

# HILTI

**AG 500-A22**

English

en





## 1 Information about the documentation




### 1.1 About this documentation

- Read this documentation before initial operation or use. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in this documentation and on the product.
- Always keep the operating instructions with the product and make sure that the operating instructions are with the product when it is given to other persons.

### 1.2 Explanation of symbols used



#### 1.2.1 Warnings

Warnings alert persons to hazards that may occur when handling or using the product. The following signal words are used in combination with a symbol:

	<b>DANGER!</b> Draws attention to an imminent hazard that will lead to serious personal injury or fatality.
	<b>WARNING!</b> Draws attention to a potential hazard that could lead to serious personal injury or fatality.
	<b>CAUTION!</b> Draws attention to a potentially dangerous situation that could lead to minor personal injury or material damage.




#### 1.2.2 Symbols in the documentation

The following symbols are used in this document:

	Read the operating instructions before use
	Instructions for use and other useful information

#### 1.2.3 Symbols in the illustrations



The following symbols are used in illustrations:

	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions.
3	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text.
	Item reference numbers are used in the <b>overview illustration</b> and refer to the numbers used in the key in the <b>product overview</b> section.
	This symbol is intended to draw special attention to certain points when handling the product.

### 1.3 Product-dependent symbols

#### 1.3.1 Symbols on the product

The following symbols are used on the product:

	Wear eye protection.
n	Rated speed
/min	Revolutions per minute
RPM	Revolutions per minute
	Diameter

## 1.4 Product information

Hilti products are designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any particular hazards that may be encountered. The product and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

The type designation and serial number are printed on the type identification plate.

- ▶ Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to inquire about the product.

### Product information

Angle grinder	AG 500-A22
Generation	02
Serial no.	

## 2 Safety

### 2.1 Safety instructions

#### 2.1.1 General safety precautions for power tools

**⚠ WARNING! Read all safety precautions and other instructions.** Failure to observe the safety precautions and other instructions may result in electric shock, fire and/or serious injury.

Keep all safety precautions and instructions for future reference.

#### Working area safety

- ▶ **Keep your working area clean and well lit.** Cluttered or dark working areas can cause accidents.
- ▶ **Do not operate the power tool 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.
- ▶ **Keep bystanders, children and visitors away while operating the power tool.** Distractions may cause you to lose control of the tool.

#### Electrical safety

- ▶ **Do not expose the power tool to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **Do not allow your body to come into contact with grounded surfaces such as pipes, radiators, ovens and refrigerators.** There is an increased risk of electric shock if your body is grounded.

#### Personal safety

- ▶ **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 the power tool may result in serious personal injury.
- ▶ **Adopt the correct posture when working. Maintain proper footing and balance at all times.** This will allow you to control the power tool better, even in unexpected situations.
- ▶ **Wear your personal protective equipment and always wear protective glasses.** Depending on the type of power tool you are using and its purpose, wearing safety equipment such as a dust mask, slip-resistant safety shoes, a hard hat or hearing protection will reduce the risk of injury.
- ▶ **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair may be caught in moving parts.
- ▶ **Avoid starting the tool accidentally. Make sure that the power tool is switched off before connecting it to the battery and before picking it up or carrying it.** Carrying power tools with your finger on the switch or plugging in power tools that are already switched on may cause accidents.
- ▶ **Remove accessory tools or wrenches before switching the power tool on.** An accessory tool or a wrench left attached to a rotating part of the power tool may cause personal injury.
- ▶ **If devices are provided for connecting dust extraction and collection equipment, make sure these are connected and used correctly.** The use of a dust extraction system can reduce dust-related hazards.

#### Using and handling the power tool

- ▶ **Do not overload the tool. Use the correct power tool for your application.** The correct power tool will do the job better and more safely within the performance range for which it is designed.
- ▶ **Do not use a power tool if it has a faulty on/off switch.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

- ▶ **Remove the battery from the power tool before making any adjustments, changing accessories or storing the tool.** This precaution reduces the risk of the power tool starting accidentally.
- ▶ **Store power tools out of reach of children when not in use. Do not allow persons who are not familiar with the tool or these instructions to operate it.** Power tools are dangerous in the hands of untrained users.
- ▶ **Maintain power tools properly. Check that moving parts are in correct working order and do not jam, and check whether any parts are broken or so damaged that correct operation of the power tool cannot be guaranteed. If any parts are damaged, have these parts repaired before using the tool.** Many accidents are caused by poorly maintained power tools.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to jam and are easier to control.

#### Using and handling the cordless power tool

- ▶ **Use only the specified batteries in the power tools.** Use of any other batteries may present a risk of injury and fire.
- ▶ **Recharge the batteries only with the chargers specified by the manufacturer.** A charger that is suitable for a certain type of battery may present a risk of fire when used with other types of battery.
- ▶ **When the battery is not in use, keep it away from other metal objects such as paper clips, coins, keys, nails, screws, or other small metal objects that could cause bridging between the terminals.** A short circuit between the battery terminals may cause burns or a fire.
- ▶ **Liquid may leak from the battery if used incorrectly. Avoid contact with this liquid.** Liquid leaking from the battery may cause skin irritation or burns. If contact accidentally occurs, rinse with water. Seek medical attention if the liquid comes into contact with the eyes.

