

# HILTI

## DD 130

**Operating instructions**

**en**

**Brugsanvisning**

**da**

**Käyttöohje**

**fi**

**Bruksanvisning**

**no**

**Bruksanvisning**

**sv**

**Kasutusjuhend**

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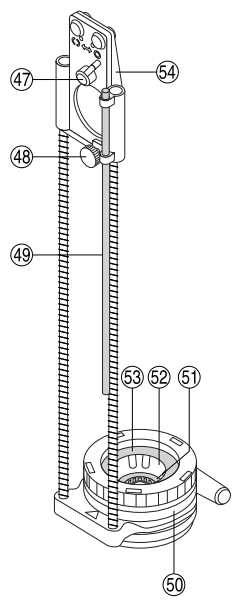
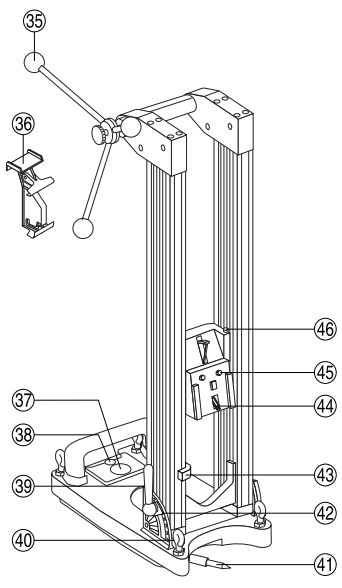
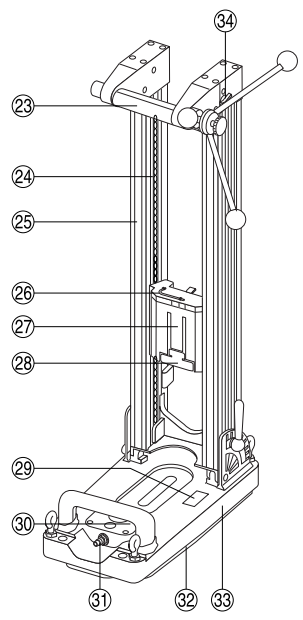
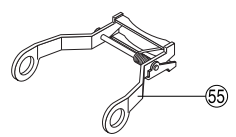
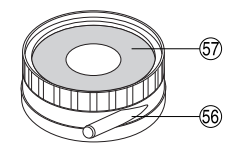
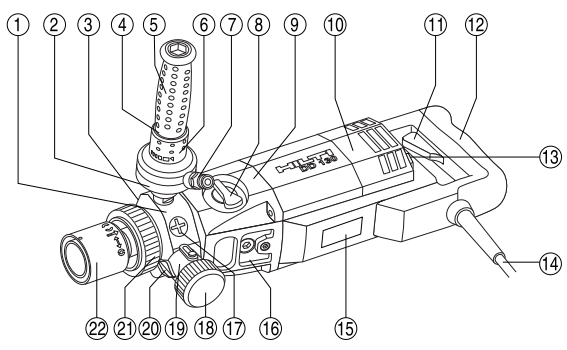
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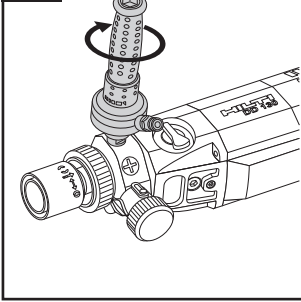
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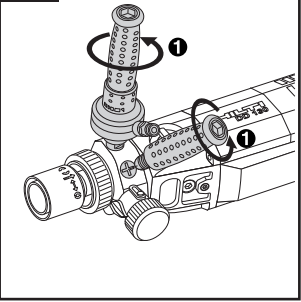




