Schwamborn

...mit uns machen Sie Boden gut!

EN Wall, ceiling and floor grinding machine WDS 250

Translation of the original operating manual

WDS250-en-220909

Manufacturer: Schwamborn Gerätebau GmbH
Robert-Bosch-Straße 8
D-73117 Wangen / Göppingen
Telephone: +49 (0)7161 2005-0
Telefax: +49 (0)7161 2005-10

E-mail: info@schwamborn.com
URL: www.schwamborn.com

Document: WDS 250 en
Publishing date: 9.9.2022

Contents

1 Important information

The grinding machine may be used only with the ac- cessories supplied by the manufacturer for stripping and grinding of even wall and ceiling surfaces or even floor surfaces such as:

— concrete
— natural stone
— plaster
— residual adhesive or filling compound
— paint

Any other use of the grinding machine can lead to endanger- ment and is prohibited!

To ensure proper use of the machine, follow the instructions in the operating manual, paying particular attention to any warnings and instructions relating to operation and maintenance!

Before using the grinding machine, this operating manual must be carefully read and understand by the operator!
Keep this operating manual close at hand for easy reference!

Read and observe operating manuals for the guiding machine provided by suppliers!

If the grinding machine is loaned to other parties, the operating manual needs to be provided with the machine and its importance must be made clear!

1.1 Symbols used

The following symbols are used in this documentation:

Safety instructions
This symbol indicates warnings, prohibitions and instructions regarding potential hazards. These instructions must be obeyed and closely observed.
Some safety instructions are accompanied by corresponding symbols.


Warning


Prohibition


Direction

Additional information
This symbol indicates additional information.

Important text

Precondition or consequence of an activity

7. **Instruction**
The order of the actions must strictly be adhered to,

→ **Reference to text passages or figures**

1.2 Copyright, liability and warranty

Liability or warranty is excluded if:

- The instructions in the operating manual have not been observed.
- The grinding machine or its attachments were improperly operated.
- The maintenance was carried out inadequately or incorrectly.
- Specified original spare parts were not used.
- The protective equipment was not used, has been altered or was removed.
- The specified power supply ratings and surrounding conditions have not been observed.
- The tool speed has been set too high (→ Chapter 3.2, Pos. 4., Page 9).
- An unsuitable dust extraction has been used.

i The manufacturer recommends using suction devices with a suction capacity of approx. 500 m3/h ... 2200 m3/h.

The manufacturer is not liable for any damage that may result if the user makes any changes to the grinding machine without the permission of Schwamborn Gerätebau GmbH. Any such actions will void the warranty.

1.3 Definition of terms

Grinding machine
The wall, ceiling and floor grinding machine WDS 250 is referred to in this operating manual as grinding machine.

Guiding machine
The machine from which the wall, ceiling and floor grinding machine WDS 250 is guided is referred to in this operating manual as guiding machine. The guiding machine should be provided by the customer.

i The illustrations in this operating manual show a guiding machine made by the manufacturer "Brokk" as an example. The guiding machine types from size B70 of Brokk are compatible with grinding machine WDS 250.

Coupling element
The machine part by which the grinding machine is coupled mechanically to the guiding machine is called a coupling element in this operating manual.

2 Safety

This chapter contains a summary of the most important information on safety when handling the grinding machine.

2.1 Accident prevention and safety

The following instructions comply with legislation, directives and publications such as:

- EC Machinery Directive
- EC Product Liability Directive
- EC Technical Documentation Directive
- Law on technical materials
- Law on equipment safety
- Law on product liability

This operating manual is intended for operators and tool setters, as well as for the personnel that service, maintain and repair the grinding machine. Together with all the technical documentation, it is intended to help

- avoid hazardous situations
- use as intended
- avoid downtime and repair costs
- maintain the function of the grinding machine
- increase the service life of the grinding machine

The manufacturer and owner of the grinding machine must observe the contents and provisions of the EC directives. The effectiveness of any measure ultimately depends on how well all parties, i.e. the manufacturer, the owner and the machine operators, work together to uphold safety standards.

All laws and regulations (e.g. the valid regulations on waste disposal), accident prevention guidelines and generally recognised safety rules must be complied with when working on and with the grinding machine.

2.2 Safety instructions

This grinding machine incorporates state of the art technology and has been built in accordance with recognised safety regulations. This ensures that the highest possible standards of occupational safety are maintained. However, incorrect use of the grinding machine could endanger the health and lives of the personnel or cause material damage.

⚠ **The grinding machine may only be operated by people who have been assigned to do so and who have the appropriate training and skills!**

⚠ **If any defects are found in the grinding machine that could endanger people or damage property, stop the machine immediately and ensure that it cannot be used again until all repairs are completed.**

The operating personnel responsible for the grinding machine must ensure that no one can enter the grinding machine's danger zone during operation!
The safety distance during operation must be at least 10 m.

Risk of injury if safety equipment has been removed or is non-functional!
The safety equipment must be checked for completeness and function before starting up!
The safety equipment must be in place during operation!

The surfaces to be ground by the grinding machine must be free of obstacles and free of loose objects, which could be flung out during grinding.

The grinding machine must be switched off immediately if heavy vibrations or unusual noises occur during operation so that cause can be removed.

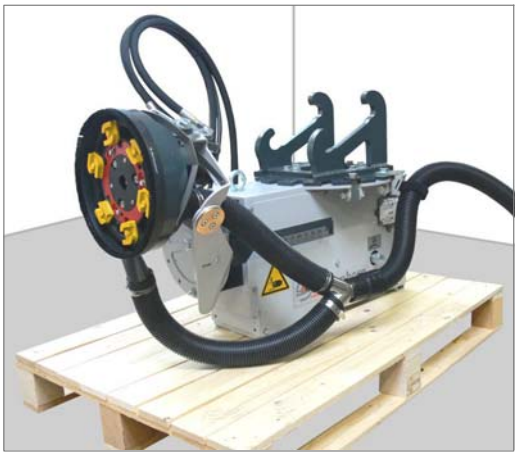
Risk of injury from rotating grinding machine parts!
Limbs and clothing can be drawn in!
Proceed with the greatest care and caution!

