ORIGINAL OPERATING INSTRUCTIONS

DAG 100-S angle grinder

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

Always keep these operating instructions together with the power tool.

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

1 General information

1.1 Safety notices and their meaning

DANGER
Draws attention to imminent danger that will lead to serious bodily injury or fatality.

WARNING
Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

CAUTION
Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

NOTE
Draws attention to an instruction or other useful information.

1.2 Explanation of the pictograms and other information

Warning signs

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Warning symbol]</td>
<td>General warning</td>
</tr>
<tr>
<td>![Electricity symbol]</td>
<td>Warning: electricity</td>
</tr>
<tr>
<td>![Hot surface symbol]</td>
<td>Warning: hot surface</td>
</tr>
</tbody>
</table>

These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions. In these operating instructions, the designation "power tool" always refers to the DAG 100-S angle grinder.

Operating controls and parts

1. Ventilation slots
2. On/off switch
3. Side handle
4. Spindle lockbutton
5. Spindle
6. Guard
7. Clamping flange
8. Disc
9. Clamping nut
10. Wrench

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### Obligation Signs

- Wear eye protection.
- Wear a hard hat.
- Wear ear protection.
- Wear protective gloves.

### Location of identification data on the power tool

The type designation, item number, year of manufacture and technical status can be found on the type identification plate on the machine or tool. The serial no. can be found on the underside of the motor housing. 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:

- Generation: 02

#### Serial no.:

![Image](image-url)

### Symbols

- Read the operating instructions before use.
- Return waste material for recycling.
- Volts (V)
- Amps (A)
- Watts (W)
- Hertz (Hz)
- Alternating current (∼)
- Revolutions per minute (/min)
- RPM
- n
- Ø
- Double insulated

### 2 Description

#### 2.1 Use of the product as directed

The power tool is designed for cutting and grinding metal and mineral materials without use of water.

The working environment may be as follows: construction site, workshop, renovation, conversion or new construction.

The power tool may be operated only when connected to a power supply providing a voltage and frequency in compliance with the information given on its type identification plate.

Working with metals: Cutting, grinding.

Working with mineral materials: Cutting, slitting and grinding.

Use only discs (abrasive grinding discs, abrasive cutting discs, etc.) that are approved for use at a speed of at least 11000/min, with a maximum thickness of 6.4 mm (grinding discs) or 2.5 mm (cutting discs) and a diameter of max. 100 mm.

Use only synthetic resin-bonded, fiber-reinforced grinding discs or cutting discs approved for use at a peripheral speed of 80 m/sec or diamond cutting discs approved for use at a peripheral speed of 80 m/sec.

The power tool may be used only for dry cutting or grinding.

Cutting or grinding materials containing asbestos is not permissible.

Nationally applicable industrial safety regulations must be observed.

To avoid the risk of injury, use only genuine Hilti accessories and insert tools.

Observe the information printed in the operating instructions concerning operation, care and maintenance.
The power tool is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The power tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

Modification of the power tool or tampering with its parts is not permissible.

Take the influences of the surrounding area into account. Do not use the power tool or appliance where there is a risk of fire or explosion.

### 2.2 Switches

**On / off switch**

### 2.3 The items supplied in the cardboard box are:

- 1 Power tool
- 1 Guard
- 1 Side handle
- 1 Clamping flange
- 1 Clamping nut
- 1 Wrench
- 1 Operating instructions
- 1 Cardboard box

### 2.4 Using extension cords

Use only extension cords of a type approved for the application and with conductors of adequate cross section. The power tool may otherwise loose performance and the extension cord may overheat. Check the extension cord for damage at regular intervals. Replace damaged extension cords.

**Recommended minimum conductor cross section and max. cable lengths**

<table>
<thead>
<tr>
<th>Conductor cross section</th>
<th>1.5 mm²</th>
<th>2 mm²</th>
<th>2.5 mm²</th>
<th>3.5 mm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains voltage 100V</td>
<td>30 m</td>
<td></td>
<td></td>
<td>50 m</td>
</tr>
<tr>
<td>Mains voltage 110-120 V</td>
<td>30 m</td>
<td>40 m</td>
<td>50 m</td>
<td></td>
</tr>
<tr>
<td>Mains voltage 220-240 V</td>
<td>75 m</td>
<td>100 m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do not use extension cords with 1.25 mm² conductor cross section.

