DD 350/ DD 500

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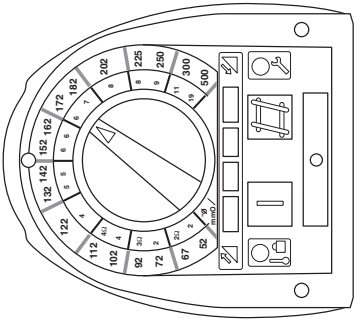

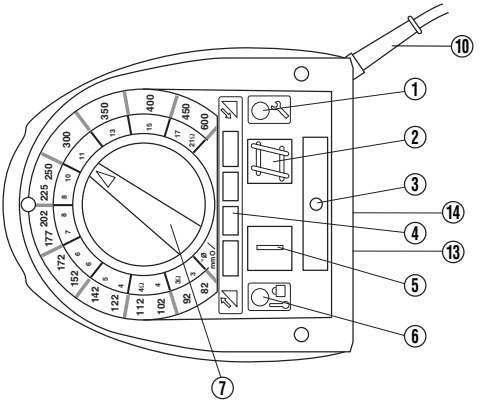

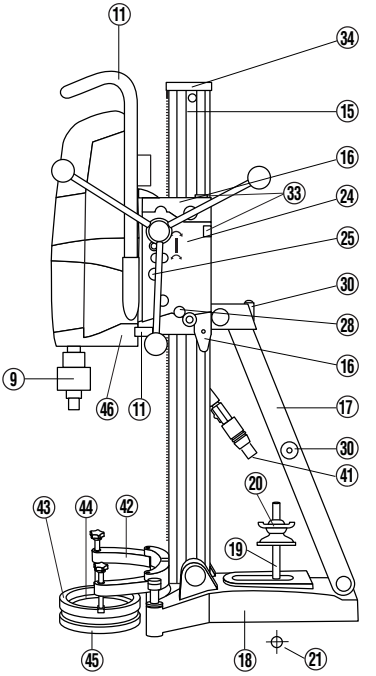

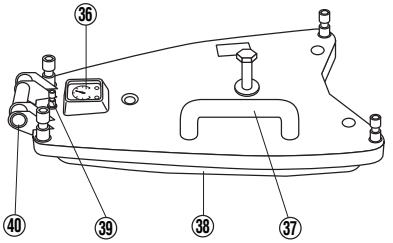

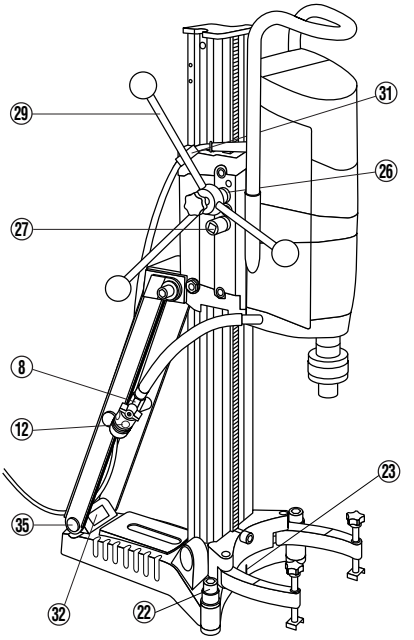

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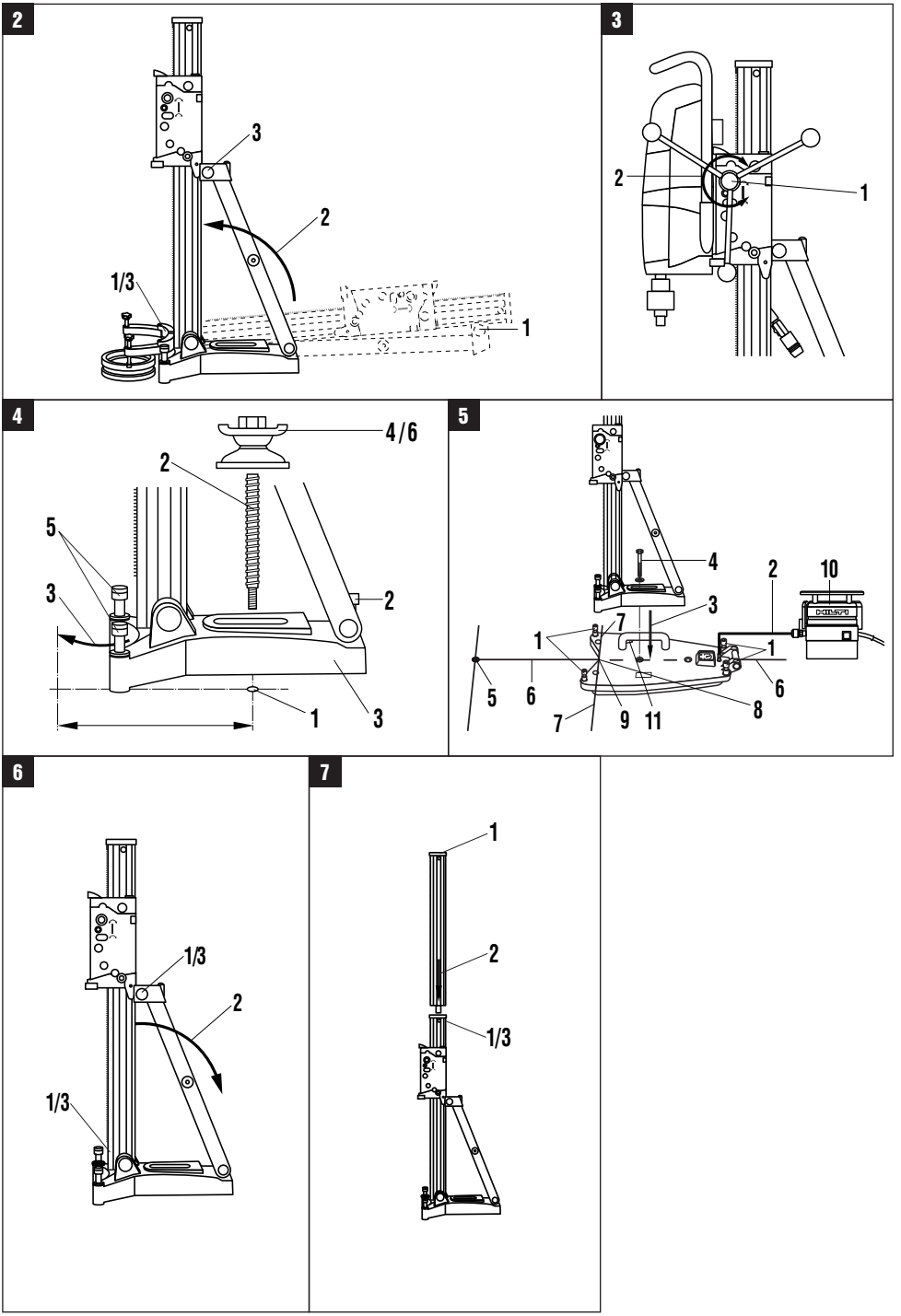

