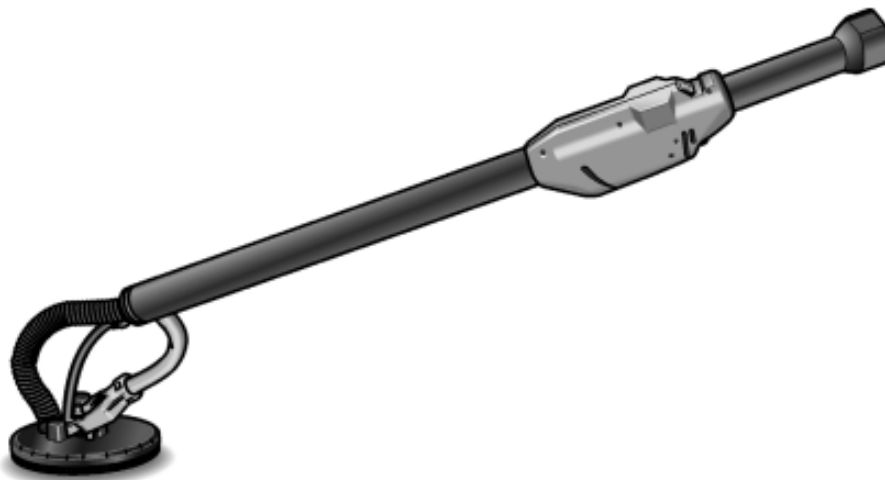


FLEX

WSE 500



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Symbols used in this manual



WARNING!

Denotes impending danger.
Non-observance of this warning may result in death or extremely severe injuries.



CAUTION!

Denotes a possibly dangerous situation.
Non-observance of this warning may result in slight injury or damage to property.



NOTE

Denotes application tips and important information.

Symbols on the power tool



Before switching on the power tool, read the operating manual!



Wear goggles!



Disposal information for the old machine (see page 23)!

For your safety



WARNING!

Before using the power tool, please read and follow:

- these operating instructions,
- the “General safety instructions” on the handling of power tools in the enclosed booklet (leaflet-no.: 315.915),
- the currently valid site rules and the regulations for the prevention of accidents.

This power tool is state of the art and has been constructed in accordance with the acknowledged safety regulations. Nevertheless, when in use, the power tool may be a danger to life and limb of the user or a third party, or the power tool or other property may be damaged.

The power tool may be operated only if it is

- used as intended,
- in perfect working order.

Faults which impair safety must be repaired immediately.

Intended use

The dry construction sander WSE 500 is designed

- for commercial use in industry and trade,
- for sanding walls and ceilings in dry construction,
- for use with tools which FLEX offer for these power tools and which are authorised to run at a speed of at least 1650 r.p.m.

It is not permitted to use cutting-off wheels, roughing wheels, fan-like grinding wheels or wire brushes.

When using the long-necked sander WSE 500, connect a Class M dust extractor.

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Safety instructions



WARNING!

Read all safety instructions and other instructions. Failure to observe the safety instructions and other instructions may result in an electric shock, fire and/or serious injuries. **Keep all safety instructions and other instructions in a safe place for the future.**

- This electric power tool must be used as a sander. Observe all safety information, instructions, diagrams and data which you receive with the power tool.

If you do not observe the following instructions, an electric shock, fire and/or serious injuries may occur.

- This electric power tool is not suitable for grinding, for use with wire brushes, or for polishing and cut-off grinding.

If the electric power tool is not used as intended, the user may be exposed to hazards and may be injured.

- Never use accessories which the manufacturer did not intend or recommend especially for this electric power tool.

Just because you can attach the accessory to your electric power tool does not guarantee safe use.

- The permitted speed of the insertion tool must be at least as high as the maximum speed indicated on the electric power tool.

An accessory which rotates faster than permitted may shatter and fly off.

- Outer diameter and thickness of the insertion tool must correspond to the dimensions of the electric power tool.

Incorrectly measured insertion tools cannot be adequately shielded or controlled.

- Sanding discs, sanding pads or other accessories must fit exactly on the grinding spindle of your electric power tool.

