

# VCD 50 L



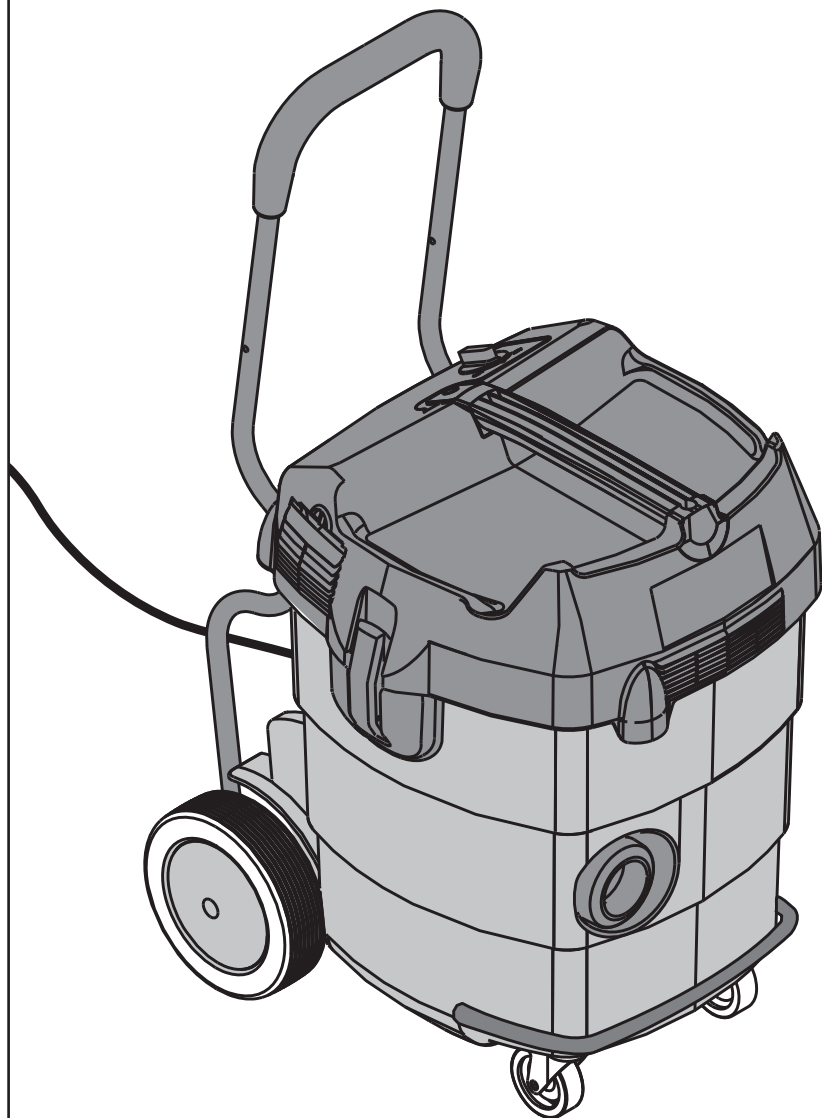
## Operating instructions

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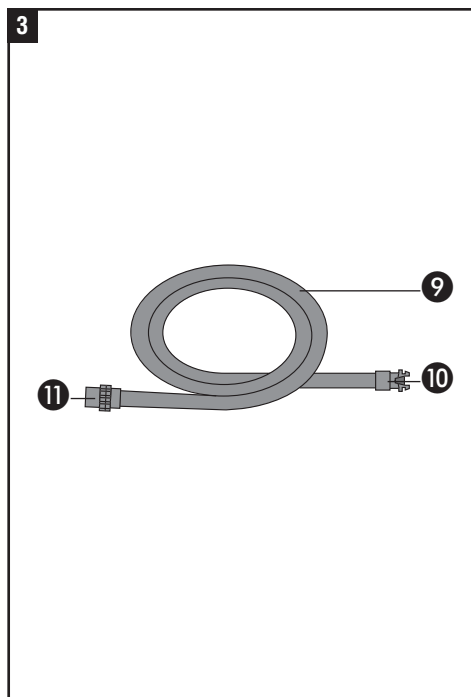
