

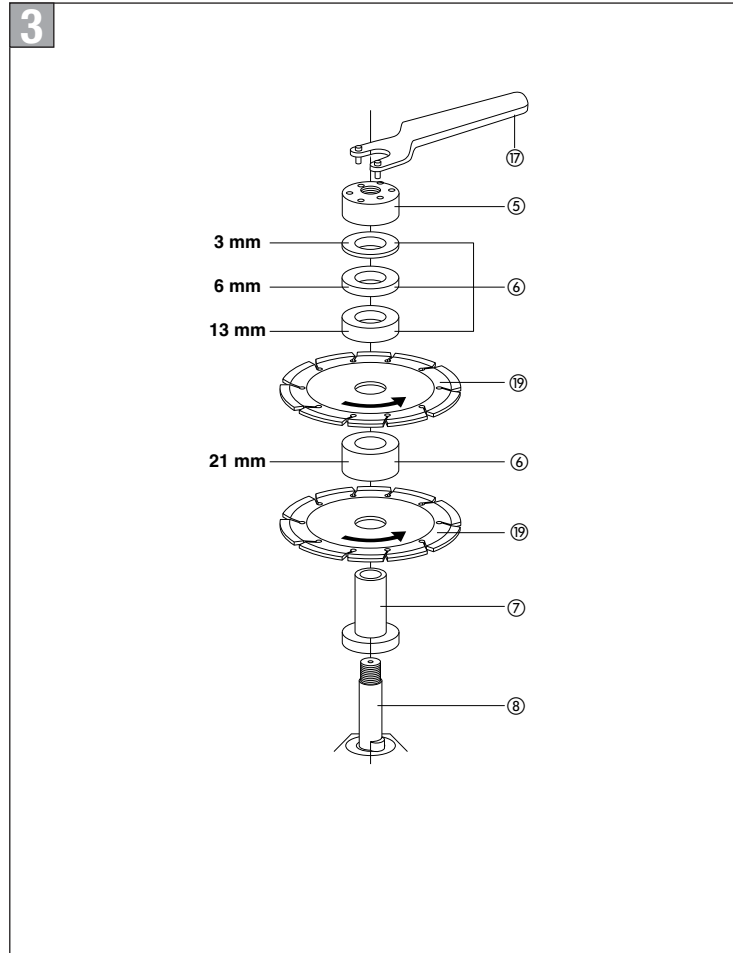
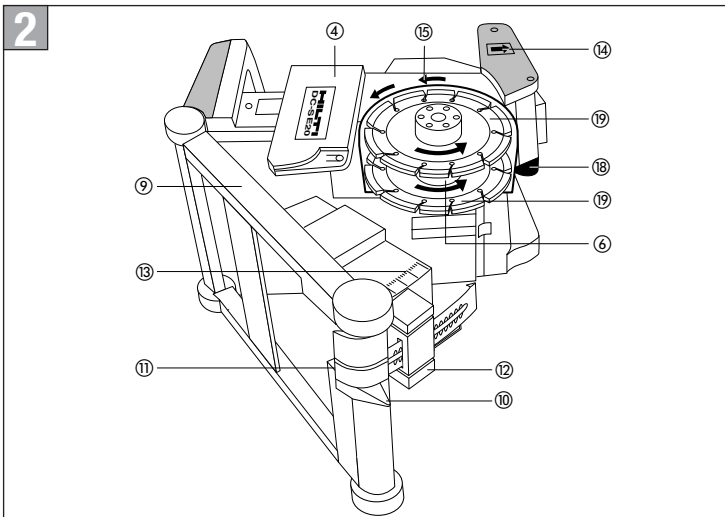
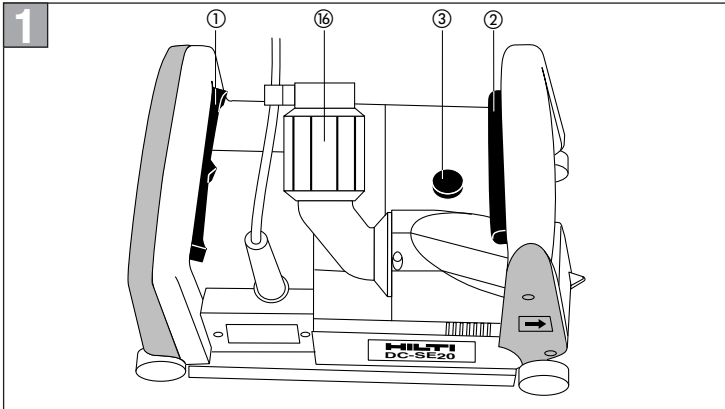


