



DST 20-CA

English

DST 20-CA

Original operating instructions

Contents

1	Information about the documentation	3
1.1	About this documentation	3
1.2	Explanation of symbols used	3
1.2.1	Warnings	3
1.2.2	Symbols in the documentation	3
1.2.3	Symbols in the illustrations	3
1.3	Product-dependent symbols	4
1.3.1	Symbols on the product	4
1.4	Stickers	4
1.5	Product information	4
1.6	Declaration of conformity	5
2	Safety	5
2.1	Safety instructions	5
2.1.1	General safety rules (acc. to UL 745-1)	5
2.1.2	Basic safety instructions	7
2.1.3	Electrical safety	7
2.1.4	Safety measures at the danger areas	8
2.1.5	Safety at the workplace	9
2.1.6	Safety during operation	10
2.1.7	Safety during transport	10
3	Description	12
3.1	Product overview	12
3.2	Intended use	13
3.3	Possible misuse	13
3.4	Items supplied	13
3.5	Accessories	14
4	Technical data	15
4.1	Technical data for the saw head	15
4.2	Technical data for the transport trolley	16
5	Planning	17
5.1	Cutting sequence	17
5.2	Overcut or uncut distances	18
5.3	Distance between rail supports	19
5.4	Position of holes drilled for fastening the rail supports	20
5.5	Power source	20
5.6	Use of extension cables	21
5.7	Cooling water supply	21
6	Assembling the saw system	22
6.1	Installing the anchors for the rail supports	22
6.2	Fastening the rail supports	22
6.3	Mounting the rail on the rail supports for normal cutting	23



6.4	Mounting the rail on the rail supports for angular cutting and adjusting the cutting angle	24
6.5	Mounting the rail on the rail supports for cutting on stairs	26
6.6	Extending rails	27
7	Preparing the saw system for use	27
7.1	Mounting the saw head	27
7.1.1	Installing the rail and flush-cutting saw head	29
7.2	Connecting the saw to the electric supply and water supply	29
7.3	Adjusting the blade guard	30
7.4	Mounting the saw blade	31
7.4.1	General information on installing saw blades	31
7.4.2	Mounting the saw blade for normal cutting	31
7.4.3	Mounting the saw blade for flush cutting	32
7.4.3.1	Preparing the flush-cutting flange for installation	32
7.4.3.2	Installing inner flange of flush-cutting flange on the saw arm	32
7.4.3.3	Installing the saw-blade flange of the flush-cutting flange on the saw blade	33
7.4.3.4	Carrying the flush-cutting saw blade	33
7.4.3.5	Mounting the saw blade for flush cutting	34
7.4.3.6	Removing the saw blade for flush-cutting with the mounting flange installed	36
7.5	Fitting the blade guard	37
8	Working with the saw	38
8.1	Checks before beginning sawing work	38
8.2	Guidelines and guide values	39
9	Dismantling the saw system	39
9.1	Dismantling the saw system	39
9.2	Blowing out the cooling circuit	40
10	Care and maintenance	41
10.1	Adjusting the guide rollers	41
10.2	Inspection	42
10.3	Maintenance	42
11	Transport and storage	43
12	Troubleshooting	43
13	Disposal	45
14	Manufacturer's warranty	45
15	FCC statement (applicable in US) / IC statement (applicable in Canada)	46



1 Information about the documentation

1.1 About this documentation

- Read this documentation before initial operation or use. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in this documentation and on the product.
- Always keep the operating instructions with the product and make sure that the operating instructions are with the product when it 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 slight personal injury or damage to the equipment or other property.

1.2.2 Symbols in the documentation

The following symbols are used in this document:

	Read the operating instructions before use.
	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 the illustrations

The following symbols are used in illustrations:

2	These numbers refer to the corresponding illustrations found 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 overview illustrations and refer to the numbers used in the product overview section





This symbol is intended to draw special attention to certain points when handling the product.

1.3 Product-dependent symbols

1.3.1 Symbols on the product

Depending on the applicable country, the following symbols may be 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)
	Splash-proof
	Warning: risk of cutting injury
	Lifting by crane prohibited
	Use of high-pressure cleaning equipment prohibited
	Wear eye protection
	Wear ear protection
	Wear protective gloves
	Wear safety shoes
	Suspension point provided for lifting by crane

1.4 Stickers

Stickers on the product

	On the transport trolley Using the transport trolley
	On the saw head Maximum water pressure and action to be taken in the event of risk of frost
	On the saw head The machine is equipped with the Cut Assist 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 informed of any particular hazards that may be encountered. The product and its ancillary equipment



may present hazards when used incorrectly by untrained personnel or when used not as directed.

The type designation and serial number are printed on the type identification 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 → page 5

Product information

Electric wall saw	DST 20-CA
Generation	01
Serial no.	

1.6 Declaration of conformity

We declare, on our sole responsibility, that the product described here complies with the applicable directives and standards. A copy of the declaration issued by the certification department can be found at the end of this documentation.

The technical documentation is filed here:

Hilti Entwicklungsgesellschaft mbH | Tool Certification | Hiltistrasse 6 | 86916 Kaufering, Germany

2 Safety

2.1 Safety instructions

This documentation contains important instructions on how to use the wall saw safely and correctly. You can avoid residual hazards through observance and practical implementation of the safety instructions found in this documentation and on the product.

2.1.1 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.



2122329

English

5

- ▶ **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.



2.1.2 Basic safety instructions

- ▶ Use the machine only when it is in perfect working order. Check the machine, cables and plugs for damage each time before use. Have damaged parts repaired or replaced. If the cable is damaged or cut through during use, unplug the cable from the electric supply immediately. Contact **Hilti Service**.
- ▶ Follow all safety instructions and other instructions printed in the documentation or on the machine. Failure to observe this point may lead to potentially fatal injury or serious damage to the equipment or other property.
- ▶ Use the machine for the first time only after you have been trained by a **Hilti** specialist on how to use it safely.
- ▶ Each time before using the machine, check that all parts are fitted correctly, that they function correctly and are undamaged. Do not render safety devices or protective devices inoperable.
- ▶ Remove any adjusting keys and wrenches before switching the machine on. A wrench or key left attached to a rotating part of the machine may result in personal injury.
- ▶ Do not overload the machine. Press the **emergency stop** button on the remote control unit immediately and then unplug the supply cable from the power outlet if you become aware of a dangerous situation.
- ▶ Keep the grips dry, clean and free from oil and grease.
- ▶ Before releasing the saw head locking levers, make sure you are holding the saw head securely.
- ▶ Follow the instructions concerning care and maintenance.
- ▶ Never leave the machine unattended. Store machines, when not in use, in a secure place where they cannot be accessed by third parties.

2.1.3 Electrical safety

DANGER

Electricity presents a risk of fatal accident! There is an increased risk of electric shock if your body is grounded.

- ▶ Avoid body contact with earthed / grounded surfaces.
-
- ▶ Before operating the saw, make sure that the AC supply voltage corresponds to the specification given on the type identification plate.
 - ▶ Do not make any changes to the plug on the electric supply cable. The plug on the electric supply cable may not be modified in any way whatsoever.
 - ▶ Do not use adapter plugs with earthed (grounded) power tools or machines.
 - ▶ 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 cables 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. Press the **emergency stop** button and unplug the supply cable from the power outlet.
 - ▶ Do not operate the machine if it cannot be switched on and off correctly at the control switch. Damaged or faulty switches must be replaced at a **Hilti** service center.
 - ▶ Do not abuse the electric supply cable. Never use the supply cable to carry, suspend, pull or unplug the machine.
 - ▶ Use only extension cables of a type approved for the application and with conductors of adequate gauge. → page 21
 - ▶ 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.



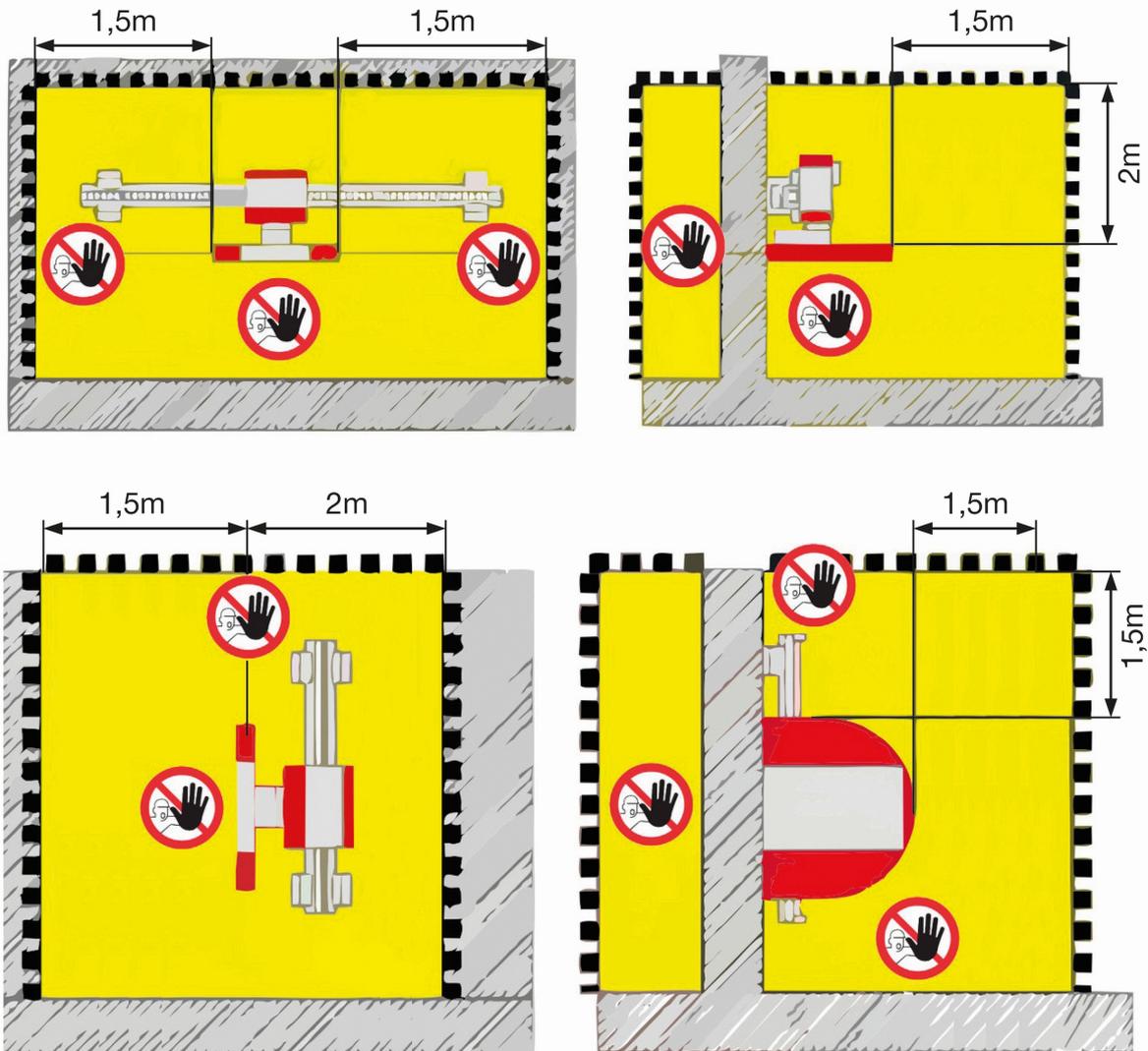
- ▶ Disconnect the power cable before beginning cleaning and maintenance work or in the event of an interruption between periods of operation.