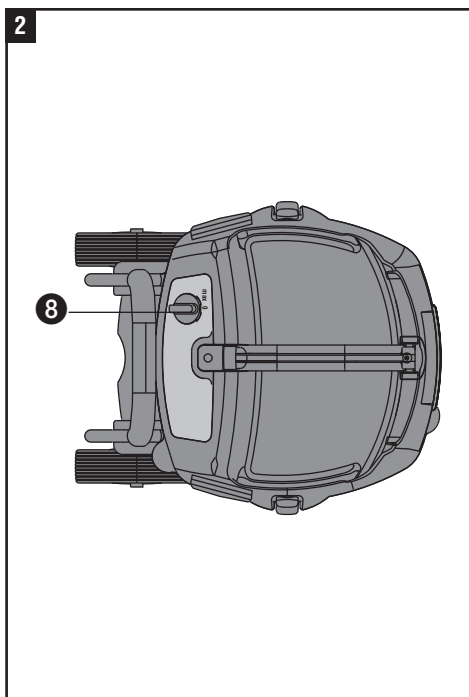
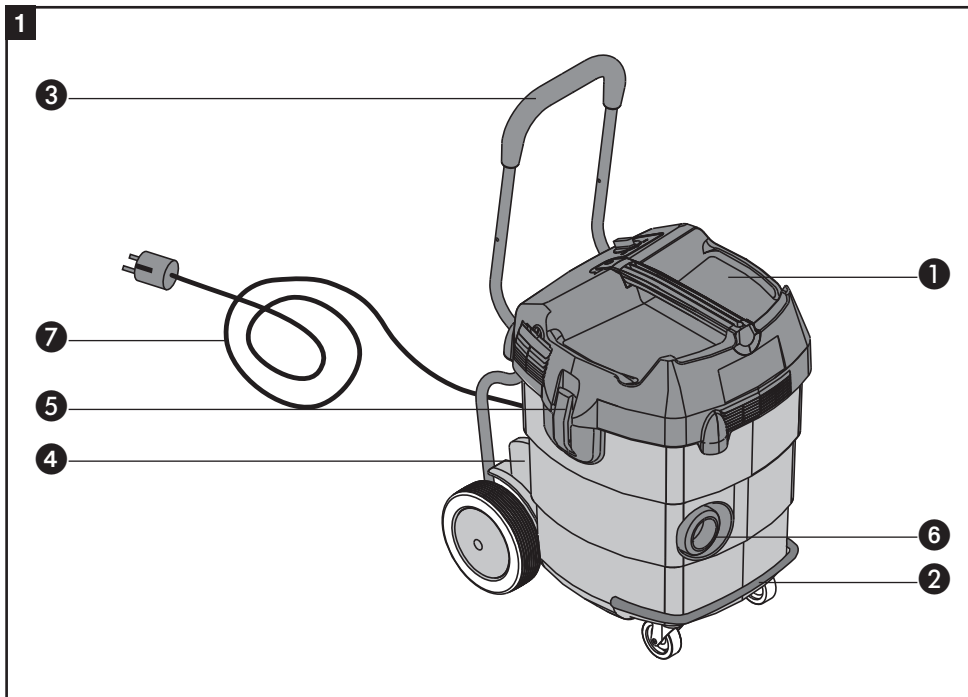
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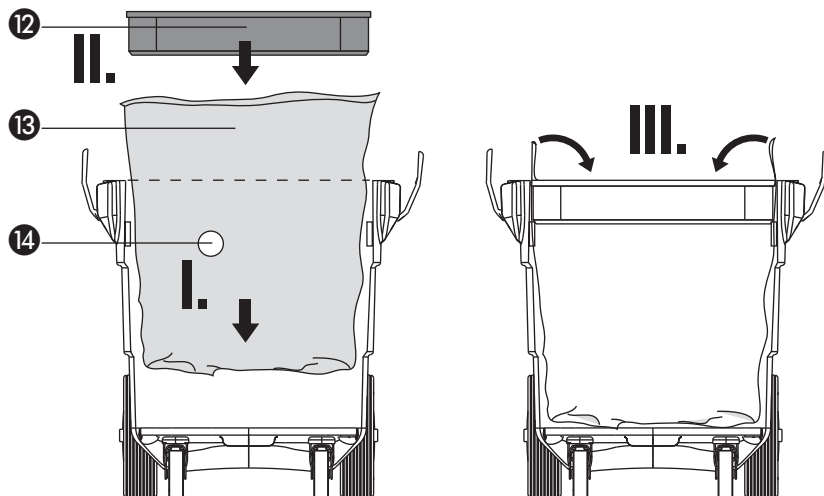