Any work required for the hydraulic system may only be performed by technicians with the requisite levels of qualification.

Risk of poisoning due to harmful substances at the workplace!
Eating, drinking or smoking at the workplace is prohibited!
Always eat in break rooms or canteen areas!
After completing the work, thoroughly clean yourself!

A general inspection of the machine must be conducted before starting up the grinding machine! Particular attention should be paid to damaged or loose components, and wear! The grinding machine may only be put into operation if it is in perfect technical condition!

Attachments and modifications to the grinding machine which may affect the operational safety are prohibited!



Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor) (→ Fig.)!

Cleaning and maintenance may be done only by trained personnel!

Maintenance must be conducted according to the operation manual and maintenance plan!

Do not operate the grinding machine in areas where there is risk of explosion or where flammable materials are present.

3 Operating

Risk of injury from parts flung out during grinding!
Wear protective clothing and protective goggles!
Wear safety shoes!
Wear protective gloves!

Proceed with the greatest care and caution!

Danger of injury from loud noise during grinding operation of the grinding machine!
Always wear hearing protection when the grinding machine is in operation!

Risk of injury from dust formation during grinding work!
Wear respiratory protection!
A suitable dust suction unit has to be connected to the grinding machine. The manufacturer of the grinding machine can gladly provide corresponding recommendations.

The manufacturer recommends using suction devices with a suction capacity of approx. 500 m3/h ... 2200 m3/h.
The manufacturer of the grinding machine can gladly provide corresponding recommendations.

3.1 Putting the grinding machine into operation

Observe the safety instructions in Chapter 2, Page 5!

The initial start-up of the grinding machine may be carried out only by qualified personnel!

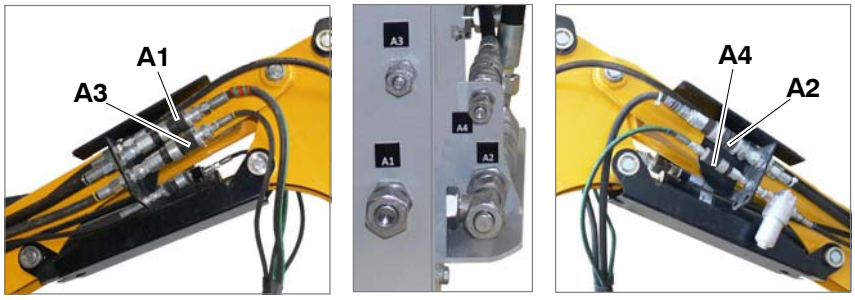
Observe the instructions on the guiding machine for the operating temperature of the hydraulic fluid (ideally 30 - 75°C). That means a start-up phase is necessary for heating up the hydraulic oil. A drop in machine performance is possible during this phase.
When the grinding machine is commissioned for the first time, the start-up phase is extended by the initial running-in of the drive unit.

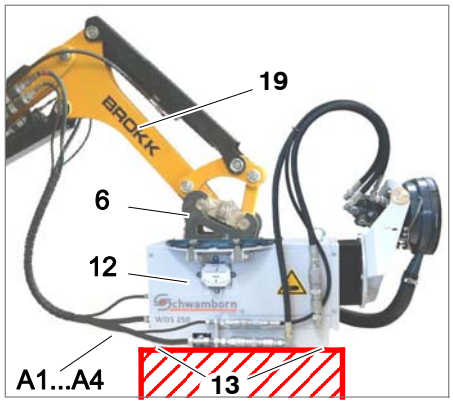
A visual inspection of the grinding machine needs to be done before starting up the grinding machine.
Particular attention should be paid to damaged or loose components, and wear!

Always use suitable grinding tools or abrasive bonding for the surface to be machined. **The manufacturer of the grinding machine can gladly provide corresponding recommendations.**

1. Check the surface to be ground and remove any protruding objects and metal parts.

2. Turn the grinding machine in the direction of the guide arm [19] and place with the supporting feet [13] on a level, horizontal floor with adequate load capacity (e.g. pallet or floor) (→ Fig. on page 6).
3. Check tools for function and condition and replace if necessary (→ Chapter 4.4, Page 15).
4. Connect the 4 hydraulic connections [A1...A4] between the guide arm and the grinding machine.





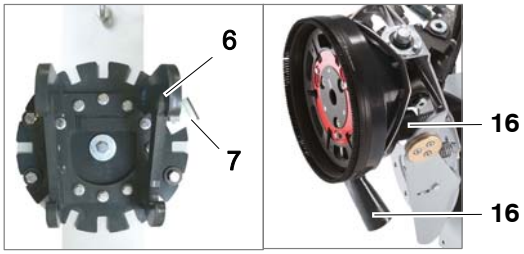
The figures show an example of a guiding machine from the manufacturer "Brokk".

The hydraulic couplings on the guide arm and on the grinding machine have different sizes and markings and must not be mixed up.

For wall grinding the grinding machine must be turned by 90° and for floor grinding by 180°!

5. If necessary adjust the angle between grinding machine and guide arm (→ Chapter 4.2, Page14).
6. Swivel the grinding head to the required position (→ Chapter 4.3, Page 15).
7. Connect the suction hose to the dust extraction connection [16] and guide it with the Velcro straps on the grinding machine (if necessary, move the Velcro strap [7] as required).