2.1.4 Safety measures at the danger areas

WARNING

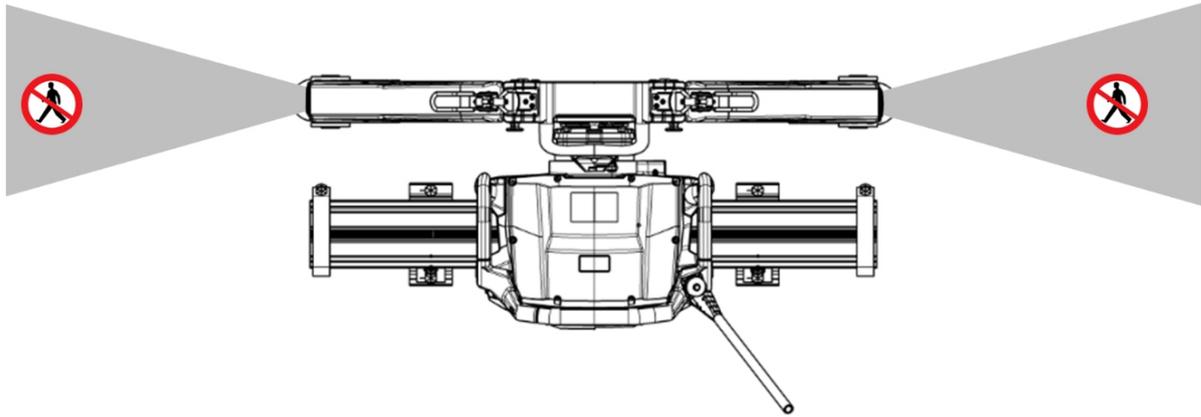
A risk is presented by moving parts, by falling objects or debris that may fly off. Falling objects could cause serious injury.

- ▶ Make sure that the area is cordoned off, that supports are in place and warnings to third parties are displayed. When setting up the saw system and when removing blocks that have been cut away, always ensure that no persons are below the area in which you are working.



- ▶ Secure the working area. Ensure that no persons can be injured or property / equipment damaged by moving parts, falling objects or by debris that may fly off during the sawing operation.
- ▶ Keep a safe distance of at least 1.5 m (60 in) away from all moving parts while the equipment is in operation.





- ▶ Never stand directly in line with the rotating saw blade.
- ▶ 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.

2.1.5 Safety at the workplace

WARNING

Danger due to negative effects on structural stability! 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.
-
- ▶ Keep your workplace clean and well lit. Cluttered or poorly lit workplaces invite accidents.
 - ▶ Make sure that the workplace is adequately ventilated. Exposure to dust at a poorly ventilated workplace may present a health risk.
 - ▶ Ensure that adequately-sized supports are correctly installed so that the remaining structure maintains its stability during and after completion of the cutting work and removal of the part cut away. Falling or other uncontrolled movement of the blocks cut free could cause serious injury or damage.
 - ▶ 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.
 - ▶ Wear your personal protective equipment. Wear safety shoes or boots, protective gloves, ear and eye protection and a hard hat.
 - ▶ Do not wear jewelry or loose clothing. It could get caught up in moving parts of the machine.
 - ▶ 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.
 - ▶ Wear respiratory protection if the work causes dust. Certain types of mineral dust are known to be carcinogenic (cause cancer).
 - ▶ 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.



- ▶ Do not operate the machine in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Electric tools and machines generate sparks which may ignite dust or vapors.
- ▶ 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.
- ▶ Keep children and other persons away from the area while work is in progress. Distractions can cause you to lose control of the tool or machine.
- ▶ Don't work from a ladder.

2.1.6 Safety during operation

- ▶ Check the flange and saw blade for damage and degrease the blade mount each time before putting the saw into operation.
- ▶ Begin work with the saw only when the rail supports are securely and rigidly fastened to a solid surface and when the wall saw system has been correctly assembled (all bolts tightened securely, the saw head mounted securely on the rail with the locking levers closed and the end stops fitted correctly).
- ▶ Use only fastening materials of adequate dimensions to fasten the rail supports and to secure 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 **BGF** for flush cutting).
- ▶ 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.
- ▶ Press the **emergency stop** button before entering the danger area. 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. Mount the blades the right way round (observe correct direction of rotation). **Use of saw blades of a size beyond the specified diameter range is not permissible.**
- ▶ Always wear working gloves when touching the saw blade. The saw blade 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.

2.1.7 Safety during transport

WARNING

Danger of tipping over! Rails with a length of more than 1.5 m (59 in) may cause the transport trolley to tip over. The transport trolley may cause injury or damage to the equipment or other property if it tips over.

- ▶ Do not transport rails with a length of more than 1.5 m (59 in) on the transport trolley.



- ▶ 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 lifting, check that all removable items of equipment are securely attached 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.
- ▶ Use the grips provided for transportation. Keep the grips dry, clean and free from oil and grease.
- ▶ Bear in mind that the machine or transport trolley could fall over. Stand the machine or the transport trolley only on a solid, level surface (slope < 5°).
- ▶ Secure the saw system and its components to prevent inadvertent movement or falling over during transportation.
- ▶ The machine may be lifted by crane only at the lifting points provided using tested and approved lifting gear.
- ▶ Never loiter beneath a load suspended by a crane or lifting equipment.



3 Description

3.1 Product overview



- | | |
|--|----------------------------|
| ① Saw head | ⑥ Blade guard side section |
| ② Remote control unit | ⑦ Guide rail with end stop |
| ③ Transport trolley | ⑧ Accessories box |
| ④ Lifting point for transport by crane | ⑨ Toolbox |
| ⑤ Blade guard center section | |



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 heavily reinforced concrete as well as stone or masonry structures using diamond-tipped saw blades with a diameter of between 23.6 in (600 mm) and 63 in (1600 mm).

The maximum permissible blade diameter for starting cuts is 31.5 in (800 mm).

Diamond saw blades with a diameter of up to 47.2 in (1200 mm) must be approved for use at a cutting speed (blade peripheral speed) of at least 207 ft/s (63 m/s) and blades with a diameter of greater than 47.2 in (1200 mm) must be approved for use at a cutting speed of at least 262 ft/s (80 m/s).

Tap water is used 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. The blade guard must have a water drain.

No-one is permitted underneath the saw when overhead work is undertaken. Consult your **Hilti** sales adviser.



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

3.3 Possible misuse

- This product is not suitable for cutting materials that present a health hazard.
- This product is not suitable for cutting highly flammable materials.
- The Cut Assist mode is not suitable for angular cuts or cutting on stairs.

3.4 Items supplied

Items supplied DST 20-CA → page 13

Other system products approved for use with this product can be found at your local **Hilti Store** or online at: www.hilti.group | USA: www.hilti.com

Items supplied DST 20-CA

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	DS-BG80 blade guard (up to Ø 900 mm / 34 in)
3	eccentric pin	1	Carrying handle for saw blade with flange



3.5 Accessories

Accessories for the rail system

Item number	Designation	Description
284808	DS-R100-L guide rail	Saw head guide, long 39 in (100 cm)
284809	DS-R200-L guide rail	Saw head guide, long 79 in (200 cm)
284810	DS-R230-L guide rail	Saw head guide, long 91 in (230 cm)
371703	DS-ES-L end stop	Safety stop for saw head
207137	DS-RF clamping piece	Fastening rails
273336	DS-RF-L rail support	Fastening rails
273337	DS-RFP-L rail support	For cutting at an angle or on stairs
232241	D-CO-ML tapered connector	Rail connector
232244	D-EP-ML eccentric pin	Rail connector

Accessories for the blade guard for normal cutting

Item number	Designation	Description
238000	DS-BG65 saw blade guard	Blade guard, saw blades up to Ø ≤ 25.6 in (≤ 650 mm)
2051935	DST-BG80 saw blade guard, small	Blade guard, saw blades up to Ø 23.6 in ... 31.5 in (600 mm ... 800 mm)
238002	DS-BG80 middle section	Blade guard, saw blades up to Ø 23.6 in ... 35.4 in (600 mm ... 900 mm)
238003	DS-BG80 side section, set	Blade guard, saw blades up to Ø 23.6 in ... 35.4 in (600 mm ... 900 mm)
238004	DS-BG120 middle section	Blade guard, saw blades up to Ø 39.4 in ... 47.2 in (1,000 mm ... 1,200 mm)
238005	DS-BG120 side section, set	Blade guard, saw blades up to Ø 39.4 in ... 47.2 in (1,000 mm ... 1,200 mm)
2064904	DST-BG160 saw blade guard	Blade guard, saw blades up to Ø 59.1 in ... 63.0 in (1,500 mm ... 1,600 mm)



Accessories for the flush-cutting blade guard

Item number	Designation	Description
238006	DS-BGF80 middle section	Saw blade guard for flush cutting, Ø 23.6 in ... 35.4 in (600 mm ... 900 mm)
238007	DS-BGF80 side section, set	Saw blade guard for flush cutting, Ø 23.6 in ... 35.4 in (600 mm ... 900 mm)
238008	DS-BGF120 middle section	Saw blade guard for flush cutting, Ø 39.4 in ... 47.2 in (1,000 mm ... 1,200 mm)
238009	DS-BGF120 side section, set	Saw blade guard for flush cutting, Ø 39.4 in ... 47.2 in (1,000 mm ... 1,200 mm)
256237	DS-BGF160 Blade guard	Saw blade guard for flush cutting, Ø 59.1 in ... 63.0 in (1,500 mm ... 1,600 mm)

Accessories for normal cutting flange

Item number	Designation	Description
2135209	DST-CF 1 3/8" hex. flange	Clamping flange

Accessories for the flush-cutting flange

Item number	Designation	Description
416193	DS-FCA 1 3/8" / 4 1/4" flush-cutting flange	flush-cutting flange
242383	DST-CFF 6×M10 countersunk-head screws, hex socket, set	Countersunk bolts for the flush-cutting flange

Electrical connection accessories

Item number	Designation	Description
2189562	DST-ESC 20 US, 3×480 V	Electric supply cable for the DST 20-CA (US)

4 Technical data

4.1 Technical data for the saw head

Rated values guaranteed at an ambient temperature of max. 18°C (64.4°F) and at an altitude of max. 2000 m above sea level.