This Product is Certified  
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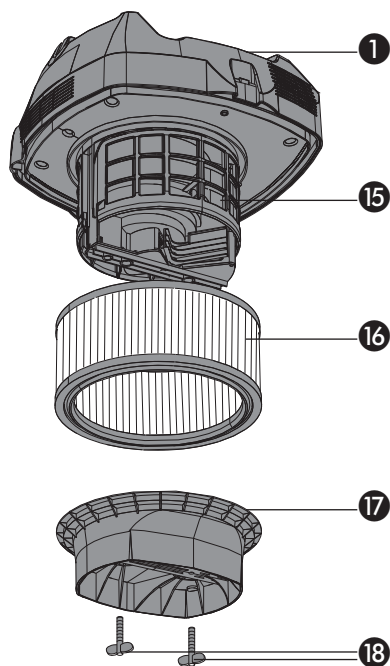




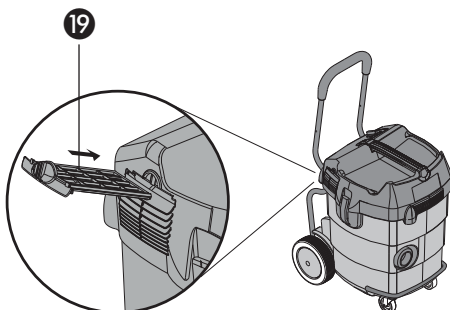
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# VCD 50 L dry-type vacuum cleaner

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

Always keep these operating instructions together with the appliance.

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

## 1. Component parts 1 2 3 4 5

- 1 Top section
- 2 Container
- 3 Transport handle
- 4 Tool compartment
- 5 Latch
- 6 Hose socket
- 7 Mains plug with supply cord
- 8 Switch
- 9 Hose
- 10 Snap-lock connector
- 11 Rotating connector
- 12 Disposal bag holder
- 13 Disposal bag
- 14 Disposal bag connector
- 15 Filter support basket
- 16 Filter
- 17 Filter retaining disc
- 18 Wing screw
- 19 Cooling air filter

## 2. General 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 VCD 50 L dry-type vacuum cleaner is referred to as "the appliance".

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### Location of identification data on the appliance

The type designation and serial number can be found on the type plate on the appliance. 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: \_\_\_\_\_

Serial no.: \_\_\_\_\_

### CAUTION

This word is used to draw attention to a potentially dangerous situation which could lead to minor personal injury or damage to the equipment or other property.

## Pictograms

### Prohibition signs



Do not transport by crane.



Do not suck up liquids.

### Warning signs



General warning



Warning: electricity



Read the operating instructions before use.

## 3. General safety rules

### 1. WARNING!

#### Read and understand all instructions.

Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

### SAVE THESE INSTRUCTIONS

**1.1 Warning** – To reduce the risk of fire, electric shock, or injury:

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
- Do not use outdoors or on wet surfaces.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Do not put any object into openings. Do not use with any opening blocked, keep free of dust, lint, hair, and anything that may reduce air flow.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Do not use without dust bag and/or filters in place.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.

For a grounded appliance: "Connect to a properly grounded outlet only. See Grounding Instructions."

### 2. Work area

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

**2.2 Do not operate power tools or electric appliances in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.

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

### 3. Electrical safety

**3.1 Grounded tools and electric appliances must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools or appliances should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

**3.2 Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.

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

**3.4 Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.

**3.5 When operating a power tool or electric appliance outside, use an outdoor extension cord marked «W-A» or «W».** These cords are rated for outdoor use and reduce the risk of electric shock.

### 4. Personal safety

**4.1 Stay alert, watch what you are doing and use**

common sense when operating a power tool. Do not use a tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

**4.2 Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

**4.3 Avoid accidental starting. Be sure the tool or electric appliance is switched off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

**4.4 Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

**4.5 Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.

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

## 5. Use and care of the tool or electric appliances

**5.1 Use clamps or other practical means to support and secure the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.