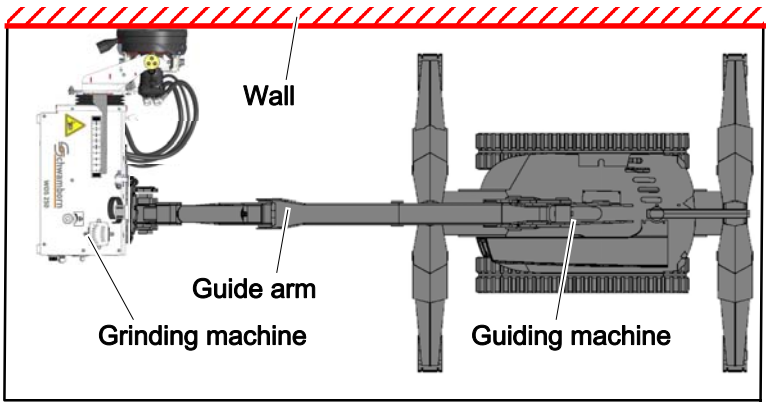
Depending on requirements, a maximum of 2 hoses can be connected to the connections for dust suction [16].
The manufacturer recommends using suction devices with a suction capacity of approx. 500 m3/h ... 2200 m3/h.



Connections to the dust suctions that are not used have to be closed with the corresponding caps!

For wall grinding, the guiding machine with the guide arm must be parallel to the wall (→ Figure)**!**

8. Coupling the guide arm to the machine (→ Chapter 4.1, Page 12).
9. Lift the grinding machine with the guide arm and move the guiding machine into the working position.
10. **Check the safety equipment for completeness and function before starting up!**



3.2 Operating

The grinding machine was put into operation (→ Chapter 3.1, Page 7).


Risk of injury from inadvertent starting and movement of the grinding machine or guiding machine!



Risk of injury from loose parts!
During operation, loose parts (stones / removed material / broken components / tools etc.) **can be flung out!**
Keep at least 5 m safety distance from the grinding machine and from the guiding machine!

The operating and maintenance personnel responsible for the grinding machine must ensure that no one can enter the grinding machine's danger zone during operation or maintenance work!



Risk of injury and fire hazard from hot surfaces on the machine housing, tool mounts and grinding tools!
Wear protective gloves!
Have suitable fire extinguishers on hand!
Work with the greatest care and caution!

The dust cover ring must always contact the surface being machined during operation (→ Chapter 4.5, Page 16)**!**

The manufacturer of the grinding machine urgently recommends practising the grinding of walls, ceilings and floors sufficiently.

1. Switch the guiding machine on.

When the grinding machine is switched on at the controller of the guiding machine, the contact pressure of the grinding machine head is applied by the hydraulic control system and is not operated via operating elements of the guiding machine.

Risk of injury from rotating machine parts!
Work with care!

2. Switch on the tool rotation and the contact pressure using the remote control of the guiding machine **(→ operating manual of the guiding machine, chapter *Operation of double-acting hydraulic tools*)**.
3. Measure the speed of the gear disc [42] with a suitable measuring instrument.

The maximum speed of the gear disc was set to maximum 2000 rpm when the guiding machine was adapted to the grinding machine. **This preset hydraulic volume flow of the guiding machine may not be changed!**
When the guiding machine is changed, the maximum speed must be reset to 1800 rpm .... 2000 rpm.

4. Use the controller [5] to set the desired gear disc speed if necessary.**The manufacturer of the grinding machine can gladly provide corresponding recommendations**.

5. Set the contact pressure:

   The contact pressure [46] is created in the grinding machine from the supply pressure and in its delivery condition is approx. 20 bar, that corresponts to a contact force of approx. 900 N.
   The set contact pressure is in the entire extension range constant.

   The contact pressure may only be changed using the controller [45]**!**

   For the required contact pressure, the manufacturer of the grinding machine gives corresponding recommendations on the "Contact Pressure" information plate (→ Figure).

   Set the required contact pressure by slowly turning the controller [45] and observing the pressure display [46].

   The service flap [47] covers the counter-pressure controller. The counter pressure may only be changed by authorised personnel!

6. Switch off the tool rotation and the contact pressure using the remote control of the guiding machine.

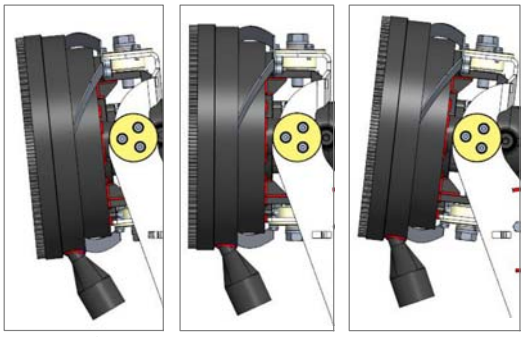
7. Move the grinding machine head with the grinding tools into work position (→ Fig. on page 8, Pos. 9.)

During the grinding process, the indicator [24] **should always be between the minimum value** (0 mm) **and the maximum value** (200 mm)**.**

The grinding machine head is moved by the guide arm and the travel motion of the guiding machine.

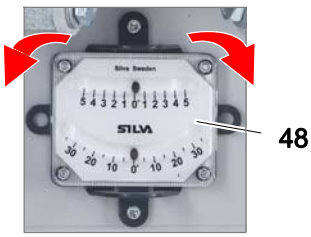
The grinding machine head adjusts itself to the angle of the surface vertically and horizontally by maximal ±6° (→ Fig.).

This tilt angle (±6°) **should not be exceeded, because otherwise the grinding tool does not contact completely with with the surface to be machined and causes imperfections.**



The tilt angle should be checked regulary with the inclinometer [48]**.**

The angle is displayed in 1° steps and in 5° steps.
The inclinometer can be rotated 90° for floor and ceiling operation.



8. Switch on the tool rotation and the contact pressure using the remote control of the guiding machine.

The surface to be ground can now be machined.

3.3 Ending the operation

Observe the safety instructions in Chapter 2, Page 5!

The drive and the position of the grinding machine head is controlled by the operating elements of the guiding machine.

Risk of injury from grinding tools still rotating after the grinding machine is switched off!
The tool holder disc can continue to turn in idle (run-on) **for several seconds after switch off!**

Risk of injury from moving the grinding machine or the guiding machine!
Keep a safe distance!

1. Switching off the grinding machine head (→ operating manual of the guiding machine).

The contact pressure is relieved.
The grinding machine head is moved to starting position [0] (→ Fig.).

2. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor). (→ Fig. on page 6).