Rated speed	400 /min ... 940 /min
Rated voltage	480 V
AC frequency	50 Hz ... 60 Hz



2122329

English

15

Mains connection (phase requirements)	3~ + PE
Rated current	24.9 A
AC supply fuse rating (depends on setting on the remote control unit)	<ul style="list-style-type: none"> • 16 A • 25 A • 32 A
Generator power requirements	≥ 20 kVA (16 A) ≥ 32 kVA (25 A) ≥ 40 kVA (32 A)
Leakage current	≤ 10 mA
Permissible saw blade diameter	23.6 in ... 63.0 in (600 mm ... 1,600 mm)
Maximum blade diameter for guide cut	31.5 in (800 mm)
Maximum cutting depth	29 in (73 cm)
Weight	74.5 lb (33.8 kg)
Storage temperature	-13 °F ... 145 °F (-25 °C ... 63 °C)
Application temperature, ambient temperature	5 °F ... 113 °F (-15 °C ... 45 °C) At temperatures below zero, allow the machine to warm up slowly before subjecting it to a load and drain (blow out) the water from the cooling circuit after use (a pump is supplied for this purpose). Use preheated water.
Cooling water flow rate	> 1 liq. gal _{US} /min (> 2 ℓ/min)
Cooling water temperature	39 °F ... 77 °F (4 °C ... 25 °C)
Cooling water pressure	30 psi ... 90 psi (2 bar ... 6 bar)
Protection class in accordance with IEC 60529	IP 65
Maximum emitted transmission power (P_{EIRP})	17.6 dBm
Frequency band	2.4 GHz ... 2.4835 GHz

4.2 Technical data for the transport trolley

Maximum load	397 lb (180 kg)
Dimensions (L×W×H)	43 in × 27 in × 46 in (110 cm × 69 cm × 118 cm)



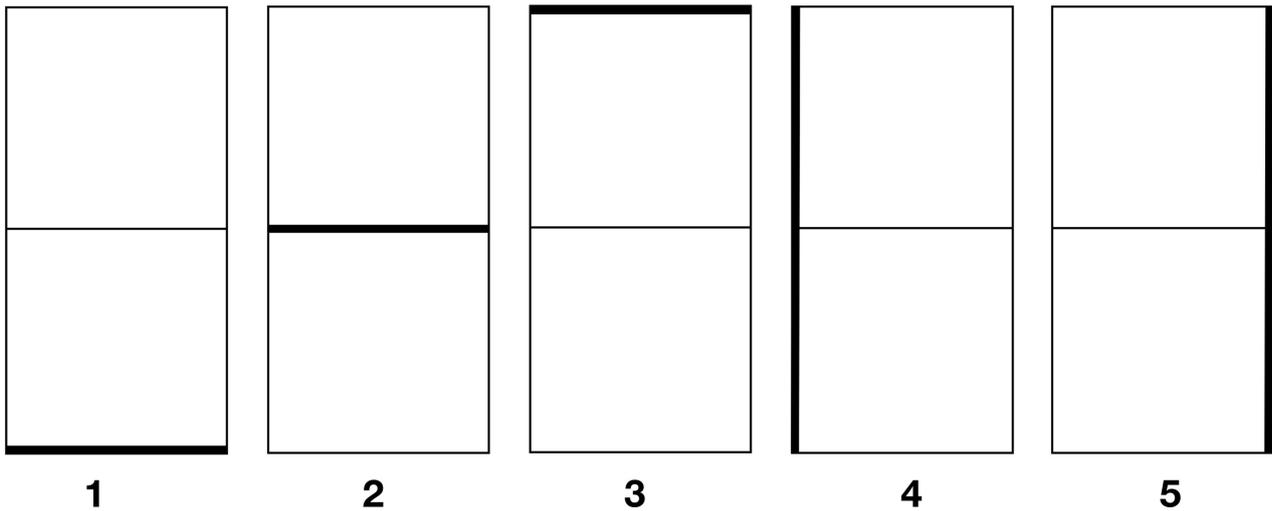
Weight, loaded	220 lb (100 kg)
Tyre pressure	30 psi (2.1 bar)

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 followed when the rail supports are cleverly positioned at a suitable distance.

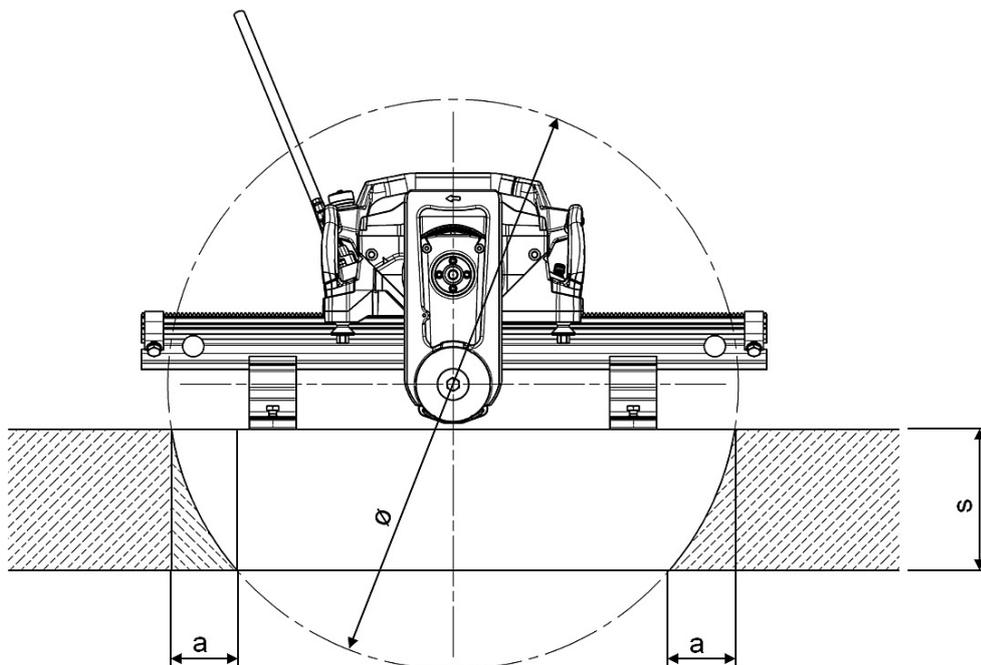


The illustration shows an example of the cutting sequence for a door opening with a dividing cut.

- ▶ 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



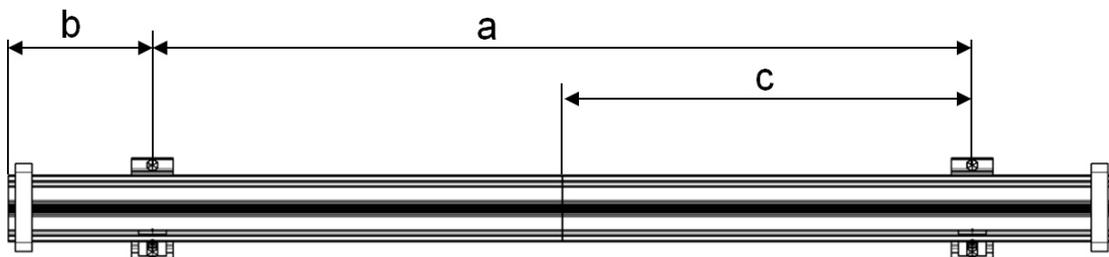
s	a				
	with blade diameter (Ø)				
	25.6 in (650 mm)	31.5 in (800 mm)	39.4 in (1,000 mm)	47.2 in (1,200 mm)	63.0 in (1,600 mm)
7.9 in (200 mm)	5.5 in (139 mm)	3.9 in (100 mm)	3.0 in (75 mm)	2.4 in (61 mm)	1.7 in (44 mm)
8.9 in (225 mm)	7.3 in (185 mm)	5.0 in (126 mm)	3.7 in (93 mm)	2.9 in (74 mm)	2.1 in (54 mm)
9.8 in (250 mm)	10.7 in (273 mm)	6.1 in (156 mm)	4.4 in (112 mm)	3.5 in (89 mm)	2.5 in (64 mm)
10.8 in (275 mm)		7.6 in (194 mm)	5.3 in (135 mm)	4.2 in (106 mm)	3.0 in (76 mm)
11.8 in (300 mm)		9.7 in (246 mm)	6.3 in (161 mm)	4.9 in (125 mm)	3.5 in (89 mm)
12.8 in (325 mm)		13.6 in (345 mm)	7.5 in (191 mm)	5.7 in (146 mm)	4.0 in (102 mm)
13.8 in (350 mm)			8.9 in (227 mm)	6.7 in (169 mm)	4.6 in (117 mm)
14.8 in (375 mm)			10.7 in (271 mm)	7.7 in (195 mm)	5.2 in (133 mm)
15.7 in (400 mm)			13.0 in (330 mm)	8.9 in (225 mm)	5.9 in (151 mm)
16.7 in (425 mm)			17.3 in (440 mm)	10.2 in (260 mm)	6.7 in (170 mm)
17.7 in (450 mm)				11.8 in (300 mm)	7.5 in (191 mm)



s	a				
	with blade diameter (Ø)				
	25.6 in (650 mm)	31.5 in (800 mm)	39.4 in (1,000 mm)	47.2 in (1,200 mm)	63.0 in (1,600 mm)
18.7 in (475 mm)				13.7 in (349 mm)	8.4 in (213 mm)
19.7 in (500 mm)				16.3 in (415 mm)	9.3 in (237 mm)
20.7 in (525 mm)				21.1 in (536 mm)	10.4 in (264 mm)
21.7 in (550 mm)					11.6 in (294 mm)
22.6 in (575 mm)					12.8 in (326 mm)
23.6 in (600 mm)					14.3 in (363 mm)
24.6 in (625 mm)					15.9 in (404 mm)
25.6 in (650 mm)					17.8 in (452 mm)
26.6 in (675 mm)					20.1 in (510 mm)
27.6 in (700 mm)					23.1 in (587 mm)
28.5 in (725 mm)					28.7 in (728 mm)

With the values shown on the right the cut cannot be completed using the Cut Assist function. The cut must thus be made manually.

