

HILTI

DD 130

Operating instructions

en

Mode d'emploi

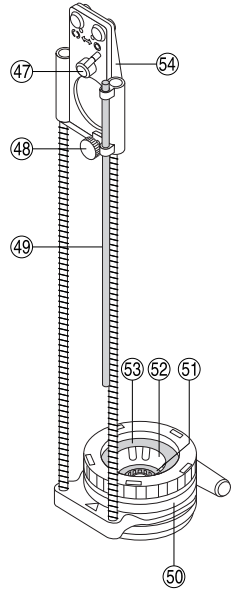
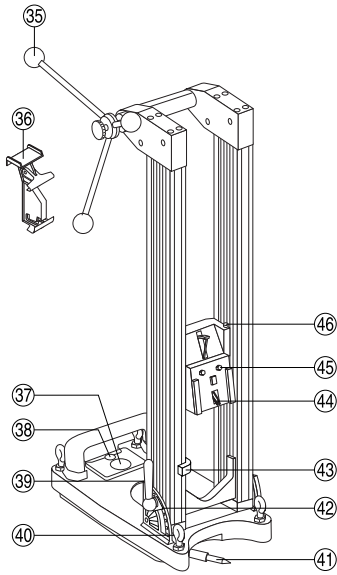
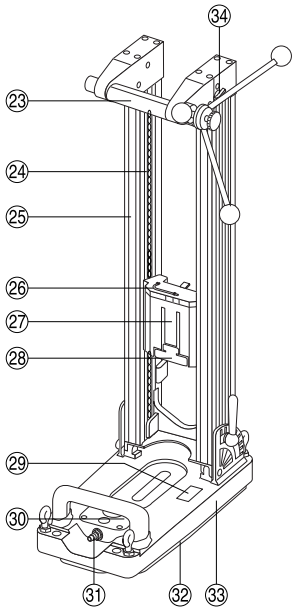
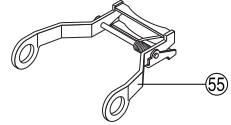
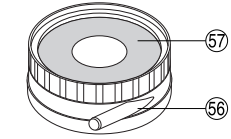
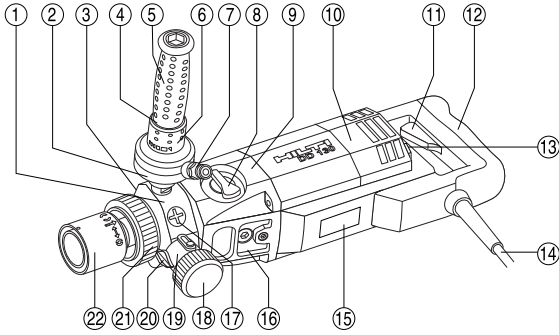
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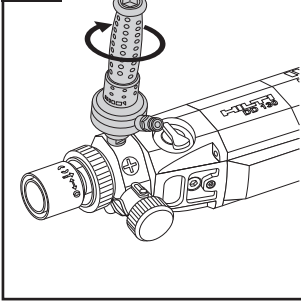
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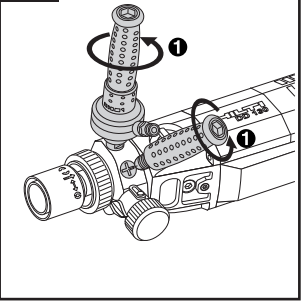
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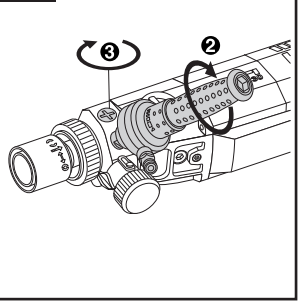
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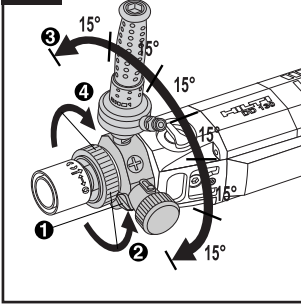
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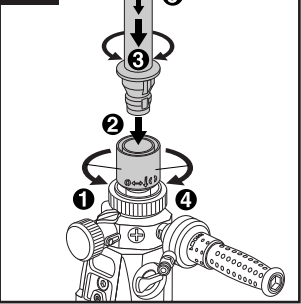
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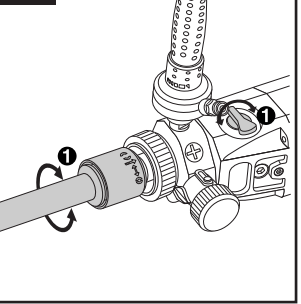
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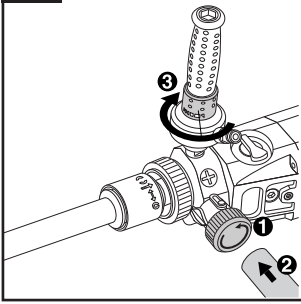