Insertion tools, which do not fit exactly on the grinding spindle of the electric power tool, rotate unevenly, vibrate violently and may result in loss of control.

- Do not use any damaged insertion tools. Before use, always check insertion tools for splinters and cracks, sanding pad for cracks, wear and severe abrasion. If the electric power tool or the insertion tool is dropped, check for damage or use an undamaged insertion tool. When you have checked and inserted the tool, ensure that you and anybody in the vicinity remain outside the plane of the rotating insertion tool and leave the power tool running for one minute at maximum speed.

Damaged insertion tools usually break during this test time.

- Wear personal protective equipment. Depending on the application, wear full face protection, eye protection or goggles. If appropriate, wear a dust mask, hearing protection, protective gloves and/or a special apron which protect you from small sanding and material particles.

You should protect your eyes from foreign objects which are ejected for different applications. Dust and respirator masks must filter the dust which is generated by the power tool for the particular application. If you are exposed to loud noise for a prolonged period, you may suffer hearing loss.

- Ensure that other persons are situated at a safe distance from the work area. Anyone who enters the work area must wear personal protective equipment.

Fragments of the workpiece or broken insertion tools may fly off and cause injuries even outside the direct working area.

- If the insertion tool is at risk of coming into contact with concealed power cables or the power cord itself, hold the power tool by the insulated grip surfaces only.

Contact with a live cable may also cause metal parts of the appliance to become live and result in an electric shock.

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■ **Keep the power cord away from rotating insertion tools.**

If you lose control of the appliance, the power cord could be severed or become caught and your hand or arm may strike the rotating insertion tool.

■ **Never put down the electric power tool until the insertion tool has come to a standstill.**

The rotating insertion tool may come into contact with the support surface, possibly resulting in you losing control of the electric power tool.

■ **Never leave the electric power tool running while you are carrying it.**

Your clothing may become caught by accidental contact with the rotating insertion tool which may then drill into your body.

■ **Regularly clean the ventilation slots on your electric power tool.**

The motor fan draws dust into the housing; a large build-up of metal dust may cause electrical hazards.

■ **Never use the electric power tool near combustible materials.**

Sparks may ignite these materials.

■ **Never use insertion tools which require liquid coolants.**

The use of water or other liquid coolants may result in electric shock.

Recoil and appropriate safety instructions

Kickback is the sudden reaction to a pinched or snagged rotating insertion tool, such as a sanding disc, sanding pad, wire brush, etc. Pinching or snagging may cause a rotating insertion tool to stop abruptly. As a result, an uncontrolled electric power tool is accelerated against the direction of rotation of the insertion tool at the blocking point.

For example, if a sanding disc is snagged or pinched by the workpiece, the edge of the sanding disc which is entering the workpiece may become caught and cause the sanding disc to break off or kick back. The sanding disc then moves towards or away from the operator, depending on the direction in which the disc is

rotating at the point of pinching. Sanding discs may also break under these conditions.

A recoil occurs if the electric power tool is used incorrectly or improperly. A recoil can be prevented by appropriate precautions as described below.

■ **Hold the electric power tool firmly and position your body and arms to allow you to absorb kickback forces. If fitted, always use the auxiliary handle to ensure the best possible control over the recoil forces or reaction torques when acceleration occurs.**

The operator can control kickback and reaction forces by taking appropriate precautions.

■ **Keep your hands away from the rotating insertion tool.**

The insertion tool may kickback over your hand.

■ **Keep your body out of the area into which the electric power tool moves when a recoil occurs.**

Kickback propels the electric power tool in the direction opposite to the movement of the sanding disc at the point of pinching.

■ **Work especially carefully near corners, sharp edges, etc. Prevent the insertion tool from recoiling off the workpiece and jamming.**

The rotating insertion tool has a tendency to snag on corners, sharp edges or if it bounces. This causes a loss of control or kickback.

■ **Do not use a chain or toothed saw blade.**

Such insertion tools frequently cause a kickback or the loss of control of the electric power tool.

Special safety instructions for sanding

■ **Do not use oversized sanding sheets, but follow the manufacturer's specifications for the size of sanding sheets.**

Sanding sheets which project over the sanding pad may cause injuries as well as block and rip the sanding sheets or cause a kickback.

