



KERNLOCHBOHRER[®]
PROFESSIONAL POWER TOOLS



Operating instructions
Floor grinding machine
BSM-250/Xtrem

BA-02-000002-02-EN

Scope of application

These Operating instructions only apply to the machine labelled on the cover sheet.

Check the machine model against the machine's rating plate.

Original instructions / translation of the original instructions

The German copy of these Operating instructions is the original instructions in accordance with the EU Machinery Directive.

Copies in other languages are translations of the original instructions.

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The function of the machine is limited to the functions described in the associated technical documentation.

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1 Information and support

1.1 Thanks to the buyer

Thank you for purchasing a machine from Kernlochbohrer GmbH.

Please read the Operating instructions carefully and observe the safety instructions. By following the Operating instructions, you will be able to fully utilise the outstanding performance of our product.

If you have any questions regarding the operation of the machine, please contact Kernlochbohrer GmbH directly. We are always available to answer your questions.

1.2 Using the Operating instructions

The machine is intended for professional use and may only be operated by trained personnel. Strictly adhere to the instructions in the Operating instructions.

Our company declines all responsibility if the Operating instructions are not followed, which may result in injury or damage to the machine.

The Operating instructions are indispensable for using the machine. The Operating instructions must therefore always be kept in the vicinity of the machine and be accessible to the intended personnel at all times.

In addition to the Operating instructions, the generally applicable and local regulations for accident prevention and environmental protection must be provided; compliance with these regulations must be checked regularly.

1.3 Modifications

Kernlochbohrer GmbH reserves the right to change the design and appearance of the products and their Operating instructions. Future changes to the Operating instructions will be made without prior notice.

1.4 Explanation of symbols



This symbol draws your attention to dangers that you must observe when carrying out the following work in order to avoid damage to yourself, other persons or property.



Cross-reference to another point in the Operating instructions.



Prerequisite for an action.



Action to be performed.



Behaviour of the machine that is to be expected as a result of the preceding action.



Background information or reference to special features.

1.5 Warranty

In accordance with Kernlochbohrer GmbH's general terms of delivery, a warranty period of 12 months applies to material defects in business transactions with companies (proof by invoice or delivery note).

Damage caused by natural wear and tear, overloading or improper handling is excluded.

Damage caused by material or manufacturer defects shall be remedied free of charge by repair or replacement delivery. Complaints can only be recognised if the device is sent to Kernlochbohrer GmbH unassembled.

Wear parts are excluded from the warranty.

1.6 Environmental protection

1.6.1 Disposal of the product

Follow national regulations for environmentally friendly disposal and recycling of disused machines and accessories.

Only for EU countries:

Do not dispose of the machine with household waste! In accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its transposition into national law, used power tools must be collected separately and recycled in an environmentally friendly manner.

1.6.2 Disposal of the packaging

The packaging is made from recyclable materials. They must be disposed of in accordance with their labelling and municipal guidelines.

1.7 Service

Precise information and specific questions allow faults to be rectified quickly, make it easier to order spare parts and prevent incorrect deliveries.

Before contacting the service department, please collect the following information.

The model designation must be stated for all questions and orders. This information can be found on the type plate of the machine.

In the event of faults, further information is required: type and extent of the fault, accompanying circumstances, suspected cause.

The following information is required when ordering spare parts: Quantity and item number in the exploded view of these Operating instructions.

- ① You are welcome to send us photos when ordering spare parts or videos in the event of faults.

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2 Safety and security

2.1 General information

The machine was built according to the state of the art and in compliance with the applicable laws, standards and safety regulations. Use of the machine may nevertheless result in hazards for the user or third parties and damage to the machine and other property.

The machine may only be used if it is in perfect working order and in accordance with its intended use, with due regard for safety and hazards.

If the machine is damaged or malfunctions, switch it off immediately, secure it against being switched on again and repair it or arrange for it to be repaired.

2.2 Intended use

The machine is intended exclusively for grinding and polishing floor surfaces.

Surfaces made of concrete, marble, wood or metal can be processed using suitable grinding or polishing tools.

The machine can be used for the following purposes:

- Grinding and processing uneven floors such as adhesive residues or coatings.
Polishing surfaces.
- Renovation of sealed surfaces.

Floor surfaces can be processed using dry or wet methods:

- If the dry method is used, the resulting sanding dust must be removed using a suitable industrial Hoover.
- A water supply can be connected to the machine for sanding floor surfaces using the wet method.

The machine may only be used within the limits of its technical data. This information, for example performance data and ambient conditions, can be found in the "Technical data" chapter.

Any other use or use beyond this is considered improper use - risk of accident! Kernlochbohrer GmbH is not liable for any resulting damage. The risk is borne solely by the operator.

Intended use also includes observing the Operating instructions and complying with the prescribed maintenance intervals.

2.3 Safety regulations for the operator

2.3.1 Organisational safety measures

The Operating instructions must always be available for the operating and maintenance personnel. They must therefore always be kept at the machine's place of use.

