

iliti Customer Service. Check extension cords
regular intervals and replace them if found
he damaged. Do not touch the supply cord in
ie event of it suffering damage while working.
isconnect the supply cord plug from the power
alled. Damaged supply cords present a risk of
ectric shock.

Personal safety

Keep children and other persons away from the
area while the appliance is in use. Distractions
in cause you to lose control.
Children should be supervised to ensure that
they don't play with the appliance.

Stay alert, watch what you are doing and use
common sense when operating the appliance.
Do not use the appliance while tired or under
the influence of drugs, alcohol or medication. A
moment of inattention while operating appliances
may result in serious personal injury.
Avoid unusual body positions. Make sure you
work from a safe stance and stay in balance at
all times.

Safe use and operation

Make the influences of the surrounding area into
account. Do not expose the appliance to rain or
snow and do not use it in damp or wet conditions.
Do not use the appliance where there is a risk of
fire or explosion.

Use the right appliance for the job. Do not use
the appliance for purposes for which it was not
designed. Use it only as directed and when in
optimal condition.

Do not abuse the supply cord and/or the hose.
Never use the supply cord or hose to carry or
pull the appliance and do not pull the supply
cord when unplugging. Damaged supply cords
increase the risk of electric shock.

Keep the supply cord and hose away from heat,
oil, sharp edges or moving parts.
Check the appliance and its accessories for any
damage. Guards, safety devices and any slightly
damaged parts must be checked carefully to
ensure that they function faultlessly and as in-

tended. Check that moving parts function cor-
rectly without sticking and that no parts are
damaged. All parts must be fitted correctly and
fulfill all conditions necessary for correct oper-
ation of the appliance. Damaged guards, safety
devices and other parts must be repaired or
replaced properly at an authorized service cen-
ter unless otherwise indicated in the operating
instructions.

f) During operation, protect the appliance and hose
from the effects of external influences which
could result in damage to the water separator or
hose.

5.5 Safety instructions for all operations

- Observe the operating instructions for the dia-
mond coring machine used.
- Avoid restriction or blocking of the hose, e.g.
pinching, kinking or entry of dirt.
- Keep the ventilation slots on the pump clean
and unobstructed. Ensure adequate free space
at the air exit in order to avoid overheating of the
appliance.
- Never allow the pump to stand in water.
- The pump should stand on a dry horizontal sur-
face when in operation and should be secured to
prevent possible movement.
- The vacuum will be maintained for a short time
after failure of the electric supply or malfunction
of the appliance. Should this occur, stop working
immediately and check the pressure gauges on
the pump and vacuum base plate. Secure the
workpieces to prevent falling.
- Do not modify the appliance or tamper with its
parts.
- Use only genuine Hilti spare parts.
- Empty the water separator each time before
transporting the pump.
- Ensure that the workplace is well lit.

5.6 Service

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

6. Before use



6.1 Setting up the pump



Stand the pump on a dry, horizontal surface and
secure it to prevent possible movement.

Check to ensure an unobstructed flow of cooling air
to the pump.

The area up to at least 20 cm from the cooling air
intake and exit must be kept free.

WARNING

Avoid pinching or kinking the supply cord and hose.

NOTE

Check the water level in the water separator and
empty it if necessary.

Connect the hose from the pump to the vacuum
baseplate.

6.2 Connecting to a grounded power outlet

Grounding instructions

This product must be grounded. In the event of an
electrical short circuit, grounding reduces the risk of
electric shock by providing an escape wire for the
electric current. This product is equipped with a cord
having a grounding wire with an appropriate ground-

ing plug. The plug must be plugged into an outlet that
is properly installed and grounded in accordance with
all local codes and ordinances.

WARNING

Improper installation of the grounding plug is able
to result in a risk of electric shock. When repair
or replacement of the cord or plug is required, do
not connect the grounding wire to either flat blade
terminal. The wire with insulation having an outer
surface that is green with or without yellow stripes is
the grounding wire.

Check with a qualified electrician or serviceman when
the grounding instructions are not completely under-
stood, or when in doubt as to whether the product is
properly grounded. Do not modify the plug provided;
if it does not fit the outlet, have the proper outlet
installed by a qualified electrician.

This product is for use on a nominal 120-V circuit and
has a grounding plug. Only connect the product to an
outlet having the same configuration as the plug. Do
not use an adapter with this product.

6.3 Extension cords

Use only a 3-wire extension cord that has a 3-blade
grounding plug, and a 3-slot receptacle that accepts
the plug on the product. Make sure your extension
cord is not damaged. When using an extension cord,
be sure to use one heavy enough to carry the current
your product draws. For lengths less than 100 ft, 16
AWG extension cords shall be used. An undersized
cord results in a drop in line voltage and loss of power
and overheating.