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Additional safety instructions



WARNING!

Touching or inhaling harmful/toxic dust is a hazard to the operator and to people in the vicinity.

- It is not recommended to sand lead paint. Lead paint should be removed by a specialist only.
- Do not grind or cut materials which release hazardous substances (e.g. asbestos). Take precautions if hazardous, combustible or explosive dust is likely to occur. Wear protective dust mask. Use dust extraction system.
- If plaster board or plaster is sanded, this may cause static electricity to build up on the tool. To ensure your safety, the long-necked sander is earthed. Remove dust with an earthed dust extractor only.



Damage to property!

- The mains voltage and the voltage specifications on the rating plate must correspond.



NOTE

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



CAUTION!

Wear ear protection at a sound pressure above 85 dB(A).

Noise and Vibration

The noise and vibration values have been determined in accordance with EN 60745. The A evaluated noise level of the power tool is typically:

- Sound pressure level: 81 dB(A);
- Sound power level: 92 dB(A);
- Uncertainty: K = 3 dB.

Total vibration value (when sanding smoothed plasterboard walls):

- Emissions value: $a_{h1} < 2.5 \text{ m/s}^2$
- Uncertainty: K = 1.5 m/s^2



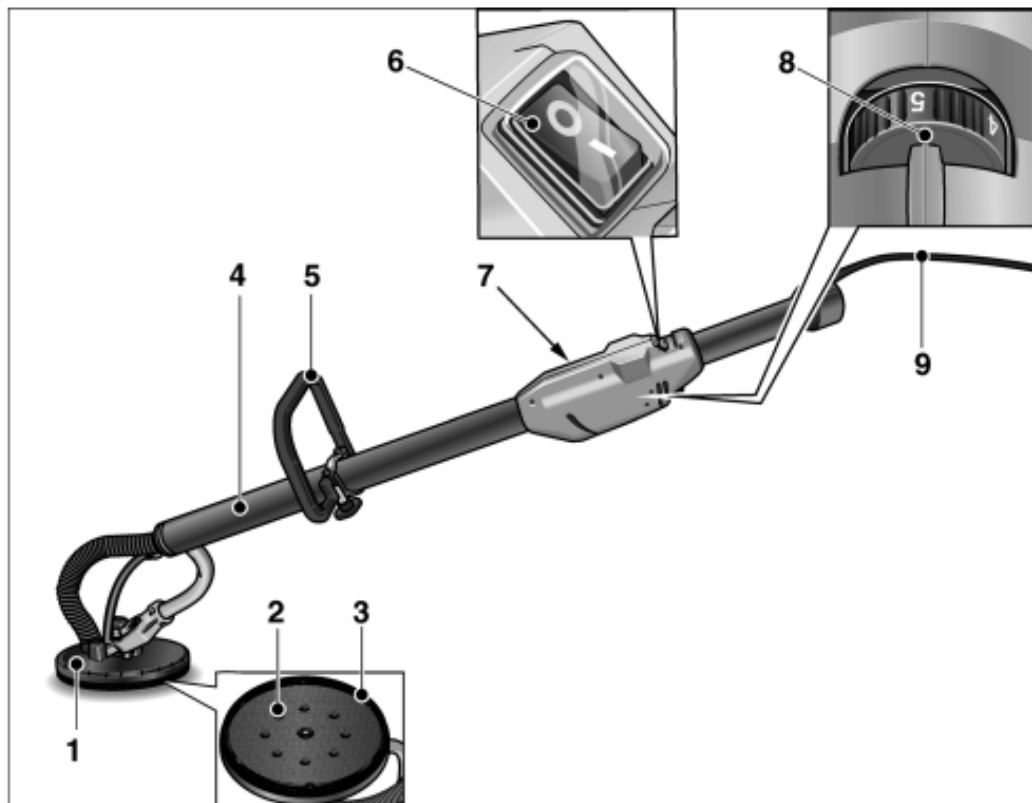
CAUTION!

The indicated measurements refer to new power tools. Daily use causes the noise and vibration values to change.