The regulations for accident prevention and environmental protection applicable at the place of use of the machine must also be available. The operator of the machine must regularly check compliance with these regulations.

The use of sound-emitting machines may be limited in time by national or local regulations.

The machine must not be operated in potentially explosive atmospheres.

All safety and danger notices on the machine must be legible and must not be removed.

The protective equipment required for operating the machine must be provided by the operator. The operator must ensure that the protective equipment is used properly by the personnel.

Operating and auxiliary materials, such as lubricants or cleaning agents, must be selected in such a way that the limit values for hazardous substances applicable at the place of use are complied with. The regulations for environmental protection and disposal applicable at the place of use must be complied with.

2.3.2 Modifications to the machine

The operator may not make any modifications to the machine without written authorisation from Kernlochbohrer GmbH. If the operator carries out modifications without authorisation, the warranty will be invalidated. Kernlochbohrer GmbH is not liable for damage caused by unauthorised modifications.

2.3.3 Spare parts

Spare parts must comply with the properties defined by Kernlochbohrer GmbH. This is always guaranteed for spare parts supplied by Kernlochbohrer GmbH. Kernlochbohrer GmbH is not liable for damage caused by the use of unsuitable spare parts.

2.3.4 Personnel

All persons who are authorised to commission, operate and maintain the machine must have read and understood the Operating instructions beforehand.

The machine may only be operated by persons who have been adequately instructed beforehand.

Maintenance of the machine may only be carried out by persons who have completed specialised training appropriate to this activity.

Minors may not work with the machine. This regulation does not apply to young people over the age of 16 who are trained under supervision.

2.4 Safety regulations for personnel

2.4.1 Safe behaviour

All persons responsible for commissioning, operating and maintaining the machine must have read and understood the Operating instructions beforehand.

The machine may only be operated by persons who have been adequately instructed beforehand.

The machine may only be serviced by persons who have completed the appropriate specialised training.

Minors may not work with the machine. This regulation does not apply to young people over the age of 16 who are trained under supervision.

Any work on or with the machine that could jeopardise safety must be avoided.

All safety and danger notices on the machine must be legible and must not be removed.

2.4.2 Safe operation

Operating the machine requires the full concentration and ability of the personnel. Persons who are overtired, unable to concentrate or under the influence of alcohol, drugs or medication must not work on or with the machine.

Persons who are not directly required to operate the machine must maintain a sufficient safety distance from the machine.

Before using the machine, check that it is in perfect condition. If the machine is damaged, it must not be used. Then secure the machine against use and repair it or arrange for it to be repaired.

In order not to jeopardise the functionality and safety of the machine, covers or other machine components must not be removed.

Before starting or starting up the machine, ensure that persons are not endangered by the machine starting up.

Operating elements must not be actuated thoughtlessly or wilfully. This could result in personal injury or damage to the machine.

When using the machine, personnel must ensure that they are standing securely and in an ergonomic posture. The machine must always be operated with both hands.

The machine must not be left unattended during use.

Stopping the machine during operation with a heavy load must be avoided. This could lead to damage due to overheating.

Air inlet and outlet openings must not be covered during use.

Never immerse the machine in water.

The machine must be cleaned regularly so that dirt does not build up. All controls and handles must be kept clean, dry and free of grease.

When the machine is not in use, it must be parked in such a way that nobody is endangered. Secure the machine against unauthorised use.

2.4.3 Protective equipment

Persons using the machine are obliged to wear the following protective equipment:

- Safety shoes with non-slip soles and protective toecaps
- Safety goggles in accordance with standard EN 166 or face protection
- Cut-resistant and non-slip gloves



Silica is a basic component of sand, quartz, brick clay, granite and numerous other materials and rocks.

Grinding materials containing silica can produce dust and aerosols containing crystalline silica.

Repeated and/or significant inhalation of crystalline silica can lead to serious or fatal respiratory diseases.

The formation of harmful sanding dust must be prevented by technical means (wet process or dry process with dust extraction). If this is not possible, the operating personnel and bystanders must always wear a respirator approved for the material being processed.

If the noise emissions generated when using the machine exceed the limits applicable to this workplace, suitable hearing protection must be worn.

Loose-fitting clothing, long hair or body jewellery can get caught on moving parts of the machine!

Persons carrying out maintenance work on the machine are obliged to wear suitable protective equipment required for this activity.

2.5 Safety during maintenance

2.5.1 General information

The machine may only be serviced by persons who have completed the appropriate specialised training for this activity.

The maintenance activities and intervals specified in the Operating instructions must be observed.

Workshop equipment appropriate to the type of work is required to carry out maintenance work.

The following safety precautions must be taken before starting maintenance work:

- Position the machine so that the access point is easily accessible.
- Bring the machine into the appropriate operating state.

After completing maintenance work:

- Assemble the machine completely.
- If operating elements or safety devices have been removed, they must be refitted and their function checked.
- Retighten any screw connections that have been loosened. Re-apply screw locks.

Persons carrying out maintenance work on the machine are obliged to wear the appropriate protective equipment required for this work.