312278

DC-SE 20

Bedienungsanleitung	Schlitzgerät	1– 8
Operating instructions	Slitting machine	9–16
Mode d'emploi	Rainureuse	17–24
Istruzioni d'uso	Scanalatrice	25–32
Gebruiksaanwijzing	Diamantsleuvenzaag	33–40
Manual de instruções	Máquina de abrir roços	41–48
Manual de instrucciones	Maquina rozadora	49–56
Brugsanvisning	Rillefræser	57–64
Käyttöohje	Uraleikkuri	65–72
Bruksanvisning	Diamant slissemaskin	73–80
Bruksanvisning	Spårfräs	81–88
Οδηγίες χρήσεως	Εργαλείο κοπής τοιχοποιίας	89–96
Upute za uporabu	Stroj za izradu utora	97–104
Instrukcja obsługi	Bruzdownica	105–112
Инструкция по эксплуатации	Отрезная машина	113–120
Návod na obsluhu	Drážkovacie náradie	121–128
Navodila za uporabo	Kanalni rezalnik	129–136
Návod k použití	Drážkovací přístroj	137–144
Használati utasítás	Horonyvágó készülék	145–152
사용설명서	흄 파기	153–160
Kullanma Talimatı	Kanal açma makinası	161–168
دليل الاستعمال	جهاز التشقيب	169–176
Пайдалану бойынша басшылық	кесетін машинасы	177–184
Lietošanas instrukcija	Rievu frēze	185–192
Naudojimo instrukcija	Griovelių pjovimo mašina	193–200
Kasutusjuhend	Soonelõikur	201–208

HILTI





Return waste material for recycling.



Protective clothing must be worn.



Read the operating instructions.



revolutions per minute



revolutions per minute

Description

The DC-SE 20 is an electrically powered slitting machine for professional use in construction.

- ① On/off switch
- ② Slitting control switch
- ③ Spindle lockbutton
- ④ Side guard
- ⑤ Clamping nut
- ⑥ Spacer
- ⑦ Clamping flange
- ⑧ Spindle
- ⑨ Guide carriage
- ⑩ Guide point
- ⑪ Position of inner disc
- ⑫ Depth adjustment pushbuttons
- ⑬ Depth scale
- ⑭ Slitting direction arrow
- ⑮ Direction of rotation arrow (disc)
- ⑯ Dust removal connection
- ⑰ Pin wrench
- ⑱ Carriage lockbutton
- ⑲ Diamond discs

Safety instructions

NOTE

The safety rules in section 1 contain all general safety rules for power tools which, in accordance with the applicable standards, require to be listed in the operating instructions. Accordingly, some of the rules listed may not be relevant to this tool.

1. General Power Tool Safety Warnings

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

1.1 Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

1.2 Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges**

and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

1.3 Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

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

1.4 Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage**

of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

1.5 Service

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

2 Additional safety precautions

2.1 Safety instructions for all saws

DANGER:

- a) **Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** *If both hands are holding the saw, they cannot be cut by the blade.*
- b) **Do not reach underneath the workpiece.** *The guard cannot protect you from the blade below the workpiece.*
- c) **Adjust the cutting depth to the thickness of the workpiece.** *Less than a full tooth of the blade teeth should be visible below the workpiece.*
- d) **Never hold piece being cut in your hands or across your leg. Secure the workpiece**

to a stable platform. *It is important to support the work properly to minimize body exposure, blade binding, or loss of control.*

- e) **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** *Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.*
- f) **When ripping always use a rip fence or straight edge guide.** *This improves the accuracy of cut and reduces the chance of blade binding.*
- g) **Always use blades with correct size and shape (diamond versus round) of arbour holes.** *Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.*
- h) **Never use damaged or incorrect blade washers or bolt.** *The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.*

2.2 Further safety instructions for all saws

Kickback causes and related warnings:

- kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** *Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.*
- b) **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** *Investigate and take corrective actions to eliminate the cause of blade binding.*
- c) **When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.** *If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.*
- d) **Support large panels to minimise the risk of blade pinching and kickback.** *Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.*
- e) **Do not use dull or damaged blades.** *Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.*
- f) **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** *If blade adjustment shifts while cutting, it may cause binding and*

kickback.