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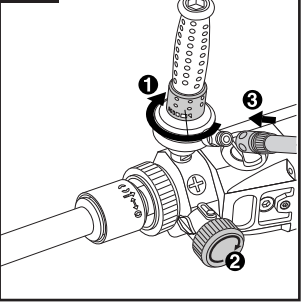
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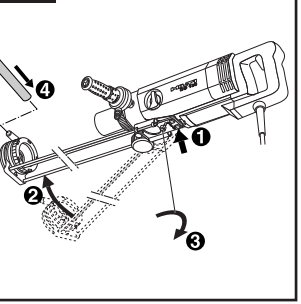
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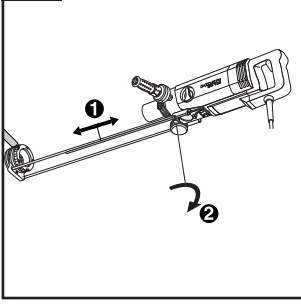
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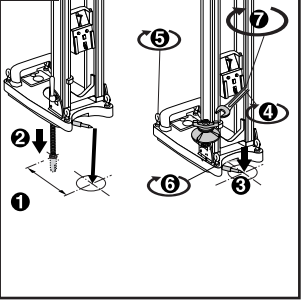
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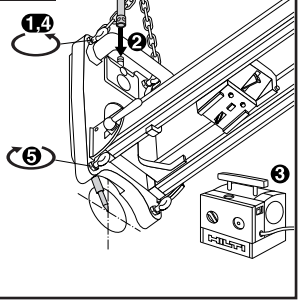
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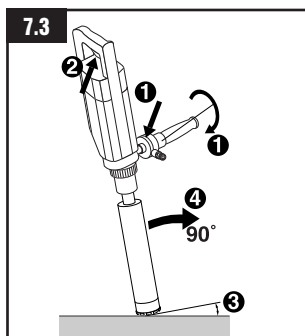
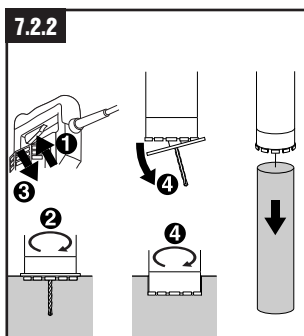
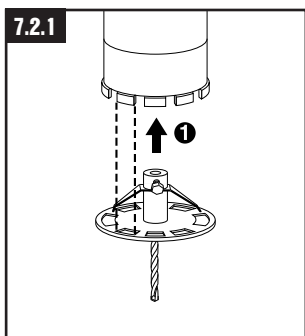
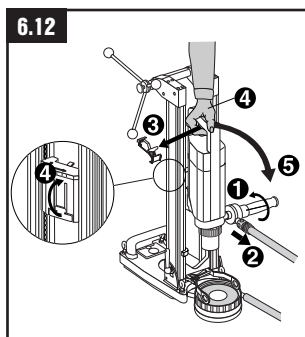
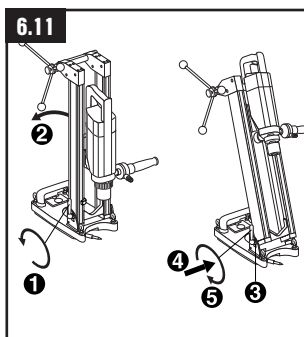
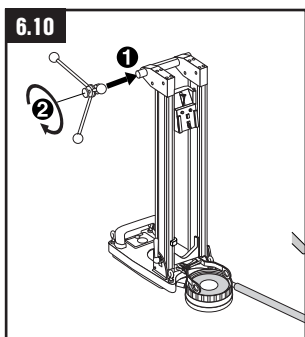
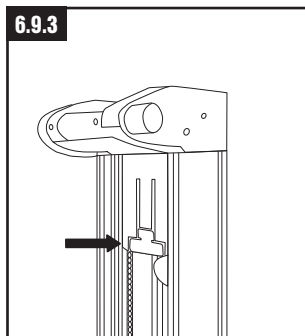
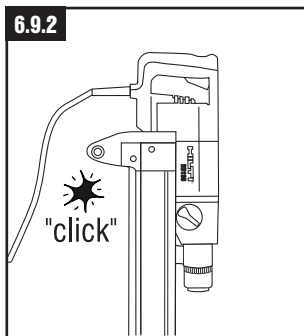
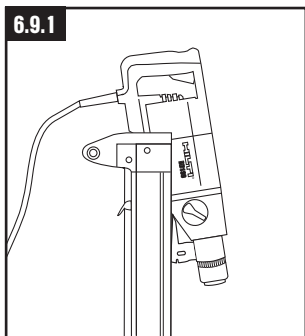
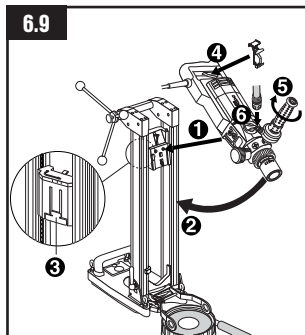
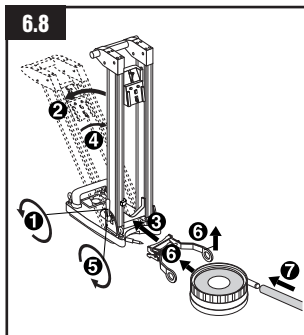
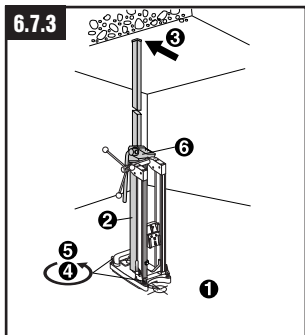