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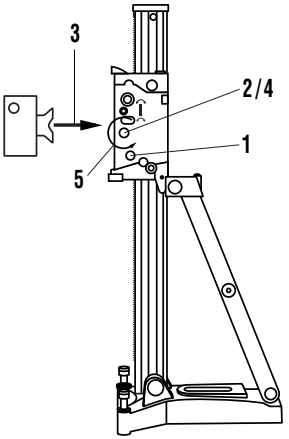

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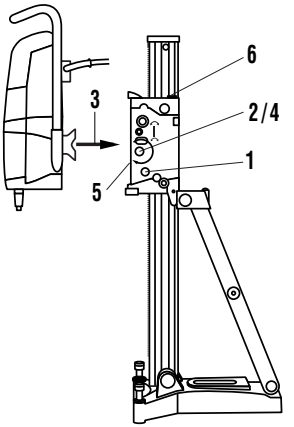

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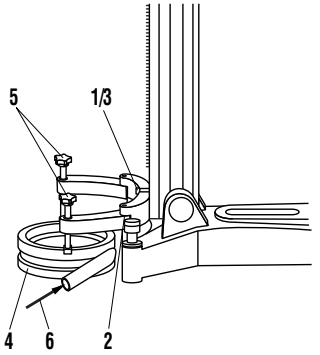

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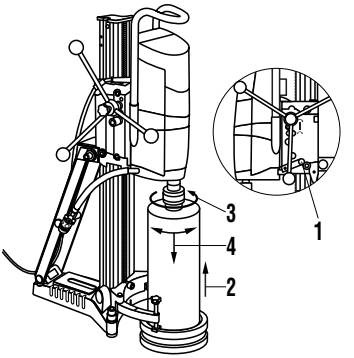

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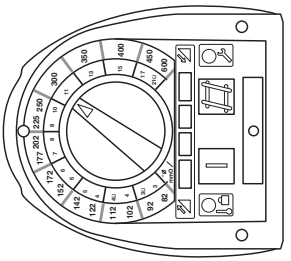

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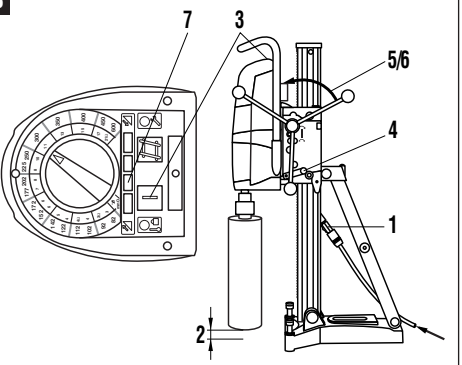

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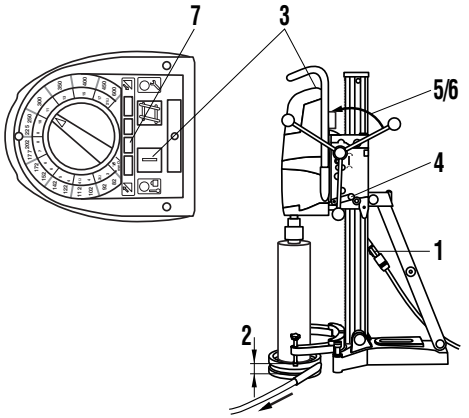

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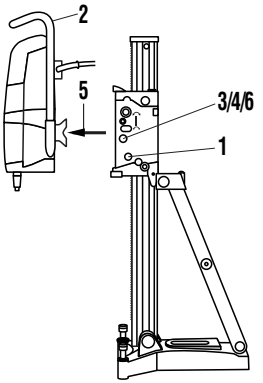

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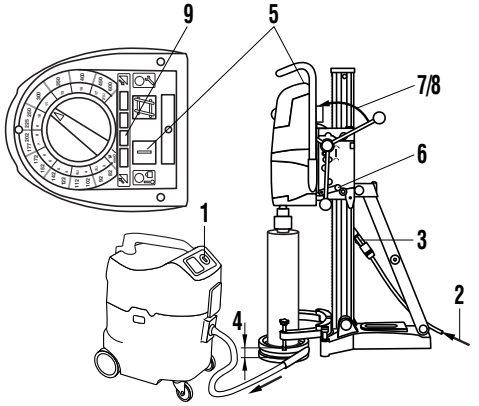

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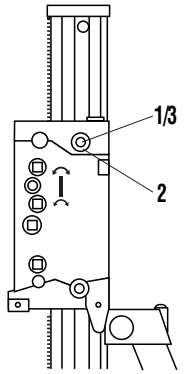

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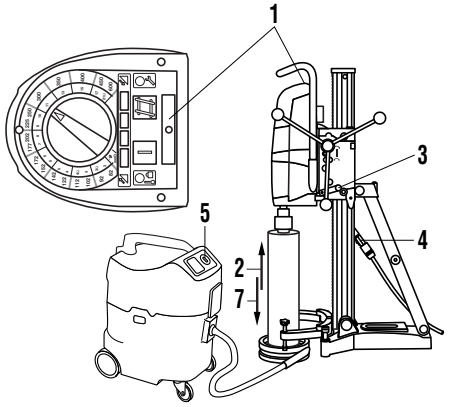

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ORIGINAL OPERATING INSTRUCTIONS
DD 350/DD 500 diamond core drilling system

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

Always keep these operating instructions together with the machine.

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

Operating controls, parts and indicators
Machine (machine and drill stand) 1

Machine
① Service indicator
② Iron Boost button
③ OFF switch
④ Drilling performance indicator (Power Controls)
⑤ ON switch
⑥ Temperature monitor/ground fault
⑦ Gear selector
⑧ Water flow regulator
⑨ Chuck
⑩ Supply cord with PRCD (DD 350)/supply cord (DD 500)
⑪ Carrying grips (2x)
⑫ Water hose connector
⑬ Type plate
⑭ Interface

Drill stand
⑮ Column
⑯ Carriage cap
⑰ Strut
⑱ Base plate
⑲ Clamping spindle
⑳ Clamping nut
㉑ Anchor
㉒ Leveling screws (3x)
㉓ Hole center indicator
㉔ Carriage
㉕ Eccentric (machine) locking bolt
㉖ Direct drive
㉗ Reduction gear
㉘ Carriage locking mechanism
㉙ Hand wheel
㉚ Carrying grip (2x)
㉛ Supply cord guide
㉜ Type plate
㉝ Leveling indicators (2x)
㉞ End stop
㉟ Wheel assembly mounting point

ACCESSORIES
Vacuum base plate
㊱ Pressure gauge
㊲ Vacuum release valve
㊳ Vacuum seal
㊴ Vacuum hose connector
㊵ Wheel assembly mounting point

Water flow indicator
㊶ Water flow indicator

Water collector system
㊷ Water collector holder
㊸ Water collector
㊹ Seal
㊺ Seal
㊻ Water outlet cap

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.

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1.2 Explanation of warning signs and other symbols

Prohibition signs

Transport by crane is not permissible.

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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

Other symbols

Read the operating instructions before use.

Recycle waste material.