7. Operation



WARNING

Check the system for correct operation and vacuum
before resuming work after maintenance.

7.1 Checking pump operation and vacuum

- Plug the supply cord into the power outlet.
- Switch the pump on at the on / off switch.

- After a short time, the pressure gauge should
indicate a pressure within the green area.

7.2 Switching the pump on

- Plug the supply cord into the power outlet.
- Switch the pump on at the on / off switch.

NOTE The vacuum is monitored by a built-in
pressure gauge.

NOTE

The appliance is equipped with a safety valve to prevent water being drawn into the pump when the water container is full.

If the safety valve is activated, vacuum pressure will drop.

Stop working if this happens and empty the water separator: see section 8.2.

7.4 Protection against overheating

The pump is equipped with an overheating protection cut-out. In the event of overheating, the pump switches itself off and switches itself on again automatically after cooling down. The vacuum may drop during this time - see section 9.

7.5 Switching the pump off

1. Switch the pump off at the on / off switch.
2. Disconnect the supply cord plug from the power outlet.
3. Before storing the pump, wind the supply cord and hose round the water separator and beneath the supply cord hook.

8.2 Emptying the water separator

1. Connect the hose to the vacuum base plate in order to release any remaining vacuum pressure.
2. Rotate the water separator container to the "open" position and pull it down and away from the pump (bayonet connection).
3. Empty the container.
4. Check the ball float.
The ball must be free to move in its cage.
Press the ball down if it is stuck up against the seal.
5. Clean the top edge of the water separator container before refitting it.
6. Bring the bayonet connector on the water container into engagement and then rotate the container toward "close".
7. Check that the water separator container is seated securely.

8.3 Cleaning the appliance

CAUTION

Do not use solvents as these may damage plastic components.

WARNING

Do not clean with running water or use pressure jet/spray systems. This may adversely affect electrical safety.

1. Use a damp cloth and a little household cleaner to clean the outside of the appliance.
2. Always keep the grip surfaces of the appliance free from oil and grease.
3. Clean the ventilation slots regularly with a soft, dry brush.

9. Troubleshooting

Fault	Possible cause	Remedy
The pump is running and is connected to the vacuum baseplate but no vacuum is created (pressure indicator in the red area).	The filter is clogged. Dirt in the hoses, fittings, pump or vacuum baseplate seals (water separator, connectors, etc.). Operation at high altitude.	Return the appliance for repair. Clean out the hoses, fittings and seals or replace them if necessary.
The pump runs but creates no vacuum (pressure indicator in the red area).	The water separator is full. The ball float is stuck beneath the filter unit. The water separator is leaking, damaged or not fitted. The hose is damaged or squashed. The pump is defective.	Use a different fastening method. Empty the water separator. Remove the water separator and pull the ball down. Fit the water separator. Replace it if damaged. Return the appliance for repair.
The pump doesn't start.	Electric power failure.	Return the appliance for repair. Check the fuses and cables. Check the position of the switch. Check that the electric supply voltage complies with the details given on the rating plate.
The pump switches itself off.	The pump is defective. The overheating cut-out has been activated.	Return the appliance for repair. Allow the appliance to cool down. The appliance switches on again automatically. Check the ventilation slots and clean them if necessary. Check the operating voltage.
The water separator container cannot be removed.	The system is still under vacuum.	Release the pressure by connecting the hose to the vacuum baseplate.

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.

DANGER

To avoid injury, use only genuine Hilti core bits and DD 150-U accessories. If using a machine with a B1+ chuck, only genuine Hilti core bits may be used with it.

CAUTION

The core bit may become hot during use or during sharpening. There is a risk of burning your hands. Wear protective gloves when changing the core bit.

CAUTION

Disconnect the supply cord plug from the power outlet.

NOTE

If using an alternative type of chuck, lock the drive spindle with a suitable open-end wrench and use another suitable open-end wrench to tighten the core bit.

- Engage the carriage locking system with the channel and check that the channel is securely fastened.
- Open the chuck (B1+) by turning it in the direction of the open brackets symbol.
- Push the diamond core bit into the chuck (B1+) from below, turning the core bit until the teeth in the chuck engage with the core bit.
- Close the chuck (B1+) by turning it in the direction of the closed brackets symbol.
- Check that the diamond core bit is securely mounted in the chuck by pulling on the core bit and attempting to move it from side to side.

7 Operation



WARNING

Take care to ensure that the supply cord and water or vacuum cleaner hoses do not come into contact with rotating parts.

WARNING

Make sure that the supply cord is not pinched and damaged as the carriage advances.

6.1.3.4 Selecting the speed

CAUTION

Do not change gear while the machine is running. Wait for the spindle to come to a halt.