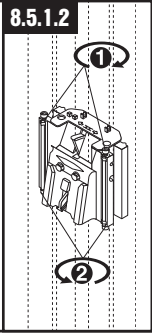
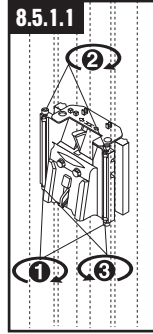
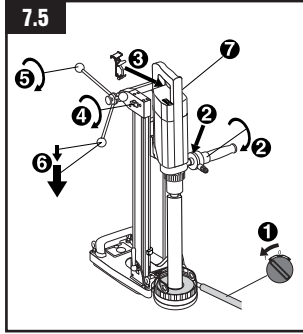
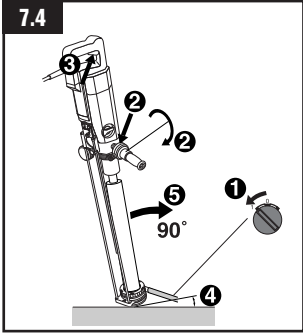
6.7.1



6.7.2







ORIGINAL OPERATING INSTRUCTIONS

DD 130 diamond core drilling machine

It is essential that the operating instructions are read before the tool is operated for the first time.

Always keep these operating instructions together with the tool.

Ensure that the operating instructions are with the tool when it is given to other persons.

Parts of the DD 130

Core drilling machine

- ① Water swivel / extraction head
- ② Water flow indicator
- ③ Level indicator
- ④ Screwdriver (side handle)
- ⑤ Side handle
- ⑥ Water flow regulator
- ⑦ Water hose connector
- ⑧ Gear selector
- ⑨ Gearing section
- ⑩ Motor
- ⑪ On / off switch
- ⑫ Grip
- ⑬ Overload indicator
- ⑭ Supply cord with PRCD
- ⑮ Rating plate
- ⑯ Interface plate
- ⑰ Screw plugs (water swivel / extraction head)
- ⑱ Cover (water swivel / extraction head)
- ⑲ Extraction connector
- ⑳ Water swivel lock
- ㉑ Locking ring (water swivel / extraction head)
- ㉒ Chuck

Drill stand

- ㉓ Grip
- ㉔ Chain
- ㉕ Columns
- ㉖ Hex. wrench
- ㉗ Carriage
- ㉘ Release lever
- ㉙ Specification plate
- ㉚ Vacuum release valve

- ㉛ Vacuum hose connector
- ㉜ Vacuum pad
- ㉝ Baseplate
- ㉞ Chain arrestor
- ㉟ Hand wheel
- ㊱ On / off switch lock
- ㊲ Pressure gauge
- ㊳ Level indicator
- ㊴ Adjusting lever
- ㊵ Levelling screws
- ㊶ Hole centre indicator
- ㊷ Locating lugs
- ㊸ Depth gauge
- ㊹ Locking mechanism
- ㊺ Mounting pins
- ㊻ Chain tensioner

Water collector for hand-held use

- ㊼ Securing knob
- ㊽ Clamping screw
- ㊾ Depth gauge
- ㊿ Water collector cup
- ① Centring ring
- ② Centring ring adaptor
- ③ Seal
- ④ Mounting plate

Water collector for use with the drill stand

- ⑤ Holder
- ⑥ Water collector cup
- ⑦ Seal

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1. General information

1.1 Safety notices and their meaning

-DANGER-

Draws attention to imminent danger that will lead to serious bodily injury or fatality.

-WARNING-

Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

-CAUTION-

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

-NOTE-

Draws attention to an instruction or other useful information.

1.2 Pictograms

Warning signs



General warning



Warning: electricity



Warning: hot surface

Obligation signs



Wear eye protection



Wear a safety helmet



Wear ear protection



Wear safety gloves



Wear safety boots

Symbols



Read the operating instructions before use.



Return waste material for recycling.

A

Amps

V

Volts

W

Watts

Hz

Hertz

/min

Revolutions per minute

rpm

Revolutions per minute

~

Alternating current

n₀

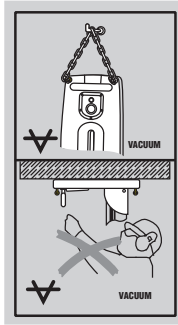
Nominal speed under no load

∅

Diameter

Symbols

On the drill stand



Top part
An additional means of securing the drill stand must be employed when used for horizontal drilling with vacuum attachment.

Bottom part
The drill stand must be fastened by means of an anchor or quick-release brace when used for overhead drilling.

On the tool



Use of the water collector system in conjunction with a wet-type vacuum cleaner is mandatory when working overhead on ceilings.

1 These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

In these operating instructions, the DD 130 core drilling machine is referred to as "the tool".

Location of identification data on the tool

The type designation and serial number can be found on the rating plate on the tool. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: DD 130

Serial no.: _____

2. General safety rules

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

2. Work Area

2.1 Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

2.2 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.

2.3 Keep bystanders, children and visitors away while operating a power tool. Distractions can cause you to lose control.

3. Electrical Safety

3.1 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.

3.2 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.

3.3 Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

3.4 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.

3.5 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.

4. Personal Safety

4.1 Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a 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.

4.2 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.

4.3 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.

4.4 Remove adjusting keys or wrenches 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.

4.5 Do not overreach. Keep proper footing and balance at all times. Proper footing and balance

enables better control of the tool in unexpected situations.



4.6 Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat or hearing protection must be used for appropriate conditions.

5. Tool Use and Care

5.1 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.

5.2 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.

5.3 Do not use tool if the switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

5.4 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.

5.5 Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

5.6 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.

5.7 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.

5.8 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.

6. Service

6.1 Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.

6.2 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.

6.3 If a GFCI is supplied with the power tool, never operate the power tool without the GFCI.

3. Specific safety rules and symbols

3.1 Basic safety information

In addition to the safety precautions listed in the individual sections of these operating instructions, the following points must be strictly observed at all times:

3.2 Use as intended

The DD 130 is designed for drilling through holes and blind holes in mineral materials.

Applications:

With / without drill stand	Core bit diameter	Drilling direction
Hand-held / dry	With dust extraction, 1/2–6 1/2" (12–162) mm dia.	All directions
Hand-held / wet	Without water collection system, 1/2–2 1/2" (12– 62) mm dia	Not upwards
Hand-held / wet	With water collection system, 1/2–2 1/2" (12– 62) mm dia	All directions
Drill stand / wet	Without water collection system, 1/2–6" (12–152) mm dia	Not upwards
Drill stand / wet	With water collection system 1/2–5" (12–132) mm dia	All directions

When drilling in an upwards direction, a wet-type vacuum cleaner must be connected to the water collection system. **The machine may be operated only when connected to an adequately-rated electric supply equipped with an earth (ground) conductor.**

3.3 Avoiding incorrect use



● Horizontal drilling with vacuum attachment is permissible only when an additional means of securing the drill stand is employed. The drill stand may be used for overhead drilling only when fastened by an anchor or by means of a quick-release brace.