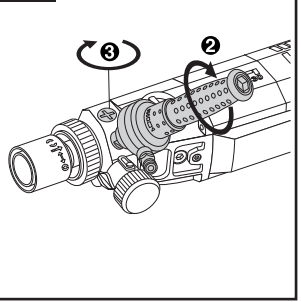
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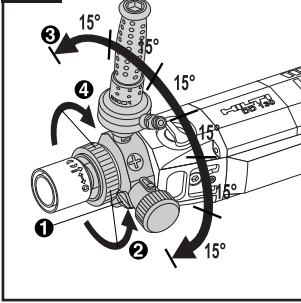
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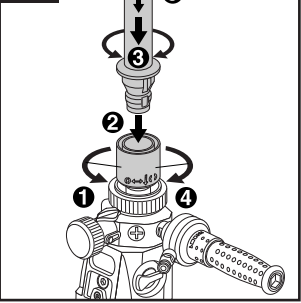
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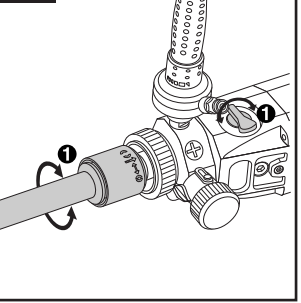
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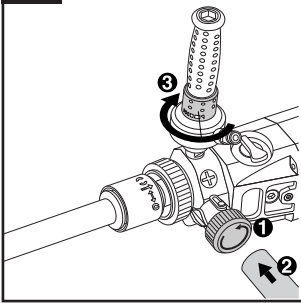
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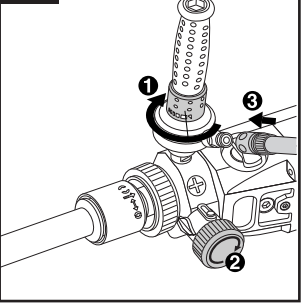
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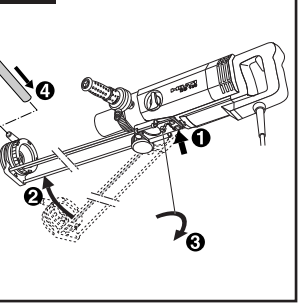
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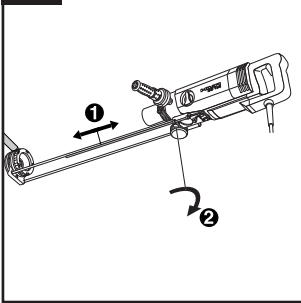
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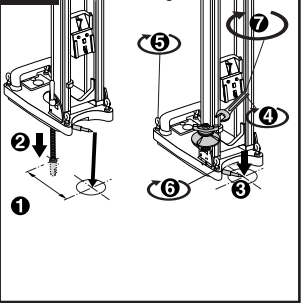
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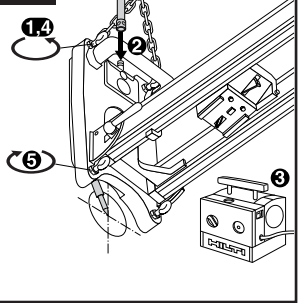
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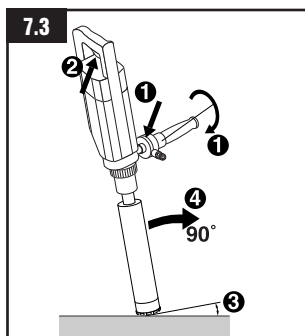
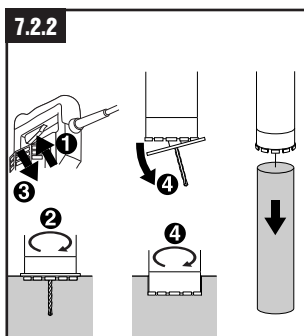
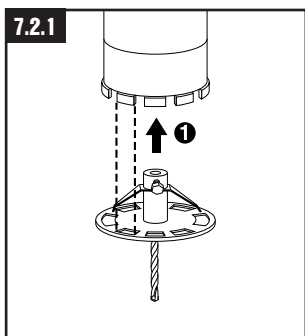
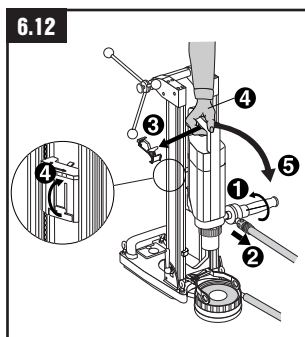
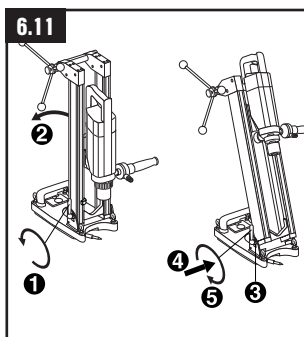
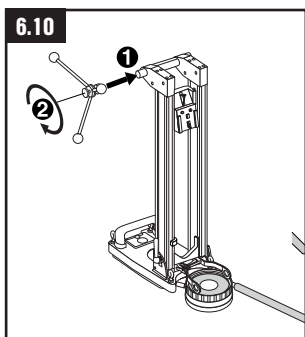
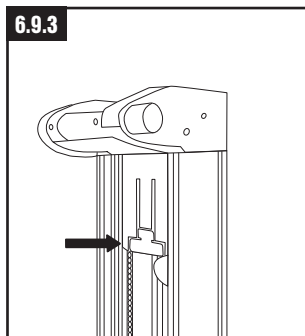
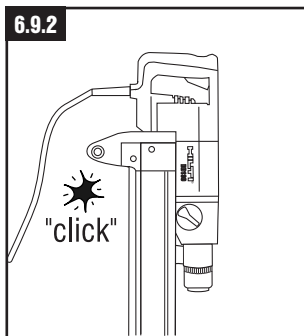
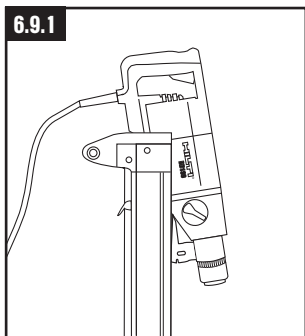
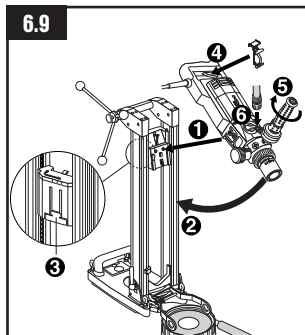
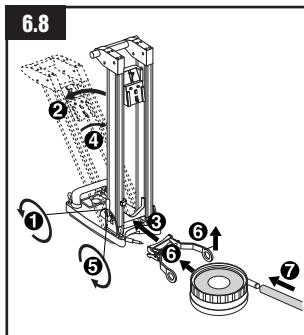
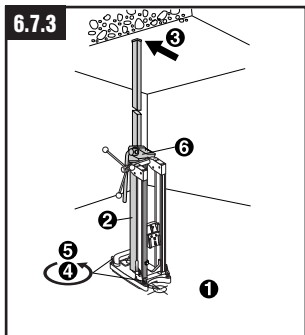


