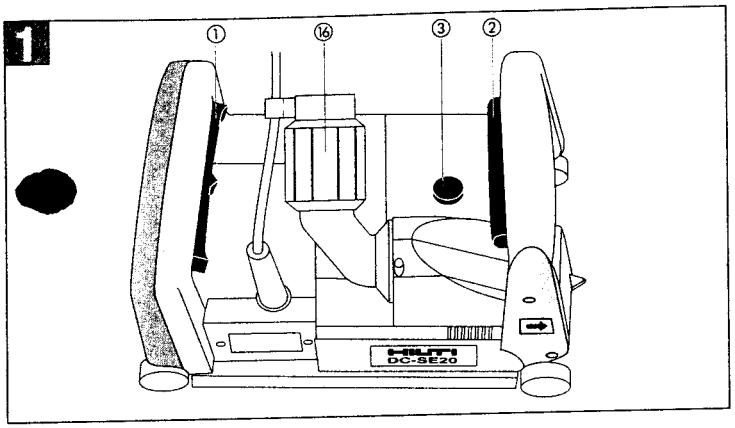
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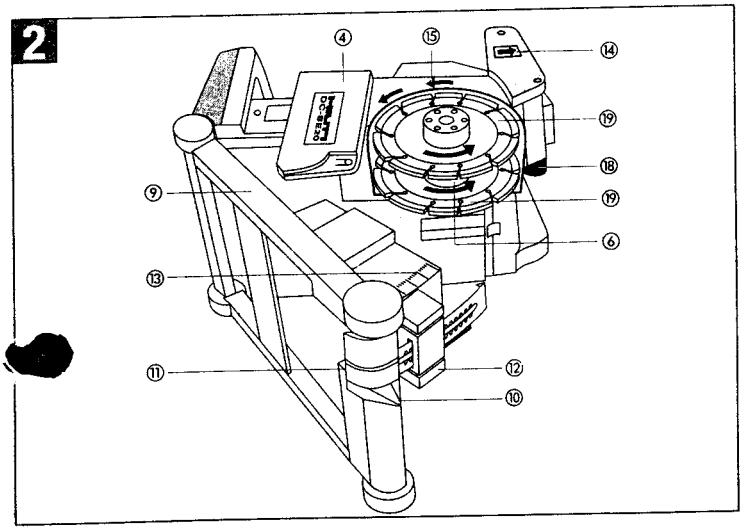
DC-SE20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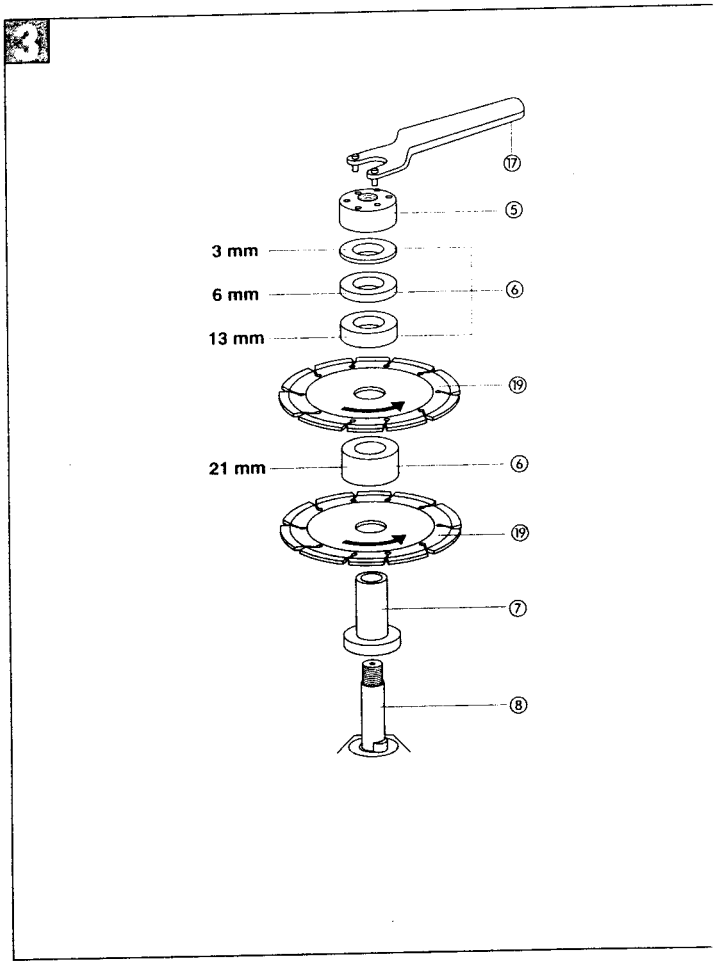
⑰
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⑥
⑲
21 mm
⑥
⑲
⑦
⑧

