



DGH 130

English

DGH 130

English

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 occur when handling or using the product. The following signal words are used:



DANGER !

- ▶ Draws attention to imminent danger that will lead to serious personal injury or fatality.



WARNING !

- ▶ Draws attention to a potential threat of danger that can lead to serious 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.

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
	Dealing with recyclable materials
	Do not dispose of electric equipment and batteries as household waste

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
	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 overview illustrations and refer to the numbers used in the product overview section
	This symbol is intended to draw special attention to certain points when handling the product.
	Wireless data transfer

1.3 Product-dependent symbols

1.3.1 Symbols on the product

The following symbols are used on the product:

	Wear eye protection
/min	Revolutions per minute
RPM	Revolutions per minute
n	Rated speed
∅	Diameter
	Protection class II (double-insulated)

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 specifically informed about the possible hazards. The product and its ancillary equipment can present hazards if used incorrectly by untrained personnel or if used not in accordance with the intended use.

The type designation and serial number are printed on the rating 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

Type:	DGH 130
Generation:	01
Serial no.:	

1.5 Declaration of conformity

We declare, on our sole responsibility, that the product described here complies with the applicable directives and standards. A copy of the declaration of conformity can be found at the end of this documentation.

The technical documentation is filed here:

Hilti Entwicklungsgesellschaft mbH | Tool Certification | Hiltistrasse 6 | 86916 Kaufering, Germany

2 Safety

2.1 General power tool safety warnings

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.

Work area safety

- ▶ **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- ▶ **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.
- ▶ **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

- ▶ **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.

- ▶ **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.
- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **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.
- ▶ **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.
- ▶ **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.

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 power tools may result in serious personal injury.
- ▶ **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.
- ▶ **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- ▶ **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.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- ▶ **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.
- ▶ **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.

Power tool use and care

- ▶ **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.
- ▶ **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.
- ▶ **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.
- ▶ **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.
- ▶ **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.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **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.

Service

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

2.2 Safety warnings common for grinding, sanding, wire brushing, polishing or abrasive cutting-off operations:

- ▶ **This power tool is intended to function as a grinder or sander. 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.

- ▶ **Operations such as wire brushing, polishing or cutting 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.
- ▶ **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.
- ▶ **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 break and fly apart.
- ▶ **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- ▶ **Threaded mounting of accessories must match the grinder spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange.** Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- ▶ **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.** Damaged accessories will normally break apart during this test time.
- ▶ **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various 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 immediate area of operation.
- ▶ **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- ▶ **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- ▶ **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 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.

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 into 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 toward 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.

- ▶ **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.
- ▶ **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.

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

Safety warnings specific for sanding operations:

- ▶ **Do not use excessively oversized sanding disc paper. Follow manufacturers recommendations, when selecting sanding paper.** Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.

2.3 Additional safety instructions

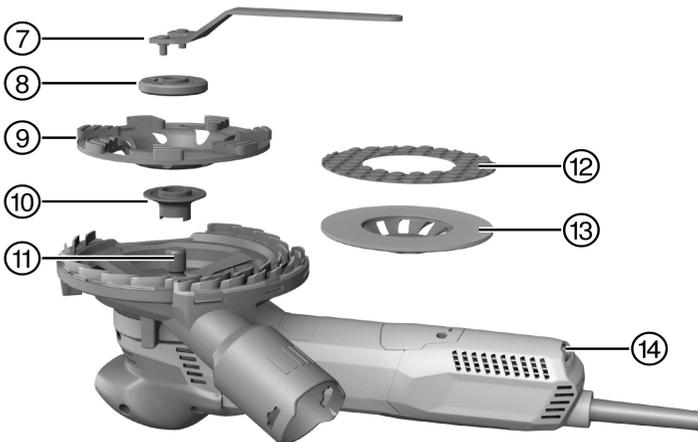
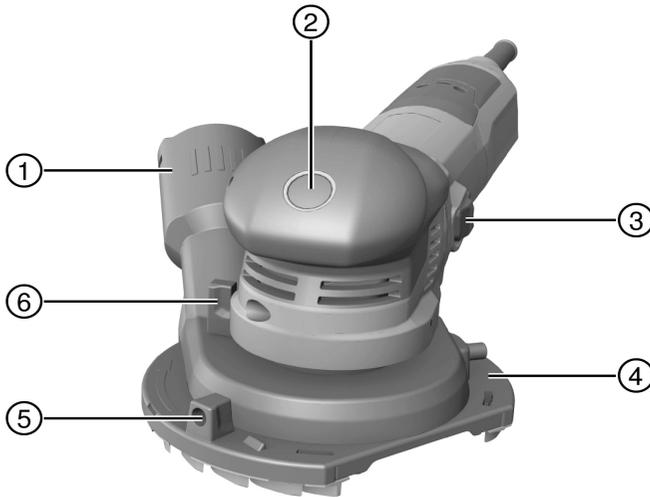
Personal safety

- ▶ Always hold the machine securely with both hands on the grips provided.
- ▶ Do not touch electrically grounded parts.
- ▶ Do not use the device in extremely dusty conditions.
- ▶ There is a risk of burning or cutting injuries. Wear protective gloves when handling the power tool or changing the accessory tool.
- ▶ Wear ear protectors. Exposure to noise can cause hearing loss.
- ▶ Make sure that the workplace is well ventilated and, if necessary, wear a respirator appropriate for the type of dust generated. Exposure to dust at a poorly ventilated workplace may result in damage to the health.
- ▶ Always use a dust removal system and suitable mobile dust extractor. Dust from materials such as lead-based paint, certain types of wood and concrete/masonry/stone containing quartz, minerals or metal can be harmful to health.