3. **Either**
If the grinding machine is to be used further (e.g. after a break):

— **Switch the guiding machine off.**

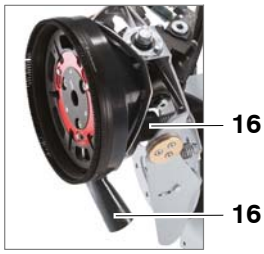
4. **or**
If the grinding machine [12] is not to be used further:

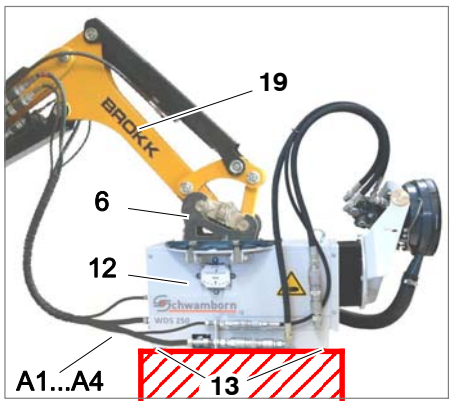
a. Unlock the guide arm [19] and disconnect from the coupling element [6] (→ Chapter 4.1, Page 12).

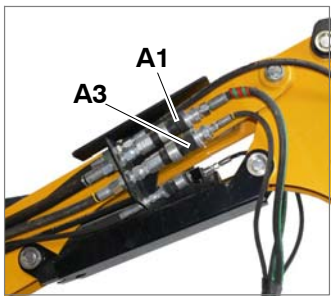
b. **Switch the guiding machine off.**

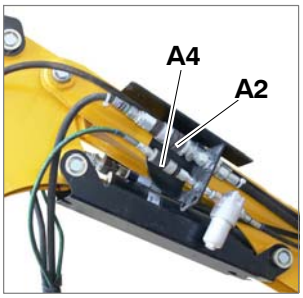
c. Separate the 4 hydraulic connections [A1...A4].

d. Disconnect the suction hose from the dust suction connection [16].









The figures show an example of a guiding machine from the manufacturer "Brokk".

4 Maintenance

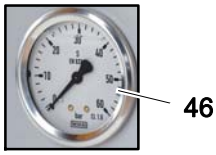
⚠ Observe the safety instructions in Chapter 2, Page 5!

⚠ The operating and maintenance personnel responsible for the grinding machine must ensure that no one can enter the grinding machine's danger zone during operation or maintenance work!

⚠ Maintenance work may only be performed by trained specialists! They must be familiar with the dangers associated with such work, protect themselves and avoid danger!

⚠ When working on the grinding machine (set-up, maintenance, tool change, service, repair, cleaning, etc.), the guiding machine has to be switched off by pressing the EMERGENCY STOP button and has to be disconnected from the power supply.

⚠ Risk of injury from residual pressure in the hydraulic system of the grinding machine after separating the hydraulic connections! This can lead to uncontrolled movements. Wait before continuing work until the hydraulic is depressurised
(observe the contact pressure display [46])!



⚠ Perform maintenance and cleaning work in accordance with the maintenance plan and operating manual and check the safety equipment for completeness and functionality.

4.1 Coupling/Uncoupling the guide arm

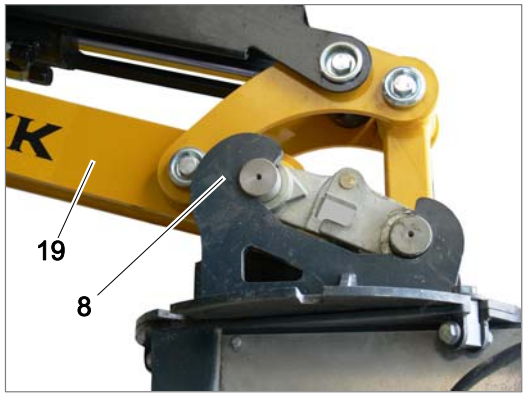
4.1.1 Coupling the guide arm

ℹ This operating manual shows the coupling to a guiding machine made by the manufacturer "Brokk" as an example.

⚠ Danger of being crushed!
Work with the greatest care and caution!
Risk of injury from falling grinding machine!
Establish coupling and securing carefully
Keep at a safe distance.

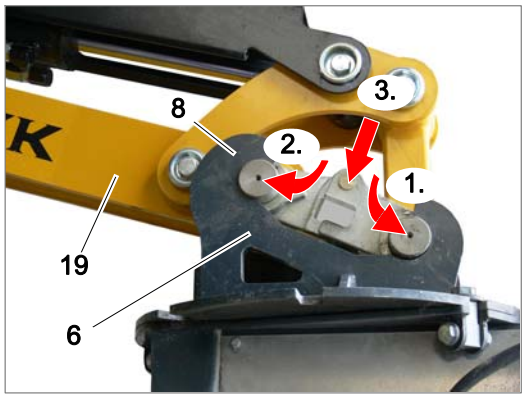
1. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor) (→ Fig. on page 6).

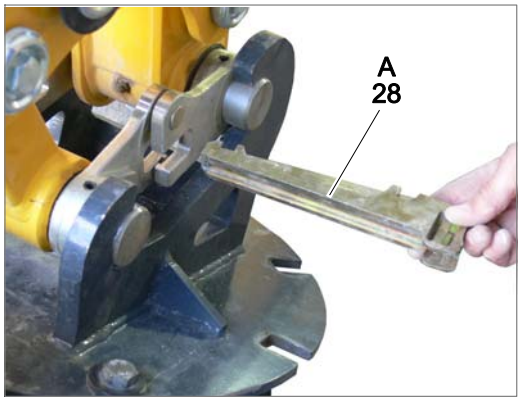
▪▪▶ The coupling elements of the mounting plate must be positioned with the upper fastening hooks [8] in the direction of the guide arm [19] (→ Fig.).