2.5.2 Cleaning

No corrosive, harmful or environmentally damaging substances may be used to clean the machine.

Dispose of cleaning agents in an environmentally friendly manner.

Under no circumstances may high-pressure cleaners, water jets or compressed air be used to clean the machine.

3 Technical data

Article number	6233
Maximum working width	Grinding head Ø 250 mm
Power consumption	2500 W
Voltage	230 V± 5% / 50 Hz
Rotational speed	400 - 2000 1/min
Main construction	Powder-coated steel
Plate type	Standard / 10 inch
Length (in working position)	1100 mm
Width (in working position)	380 mm
Height (in working position)	950 mm
weight	68 kg
Permissible ambient temperature	5°C to 40°C
Permissible relative humidity	30% to 80%
Protection class	IP 54
Connector plug	Type F (CEE 7/4)
Mains cable length	0.5 m
Mains cable cross-section	3x 2.5 mm ²
Sound power level L _{weq}	60 dB(A)
Hand/arm vibration according to EN 61029	< 2.5 m/s ²
Water supply connection	Gardena
Dust extraction connection	D= 49.5 mm / d= 45 mm

4 Machine description

4.1 Machine components

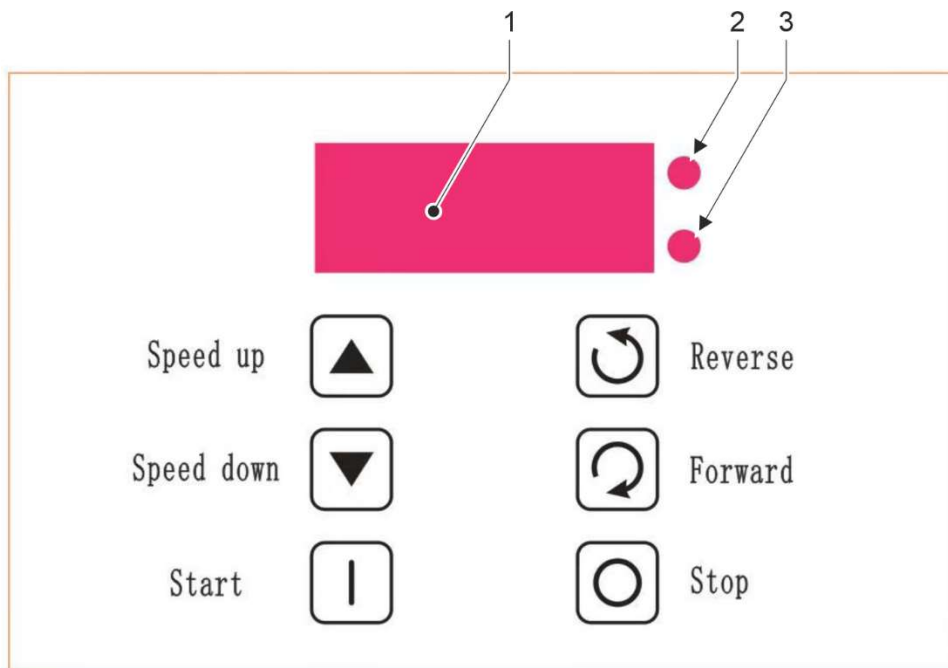


Machine components

- 1 Handle
- 2 Switch box
- 3 Upper part of guide arm
- 4 Holder for Hoover hose
- 5 Adjustment of upper part of guide arm
- 6 Mains cable with connector plug
- 7 Lower part of guide arm
- 8 Pedal for grinding head adjustment
- 9 Wheel (2 pieces)
- 10 Drive motor
- 11 Grinding head
- 12 Dust protection brush rim

4.2 Operating devices

4.2.1 Control panel



Control panel

- 1 Motor speed display
- 2 LED <clockwise grinding disc rotation>
- 3 LED <Sanding disc rotation counterclockwise>

① The control panel display always shows the target speed of the drive motor.

Function of the buttons:

This button is used to increase the speed of the drive motor.

This can be done when the drive motor is switched off or on.



This button is used to reduce the speed of the drive motor.

This can be done when the drive motor is switched off or on.



This button is used to switch on the drive motor.



This button is used to select the direction of rotation of the Grinding head: When looking at the Grinding head from below, it then rotates anti-clockwise.

This may only be done when the drive motor is switched off!



This button is used to select the direction of rotation of the Grinding head: When looking at the Grinding head from below, it then rotates clockwise.

This may only be done when the drive motor is switched off!