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Overview



- | | |
|---|--|
| <p>1 Sanding head
with gimbal bearing</p> <p>2 Sanding plate/Velcro tool holder</p> <p>3 Guard hood with brush ring</p> <p>4 Main tube</p> <p>5 Bail handle (optional accessory)</p> | <p>6 Switch
Switches the power tool on and off.</p> <p>7 Rating plate</p> <p>8 Dial for preselecting the speed</p> <p>9 4.0 m power cord with plug</p> |
|---|--|

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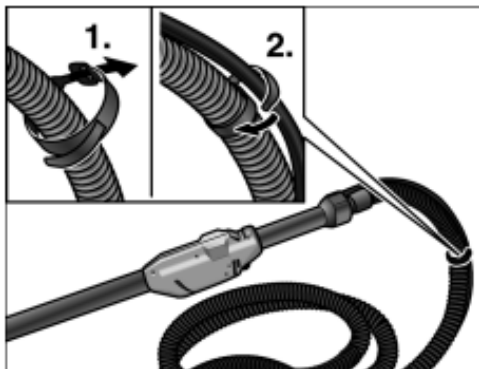
Technical specifications

Machine type		WSE 500	
		"Giraffe"	
Mains voltage	V/Hz	230/50	110/50
Protection class		I	
Power input	W	500	500
Power output	W	280	260
Speed	r.p.m.	1000–1650	
Max. disc diameter	mm	225	
Length	mm	1580	
Suction hose/length x diameter	mm	4000 x 32	
Weight	kg	4.2	

Operating instructions

Before switching on the power tool

- Unpack power tool and accessories and check that no parts are missing or damaged.



- Attach the Velcro straps to prevent the power cord from becoming entangled around the suction hose:
 - Lay power cord and suction hose parallel to each other.

- Attach the straps at gaps of 60 cm, ensuring that the first strap is 60 cm from the power tool.
- Wrap the long end of each strap around the suction hose and close. Then wrap the short end of each strap around the power cord and close.

Inserting and changing the sanding tools



CAUTION!

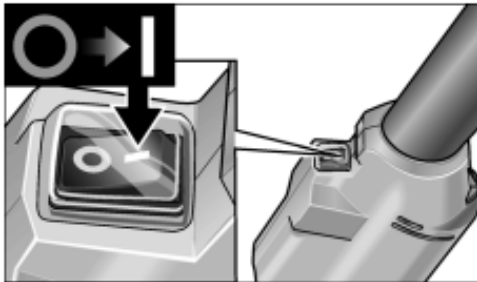
Before performing any work on the electric power tool, pull out the mains plug.

- Place the sanding tool in the centre of the tool holder and press on.
- Conduct a test run to check that the sanding tool is clamped in the centre.

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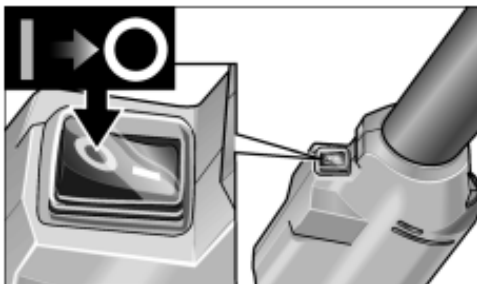
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Switching the electric power tool on and off



Switch on the machine:

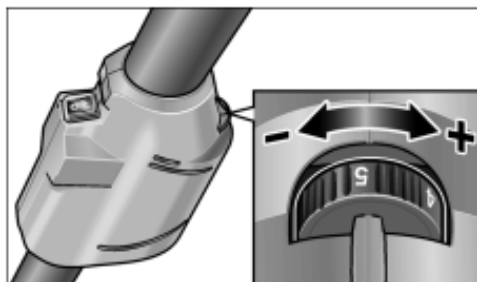
- Press switch on I.



Switch off the machine:

- Press switch on O.

Preselecting the speed



To set the operating speed, move the dial (8) to the required value.

Using a dust extraction system



CAUTION!