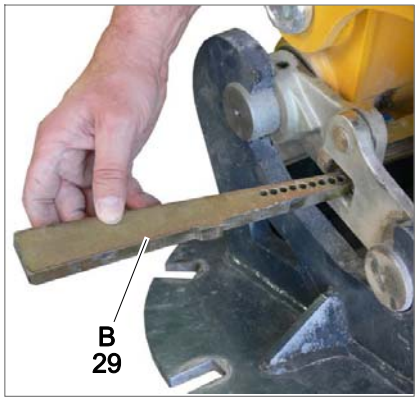


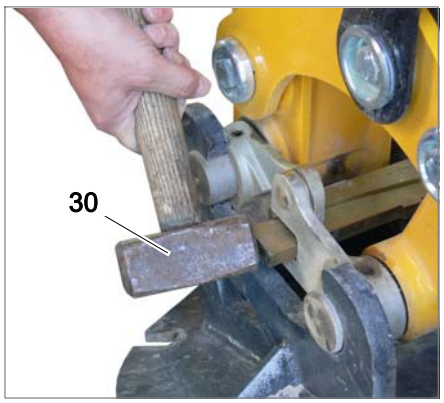
⚠ Risk of injury and damage!
The grinding machine may only be raised once the guide arm has been properly coupled and secured.

2. Switch the guiding machine on.
3. Use the guide arm [19] to move the forward pin into position "**1.**".
4. Use the guide arm to move the rear pin into position "**2.**" until the elbow joint "**3.**" latches in.
5. **Switch the guiding machine off.**
6. Insert the securing element A [28].
7. Insert securing element B [29] and beat tight with a hammer [30].
8. Insert the securing spring [31] through both securing elements (A/B).





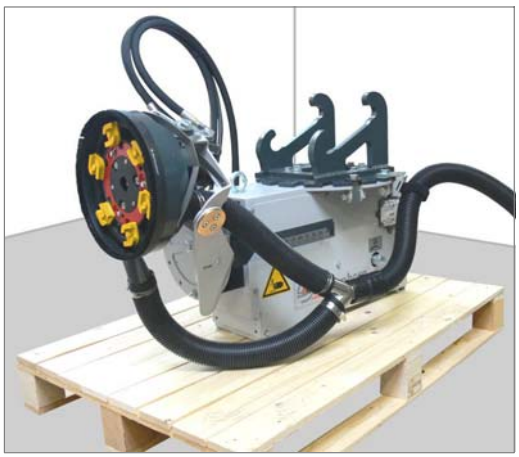




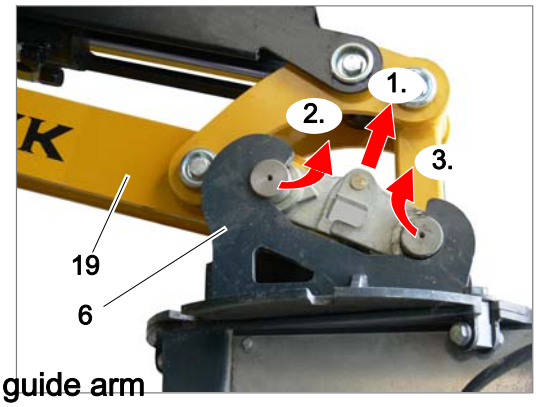
4.1.2 Uncoupling the guide arm

To uncouple the guide arm, proceed in the reverse order (→ Chapter 4.1.1, Page 12).

1. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor) (→ Fig.).
2. Pull out the securing spring [31].
3. Remove the securing element B [29] (use a hammer if necessary).
4. Remove the securing element A [28].
5. Switch the guiding machine on.



6. Unlatch the elbow joint ("**1.**")
(use a hammer if necessary).
7. Use the guide arm [19] to move the rear pin towards "**2.**".
1. Use the guide arm [19] to move the front pin towards "**3.**".
2. Remove the guide arm.
3. **Switch the guiding machine off.**



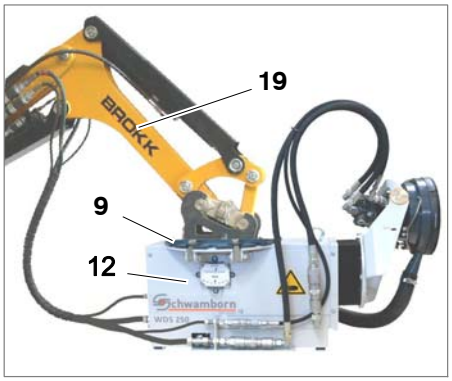
4.2 Adjusting the angle between grinding machine and guide arm

The guide arm [19] is coupled with the 2 coupling elements [6] (→ Chapter 4.1, Page 12).

1. Switch the guiding machine on.

▪▪▶ **The grinding machine has to be in horizontal position!**

2. Swivel the grinding machine with the guide arm into horizontal position (→ Fig.).
3. **Switch the guiding machine off.**
The guiding machine must not be operated up to pos. 7!



The figures show an example of a guiding machine from the manufacturer "Brokk".

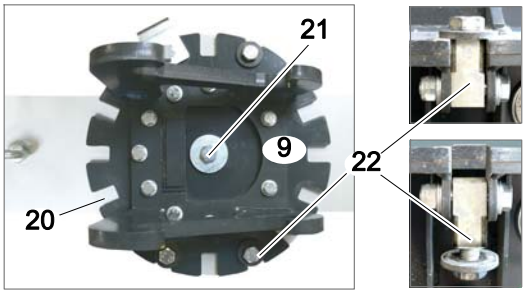
⚠ **Increased danger of crushing hands and feet!**
Wear safety shoes!
Wear protective gloves!
For safety, the grinding machine should "hover" close to the ground during angle adjustment.
Work with the greatest care and caution!

4. Loosen **(do not screw out)** the 4 clamping elements [22] and fold down (→ Fig.).

▪▪▶ **The central screw [21] must not be unscrewed!**

i The grinding machine is connected to the locating plate [9] only by the screw [21] and can be rotated.

i For wall grinding the grinding machine must be turned by 90°.