3 Description

3.1 Intended use

The product described is an electrically powered diamond grinder for dry-grinding and fine-grinding mineral materials. Use the diamond grinder only in combination with a dust extractor.



① Connector for dust extraction

② Arbor lockbutton

- | | |
|--|---------------------------------------|
| ③ On/off switch | ⑨ Diamond cup wheel |
| ④ Dust extr. hood | ⑩ Mounting flange |
| ⑤ Adjusting lever for segment opening | ⑪ Arbor |
| ⑥ Height adjustment of the dust extr. hood | ⑫ Grinding pad for precision grinding |
| ⑦ Pin wrench | ⑬ Mounting flange for grinding pad |
| ⑧ Clamping nut | ⑭ Adjusting knob for speed |

3.3 Items supplied

Diamond grinder, operating instructions, clamping nut and flange.

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 Store** or online at: www.hilti.group | USA: www.hilti.com

3.4 Starting current limitation

The electronic starting current limiter reduces the starting current drawn by the power tool and thus prevents the mains fuse blowing. It also allows the power tool to start smoothly, without a jolt.

3.5 Constant-speed electronics

Electronic speed control keeps running speed almost constant irrespective of whether the power tool is idling or running under load. Constant running speed helps ensure maximum efficiency.

3.6 Active Torque Control (ATC)

The electronics detect potential stalling of the disc and prevent further rotation of the arbor by switching off the tool.

If the ATC system has been triggered, restart the tool. Do this by releasing the on/off switch and then pressing it again.

 If the ATC system malfunctions, the power tool will run only at greatly reduced speed and with greatly reduced torque. Have the tool checked by **Hilti Service**.

3.7 Restart interlock

The power tool does not restart by itself when the on/off switch is locked in the on-position and the power returns after an interruption in the electric supply. The on/off switch must first be released and then pressed again to restart.

3.8 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 stop completely. A standstill should be avoided. No specific value can be given for the permissible overloading limit for the power tool as it depends on motor temperature.

4 Technical data

 For rated voltage, rated current, frequency and/or input power, refer to the country-specific type identification plate.

If the device is powered by a generator or transformer, the generator or transformer's power output must be at least twice the rated input power shown on the rating plate of the device. The operating voltage of the transformer or generator must always be within +5 % and -15 % of the rated voltage of the device.

	DGH 130
Weight	2.54 kg
Rated speed	12,000 /min

	DGH 130
Speed (controlled)	3,000 /min ... 8,700 /min
Disc diameter	130 mm
Disc thickness	4 mm

4.1 Noise information and vibration values in accordance with EN 62841

The sound pressure and vibration values given in these instructions were measured in accordance with a standardized test and can be used to compare one power tool with another. They can also be used for a preliminary assessment of exposure.

The data given represent the main applications of the power tool. However, if the power tool is used for different applications, with different accessory tools, or is poorly maintained, the data can vary. This can significantly increase exposure over the total working period.

An accurate estimation of exposure should also take into account the times when the tool is switched off, or when it is running but not actually being used for a job. This can significantly reduce exposure over the total working period.

Identify additional safety measures to protect the operator from the effects of noise and/or vibration, for example: maintaining the power tool and accessory tools, keeping the hands warm, organization of work patterns.

Noise information

Sound power level (L_{WA})	96.3 dB(A)
Uncertainty for the sound power level (K_{WA})	3 dB(A)
Emission sound pressure level (L_{pA})	85.3 dB(A)
Uncertainty for the sound pressure level (K_{pA})	3 dB(A)

Vibration information

Vibration emission value, diamond cup wheel (a_{h1})	3.6 m/s ²
Vibration emission value, fine-grinding (a_{h2})	3.1 m/s ²
Uncertainty (K)	1.5 m/s ²

5 Preparations at the workplace

CAUTION

Risk of injury! Inadvertent starting of the product.

- ▶ Unplug the supply cord before making adjustments to the power tool or before changing accessories.

Observe the safety instructions and warnings in this documentation and on the product.

5.1 Installing an accessory tool

Use only accessory tools approved for a speed at least equal to the rated speed stated on the device.

1. Switch off the power tool.
2. Unplug the supply cord from the power outlet.
3. Clean the clamping flange and the clamping nut.
4. Fit the clamping flange to the arbor.
5. Fit the accessory tool.
6. Tighten the clamping nut until it is seated on the accessory tool.
7. Press and hold down the spindle lock button.
8. Use the pin wrench to tighten the clamping nut securely, then release the arbor lockbutton and remove the wrench.