- g) **Use extra caution when sawing into existing walls or other blind areas.** *The protruding blade may cut objects that can cause kickback.*

2.3 Safety instructions for plung-type circular saws

- a) **Check guard for proper closing before each use. Do not operate the saw if guard does not move freely and enclose the blade instantly. Never clamp or tie the guard so that the blade is exposed.** *If saw is accidentally dropped, guard may be bent. Check to make sure that guard moves freely and does not touch the blade or any other part, in all angles and depths of cut.*
- b) **Check the operation and condition of the guard return spring. If the guard and the spring are not operating properly, they must be serviced before use.** *Guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.*
- c) **Assure that the base plate of the saw will not shift while performing the "plunge cut" when the blade level setting is not at 90°.** *Blade shifting sideways will cause binding and likely kick back.*
- d) **Always observe that the guard is covering the blade before placing saw down on bench or floor.** *An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.*

2.4 Personal safety

- a) **Wear ear protection.** *Excessive noise may lead to a loss of hearing.*
- b) **Always hold the tool securely, with both hands on the grips provided. Keep the**

tool, especially its grip surfaces, clean and free from oil and grease.

- c) **Breathing protection must be worn when the tool is used without a dust removal system for work that creates dust.**
- d) **To avoid tripping and falling when working, always lead the supply cord, extension cord and dust extraction hose away from the rear.**
- e) **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.
- f) **Children must be instructed not to play with the tool.**
- g) **The tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.**
- h) **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.

- i) **Exercise your fingers during pauses between work to improve the blood circulation in your fingers.**

2.5 Power tool use and care

- a) **Secure the workpiece. Use clamps or a vice to hold the workpiece in place.** *The workpiece is thus held more securely than by hand and both hands remain free to operate the tool.*
- b) **Ensure that the insert tools used are equipped with the appropriate connection end system and that they are properly fitted and secured in the chuck.**
- c) **In the event of a power failure, switch the tool off and unplug the supply cord.** *This prevents inadvertent starting when the power returns.*

2.6 Electrical safety

- a) **Before beginning work, check the working area (e.g. with a metal detector) to ensure that no concealed electric cables or gas and water pipes are present.** *External metal parts of the tool may become live if, for example, an electric cable is damaged inadvertently. This presents a serious risk of electric shock.*
- b) **Check the condition of the supply cord and its plug connections and have it replaced by a qualified electrician if damage is found. Check the condition of the extension cord and replace it if damage is found. Do not touch the supply in the event of it suffering damage while working. Disconnect the supply cord plug from the socket. Damaged supply cords and extension cords present a risk of electric shock.**
- c) **Dirty or dusty electric tools should thus be checked at a Hilti service center at**

regular intervals, especially if used frequently for working on conductive materials. Dust (especially dust from conductive materials) or dampness adhering to the surface of the tool may, under unfavorable conditions, present a risk of electric shock.

2.7 Work area

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

2.8 Personal protective equipment

The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection and protective gloves when the tool is in use. Breathing protection must be worn if no dust removal system is used.



Wear eye protection



Wear a hard hat



Wear ear protection

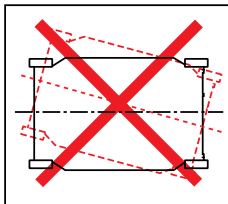
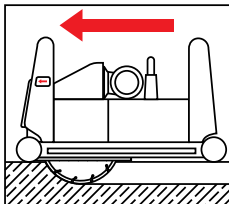
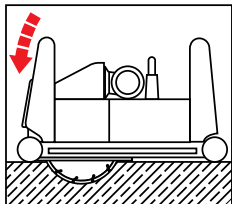
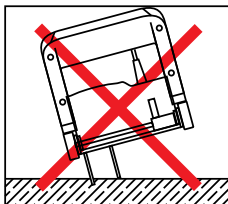
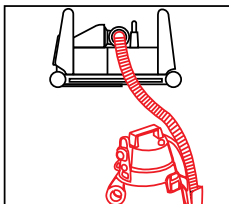
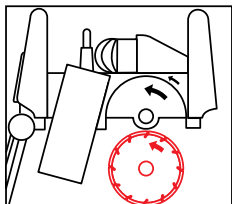
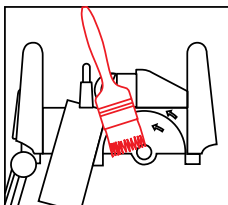
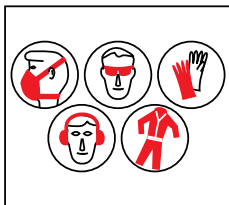
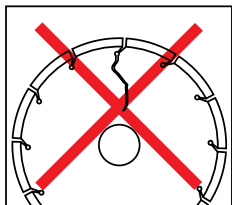