● Drilling into materials containing asbestos is not permissible.

● Changes or modifications to the tool are not permissible.

● To avoid the risk of injury, use only original Hilti accessories and additional equipment.

● Observe the information printed in the operating instructions concerning operation, care and maintenance.

3.4 State of the art

● The tool is designed and manufactured according to the state of the art.

● The tool and its accessories may, nevertheless, present hazards when used incorrectly by untrained personnel or when used not as directed.

3.5 Proper arrangement and organisation of the workplace



● Do not wear loose clothing, loose long hair or jewellery which could become caught up in moving parts. Wear a hair net if you have long hair.

● Wear non-slip safety boots or shoes and always work from a secure stance.

● Do not work from a ladder.

● Avoid unfavourable body positions.

● Do not expose the tool to rain or snow and do not use

it in damp or wet areas or where there is a risk of fire or explosion.

● Ensure that the workplace is well lit.

● Objects which could cause injury should be removed from the working area.

● Always lead the supply cord, extension cord and extraction hose away to the rear of the tool (away from rotating parts) when working.

● Take care to avoid tripping over the supply cord, extension cord or extraction hose.

● Keep other persons, children in particular, outside the area affected while you are working.

● Concealed electric cables or gas and water pipes present a serious hazard if damaged while you are working. Accordingly, check the area in which you were working beforehand (e.g. using a metal detector). External metal parts of the tool may become live, for example, when an electric cable is drilled into inadvertently.

● Avoid contact between your body and earthed / grounded objects such as pipes or radiators.

● When drilling holes through ceilings or floors from above, secure the area below as the core may fall out, presenting a risk of injury or damage.

● **The tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.**

● **Children must be instructed not to play with the tool.**

● **WARNING: Some dust created by grinding, sanding, cutting and drilling contains chemicals known to cause cancer, birth defects, infertility or other reproductive harm; or serious and permanent respiratory or other injury.** Some examples of these chemicals are: lead from lead-based paints, crystalline silica from bricks, concrete and other masonry products and natural stone, arsenic and chromium from chemically-treated lumber. Your risk from these exposure varies, depending on how often you do this type of work. **To reduce exposure to these chemicals, the**

operator and bystanders should work in a well-ventilated area, work with approved safety equipment, such as respiratory protection appropriate for the type of dust generated, and designed to filter out microscopic particles and direct dust away from the face and body. Avoid prolonged contact with dust. Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth, nose, eyes, or to remain on your skin may promote absorption of harmful chemicals.

3.6 General safety precautions

- Operate the tool only as directed and only when it is in faultless condition.
- Use a vice or clamp to secure loose workpieces.
- The tool may be operated only when held in both hands or when mounted on the drill stand.
- Keep the grips dry, clean and free from oil and grease.
- Never leave the tool unsupervised.
- Ensure that the tool is switched off (remove the switch lock insert) before switching on at the PRCD (ground fault interrupter).
- Test the PRCD each time before use (see 7.1).
- Do not keep your finger on the on / off switch while carrying the tool when connected to the mains supply.
- Disconnect the supply cord plug from the socket when the tool is not in use (e.g. during breaks), before maintenance and before changing core bits.
- When not in use, the tool must be stored in a dry place, locked up or out of reach of children.
- Avoid skin contact with drilling slurry.

3.6.1 Mechanical hazards



- Observe the instructions concerning care and maintenance and the replacement of core bits in good time.
- Ensure that core bits used are equipped with the correct connection end system and properly fitted and secured in the chuck (see section 6.2).
- Always use the side handle for hand-held operation. Ensure that it is fitted correctly and properly secured (see 6.1.1 and 6.1.2).
- Ensure that the water swivel / extraction head (side handle mount) is properly secured in position and that the locking ring is tightened (see 6.1.3).
- Ensure that the tool is securely attached when mounted on the drill stand (see 6.9).
- Do not touch rotating parts.

3.6.2 Electrical hazards



- Check the condition of the tool including the supply cord and extension cord as well as the plug connections. Do not operate the tool if damage is found, if the tool is not complete or if its controls cannot be operated faultlessly.
- Never carry the tool by the supply cord.

- Grip the plug and not the cable when pulling it out of the socket.
- Do not expose the supply cord to heat, oil or sharp edges.
- Do not touch the supply cord in the event of it suffering damage while working. Disconnect the supply cord plug from the socket.
- Do not operate the tool when it is dirty or wet. Dust or dampness on the surface of the tool make it more difficult to hold and, under unfavourable conditions, may lead to electric shocks.
- When working outdoors, use only extension cords that are approved and correspondingly marked for this application.

3.6.3 Thermal hazards



- The core bit may become hot during use. Wear safety gloves when changing core bits.

3.7 Requirements to be met by users

- The tool is intended for professional use.
- The tool may be operated, serviced and repaired only by authorised, trained personnel. This personnel must be informed of any special hazards that may be encountered.
- Always concentrate on the job you are doing. Proceed carefully and do not use the tool if your full attention is not on the job.

3.8 Personal protective equipment

The user and any other persons in the vicinity must wear suitable safety goggles, a safety helmet, ear protection, safety gloves and safety boots while the tool is in operation.



3.9 Protective equipment

- Never use the tool without the applicable protective equipment:
- Never operate the tool without the water swivel / extraction head.
- An additional means of securing the drill stand must be employed when used for horizontal drilling with vacuum attachment.
- The drill stand must be fastened by means of an anchor or quick-release brace when used for overhead drilling.
- Use of the water collector system in conjunction with a wet-type vacuum cleaner is mandatory when carrying out wet overhead drilling.