#### 2.1.2 Common safety instructions for grinding, polishing and working with wire brushes

- ▶ **This power tool is intended for use as a grinder, wire brush, or cut-off tool. Observe all safety warnings, instructions, illustrations and specifications provided with this tool.** Failure to follow all instructions listed below can result in electric shock, fire and/or serious injury.
- ▶ **This power tool is not suitable for use as a sander or polisher.** Use of the power tool for purposes for which it is not intended may be hazardous and cause injury.
- ▶ **Do not use accessories not specifically intended and recommended for this power tool by the tool manufacturer.** The fact that an accessory can be attached to your power tool does not necessarily mean that it can be used in safety.
- ▶ **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can disintegrate and fly apart.
- ▶ **The outside diameter and the thickness of the accessory tool must be within the ranges stated for your power tool.** Incorrectly sized accessory tools cannot be adequately guarded or controlled.
- ▶ **Accessory tools with threaded insert must match the thread of the drive spindle. Flange-mounted accessory tools must have a hole diameter matching the mandrel diameter of the flange.** Accessory tools not correctly fixed to the power tool rotate unevenly, vibrate excessively and can cause control of the tool to be lost.
- ▶ **Do not use damaged accessory tools.** Always check accessory tools before use. Check abrasive wheels for chipping and cracks. Check grinding discs for cracks and heavy wear and tear, and check wire brushes for loose or broken wires.
- ▶ **If power tool or accessory is dropped, inspect for damage or install an undamaged accessory.** After inspecting and installing an accessory tool, position yourself and bystanders away from the plane of the rotating tool and run the power tool at maximum no-load speed for one minute. If an accessory tool has been damaged it will normally break during this test period.
- ▶ **Wear personal protective equipment.** Wear a face shield, eye protection or safety goggles, as appropriate to the application.
- ▶ **As appropriate, wear a dust mask, ear defenders, protective gloves or a workshop apron to keep off abrasive particles and particles of workpiece material.** Make sure your eyes are protected against the flying debris created by various machining operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- ▶ **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond the immediate area of operation.
- ▶ **Hold the power tool by the insulated gripping surfaces only, when carrying out work in which the accessory tool can come into contact with concealed wiring.** If the accessory tool comes into contact

with a live wire, metal parts of the power tool can also become live, causing the operator to receive an electric shock.

- ▶ **Never lay the power tool down before the accessory tool has come to a complete stop.** If the rotating accessory tool were allowed to touch the surface on which you are going to place the power tool, you could lose control of the power tool.
- ▶ **Never start the power tool while carrying it around.** Your clothing could be snagged by the rotating accessory tool, pulling the accessory tool into your body.
- ▶ **Clean the ventilation slots of the power tool at regular intervals.** The motor's fan draws dust into the housing and a build-up of metallic dust can cause electrical hazards.
- ▶ **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

#### **Kickback**

**⚠ WARNING! Snagging or jamming brings the rotating accessory tool to an abrupt stop.** If this happens the power tool whips round in the direction opposite to the accessory tool's direction of rotation, the grinding disc can catch and break out or cause a kickback.

By adopting suitable precautionary measures the operator can control the kickback and reaction forces:

- ▶ **Maintain a firm grip on the power tool and position your body and arms to absorb kickback forces.**
- ▶ **Always use the auxiliary handle, if provided, for maximum control over kickback forces or torque reaction during start-up.**
- ▶ **Always keep your hand well clear of the rotating accessory tool.** Kickback could cause the accessory tool to pass across your hand.
- ▶ **Keep your body clear of where the power tool will move if kickback occurs.** Kickback will propel the power tool in the direction opposite to the wheel's direction of rotation at the point of snagging.
- ▶ **Exercise special care when working at corners, sharp edges, etc. Avoid allowing the accessory tool to bounce off or jam in the workpiece.** The rotating accessory tool evinces a tendency to jam at corners and sharp edges, or if it bounces off the workpiece. This causes loss of control or kickback.
- ▶ **Do not attach a saw chain, woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

#### **Safety instructions for grinding and abrasive cutting:**

- ▶ **Use only abrasive wheel types approved for your power tool and the specific guard designed for the selected wheel.** Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.
- ▶ **Offset grinding discs must be fitted in such a way that their grinding face does not project past the plane of the guard edge.** An incorrectly fitted grinding disc projecting past the plane of the guard edge cannot be adequately shielded.
- ▶ **The guard must be securely attached to the power tool and positioned for maximum safety, so that the smallest possible segment of the abrasive disc is exposed toward the operator.** The guard helps protect the operator from flying fragments, accidental contact with the abrasive disc, and flying sparks that could ignite clothing.
- ▶ **Use abrasive discs for the recommended applications only.**
- ▶ **Never try to use the flat of an abrasive cut-off wheel for grinding.** Abrasive cut-off wheels are intended for peripheral grinding. Side forces applied to these wheels can cause them to shatter.
- ▶ **Always use an undamaged clamping flange of the correct size and shape for your selected grinding disc.** The correct flange supports the grinding disc, reducing the risk of disc breakage. Flanges for cut-off wheels can differ from those for other grinding discs.
- ▶ **Do not use worn-down, originally larger-diameter grinding discs from larger power tools.** Grinding discs intended for a larger power tool are not suitable for the higher speed of a smaller tool and can break.