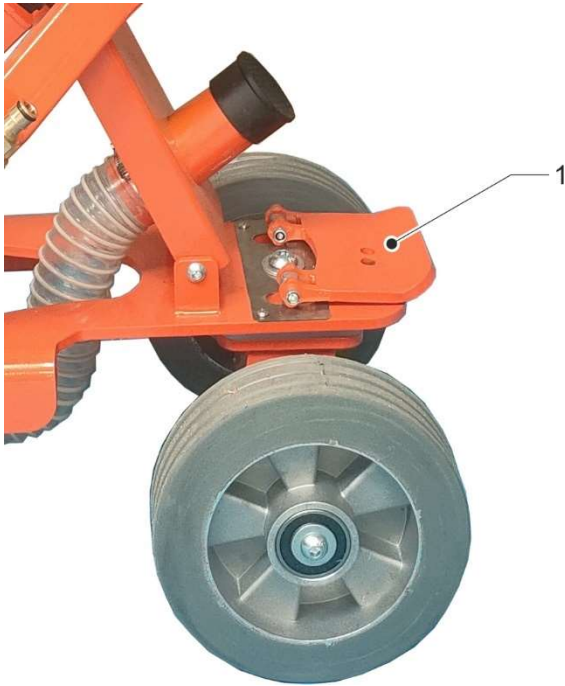
This button is used to switch off the drive motor.



The direction of rotation of the Grinding head may only be changed when the drive motor is switched off!

Otherwise the machine may be damaged!

4.2.2 Sanding head adjustment



Sanding head adjustment

- 1 Pedal

The Grinding head can be adjusted from the centre of the chassis for working close to the edge:

Procedure:

- ☒ Fold the sanding head adjustment pedal upwards.
 - ↪ The Grinding head can now be rotated.
- ☒ Fold the sanding head adjustment pedal downwards.
 - ↪ The Grinding head is fixed.



The Grinding head must always be securely fixed when transporting and using the machine!

Do not transport or use the machine without a fixed Grinding head!

4.2.3 Adjustment Guide arm upper section and handle

Guide arm upper section



Adjusting the upper part of the guide arm

- 1 Guide arm upper section
- 2 Latch
- 3 Latch (4 on each side)
- 4 Tension spring (on both sides)
- 5 Lower part of guide arm

The upper part of the guide arm can be positioned in various positions.

To transport the machine, the upper part of the guide arm can be folded all the way forwards.

Procedure:

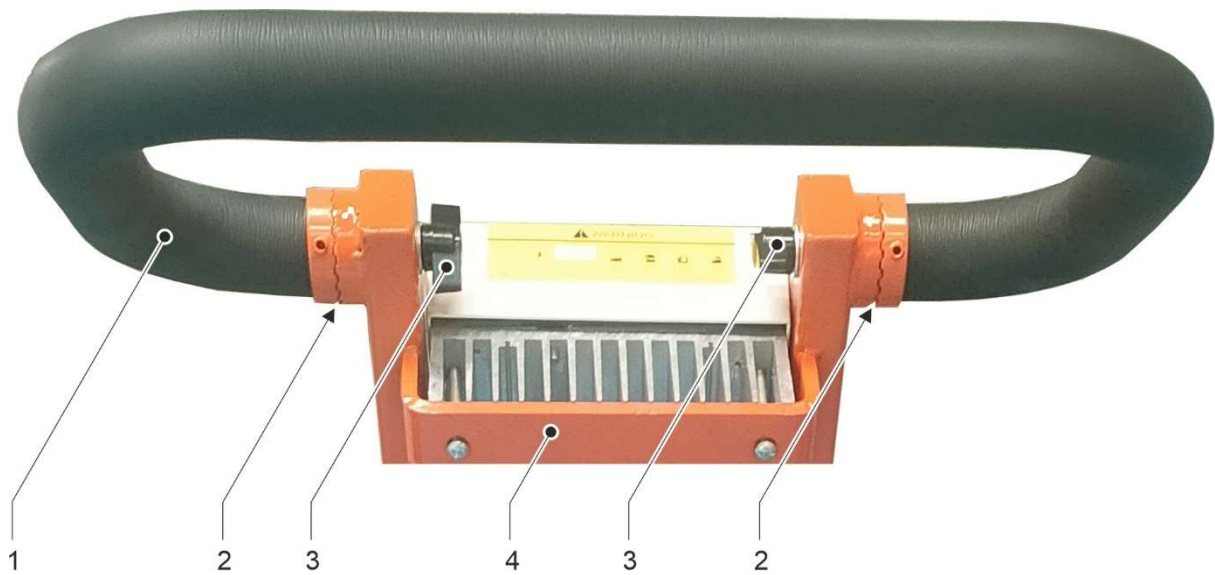


Risk of crushing in the area of the spring-loaded latch and the catches on both sides!

During adjustment, do not touch the upper part of the guide arm and the latch in the area of the catches and the tension springs!

- ☒ Hold the upper part of the guide arm with one hand.
- ☒ Pull the latch towards the switch box with the other hand.
 - ↳ The upper part of the guide arm can now be adjusted.
- ☒ Adjust the upper part of the guide arm so that the latch is at the height of a pair of catches.
- ☒ Release the latch.
 - ↳ The upper part of the guide arm is now fixed again.

Handle



Adjusting the handle

- 1 Handle
- 2 Face tothing
- 3 Wing nut
- 4 Upper part of the guide arm

For an ergonomic working position, the handle on the upper part of the guide arm can also be adjusted and positioned in various positions.