- Set the switch to the correct position according to the core bit diameter used (see Section 2.3). When turning the switch, rotate the core bit by hand at the same time until the switch can be engaged in the recommended position.

6.1.3.5 Removing the diamond core bit



CAUTION

The core bit may become hot during use or during sharpening. There is a risk of burning your hands. Wear protective gloves when changing the core bit.

CAUTION

Disconnect the supply cord plug from the power outlet.

NOTE

If using an alternative type of chuck, lock the drive spindle with a suitable open-end wrench and use another suitable open-end wrench to release the core bit.

- Engage the carriage locking system with the channel and check that the channel is securely fastened.
- Open the chuck (B1+) by turning it in the direction of the open brackets symbol.
- Put the sleeve on the chuck in the direction of the bit towards the machine. This releases the core bit.
- Remove the core bit.

CAUTION

The machine and the drilling operation generate noise. Wear ear protectors. Excessive noise may damage the hearing.

CAUTION

Drilling may cause hazardous flying fragments. Flying fragments present a risk of injury to the eyes and body. Wear eye protection and a hard hat.

CAUTION

Do not change gear while the machine is running. Wait until the drive spindle has stopped rotating.

WARNING

When using a two-part hole-starting aid, do not allow the machine to run without contact with the work surface.

7.2 TPS theft protection system (optional)

NOTE

The machine may be equipped with the optional theft protection system. If the machine is equipped with this feature, it can be unlocked and made ready for operation only with the corresponding TPS key.

7.2.1 Unlocking the machine

- Connect the supply cord to the electric supply and press the "I" or "Reset" button on the ground fault circuit interrupter. The yellow theft protection indicator LED blinks. The machine is now ready to receive the signal from the TPS key.
 - Hold the TPS key or the TPS watch strap buckle against the lock symbol. The machine is unlocked as soon as the yellow theft protection indicator LED no longer lights.
- NOTE If, for example, the electric supply is briefly interrupted due to a power failure or disconnected when moving to a different workplace, the machine remains ready for operation for approx. 20 minutes. In the event of a longer interruption, the TPS key must be used again to unlock the machine.

7.2.2 Activation of the theft protection system for the machine

NOTE

Further detailed information on activation and use of the theft protection system can be found in the operating instructions for the theft protection system.

7.2 Switching on and checking the ground fault circuit interrupter (GFCI)

An isolating transformer must be used with machines not equipped with a GFCI.

- Plug the machine's supply cord into an earthed/grounded power outlet.
- Press the "I" or "Reset" button on the ground fault circuit interrupter (GFCI).
- The drilling performance indicator lights orange. Press the "0" or "Test" button on the ground fault circuit interrupter (GFCI). The indicator must go out.

WARNING If the indicator continues to light, further operation of the machine is not permitted. Have the machine repaired by trained personnel using genuine Hilti spare parts.

Press the "I" or "Reset" button on the ground fault circuit interrupter (GFCI). The indicator must light.

7.3 Hand-guided dry drilling

NOTE

If a considerable quantity of dust collects in the core bit this can cause the core bit to run out of balance. Remove the dust from the core bit.

7.3.1 Dry drilling with dust removal

CAUTION

When working, always lead the vacuum cleaner hose away to the rear of the machine so that it cannot come into contact with the core bit.

CAUTION

Please read the operating instructions for the vacuum cleaner for information about disposal of the material collected.

NOTE

To avoid electrostatic effects, use an anti-static vacuum cleaner.

7.3.1.1 Fitting the hole-starting aid

A different hole-starting aid is required for each core bit diameter. Fit the hole-starting aid into the open end of the diamond core bit.

7.3.1.2 Vacuum cleaner with power outlet for power tools

CAUTION

Do not use slotted core bits when working with a dust removal system.

NOTE

The optional operations are to be carried out when the two-part hole starting aid is used.

- Bring the side handle into the desired position and secure it (see Section 6.1.1).
- Fit the hole-starting aid (optional operation).
- Plug the machine's supply cord into the power outlet on the vacuum cleaner.
- Plug the vacuum cleaner's supply cord into the power outlet and press the "Reset" or "I" button on the GFCI (see Section 7.2).
- Position the machine at the point where the hole is to be drilled (hole center).
- Press the on / off switch on the machine.
- NOTE The vacuum cleaner starts with a delay after the machine is switched on. After switching the machine off, the vacuum cleaner continues to run for a short time before switching itself off.
- When beginning drilling, apply only light pressure until the core bit has centered itself and then increase the pressure. Drill to a depth of 3-5 mm to form a guide kerf (optional operation).
- Switch the machine off by releasing the on / off switch and then wait until the core bit has stopped rotating (optional operation).
- Remove the hole-starting aid from the core bit (optional operation).