#### **Safety instructions for abrasive cutting:**

- ▶ **Do not "bind" 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.
- ▶ **Keep clear of the areas in front of and behind the rotating cut-off 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.
- ▶ **If the wheel binds or when you interrupt 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 rotating cut off-wheel from the cut, because kickback can occur.** Investigate and take corrective action to eliminate the cause of wheel binding.

- ▶ **Do not switch the power tool on again while the wheel is in the cut. Let the wheel reach full speed and carefully re-insert it into the cut.** The wheel can bind, walk up or kick back if the power tool is restarted with the wheel in the cut.
- ▶ **Support panels or large workpieces to minimize the risk of wheel bind and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece on both sides of the cutting wheel, both close to the line of cut and near the edge of the workpiece.
- ▶ **Use extra caution when "plunge cutting" into existing walls or other blind areas.** Kickback can occur if the wheel slices into gas or water pipes, electric wiring or other objects as it plunge-cuts.

#### **Safety instructions for wire brushing:**

- ▶ **Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overload the wires by applying excessive pressure.** The wire bristles can easily penetrate light clothing and/or the skin.
- ▶ **If the use of a guard is recommended for wire brushing, do not allow any interference of the wire wheel or brush with the guard.** Wire wheel or brush may expand in diameter due to work load and centrifugal forces.

### **2.1.3 Additional safety instructions**

#### **Personal safety**

- ▶ Only use the product if it is in perfect working order.
- ▶ Never tamper with or modify the tool in any way.
- ▶ Avoid touching rotating parts – risk of injury!
- ▶ Wear protective gloves also when changing the accessory tool. Touching the accessory tool presents a risk of injury (cuts or burns).
- ▶ Before starting work, check the hazard class of the dust that will be produced when working. Use an industrial vacuum cleaner with an officially approved protection class in compliance with the locally applicable dust protection regulations. Dust from materials such as lead-based paint, certain types of wood and concrete/masonry/stone containing quartz, minerals or metal may be harmful to health.
- ▶ Make sure that the workplace is well ventilated and, where necessary, wear a respirator appropriate for the type of dust generated. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory or other diseases among operators 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 may be handled only by specialists.
- ▶ Take breaks between working and do physical exercises to improve the blood circulation in your fingers. Exposure to vibration during long periods of work can lead to disorders of the blood vessels and nervous system in the fingers, hands and wrists.

#### **Electrical safety**

- ▶ Before beginning work, check the working area for concealed electric cables or gas and water pipes. External metal parts of the power tool may give you an electric shock if you damage an electric cable accidentally.

#### **Using and handling power tools with care**

- ▶ Do not use cutting discs for grinding.
- ▶ Tighten the accessory tool and flange securely. If the accessory tool and flange are not tightened securely, the accessory tool may work loose from the spindle due to the braking effect of the motor after switching off.
- ▶ Comply with the manufacturer's instructions for handling and storing grinding discs.

### **2.1.4 Careful handling and use of batteries**

- ▶ Observe the special guidelines applicable to the transport, storage and use of lithium-ion batteries.
- ▶ Do not expose batteries to high temperatures, direct sunlight or fire.
- ▶ Do not take apart, squash or incinerate batteries and do not subject them to temperatures over 80 °C.
- ▶ Do not attempt to charge or continue to use damaged batteries.
- ▶ If the battery is too hot to touch, it may be defective. In this case, place the power tool in a non-flammable location, well away from flammable materials, where it can be kept under observation and left to cool down. Contact **Hilti** Service after the battery has cooled down.