Safety precautions DC-SE20

(Please read and keep these instructions)

Caution: The following fundamental safety precautions must always be observed when using electric tools/machines as protection against and electric shock, the risk of injury and fire hazards. Please read and take note of these precautions before you use the tool/machine. Keep these safety precautions in a safe place!

1 Keep your place of work clean and tidy. Disorder where you are working creates a potential risk of accidents.

2 Make allowance for influence from the surroundings. Don't expose your electric tools/machines to rain. Don't use electric tools/machines in damp or wet surroundings. Make sure the work area is well lit. Don't use electric tools/ machines near inflammable liquids or gases.

3 Always protect yourself against electric shock. Never touch grounding (earthing) parts e.g. pipes, radiators, cookers, ovens, refrigerators.

4 Keep children away. Don't let other persons touch the electric tool/machine or supply cord. Keep them away from your work area.

5 Keep your electric tool/machine in a safe place. Electric tools/machines not in use should be kept in a dry locked-up place out of the reach of children.

6 Don't overload your electric tools/machines. You will do your work better and safer in the specified performance/rating range.

7 Don't use electric tools/ machines for work and purposes for which they are not intended.

8 Wear suitable clothing. Don't wear loose clothing or jewellery – they could be caught up in moving parts. When working outside, the use of rubber gloves and non-slip shoes is recommended. Wear a helmet or cap if you have long hair.

9 Always wear protective goggles. If work causes dust, wear a mask as well.

10 Don't use the supply cord for any other purpose. Don't carry the electric tool/machine by the supply cord and don't pull the plug out of the socket/receptacle by pulling the supply cord. Protect the cable from heat, oil and sharp edges.

11 Secure the workpiece. Use a clamping device or vice to hold the workpiece. It is secured more reliably in this way than in your hand and you can then hold and operate your electric tool/machine with both hands.

12 Don't bend over too far when working. Avoid an unusual stance. Make sure that you are standing firmly and keep your balance at all times.

13 Take good care of your electric tools/machines. Keep the drill bits, insert tools etc. sharp and clean so that you can do your work better, safer and more reliably. Observe the cleaning and maintenance regulations and the instructions for changing drill bits, insert tools etc. Check the supply cord regularly and have it renewed by a recognized specialist if it is damaged. Check the extension supply cord regularly and, if it is damaged, replace it. Keep grips and side handles dry and free from oil or grease.

14 Always pull out the plug from the mains if the electric tool/machine is not in use, prior to cleaning and maintenance work and when changing insert tools.

15 Never leave a key in place. Always check before switching on that the key or adjusting tools have been removed.

16 Avoid any unintentional start-up. Never carry a plugged-in electric tool/machine with your finger on the switch. Always make sure that the switch is off when plugging the electric tool/machine into the main electric supply.

17 If an extension supply cord is used outside, only use one which has been approved for the purpose and is correspondingly marked.

18 Be attentive at all times. Keep your eye on your work. Remain in a sensible frame of mind and don't use the electric tool/machine if you cannot concentrate completely.

19 Check your electric tool/machine for damage. You must check the safety devices or damaged parts carefully for perfect functioning in keeping with the intended purpose before using the electric tool/machine further. Check whether the moving parts function properly, whether they aren't sticking, whether any parts are broken, whether all other parts work properly and are fitted correctly, and make sure that all other conditions which can influence operation and running of the electric tool/machine are as they should be. Damaged guards and protective devices and parts must be repaired properly by an authorized service workshop or replaced provided that nothing else is stated in the operating instructions. Damaged switches must also be replaced by a Hilti service centre. Never use electric tools/machines which cannot be switched on and off by the switch.