A Amps

V Volts

W Watts

Hz Hertz

/min Revolutions per minute

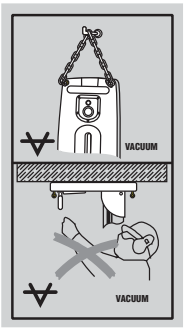
rpm Revolutions per minute

~ Alternating current

n_0 Nominal speed under no load

∅ Diameter

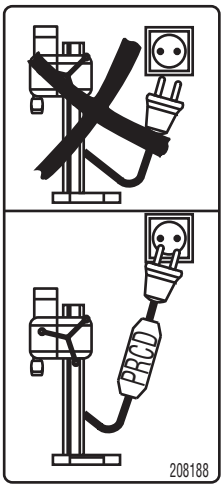
On the vacuum base plate



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

Bottom:
Use of the vacuum base plate to secure the drill stand for overhead drilling is not permissible.

On the machine



Operate only when connected to a functioning PRCD.
(Only for DD 350, 220–240 V)

1.3 Other information

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 designation “the machine” refers to the DD 500 or DD 350 core drilling machine.

Location of identification data on the machine
The type designation and serial number can be found on the rating plate on the machine. 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 350	DD-HD 30
Serial no.:		
Type:	DD 500	DD-HD 30
Serial no.:		

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2. Description

2.1 Use of the equipment as intended

The DD 350 or DD 500, with the DD HD-30 drill stand, form drilling rigs designed for wet core drilling in mineral materials using diamond core bits (hand-held use is not permissible).
The drive unit must always be mounted on the drill stand when in use and the drill stand secured adequately by means of an anchor, vacuum base plate or quick-release brace.
Manipulation or modification of the machine, drill stand or accessories is not permissible. To avoid the risk of injury, use only genuine Hilti accessories and insert tools.
Observe the information printed in the operating instructions concerning operation, care and maintenance.
Observe the safety precautions and operating instructions for the accessories used.
Do not strike the base plate with a hammer or other heavy object when making adjustments to it.
The machine, drill stand, accessories and insert tools may present hazards when used incorrectly by untrained personnel or not as directed.
The machine may be operated only when connected to an adequately rated electric supply equipped with an earth/ground conductor.

DD 350

Equipment	Core bit diameters	Drilling direction
System with water collector	50–250 mm	All directions
System without water collector	50–500 mm	All directions

DD 500

Equipment	Core bit diameters	Drilling direction
System with water collector	82–250 mm	All directions
System without water collector	82–600 mm	All directions

The machines are designed and built in accordance with IP55 and are thus resistant to sprayed water. This allows drilling to be carried out in all directions without use of a wet-type industrial vacuum cleaner.

The machines may be operated only when connected to an adequate cooling water supply (at least 0.5 l/min. at max. 30 °C water temperature).

If the drill stand column is extended to a length of 2 meters or longer, an additional means of support, e.g. the bracing spindle (item no. 305940) must be used.

Horizontal drilling in conjunction with the vacuum base plate (accessory) is permissible only when an additional means of securing the drill stand is employed.
Drilling into materials hazardous to the health (e.g. asbestos) is not permissible.

2.2 Items supplied

DD 350 or DD 500 diamond drilling machine
Operating instructions

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3. Accessories

Water flow indicator	305939
DD-HD30 drill stand	305534
Depth gauge	305535
Water collector holder	305536
Column extension, 1 m	305537
Column extension, 0.3 m	285296
Vacuum base plate	305538
Vacuum pump	332158
Spacer	305539
Wheel assembly	305541
Clamping spindle	305940
Clamping spindle M16	220947
Clamping nut	251834
Water collector 8–87 (with seal, also suitable for dry drilling)	232204
Water collector 25–152 (with seal, also suitable for dry drilling)	232221
Water collector 92–250 (with seal, also suitable for dry drilling)	232243
Chuck, BS/BR	305904
Chuck, BL	282987
Chuck, Pixie	305905
Adaptor BU → BL	305909
Adaptor BL → BU	282989
Adaptor BS → BL	284891
Adaptor BL → BS/BR	305910
Adaptor BL → Pixie	283982
Extension DD-BS-ET 200 S (steel)	202898
Extension DD-BS-ET 500 S (steel)	202899
Extension DD-BS-ET 300 S (aluminium)	202900
Extension DD-BS-ET 500 S (aluminium)	202901
Core bit extension BL 30 cm	305903
Cross-column adaptor	305540
Drainage hose	202992
Connector (for dry drilling)	46938
Vacuum cleaner (for dry drilling, e.g. Hilti VCU 40, VCD 50)	000000

3.1 Core bits to be used

Machine	Diameter range	Standard working length
DD 350	52–500 mm	500 mm
DD 500	82–600 mm	500 mm

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4. Technical data

Machine	**DD 350**				
Rated voltage*	110 V**	220 V	230 V	240 V	220–240V
Rated power input*	2750W S3 40%	3520 W	2300 W	3600 W	3600 W
Rated current*	25 A	16 A	10 A	15 A	16 A
Rated frequency	50 Hz	50/60 Hz	50 Hz	50 Hz	50/60 Hz
Rated speed under no load	670–240 /min	670–270 /min	670–270 /min	670–270 /min	670–270 /min
Chuck	BL (or other types)				
Max. permissible water supply pressure	6 bar (at higher pressures, a pressure reduction valve must be fitted at the site water supply connection)				
Min. required water flow rate	0.5 l/min (at max. 30 °C water temperature)				
Dimensions (LxWxH)	608 × 192 × 216 mm				
Weight in accordance with EPTA procedure 01/2003	14.4 kg				
Weight drill stand DD-HD 30	18.3 kg				
Max. operating weight	70 kg (machine, drill stand, 500 mm dia. core bit)				
Drilling depth	max. 500 mm without extension				
Protection class as per EN/IEC 61029	Protection class I (earthed/grounded)				
Resistant to dust and sprayed water (IP code)	IP55				

Noise emission information (measured in accordance with EN 61029-2-6:2010):

Typical A-weighted noise power level (L_{WA}):	108 dB (A)
Typical A-weighted noise emission pressure level (L_{pA}):	95 dB (A)
Uncertainty K for the given sound level:	3 dB (A)

Wear ear protection!

Total triaxial vibration values (vibration vector sum) at the hand wheel (star handle) a_h

Drilling in concrete (wet), a_h:	2.5 m/s²
Uncertainty K:	1.5 m/s²
Typical weighted vibration at the hand wheel:	2.5 m/s²
PRCD ground fault interrupter	

* The machine is available in several versions with different voltage ratings. Please refer to the type plate for the voltage rating and input power rating of your machine.

** The DD 350 110 V is suitable only for intermittent operation with 40% relative switched-on time (operating mode S3, intermittent operation, in accordance with DIN EN 60034-1). After running for 24 minutes at maximum load the machine must be allowed to cool for at least 36 minutes.

-NOTE-

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 61029 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

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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.

en

Machine	**DD 500**
Rated voltage*	318 V–415 V 3~
Rated power input*	5500 W
Rated current*	9–10.5 A
Rated frequency	50/60 Hz
Rated speed under no load	580–270 /min
Chuck	BL (or other types)
Max. permissible water supply pressure	6 bar (at higher pressures, a pressure reduction valve must be fitted at the site water supply connection)
Min. required water flow rate	0.5 l/min (at max. 30 °C water temperature)
Dimensions (L × W × H)	608 × 192 × 216 mm
Weight in accordance with EPTA procedure 01/2003	16.6 kg
Weight drill stand DD-HD 30	18.3 kg
Max. operating weight	83 kg (machine, drill stand, 600 mm dia. core bit)
Drilling depth	max. 500 mm without extension
Protection class as per EN/IEC 61029	Protection class I (earthed/grounded)
Resistant to dust and sprayed water (IP code)	IP55

Noise emission information (measured in accordance with EN 12348/A1:2009):	
Typical A-weighted noise power level (L_{WA}):	115 dB (A)
Uncertainty K for the given noise power level:	2.5 dB (A)
Typical A-weighted noise emission pressure level (L_{pA}):	100 dB (A)
Uncertainty K for the given noise emission presure level:	4 dB (A)

Wear ear protection!