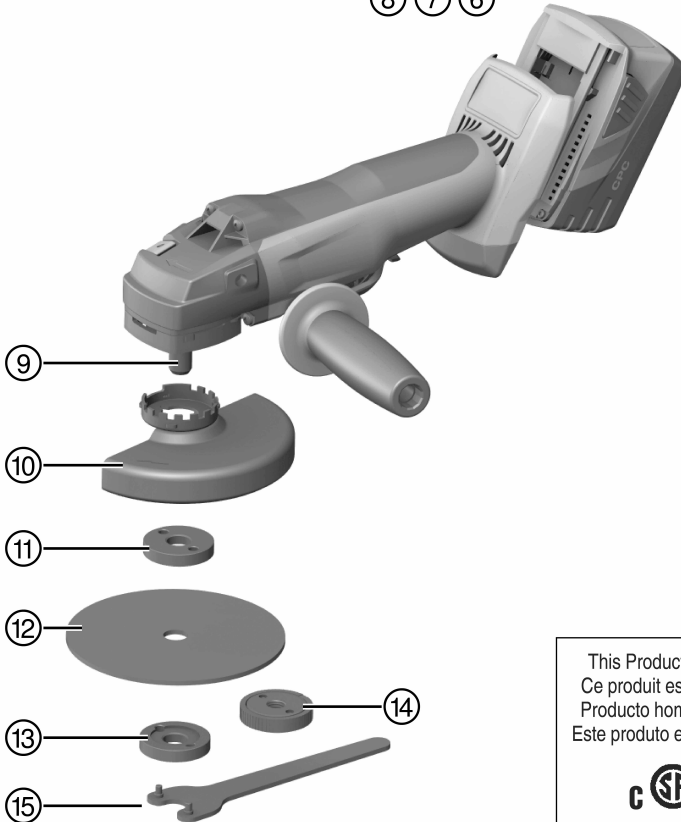
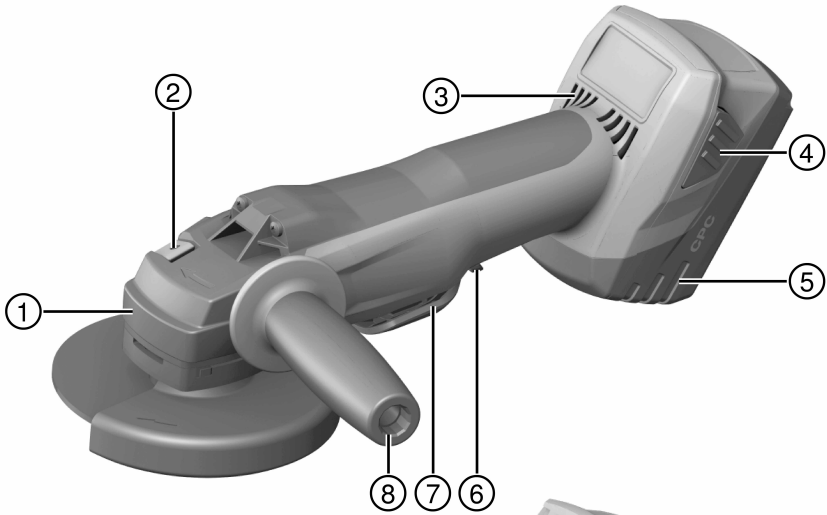






### 3 Description

#### 3.1 Overview of the product



This Product is Certified  
Ce produit est homologué  
Producto homologado por  
Este producto está registrado



- |   |  |
|---|--|
| ① Guard release button  | ⑧ Vibration-absorbing side handle          |
| ② Spindle lockbutton  | ⑨ Spindle                                  |
| ③ Air vents   | ⑩ Standard guard                           |
| ④ Release button with additional function<br>(charge status display activation) | ⑪ Clamping flange                          |
| ⑤ Battery   | ⑫ Cutting disc / grinding disc             |
| ⑥ Switch-on interlock release button  | ⑬ Clamping nut                             |
| ⑦ On/off switch   | ⑭ <b>Kwik lock</b> clamping nut (optional) |
|   | ⑮ Wrench                                   |

### 3.2 Intended use

The product described is a hand-held cordless angle grinder. It is designed to be used for cutting and grinding metals and mineral materials, and for wire brushing without use of water. It can be used only for dry grinding / cutting.

- The power tool may be used for cutting, slitting and grinding mineral materials only when equipped with the corresponding guard (optional accessory).
- A dust removal hood together with a suitable **Hilti** vacuum cleaner must be used for working on mineral materials such as concrete or stone.
- ▶ Use only **Hilti** Li-ion batteries of the B 22 series with this product.
- ▶ Use only **Hilti** battery chargers of the C4/36 series for charging these batteries.

### 3.3 Items supplied

Angle grinder, side handle, standard guard, front cover, clamping flange, clamping nut, wrench, operating instructions.

You can find other system products approved for your product at your local **Hilti** Center or online at: [www.hilti.com](http://www.hilti.com)

### 3.4 Temperature-dependent motor protection

The temperature-dependent motor protection system monitors current input and motor temperature and thus prevents the power tool overheating.

If the motor is overloaded through application of excessive working pressure, the power tool's performance drops noticeably or it may stall completely.

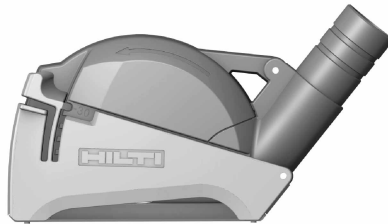
If the power tool stalls or slows significantly due to overloading, release the pressure applied to the tool and then allow it to run under no load for approx. 30 seconds.

### 3.5 Guard with front cover



**When grinding with straight grinding discs and cutting with cutting discs in metalworking applications, use the standard guard with front cover.**

### 3.6 DC-EX 125/5" C compact dust hood for cutting (accessory)



When cutting mineral materials with diamond cutting discs, use the DC-EX 125/5" C compact hood.

**CAUTION** Use of this hood for working on metal is prohibited.

### 3.7 DG-EX 125/5" dust hood for grinding (accessory)



The grinding system is suitable only for occasional use with diamond cup wheels for grinding mineral materials.

**CAUTION** Use of this hood for working on metal is prohibited.

### 3.8 Li-ion battery charge status display

The charge status of the Li-ion battery is displayed after one of the two battery release buttons is pressed.