10. Position the core bit in the guide kerf and then press the on/off switch to continue drilling (optional operation).

7.3.1.3 Vacuum cleaner without power outlet for power tools

CAUTION

Do not use slotted core bits when working with a dust removal system.

NOTE

The optional operations are to be carried out when the two-part hole starting aid is used.

1. Bring the side handle into the desired position and secure it (see Section 6.1.1).
2. Fit the hole-starting aid (optional operation).
3. Plug the vacuum cleaner's supply cord into the power outlet and switch the vacuum cleaner on.
4. Plug the drilling machine's supply cord into the power outlet and press the "Reset" or "I" button on the GFCI (see Section 7.2).
5. Press the on/off switch on the machine.
6. When beginning drilling, apply only light pressure until the core bit has centered itself and then increase the pressure. Drill to a depth of 3-5 mm to form a guide kerf (optional operation).
7. Switch the machine off by releasing the on/off switch and then wait until the core bit has stopped rotating (optional operation).
8. Remove the hole-starting aid from the core bit (optional operation).
9. Position the core bit in the guide kerf and then press the on/off switch to continue drilling (optional operation).
10. Allow the vacuum cleaner to run for a few seconds after switching off the machine in order to ensure that the remaining dust is removed.

7.3.2 Working without dust removal



NOTE

Use slotted core bits when drilling without a dust removal system.

NOTE

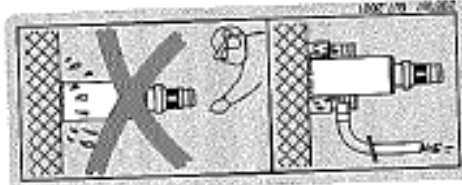
The optional operations are to be carried out when the two-part hole starting aid is used.

CAUTION

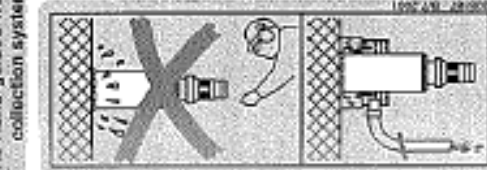
Disconnect the machine from the power outlet before removing the core from the slotted core bit.

DANGER

Wear respiratory protection.



7.4 Hand-guided wet drilling without use of a water collection system



7.5 Hand-guided wet drilling with use of a water collection system

WARNING
Water must not be allowed to run over the motor and cover.

WARNING

A water collection system with wet-type vacuum cleaner must be used when drilling in an upwards direction.

NOTE

The optional operations are to be carried out when the two-part hole starting aid is used.

1. Bring the side handle into the desired position and secure it (see Section 6.1.1).
2. Fit the hole-starting aid (optional operation).
3. Insert the supply cord plug in the power outlet and then press the "Reset" or "I" button on the GFCI.
4. Position the machine at the point where the hole is to be drilled (hole center).
5. Slowly open the water flow regulator until the desired volume of water is flowing.
6. Press the on/off switch on the machine.
7. When beginning drilling, apply only light pressure until the core bit has centered itself and then increase the pressure. Drill to a depth of 3-5 mm to form a guide kerf (optional operation).
8. Switch the machine off by releasing the on/off switch and then wait until the core bit has stopped rotating (optional operation).
9. Remove the hole-starting aid from the core bit (optional operation).
10. Position the core bit in the guide kerf and then press the on/off switch to continue drilling (optional operation).

WARNING

A water collection system with wet-type vacuum cleaner must be used when drilling in an upwards direction.

NOTE

The optional operations are to be carried out when the two-part hole starting aid is used.

NOTE

Start the wet-type vacuum cleaner manually before opening the water supply valve and switch it off again manually when the drilling operation is completed and after closing the water supply valve.

NOTE

Do not use the power outlet on the vacuum cleaner.

1. If a water extraction system (vacuum cleaner) is used, switch it on.
2. Secure the side handle in the desired position.
3. Fit the hole-starting aid (optional operation).
4. Insert the supply cord plug in the power outlet and then press the "Reset" or "I" button on the GFCI.
5. Position the machine at the point where the hole is to be drilled (hole center).
6. Slowly open the water flow regulator until the desired volume of water is flowing.
7. The indicator on the side handle can be used to check the water flow.
8. Press the on/off switch on the machine.
9. When beginning drilling, apply only light pressure until the core bit has centered itself and then increase the pressure. Drill to a depth of 3-5 mm to form a guide kerf (optional operation).
10. Switch the machine off by releasing the on/off switch and then wait until the core bit has stopped rotating (optional operation).
11. Remove the hole-starting aid from the core bit (optional operation).
12. Position the core bit in the guide kerf and then press the on/off switch to continue drilling (optional operation).