Total triaxial vibration values (vibration vector sum) at the hand wheel (star handle) a_h	
Drilling in concrete (wet), a_h:	4.5 m/s²
Uncertainty K:	1.5 m/s²

* The machine is available in several versions with different voltage ratings. Please refer to the type plate for the voltage rating and input power rating of your machine.

-NOTE-

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 12348 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.

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5. Safety precautions

5.1 Basic safety precautions

CAUTION: To avoid the risk of electric shock, injury or fire, the following basic safety precautions must always be observed when using electrically-powered machines.

Read all of these instructions before using this machine and keep this list of safety precautions for future reference.

5.2 The necessary safety precautions at the workplace

- Approval must be obtained from the site engineer or architect prior to beginning drilling work. Drilling work on buildings and other structures may influence the statics of the structure, especially when steel reinforcing bars or load-bearing components are cut through.
- Ensure that the workplace is well lit.
- Ensure that the workplace is well ventilated.
- Keep the workplace tidy. Objects which could cause injury should be removed from the working area. Untidiness at the workplace can lead to accidents.
- Secure the danger area. Ensure that no persons can be injured and no property damaged by falling objects or objects that may fly off while the machine is in operation. Employ suitable measures, e.g. use supports etc. to ensure that the drilled-out core remains in its original position. The resulting opening must be securely and visibly cordoned off in order to avoid the risk of persons falling.
- Secure the workpiece. Use clamps or a vice to secure the workpiece. The workpiece is thus held more securely than by hand and both hands remain free to operate the machine.
- Use protective equipment. Wear eye protection.
- Wear a breathing mask if the work creates dust.
- Wear suitable working clothing. Do not wear loose clothing, loose long hair or jewelry as it can become caught up in moving parts. Wear suitable headgear if you have long hair.
- It is recommended that non-slip shoes or boots are worn when working outdoors.
- Keep other persons away. Do not allow other persons, especially children, to touch the machine or supply cord. Keep other persons away from the working area.
- Avoid unfavorable body positions. Work from a secure stance and stay in balance at all times.
- To avoid tripping and falling when working, always lead the supply cord, extension cord and water hose away to the rear.
- Keep the supply cord, extension cord, water hose and vacuum hose away form rotating parts of the machine.
- **-WARNING- Before beginning drilling, check that there are no live electric cables located in the area where the hole is to be made.**
- 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 are working beforehand (e.g. using a metal detector). External metal parts of the machine may become live, for example, when an electric cable is drilled into inadvertently.
- Do not work from a ladder.
- **-WARNING- The DD 500 may be operated only with a correctly-functioning RCD residual current device / GFCI ground fault circuit interrupter. Check the electric supply each time before use to ensure that an RCD residual current device / GFCI ground fault circuit interrupter is present and in working order.**
- Check that all core bits are in good condition before use. Do not use deformed or damaged core bits.

5.3 General safety precautions

- Use the right machine for the job. Do not use underpowered machines for heavy work. Do not use the machine for purposes for which it was not intended - use it only as directed and when it is in faultless condition.
- Use only the original accessories or ancillary equipment listed in the operating instructions. Use of other insert tools or other accessories may present a risk of personal accident.
- Take the influences of the surrounding area into account. Do not use the machine where there is a risk of fire or explosion.
- Keep the grips dry, clean and free from oil and grease.
- Do not overload the machine. It will work more efficiently and more safely within its intended performance range.
- Store machines, when not in use, in a secure place. When not in use, machines must be stored in a dry place, locked up or out of reach of children.
- Unplug the machine from the electric supply when it is not in use, during pauses between work, before maintenance and when changing core bits.
- **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).** Test the PRCD each time before use (DD 350, 220 to 240 V).

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- Take care of your core bits. You will be able to work more efficiently and more safely if the core bits are kept sharp and clean.
- Check the machine for possible damage. Protective devices and any parts that may have suffered slight damage should be checked for correct operation and functionality before further use. Check that moving parts function correctly without sticking and that no parts are damaged. All parts must be fitted correctly and fulfill all conditions necessary for correct operation of the machine. Damaged safety devices or other damaged parts must be replaced or repaired properly by an authorized repair workshop unless otherwise indicated in the operating instructions.
- Avoid skin contact with drilling slurry.
- Wear respiratory protection when the work creates dust, e.g. during dry drilling. Connect a vacuum cleaner to the drilling system. Drilling into materials hazardous to the health (e.g. asbestos) is not permissible.
- **The machine 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 machine.**
- 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.**

5.3.1 Mechanical hazards

- Follow the instructions concerning care and maintenance.
- Follow the instructions concerning lubrication and changing insert tools.
- Check that the insert tools used are compatible with the chuck system and that they are secured in the chuck correctly.
- Make sure that the machine is correctly and securely attached to the drill stand.
- Keep a safe distance from the core bit while drilling (see definition of danger zone, section 6.1) and do not touch rotating parts. Always unplug the supply cord before touching or handling the core bit.
- Make sure that all clamping and adjusting screws are tightened correctly.
- After detaching the column extension, the end cap (with built-in end stop) must be refitted to the drill stand in order to retain the safety-relevant function of the end stop.

5.3.2 Electrical hazards

- Protect yourself against electric shock. Avoid body contact with earthed/grounded objects, e.g. pipes, radiators, cookers and fridges.
- 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.
- Check the condition of the machine and its accessories. Do not operate the machine or its accessories if damage is found, if the machine is incomplete or if its controls cannot be operated faultlessly.
- Do not touch the supply cord in the event of it suffering damage while working. Disconnect the supply cord plug from the socket.
- Damaged or faulty switches must be replaced at a Hilti service center. Do not use the machine if it cannot be switched on and off correctly.
- Have the machine repaired only by a trained electrical specialist (Hilti service center) using original Hilti spare parts. Failure to observe this point may result in risk of accident to the user.
- Do not use the supply cord for purposes for which it is not intended. Never carry the machine by the supply cord. Never pull the plug out of the socket by pulling the supply cord.
- Do not expose the supply cord to heat, oil or sharp edges.
- When working outdoors, use only extension cords that are approved and correspondingly marked for this application.
- In the event of a power failure: Switch the machine off and unplug the supply cord.
- Avoid using extension cords with multiple sockets and the simultaneous use of several machines connected to one extension cord.

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5.3.3 Thermal hazards

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

5.4 Requirements to be met by users

- The machine is intended for professional use.
- The machine may be operated, serviced and repaired only by authorized, 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 machine if your full attention is not on the job.
- Help to improve the circulation of blood in your fingers by relaxing your hands and doing finger exercises during breaks between working.

5.5 Personal protective equipment

- The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection, protective gloves and safety footwear while the machine is in use.

