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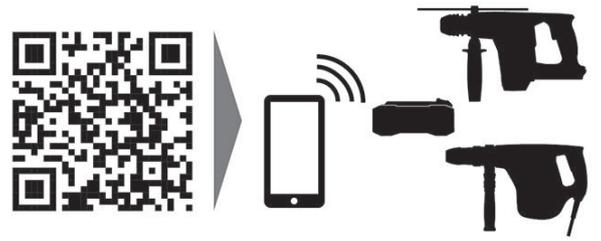
This device complies with Part 15 of the FCC Rules and RSS-210 of IC. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.





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