5.3 Distance between rail supports



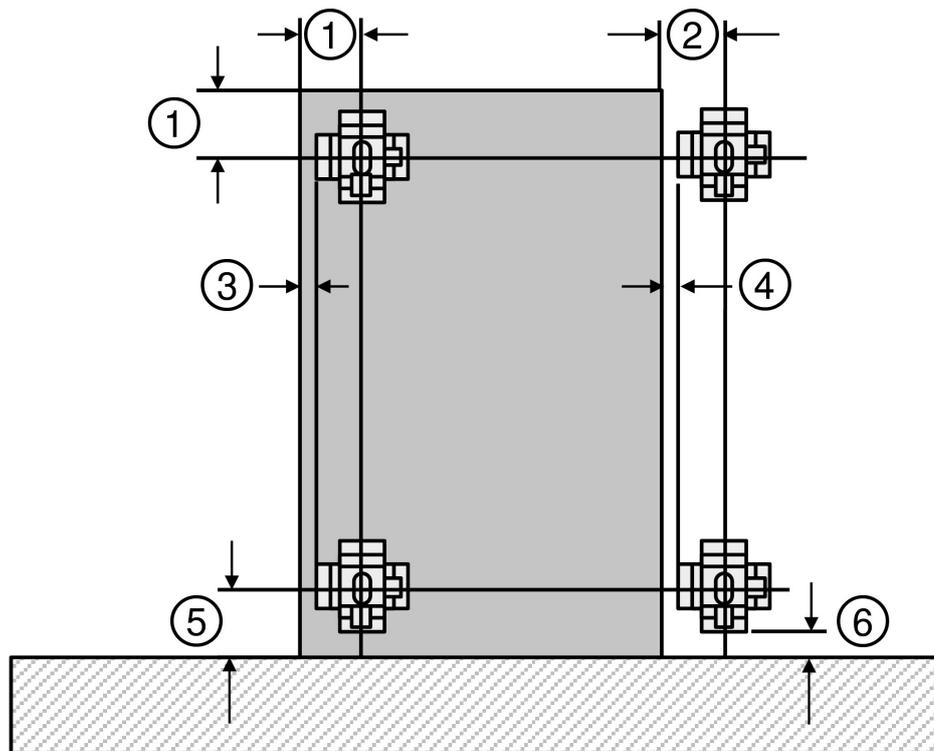
- a Max. distance between 2 rail supports = 66.9 in (170 cm)
- b Max. rail end projection = 19.7 in (50 cm)

- c Max. distance between rail support and rail 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



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

- ▶ 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	
AC supply fuse rating (depends on setting on the remote control unit)	<ul style="list-style-type: none"> • 16 A • 25 A • 32 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.
 - ▶ Check the extension cable for damage at regular intervals.
 - ▶ Replace damaged extension cables.
 - ▶ When working outdoors, use only extension cables that are approved and correspondingly marked for this application.

Recommended minimum conductor gauge (cross section) and maximum cable length with 120V supply voltage

Extension cables	AWG 16	AWG 14	AWG 12	AWG 10
Extension cable conductor gauge	1,31 mm ²	2,08 mm ²	3,31 mm ²	5,26 mm ²
Extension cable conductor gauge	2,58 kcmil	4,11 kcmil	6,53 kcmil	10,4 kcmil
Extension cable length	25 m	30 m	50 m	100 m
Extension cable length	75 ft	100 ft	150 ft	250 ft

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_{US}/min (2 l/min) is required to cool the saw head.

The power of the machine will be reduced in the event of inadequate cooling. If this is not sufficient, the machine'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 rail supports

WARNING

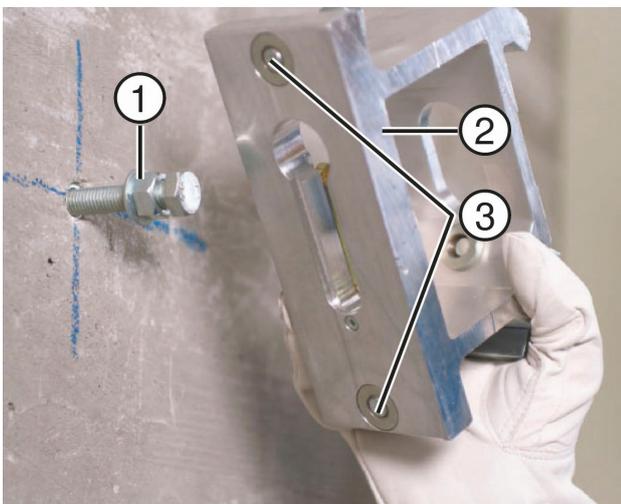
Inadequate fastening presents a hazard! A basic prerequisite for safe and efficient use of the saw system is that it must be secured using a means of fastening suitable for the applicable material and of adequate dimensions.

- ▶ 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



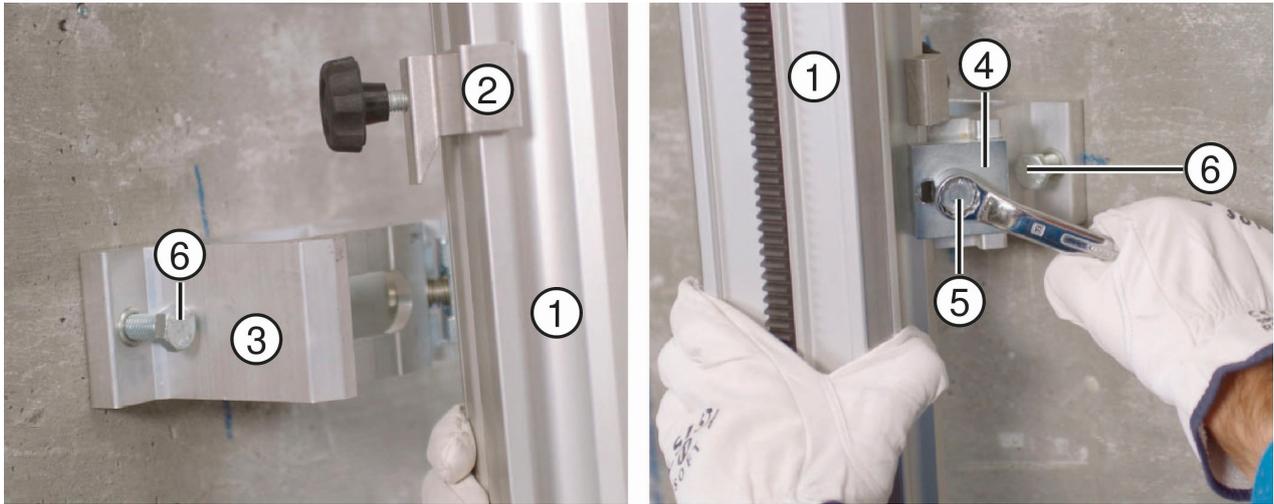
- ① Fastening bolt with collar nut
- ② Rail support

- ③ Leveling screw

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 bolt |
| ③ Rail support | ⑥ Leveling screw |

1. Fit rail hooks on the rail.

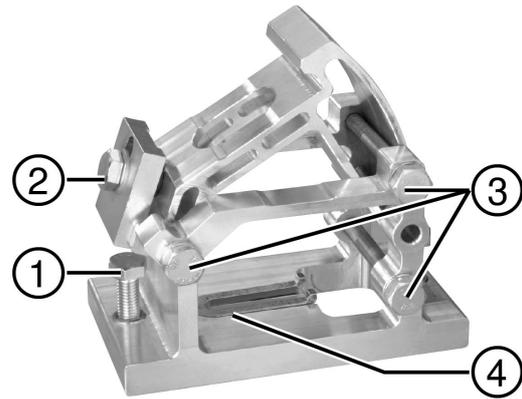
Rail hooks may be used only together with rail supports for normal cutting.

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.

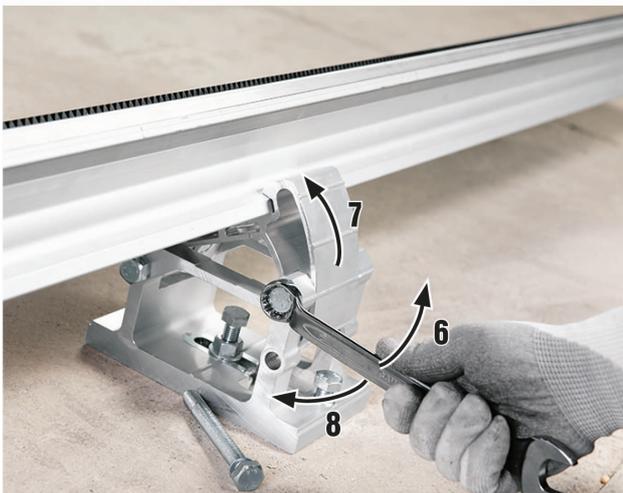


6.4 Mounting the rail on the rail supports for angular cutting and adjusting the cutting angle

1. Slacken the clamping bolt for the clamping plate on all rail supports.



- ① Leveling screw
- ② Clamping plate with clamping bolt
- ③ Clamping bolt for angle adjustment
- ④ Slot for the fastening bolt



2. Fit the rail onto the rail supports.
3. Slide the clamping plates over the edge of the rail and tighten the plate clamping bolts.
4. Unscrew the lower clamping bolt for the angle adjustment mechanism.

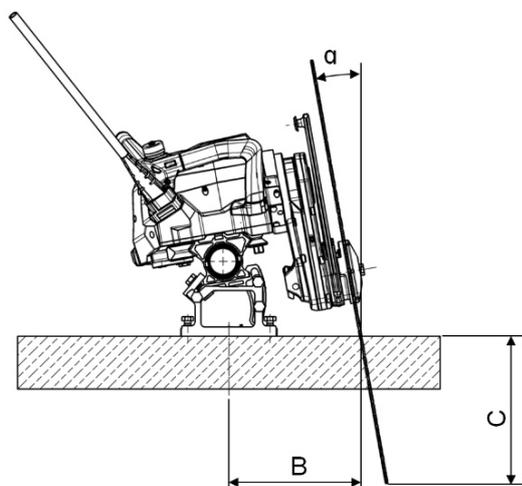


5. Remove the clamping bolt from the rail support.
6. Slacken the upper clamping bolt for the angle adjustment mechanism.
7. Adjust the rail to the desired cutting angle.
8. Retighten the clamping bolt for the angle adjustment mechanism.
9. Check and adjust the offset distance of the rail from the cutting line and then tighten the rail support fastening bolts.