For transporting the machine, the handle can be turned all the way forwards.

Procedure:

- ☒ Hold the handle with one hand.
- ☒ With the other hand, loosen the wing nuts of the handle on both sides until the front teeth are disengaged.
 - ↳ The handle can now be adjusted.
- ☒ Adjust the handle to the desired position.

The face teeth must be able to re-engage in this position.
- ☒ Tighten the wing nuts of the handle on both sides.
 - ↳ The handle is now fixed again.

4.3 Further interfaces



Other interfaces

- 1 Connection for water supply
- 2 Dust extraction pipe
- 3 Dust protection cap

4.3.1 Connection for dust extraction



Health hazard!

When sanding floor surfaces using the dry method, the harmful sanding dust produced must be extracted using a suitable industrial Hoover.

If the machine is to be used in a dry process, the sanding dust must be extracted.

To do this, connect an industrial Hoover to the dust extraction pipe (D = 49.5 mm / d = 45 mm) of the machine.

The hose of the industrial Hoover can be fed through the holder on the upper part of the guide arm.

- ① Kernlochbohrer GmbH recommends the use of our TS-1000/PRO industrial dry vacuum cleaner for dust extraction.

If the machine is not connected to an industrial Hoover, the dust extraction pipe must be sealed with the dust protection cap.

4.3.2 Connection for water supply



Health hazard!

When sanding floor surfaces using the wet method, the harmful sanding dust produced must be bound by water.

If the machine is to be used in the wet process, the water supply must be established.

To do this, connect a water hose with a Gardena® quick-release coupling to the connector on the machine.

The ball valve can be used to stop the water supply completely or to regulate the water flow.

- ① Kernlochbohrer GmbH recommends the use of our WT-60 or WT-60/S water tank to supply the machine with water.

4.4 Maintenance position

The machine can be brought into a maintenance position for work on the underside of the Grinding head.



Auxiliary means:

Rubber mat or foam pad

Procedure:

- ☑ Switch off the machine.
 - 📖 See chapter 5.3.5 "Switch off the machine".
- ☑ Power cable removed from socket.
 - 📖 See chapter 5.3.3 "Electrical connection".
- ☑ Dust extraction or water supply disconnected.
 - 📖 See chapter 4.3 "Further interfaces".
- ☒ Turn the handle forwards and fold the upper part of the guide arm forwards.
 - 📖 See chapter 4.2.3 "Adjustment Guide arm upper section and handle".
- ☒ Have a rubber mat or foam pad ready.
- ☒ Tilt the machine backwards over the wheels so that the joint of the guide arm rests on the ground.

Place the joint of the guide arm on the rubber mat or foam pad.

- ☞ The underside of the Grinding head is accessible.

4.5 Scope of delivery

The machine is supplied with the following components:

- BSM-250/Xtrem floor sanding machine
- Velcro pad holder (Ø 250 mm) for efficient mounting of polishing pads for stone floors or sanding pads for wooden floors
- 4 countersunk screws M12x25 for fastening the sanding tool (velcro pad holder, sanding disc or adapter plate)
- Allen key SW 8
- Operating instructions

① The velcro pad holder is already attached to the machine's grinding head with countersunk screws.

① The sanding tool required to use the machine must be purchased separately.

There are various options for this:

- Adapter plate Ø 250 mm (item number 6248) for equipping with sanding shoes or sanding pads.
- Grinding disc Ø 250 mm.
- Polishing pad Ø 250 mm for cleaning and polishing stone, marble or terrazzo floors (item number 7001)
- Polishing pad Ø 250 mm for wax for treating stone, marble or terrazzo floors (item number 7002)
- Sanding pads Ø 250 mm for wooden floors: grain size 24 – 2000 (item numbers 7003 – 7021)

Kernlochbohrer GmbH offers an extensive range of tools and accessories for the machine. The webshop <http://www.kernlochbohrer.com> is available for information and ordering.

5 Use of the machine

5.1 Specific precautions



Floor surfaces can be sanded using the dry or wet method:

If the dry method is used, the resulting sanding dust must be removed using a suitable industrial Hoover.

A water supply can be connected to the machine for sanding floor surfaces using the wet method.

To avoid damage or overloading, do not place any objects on the machine.

If a fault occurs during operation of the machine (e.g. smell of burning), switch off the machine immediately and disconnect the mains cable from the plug.

Otherwise a fire, electric shock or other incident could occur. The machine must not be switched on again until the fault has been rectified and the machine is functioning correctly.

5.2 Transporting the machine

Before transporting the machine:

- Switch off the machine.
- Remove the mains cable plug from the socket.
- Disconnect the dust extraction system or water supply.

The upper part of the guide arm can be folded forwards for transporting the machine and the handle can be rotated forwards.

 See chapter 4.2.3 "Adjustment Guide arm upper section and handle".



Always securely fasten the handle and upper part of the guide arm for transporting the machine.



After transporting the machine, park it safely and secure it against falling over.