4. Functional description

The DD 130 is an electrically powered diamond core drilling machine designed for hand-held use or for mounting on a drill stand. It is suitable for wet or dry core drilling.

Items supplied:

- Power tool
- Side handle
- Hilti toolbox or cardboard box
- Operating instructions
- Cleaning cloth
- Wrench SW 19
- Grease
- Protective glasses

5. Technical data

Nominal voltage:	110 V	120 V
Nominal power:	1700 W	1800 W
Nominal current:	16 A	15 A
Frequency:	50/60 Hz	50/60 Hz
Nominal no-load speed	780 /min	
1 st gear	1400 /min	
2 nd gear	2600 /min	
3 rd gear	(Change gear only when rotation has stopped.)	
Max. permissible water supply pressure:	6 bar (In the event of higher water pressure, a pressure reduction valve must be fitted at the building site connection.)	
Dimensions (L×W×H):	20.3×4.5×6.7" (515×114×170 mm)	
Weight (basic tool):	approx. 15.7 lbs (7.1 kg)	
Weight (drill stand):	approx. 28.9 lbs (13.1 kg)	
Protection class:	Protection class I (earthed)	
Drilling depth:	max. 16.9" (430 mm) 28.7" (730 mm) with extension	

Right of technical changes reserved

6. Before use

It is essential that the safety precautions printed in these operating instructions are read and observed.

-CAUTION-

Disconnect the tool from the mains supply.



If extension cables are used: Only extension cables of a type approved for the intended use and of adequate cross section may be used. Failure to observe this point may result in reduced performance and could cause the cable to overheat. Damaged extension cables must be replaced. The recommended cable cross-sections and maximum lengths are:

Mains voltage	Conductor cross-section			
	1.5 mm ²	2.0 mm ²	2.5 mm ²	3.5 mm ²
100 V		20 m		40 m
110–120 V	20 m		40 m	
220–230 V	50 m		80 m	

-CAUTION-	
	<ul style="list-style-type: none"> ■ The tool, the diamond core bit and the drill stand are heavy.
	<ul style="list-style-type: none"> ■ There is a risk of pinching parts of the body.
	<ul style="list-style-type: none"> ■ Wear a safety helmet, safety gloves and safety boots.

6.1 Side handle

6.1.1 Fitting the side handle

1. Screw the side handle onto the tool and tighten it securely.

6.1.2 Fitting the side handle in a different position

1. Remove the screw plug at the position where the side handle is to be fitted (e.g. for left-handed use). The

grip at the end of the side handle can be unscrewed and used as a screwdriver.

- Screw the side handle onto the tool at the desired position and tighten it securely.
- Insert the screw plug in the exposed threaded hole.


6.1.3 Adjusting the extraction head / water swivel (and side handle)

- Press the water swivel lock out of the gap between the locking ring and the water swivel/extraction head.
- Release the locking ring between the chuck and side handle.
- Move the side handle into the desired position (15° increments).
- Tighten the locking ring securely until the teeth and the water swivel lock engage.

6.2 Fitting the diamond core bit

-CAUTION-

Use only original Hilti core bits and accessories!

	-CAUTION-	
	<ul style="list-style-type: none"> ■ The core bit may become hot during use or during sharpening. ■ It may burn your hands. ■ The cutting edges (segments) may cause injury. ■ Wear safety gloves when changing the core bit. 	





- Open the chuck by turning it counter-clockwise (as seen from the front end of the chuck).
- Insert the diamond core bit in the chuck.
- Push the diamond core bit into the chuck and rotate the core bit until it engages.
- Close the chuck by turning it clockwise (as seen from the front end of the chuck).
- Check that the core bit is securely seated by gripping it and attempting to pull it away from the chuck.

6.3 Selecting the drilling speed (gear selector positions 1-2-3)




-CAUTION-

Do not operate the gear selector while the tool is running. Wait until rotation has stopped.

Hand-held use

	∅		
	mm	Inch	
	40 - 62 12 - 37	1 5/8" - 2 1/2" 1/2" - 1 1/2"	II III 278663
	122 - 162 67 - 112 12 - 62	4 3/4" - 6 1/2" 2 5/8" - 4 1/4" 1/2" - 2 1/2"	I II III

Drill-stand use

	∅		
	mm	Inch	
	57 - 152 28 - 52 12 - 25	2 1/4" - 6" 1 1/8" - 2" 1/2" - 1"	I II III 278755

- Select the gear according to the table on the tool.
- Move the gear selector to the desired setting while rotating the core bit.

6.4 Dry drilling

6.4.1 Connecting the extraction system

- Unscrew the cover from the water swivel / extraction head.
- Insert the extraction hose in the extraction connection.
- Close the water valve in the side handle.

6.5 Hand-held wet drilling

6.5.1 Connecting the water supply

- Close the water valve in the side handle.
- Close the cover on the dust extraction connection.
- Connect the water supply hose (hose connector).

6.6 Hand-held wet drilling with the water collection system

6.6.1 Fitting the water collection system

Use of the water collection system permits water to be drained away from the core bit thus avoiding soiling the surrounding area. Best results are achieved in conjunction with a water wet-type vacuum cleaner.



Use of the water collection system in conjunction with a wet-type vacuum cleaner is mandatory for overhead drilling. Position the side handle and water swivel / extraction head so that the water collection system can be fitted without obstruction.

The centering ring and seal must be of a size suitable for the core bit diameter used.

1. From below the tool, position the water collection system on the two mounting pins.
2. Swing the water collection system towards the front.
3. Secure the water collection system by turning the knob.
4. Connect a wet-type vacuum cleaner to the front of the water collection system. Alternatively, the water can be allowed to flow away through a length of hose attached to the connector (not permissible for overhead drilling).