Dimensions for setting up for angular cutting → page 25

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

Dimensions for setting up for angular cutting

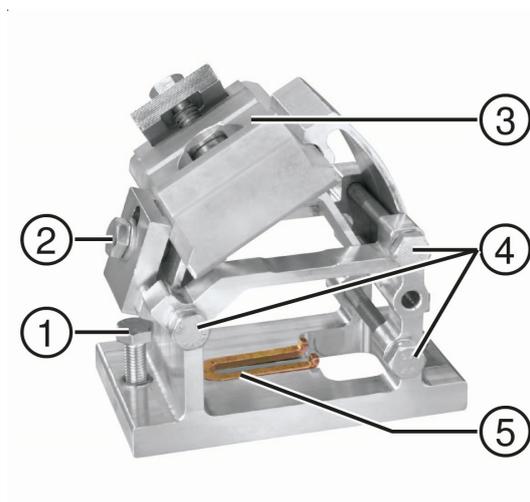


α	B	C				
		with blade diameter				
		25.6 in (650 mm)	31.5 in (800 mm)	39.4 in (1,000 mm)	47.2 in (1,200 mm)	63.0 in (1,600 mm)
0°	9.1 in (230 mm)	10.0 in (253 mm)	12.9 in (328 mm)	16.9 in (428 mm)	20.8 in (528 mm)	28.7 in (728 mm)
5°	9.4 in (238 mm)	8.9 in (226 mm)	11.9 in (301 mm)	15.8 in (401 mm)	19.7 in (500 mm)	27.6 in (700 mm)
10°	9.8 in (248 mm)	7.8 in (197 mm)	10.7 in (271 mm)	14.6 in (370 mm)	18.4 in (468 mm)	26.2 in (665 mm)
15°	10.2 in (260 mm)	6.6 in (167 mm)	9.4 in (239 mm)	13.2 in (336 mm)	17.0 in (432 mm)	24.6 in (625 mm)
20°	10.9 in (276 mm)	5.3 in (134 mm)	8.0 in (204 mm)	11.7 in (298 mm)	15.4 in (392 mm)	22.8 in (580 mm)
25°	11.6 in (295 mm)	3.9 in (99 mm)	6.6 in (167 mm)	10.2 in (258 mm)	13.7 in (349 mm)	20.9 in (530 mm)
30°	12.5 in (318 mm)	2.5 in (64 mm)	5.1 in (129 mm)	8.5 in (215 mm)	11.9 in (302 mm)	18.7 in (475 mm)
35°	13.6 in (346 mm)	1.1 in (27 mm)	3.5 in (88 mm)	6.7 in (170 mm)	9.9 in (252 mm)	16.4 in (416 mm)
40°	15.0 in (381 mm)	•/•	1.9 in (47 mm)	4.8 in (123 mm)	7.9 in (200 mm)	13.9 in (353 mm)

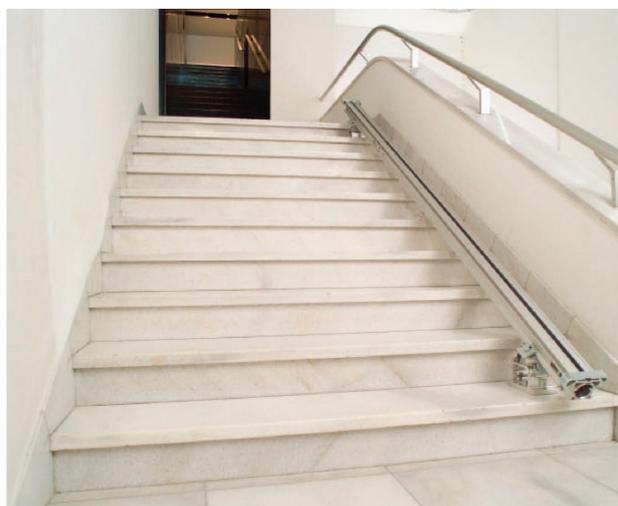
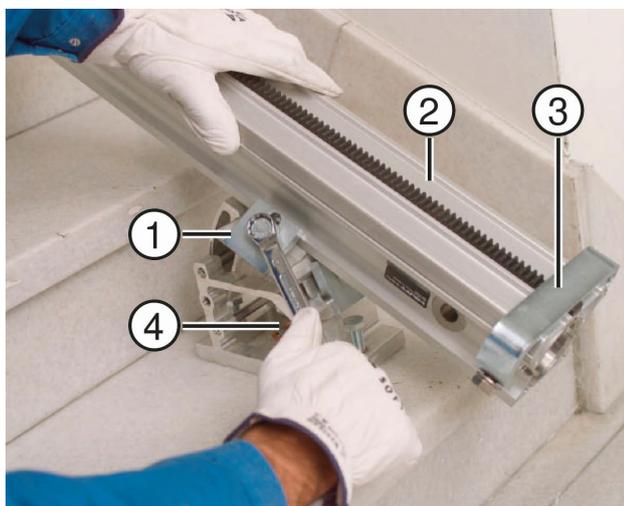


6.5 Mounting the rail on the rail supports for cutting on stairs

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 bolt
- ③ Clamping insert for cutting on stairs
- ④ Clamping bolt for angle adjustment
- ⑤ Slot for the fastening bolt



- ① Clamping insert for cutting on stairs
- ② Rail
- ③ End stop
- ④ Fastening bolt 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 Extending rails



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

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

i The rail 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.

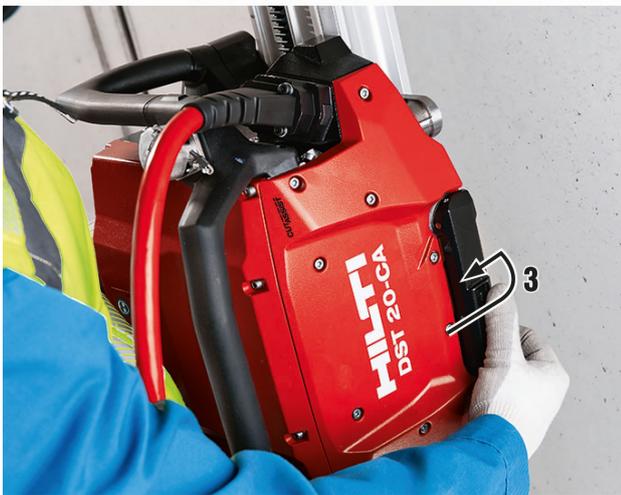
- ▶ Unplug the supply cord before making adjustments to the power tool or before changing accessories.

CAUTION

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 in the recess in the saw head casing.
- ▶ Before releasing the saw head locking levers, make sure you are holding the saw head securely.





- ① Locking lever
- ② Rail

- ③ Guide roller

1. Disengage the locking lever by lifting and pivoting the lever upwards.
 - ↳ Spring pressure holds the locking lever in the “open” position.
2. Lift the saw head by the grips and place it on the previously fastened rail. Make sure that the guide rollers are positioned correctly.
 - ↳ The guiding surface of the rail should lie against the middle of the guide rollers.
3. Lift the locking lever slightly and pivot it back to the casing edge.
4. Push the locking lever down until it engages fully in the recess in the casing.
 - ↳ If the locking lever does not engage correctly, discontinue the saw head installation operation and remove the saw head from the rail.

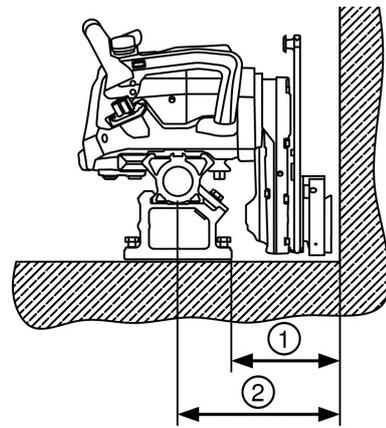
i When mounted horizontally, with the saw blade positioned below the rail, the saw head must be lifted by hand in order to close the locking lever.
Put the saw into operation only when it can be locked on the rail correctly and securely.

5. Check that the guide rollers are positioned correctly and that the locking lever is fully engaged.



7.1.1 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.



- ① 183 mm (7.2 in)
- ② 274 mm (10.8 in)

7.2 Connecting the saw to the electric supply and water supply



- ① Cooling water hose connector
- ② Remote control cable socket
- ③ Electric supply cable
- ④ “Ready for operation” indicator
- ⑤ Protective caps for connectors
- ⑥ Plug for remote control cable
- ⑦ Securing sleeve



⚠ WARNING

Risk of unintentional starting! The saw could start unintentionally when the electric supply cable is plugged in.

- ▶ Press the emergency stop button on the remote control unit before connecting the electric supply cable.

⚠ 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.

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

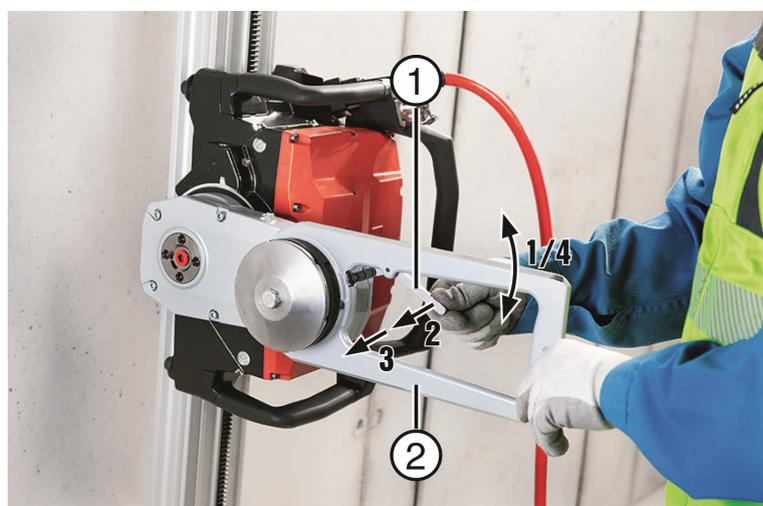
Conditions: You intend to work without wireless remote control.

- ▶ 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.
 - ▶ Rotate the locking sleeve on the plug until it engages.
 - ▶ Close the protective caps.
3. Switch the remote control unit on.

i For details, please refer to the operating instructions for the **DST WRC-CA** remote control unit.

4. Connect the cooling water hose (**Gardena** system connector on the saw head).

7.3 Adjusting the blade guard



① Lever, keyless locking system ② Blade guard holder

1. Adjust the blade guard holder to the desired position (45°, 90° or 135°).
2. Lightly press the lever of the keyless retaining mechanism.
3. Keep the lever pressed and turn the blade guard holder slightly until it is felt to engage.



4. Move the lever further, beyond the pressure point.
 - ↳ The blade guard holder is then fixed in the set position.

To release the blade guard holder, move the lever in the opposite direction.