Wear protective gloves



Wear breathing protection

Safety precautions



- Keep the machine and discs in a safe place out of the reach of children.
- Always wear safety goggles, protective gloves and ear protectors when working.
- Never use the slitting machine without the side guard in place for safety's sake.
- Make sure the workplace is well ventilated.
- Only use the machine with an industrial vacuum cleaner.
- Ensure the vacuum cleaner is suitable for removing rock and stone dust, i.e. a well functioning vacuum cleaner with a power rating of at least 1200 W, e.g. the Hilti TDA-VC40, must be used.
- Wear respiratory protection additionally, i.e. a mask, as per EN 149 if these measures are not sufficient. The recommended filter class is P2.
- Never slit material containing asbestos.
- Make sure that no flammable materials are in the vicinity.
- Observe national regulations, such as the accident prevention regulations of a trade association.
- Only use original spare parts.

Electronic regulation and control

Start-up current limitation: When the tool is switched on the current is many times higher than the nominal current. An electronic start-up current overload protector reduces the starting current to such an extent that the mains supply fuse is not tripped.

Idling speed limitation: An electronic speed no-load regulator keeps the idling speed constant at 7500 /min

Motor protection

Overload protection: If the motor is overloaded by the operator applying too much pressure, the current input is reduced so that the discs rotate only slowly. If the working pressure is reduced, the input current increases again and the motor runs at the normal speed.

Overheating protection: If the motor is continually overloaded, an additional thermal overload protector automatically reduces the current input. The machine can only be restarted by operating the on/off switch, but only if the motor windings have cooled down. The machine should be run under no-load conditions for better cooling of the motor windings.

Before operation

Make sure the voltage of the mains electric supply agrees with the data on the tool rating plate.


Important

Always observe the enclosed safety precautions.

Notes on safety and accident prevention

- Always pull the plug out of the mains socket before working on the machine. Check the plug and supply cord for any damage. Have a specialist replace them immediately if any damage is discovered. Never connect a third conductor as an earth (ground) in double-insulated machines.
- Only insert the plug into a mains socket when the machine is switched off.
- Only use an approved extension cable and coupling (plug and socket) when working outside.

Technical data

Voltage:	100 V	110 V	230 V	240 V
Nominal current:	–	16 A	9,2 A	8,8 A
Nominal power:	1700 W	1700 W	1950 W	1950 W
Mains supply frequency:	50–60 Hz			
Max. disc diameter:	125 mm			
Supply cord length:	5 m			
Weight in accordance with EPTA procedure 01/2003:	6,9 kg			
Electronic no-load speed limit:	7500 /min			
Current overload protector:	Yes			
Integrated start-up current overload protector:	Yes			
Motor thermal overload protector:	Yes			
Double insulation, class II 	Yes			

NOTE

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

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

Typical A-weighted sound power level	115 dB (A)
Typical A-weighted emission sound pressure level	104 dB (A)
Uncertainty for the given sound level	3 dB (A)

Triaxial vibration values (vibration vector sum)

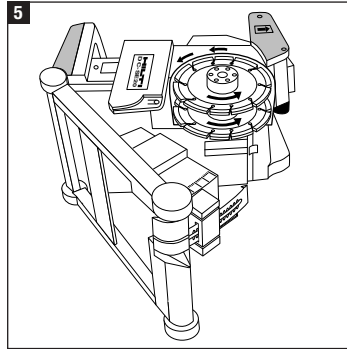
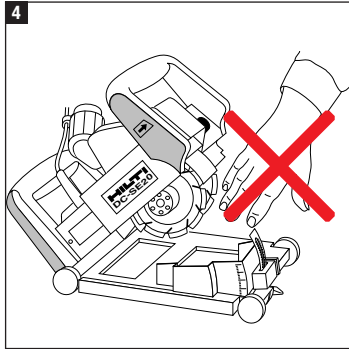
Triaxial vibration values	5.8 m/s ²
Uncertainty (K)	1.5 m/s ²

Right of technical changes reserved

User information as per EN 61000-3-11

Switching operations cause short voltage drops. If the mains electric supply conditions are unfavourable, other tools / machines can be impaired. If the main electric supply impedance is less than 0.15 Ohms, no disruptions / disturbances need be expected.

Mounting the diamond discs



Caution! Pull the plug out of the mains socket carrying out any work on the machine. Make sure that the diamond discs are not damaged in any way i. e. no cracks or broken segments.