5.2 Removing the accessory tool

1. Switch off the power tool.

2. Unplug the supply cord from the power outlet.
3. Press and hold down the arbor lockbutton.
4. Slacken the clamping nut.
5. Release the arbor lockbutton and remove the accessory tool.

5.3 Adjusting the guard

1. Switch off the power tool.
2. Position the power tool on the grinding disc.
3. Use the height adjuster to adjust the height.



The guard is at the optimum height when the distance between the slats and the surface is approximately 1 mm.

4. If you are working along a corner, turn the segment opening of the guard to the desired position.
5. Be sure to close the segment opening when you finish working along the corner.

6 Types of work

6.1 Switching on and off

6.1.1 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.
 - ↳ The motor runs.

6.1.2 Switching off

- ▶ Press the rear section of the on/off switch.
 - ↳ The on/off switch jumps into the off position and the motor stops.

6.2 Trying out after fitting a new diamond cup wheel



CAUTION

Risk of injury. Damaged diamond cup wheels can come loose.

- ▶ Do not use a diamond cup wheel if it vibrates; protect the cup wheel against impact, shock loading and grease.
- ▶ Allow the power tool to run for at least 1 minute without load.

6.3 Grinding

1. Connect the grinder to an industrial vacuum cleaner.
2. Lift the power tool clear of the work surface.
3. Switch the tool on. → page 9
 - ↳ The device is now in continuous operation mode.
4. Set the desired speed.
 - ↳ Use stages 3 to 6 for grinding with a diamond cup wheel. You get the highest rate of abrasive removal with stage 6.
 - ↳ Use stages 1 to 2 for fine-grinding. With stage 1 you have better control over the device and the finished result is finer.
5. Bring the device with the accessory tool into full contact with the work surface and keep the tool moving with a steady back-and-forth action.
6. Apply moderate pressure and do not dig the tool into the material.

7 Care and maintenance

WARNING

Electric shock hazard! Attempting care and maintenance with the supply cord connected to a power outlet can lead to severe injury and burns.

- ▶ Always unplug the supply cord before carrying out care and maintenance tasks.

Care

- 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.

Maintenance

WARNING

Danger of electric shock! Improper repairs to electrical components may lead to serious injuries including burns.

- ▶ Repairs to the electrical section of the tool or appliance may be carried out only by trained electrical specialists.
- 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 product if signs of damage are found or if parts malfunction. Have it repaired immediately by **Hilti Service**.
- After cleaning and maintenance, fit all guards or protective devices and check that they function correctly.

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 Store** or online at: www.hilti.group | USA: www.hilti.com

7.1 Changing the grinding slats

Change the grinding slats when they are worn.

1. Remove the accessory tool. → page 8
2. Pull the dust lips out of the guard. Use pliers if necessary.
3. Press the new dust lips into the groove in the guard until they engage.
4. Install the accessory tool. → page 8

8 Transport and storage

- Always unplug the supply cord before storing an electric device.
- Store devices in a dry place, where they cannot be accessed by children or unauthorized persons.
- Check electric devices for damage before use after long periods of transport or storage.

9 Troubleshooting

If the trouble you are experiencing is not listed in this table or you are unable to remedy the problem by yourself, contact **Hilti Service**.

Trouble or fault	Possible cause	Action to be taken
The tool doesn't start.	Interruption in the electric supply.	▶ Plug in another power tool or appliance and check whether it works.
	The supply cord or plug is defective.	▶ Have the supply cord and plug checked by a trained electrical specialist and replaced if necessary.

Trouble or fault	Possible cause	Action to be taken
The tool doesn't start.	The carbon brushes are worn.	▶ Have the power tool checked by a trained electrical specialist and the carbon brushes replaced if necessary.
The tool doesn't work.	The tool has been overloaded.	▶ Release the on/off switch and then press it again. Then allow the power tool to run under no load for approx. 30 seconds.
The tool doesn't achieve full power.	The extension cord conductor cross section (gauge) is inadequate.	▶ Use an extension cord with an adequate conductor cross section.
Elevated temperatures at the gear housing.	Short braking interval.	▶ Allow the device to run under no load until it has cooled down.

10 Disposal

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.



- ▶ Do not dispose of power tools, electronic equipment or batteries as household waste!

11 RoHS (Restriction of Hazardous Substances)



DGH 130

Click on the link to go to the table of hazardous substances: qr.hilti.com/r7650029. There is a link to the RoHS table, in the form of a QR code, at the end of this document.

12 Manufacturer's warranty

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



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DGH 130 (01)

[2018]

2006/42/EG

EN ISO 12100

2011/65/EU

EN 60745-1

2014/30/EU

EN 60745-2-3

Schaan, 06/2018

A handwritten signature in black ink, appearing to read "Paolo Luccini".

Paolo Luccini

Head of Quality and
Process-Management
BA Electric Tools & Accessories

A handwritten signature in black ink, appearing to read "Johannes Wilfried Huber".

Johannes Wilfried Huber

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