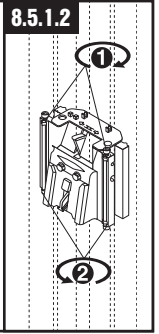
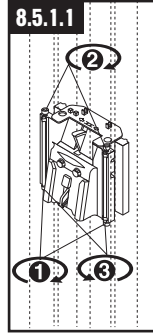
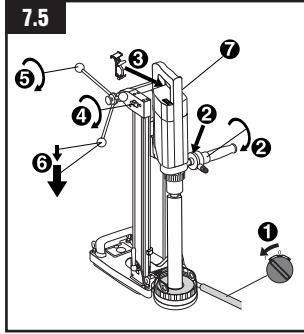
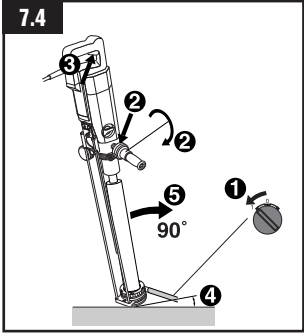
6.7.1



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

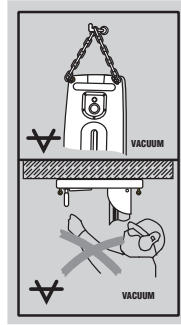
**n<sub>0</sub>**

Nominal speed under no load

**∅**

Diameter

On the drill stand



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

**Bottom**  
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. 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.