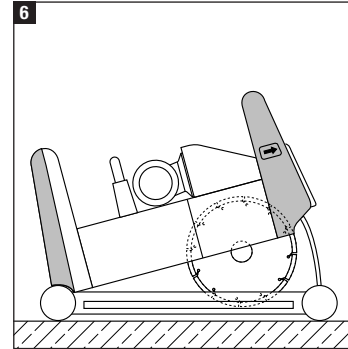
- Lay the tool on its side (fig. 4 and 5).
- Press the carriage lockbutton (8) and release the carriage (9) from the tool.
- Open the side guard (4).
- Mount the discs as per fig. 3:
 - Clamping flange (7)
 - First diamond disc (19) (observe the direction of rotation arrow (15))
 - Spacers (6) (to suit desired slit/ groove width)
 - 2nd diamond disc (19)
 - Remaining spacers (6)
 - Clamping nut (5)
- Block the spindle by pressing the spindle lockbutton (3).
- Tighten the clamping nut firmly using the pin wrench (7).
- Close the side guard (4).
- Close down the carriage (9) onto the machine.

Trial run with in-place discs:

- Mount the discs as per fig. 3.
- Plug machine into the mains electric supply. **(It must agree with the data on the tool rating plate.)**
- Operate the on/off switch, sideways (left or right) push and press.

Protect the discs from any knocks or impacts. Always replace vibrating /wobbling discs!

Slitting

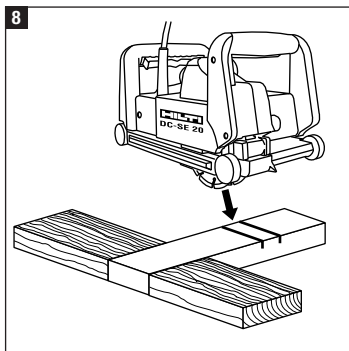


The following procedure assumes that the diamond cutting discs have been fitted and checked.

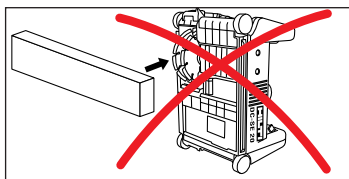
- **Safety precaution:** Ensure that the carriage (9) is in the starting position (fig. 6).
- Connect the vacuum cleaner and switch on.
- Set the desired slit/groove depth fig. 6).
- Position the machine on the work surface with the guide point (10) in the slitting direction.
- Switch on the machine (push the on/off switch (1) sideways [left/ right] and press).
- Press the slitting control switch (2) to allow the discs to «gently» cut the material.
- When the set cutting depth is reached, the carriage is locked in this position as long as the slitting control switch is pressed.
- Guide the machine in the direction of the guide point (10), but don't apply too much pressure.

Safety precaution: When the machine is lifted out of the slit, release the plunge movement control switch (2) and ensure that the carriage (9) returns to the starting position (fig. 6).

Use of dressing stone



- Hold the machine with both hands and guide it towards the securely fixed sharpening plate.
- Lay the sharpening plate (flat, not on its edge) on a solid, level surface (concrete) and secure it in place.
- Adjust the cutting depth to 15 mm and make two or three cuts in the sharpening plate.



- Never attempt to hold the sharpening plate against the rotating cutting discs.

Notes

- Too high working pressure could cause the motor to stall.
- Keep pressing the slitting control switch (2) to ensure a constant slitting depth.
- Move the tool slightly back and forth when encountering hard materials.
- Prefer downwards direction for vertical slitting.
- Use the original Hilti DC-D 125SE diamond discs to achieve high slitting performance.
- Use a TDA-VC40 industrial vacuum cleaner, or one with a suction capacity of at least 2100 l/min.
- Shake off dust every 10–15 minutes of operation.
- Use a dressing stone (flat or round) to increase cutting performance.
- Don't press too hard to improve cutting performance. This can overheat and destroy diamond discs.

Care and maintenance

CAUTION

Disconnect the supply cord plug from the power outlet.

Care of the power tool

CAUTION

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

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

Changing the carbon brushes

Repairs to the electrical section may only be carried out by an electrician/electrical specialist.

Whenever brushes need to be changed, they will automatically switch off the machine.

Only use original carbon brushes.

Disposal



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



Only for EU countries

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

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

Accessories

- DC-D 125 SE diamond discs
3 types: M1 masonry
MC universal
C1 concrete
- TDA-VC40 dry vacuum cleaner
- Profi-box
- Dressing stone (round)
- Sharpening plate dimensions:
L 320 mm × W 320 mm × H 60 mm

Hilti Corporation

LI-9494 Schaan

Tel.: +423/234 21 11

Fax: +423/234 29 65

www.hilti.com