5. Turn the grinding machine into the desired position (steps of 22.5°).
6. Fold the 4 clamping elements [22] upwards into the corresponding recess [20] and screw tight. (→ Fig.).
7. Switch the guiding machine on.
8. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor). (→ Fig. on page 6).
9. **Switch the guiding machine off.**

4.3 Swivel the grinding head

The grinding head can be swivelled for grinding close to the edge (Wall ⌊ Floor or Wall ⌈ ceiling).

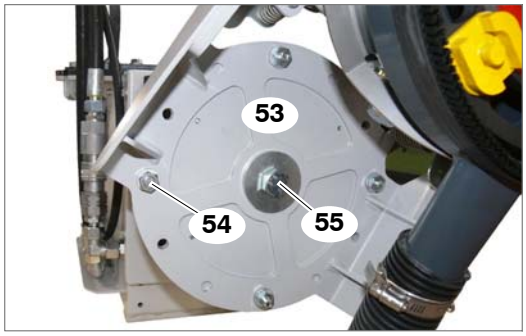
Wear safety shoes!
Wear protective gloves!

1. Ending the operation (→ Chapter 3.3, Page 11).
2. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor). (→ Fig. on page 6).

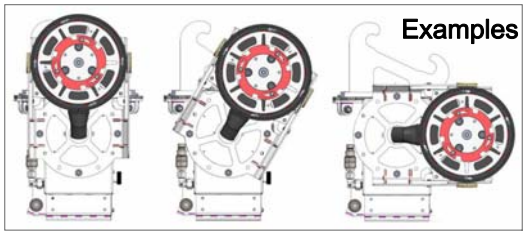
Risk of injury from sudden swivelling of the grinding head!
Hold the grinding head firmly!

3. Unscrew the 4 screws [54] on the swivel plate [53].

The grinding machine is now only connected to the grinding head via the central screw [55] of the swivel plate and can be swivelled.



4. Swivel the grinding head to the required position (examples → Fig.) and fasten it to the swivel plate with the 4 screws [54].



For a better overview, the hydraulic hoses are not shown.

4.4 Mounting and dismantling the tools

Risk of injury!
Wear protective gloves!

Risk of damage due to unsuitable tools!
The manufacturer strongly recommends using only the certified tools offered by the company Schwamborn Gerätebau GmbH.

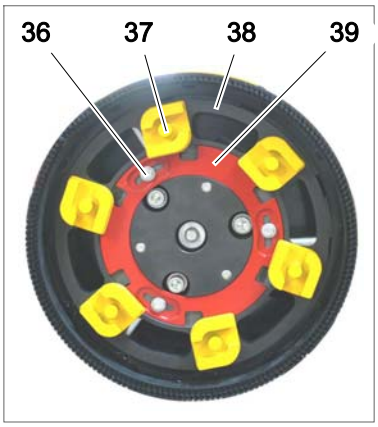
1. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor). (→ Fig. on page 6).
2. **Switch the guiding machine off.**

The consistency of the surface to be ground determines the type or the composition of the tools to be used.
The manufacturer of the grinding machine can gladly provide corresponding recommendations.

Mounting and dismantling ETX diamond tools

All ETX diamond tools authorised for this grinding machine are dismantled and mounted in the same manner.

All ETX carriers have to be equipped with diamond tools of the same type and the same quantity (always 9 tools). The manufacturer of the grinding machine can gladly provide corresponding recommendations.
The diamond tools need to be equal in height (wear level).



Dismantling ETX diamond tools

1. Loosen (**do not screw out**) the 3 retaining screws [36].
2. Turn the red retaining ring [39] anti-clockwise ↺ until the ETX diamond tools have been released.
3. Gently tap with a lump hammer to loosen the ETX diamond tools [37] from the ETX- carrier [38] and then remove.

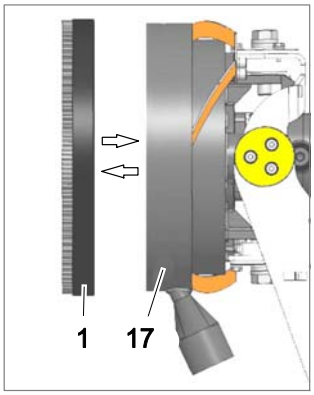
Mounting ETX diamond tools

1. Insert new ETX diamond tools into the recess [40] of the ETX-carrier and press firmly (use lump hammer if necessary).
2. Turn the retaining ring clockwise ↻ until the ETX diamond tools have been clamped in.
3. Tighten the 3 retaining screws [36].

4.5 Check / replace dust protection

The brush strip [1] should extend 3 ... 8 mm beyond the grinding tools.

— Check the brush strip for condition, proper position and function and, if necessary, replace or adjust.

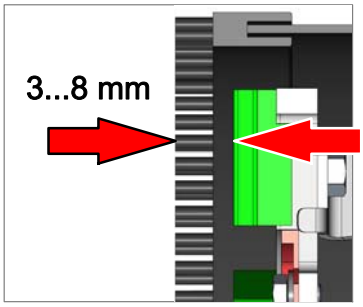


Replace brush strip

1. Remove the worn brush strip [1].
2. Push the new brush strip firmly and evenly onto the suction ring [17].

The fit of the brush strip can only be checked if the ETX diamond tools are properly mounted
(→ Chapter 4.4, Page 15).

3. To check, place a straight, long enough object (e.g. water level, rod) on the brush strip [1].
4. The distance between the straight object and the ETX diamond tools should be 3 ... 8 mm (→ Fig.).



4.6 Working on hydraulic components

All work on the hydraulic components of the grinding machine may only be carried out by suitably knowledgeable, qualified professional technicians!

4.7 Cleaning the grinding machine

Risk of damage!
Do not use high pressure cleaners or compressed air to clean the grinding machine! Wear protective gloves!

1. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor). (→ Fig. on page 6).
2. **Switch the guiding machine off.**
3. After operation, clean the grinding machine and the tools dry with a brush, a cloth and vacuum cleaner.