### 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, 12–162 mm dia.	All directions
Hand-held / wet	Without water collection system, 12– 62 mm dia.	Not upwards
Hand-held / wet	With water collection system, 12– 62 mm dia.	All directions
Drill stand / wet	Without water collection system, 12–152 mm dia.	Not upwards
Drill stand / wet	With water collection system 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.

- 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.
- 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.

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

● **The machine may be operated only when connected to an adequately-rated electric supply equipped with an earth (ground) conductor.**

### Items supplied:

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

## 3. 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

## 4. Technical data

Nominal voltage: *	110 V	120 V	220 V	230 V	240 V
Nominal power:	1700 W	1800 W	1900 W	1900 W	1900 W
Nominal current: *	16 A	15 A	9.1 A	8.7 A	8.3 A
Frequency	50/60 Hz	50/60 Hz	50/60Hz	50/60Hz	50/60Hz



Nominal no-load speed	1 <sup>st</sup> gear	780 /min
	2 <sup>nd</sup> gear	1400 /min
	3 <sup>rd</sup> gear	2600 /min
		(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):	515×114×170 mm	
Weight as per EPTA-Procedure 01/2003:	7.3 kg	
Weight drill stand	13.1 kg	
Radio and television interference suppression	as per EN 55014-1	
Interference immunity:	as per EN 55014-2	
Protection class as per EN 60745 and IEC 60745:	Protection class I (earthed)	
Drilling depth:	max. 430 mm (730 mm with extension)	

#### **-NOTE-**

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

#### **Noise and vibration information (measured in accordance with EN 60745):**

Typical A-weighted noise power level (L <sub>WA</sub> ):	100 dB (A)
Typical A-weighted noise emission pressure level (L <sub>pA</sub> ):	89 dB (A)

For the given sound power level as per EN 60745, the tolerance is 3 dB.

#### **Wear ear protection!**

#### **Triaxial vibration information (measured in accordance with 60745-2-1 at the grips and in accordance with EN 61029 at the spider wheel)**

##### *Triaxial vibration values (vibration vector sum) EN 60745-2-1 (hand-held)*

	Drilling into concrete (with water supply)	Drilling into sand-lime- block (HDMU, dry)	Drilling into sand-lime- block (PCM, dry)
<b>Vibration a<sub>h</sub> DD</b>	<b>5 m/s<sup>2</sup></b>	<b>6 m/s<sup>2</sup></b>	<b>11 m/s<sup>2</sup></b>
Uncertainty K	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>	2.5 m/s <sup>2</sup>

##### *Triaxial vibration values (vibration vector sum) EN 61029, DD 130 rig (on drill stand)*

	Drilling into concrete (with water supply)	Drilling into sand-lime- block (HDMU, dry)	Drilling into sand-lime- block (PCM, dry)
<b>Vibration a<sub>h</sub> DD</b>	<b>3.5 m/s<sup>2</sup></b>	–	–
Uncertainty K	1.5 m/s <sup>2</sup>	–	–

#### **Information for the user in accordance with EN 61000-3-11:**

Switching on the tool may cause a brief voltage drop. Under unfavourable conditions in the mains supply, this may cause interference to other appliances. No interference is to be expected when the mains supply has an impedance of < 0.15 ohms.

\* The tool is available in versions for various nominal voltages. Please refer to the rating plate for information on the nominal voltage and nominal current rating of the applicable tool.

Right of technical changes reserved

## 5. Safety rules

### 5.1 General safety rules

**-WARNING- Read all instructions!** *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.*

#### SAVE THESE INSTRUCTIONS

#### 5.1.1 Work area

- a) **Keep the work area clean and well lit.** *Cluttered and dark areas invite accidents.*
- b) **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.*
- c) **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

#### 5.1.2 Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- c) **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- e) **When operating a power tool outdoors, use an extension cord approved for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

#### 5.1.3 Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- b) **Use safety equipment. Always wear eye protection.** *Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) **Avoid accidental starting. Ensure the switch is in**

**the off position before plugging in.** *Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*

- d) **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e) **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery or long hair can be caught in moving parts.*
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of these devices can reduce dust related hazards.*

#### 5.1.4 Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

#### 5.1.5 Service

- a) **Have your power tool serviced by a qualified repair person using only genuine replacement parts.** *This*

will ensure that the safety of the power tool is maintained.