**5.2 Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

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

**5.4 Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool or electric appliances.** Such preventive safety measures reduce the risk of starting the tool or electric appliances accidentally.

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

**5.6 Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.

**5.7 Check for misalignment or binding of moving parts, breakage of parts and any other condition**

that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

**5.8 Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

## 6. Service

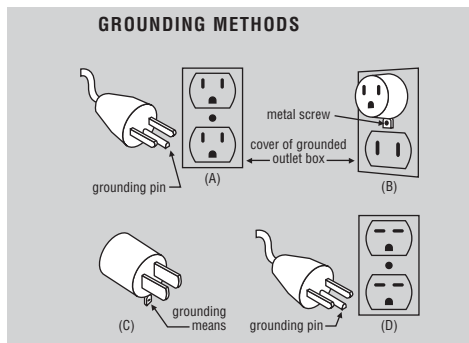
**6.1 Electric tools or appliances must be serviced only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

**6.2 When servicing an electric tool or appliance, use only identical replacement parts. Follow instructions in the maintenance section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

**6.3 Grounding instructions.** This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**Warning** – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance.

This appliance is for use on a normal 120-volt circuit and has a grounding attachment plug that looks like the plug illustrated in sketch A in figure "Grounding methods". Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adaptor should be used with this appliance.



## 4. Specific safety rules

### 4.1 Basic safety information

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

### 4.2 Correct use

The appliance is a dry-type vacuum cleaner of the dust class L in accordance with EC 60335-2-69. It is particularly suitable for removing large quantities of mineral dusts with an MAK value of  $>1 \text{ mg/m}^3$  (MAK = maximum workplace concentration), in conjunction with Hilti diamond grinders, Hilti diamond cutters, Hilti rotary hammer drills and Hilti dry-cutting diamond coring machines.

### 4.3 Incorrect use (misuse)

- The appliance must not be used to suck up liquids (water, gasoline, oil, acids, alkalis, etc.), hot or explosive substances or substances hazardous to health.
- Dusts with an MAK value of  $< 1 \text{ mg/m}^3$  are hazardous to health and must not be sucked up.
- The appliance is not suitable for use in automatic or semi-automatic systems.
- Manipulation of, or modifications to the appliance are not permissible.
- To avoid risk of injury, use only original Hilti accessories and ancillary equipment.
- Observe the information in the operating instructions concerning operation, care and maintenance.

### 4.4 State of the art

- The appliance is designed and manufactured according to the state of the art.
- The appliance and its ancillary equipment may present hazards when used incorrectly by untrained personnel or not as directed.

### 4.5 Proper arrangement and organisation of the workplace

- Wear non-slip shoes and work from a safe stance at all times.
- Avoid unfavourable body positions.
- Ensure that the workplace is well lit.
- Ensure that the workplace is well ventilated.
- Objects which could cause injury should be removed from the working area.
- Keep other persons, children in particular, outside the working area.
- Always lead the supply cord, extension cord and extraction hose away to the rear of the appliance when working.

- Take care to avoid tripping over the supply cord, extension cord or extraction hose.
- Do not transport the appliance by crane.

### 4.6 Types of dust

- Dusts with an MAK value of  $< 1 \text{ mg/m}^3$  are hazardous to health and must not be sucked up.
- Avoid all sources of ignition such as the smoking of cigarettes while working or while emptying the appliance.

### 4.7 General hazards presented by the appliance

- Operate the appliance only as directed and only when it is in faultless condition.
- Never leave the appliance unsupervised.
- Ensure that the appliance is switched off before inserting the supply cord plug in the mains socket.
- Disconnect the supply cord plug from the socket when the appliance is not in use (e.g. during pauses between work), before maintenance and before changing the filter.
- When the appliance is not in use, it must be stored in a dry place, locked up or out of reach of children
- Check that the filter is mounted in the correct position.
- Make sure that the filter is not damaged in any way.

#### 4.8.1 Mechanical hazards

- Follow the instructions concerning care and maintenance.
- Check whether parts have suffered damage and that all moving parts function faultlessly without sticking. All parts must be fitted correctly and fulfil all of the conditions necessary to ensure faultless operation of the appliance.
- Use only Hilti original tools and accessories.