Status	Meaning
4 LEDs light.	• Charge status: 75 % to 100 %
3 LEDs light.	• Charge status: 50 % to 75 %
2 LEDs light.	• Charge status: 25 % to 50 %
1 LED lights up.	• Charge status: 10 % to 25 %
1 LED blinks.	• Charge status: < 10 %



#### Note

Indication of the charge status is not possible while the power tool is in operation or immediately after operation. If the battery charge status LEDs blink, please refer to the information given in the Troubleshooting section.

## 4 Consumables

Only synthetic resin-bonded, fiber-reinforced discs with a maximum Ø of 5" which are approved for use at a rotational speed of at least 11000/min and a peripheral speed of 80 m/s may be used.

The maximum grinding disc thickness is 1/4" and the maximum cutting disc thickness is 1/8".

**WARNING! When cutting or slitting with abrasive cutting discs always use the standard guard with the additional front cover, or a fully enclosing dust hood.**

### Discs

	Application	Designation	Material
Abrasive cutting disc	Cutting, slitting	AC-D	Metal
Diamond cutting disc	Cutting, slitting	DC-TP, DC-D (SPX, SP, P)	Mineral
Abrasive grinding disc	Rough grinding	AG-D, AF-D, AN-D, AG-D type 27	Metal
Diamond grinding disc	Rough grinding	DG-CW (SPX, SP, P)	Mineral
Wire brushes	Wire brushes	3CS, 4CS, 3SS, 4SS	Metal

### Suitability of discs for the equipment used

Item	Equipment	AC-D	AG-D	AF-D	AN-D	DG-CW (SPX, SP, P)	DC-TP, DC-D (SPX, SP, P)	3CS, 3SS, 4CS, 4SS	AG-D type 27
A	Guard	X	X	X	X	X	X	X	—
B	Front cover (in combination with A)	X	—	—	—	—	X	—	—
C	DG-EX 125/5" dust hood for grinding	—	—	—	—	X	-	—	—
D	DC-EX 125/5"C dust hood for cutting (only in conjunction with A)	—	—	—	—	-	X	—	—
E	Side handle	X	X	X	X	X	X	X	X
F	DCBG 125 hoop handle (optional for E)	X	X	X	X	X	X	X	X
G	Clamping nut (not for use with accessories with integrated thread)	X	X	X	X	X	X	—	—
H	Clamping flange (not for use with accessories with integrated thread)	X	X	X	X	X	X	—	—
I	<b>Kwik lock</b> (optional for G)	X	X	X	X	-	X	—	—
J	Guard type 27	—	—	—	—	—	—	—	X

## 5 Technical data

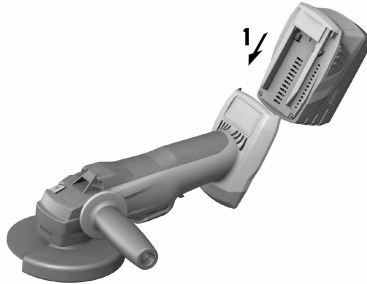
### 5.1 Angle grinder

	AG 500-A22
Rated voltage	21.6 V
Rated speed	9,500 /min

	<b>AG 500-A22</b>
<b>Maximum disc diameter</b>	5 in
<b>Maximum disc diameter</b>	125 mm
<b>Weight</b>	6.0 lb (2.7 kg)
<b>Thread diameter</b>	5/8"-11

## 6 Before use

### 6.1 Inserting the battery



#### **CAUTION**

**Risk of injury.** Due to the angle grinder starting unintentionally.

- ▶ Before fitting the battery, check that the angle grinder is switched off and that the safety lock is activated.



#### **CAUTION**

**Electrical hazard.** Dirty contacts may cause a short circuit.

- ▶ Before inserting the battery, check to ensure that the battery terminals and the contacts in the angle grinder are free from foreign objects.



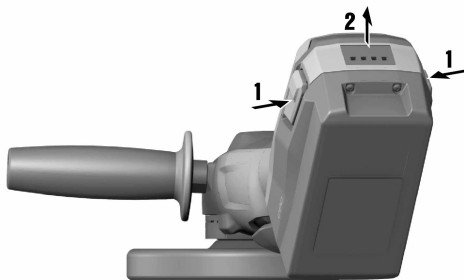
#### **CAUTION**

**Risk of injury.** If the battery is not fitted correctly it may drop out and fall.

- ▶ Check that the battery is securely seated in the tool so that it cannot drop out and fall, thereby presenting a hazard to other persons.

- ▶ Fit the battery and check that the battery is securely seated in the power tool.

## 6.2 Removing the battery



- ▶ Remove the battery.

## 6.3 Fitting the side handle

- ▶ Screw the side handle into one of the threaded bushings provided.

## 6.4 Fitting or removing the guard



### CAUTION

**Risk of injury.** The accessory tool may be hot or have sharp edges.

- ▶ Wear protective gloves when fitting, removing or adjusting the accessory tool or other parts and when troubleshooting.