### 2.5 Using extension cords outdoors

When working outdoors, use only extension cords that are approved and correspondingly marked for this application.

### 2.6 Using a generator or transformer

This power tool may be powered by a generator or transformer when the following conditions are fulfilled: The unit must provide a power output in watts of at least twice the value printed on the type identification plate on the power tool. The operating voltage must remain within +5% and -15% of the rated voltage at all times, frequency must be in the 50 – 60 Hz range and never above 65 Hz, and the unit must be equipped with automatic voltage regulation and starting boost.

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

### 2.7 Guard with cover plate

**CAUTION**

When grinding with straight grinding discs and cutting with cutting discs in metalworking applications, use the guard with cover plate.
3 Consumables

Discs with a diameter of max. 100 mm, designed for a speed of 11000/min and a peripheral speed of 80 m/sec, and with a maximum thickness of 6.4 mm (abrasive grinding discs) or 2.5 mm (abrasive cutting discs).

<table>
<thead>
<tr>
<th>Discs</th>
<th>Application</th>
<th>Designation</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasive cutting disc</td>
<td>Cutting</td>
<td>AC-D</td>
<td>metal</td>
</tr>
<tr>
<td>Diamond cutting disc</td>
<td>Cutting</td>
<td>DC-D</td>
<td>mineral</td>
</tr>
<tr>
<td>Abrasive grinding disc</td>
<td>Rough grinding</td>
<td>AG-D, AF-D, AN-D</td>
<td>metal</td>
</tr>
<tr>
<td>Diamond grinding disc</td>
<td>Rough grinding</td>
<td>DG-CW</td>
<td>mineral</td>
</tr>
</tbody>
</table>

Assignment of discs to the equipment used

<table>
<thead>
<tr>
<th>Equipment</th>
<th>AC-D</th>
<th>AG-D</th>
<th>AF-D</th>
<th>AN-D</th>
<th>DG-CW</th>
<th>DC-D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guard</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Guard with cover plate</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Side handle</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Clamping nut</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Clamping flange</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

4 Technical data

Right of technical changes reserved.

<table>
<thead>
<tr>
<th>Power tool</th>
<th>DAG 100-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated speed</td>
<td>11,000/min</td>
</tr>
<tr>
<td>Abrasive cutting discs</td>
<td>№ Max. 100 mm</td>
</tr>
<tr>
<td>Dimensions (L x H x W) without hood</td>
<td>271 mm x 94 mm x 78 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated voltage (amps)</th>
<th>100V (7.5A)</th>
<th>110V (8A)</th>
<th>220V (4.0A)</th>
<th>230V-240V (3.8A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power</td>
<td>710 W</td>
<td>840 W</td>
<td>840 W</td>
<td>840 W</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>50...60 Hz</td>
<td>60 Hz</td>
<td>50...60 Hz</td>
<td>50...60 Hz</td>
</tr>
<tr>
<td>Weight</td>
<td>1.9 kg</td>
<td>1.9 kg</td>
<td>1.9 kg</td>
<td>1.9 kg</td>
</tr>
</tbody>
</table>

Information about the power tool and applications

Drive spindle thread (arbor size) | M 10
Protection class                  | Protection class II (double insulated)

5 Safety instructions

5.1 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.

b) 5.1.1 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.

5.1.2 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.

5.1.3 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 or energising power tool 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.

5.1.4 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.

5.1.5 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.

5.2 Safety warnings for abrasive cutting-off operations
a) This power tool is intended to function as a cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

b) Operations such as sanding, wire brushing or polishing are not recommended to be performed with this power tool. Operations for which the power tool was not designed may create a hazard and cause personal injury.

c) Do not use accessories which are not specifically designed and recommended by the tool manufac-
Never lay the power tool down until the accessory has come to a complete stop. The spinning accessory may grab the surface and pull the power tool out of your control.

Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.

Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

Regularly clean the power tool's air vents. The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

Do not operate the power tool near flammable materials. Sparks could ignite these materials.

Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.