4.8 Final tasks

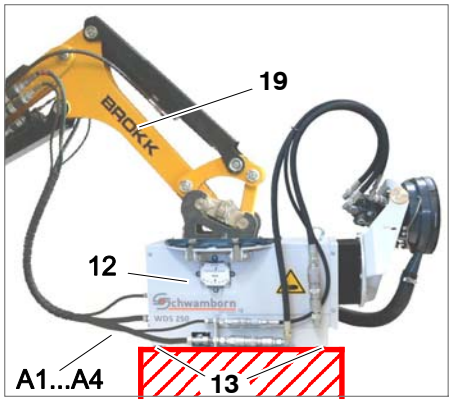
Either: Restart the grinding machine
(→ Chapter 3.1, Page 7).

or shut the grinding machine down:

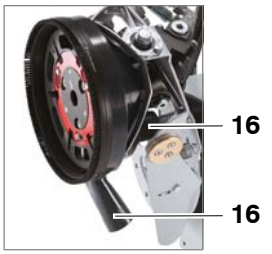
a. Place the grinding machine [12] with the supporting feet [13] on a level, horizontal floor with adequate load capacity (e.g. pallet or floor).

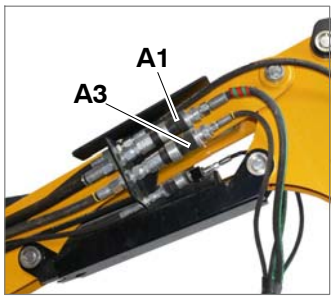
b. Uncouple the guide arm
(→ Chapter 4.1, Page 12).

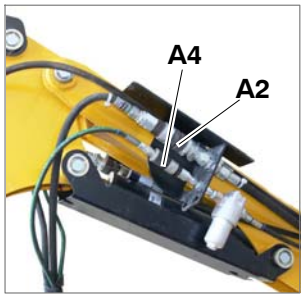
c. Pull off and remove the hose of the dust extraction from the connection to the dust extraction [16].



The figures show an example of a guiding machine from the manufacturer "Brokk".







d. Separate the 4 hydraulic connections [A1...A4] from the grinding machine and/or the guide arm.

e. Securely attach the hydraulic lines to the grinding machine or guide arm.

▪▪▶ **The hydraulic connections need to be protected against soiling.**

▪▪▶ **For longer periods in transport or in storage, the grinding machine needs to be covered to protect it against soiling.**

5 Accepting the grinding machine

⚠ **Observe the safety instructions in Chapter 2, Page 5!**

The grinding machine is delivered complete and packed by the manufacturer of the grinding machine.

1. Unpack the grinding machine and check the enclosed delivery slip to make sure all parts are delivered.
2. Check for any transportation damage.
3. In case of damage, contact the transport company immediately!
4. Report any problems to the manufacturer of the grinding machine immediately!

i Complaints at a later date cannot be acknowledged!

6 Transport

6.1 Separate the grinding head from the grinding machine

The grinding head can be separated from the grinding machine for transport.

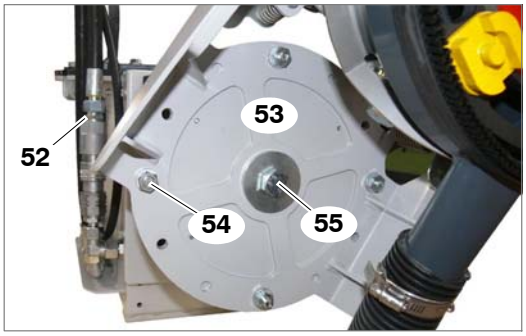
⚠ **This work should be done by 2 persons.**
Wear safety shoes!
Wear protective gloves!

1. Ending the operation (→ Chapter 3.3, Page 11).
2. Place the grinding machine [12] with the supporting feet [13] on a level, horizontal floor with adequate load capacity (e.g. pallet or floor) (→ Fig. on page 6).
3. Disconnect the 3 hydraulic hoses [52] of the grinding head from the grinding machine.

⚠ **Risk of injury from sudden swivelling of the grinding head!**
Hold the grinding head firmly!

4. Unscrew the 4 screws [54] on the swivel plate [53].
5. Unscrew the central screw [55] of the swivel plate.
6. Place the grinding head on a level, horizontal floor with adequate load capacity (e.g. pallet or floor).

✓ The grinding machine and the grinding head can now be transported separately.



6.2 Transporting the grinding machine

Risk of injury from heavy loads!
Suspended loads can fall or tip over, causing serious injuries!

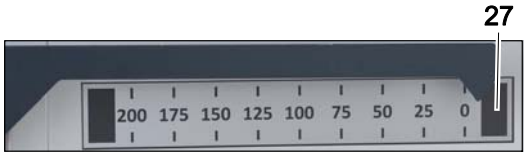
Do not stand under suspended loads!
Raising and lowering the load must be performed by two persons!
Do not lift any additional loads together with the grinding machine!
Do not raise loads any higher than necessary!
Prevent the load from swinging back and forth!
Keep sufficient safety distance.

Use devices for lashing and transporting the unit that have been rated to handle its full weight and dimensions.
Observe weight data on packaging or in the accompanying documentation!
Never walk or reach beneath the load while it is being lowered.
Wear safety shoes!
Wear protective gloves!

Work with the greatest care and caution!

Always secure the grinding machine against shifting and tipping according to regulations during lifting or transport by a vehicle or suitable devices and strap down with tension belts!

When transporting the grinding machine by an industrial truck with lifting device (forklift)**, the prongs have to be positioned under the grinding machine housing with anti-slip plates.**



During transport of the grinding machine, observe the centre of gravity which is not in the middle!
Only lift and transport the grinding machine horizontally and only as far as necessary!

1. Move the grinding machine head to the rear limit stop [28] (→ Fig.).
2. **Either** lift the grinding machine with a crane.