6.6.2 Adjusting the depth gauge

1. Set the depth gauge to the desired depth.
2. Use the clamping screw to secure the depth gauge.

6.7 Using the drill stand

6.7.1 Using an anchor (HKD-D M12) to secure the drill stand

-WARNING-

Use an anchor suitable for the material on which you are working and observe the anchor manufacturer's instructions.

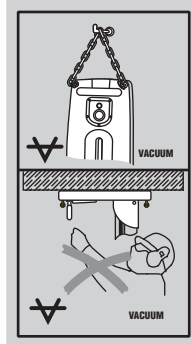
-NOTE-

Hilti M12 metal expansion anchors are usually suitable for fastening diamond core drilling equipment to uncracked concrete. Under certain conditions it may be necessary to use an alternative fastening method. Please contact Hilti Technical Service if you have any questions about secure fastening.

1. Set the anchor of a type suitable for the material on which you are working at a distance of 200 mm (ideally) from the center of the point where the hole is to be drilled.
2. Screw the quick-release spindle into the anchor.
3. Place the drill stand over the quick-release spindle and use the hole centre indicator to bring the drill stand into alignment.
4. Fit the nut to the quick-release spindle but do not tighten it fully.
5. The four levelling screws should then be used to level the baseplate. The spirit level on the baseplate serves as a levelling aid.
6. Use the locknuts to prevent further movement of the levelling screws.
7. Tighten the nuts securely with an open-end wrench.
8. Check to ensure that the drill stand is fastened securely.

6.7.2 Securing the drill stand with the vacuum pad

A vacuum release valve is incorporated in the baseplate grip.



Overhead drilling with the drill stand attached only by vacuum is not permissible.

1. Unscrew the four levelling screws until they project approx. 5 mm beneath the baseplate.
2. Connect the hose between the vacuum connector on the baseplate and the vacuum pump.
3. Switch on the vacuum pump and extend the hole centre indicator. While pressing the vacuum release valve and observing the hole centre indicator, bring the baseplate into the desired position. When positioned correctly, press the baseplate against the work surface and remove your finger from the vacuum release valve. Before beginning drilling and during operation, it must be ensured that the pressure gauge pointer remains within the green area.
4. The four levelling screws should then be used to level the baseplate. The spirit level on the baseplate serves as a levelling aid.
5. Tighten the lock nuts to prevent further movement of the levelling screws.
6. An additional means of securing the drill stand must be employed when drilling horizontally (e.g. a chain attached to an anchor, ...)
7. Check to ensure that the drill stand is fastened securely.

6.7.3 Securing the drill stand with a quick-release brace (e.g. between floor and ceiling)

1. Extend the hole centre indicator and then use it as an aid to bring the drill stand into alignment with the centre point of the hole to be cored.
2. Position the end of the quick-release brace carefully in the inner oval of the baseplate (not on the level indicator or pressure gauge).
3. Secure the baseplate by applying slight pressure with the quick-release brace.
4. The four levelling screws should then be used to level the baseplate. The spirit level on the baseplate serves as a levelling aid.
5. Tighten the lock nuts to prevent further movement of the levelling screws.
6. Tighten the quick-release brace securely.
7. Check to ensure that the drill stand is fastened securely.

6.8 Water collection system for use with the drill stand

Use of the water collection system permits water to be drained away from the core bit thus avoiding soiling the surrounding area. Best results are achieved in conjunction with a wet-type vacuum cleaner.

Use of the water collection system in conjunction with a wet-type vacuum cleaner is mandatory for overhead drilling. The drill stand must be set up at 90° to the work surface.

The water collector sleeve and seal must be of a size suitable for the core bit diameter used.

1. Slacken the column adjusting lever until the locating lugs are disengaged.
2. Tilt the frame.
3. Fit the water collector holder.
4. Bring the frame back to the vertical position.
5. Close the adjusting levers until the locating lugs are fully engaged and the frame is again secured.
6. Lift the holder and push the water collector cup under the retainer as far as it will go.
7. Connect a wet-type vacuum cleaner to the water collector cup or connect a length of hose through which the water can flow away.

6.9 Mounting the tool on the drill stand

-CAUTION-

The release lever on the drill stand must be in the open position and the carriage should be at the top of its travel. The drilling advance mechanism must be locked (chain arrestor engaged).

1. Fit the tool interface plate onto the two mounting pins on the drill stand. **(6.9.1)**
2. Swing the tool briskly toward the drill stand. It should be heard to engage. **(6.9.2)**
3. Check the position of the release lever in order to ensure that the tool is engaged and attached securely to the drill stand. **(6.9.3)**
4. Insert the switch lock in the grip opening. The switch lock is used to hold the switch in the ON position during sustained operation.
5. Close the water valve in the side handle.
6. Connect the water supply.

6.10 Fitting the hand wheel

1. Fit the hand wheel onto the axle.
2. Secure the hand wheel by tightening the screw knob.
3. The hand wheel may be fitted on either side of the drill stand.

6.11 Adjusting the drill stand drilling angle

(In increments of 7.5°; adjustable to max. 45°)

1. Slacken the column adjusting levers until the locating lugs are disengaged.
2. Bring the columns into the desired position.
3. Engage the locating lugs.
4. Move the adjusting levers until the locating lugs are fully engaged and the frame is again secured.
5. Press in and pivot the adjusting levers to return them to the vertical position.

6.12 Removing the tool from the drill stand

-CAUTION-

The tool must be disconnected from the electric mains supply.

The drilling advance mechanism must be locked (chain arrestor engaged).