Wear eye protection | Wear a hard hat | Wear ear protection | Wear protective gloves | Wear safety footwear

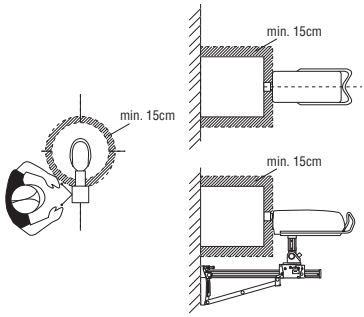
en

6. Before use

-CAUTION-
The mains voltage must correspond with the information printed on the type plate.
Ensure that the machine is disconnected from the electric supply.

6.1 Preparations

-CAUTION-
The machine, the diamond core bit and the drill stand are heavy. There is a risk of pinching parts of the body. Wear a hard hat, protective gloves and safety footwear.



The hatched area in the drawing above indicates the danger zone around the machine. Parts of the body must be kept at least 15 cm away while the machine is in operation.

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6.1.1 Setting up the drill stand 2

-NOTE-

If the drill stand has been folded up to facilitate transport, proceed as follows:

1. Release the screws at the top end of the strut and at the column pivot.
2. Pivot the column into the vertical position (as far as it will go).
3. Tighten the screw at the top end of the strut and at the column pivot securely.

-CAUTION-

The end cap must be fitted on the end of the column. It serves as a protector and as the end stop.

6.1.2 Fitting the hand wheel 3

-NOTE-

The hand wheel can be fitted on the left or right side of the carriage, on either of the two axles. The upper axle drives the carriage directly while the lower axle drives the carriage by way of reduction gearing.

1. Fit the hand wheel to one of the two axles on either the left or right side of the carriage.
2. Secure the hand wheel with the screw provided.

6.1.3 Fastening the drill stand with an anchor 4

-WARNING-

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

-NOTE-

Hilti M16 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, ideally at a distance of 330 mm (13") from the center of the point where the hole is to be drilled.
2. Screw the clamping spindle (accessory) into the anchor.
3. Place the drill stand over the spindle and position it correctly with the aid of the hole center indicator (the hole center indicator cannot be used to position the drill stand if the spacer (accessory) is fitted).
4. Screw the clamping nut onto the spindle but do not tighten it fully.
5. Use the 3 leveling screws to level the base plate. The 2 leveling indicators on the carriage serve as an aid. Check that all leveling screws are in firm contact with the surface.
6. Use a 27 mm open-end wrench to tighten the clamping nut on the spindle. Do not use a hammer or other heavy object when doing so as this may damage the base plate. The strut can be pivoted out of the way to provide better access. It must, however, be secure-ly re-attached to the column before starting the machine.
7. Check to ensure that the drill stand is fastened securely.

6.1.4 Fastening the drill stand with the vacuum base plate (accessory) 5

-CAUTION-

Check the surface on which the vacuum base plate is to be mounted. An uneven, rough surface can significantly reduce the effectiveness of the vacuum fastening system. Coatings or laminated surfaces may be pulled away while working with the vacuum base plate.

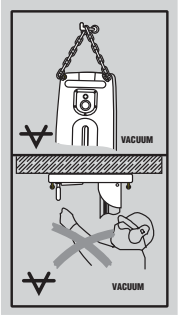
-CAUTION-

Suitable for use only with core bits of up to 300 mm diameter and without use of a spacer.

-NOTE-

The hand grip on the vacuum base plate is equipped with a vacuum valve which can be used to release the vacuum.

Check the condition of the seal on the vacuum base plate at regular intervals and replace it if found to be worn or damaged.



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

1. Turn the four leveling screws back until they project approx. 5 mm beneath the vacuum base plate.
2. Connect the hose between the vacuum base plate and the vacuum pump.
3. Position the drill stand on the vacuum base plate.
4. Fit and tighten the screw and washer provided.
5. Mark the center point of the hole to be drilled.
6. Draw a line approximately 800 mm in length from the center mark toward the approx. position at which the drill stand is to be secured.
7. Make a mark on the 800 mm line at a distance of 165 mm (6 1/2") from the hole center mark.
8. Bring the marks on the vacuum base plate into alignment with the 800 mm line.
9. Position the center of the front edge of the vacuum base plate on the line at the 165 mm (6 1/2") mark.

-CAUTION- Make yourself familiar with information contained in the operating instructions for the vacuum pump and follow these instructions before using the vacuum pump.

10. Switch on the vacuum pump and press the vacuum release valve.
11. Once the drill stand has been positioned correctly, remove your finger from the vacuum release valve and press the base plate against the work surface.

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-CAUTION- Before beginning drilling and during operation, it must be ensured that the pressure gauge pointer remains within the green area.

12. Use the four leveling screws to level the vacuum base plate. The 2 built-in level indicators on the carriage serve as leveling aids. **-WARNING-** Do not attempt to level the anchor base plate on the vacuum base plate as this is not possible.
13. An additional means of securing the drill stand must be employed when drilling horizontally (e.g. a chain attached to an anchor, ...)
14. Check that the drill stand is fastened securely.

6.1.5 Adjusting the angle of the drill stand (adjustable to max. 45°) 6

-CAUTION-

Take care to avoid pinching your fingers at the pivot. Wear protective gloves.

1. Release the screw at the pivot at the lower end of the column and at the strut at the top end.
2. Bring the column into the desired position. The angle scale on the rear serves as an adjustment aid.
3. Retighten the two screws securely.

6.1.6 Using the column extension (accessory) 7

-CAUTION-

When starting a hole do not use core bits or extensions with a total length of more than 650 mm.

1. Remove the end cap (with built-in end stop) from the top end of the column and refit it to the end of the column extension.
2. Fit the cylindrical section of the column extension into the end of the column on the drill stand.
3. Secure the column extension by tightening the eccentric locking bolt.
4. A depth gauge (accessory) may be fitted on the column as an additional end stop.
5. After detaching the column extension, the end cap must be refitted to the drill stand in order to retain the safety-relevant function of the end stop.

6.1.7 Fitting the spacer (accessory) 8

-NOTE-

The distance between the drilling axis and the drill stand must be increased by fitting the spacer when diamond core bits with a diameter greater than 300 mm are to be used. The hole center indicator cannot be used in conjunction with the spacer. A maximum of 2 spacers may be fitted, one behind the other. These instructions presume that the machine is not already fitted.

1. Lock the carriage in position on the column (activate the carriage locking mechanism). The carriage is locked when the locking bolt is engaged. Check this by turning the hand wheel at the locking mechanism. No movement of the carriage is possible when in this position (locked).
2. Pull out the machine locking bolt.
3. Fit the spacer onto the carriage.
4. Push the locking bolt into the carriage as far as it will go.
5. Tighten the locking bolt securely.

6.1.8 Mounting the machine on the drill stand 9

-CAUTION-

Ensure that the machine is disconnected from the electric supply.

1. Lock the carriage in position on the column (activate the carriage locking mechanism). The carriage is locked when the locking bolt is engaged. Check this by turning the hand wheel at the locking mechanism. No movement of the carriage is possible when in this position (locked).
2. Pull out the machine locking bolt.
3. Fit the machine onto the carriage or spacer.
4. Push the locking bolt into the carriage or spacer as far as it will go.
5. Tighten the locking bolt securely.
6. Clip the supply cord into the supply cord guide on the carriage cover.
7. Check that the machine is mounted securely.