5.3 Working with the machine

5.3.1 Visual inspection of the machine

Before working with the machine, it must be visually inspected:

- Check the general condition and cleanliness of the machine.
- Check the presence of all covers and machine components.
- Dust protection brush rim on Grinding head present and effectively attached.
- Check that all screws are tight.
- Air inlet and outlet openings must not be dirty or covered.
- The mains cable and connection plug must not be damaged.

5.3.2 Fitting the sanding tool

Before working with the , the sanding tool must be mounted on the Grinding head.

There are various ways of doing this:

- Mounting an adapter plate. Various sanding or polishing pads can then be mounted on the adapter plate.
- Mounting a sanding disc.
- Mounting a velcro pad holder. Various sanding or polishing pads can then be mounted on the velcro pad holder.

Pay attention to the following points for optimum results:

- Suitability of the sanding tool for the material to be processed.
- Correct balance quality of the sanding tool.
- Condition and correct assembly of the sanding tool. Never use damaged sanding tools.

The grinding tool is mounted on the Grinding head using the four M12x25 countersunk screws supplied.

Tighten the countersunk screws to a torque of 70 Nm.


To fit the sanding tool, bring the machine into the maintenance position.



See chapter 4.4 "Maintenance position".

5.3.3 Electrical connection

Observe the following points:

- Observe the electrical connection values of the appliance.
 See chapter 3 "Technical data".
- The machine is equipped with a mains cable with a type F plug (CEE 7/4). The machines may only be operated using a cable with the corresponding socket (CEE 7/3).
- The mains cable and connecting plug must not be damaged.
- Damaged mains cable or damaged connection plug may only be replaced by Kernlochbohrer GmbH or a qualified electrician.
- The connecting plug and socket must be clean and dust-free.
- The supplied electrical voltage must not deviate by more than 5% from the nominal value. Excessive voltages can cause irreparable damage to the machine.
- Voltage peaks must not occur when operating the machine with power generators.
- When connecting the machine to the mains, a residual current device (RCD) with a maximum tripping current of 30 mA must be connected upstream.
- When using extension cables, the cable cross-section must be suitable for the power consumption of the machine.
- When using a cable reel, the cable must always be fully unwound.
- To remove the mains cable from the socket, grasp the connector plug. Do not pull on the cable.
- If the machine is not to be used for a longer period of time, switch off the machine and remove the plug from the socket.





5.3.4 Using the machine





The generation of harmful sanding dust must be prevented by technical means (dry process with dust extraction or wet process).

If this is not possible, the operating personnel and bystanders must always wear a respirator approved for the material being processed.

Prerequisites:

- ☑ Visual inspection of the machine has been carried out.
 See chapter 5.3.1 "Visual inspection of the machine".
- ☑ Sanding tool fitted.
 See chapter 5.3.2 "Fitting the sanding tool".
- ☑ Dust extraction system connected and switched on or water supply established.
 See chapter 4.3 "Further interfaces".
- ☑ Electrical connection of the machine established.
 See chapter 5.3.3 "Electrical connection".

Procedure:

- ☒ Place the machine on the floor surface to be processed.
- ☒ Guide arm upper section and handle adjusted to an ergonomically sensible height and fixed.
 See chapter 4.2.3 "Adjustment Guide arm upper section and handle".
- ☒ Adjust the Grinding head if necessary.
 See chapter 4.2.2 "Sanding head adjustment".



The direction of rotation of the Grinding head may only be changed when the drive motor is switched off!

Otherwise the machine may be damaged!

- ☒ Select the desired direction of rotation of the Grinding head on the control panel.
- ☒ Set the desired speed of the drive motor on the control panel.
- ① The control panel display always shows the set speed of the drive motor.
- ① The speed of the drive motor can also be changed while the motor is running.
- ☒ To lower the pressure of the Grinding head to the floor surface: Hold the upper part of the guide arm by the handle and press down.



The fast-rotating sanding tool is located on the underside of the Grinding head.

Do not lift the Grinding head off the floor, only relieve the pressure.

- ☒ Start the machine's drive motor. To do this, press the start button.
- ☒ When the machine has reached the desired speed:
 - ☒ Lower the Grinding head onto the floor surface to be worked on.
 - ☒ To create an evenly sanded surface, move the Grinding head back and forth continuously until the desired result is achieved.
- ☒ Keep checking the sanding tool and dust guard during processing:
 - ☒ Switch off the machine. To do this, press the stop button.
 - ☒ Remove the mains cable socket from the plug.
 - ☒ Check the condition and attachment of the sanding tool.
 - ☒ Replace damaged or worn sanding tools.
 - ☒ Check the condition and effectiveness of the dust protection brush rim on the Grinding head. Replace damaged or worn dust protection brush rim.

5.3.5 Switch off the machine

Procedure:

- ☒ Press the stop button.
 - 👉 The drive motor is switched off.
- ☒ Remove the mains cable plug from the socket.
- ☒ Check if the machine is dirty. If necessary, clean the machine.
 - 📖 See chapter 6.3.1 "Cleaning the machine and checking".