1. Close the water valve in the side handle.
2. Disconnect the water supply.
3. Remove the switch lock from the grip.
4. Hold the tool with one hand on the grip and release the lever on the drill stand.
5. Pivot the tool away from the drill stand.

7. Operation

7.1 Connect the tool to the electric mains supply


The voltage given on the rating plate must correspond to the voltage provided by the mains supply.



1. Check that the tool is switched off or, respectively, remove the switch lock.
2. Insert the supply cord plug in the mains socket.
3. Press the "ON" button on the PRCD ground fault interrupter (the lamp must light).
4. Press the "TEST" button on the PRCD ground fault interrupter (the lamp must not light).

-DANGER-

If the indicator continues to light, further operation of the machine is not permissible. Have the machine repaired by a qualified specialist using genuine Hilti spare parts.

5. Press the "ON" button on the PRCD ground fault interrupter (the lamp must light).

	-CAUTION-
	<ul style="list-style-type: none">■ The tool and the coring operation create noise.■ Excessive noise may damage the hearing.■ Wear ear protection.

 	-CAUTION-
	<ul style="list-style-type: none">■ The coring operation may cause hazardous fragments to fly off.■ Flying fragments may cause injury to the eyes or other parts of the body.■ Wear eye protection and a safety helmet.

7.2 Dry drilling

7.2.1 Fitting the hole-starting aid

A different hole-starting aid is required for each diamond core bit diameter.

1. Fit the hole-starting aid into the front end of the diamond core bit.

7.2.2 Vacuum cleaner without power socket for electric tools

Switching on

1. Switch the vacuum cleaner on.
2. Press the on / off switch on the tool.

Switching off

1. Switch the tool off.
2. Allow the vacuum cleaner to run for a short time in order to remove remaining dust before switching off.

7.3 Hand-held wet drilling

Switching on

1. Open the water valve in the side handle until the desired water volume flows. The water flow volume can be observed at the indicator on the hand grip.
2. Press the on / off switch
3. When starting a hole, hold the tool at a slight angle to the work surface. This makes hole-starting easier.
4. Once the hole has been started, bring the tool into the 90° position and continue drilling.

Switching off

1. Switch the tool off.
2. Close the water valve on the side handle.

7.4 Hand-held wet drilling using the water collection system

The crosshair marks at the front end of the water collection system serve as an accurate positioning aid.

Switching on

1. Switch on the water extraction system (if used).
2. Open the water valve on the side handle slowly until the desired water volume flows. Use the indicator on the side handle to check the water flow rate.
3. Press the on / off switch.
4. Hold the tool at a slight angle to the work surface when starting a hole. This makes hole-starting easier.
5. After starting the hole, bring the tool into the 90° position and continue drilling.

Switching off

1. Switch the tool off.

-WARNING-

When drilling overhead, any water remaining in the core bit must not be allowed to run down over the tool.

2. Close the water valve on the side handle.
3. Switch off the vacuum cleaner (if used).
4. Remove the core if necessary.

7.5 Wet drilling using the drill stand

Switching on

1. Switch on the (wet) vacuum cleaner (if used).
2. Open the water valve at the side handle slowly until the desired volume of water flows. The indicator at

the side handle can be used to check the water flow rate.

3. Use the switch actuator to run the tool in sustained operation mode.
4. Release the chain arrestor.
5. Bring the core bit into contact with the work surface by turning the hand wheel.
6. Apply only slight pressure to the core bit when beginning drilling and then increase pressure once the core bit has become centred.
7. Keep an eye on the overload indicator while drilling. Pressure on the core bit must be reduced if the overload indicator lights.

Switching off

1. Close the water regulation valve at the side handle.
 2. Pull the core bit out of the hole.
 3. Engage the chain arrestor.
 4. Switch the tool off.
 5. Switch off the vacuum cleaner (if used).
 6. Remove the core if necessary.
 7. Switch the tool off.
- WARNING-**
When drilling overhead, any water remaining in the core bit must not be allowed to run down over the tool.
8. Ensure stability of the drill stand by lowering the tool and core bit to the baseplate.

7.6 Procedure in the event of the core bit sticking

The slip clutch will be activated if the core bit sticks. The power tool must then be switched off by the operator. To release the core bit, proceed as follows:

Using an open-end wrench to release the core bit

1. Disconnect the supply cord plug from the power outlet.
2. Grip the core bit close to the connection end with a suitable open-end wrench and rotate the core bit to release it.
3. Plug the supply cord back into the power outlet.
4. Continue the drilling operation.

Using the spider wheel to release the core bit (for use with the drill stand)

1. Disconnect the supply cord plug from the power outlet.
2. Release the core bit by rotating it with the spider wheel.
3. Plug the supply cord back into the power outlet.
4. Continue the drilling operation.

7.7 Transport and storage

-NOTE-

- Store and transport the power tool in its toolbox when possible.
- Open the water flow regulator before storing the power tool. Especially at temperatures below freezing, take care to ensure that no water remains in the power tool.

8. Care and maintenance

Disconnect the supply cord plug from the socket.

8.1 Care of core bits

Remove any dirt adhering to the core bits and protect their surfaces from corrosion by rubbing them with an oily cloth from time to time. Always keep the connection end clean and slightly greased.

8.2 Care of the tool

Check that the supply cord plug is disconnected.

-CAUTION-

Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.

Never operate the tool if its ventilation slots are blocked. Clean the ventilation slots carefully with a dry brush. Do not allow foreign objects to enter the interior of the tool.

Clean the outside surfaces of the tool with a damp cloth at regular intervals. Do not use a spray, steam cleaning equipment or running water for cleaning. This could negatively affect the electrical safety of the tool. Always keep the grip surfaces of the tool free from oil and grease. Do not use cleaning agents which contain silicone.

Clean the chuck and the clamping segments with a cloth at regular intervals and lubricate these parts with Hilti lubricant spray. Remove any dirt and fragments from the chuck.