6.1.9 Connecting the water supply

-NOTE-

Before operating the machine, check that the 3-way valve is in the wet or dry drilling position.

1. Connect the water supply hose to the machine.
2. Connect the hose to the water supply (hose coupling).

-NOTE-

A water flow indicator (accessory) can be connected between the water supply hose and the hose connector on the machine.

-CAUTION-

Check the hoses for damage at regular intervals and make sure that the maximum permissible water supply pressure of 6 bar is not exceeded.

6.1.10 Fitting the water collector system (accessory) 10

-NOTE-

Use of the water collector system permits water to be drained away from the core bit thus avoiding soiling the surrounding area. We recommend use of the water collector system with core bits of up to 250 mm. diameter. Best results are achieved in conjunction with a wet-type vacuum cleaner. The drill stand must be set up at 90° to the working surface.

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

1. Release the screw at the column pivot (at the front lower end of the drill stand column).
2. Slide the water collector holder into place behind the screw from below.
3. Tighten the screw securely.
4. Fit the water collector between the two moveable arms of the water collector holder.
5. Secure the water collector by way of the two screws on the water collector holder.
6. Connect a wet-type industrial vacuum cleaner to the water collector or fit a length of hose through which the water can drain away.

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6.1.11 Adjusting the depth gauge (accessory)

1. Turn the hand wheel until the core bit contacts the material in which the hole is to be drilled.
2. Set the desired drilling depth by adjusting the distance between the carriage and the depth gauge.
3. Secure the depth gauge by tightening the clamping screw.

6.1.12 Fitting a diamond core bit (machine with Hilti BL chuck) 11

-CAUTION-

Fitting and positioning the core bit incorrectly can lead to hazardous situations as parts can break and fly off. **Check that the core bit is seated correctly.**

-DANGER-

Do not use damaged core bits. Check the core bits for chipping, cracks, or heavy wear each time before use. Do not use damaged tools. Fragments of the workpiece or a broken core bit may be ejected and cause injury beyond the immediate area of operation.

-NOTE-

Diamond core bits must be replaced when the cutting performance and/or rate of drilling progress drops significantly. This generally is the case when the segments reach a height of less than 2 mm.

-CAUTION-

The core bit may become hot during use or during sharpening. Wear protective gloves when changing the core bit.

1. Lock the carriage in position on the column (activate the carriage locking mechanism) and check that the drill stand is fastened securely.
2. Open the chuck by turning it in the direction of the “open” symbol (open brackets).
3. Push the connection end of the diamond core bit into the chuck on the machine from below until it engages with the gear teeth.
4. Close the chuck by turning it in the direction of the “closed” symbol (closed brackets).
5. Check that the diamond core bit it is held securely (check by hand for play and try to pull it away from the chuck).

6.1.13 Selecting the drilling speed 12

Select the switch position according to the core bit diameter to be used.

Core bit speed (r.p.m.) can be adjusted while the machine is in operation.

6.2 Transport and storage

-CAUTION-

Transport the machine, drill stand and diamond core bit as separate units.

Use the wheel assembly (accessory) to facilitate transport.

Open the water flow regulator before storing the machine. Especially at temperatures below freezing, take care to ensure that no water remains in the machine (see also section 7.10).

6.3 Use of extension cords

Use only extension cords of a type approved for the application and with conductors of adequate cross section.

6.3.1 Recommended minimum conductor cross section and max. cable lengths for the DD 350

Mains voltage	Conductor cross section mm²				
Conductor cross section	1.5	2.0	2.5	3.5	4.0
110 V	not permissible	not permissible	not permissible	20 m	20 m
220–240 V	20 m	–	40 m	50 m	60 m

Do not use extension cords with 1.25 mm² or 16 AWG conductor cross sections.

6.3.2 Recommended minimum conductor cross section and max. cable lengths for the DD 500:

Mains voltage	Conductor cross section mm²		
Conductor cross section	1.5	2.5	
380–440 V	30 m	75 m	

6.4. Use of a generator or transformer

6.4.1 DD 350

This machine may be powered by a generator or transformer which meets the following specifications:

– AC voltage, output power at least 7,000 VA
– The operating voltage must be within 5 % and –10 % of the rated voltage at all times.
– Frequency range 50–60 Hz; max. 65 Hz
– Automatic voltage regulation with starting boost

Never operate other machines or appliances from the generator or transformer at the same time. Switching other machines or appliances on and off may cause undervoltage and/or overvoltage peaks, resulting in damage to the machine.

6.4.2 DD 500

This machine may be powered by a generator or transformer which fulfills the following conditions:

– AC voltage, output power at least 10,000 VA
– The operating voltage must be within 5 % and –10 % of the rated voltage at all times.
– Frequency range 50–60 Hz; max. 65 Hz
– Automatic voltage regulation with starting boost

Never operate other machines or appliances from the generator or transformer at the same time. Switching other machines or appliances on and off may cause undervoltage and/or overvoltage peaks, resulting in damage to the machine.

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7. Operation

-DANGER-
Have the earth/ground conductor in the electric supply and the earth/ground connection to the machine checked at regular intervals in order to ensure that they are functioning correctly.

-CAUTION-
The machine and the core drilling operation emit noise. Wear ear protection.

-CAUTION-
The core drilling operation may cause hazardous fragments to fly off. Wear eye protection and a hard hat.

7.1 Switching on and checking the PRCD ground fault interrupter (DD 350, 220–240 V)

-CAUTION-
Use an isolating transformer with the 110V version.

1. Plug the machine supply cord into an electric socket with earth connection.
2. Press the “ON” button on the PRCD ground fault interrupter. (The indicator must light)
3. Press the “TEST” button on the PRCD ground fault interrupter. (The indicator must go out).

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

4. Press the “ON” button on the PRCD ground fault interrupter again. (The indicator must light)

7.2 Core bit diameters and corresponding gears

DD 350

Gear	Core bit diameter	Speed under no load 220–240 V [/min]	Speed under no load 110 V [/min]
1	52–62 mm / 2″–2 3/8″	667	667
2	72–92 mm / 2 3/4″–3 1/2″	667	667
3	102–112 mm / 4″–4 1/2″	667	619
4	122 mm / 4 3/4″	619	571
5	127–142 mm / 5″–5 1/2″	571	524
6	152–162 mm / 6″–6 3/8″	524	464
7	172–182 mm / 6 3/4″–7″	405	369
8	202 mm / 8″	357	321
9	225–250 mm / 9″–10″	310	286
10	300–500 mm / 12″–20″	286	238

DD 500

Gear	Core bit diameter	Speed under no load 380–415 V [/min]
1	82–92 mm / 3 1/4″ – 3 1/2″	571
2	102–112 mm / 4″ – 4 1/2″	571
3	122–132 mm / 4 3/4″ – 5 1/4″	571
4	142–172 mm / 5 1/2″–6 3/4″	571
5	182–202 mm / 7″–8″	510
6	225–250 mm / 9″–10″	429
7	300 mm / 12″	367
8	350 mm / 14″	327
9	400 mm / 16″	286
10	450–600 mm / 18″–24″	265

7.3 Operating the machine without the water collector system and wet-type vacuum cleaner

-CAUTION-
The water flows away in uncontrolled fashion.