#### 4.8.2 Electrical hazards

- Protect yourself from electric shocks. Avoid body contact with earthed objects, e.g. pipes and radiators.
- Check the condition of the appliance including the supply cord and extension cord as well as the plug connections. Do not operate the appliance if damage is found, if the appliance is not complete or if its controls cannot be operated faultlessly.
- Grip the plug and not the cable when pulling it out of the socket.
- Do not expose the supply cord to heat, oil or sharp edges.
- Do not touch the supply cord in the event of it becoming damaged while working. Disconnect the supply cord plug from the socket.
- When working outdoors, use only extension cords approved and correspondingly marked for this application.



- Check the appliance for any damage. All parts of the appliance must be checked carefully to ensure correct, faultless functionality before further use.
- Damaged switches must be replaced at a Hilti service centre. Do not use the appliance if it cannot be switched off and on properly.
- If necessary, have the appliance repaired by an electrical specialist (Hilti service department).
- To avoid risk of accident, use only original Hilti spare parts.
- Insert the supply cord plug in the socket only when the appliance is switched off.
- In the event of a power cut: switch the appliance off and unplug the supply cord.
- Avoid using extension cords with multiple sockets and operating several appliances simultaneously.
- The connections used for supply cords, extension cords or electric tool connecting cables must offer protection from sprayed water.
- To ensure safety, the appliance may be serviced or repaired only at an authorised Hilti repair centre.


#### 4.9 Requirements to be met by the user

- The appliance is intended for professional use.
- The appliance may be operated, serviced and repaired only by authorised, trained personnel. This personnel must be informed of any special hazards that may be encountered.

#### 4.10 Personal protective equipment

- The user requires no personal protective equipment.

#### Symbols used on the tool:

|   |       |                      |
|---|-------|----------------------|
| V   | ..... | volts                |
| ~   | ..... | alternating current  |
| Hz  | ..... | hertz                |
| W   | ..... | watts                |
| A   | ..... | amperes              |
|  | ..... | protective grounding |

## 5. Description

#### Items supplied

|   |   |
|---|---|
| 1 | VCD50L dry-type vacuum cleaner  |
| 1 | D36 hose (D1.4 inch hose), length 5 m (16.4 feet), anti-static type with rotating connector and snap-lock connector |
| 1 | Filter  |
| 1 | Disposal bag  |
| 1 | Disposal bag holder   |
| 1 | Tapered adaptor   |
| 1 | Operating instructions  |

## 6. Accessories

|   |                   |
|---|-------------------|
| 1 | Toolbox           |
| 1 | Accessory set     |
| 1 | Adaptor (tapered) |

## 7. Technical data

|                               |  |
|-------------------------------|--|
| Voltage                       | 110–120 V  |
| Power input                   | 1200 W   |
| Mains frequency               | 50–60 Hz   |
| Supply cord                   | 7.5 m (24.6 ft)  |
| Max. suction performance      | 50 l/s   |
| Max. vacuum                   | 23000 Pa (230 mbar)  |
| Filter surface area           | 0.7 m <sup>2</sup> (7.5 sq ft)   |
| Container volume              | 50 l   |
| Effective dust capacity       | 20 l   |
| Extraction hose               | 36 mm (1.4 in.) dia., length 5 m (16.4 ft), rotating connector at vacuum cleaner end, snap-lock connector at the other end |
| Air temperature               | From –20 to +40° C (–4° F to +104° F)  |
| Automatic filter cleaning     | Every 30 sec.  |
| Dust class                    | L in accordance with EC 60335-2-69   |
| Protection class              | I  |
| Dimensions (l×w×h)            | 515×610×745 mm (20.27×24.02×29.33 in.), 1025 mm (40.35 in.) with transport handle  |
| Weight (with hose)            | 22.6 kg (49.9 lbs)   |
| Noise power level             | 80 dB(A)   |
| Electromagnetic compatibility | in accordance with EN 55014-1, EN 55014-2, EN 61 000-3-2, EN 61 000-3-3  |

Right of technical changes reserved

## 8. Before use



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

### 8.1 Transport



- When moving the appliance, bring the transport handle into the extended position and lock it in place with the sleeves.
- Hang the hose and supply cord over the transport handle.
- The total permitted weight must not exceed 60 kg (132.4 lbs).