5.3.6 Storing the machine

Procedure:

- ☒ Switch off the machine.
 - 📖 See chapter 5.3.5 "Switch off the machine".
- ☒ Clean the machine and allow to dry completely.
 - 📖 See chapter 6.3.1 "Cleaning the machine and checking".
- ☒ Park the machine vertically and secure it against falling over.
- ☒ Store the machine in a dry, cool place protected from moisture and direct sunlight.
- ☒ Secure the machine against unauthorised use.

6 Maintenance

6.1 Notes on proper maintenance

Insufficient or improper maintenance can cause malfunctions and impair the operational safety and service life of the machine. Regular inspection and maintenance is therefore essential. We recommend that maintenance work is only carried out by trained personnel.

The contractually agreed warranty does not release the operator of the machine from the obligation to maintain the machine in accordance with the manufacturer's instructions from the time of commissioning. Kernlochbohrer GmbH is not liable for damage caused by a lack of maintenance.

6.2 Maintenance and inspection schedule

The interval specifications refer to normal operating conditions. In more difficult conditions (heavy dust etc.) and longer daily working times, the specified intervals must be shortened accordingly by the operator.

Use the maintenance and inspection schedule only as a guide! Always follow the cross-references to the other chapters! They contain detailed descriptions of how to carry out the individual tasks correctly and safely.

Interval	Category	Component	Activity	Chapter
1 day	Real time	Machine	Cleaning and testing	6.3.1

6.3 Inspection and maintenance

6.3.1 Cleaning the machine and checking



Do not use sharp sponges or metal objects to clean the machine. These could damage the surface of the machine.

Do not use high-pressure cleaners, water jets or compressed air to clean the machine. The sharp water or air jet could damage the machine.

Do not use any corrosive, harmful or environmentally damaging substances to clean the machine.


Interval:

1 day Real time

Auxiliary means:

- Container with a mixture of water and mild detergent (e.g. washing-up liquid).
- Cloth and brush

Procedure:

- Switch off the machine and remove the mains cable plug from the socket.
 See chapter 5.3.5 "Switch off the machine".
- Clean the machine of dust and dirt.
 - To do this, use a damp cloth dipped in water mixed with a mild detergent.
 - Do not allow water to enter the interior of the drive motor via the air inlet and outlet openings.

- ☒ Clean the air inlet and outlet openings of the drive motor with a brush and damp cloth.
- ☒ Allow the machine to dry completely.
- ☒ Check the tightness of all screws on the machine. If necessary, tighten the screws.
- ☒ Check the condition and effectiveness of the dust protection brush rim on the Grinding head. Replace damaged or worn dust protection brush rim.