7.3.1 Switching on 13

1. Open the water flow regulator slowly until the desired volume of water is flowing.
2. Check that the core bit is not in contact with the base material.
3. Press the ON switch on the machine.
4. Release the carriage lock while holding the handwheel securely.
5. Turn the hand wheel until the core bit comes into contact with the material in which the hole is being drilled.
6. Apply only light pressure until the core bit has become centered and then gradually increase the pressure.
7. Regulate the pressure applied to the core bit by observ-

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ing the drilling performance indicator (optimum drilling performance is achieved when the green lamps in the display light).

7.3.2 Using drilling-starting mode

-NOTE-

Strong vibration may occur when starting the hole. In this case, use hole-starting mode.

1. Press the ON switch on the machine.
2. Press the ON switch a second time. The core bit then rotates very slowly (approx. 21 /min).
3. Press the core bit firmly against the surface where the hole is to be drilled.
4. After a short time in hole-starting mode (approx. 5 sec.), press the ON switch again. The core bit then rotates at the normal running speed. Continue drilling in the usual way.

7.3.3 Procedure when drilling through a rebar

-NOTE-

Slower drilling progress can be an indication of rebar contact. The following procedure is recommended when drilling through a rebar:

1. Press the Iron Boost button.
2. Press the Iron Boost button again when the rate of drilling progress increases, indicating that the core bit is through the rebar and drilling only into concrete. The Iron Boost is then switched off.

-NOTE-

Use the Iron Boost for drilling in heavily reinforced concrete. Switch the Iron Boost off each time after drilling through rebars in order to avoid reducing core bit life unnecessarily.

7.4 Operating the drilling machine with the water collector system (accessory)

-NOTE-

Use of the water collector system while drilling at an angle is not possible. The water is allowed to flow away through a length of hose.

-CAUTION-

Check that the core bit and water collector are centered in relation to each other. The core bit fills with water during overhead drilling.

7.4.1 Switching on 14

1. Open the water flow regulator slowly until the desired volume of water is flowing.
2. Check that the core bit is not in contact with the base material.
3. Press the ON switch on the machine.
4. Release the carriage lock while holding the handwheel securely.
5. Turn the hand wheel until the core bit comes into contact with the material in which the hole is being drilled.
6. Apply only light pressure until the core bit has become centered and then gradually increase the pressure.
7. Regulate the pressure applied to the core bit by observing the drilling performance indicator (Power Controls). Optimum drilling performance is achieved when the green lamps in the display light.

7.5 Operating the drilling machine with the water collector system and wet-type vacuum cleaner (accessory)

-NOTE-

Use of the water collector system while drilling at an angle is not possible. The water is allowed to flow away through a length of hose. The wet-type vacuum cleaner must be switched on manually before beginning drilling and switched off manually at the end of the drilling operation.

-CAUTION-

Check that the core bit and water collector are centered in relation to each other.
The core bit fills with water during overhead drilling.

7.5.1 Switching on 15

1. Switch on the wet-type vacuum cleaner. Do not use automatic mode.
2. Ensure that the water supply is connected and ready for use.
3. Open the water flow regulator.
4. Check that the core bit is not in contact with the base material.
5. Press the ON switch on the machine.
6. Release the carriage lock while holding the handwheel securely.
7. Turn the hand wheel until the core bit comes into contact with the material in which the hole is being drilled.
8. Apply only light pressure until the core bit has become centered and then gradually increase the pressure.
9. Regulate the pressure applied to the core bit by observing the drilling performance indicator (optimum drilling performance is achieved when the green lamps in the display light).

7.6 Dry drilling

-NOTE-

The 3-way valve must be in the dry drilling position.
To collect the dust, use a suitable dust removal system consisting of the following listed accessories: water collector ring and seal of the appropriate diameter, hose connector and industrial vacuum cleaner. The dust removal process must be assisted by applying a flow of compressed air through the core bit (flow rate at least 30 l/s). Wear a breathing mask if the work creates dust.

1. Remove the water outlet cap.
2. Start the water flow (required for motor cooling).
3. Allow the cooling water to flow away through the drainage hose.
4. Switch on the vacuum cleaner and compressed air.
5. Check that the core bit is not in contact with the base material.
6. Press the ON switch on the machine.
7. Release the carriage lock while holding the handwheel securely.
8. Turn the hand wheel until the core bit comes into contact with the material in which the hole is being drilled.
9. Apply only light pressure until the core bit has become centered and then gradually increase the pressure.

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10. Regulate the pressure applied to the core bit by observing the drilling performance indicator (Power Controls). Optimum drilling performance is achieved when the green lamps in the display light).

7.7 Switching off 16

1. Switch off the machine.
2. Withdraw the diamond core bit from the hole.

-CAUTION-
Exercise caution when drilling overhead: The core bit fills with water.

3. Engage the carriage lock. The carriage is locked when the locking bolt is engaged. Check this by turning the hand wheel at the locking mechanism. No movement of the carriage is possible when in this position (locked).
4. Close the water flow regulator.
5. Switch off the vacuum cleaner, if used.
6. After drilling overhead, the water must be drained from the core bit. To do this, remove the water outlet cap, attach a drainage hose (accessory) to the water ontlet and then turn the 3-way valve to the middle position. Keep the water away from the machine.
7. To ensure that the drill stand remains in balance, lower the core bit until in contact with the working surface or fold out the hole center indicator (this is not effective if using the vacuum base plate).
8. Unplug the supply cord or switch off the PRCD.
9. Remove the core.

-CAUTION-
The core may be very heavy.

7.8 Procedure in the event of the core bit sticking

The slip clutch will be activated if the core bit sticks. The machine 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

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.

7.9 Removing the machine from the drill stand 17

-CAUTION-
Ensure that the machine is disconnected from the mains supply.

1. Lock the carriage in position on the column (activate the carriage locking mechanism). The carriage is locked when the locking bolt is engaged. Check this by turning the hand wheel at the locking mechanism. No movement of the carriage is possible when in this position (locked).
2. Hold the machine securely with one hand on the carrying grip. (**-CAUTION-** The machine may fall if not held securely.)
3. Release the machine eccentric locking bolt with the other hand.
4. Pull out the eccentric locking bolt.
5. Remove the machine from the carriage.
6. Push the eccentric locking bolt back into the carriage as far as it will go.

7.10 Storing and break times in sub-zero temperatures

-CAUTION-
If break times are longer than one hour when working at temperatures below 0°C (32°F) or if the machine is to be stored at such temperatures, the water in the system must be blown out with compressed air.

1. Disconnect the water supply hose from the machine.
2. Open the water flow regulator.
3. Set the 3-way valve to the wet drilling position.
4. Use compressed air (max. pressure 3 bar) to blow all water out of the system.

7.11 Disposing of drilling slurry

see Section 10 “Disposal”

8. Care and maintenance

-CAUTION-
Disconnect the supply cord plug from the socket.

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

Care of insert tools and metal parts
Remove any dirt adhering to parts and rub the core bits and the chuck with an oily cloth from time to time to protect their surfaces from corrosion.

8.1 Care of the machines

The outer casing of the machine is made from impact-resistant plastic. Clean the outside of the machine at regular intervals with a cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the machine.