7.4 Mounting the saw blade

7.4.1 General information on installing saw blades

- ▶ Thoroughly clean the mounting flange before installing the blade.
- ▶ Clean and degrease the clamping surfaces on the saw blade, on the blade mount and on the clamping flange before mounting the saw blade.
- ▶ 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).
- ▶ Do not use worn mounting or clamping flanges (wear may be caused, for example, by the blade slipping or by abrasion at its outer diameter).
- ▶ Use only genuine **Hilti** accessories and mounting bolts.
- ▶ Mount the saw blade in the correct direction of rotation.

7.4.2 Mounting the saw blade for normal cutting



- | | |
|--|--|
| <ul style="list-style-type: none"> ① Saw blade ② Centering and mounting flange ③ Saw-blade flange | <ul style="list-style-type: none"> ④ Duct for saw-blade cooling ⑤ Mounting bore for flush cutting ⑥ Securing bolt |
|--|--|

1. Pivot the saw arm into the 12 o'clock position.
2. Fit the saw blade on to the centering device on the mounting flange. Make sure that the direction of rotation arrow on the saw blade corresponds with the direction of rotation of the saw.
3. Place the clamping flange in position and tighten the securing screw.

Technical data

Saw blade mounting bolt tightening torque	81 ftlb _r (110 Nm)
---	----------------------------------

Materials

19 mm ring / open-end wrench

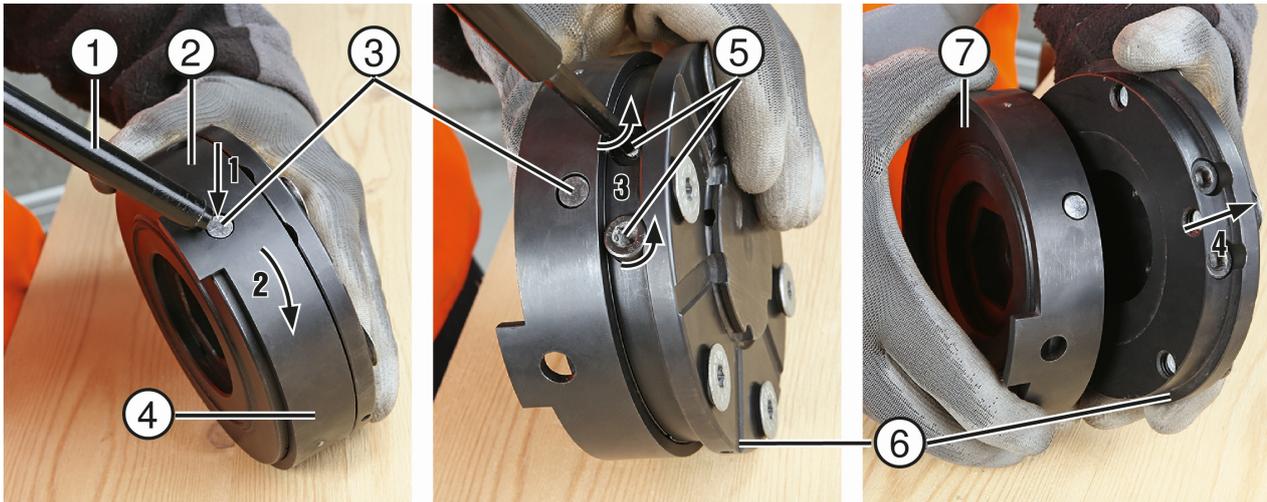
Note that the securing screw is captive in the clamping flange.



2122329

7.4.3 Mounting the saw blade for flush cutting

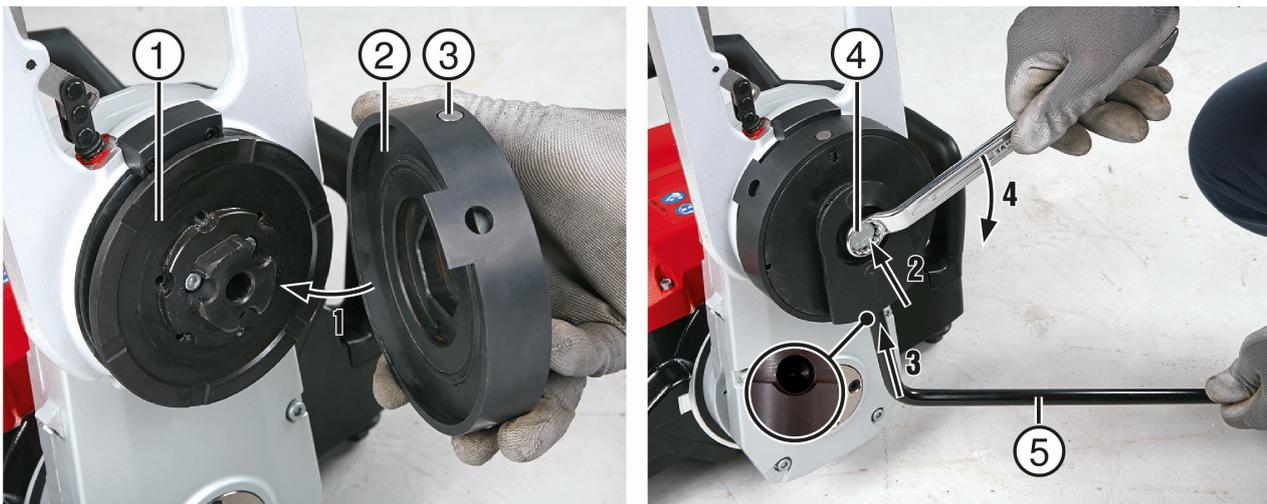
7.4.3.1 Preparing the flush-cutting flange for installation



- | | |
|----------------------------------|--------------------------------------|
| ① Hex key | ⑤ Securing screws (hex socket, 6 mm) |
| ② Flush-cutting flange, complete | ⑥ Saw-blade flange |
| ③ Locking pin | ⑦ Inner flange |
| ④ Outer ring | |

- Use the hex key to press the locking pin into the flush-cutting flange and turn the outer ring in the direction shown until the locking pin engages in the 2nd hole in the outer ring.
 - The outer ring moves aside, exposing 2 securing screws.
- Release the two securing screws.
- Separate the saw-blade flange from the inner flange.

7.4.3.2 Installing inner flange of flush-cutting flange on the saw arm



- | | |
|------------------------|-----------------|
| ① Mount on the saw arm | ④ Securing bolt |
| ② Inner flange | ⑤ Hex key |
| ③ Locking pin | |

- Thoroughly clean the contact flats on the saw arm and on the inner flange.
- Set the inner flange on the mount on the saw arm in such a way that the locking pin faces up.
- Insert the securing screw.
- Lock the mount so that it cannot turn by inserting the grip of the hex key into the hole in the underside of the mount and holding the hex key.



5. Tighten the securing screw.

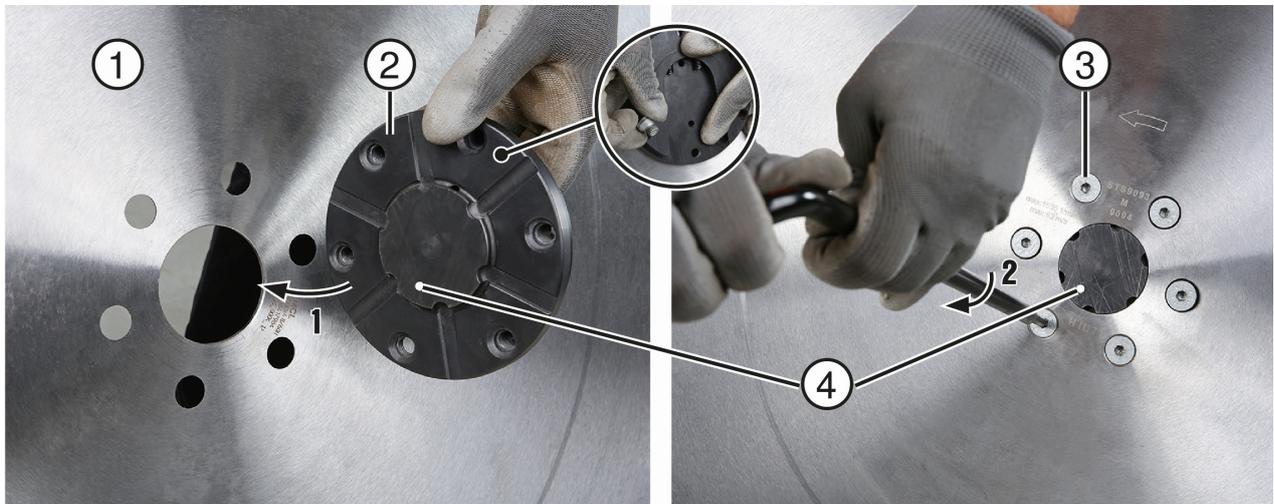
Technical data

Tightening torque, inner-flange securing screw
(M12×45 10.9)

81 ftlb_f
(110 Nm)

7.4.3.3 Installing the saw-blade flange of the flush-cutting flange on the saw blade

1. Remove the saw blade securing screws from the saw-blade flange.
2. Lubricate the 6 mounting bolts lightly with oil.



① Saw blade

② Saw-blade flange

③ Fastening screws

④ Mark (position of the short securing screw)

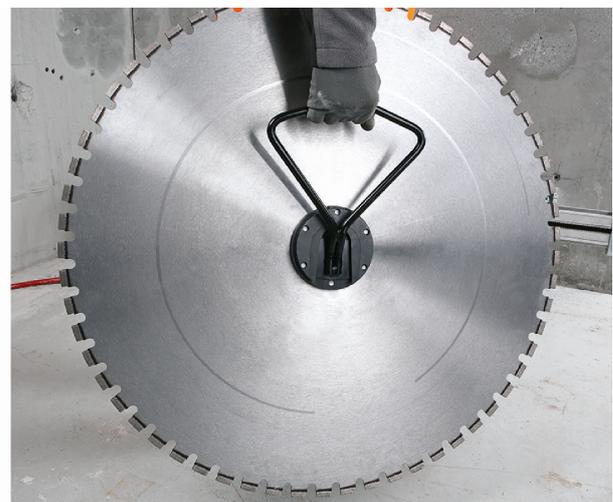
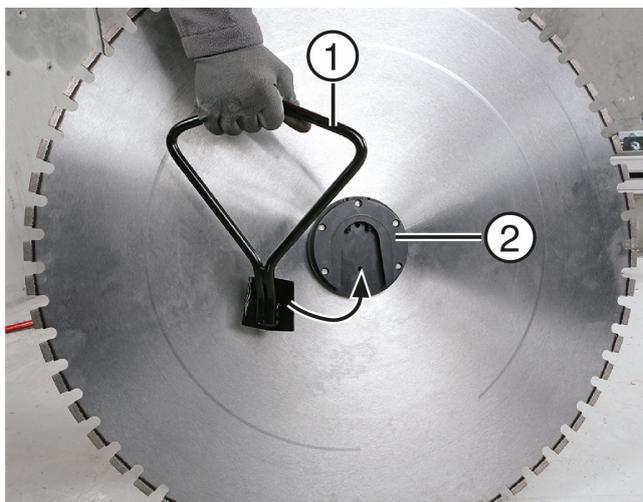
3. Position the saw-blade flange with the centering device on the saw blade in such a way that the opening in the back (see the detail in the illustration) faces down and the holes for the securing screws are aligned with the holes in the saw blade.
4. Insert and tighten the securing screws. Note the correct position of the short securing screw, indicated by the mark on the saw-blade flange.