Remove the filter in the water intake at the side handle from time to time and rinse the filter sieve under running water in the direction opposite to the normal water flow.

If the water flow indicator has become dirty, remove and clean the parts. Do not use abrasive agents or sharp objects to clean the sight glass. This may negatively affect functionality of the water flow indicator.

8.3 Maintenance of the tool

Check all external parts of the tool for damage at regular intervals and check that all operating controls function faultlessly. Do not operate the tool when parts are damaged or when operating controls do not function faultlessly. The tool should be repaired at a Hilti service centre.

Repairs to the electrical section of the tool may be carried out by trained electrical specialists only.

8.4 Care of the drill stand

8.4.1 Care of the chain

Check the chain guides to ensure they remain clean and free from drilling slurry. The chain must always be protected by a film of grease.

8.5 Maintenance of the drill stand

8.5.1 Adjusting the movement

Movement should be easy but without play. The movement can be adjusted by way of screws (2 at the top and 2 at the bottom).

8.5.1.1 Stiffer movement

1. Release the lower screw.
2. Tighten the upper screw as far as necessary.
3. Tighten the lower screw as far as it will go.

8.5.1.2 Easier movement

1. Release the upper screw.
2. Tighten the lower screw as far as it will go.

8.5.2 Adjusting the chain tension

When the carriage is in the end position, the chain should sag only slightly when running horizontally. Chain tension can be adjusted by way of two screws (chain symbol on the cover).

- Turning in a clockwise direction increases chain tension.
- Turning in a counter-clockwise direction decreases chain tension.

Both chains must be tensioned equally.

9. Tools and accessories

Designation	Item no.
Vacuum pump	47034
Quick-release brace	9870
Water collector system for hand-held use	370462
Water collector system for drill stand use	370460
Drill stand	370461
Wheel assembly	232228
DD-CS M12S-SM clamping spindle	251830
DD-CN SML clamping nut	251834

10. Troubleshooting

Fault	Possible cause	Remedy
The tool doesn't start.	Fault in mains supply	Plug in another electric appliance and check whether it works.
	Supply cord or plug defective	The cord should be checked and replaced if necessary by an electrical specialist.
	Switch defective	The switch should be checked and replaced if necessary by an electrical specialist.
Motor runs but the core bit doesn't rotate.	Gearing defective	The tool should be repaired at a Hilti service centre.
Rate of drilling progress decreases.	Water pressure / water flow rate too high	Regulate the water flow rate at the side handle.
	Core bit defective	Check the core bit for damage and replace it if necessary.
	Gearing defective	The tool should be repaired at a Hilti service centre.
	Core bit segments polished	Resharpener the core bit on a sharpening plate under water flow.
Motor cuts out.	Tool stops running.	Guide the tool straight.
	Tool has overheated. The motor's thermal overload protection has been activated.	Ease the load on the tool and allow it to run up to full speed by pressing the switch several times.
	Electronics defective	The tool should be repaired at a Hilti service centre.
	Cooling fan defective	The tool should be repaired at a Hilti service centre.
Water does not flow.	Filter or water flow indicator blocked	Remove the filter or water flow indicator and flush it through.
Water escapes at the gear housing.	Shaft seal / water swivel / extraction head defective	The tool should be repaired at a Hilti service centre.
The core bit cannot be inserted in the chuck.	Connection end or chuck dirty or damaged	Clean the connection end and chuck. Replace parts if necessary.
Water escapes at the chuck.	Connection end or chuck dirty	Clean the connection end and chuck.
	Chuck seal defective	Check the seal and replace it if necessary.
Excessive play in the drilling system.	Excessive play at the guides	Readjust the guides.
	Chain inadequately tensioned	Tension the chain.
	Pivot mechanism loose	Tighten the pivot mechanism adjusting lever (6.11).

11. Disposal

Most of the materials from which Hilti power tools are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old electric tools for recycling. Please ask your Hilti customer service department or Hilti sales representative for further information.

Should you wish to return the electric tool yourself to a disposal facility for recycling, proceed as follows: Dismantle the tool as far as possible without the need for special tools. Use absorbent paper to wipe oily parts clean and collect any oil that runs out. This paper should also be disposed of correctly. **On no account should oil be allowed to enter the waste water system or find its way into the ground.**

Separate the individual parts as follows:

Part / assembly	Main material	Recycling
Transport box	Plastic*	Plastics recycling
Motor housing	Plastic* / synthetic rubber	Plastics recycling
Grip, side handle	Plastic*	Plastics recycling
Drill stand, complete	Steel / aluminium / magnesium alloy / plastic*	Scrap metal / plastics recycling
Motor (rotor / stator)	Steel / copper	Scrap metal
Gearing parts	Steel	Scrap metal
Screws, small parts	Steel	Scrap metal
Supply cord	Copper / synthetic rubber	Scrap metal
Drilling slurry		**

* Plastic parts carry a mark indicating the material from which they are made.

** With regard to environmental aspects, allowing drilling slurry to flow directly into rivers, lakes or the sewerage system without suitable pre-treatment is problematical. Ask the local authorities for information about applicable regulations.

We recommend the following pre-treatment:

- Collect the drilling slurry (e.g. use an industrial vacuum cleaner).
- Allow the slurry to settle and dispose of the solid material at a construction waste disposal site (the addition of a flocculent may accelerate the settling process).
- Water from the drilling slurry (alkaline, pH value > 7) should be neutralised by adding an acidic neutralising agent or large quantity of water before it is allowed to flow into the sewerage system.

12. Manufacturer's warranty – tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular,

Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.



Hilti Corporation

LI-9494 Schaan

Tel.: +423 / 234 21 11

Fax: +423 / 234 29 65

www.hilti.com

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