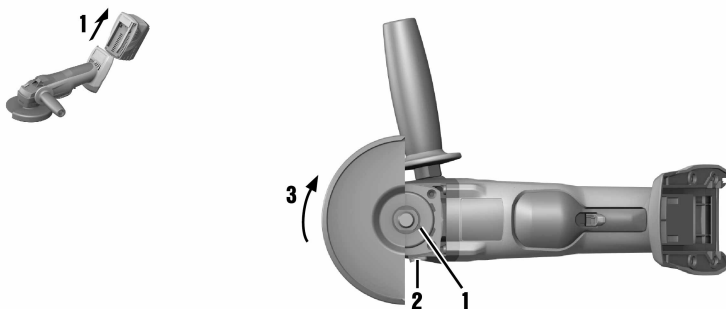
- ▶ Observe the instructions for fitting the applicable guard.

### 6.4.1 Fitting the guard



### Note

The guard is equipped with locating lugs that ensure only guards of a type suitable for use with the power tool can be fitted. The locating lugs of the guard fit into the guard mount on the power tool.



1. Fit the guard onto the drive spindle collar so that the two triangular marks on the guard and on the power tool are in alignment.
2. Press the guard onto the drive spindle collar.
3. Press the guard release button.
4. Rotate the guard until it engages and the guard release button jumps back into its original position.

### 6.4.2 Adjusting the guard

- ▶ Press the guard release button and then rotate the guard until it engages in the desired position.

### 6.4.3 Removing the hood

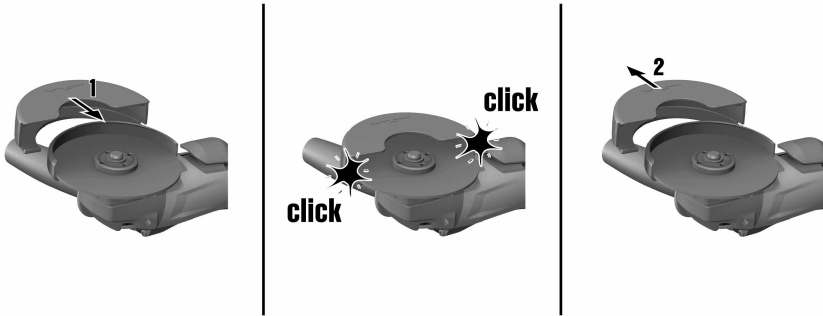
1. Press the guard release button and then rotate the guard until the triangular marks on the guard and the power tool are in alignment.
2. Remove the guard.

### 6.5 Fitting or removing the front cover



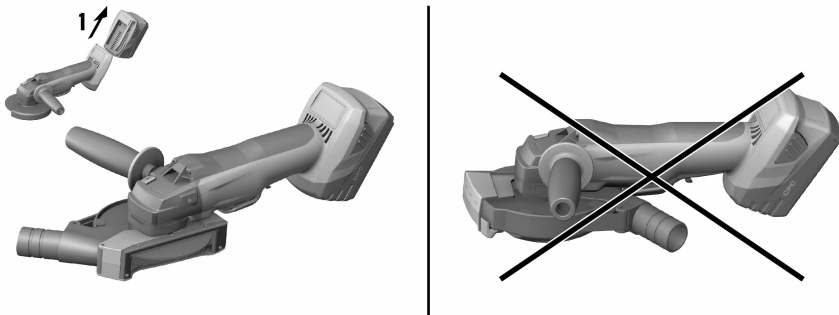
#### Note

The front cover, when used, is clipped onto the guard.



1. Position the front cover with the closed side on the standard guard and push it on until it engages.
2. To remove it, release the catch for the front cover and then lift the front cover away from the standard guard.

### 6.6 Positioning the DC-EX 125/5°C dust hood (for cutting)



- ▶ Position the compact guard so that the on/off switch remains easily accessible and operable at all times.



## 6.7 Fitting and removing accessory tools



### WARNING

**Risk of injury.** The accessory tool may work loose due to the braking effect of the motor.

- ▶ Wait until the accessory tool has come to a standstill before touching or gripping the accessory tool or the clamping nut.
- ▶ Secure the accessory tool by tightening the clamping flange and clamping nut firmly so that no parts work loose from the spindle due to the braking effect of the motor.



### CAUTION

**Risk of injury.** The accessory tool may be hot.

- ▶ Wear protective gloves when changing the accessory tool.



### CAUTION

**Danger if accessory tool with integrated thread works loose!** Incorrect installation of the accessory tool can result in serious injury.

- ▶ Always tighten the accessory tool with integrated thread until it is hand-tight.



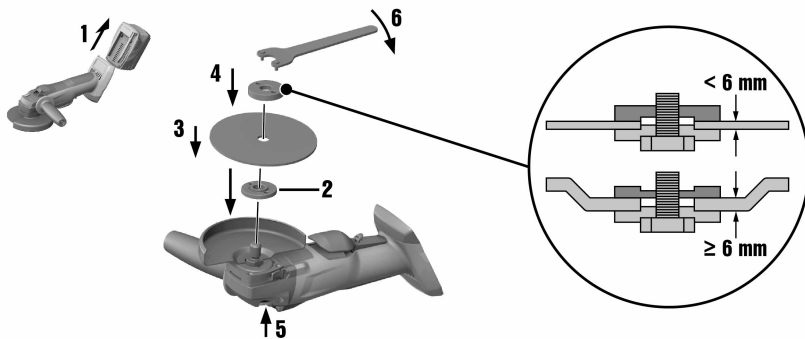
### Note

Diamond discs must be replaced when their cutting or grinding performance drops significantly. This generally is the case when the segments reach a height of less than 1/16".