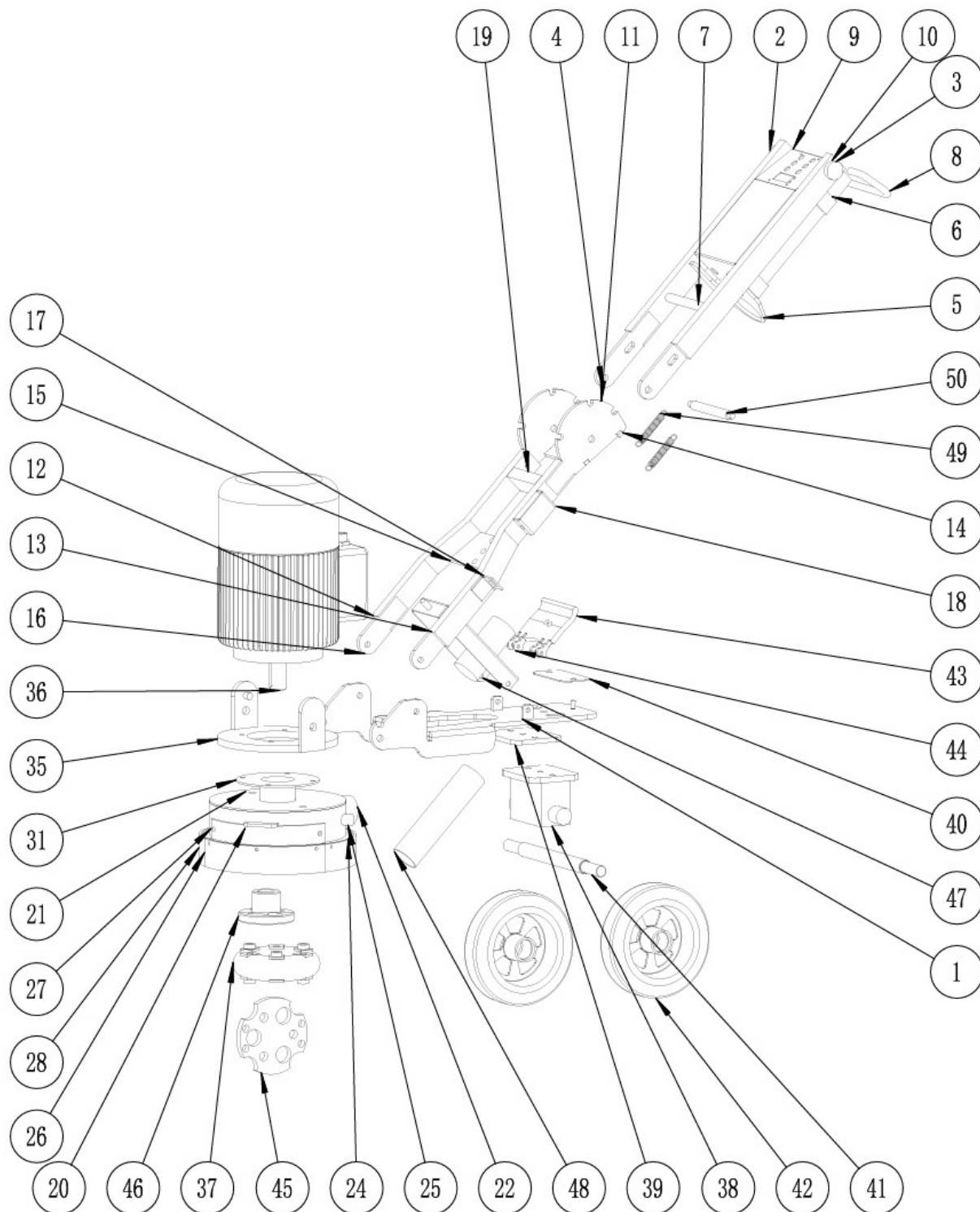
7 Troubleshooting

If a fault occurs during operation of the machine, please first try to rectify the fault yourself using the following information.

If you are unable to rectify the fault yourself, please contact Kernlochbohrer GmbH.

Fault	Possible cause	Troubleshooting
Grinding disc rotates but does not provide the required power	Grinding tool is not matched to the application	Replace the grinding tool
Machine vibrates during operation	Grinding tool is not correctly balanced	Replace grinding tool
Grinding noise from the Grinding head when idling	Motor bearing or drive coupling worn	Have the machine assessed and repaired by an authorised service technician

8 Spare parts



No.	Description	Qty.
1	Machine frame	1
2	Upper arm	1
3	Handle	1
4	Upper arm connection block	2
5	Vacuum hose support ring	1
6	Control unit bracket	1
7	Support for upper arm	2
8	Handle	1
9	Control unit	1
10	Handle	1
11	Left connecting plate lower arm / upper arm	1
12	Connecting plate for lower arm	1
13	Lower arm	1
14	Support plate for lower arm	1
15	Forearm height adjustment plate	1
16	Left connecting plate lower arm / upper arm	1
17	Ball valve bracket	1
18	Hook	
19	Holder for Allen key	1
20	Dust cover	1
21	Motor inner sleeve	1
22	Dust connection	1

No.	Description	Qty.
24	Screw for dust cover	6
25	Water outlet	1
26	Dust cover	1
27	Dust plate screw	2
28	Dust protection sleeve	1
31	Motor inner sleeve	1
35	Motor connection plate	1
36	Brushless motor	1
37	Clutch	1
38	Wheel shaft mount	1
39	Silicone pressure plate	1
40	Stainless steel pressure plate	1
41	Wheel shaft	1
42	Wheel	2
43	Foot pedal	1
44	Foot pedal connecting plate	2
45	Positioning plate	1
46	Motor shaft sleeve	1
47	Frame support plate	1
48	Dust collection tube	1
49	Tension spring	2
50	Pull rod	1

9 EU Declaration of Conformity

The manufacturer/distributor

Kernlochbohrer GmbH
Geigersbühlweg 52
72663 Großbettlingen
Germany

hereby declares that the following product

Product designation: **Floor grinding machine**

Type: **BSM-250/Xtrem**

complies with all relevant provisions of the applicable legislation (hereinafter), including any amendments thereto in force at the date of the declaration. This declaration of conformity is issued under the sole responsibility of the manufacturer. This declaration relates only to the machine in the condition in which it was placed on the market; parts and/or modifications subsequently fitted by the end user are not taken into account.

The following legal regulations have been applied:

Machinery Directive 2006/42/EU (for delivery until 2027-01-19) or Machinery Regulation (EU) 2023/1230 (for delivery from 2027-01-20)

Machinery Directive 2006/42/EU

Electromagnetic Compatibility Directive 2014/30/EU

The following harmonised standards have been applied:

EN ISO 12100:2010 Safety of machinery - General principles for design - Risk assessment and risk reduction

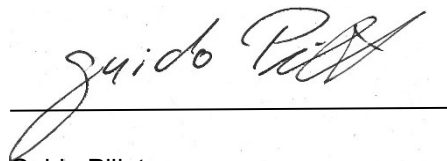
EN 60204-1:2018 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

Name and address of the person authorised to compile the technical documentation

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Großbettlingen 2025-11-30

Kernlochbohrer GmbH



Guido Pillat

Managing Director / Chief Executive Officer