- When using the long-necked sander, connect a Class M dust extractor.
- If a dust bag is used which is not authorised for use with dry construction dust, the amount of dust particles in the air may increase at the work place. Over a prolonged period high concentrations of dust in the air may damage the human respiratory system.

- Insert the special dust bag for dry construction dust into your dust extractor according to the instructions supplied with the dust extractor.

- Connect extraction hose to the dust extraction system. Follow the operating instructions for the dust extraction system! Check the attachment! If required, use an appropriate adapter.



NOTE

If your dust extractor requires a special connector, the clip-on connection can be removed and a matching adapter selected from the FLEX accessories range.

Working with the power tool



CAUTION!

Hold the main tube (4) with both hands! Keep your hands away from the sanding head. Otherwise, your hand could become caught, as the sanding head swivels in different directions.

1. Attach sanding tool.
2. Connect dust extraction system.
3. Insert mains plug.
4. Set required speed.
5. Switch on dust extraction system.

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6. Hold the dry construction sander with both hands on the main tube (4). You can place your hands anywhere on the main tube to obtain the best possible combination of range and leverage for the application.
7. Switch on the device.
8. Press the dry construction sander gently against the work surface (the pressure should be just enough to ensure that the sanding head is flush with the work surface).
9. Increase the pressure to bring the sanding plate into contact with the work surface. In doing so, swing the sander in overlapping movements to smooth the dry construction surface to the required fineness.


CAUTION!

The rotating sanding plate must not come into contact with sharp projecting objects. The sanding plate may be severely damaged if it comes into contact with projecting objects (e.g. nails, screws, junction boxes). The sanding plate can be replaced if it is damaged or severely abraded (see section entitled "Maintenance and care").

Operating notes

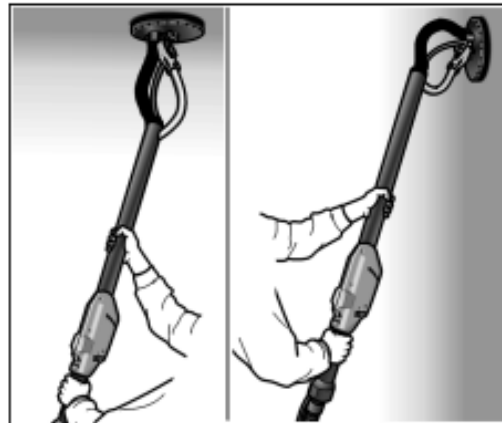
Brush ring

A brush-type rim surrounds the sanding plate. This rim has two functions:

- As the ring projects above the surface of the sanding plate, it is the ring which comes into contact with the work surface first. As a result, the sanding head is brought parallel to the work surface before the sanding disc comes into contact with the work surface. This prevents the sanding disc from "hollowing out" the work surface.
- The ring also retains the dry construction dust until it is extracted by the dust extractor.

If the brush ring is damaged or shows excessive wear, it should be replaced (see section entitled "Maintenance and care"). Replacement brush rings are available from any FLEX customer service centre.

Sanding in dry construction



The dry construction sander features a unique swivel head. As this head can swivel in different directions, the sanding plate can be adjusted to the work surface. As a result, the user can sand the upper, middle and lower wall areas or ceiling profiles without having to change his position.

When working, apply only as much pressure as is required to keep the sanding plate in contact with the work surface.

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Excessive pressure may result in a disagreeable spiral pattern of scratches and an uneven work surface.

Move the sander constantly while the sanding plate is in contact with the work surface. In doing so, ensure that you move the sander evenly and over a wide area. If you stop the sander on the work surface or move the sander unevenly, this may result in a disagreeable spiral pattern of scratches and an uneven work surface.

Maintenance and care

WARNING!

Before performing any work, pull out the mains plug.

Cleaning

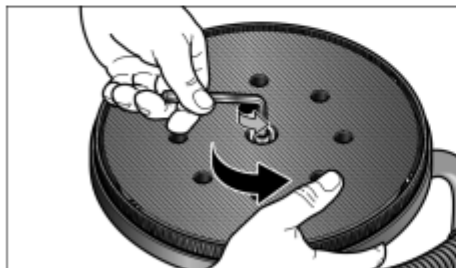
WARNING!