20 Caution ! For your own safety's sake, only use original Hilti accessories and attachments which are specified in the operating instructions or in the respective catalogue. The use of accessories or insert tools or attachments other than those specified in the operating instructions can result in personal injury to you.

21 Only have repairs carried out by recognized electrical specialists. This electric tool/machine complies with respective safety regulations. Repairs may only be carried out by a Hilti service centre otherwise an accident hazard for the operator can exist.

22 Connect dust extraction equipment. If devices are provided for the connection of dust extraction and collection facilities ensure these are connected and properly used.

23 When working on electrically conductive materials, conductive dust may collect inside an electric tool, causing leakage of electric voltage and a possible risk of electric shock. Work of this kind, for example, includes drilling through steel reinforcement in concrete ceilings. Electric tools or machines used for applications of this kind must be inspected at regular, short intervals by a recognised specialist or at a Hilti service workshop in order to ensure that no hazardous deposits of conductive dust are present inside the tool and to confirm the integrity of the tool's electrical insulation.

Please keep these safety precautions in a safe place.

DC-SE 20 Slitting machine

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

EC declaration of conformity

Description:	Slitting machine	Serial no.:	XX/0000001 - 9999999/XX
Designation:	DC-SE 20	Year of design:	1997

We declare, under our sole responsibility, that this product complies with the following standards or standardization documents:

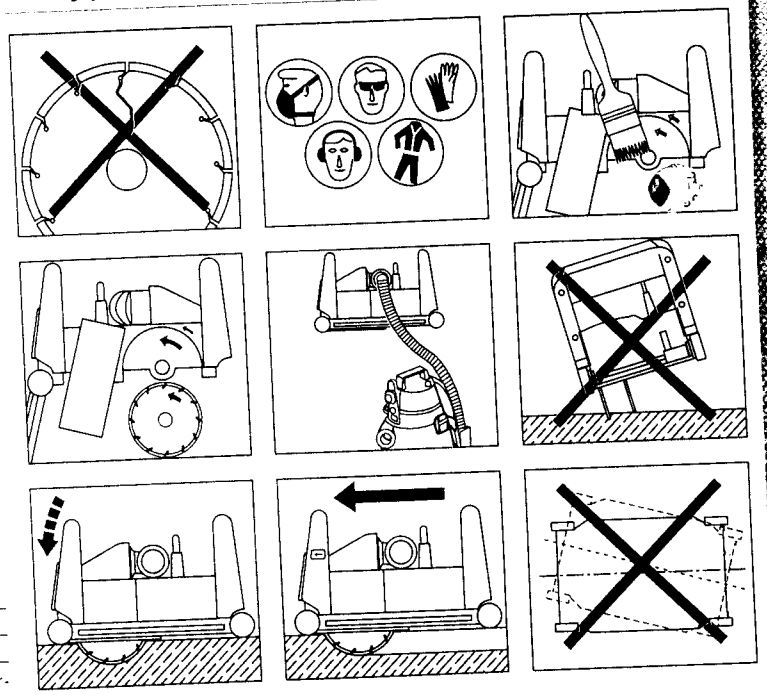
EN 50144, EN 55014, EN 60555 according to the provisions of the directives 73/23/EEC, 89/336/EEC, 89/392/EEC

Hilti Aktiengesellschaft

Volker Lohmüller
Leiter Business Unit
DIAMANT
9/1997

P. Roth
Leiter Entwicklung
DIAMANT
9/1997

Safety precautions



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.
- 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.
- An effective vacuum cleaner with a power output of at least 1200 W (e.g. the Hilti TDA-VC 40) must be used for slitting work.
- Dust produced is potentially injurious to health. It is recommended to wear a protective mask.
- Never slit material containing asbestos.
- Make sure that no flammable materials are in the vicinity.
- Observe national regulations, such as the accident prevention regulation of a trade association.
- O[illegible] original spare parts.