Other discs must be replaced when their 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 must be replaced when their expiry date has been reached.

### 6.7.1 Fitting an accessory tool



1. Remove the battery. → page 13
2. Clean the clamping flange and the clamping nut.
3. Fit the clamping flange onto the drive spindle.
4. Fit the accessory tool.
5. Screw on the clamping nut corresponding to the type of accessory tool fitted.
6. Press the spindle lockbutton and hold it in this position.
7. Use the pin wrench to tighten the clamping nut securely, then release the spindle lockbutton and remove the wrench.

### 6.7.2 Removing the accessory tool

1. Remove the battery. → page 13



### CAUTION

**Risk of breakage and irreparable damage.** If the spindle lockbutton is pressed while the spindle is rotating, this may cause the accessory tool to work loose or detach from the power tool.

- ▶ Press the spindle lockbutton only when the spindle has stopped rotating.

2. Press the spindle lockbutton and hold it in this position.
3. Release the clamping nut by gripping it with the wrench and turning the nut counterclockwise.
4. Release the spindle lockbutton and remove the accessory tool.

### 6.7.3 Fitting an accessory tool secured with a Kwik lock nut



### CAUTION

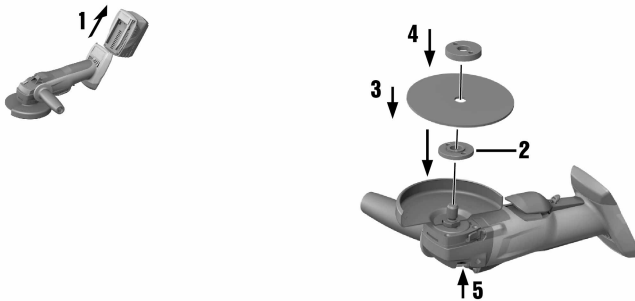
**Risk of breakage.** Heavy wear (abrasion) may cause the **Kwik lock** nut to break.

- ▶ When working with the power tool, make sure that the **Kwik lock** nut doesn't come into contact with the working surface.
- ▶ Do not use a damaged **Kwik lock** nut.



### Note

The optional **Kwik lock** nut can be used instead of the standard clamping nut. Accessory tools (discs etc.) can then be changed without need for additional tools (keyless system).



1. Remove the battery. → page 13
2. Clean the clamping flange and the quick-release clamping nut.
3. Fit the clamping flange onto the drive spindle.
4. Fit the accessory tool.
5. Screw on the **Kwik lock** nut until it is seated against the accessory tool.
  - ◀ The name **Kwik lock** should be visible when the nut is screwed on.
6. Press the spindle lockbutton and hold it in this position.
7. Turn the accessory tool firmly by hand in a clockwise direction until the **Kwik lock** nut is tightened securely and then release the spindle lockbutton.

### 6.7.4 Removing an accessory tool secured with a Kwik lock nut

1. Remove the battery. → page 13



### CAUTION

**Risk of breakage and irreparable damage.** If the spindle lockbutton is pressed while the spindle is rotating, this may cause the accessory tool to work loose or detach from the power tool.

- ▶ Press the spindle lockbutton only when the spindle has stopped rotating.

2. Press the spindle lockbutton and hold it in this position.
3. Release the **Kwik lock** nut by turning it counterclockwise by hand.

- If the **Kwik lock** nut cannot be released by turning it by hand, use a pin wrench to turn the nut in a counterclockwise direction.

**Note**

Never use a pipe wrench! A pipe wrench could damage the **Kwik lock** nut.

- Release the spindle lockbutton and remove the accessory tool.

### 6.7.5 Fitting a threaded accessory tool

- Remove the battery. → page 13
- Screw the accessory tool onto the drive spindle.
- Press the spindle lockbutton and hold it in this position.
- Use an open-end wrench to tighten the accessory tool securely and then release the spindle lockbutton.

### 6.7.6 Removing a threaded accessory tool

- Remove the battery. → page 13

**CAUTION**

**Risk of breakage and irreparable damage.** If the spindle lockbutton is pressed while the spindle is rotating, this may cause the accessory tool to work loose or detach from the power tool.

- ▶ Press the spindle lockbutton only when the spindle has stopped rotating.

- Press the spindle lockbutton and hold it in this position.
- Use an open-end wrench to release the accessory tool.
- Release the spindle lockbutton and remove the accessory tool.

## 7 Operation

### 7.1 Grinding

**CAUTION**

**Risk of injury.** The accessory tool may suddenly stick or stall.

- ▶ Use the power tool with the side handle (or optional hoop grip) fitted and always hold the power tool securely with both hands.

### 7.2 Cutting

- ▶ When cutting, apply moderate feed pressure and do not tilt the power tool or the cutting disc (when working, hold at approx. 90° to the surface being cut).

**Note**

For best results when cutting profiles and square tube, start cutting at the smallest cross section.