Do not use water or liquid detergents.

- Regularly blow out the housing interior and motor with dry compressed air.
- Blow out the sanding head (sanding plate and gimbal bearing) with dry compressed air.

Replacing the sanding plate

- Take hold of the sanding plate together with the sanding head housing to prevent the sanding plate from turning.



- Unscrew the retaining nut on the sanding plate in an anti-clockwise direction and remove.
- Remove the sanding plate.
- Insert new sanding plate and secure with the retaining screw.

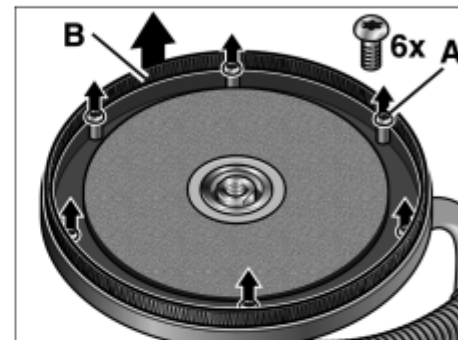


CAUTION!

Never use the support disc as a sanding tool. Never use the dry construction sander without the sanding plate, otherwise the work surface will be seriously damaged!

Replacing the brush ring

- Remove the sanding plate (see section entitled "Replacing the sanding plate").



- Loosen the six retaining screws (A).
- Take the ring (B) out of the housing.
- Insert a new brush ring into the housing and screw in the six retaining screws.
- Re-insert the sanding plate.

Repairs

Repairs may be carried out by an authorised customer service centre only.



NOTE

During the warranty period do not loosen the screws on the motor housing. Non-compliance will deem the guarantee obligations of the manufacturer null and void.

Spare parts and accessories

Other accessories, in particular insertion tools, can be found in the manufacturer's catalogues.

Exploded drawings and spare-part lists can be found on our homepage:

www.flex-tools.com

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Disposal information



WARNING!

Render redundant power tools unusable by removing the power cord.



EU countries only

Do not throw electric power tools into the household waste!

In accordance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and transposition into national law used electric power tools must be collected separately and recycled in an environmentally friendly manner.



NOTE

Please ask your dealer about disposal options!

CE-Declaration of Conformity

We hereby declare that this product corresponds with the following standards or normative documents:

EN 60745 in accordance with the regulations of the directives 2004/108/EC, 2006/42/EC, 2011/65/EC.

Responsible for technical documents:
FLEX-Elektrowerkzeuge GmbH, R & D
Bahnhofstrasse 15, D-71711 Steinheim/Murr



Eckhard Rühle
Manager Research &
Development (R & D)



Oliver Schneider
Manager Quality
Department (QD)

10.07.2012

FLEX-Elektrowerkzeuge GmbH
Bahnhofstrasse 15, D-71711 Steinheim/Murr

Guarantee

When a new machine is purchased, FLEX issues the end user with a 2-year manufacturer's warranty which comes into force on the date the machine was purchased. The guarantee covers only defects which can be attributed to a material and/or production fault as well as non-performance of warranted characteristics. When making a claim under the guarantee, enclose the original sales receipt with purchase date. Repairs under the guarantee may be carried out only by workshops or service centres authorised by Flex. A claim may be made under the guarantee only if the power tool has been used as intended.

The guarantee excludes in particular operational wear, improper use, partly or completely dismantled machines as well as damage caused by overloading the machine, use of non-permitted, defective or incorrectly used application tools. Damage which is caused by the machine on the application tool or work-piece, use of force, consequential damage which can be attributed to improper or inadequate maintenance on the part of the customer or a third party, damage caused by external effects or foreign objects, e.g. sand or stones, as well as damage caused by non-observance of the operating manual, e.g. connection to an incorrect mains voltage or current type.

Claims for insertable tools or accessories can only be made under the guarantee provided they are used with power tools for the intended or permitted use.

Exemption from liability

The manufacturer and his representative are not liable for any damage and lost profit due to interruption in business caused by the product or by an unusable product.

The manufacturer and his representative are not liable for any damage which was caused by improper use of the power tool or by use of the power tool with products from other manufacturers.

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