Technical data

Tightening torque, countersunk-head screws
M10 10.9 to saw-blade flange

11 ftlb_f
(15 Nm)

7.4.3.4 Carrying the flush-cutting saw blade



① Carrying handle

② Saw-blade flange, flush-cut



2122329

Saw blades with saw-blade flange for flush-cuts installed can be easily carried with the carrying handle supplied for the purpose.



Consequently, it is a good idea to install saw-blade flanges on the saw blades needed. Additional saw-blade flanges are available separately.

Installing the carrying handle

- ▶ Position the saw blade with the opening in the saw-blade flange facing down.
- ▶ Guide the plate on the carrying handle from below into the recess in the saw-blade flange.

Removing the carrying handle

- ▶ Set down the saw blade and, applying firm pressure press the handle sharply down.

7.4.3.5 Mounting the saw blade for flush cutting

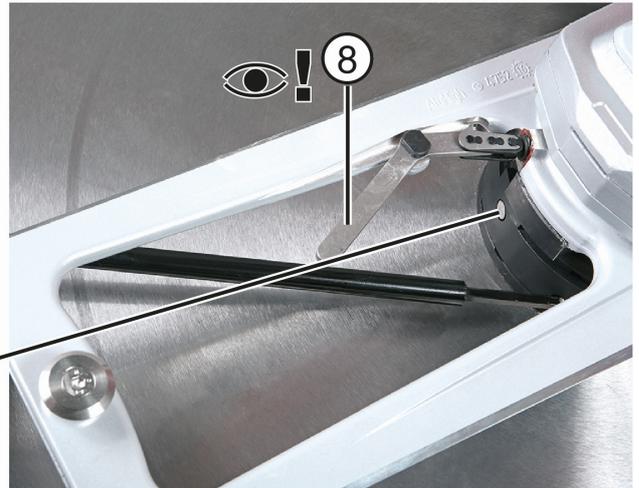
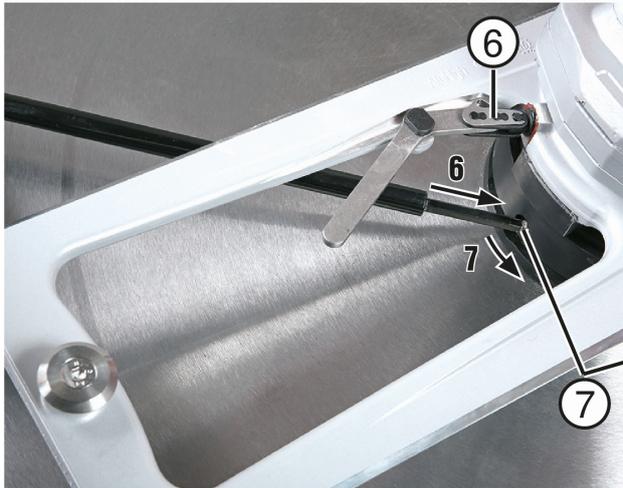
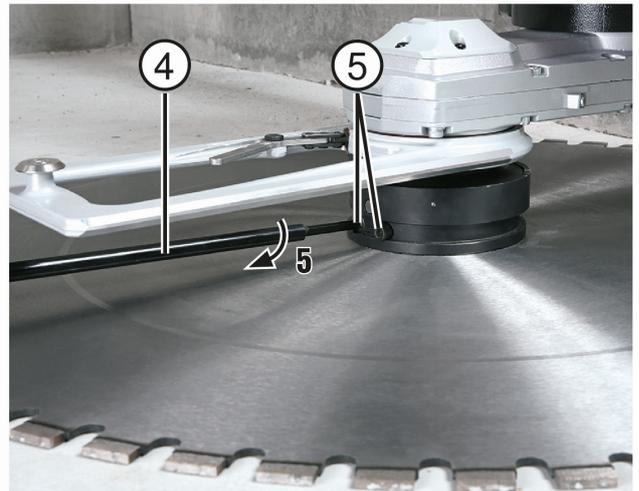
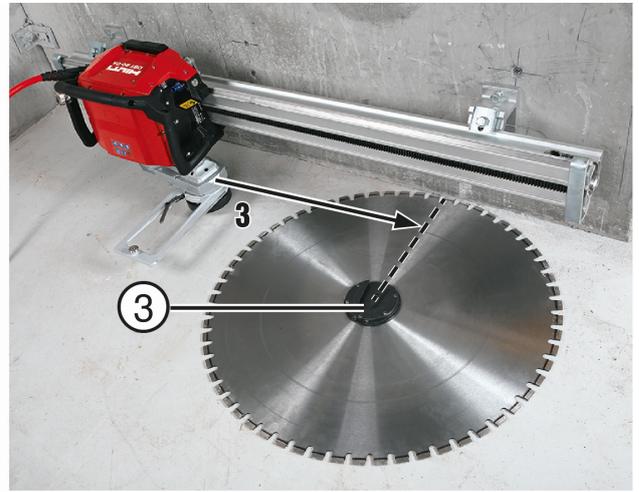
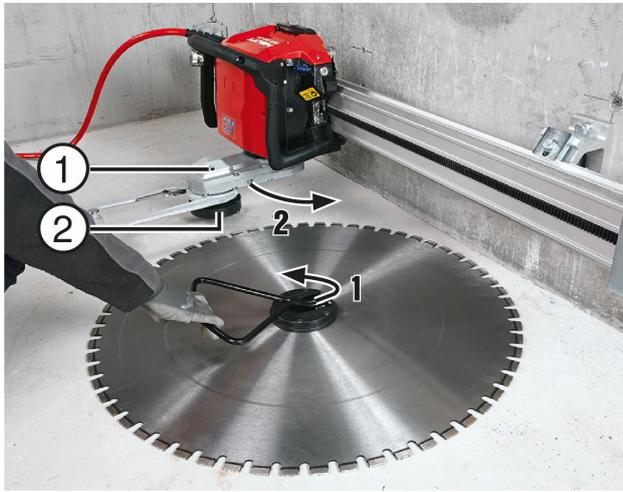


WARNING

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.
- ▶ Make sure that the outer ring of the inner flange shows no signs of cracks.
- ▶ Always make sure that the locking pin on the inner flange is fully engaged in the holes in the outer ring.
- ▶ If you find defects, stop work immediately and replace the defective parts.





- | | |
|--------------------|---------------------------------|
| ① Saw arm | ⑤ Fastening screws |
| ② Inner flange | ⑥ Outer ring on inner flange |
| ③ Saw-blade flange | ⑦ Locking pin |
| ④ Hex key | ⑧ Lever, keyless locking system |

1. Position the saw blade so that the mount on the saw blade is at a right angle to the rail.
2. Remove the carrying handle from the saw-blade flange and thoroughly clean the mount on the inner flange and the saw-blade flange.
3. Pivot the saw arm to the 3-o'clock or 9-o'clock position and move the saw until the inner flange on the saw arm is directly underneath the saw-blade flange.

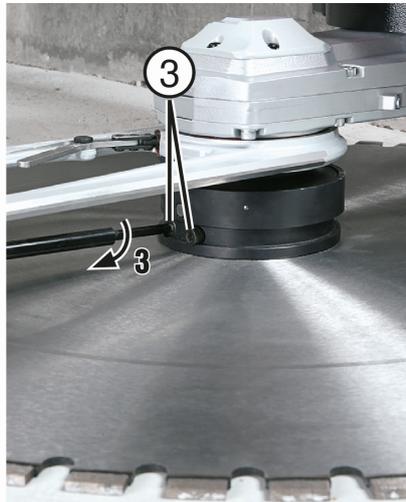


4. Turn the inner flange until the screws in the inner flange point toward the mount on the saw-blade flange.
5. Pivot the saw arm up.
 - ↳ The mount on the inner flange is guided into the mount on the saw-blade flange.
6. Tighten the two securing screws in the clockwise direction.

Technical data	
Mounting bolt tightening torque	15 ftlb _r (20 Nm)
Materials	
6 mm hex key	

7. Use the hex key to press down the locking pin in the inner flange and turn the outer ring counter-clockwise (as viewed from the saw arm) until the locking pin engages in the other hole in the outer ring.
8. Make sure that the blade guard holder is locked (the lever of the keyless locking mechanism must be in the position shown in the illustration).

7.4.3.6 Removing the saw blade for flush-cutting with the mounting flange installed



- | | |
|--|---|
| <ul style="list-style-type: none"> ① Locking pin ② Outer ring on inner flange ③ Securing screws | <ul style="list-style-type: none"> ④ Saw arm ⑤ Saw-blade flange |
|--|---|

1. Use the hex key to press down the locking pin and turn the outer ring clockwise (as viewed from the saw arm) until the locking pin engages in the other hole in the outer ring.
 - ↳ The outer ring moves toward the saw arm, exposing 2 securing screws.
2. Turn the saw blade so that with the saw blade vertical, the locking pin faces up.



With the saw blade vertical, this prevents the mounting flange complete with saw blade from slipping out of the mount under its own weight when the securing screws are unscrewed.

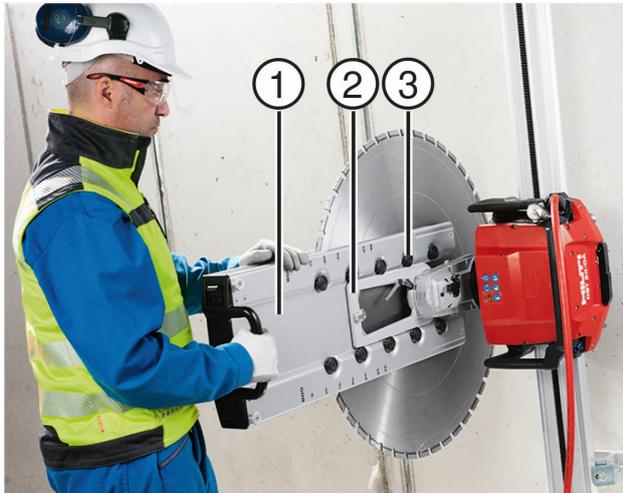
3. Release the two securing screws.