## 5.2 Additional safety rules

### 5.2.1 Personal safety

- a) **Wear ear protection.** *Excessive noise may lead to a loss of hearing.*
- b) **Use the auxiliary handle supplied with the tool.** *Loss of control of the tool may lead to injury.*
- c) **The tool may be operated only when held in both hands or when mounted on the drill stand.** Ensure that the side handle is fitted correctly and tightened securely. Always hold the tool in both hands when it is in use.
- d) **Breathing protection must be worn when the tool is used without a dust removal system for work that creates dust.**
- e) **To avoid tripping and falling when working, always lead the supply cord, extension cord and dust extraction hose away from the rear.**
- f) **Take care to avoid tripping over the supply cord, extension cord or extraction hose.**
- g) **Avoid skin contact with drilling slurry.**
- h) **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).**
- i) **Ensure that the tool is securely attached when mounted on the drill stand (see 6.9).**
- j) **Do not touch rotating parts.**
- k) **The tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.**
- l) **Children must be instructed not to play with the tool.**
- m) **Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory diseases to the operator or bystanders. Certain kinds of dust are classified as carcinogenic such as oak and beech dust especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos must only be treated by specialists. Where the use of a dust extraction device is possible it shall be used. To achieve a high level of dust collection, use a suitable vacuum cleaner of the type recommended by Hilti for wood dust and/or mineral dust together with this tool. Ensure that the workplace is well ventilated. The use of a dust mask of filter class P2 is recommended. Follow national requirements for the materials you want to work with.**

### 5.2.2 Power tool use and care

- a) **Ensure that the insert tools used are equipped with the appropriate connection end system and that they are properly fitted and secured in the chuck.**
- b) **In the event of a power failure, switch the tool off**

**and unplug the supply cord.** *This prevents inadvertent starting when the power returns.*

- c) **Observe the instructions concerning care and maintenance and the replacement of core bits in good time.**
- d) **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** *Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.*

### 5.2.3 Electrical safety

- a) **Before beginning work, check the working area (e.g. with a metal detector) to ensure that no concealed electric cables or gas and water pipes are present.** *External metal parts of the tool may become live if, for example, an electric cable is damaged inadvertently. This presents a serious risk of electric shock.*
- b) **Check the condition of the supply cord and its plug connections and have it replaced by a qualified electrician if damage is found. Check the condition of the extension cord and replace it if damage is found.** **Do not touch the supply in the event of it suffering damage while working. Disconnect the supply cord plug from the socket. Damaged supply cords and extension cords present a risk of electric shock.**
- c) **Dirty or dusty electric tools should thus be checked at a Hilti service center at regular intervals, especially if used frequently for working on conductive materials.** *Dust (especially dust from conductive materials) or dampness adhering to the surface of the tool may, under unfavorable conditions, present a risk of electric shock.*
- d) **If a PRCD is supplied with the power tool, never operate the power tool without the PRCD (GB version: never operate the power tool without the isolating transformer).**
- e) **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).**

### 5.2.4 Work area

- a) **Ensure that the workplace is well lit.**
- b) **Ensure that the workplace is well ventilated.** *Poorly ventilated workplaces may be injurious to the health due to exposure to dust.*

### 5.2.5 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.



### 5.2.6 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.

## 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 <sup>2</sup>	2.0 mm <sup>2</sup>	2.5 mm <sup>2</sup> 3.5 mm <sup>2</sup>
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"><li>■ The tool, the diamond core bit and the drill stand are heavy.</li><li>■ There is a risk of pinching parts of the body.</li><li>■ Wear a safety helmet, safety gloves and safety boots.</li></ul>
	
	
	

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

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



1. Press the water swivel lock out of the gap between the locking ring and the water swivel/extraction head.
2. Release the locking ring between the chuck and side handle.