5.3 Kickback and related warnings
Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump forward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

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

a) Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up. The operator can control torque reactions or kickback forces, if proper precautions are taken.

b) Never place your hand near the rotating accessory. Accessory may kickback over your hand.

c) Do not position your body in the area where power tool will move if kickback occurs. Kickback will propel the tool in direction opposite to the wheel’s movement at the point of snagging.

d) Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

e) Do not attach a saw chain woodcarving blade or toothed saw blade. Such blades create frequent kickback and loss of control.

5.4 Safety warnings specific for grinding and abrasive cutting-off operations
a) Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel. Wheels for which the power tool
5.6 Additional safety warnings specific for abrasive cutting-off operations

a) Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.

b) Do not position your body in line with and behind the rotating wheel. When the wheel, at the point of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.

c) When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel binding.

d) Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut. The wheel may bind, walk up, or kickback if the power tool is restarted in the workpiece.

e) Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.

f) Use extra caution when making a “pocket cut” into existing walls or other blind areas. The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

5.6 Additional safety instructions

5.6.1 Personal safety

a) Wear ear protectors. Exposure to noise can cause hearing loss.

b) Always hold the power tool securely with both hands on the grips provided. Keep the grips dry, clean and free from oil and grease.

c) Breathing protection must be worn if the power tool is used without a dust removal system for work that creates dust.

d) Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.

e) Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece. Touching rotating parts, especially rotating insert tools, may lead to injury.

f) Always lead the supply cord and extension cord away from the power tool to the rear while working. This helps to avoid tripping over the cord while working.

g) Children must be instructed not to play with the power tool.

h) The power tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.

i) 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 and filter class P2 is recommended. To follow national requirements for the materials you want to work with.

5.6.2 Power tool use and care

a) Grinding discs must be stored and handled carefully in accordance with the manufacturer’s instructions.

b) Check that the grinding disc is fitted in accordance with the manufacturer’s instructions.

c) If use of a spacer ring or other intermediate part is specified and the part is supplied with the grinding disc, check to ensure that the part is fitted.

d) Never use the power tool without the guard.
e) The workpiece must be fixed securely in place.

f) Do not use cutting discs for grinding.

g) After disc breakage, or if the power tool is dropped, falls or suffers other mechanical damage, it must be checked at a Hilti Service Center.

h) Take steps to ensure that flying sparks from the power tool do not present a hazard, i.e. by striking yourself, other persons or inflammable materials. Adjust the position of the guard accordingly.

i) In case of an interruption in the electric supply: Switch the power tool off and unplug the supply cord. This will prevent accidental restarting when the electric power returns.

5.6.3 Electrical safety

a) Before beginning work, check the working area (e.g. using a metal detector) to ensure that no concealed electric cables or gas and water pipes are present. External metal parts of the power tool may become live, for example, when an electric cable is damaged accidentally. This presents a serious risk of electric shock.

b) Check the power tool's supply cord at regular intervals and have it replaced by a qualified specialist if found to be damaged. If the power tool's supply cord is damaged it must be replaced with a specially-prepared supply cord available from Hilti Customer Service. Check extension cords at regular intervals and replace them if found to be damaged. Do not touch the supply cord or extension cord if it is damaged while working. Disconnect the supply cord plug from the power outlet. Damaged supply cords or extension cords present a risk of electric shock.

c) Dirty or dusty power tools which have been used frequently for work on conductive materials should be checked at regular intervals at a Hilti Service Center. Under unfavorable circumstances, dampness or dust adhering to the surface of the power tool, especially dust from conductive materials, may present a risk of electric shock.

d) When working outdoors with an electric tool check to ensure that the tool is connected to the electric supply by way of a ground fault circuit interrupter (RCD) with a rating of max. 30 mA (tripping current). Use of a ground fault circuit interrupter reduces the risk of electric shock.

e) Use of a ground fault circuit interrupter (RCD residual current device) with a maximum tripping current of 30 mA is recommended.

5.6.4 Work area

a) Ensure that the workplace is well lit.

b) Ensure that the workplace is well ventilated. Exposure to dust at a poorly ventilated workplace may result in damage to the health.

5.6.5 Personal protective equipment

The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection, protective gloves and breathing protection while the power tool is in use.

6 Before use

WARNING
Never use the power tool without the guard.