Materials	
6 mm hex. socket wrench	



4. Pivot the saw arm toward the rail. Hold the saw blade so that it cannot topple or drop out when released.
 - ↳ The inner flange on the saw arm disengages from the mount on the saw-blade flange.
 - ↳ The saw blade is now completely disengaged from the saw and can be carried away with the carrying handle.

7.5 Fitting the blade guard



- ① Blade guard center section
- ② Blade guard holder
- ③ Guide wheels
- ④ Blade guard side section

- ⑤ Metal hook
- ⑥ Clamp
- ⑦ Rubber tensioning strap
- ⑧ Tensioning lug

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 entering 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 in the surrounding area. It may be possible, for example, to construct a box around the saw made from formwork boards in order to avoid flying debris.

To remove the complete blade guard unit, release the rubber tensioning strap.

To remove the blade guard side section, release the tensioning bar.

8 Working with the saw

8.1 Checks before beginning sawing work

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

- 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.
- The water supply hose and electric cables as well as the remote control cable are connected and suitably positioned outside the area of movement of the saw.
- The rail supports and rails are positioned correctly and mounted securely.
- End stops are fitted at both ends of the rails.
- The saw head is seated correctly on the rail, the locking lever is closed and fully engaged in the recess in the saw head casing.
- The operating instructions for the saw head have been read by the operating personnel.
- The saw blade has been fitted in the correct direction of rotation and the clamping flange or, respectively, the clamping bolts tightened to the required torque.
- 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. The operating instructions for the remote control unit have been read by the operating personnel.
- Personal protective equipment, as illustrated on the machine, is worn by the personnel.
- The “ready for operation” indicator on the saw head is lit.
- The operating personnel has become familiar with the procedures for operation of the saw and its components.
- 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	≈ 2 in (≈ 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	30 % ... 50 %

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	2 in ... 6 in (5 cm ... 15 cm)

WARNING

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

- ▶ If the blade is not rotating, always pivot the blade out of the kerf before moving the saw head.

9 Dismantling the saw system

9.1 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 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 in the recess in the saw head casing.
- ▶ Before releasing the saw head locking levers, make sure you are holding the saw head securely.

1. Pivot the saw arm into the 90° position.
2. Switch off the saw blade drive.
3. Disconnect the saw head from the electric supply (unplug the electric supply cable).



4. Disconnect the remote control unit from the saw head and fit the protective caps to the connectors / sockets. If the remote control unit is used without a cable: Switch the remote control unit off.
5. Remove the blade guard from the saw blade.
6. Disconnect the cooling water hose from the saw head.
7. Blow out the cooling circuit. → page 40

⚠ CAUTION

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

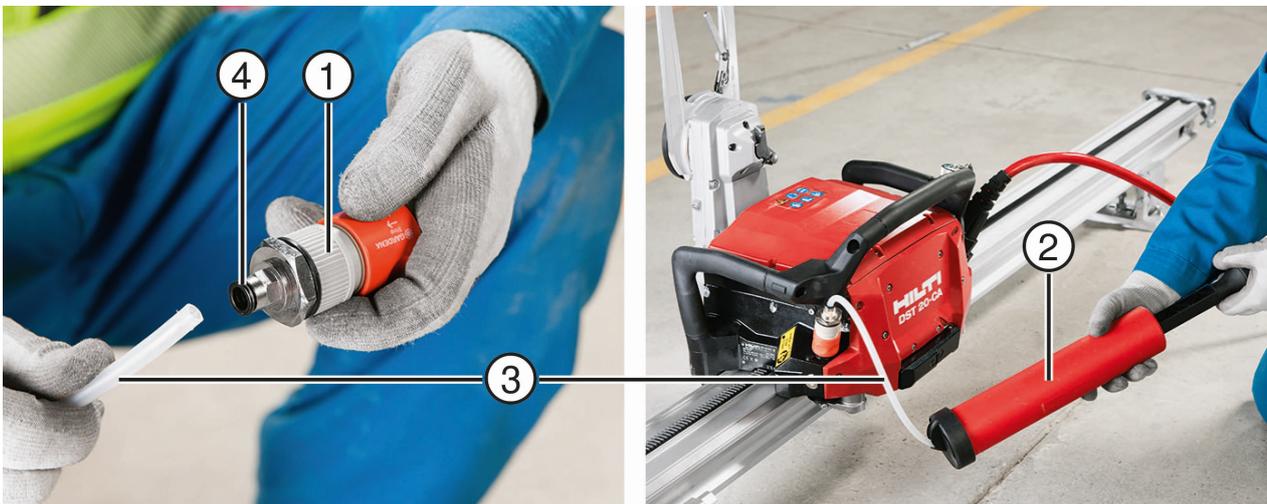
- ▶ Wear protective gloves when changing the saw blade.

8. Remove the saw blade.
9. Lift the saw head off the rail.
10. Dismantle the rail system.
11. Dismantle / remove the rail supports.
12. Clean and check all parts of the equipment for damage.
13. Stow and secure the equipment on the transport trolley.

9.2 Blowing out the cooling circuit



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 | ③ Pump hose |
| ② Air pump | ④ Release ring |

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.



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.

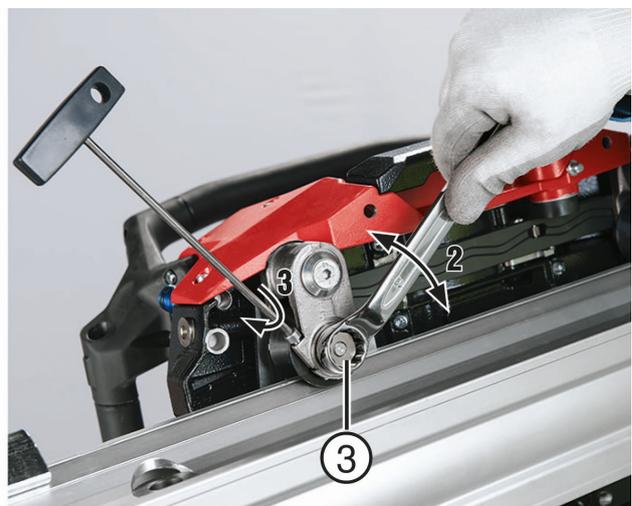
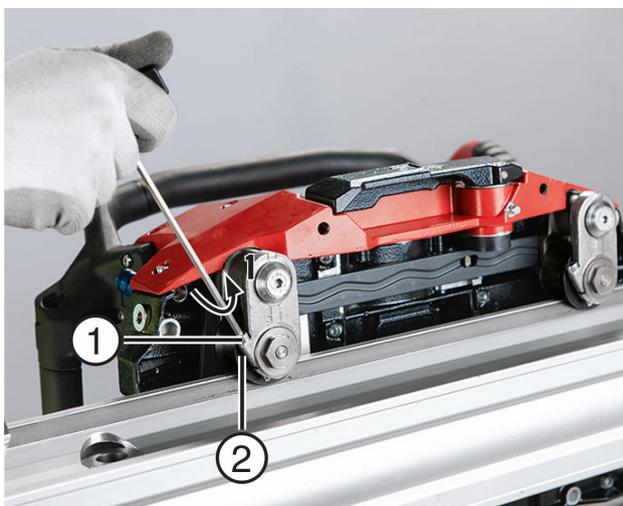
- ▶ Always unplug the supply cord before carrying out care and maintenance tasks.

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 rail 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 rail.



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.

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

▶ 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.

Maintenance → page 42

▶ Do not operate the electric wall saw if signs of damage are found or if parts malfunction. Have the machine 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 the product can be found at your local **Hilti Center** or online at www.hilti.com

Maintenance

Parts	Procedure	Daily	Weekly
Rail supports	Check the contact and clamping surfaces. Clean if necessary.	X	
	Check the threads for smoothness and ease of operation. Clean if necessary.		X
Rail	Check the contact and running surfaces. Clean if necessary.	X	
	Check the tothing and running surfaces for damage and wear. Replace the rail if necessary.		X
	Check the tapered sleeves, clean and lubricate with oil if necessary.	X	
	Check the means of securing the end stops.	X	
Blade guard	Check and clean inner and outer surfaces. Remove any slurry deposits.	X	
	Check that the guide rollers are free to move. Clean or replace the parts if necessary.		X
	Check the condition of the rubber tensioning straps and replace if necessary.	X	



Parts	Procedure	Daily	Weekly
Blade guard	Check the clamping lever tension and adjust if necessary by turning the hex. head bolt.	X	
Saw head	Check the locking mechanism for ease of operation and secure locking. Clean, lubricate (grease nipples) or have repaired if necessary.	X	
	Check the guide rollers for ease of operation and excessive play, have them replaced / repaired as necessary.		X
	Check the guide rollers for ease of operation and excessive play, have them replaced / repaired as necessary.	X	
	Check the cable for damage and replace it if necessary.	X	
	Check the saw blade mounting flange and mounting bolt for wear and cleanliness. Clean or replace if necessary.	X	
	Check the saw head for oil or water leakage and have it repaired if necessary.		X
	Check the water flow and replace the mesh filter at the water supply connection if necessary.		X
Mounting flange	Thoroughly clean the mounting flanges for normal and flush cutting.	X	
Cables / plugs	Check the plug connectors for cleanliness, damage and ease of operation. Blow out with compressed air or have the parts replaced if necessary.	X	
	Check the cables for damage and replace them if necessary.	X	
Transport trolley	Check the tyre pressure (see section "Technical data" for details)		X
Tool set	Check for completeness.		X

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 remedy 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.



Trouble or fault	Possible cause	Action to be taken
The cut is not straight.	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.
	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: The cut is not straight.
	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"> ▶ 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. Caution! Avoid use of excessive force as this could result in damage. ▶ 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.
	The part cut free is pressing against the saw blade.	<ul style="list-style-type: none"> ▶ Disconnect the saw blade from the saw. ▶ Remove the part that has been cut free.

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

- ▶ 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)

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.



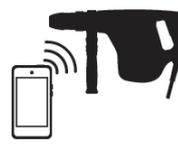
This Product is Certified
Ce produit est homologué
Producto homologado por
Este producto está registrado



Electrical safety



Hilti Corporation
LI-9494 Schaan
Tel.:+423 234 21 11
Fax:+423 234 29 65
www.hilti.com



2164701



Hilti Connect



2122329

Hilti = registered trademark of Hilti Corp., Schaan

20190502