### 8.2 Attaching the Hilti toolbox or the Hilti DPC 20 to the appliance

1. Slide the toolbox or the DPC 20 into the guides on the rear of the appliance.
2. Press the toolbox or the DPC 20 toward the appliance until it engages.

### 8.3 Releasing the Hilti toolbox or the Hilti DPC 20 from the appliance

1. Push the locking mechanism upwards.
2. Remove the toolbox or the DPC 20 from the guides on the appliance.

### 8.4 Preparing the appliance for initial use

The appliance may not be plugged into an electric supply when any kind of adjustments or maintenance work are being carried out.

Labels in the local language displaying the warning for dust class L are supplied inside the appliance. You should select the warning label in your local language and apply it over the English warning text on the dust class L label already attached to the rear of the top section of the vacuum cleaner.

The accessory items are supplied in the container **1 2** and must be removed before the appliance is used for the first time.

1. Extend the transport handle into the upright position **1 3**.
2. Open the latch **1 5**.
3. Lift off the top section of the appliance **1 1**.
4. Remove the disposal bag holder **4 12**.
5. Remove the small tapered adaptor for Hilti diamond cutters and Hilti dry-cutting diamond coring machines
6. Remove the disposal bag **4 13**.
7. Fit the disposal bag.
8. Attach the disposal bag connector **4 14** to the hose socket **1 6**.
9. Insert the disposal bag holder **4 12**.
10. Fold over the edge of the disposal bag **4 III**.
11. Fit the top section **1 1** onto the container **1 2**.
12. Close the latch **1 5**.
13. Connect the end of the hose **3 9** with the rotating connector **3 11** to the hose socket.

**NOTE: The disposal bag must always be folded over the disposal bag holder inside the container.**

## 9. Operation



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

### 9.1 Connecting to the mains supply

The voltage provided by the mains supply must correspond to the voltage rating printed on the type plate. The appliance must be switched off (switch position 0). Insert the mains plug in the socket.

### 9.2 Switching on the appliance

Turn the switch to the "MAN" position. The appliance then starts immediately (soft start function).

### 9.3 After finishing work

1. Turn the switch to the "0" position.
2. Disconnect the mains plug from the socket.
3. Roll up the hose and the supply cord.

## 10. Care and maintenance

### 10.1 Cleaning the filter

The filter is cleaned automatically during operation. Nevertheless, should it become heavily soiled, complete cleaning is necessary.

1. Switch the appliance off.
2. Hold the hose in the hand.
3. Use one hand to close off the end of the hose.
4. Turn the switch to the "MAN" position and, using the hand to close off the end of the hose, allow the appliance to run for 10 seconds.

In addition to this, the filter may be cleaned with water and a cloth (do not use a high-pressure cleaning system). Mineral dust may clog the filter, reducing its suction performance, if it is not cleaned adequately. Don't knock the filter against a hard object or use a hard or pointed object to clean it. This reduces the life of the filter.

### 10.2 Changing the disposal bag

#### Removing the bag

1. Open the latch.
2. Lift off the top section.
3. Remove the disposal bag holder.
4. Close the disposal bag.
5. Pull the disposal bag sleeve from the hose socket and use the cover provided to close the opening in the disposal bag.
6. Use the cable tie supplied to close the disposal bag.
7. Remove the disposal bag and dispose of it in accordance with national and local regulations.

#### Inserting the bag

1. Fit the disposal bag.
2. Attach the disposal bag sleeve to the hose socket.
3. Insert the disposal bag holder.
4. Fold the edge of the disposal bag over.
5. Fit the top section onto the container.
6. Close the latch.

### 10.3 Changing the filter

#### Removing the filter

1. Open the latch.
2. Lift off the top section of the appliance and lay it down with the filter facing upwards.
3. Release the two wing screws.
4. Pull off the filter retaining disc.
5. Pull off the filter.

#### Fitting the filter

1. Push on the new filter as far as it will go.
2. Fit the filter retaining disc.
3. Insert and tighten the two wing screws.
4. Fit the top section onto the appliance.
5. Close the latch.