8.2 Maintenance

Check all external parts of the machine for damage at regular intervals and check that all controls operate faultlessly. Do not operate the machine if parts are damaged or when the controls do not function faultlessly. If necessary, the machine should be repaired at a Hilti repair center.
Repairs to the electrical section of the machine may be carried out only by trained electrical specialists.

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8.3 Indicator lamps

	Status	Recommendation
Service indicator	Lights constantly	Return the machine to Hilti for servicing.
	Blinks	Fault in the machine (see "Troubleshooting")
	Continues to blink	Return the machine to Hilti urgently for servicing (failure to observe this recommendation may reduce entitlement to the services provided by optional Hilti Full Service.)
Overheating Overvoltage/ undervoltage	Lights constantly	Check the water flow.
	Blinks	Check the electric supply (see "Troubleshooting").

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8.4 Adjusting the play between the column and the carriage 18

The play between the column and the carriage can be adjusted by way of 4 eccentrically-mounted rollers.

The 4 rollers shown in the illustration can be adjusted. First remove the machine from the drill stand and run the carriage up to the top of the column by turning the hand wheel. The 4 rollers can then be adjusted as follows:

1. Use a 5 mm AF hex. socket wrench to unscrew the locking screw slightly (do not remove the screw).
2. Use a 19 mm AF open-end wrench to turn the eccentric axle, thus pushing the roller slightly toward the column.
3. Tighten the locking screw.
4. Test: When adjusted correctly, the carriage alone will remain in position (not slide down). With the machine mounted on it, the carriage should slide down under its own weight.

8.5 Checking the equipment after care and maintenance

All functions must be checked after care and maintenance.

9. Troubleshooting

Fault	Possible cause	Remedy
The machine doesn't start	Fault in the electric supply	Plug in another electric appliance and check whether it works. Check the plug connections, electric supply, PRCD (DD 350) and fuse in the electric supply.
	Supply cord or plug defective.	Have it checked by a trained electrical specialist and replaced if necessary.
	Switch defective.	Have the machine repaired at a Hilti service center.
The machine doesn't start and the temperature/overvoltage/undervoltage warning lamp lights.	Machine has overheated.	Switch the machine off (press the OFF switch in the middle) and then switch on again. Check the water supply. Allow the machine to cool down before restarting.
The machine doesn't start and the temperature/overvoltage/undervoltage warning lamp blinks.	Fault in the electric supply, undervoltage or overvoltage (DD 500: phase missing).	Switch the machine off (press the OFF switch in the middle) and then switch on again. Check the electric supply (especially if using a generator or transformer).
The machine doesn't start and the service indicator blinks.	The machine is faulty or a safety cut-out has been activated.	Switch the machine off (press the OFF switch in the middle) and then switch on again. Have the machine serviced by Hilti if the fault persists.
The machine runs and the service indicator lights.	Service interval reached.	Return the machine to Hilti for servicing.
The machine runs and the service indicator blinks.	Service interval exceeded.	Servicing urgently required. Return the machine to Hilti.

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The motor runs, core bit doesn't rotate.	Gearing defective.	Have the machine repaired at a Hilti service center.
Rate of drilling progress decreases.	Diamond core bit segments polished.	Sharpen the core bit on a sharpening plate while water is flowing.
	Diamond core bit segments polished.	The wrong core bit specification has been used. Seek advice from Hilti.
	Water pressure / water flow rate too high.	Use the regulator to reduce the water flow rate (a minimum flow rate of 0.5 l/min. must be maintained).
	The core is stuck in the core bit.	Remove the core.
	Maximum drilling depth reached.	Remove the core and use a core bit extension.
	The diamond core bit is defective.	Check the diamond core bit for damage and replace it if necessary.
	Gearing defective.	Have the machine repaired at a Hilti service center.
	The clutch is releasing prematurely or slipping.	Have the machine repaired at a Hilti service center.
The motor cuts out.	The core bit has been jammed (stalled) for too long.	Free the core bit. Switch the motor off and then on again.
	Electric power failure.	Check the plug connections, electric supply, PRCD (DD 350) and fuse in the electric supply.
	Electronics defective.	Have the machine repaired at a Hilti service center.
Water leakage at the water swivel or gear housing.	Shaft seal defective.	Have the machine repaired at a Hilti service center.
	Water pressure is too high.	Reduce the water pressure.
The diamond core bit cannot be fitted into the chuck.	Chuck or connection end dirty or damaged.	Clean the connection end/chuck or replace if necessary.
Water leakage at the chuck during operation.	Core bit not screwed securely into the chuck.	Tighten it securely.
	Chuck or connection end dirty.	Clean the chuck or connection end.
	Chuck seal or core bit connection end defective.	Check the seal and replace it if necessary.
Excessive play in the drilling system.	Screws at the top end of the strut and/or at the column pivot are loose.	Tighten the screws.
	Core bit not screwed securely into the chuck.	Tighten it securely.
	The machine mounting/locking mechanism is loose.	Tighten the machine mounting/locking mechanism.
	Leveling screws or clamping spindle not tightened.	Tighten the leveling screws or clamping spindle.
	Excessive play at the carriage.	Adjust the play at the carriage guide rollers.
	Excessive play at the chuck.	Check that the chuck runs true and replace it if necessary.
	Connection end defective.	Check the connection end and replace it if necessary.
	Chuck not fitted correctly.	Fit the chuck as far as it will go and tighten the hex. socket screw to a torque of 35 Nm.
	Not securely fastened to the base material.	Check the fastening and adjustment of the leveling screws.

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10. Disposal

Recycle waste material
Most of the materials from which Hilti tools or machines 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 power tools for recycling. Please ask your Hilti customer service department or Hilti representative for further information.

en

For EC countries only:

Disposal of electric tools or machines 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 or machines that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility

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

We recommend the following pretreatment
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.

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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.

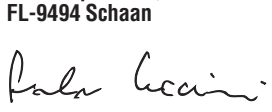
This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

12. EC declaration of conformity (original)

Designation:	Diamond drilling system
Type:	DD 350
Year of design:	2004

We declare, on our sole responsibility, that this product complies with the following standards or standardization documents: 2006/42/EC, 2004/108/EC, EN 61029-1, EN 61029-2-6, 2011/65/EU, EN ISO 12100.

Hilti Corporation, Feldkircherstrasse 100, FL-9494 Schaan



Paolo Luccini
Head of BA Quality & Process Management
BA Electric Tools & Accessories
01/2012

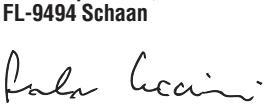
Johannes W. Huber
Senior Vice President
BU Diamond
01/2012

Technical documentation filed at:
Hilti Entwicklungsgesellschaft mbH
Zulassung Elektrowerkzeuge
Hiltistrasse 6
86916 Kaufering
Deutschland

Designation:	Diamond drilling system
Type:	DD 500
Year of design:	2004

We declare, on our sole responsibility, that this product complies with the following standards or standardization documents: 2006/42/EC, 2004/108/EC, 2011/65/EU, EN ISO 12100, EN 60204-1.

Hilti Corporation, Feldkircherstrasse 100, FL-9494 Schaan



Paolo Luccini
Head of BA Quality & Process Management
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01/2012

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