Electronic regulation and control

Start-up current limitation: When the tool is switched on the current is a multiple of 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.

Free speed limitation: An electronic speed no-load regulator keeps the idling speed constant at 7500 r.p.m.

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 winding has cooled down. The machine should be run under no-load conditions for better cooling of the motor winding.

Before operation

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

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 (without discs):	Approx. 5,6 kg			
Electronic no-load speed limit:	7500 r.p.m.			
Current overload protector:	Yes			
Integrated start-up current overload protector:	Yes			
Motor thermal overload protector:	Yes			
Double insulation, class II ⧈:	Yes			
Radio and TV interference suppression as per EN 55014				
Reactions in mains electric supply as per EN 60555, part 2				
Approved as per EN 50144				

Typically the A-weighted noise levels of the tool are:

Sound pressure level:	97 dB (A)
Sound power level:	110 dB (A)

Wear ear protection.

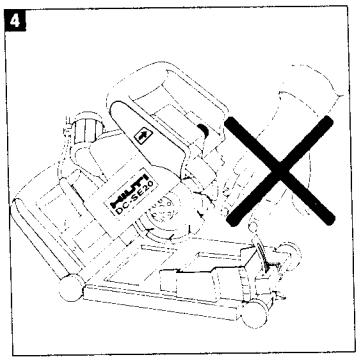
The typical weighted acceleration is 3,5 m/s².

Right of technical changes reserved

CE ⧈

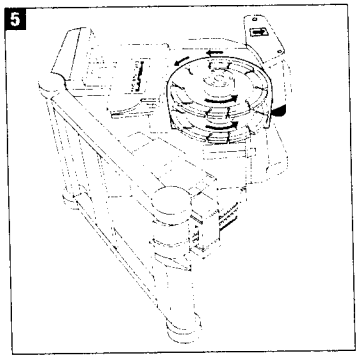
Always wear ear protectors. | Always wear protective gloves. | Always wear safety glasses. | Wear a dust mask | Wear protective clothing | Read instruction manual

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 (⑱) 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 (⑰).
- Close the side guard (④).
- Close down the carriage (⑨) onto the machine.

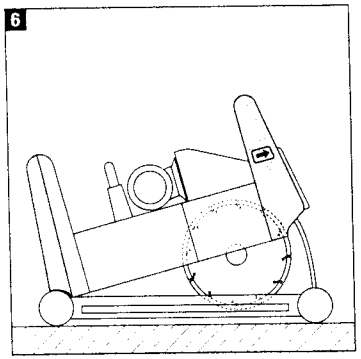


Trial run with in-place discs:

- 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

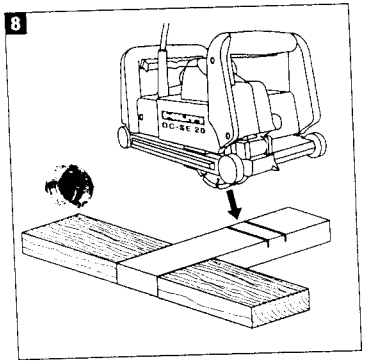


The following procedure assumes that the diamond cutting discs have been fitted and checked.

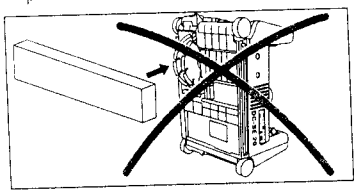
- **Safety precaution:** Ensure that the carriage (⑨) is in the starting position **(fig. 6)**.
- Connect the vacuum cleaner and switch on.
- Set the desired slit/groove depth fig. 6).
- Position the machine on the work surface with the guide point (⑩) in the slitting direction.
- Switch on the machine (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.



- attempt to hold the sharpening plate st 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-D125SE 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.

Cleaning and maintenance

Always pull the plug out of the mains socket before carrying out any work on the machine.

The following parts must always be kept clean (use a cloth or brush and compressed air if necessary):

- Depth gauge ⑫
- Carriage ⑬
- Spindle ⑧
- Clamping flange ⑦
- Colling air slots

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.

Accessories

- DC-D125SE 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

Warranty

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid as 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.

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 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.