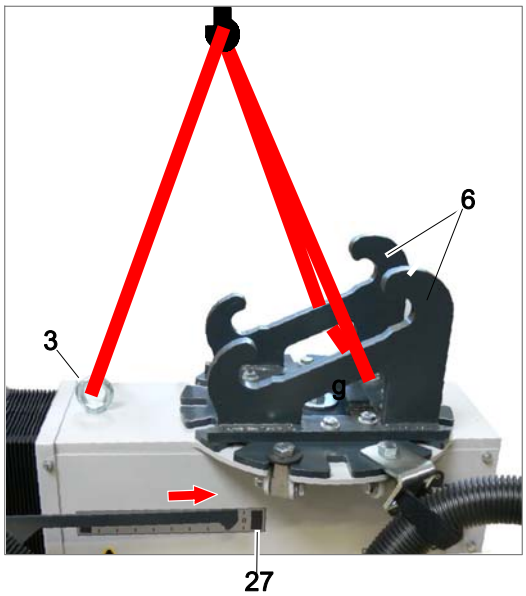
   ▪▶ **Use suitable lashing gear** (belts or ropes) **at the transport fastening element and the 2 coupling elements** [7] (→ Fig.).

   or raise the grinding machine with a suitable lifting device (e.g. industrial truck with lifting device).

   ▪▶ **Use anti-slip plates!**

   or lift the grinding machine with the coupled guiding machine.
3. Place the grinding machine with the supporting feet on a level, horizontal floor with adequate load capacity (e.g. pallet or floor). (→ Fig. on page 6).

   ▪▶ **Use anti-slip plates!**
4. Shut the grinding machine down (→ Chapter 4.8, Page 17)



5. For further transport:
Secure or lash the grinding machine tight against shifting and tipping according to regulation, transport to the respective location and deposit.

⚠ **For longer periods in transport or in storage, the grinding machine needs to be covered to protect it against soiling.**

7 Customer service and spare parts

In case of customer service queries, replacement parts or repairs, please contact the manufacturer of the grinding machine. To ensure your queries are dealt with as quickly as possible, always quote your grinding machine data (**machine no. and serial no.**). These are located on the grinding machine's type plate.

Manufacturer: **Schwamborn Gerätebau GmbH**
Robert-Bosch-Straße 8
D-73117 Wangen / Göppingen

Telefon: +49 (0)7161 2005-0
Telefax: +49 (0)7161 2005-15
E-Mail: info@schwamborn.com
URL: http//:www.schwamborn.com

8 Declaration of conformity

Manufacturer:
Schwamborn Gerätebau GmbH
Robert-Bosch-Straße 8
D-73117 Wangen
Germany

We hereby declare that the grinding machine **WDS 250**

complies with the provisions described in **Directive 2006/42/EG** (Machines)

The following harmonised standards apply:
EN 292-1, **EN 292-2**, **EN 13857** (Safety of Machinery)

EN 62079 (Creating operating instructions)

It is forbidden to begin operating a modified or retrofitted machine before it has been determined that the modified or retrofitted machine conforms to the above directives.

This declaration is no longer valid if the machine is modified or retrofitted without our prior consent and approval.

The original operating manual with the Declaration of Conformity and translation into the respective European national language is supplied with the machine.

Wangen, 15.07.2022

E. Schwamborn

Eckart Schwamborn
Managing Director

9 Troubleshooting

Only suitably knowledgeable, qualified technicians may perform repairs on the grinding machine.

Malfunction	Cause	Rectification
Grinding machine will not start.	The guiding machine is not in operation.	Put the guiding machine into operation (→ operating manual of the guiding machine).
	The guiding machine is not in operation. An EMERGENCY STOP button of the guiding machine has been pressed.	Determine the cause for the emergency stop and rectify if necessary. Release the EMERGENCY STOP button afterwards (→ operating manual of the guiding machine)
The grinding drive stops during the grinding.	The maximum hydraulic drive output was exceeded. The safety valve has switched off the grinding drive.	Use other grinding tools. **The manufacturer of the grinding machine can gladly provide corresponding recommendations.**
		Reduce the contact pressure (→ Chapter 3.2, Pos. 5., Page 10).
	Suction capacity is too high. The vacuum causes excessive contact pressure on the tools.	Reduce the suction capacity.
The grinding pattern is uneven.	Tools are loose.	Fasten grinding tools (→ Chapter 4.4, Page 15).
	Tools are damaged or worn.	Replace grinding tools (→ Chapter 4.4, Page 15).
	Tools are not suited for the material of the surface.	Use other grinding tools (→ Chapter 4.4, Page 15).). **The manufacturer of the grinding machine can gladly provide corresponding recommendations.**
	The guiding machine is not parallel to the wall or is not at the correct distance from the wall.	Position the guiding machine correctly (→ Chapter 3.1, Page 7).
The grinding machine is emitting loud whistling noises.		**Note:** The very brief whistling noises during machine start-up are no cause for concern.
The grinding tools are moving irregularly or not at all.	The contact pressure is too high.	Reduce the contact pressure (→ Chapter 3.2, Pos. 5., Page 10).
A large amount of the ground material is not vacuumed away and clogs up the grinding machine head.	The exhaust line does not have the capacity to vacuum away the ground material quickly.	Use several suction machines (max. 4) with separate, short suction hoses (→ Chapter 3.1, Pos. 7.). The manufacturer recommends using suction devices with a suction capacity of approx. 500 m3/h ... 2200 m3/h.

10 Technical data

Designation	Value	Unit
Hydraulic operating pressure	120	bar
Nominal output of the grinding drive (hydraulic)	4	kW
Tool mount	ETX 1	
Tool speed (ETX-carrier)	750 ... 2000	rpm
Dust extraction *)	1 ... 2 x ∅ 50	mm
Dimensions		
Height	approx. 600	mm
Width	approx. 500	mm
Length	approx. 1000	mm
Extension stoke	200	mm
Working width	250	mm
Contact pressure of the grinding machine		
Ceiling	100 ... 1000	N
Wall	200 ... 1000	N
Floor	200 ... 1400	N
Weight without tools and mounting plate	approx. 100	kg
Noise level	84	dB(A)

*) The manufacturer recommends using suction devices with a suction capacity of approx. 500 m3/h ... 2200 m3/h.