### 10.4 Changing the cooling air filter

1. Pull the cooling air filter out of the grip depression in the appliance.
2. Fit the new cooling air filter into the grip depression in the appliance.

### 10.5 Caring for the appliance

The outer casing of the appliance is manufactured from impact-resistant plastic.

Always keep the ventilation slots free from obstructions. Clean the ventilation slots carefully with a dry brush. Clean the outer surface of the appliance at regular intervals with a slightly damp cloth. Do not use a spray cleaning system, steam cleaning system or running water for cleaning. This may negatively affect the electrical safety of the appliance. Do not use cleaning agents, polish, etc., containing silicone.

### 10.6 Maintenance

Check all external parts of the appliance for damage at regular intervals and ensure that all operating controls function faultlessly. Do not operate the appliance when

parts are damaged or when the operating controls do not function faultlessly. If necessary, have the appliance repaired at a Hilti service centre.  
The electrical parts of the appliance may be repaired only by trained electrical specialists.

### 10.7 Checking after cleaning and maintenance

After cleaning and maintenance work, check that all parts of the appliance have been fitted and that they function correctly.

## 11. Troubleshooting

| <b>Fault</b>  | <b>Possible cause</b>  | <b>Remedy</b>   |
|---|--|---|
| Drop in suction performance.  | The container is full.   | Empty the container.  |
|   | The filter is heavily soiled.  | Complete cleaning necessary (s. 10.1).<br>Change the filter.  |
|   | Hose or vacuum enclosure of the appliance is blocked.  | Clean the hose and vacuum enclosure.  |
|   | Disposal bag fitted without the holder.  | Fit the disposal bag holder.  |
|   | The appliance is plugged into a non-grounded plug socket.  | Connect the appliance to an earthed/grounded socket.  |
| Dust is blown out of the appliance.   | Hole in the hose.  | Fit a new hose.   |
|   | Filter not fitted correctly.   | Refit the filter.   |
|   | Filter retaining disc not tightened adequately.  | Retighten the filter retaining disc.  |
| The appliance switches on and off unexpectedly or static electricity discharges via the user. | Filter damaged.  | Fit a new filter.   |
|   | Electrostatic build-up is not being dissipated:  |   |
|   | <ul style="list-style-type: none"> <li>– The appliance is not connected to an earthed socket.</li> <li>– The original hose is not being used.</li> <li>– The earth clip connecting the container and top section is bent.</li> </ul> | Connect the appliance to an earthed socket.<br>Use the original hose.<br>Straighten the earth clip so that it makes contact with the container. |
| The motor doesn't run.  | The fuse for the mains socket has been tripped.  | Reset or replace the fuse. If it trips again, find the cause of the excess current.   |
|   | The motor thermal protection device has been activated.  | Switch the appliance off and allow to cool for approx. 5 min. If the motor then doesn't start, please contact Hilti customer service.           |
|   | The motor thermal protection device switches the motor off repeatedly as the cooling air filter is blocked.  | Replace the cooling air filter.   |
| The motor doesn't run in automatic mode.  | The electric tool connected is defective or not plugged in correctly.  | Check the functionality of the electric tool connected and ensure it is plugged in correctly.   |

## 12. Disposal

Most of the materials from which Hilti appliances 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 appliances for recycling. Please ask your Hilti customer service department or Hilti sales representative for further information.

Should you wish to return the appliance yourself to a disposal facility for recycling, proceed as follows:  
Dismantle the appliance as far as possible without the need for special tools.

**Separate the individual parts as follows:**

| Parts / assembly             | Main material             | Recycling                    |
|------------------------------|---------------------------|------------------------------|
| Container and wheel assembly | PP and steel              | Plastics and steel recycling |
| Vacuum unit                  | PP, motor and electronics | Electric appliance disposal  |
| Extraction hose              | EVA                       | Plastics recycling           |

## 13. Warranty

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, all warranty claims are made within 12 months from the date of the sale (invoice date), 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. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

**Under no circumstances will Hilti be 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. Hilti specifically excludes the implied warranties of merchantability and fitness for a particular purpose.**

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

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

## Hilti Corporation

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