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

CAUTION
Wear gloves when fitting or removing parts, when making adjustments or when remedying malfunctions.

6.1 Fitting the side handle

WARNING
The side handle must be fitted for all types of work.

The side handle may be screwed onto the power tool on the right or left.
6.2 Guard

CAUTION
Adjust the position of the guard to suit the requirements of the work being done.

CAUTION
The closed side of the guard must always face the operator.

6.2.1 Fitting and removing the guard or guard with cover plate
1. Disconnect the supply cord plug from the power outlet.
2. Fit the guard so that the locating lug engages in the notch in the spindle collar and then rotate it into the required working position.
3. Secure the guard by tightening the screw.
4. Screw the side handle onto the right or left side of the gearing section, depending on how the power tool will be held when working.
5. To remove the guard from the power tool, follow the instructions for fitting the guard but carry out the steps in the reverse order.

6.3 Fitting and removing grinding / cutting discs

DANGER
Check that the speed rating printed on the cutting or grinding disc is equal to or higher than the rated speed of the power tool.

DANGER
Check the condition of the grinding disc before using it. Do not use discs that are broken, cracked or damaged in any way.

NOTE
Diamond discs must be replaced when the cutting or grinding performance drops significantly. This generally is the case when the segments reach a height of less than 2 mm. Other discs must be replaced when the cutting performance drops significantly or other parts of the angle grinder (not the disc) come into contact with the material you are working on. Abrasive discs generally have to be replaced when the durability date has been reached.

1. Disconnect the supply cord plug from the power outlet.
2. Place the clamping flange on the spindle so that the side with the recess is seated against the spindle flange (transmission of rotary drive).
3. Fit the insert tool.
4. Screw on the clamping nut and tighten it.
5. CAUTION Do not press the spindle lockbutton before the drive spindle has stopped rotating. Press the spindle lockbutton and hold it in this position.
6. Use the wrench to tighten the clamping nut securely and then release the spindle lockbutton.
7. Before switching on, check that the cutting/grinding tool is fitted correctly and that it is free to rotate.
8. To remove the disc from the power tool, follow the instructions for fitting the disc but carry out the steps in the reverse order.

6.4 Fitting / removing a diamond cutting disc (optional accessory)

CAUTION
Check to ensure that the arrow on the diamond cutting disc is pointing in the same direction as the arrow on the tool.

CAUTION
Do not press the spindle lockbutton before the drive spindle has stopped rotating.

1. Disconnect the supply cord plug from the power outlet.
2. Place the inner clamping flange on the drive spindle.
3. Fit the diamond cutting disc onto the inner clamping flange, screw on the clamping nut and tighten it securely.
4. When fitted, the flat side of the clamping nut must face the diamond cutting disc.
5. To remove the cutting disc from the tool, follow the instructions for fitting the disc but carry out the steps in the reverse order.

6.5 Rotating the gearing section

NOTE
To allow the power tool to be used safely and without fatigue in all positions (e.g. on/off switch facing upwards), the gearing section can be rotated to one of four positions at 90° intervals.

1. Disconnect the supply cord plug from the power outlet.
2. Clean the power tool.
3. Remove the side handle from the power tool.
4. Remove the four screws from the gearing section.
5. Rotate the gearing section to the desired position without pulling it away from the power tool.
6. Secure the gearing section by inserting and tightening the four screws.
7. Fit the side handle.
7 Operation

**DANGER**

Wear ear protectors. Exposure to noise can cause hearing loss.

**WARNING**

Test new cutting or grinding discs by allowing them to run at maximum speed in a protected area for at least 60 seconds.

**WARNING**

Slits cut in load-bearing walls of buildings or other structures may influence the statics of the structure, especially when steel reinforcing bars or load-bearing components are cut through. Consult the structural engineer, architect, or person in charge of the building project before beginning the work.

**WARNING**

The electric supply voltage must comply with the information given on the type identification plate on the power tool. 230 V power tools may also be connected to a 220 V supply.

**WARNING**

Always use the side handle with the power tool.

**WARNING**

Never use the power tool without the guard.

**CAUTION**

Use clamps or a vice to hold the workpiece securely.

**WARNING**

Cutting or grinding may cause splintering of the material. Wear eye protection.