3. Move the side handle into the desired position (15° increments).
4. 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"> <li>■ The core bit may become hot during use or during sharpening.</li> <li>■ It may burn your hands.</li> <li>■ The cutting edges (segments) may cause injury.</li> <li>■ Wear safety gloves when changing the core bit.</li> </ul>







1. Open the chuck by turning it counter-clockwise (as seen from the front end of the chuck).
2. Insert the diamond core bit in the chuck.
3. Push the diamond core bit into the chuck and rotate the core bit until it engages.
4. Close the chuck by turning it clockwise (as seen from the front end of the chuck).
5. 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	
 	<b>40 - 62</b> <b>12 - 37</b>	<b>1 5/8" - 2 1/2"</b> <b>1/2" - 1 1/2"</b>	<b>II</b> <b>III</b>
 	<b>122 - 162</b> <b>67 - 112</b> <b>12 - 62</b>	<b>4 3/4" - 6 1/2"</b> <b>2 5/8" - 4 1/4"</b> <b>1/2" - 2 1/2"</b>	<b>I</b> <b>II</b> <b>III</b>

Drill-stand use

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

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

## 6.4 Dry drilling

### 6.4.1 Connecting the extraction system

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

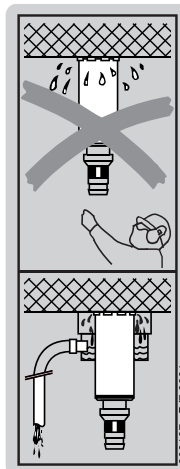
## 6.5 Hand-held wet drilling

### 6.5.1 Connecting the water supply

1. Close the water valve in the side handle.
2. Close the cover on the dust extraction connection.
3. 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 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 Fastening the drill stand with an anchor

#### -WARNING-

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

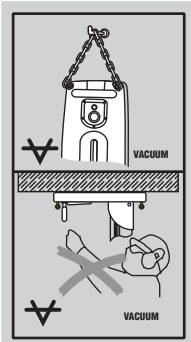
#### -NOTE-

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 position it correctly with the aid of the hole center indicator.
4. Screw the nut onto the quick-release spindle but do not tighten it fully.
5. Use the four leveling screws to level the base plate. Check that all four leveling screws are in contact with the surface. The bubble level on the base plate serves as a leveling aid.
6. Lock the leveling screws by tightening the lock nuts.
7. Use an open-end wrench to tighten the lock nuts.
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).

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

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

### 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 with power socket for electric tools

The vacuum cleaner starts automatically after switching on the electric tool. Switching off the electric tool also causes the vacuum cleaner to be switched off after a short delay.

#### Switching on

1. Press the on / off switch on the tool.
2. With the hole-starting aid fitted, begin drilling and continue until the projecting segments have established a kerf in the base material.
3. Switch the tool off.

4. Remove the hole-starting aid and continue drilling.

#### Switching off

1. Switch the tool off.
2. Remove the core if necessary.

### **7.2.3 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.**

The outer casing of the tool is made from impactresistant plastic. Sections of the grip are made from a synthetic rubber material. Never operate the tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the tool. Clean the outside of the tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the tool.

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. Troubleshooting

<b>Fault</b>	<b>Possible cause</b>	<b>Remedy</b>
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).

## 10. 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.

### Disposal of drilling slurry

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 a wet-type 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 neutralized by adding an acidic neutralizing agent or large quantity of water before it is allowed to flow into the sewerage system.



### Only for EU countries

Disposal of electric tools together with household waste is not permissible!

In observance of European Directive on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

## 11. 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.

## 12. EC declaration of conformity (original)

Designation:	Diamond drilling machine
Type:	DD 130
Year of design:	2001

We declare, on our sole responsibility, that this product complies with the following directives and standards: until 2006/42/EC, 2004/108/EC, EN 61029-1, 2011/65/EU, EN ISO 12100.

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