### 7.3 Rough grinding

**CAUTION**

**Risk of injury.** The abrasive cutting disc could shatter and flying fragments may cause injury.

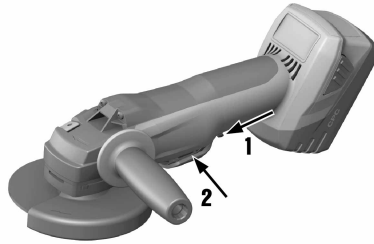
- ▶ Never use abrasive cutting discs for grinding.

- ▶ Move the power tool to and fro while maintaining a 5° to 30° angle of attack and applying moderate pressure.
  - ◀ This will avoid overheating and discoloration of the workpiece and help ensure an even surface finish.

### 7.4 Switching on (tool equipped with switch-on safety interlock)

**Note**

The on / off switch with safety lock (switch-on interlock) gives you full control of the switch function and avoids unintentional starting.



1. Push the safety lock forward.
  - ◄ The on/off switch is unlocked.
2. Press the on/off switch as far as it will go.
  - ◄ The power tool's motor runs at no-load speed.

### 7.5 Switching off (tool equipped with switch-on safety interlock)

- ▶ Release the on/off switch.
  - ◄ The safety lock jumps automatically into the locked position.

## 8 Care and maintenance of cordless tools



### WARNING

**Danger of electric shock!** Carrying out care and maintenance while the battery is fitted presents a risk of serious physical injury and burning injury.

- ▶ Always remove the battery before carrying out all care and maintenance tasks.

### Care and maintenance of the tool

- Carefully remove any dirt that may be adhering to parts.
- Clean the air vents carefully with a dry brush.
- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as these may attack the plastic parts.

### Care of the lithium-ion batteries

- Keep the battery free from oil and grease.
- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as these may attack the plastic parts.
- Avoid ingress of moisture.

### Maintenance

- Check all visible parts and controls for signs of damage at regular intervals and make sure that they all function correctly.
- Do not operate the cordless tool if signs of damage are found or if parts malfunction. Have the tool repaired by **Hilti** Service immediately.
- After cleaning and maintenance, fit all guards or protective devices and check that they function correctly.



### Note

To help ensure safe and reliable operation, use only genuine Hilti spare parts and consumables. Spare parts, consumables and accessories approved by Hilti for use with the product can be found at your local **Hilti** Center or online at: **[www.hilti.com](http://www.hilti.com)**

## 9 Transport and storage of cordless tools

### Transport



#### CAUTION

**Inadvertent starting during transport.** Uncontrolled starting during transport may occur if the battery is fitted, thereby resulting in damage to the tool.

- ▶ Always remove the battery before transporting the tool.

- ▶ Remove the battery.
- ▶ Transport the tool and batteries individually packaged.
- ▶ Never transport batteries in bulk form (loose, unprotected).
- ▶ Check the tool and batteries for damage before use after long periods of transport.

### Storage



#### CAUTION

**Inadvertent damage caused by defective battery.** A leaking battery may damage the tool.

- ▶ Always remove the battery before storing the tool.

- ▶ Store the tool and batteries in a place that is as cool and dry as possible.
- ▶ Never store batteries in direct sunlight, on heating units or behind a window pane.
- ▶ Store the tool and batteries in a place where they cannot be accessed by children or unauthorized persons.
- ▶ Check the tool and batteries for damage before use after long periods of storage.

## 10 Troubleshooting

If the trouble you are experiencing isn't listed in this table or you are unable to remedy the problem by yourself, please contact **Hilti Service**.

Trouble or fault	Possible cause	Action to be taken
The battery runs down more quickly than usual.	Very low ambient temperature.	▶ Allow the battery to warm up slowly to room temperature.
The battery doesn't engage with an audible click.	The retaining lugs on the battery are dirty.	▶ Clean the retaining lugs and refit the battery.
1 LED blinks. The power tool does not run.	Low battery.	▶ Change the battery and charge the empty battery.
	The battery is too hot or too cold.	▶ Allow the battery to cool down or warm up slowly to room temperature.
All 4 LEDs blink. The power tool does not run.	The tool has been overloaded.	▶ Release the control switch and then press it again. Then allow the power tool to run under no load for approx. 30 seconds.
The angle grinder or battery gets very hot.	Electrical fault.	▶ Switch the power tool off immediately, remove the battery, keep it under observation, allow it to cool down and contact <b>Hilti Service</b> .
The tool does not achieve full power.	A battery with inadequate capacity was used.	▶ Use a battery with adequate capacity.
The motor has no braking effect.	Low battery.	▶ Change the battery and charge the empty battery.
	The power tool was overloaded briefly.	▶ Release the control switch and then press it again.


## 11 Disposal



### WARNING

**Risk of injury.** Hazards presented by improper disposal.

- ▶ Improper disposal of the equipment may have the following consequences: The burning of plastic components generates toxic fumes which may present a health hazard. Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution. Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.
- ▶ Dispose of defective batteries right away. Keep them out of reach of children. Do not disassemble or incinerate the batteries.
- ▶ Batteries that have reached the end of their life must be disposed of in accordance with national regulations or returned to **Hilti**.

 Most of the materials from which **Hilti** tools and appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti** Service or your Hilti representative for further information.

## 12 Manufacturer's warranty

- ▶ Please contact your local **Hilti** representative if you have questions about the warranty conditions.





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