**CAUTION**

Breathing protection must be worn if the power tool is used without a dust removal system for work that creates dust.

**WARNING**

Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece. Touching rotating parts, especially rotating insert tools, may lead to injury.

**CAUTION**

The insert tool may get hot during use. Wear protective gloves when changing insert tools.

**WARNING**

Reduce the load on the power tool by avoiding tilting the disc in the kerf when cutting. The disc may otherwise break, or the power tool may kick back or stall.

**CAUTION**

Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.

**WARNING**

Keep inflammable materials away from the working area.

### 7.1 Rough grinding

**CAUTION**

Never use cutting discs for grinding.

Best results are obtained when the disc maintains an angle of 5° to 30° with the working surface when grinding. Move the power tool to and fro while applying moderate pressure. This will avoid overheating and discoloration of the workpiece and ensure an even surface finish.

### 7.2 Cutting

When cutting, apply moderate feed pressure and do not tilt the power tool or, respectively, the cutting disc (hold at approx. 90° to the surface being cut). For best results, start cutting at the smallest cross section when cutting profiles and square tube.

### 7.3 Switching on / off

In the event of motor overload due to application of excessive pressure to the disc, performance will drop noticeably or the power tool may stop running (avoid stalling the power tool in this way). Permissible overload cannot be given as a specific value as it depends on the temperature of the motor. If the power tool has been overloaded, release the pressure applied and then allow it to run under no load for approx. 30 seconds.

#### 7.3.1 Switching on

1. Plug the supply cord into the power outlet.
2. Press the rear section of the on / off switch.
3. Slide the on / off switch forward.
4. Lock the on / off switch.

#### 7.3.2 Switching off

Press the rear section of the on / off switch. The on / off switch jumps back to the off-position.
8 Care and maintenance

CAUTION
Disconnect the mains plug from the power outlet.

8.1 Care of the power tool

DANGER
Under extreme conditions, when used for working on metal, conductive dust may accumulate inside the tool. This may have an adverse effect on the tool’s protective insulation. Under such conditions, the tool should be plugged into a ground fault circuit interrupter (RCD) and use of a stationary dust removal system and frequent cleaning of the tool’s cooling air slots is recommended.

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 air vents are blocked. Regularly clean the power tool’s air vents carefully with a dry brush. Do not permit foreign objects to enter the interior of the tool. The motor’s fan will draw dust into the casing and an excessive accumulation of conductive dust (e.g. metal, carbon fiber) may cause electrical hazards. 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 tool. Always keep the grip surfaces of the tool free from oil and grease. Do not use cleaning agents which contain silicone.

NOTE
Frequent work on conductive materials (e.g. metal, carbon fiber) may make shorter maintenance intervals necessary. Take your individual workplace risk assessment into account.

8.2 Maintenance

WARNING
Do not operate the tool if parts are damaged or when the controls do not function faultlessly. If necessary, the power tool should be repaired by Hilti Service.

WARNING
Repairs to the electrical section of the power tool may be carried out only by trained electrical specialists. Check all external parts of the power tool for damage at regular intervals and check that all controls operate faultlessly.

8.3 Checking the power tool after care and maintenance

After carrying out care and maintenance work on the power tool, check that all protective and safety devices are fitted and that they function faultlessly.

9 Troubleshooting

<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The power tool doesn’t start.</td>
<td>Interruption in the electric supply.</td>
<td>Plug in another electric appliance and check whether it works.</td>
</tr>
<tr>
<td></td>
<td>The supply cord or plug is defective.</td>
<td>Have it checked by a trained electrical specialist and replaced if necessary.</td>
</tr>
<tr>
<td></td>
<td>The carbon brushes are worn.</td>
<td>Have it checked by a trained electrical specialist and replaced if necessary.</td>
</tr>
<tr>
<td>The power tool doesn’t achieve full power.</td>
<td>The extension cord’s conductor cross section is inadequate.</td>
<td>Use an extension cord with an adequate conductor cross section.</td>
</tr>
</tbody>
</table>

10 Disposal

Most of the materials from which Hilti power tools or 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 power tools or appliances for recycling. Please ask your Hilti customer service department or Hilti representative for further information.
11 Manufacturer’s warranty - tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

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

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